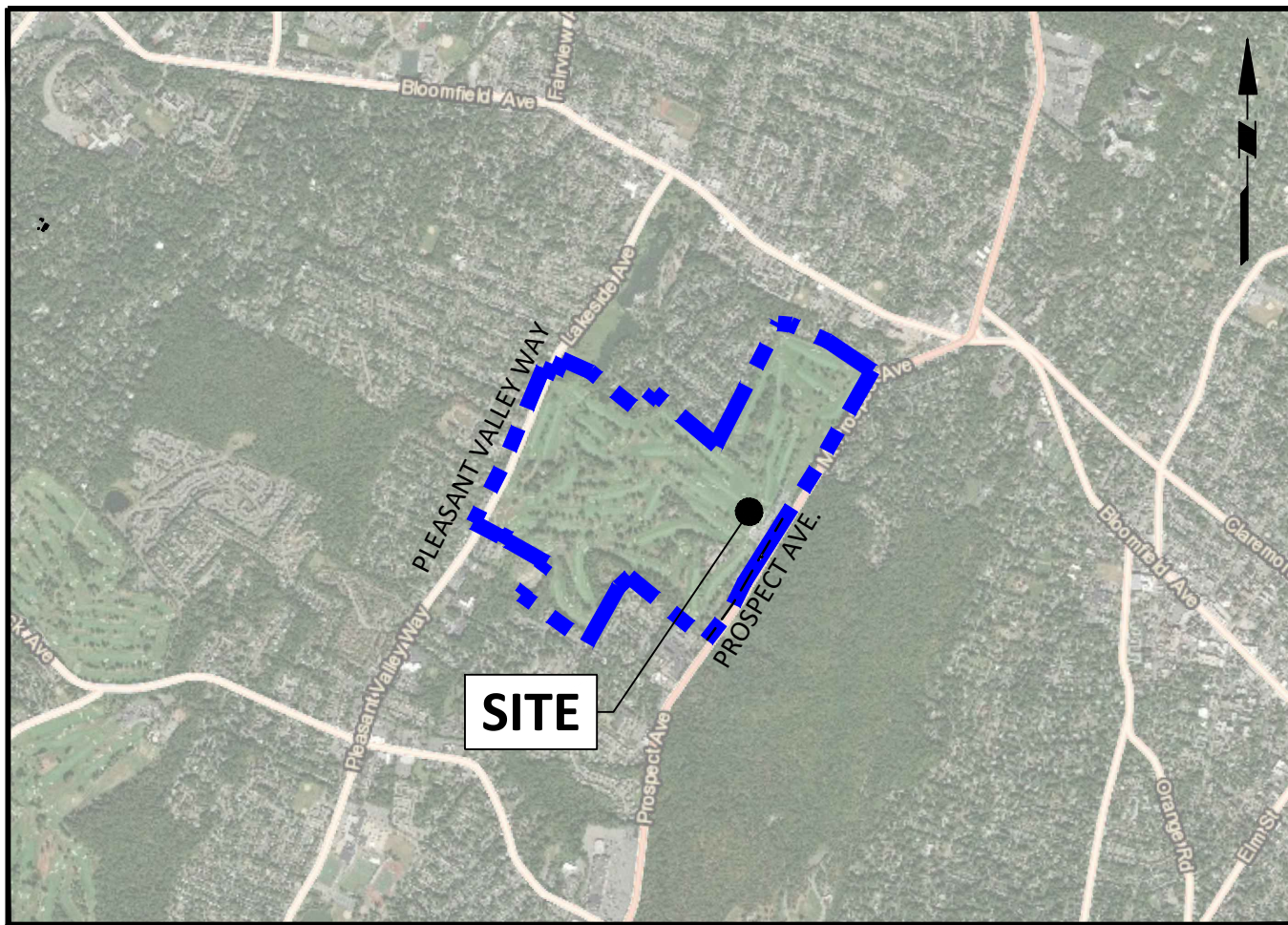


APPLICATION FOR PRELIMINARY & FINAL SITE PLAN APPROVAL

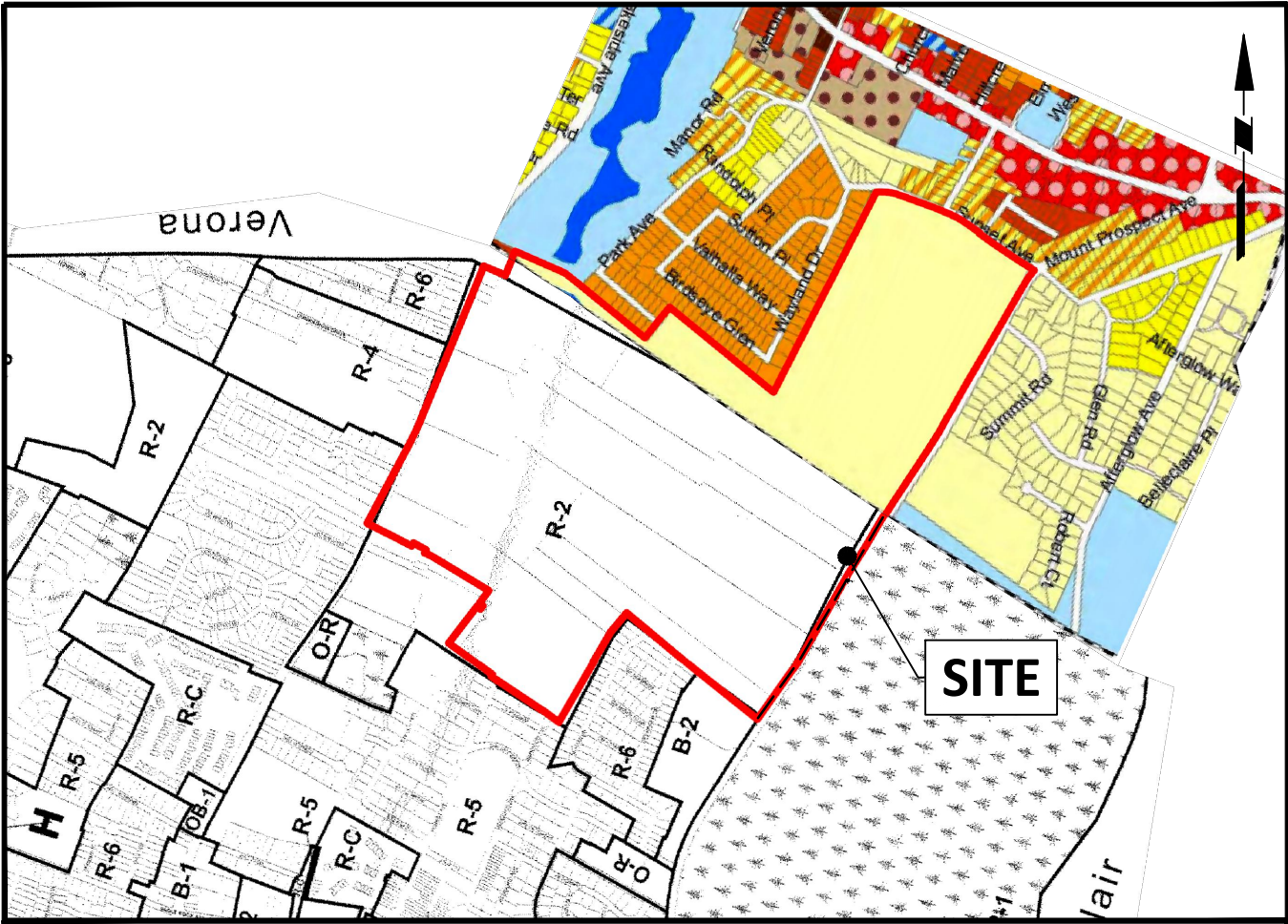
MONTCLAIR GOLF CLUB

HALFWAY HOUSE, GOLF BUILDING ADDITION,
AND PARKING LOT IMPROVEMENTS



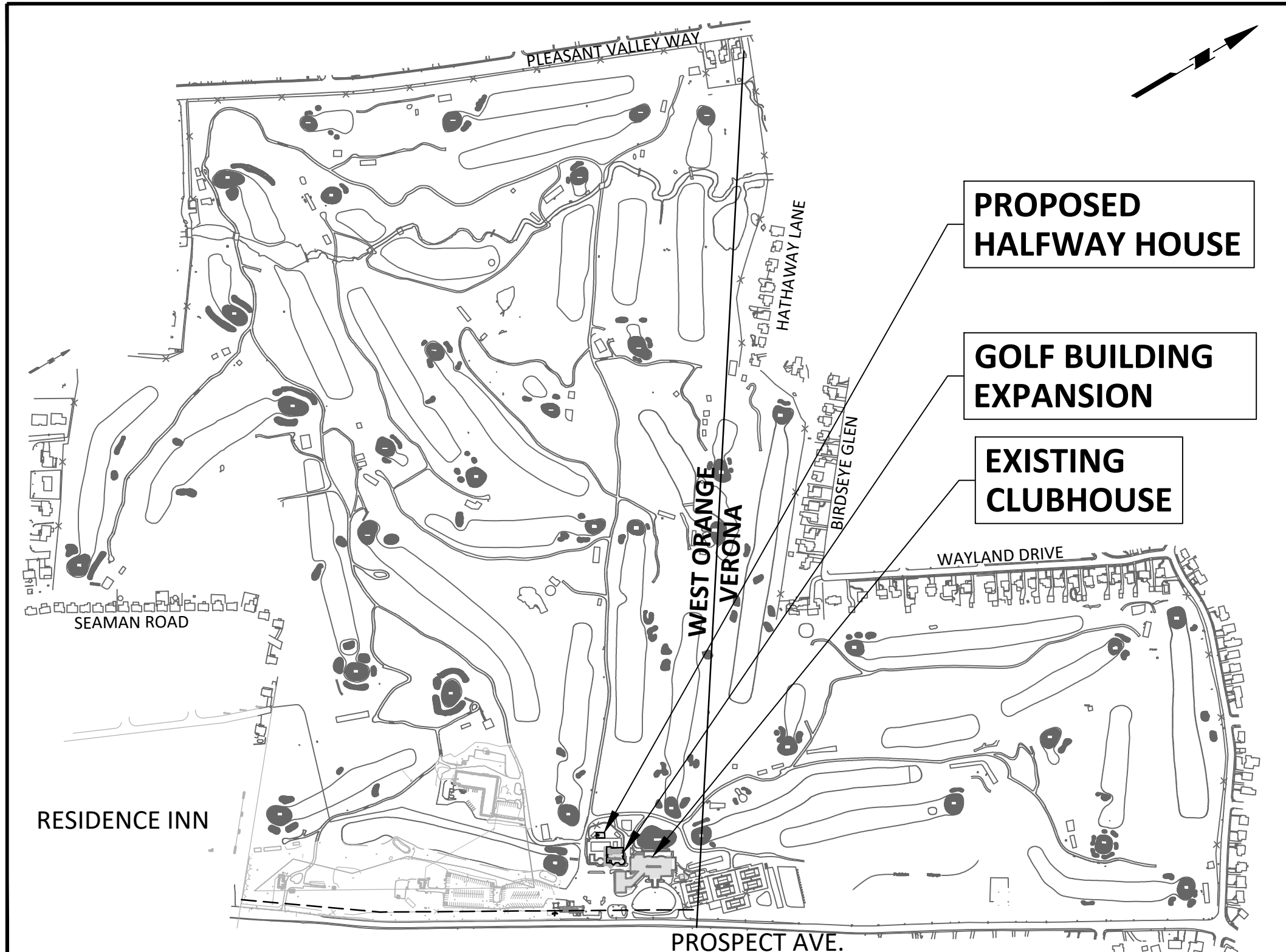
LOCATION MAP

SCALE: 1" = 2,500'



ZONING MAP

SCALE: 1" = 1000'



SITE MAP

SCALE: 1" = 500'

DRAWING LIST

SHEET NO.	DRAWING TITLE	SCALE	ISSUE DATE	LAST REVISED
CS001	COVER SHEET	AS SHOWN	1/17/2024	2/2/2024
VT101	BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY BLOCK 6725, LOT 1	1" = 30'	4/20/2021	1/11/2024
CS002	OVERALL SITE LOCATION AND TAX MAP	1" = 200'	1/17/2024	2/2/2024
CS101	OVERALL SITE PLAN	1" = 30'	1/17/2024	2/2/2024
CS102	SITE PLAN I	1" = 20'	1/17/2024	2/2/2024
CS103	SITE PLAN II	1" = 20'	1/17/2024	2/2/2024
CS104	SITE TRIANGLES PLAN	1" = 30'	1/17/2024	2/2/2024
DM101	DEMOLITION PLAN	1" = 30'	1/17/2024	2/2/2024
CG101	OVERALL GRADING AND DRAINAGE PLAN	1" = 30'	1/17/2024	2/2/2024
CG102	GRADING AND DRAINAGE PLAN I	1" = 20'	1/17/2024	2/2/2024
CG103	GRADING AND DRAINAGE PLAN II	1" = 20'	1/17/2024	2/2/2024
CU101	OVERALL UTILITY PLAN	1" = 30'	1/17/2024	2/2/2024
CU102	UTILITY PLAN I	1" = 20'	1/17/2024	2/2/2024
CU103	UTILITY PLAN II	1" = 20'	1/17/2024	2/2/2024
CE101	SOIL EROSION & SEDIMENT CONTROL PLAN	1" = 30'	1/17/2024	2/2/2024
CE501	SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS	AS SHOWN	1/17/2024	2/2/2024
CS501	DETAILS I	AS SHOWN	1/17/2024	2/2/2024
CS502	DETAILS II	AS SHOWN	1/17/2024	2/2/2024
CS503	DETAILS III	AS SHOWN	1/17/2024	2/2/2024
LL101	OVERALL LIGHTING PLAN	1" = 30'	1/17/2024	2/2/2024
LL102	LIGHTING PLAN I	1" = 20'	1/17/2024	2/2/2024
LL103	LIGHTING PLAN II	1" = 20'	1/17/2024	2/2/2024
LL501	LIGHTING NOTES & DETAILS	AS SHOWN	1/17/2024	2/2/2024
LP101	OVERALL LANDSCAPE PLAN	1" = 30'	1/17/2024	2/2/2024
LP102	LANDSCAPE PLAN I	1" = 20'	1/17/2024	2/2/2024
LP103	LANDSCAPE PLAN II	1" = 20'	1/17/2024	2/2/2024
LP501	LANDSCAPE NOTES & DETAILS	AS SHOWN	1/17/2024	2/2/2024

PROJECT CONTACTS

OWNER & APPLICANT



MONTCLAIR GOLF CLUB
25 PROSPECT AVENUE
WEST ORANGE, NJ 07052
(973) 239-1800

ATTORNEY

MONTCLAIR REAL ESTATE LAW GROUP
363 BLOOMFIELD AVENUE
MONTCLAIR, NEW JERSEY 07042
(973) 744-2100

CIVIL ENGINEER

LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES
300 KIMBALL DRIVE
PARSIPPANY, NJ 07054
(973) 560-4900

ARCHITECT

FJ RAWDING A.I.A.
141 MORRIS STREET
MORRISTOWN, NJ 07960
(973) 539-7878

PROPERTY
INFORMATION

ADDRESS
25 PROSPECT AVENUE
WEST ORANGE, NEW JERSEY 07052

WEST ORANGE TAX MAP INFORMATION
BLOCK 151
LOT 1
AREA IN WEST ORANGE = 189.16 ACRES

VERONA TAX MAP INFORMATION
BLOCK 601
LOT 1
AREA IN VERONA = 88.13 ACRES

TOTAL AREA OF GOLF CLUB = 277.29

TOWNSHIP OF WEST ORANGE
PLANNING BOARD APPROVALS

CHAIRMAN
(SIGNATURE)

DATE

SECRETARY
(SIGNATURE)

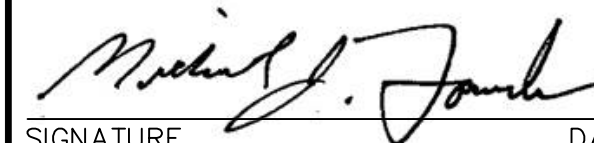
DATE

MUNICIPAL ENGINEER
(SIGNATURE)

DATE

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions


SIGNATURE: MICHAEL J. FOWLER DATE: 5/3/2024
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800

LANGAN

Langan Engineering and
Environmental Services, LLC.
300 Kimball Drive
Parsippany, NJ 07054

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

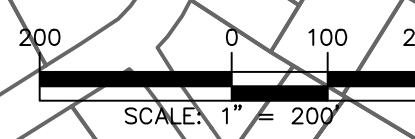
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY NEW JERSEY

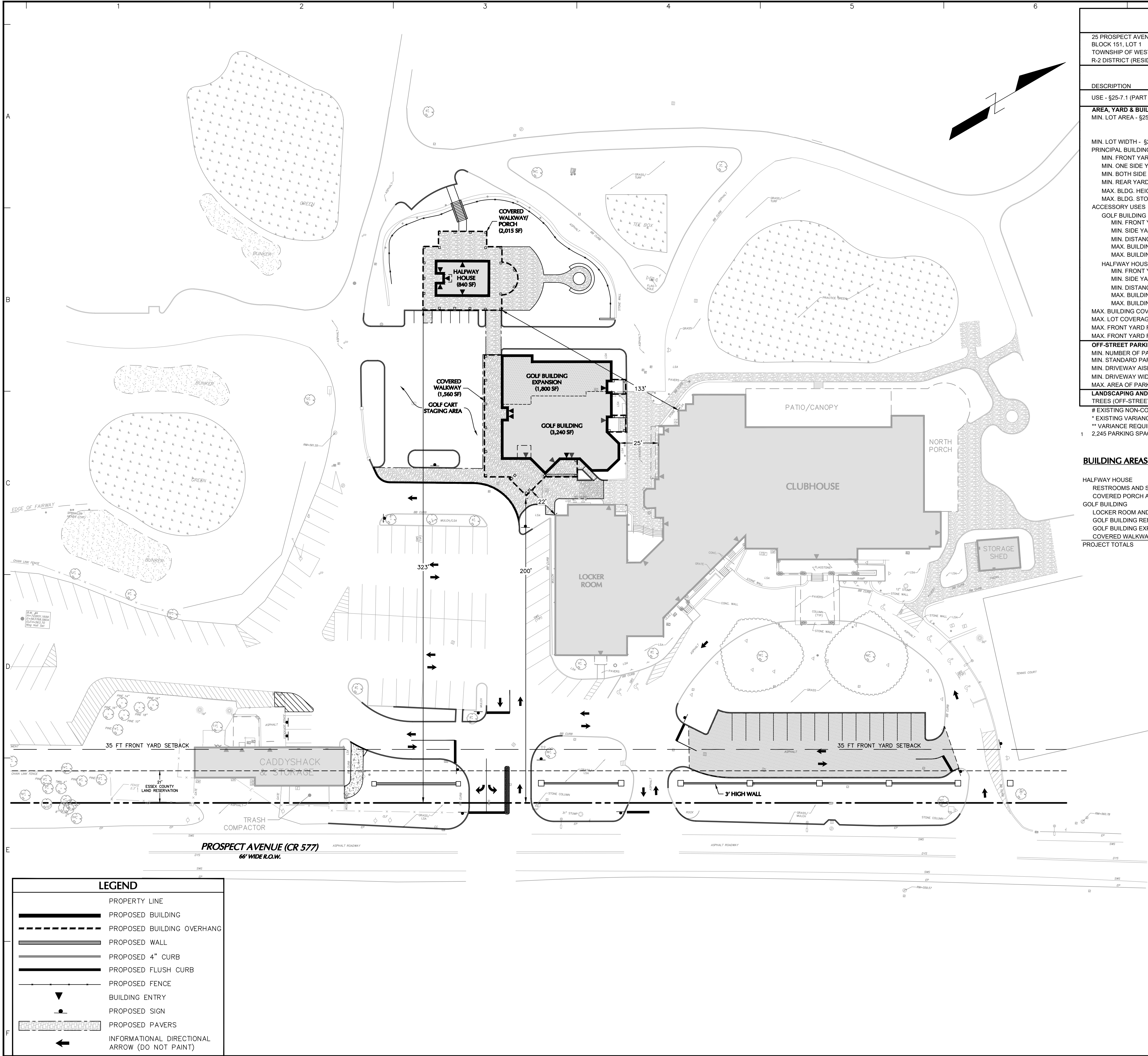
Drawing Title

COVER SHEET

Project No. 001039208	CS001
Date 01/17/2024	
Drawn By RB	
Checked By TD/GED	



Project No.	DrawingFigure
001039208	CS002
Date	
01/17/2024	
Drawn By	
RB	
Checked By	
TD/GED	



SITE STATISTICS

25 PROSPECT AVENUE BLOCK 151, LOT 1 TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY R-2 DISTRICT (RESIDENTIAL DISTRICT) LAST REVISED: 01/02/2024			
DESCRIPTION	REQUIRED/PERMITTED	EXISTING	PROPOSED
	R-2 DISTRICT		
USE - §25-7.1 (PART A)	GOLF COURSE	GOLF COURSE	GOLF COURSE
AREA, YARD & BUILDING REQUIREMENTS MIN. LOT AREA - §25-7.1 (TABLE B)	40,000 SF	277 AC WEST ORANGE: 189 AC VERONA: 88 AC ±4,200 FT	NO CHANGE
MIN. LOT WIDTH - §25-7.1 (TABLE B)	125 FT		NO CHANGE
PRINCIPAL BUILDING (CLUBHOUSE)			
MIN. FRONT YARD BLDG. SETBACK - §25-7.1 (TABLE B)	35 FT	96 FT	NO CHANGE
MIN. ONE SIDE YARD BLDG. SETBACK - §25-7.1 (TABLE B)	20 FT	±1,600	NO CHANGE
MIN. BOTH SIDE YARD BLDG. SETBACK - §25-7.1 (TABLE B)	20 + 20 FT	1,600 + 2,300 FT	NO CHANGE
MIN. REAR YARD BLDG. SETBACK - §25-7.1 (TABLE B)	45 FT	±3,400	NO CHANGE
MAX. BLDG. HEIGHT - §25-7.1 (TABLE B)	35 FT	34.60 FT	NO CHANGE
MAX. BLDG. STORIES - §25-7.1 (TABLE B)	2.5 STORIES	2.5 STORIES	NO CHANGE
ACCESSORY USES			
GOLF BUILDING			
MIN. FRONT YARD BLDG. SETBACK - §25-8.1.a §25-7.1 (TABLE B)	35 FT	216 FT	200 FT
MIN. SIDE YARD BLDG. SETBACK - §25-8.1.a	20 FT (SAME AS BUILDING SETBACK)	±1,445 FT	±1,500 FT
MIN. DISTANCE FROM PRINCIPAL BUILDING - §25-8.1.e	15 FT	25 FT	22 FT
MAX. BUILDING HEIGHT - §25-8.1.f	15 FT	22.7 FT#	24 FT**
MAX. BUILDING STORIES - §25-8.1.f	1.5 STORIES	1 STORY	1 STORY
HALFWAY HOUSE			
MIN. FRONT YARD BLDG. SETBACK - §25-8.1.a §25-7.1 (TABLE B)	35 FT	N.A.	323 FT
MIN. SIDE YARD BLDG. SETBACK - §25-8.1.a	20 FT (SAME AS BUILDING SETBACK)	N.A.	±1,445
MIN. DISTANCE FROM PRINCIPAL BUILDING - §25-8.1.e	15 FT	N.A.	133 FT
MAX. BUILDING HEIGHT - §25-8.1.f	15 FT	N.A.	22 FT
MAX. BUILDING STORIES - §25-8.1.f	1.5 STORIES	N.A.	1 STORY
MAX. BUILDING COVERAGE - §25-7.1 (TABLE B)	20%	0.24% (28,660SF)	0.27% (33,036 SF)
MAX. LOT COVERAGE - §25-7.1 (TABLE B)	30%	0.8% (2.23 ACRES)	0.9% (2.49 ACRES)
MAX. FRONT YARD FENCE HEIGHT - §25-8.4.a	4 FT	4 FT	3 FT
MAX. FRONT YARD FENCE OPACITY - §25-8.4.a	50%	<50%	100%**
OFF-STREET PARKING			
MIN. NUMBER OF PARKING SPACES	324 SPACES* (NOTE 1)	383 SPACES	387 SPACES
MIN. STANDARD PARKING SPACE DIMENSIONS §25-12.1.q	9FT X 18FT	9FT X 18FT	9FT X 18FT
MIN. DRIVEWAY AISLE - §25-12.1.h.5	24 FT (90° PARKING)	24 FT	24 FT
MIN. DRIVEWAY WIDTH - §25-12.1.h.6	24 FT	24 FT	24 FT
MAX. AREA OF PARKING IN YARD SETBACK - §25-12.4.B.2	30%	16.2%	15.5%
LANDSCAPING AND BUFFER REQUIREMENTS			
TREES (OFF-STREET PARKING) - §25-12.1.p	2 TREES	4 TREES	NO CHANGE

EXISTING NON-CONFORMITY
* EXISTING VARIANCE
** VARIANCE REQUIRED
1 2,245 PARKING SPACES ARE REQUIRED PARKING PER CODE. (1 PARKING SPACE PER 45 SF OF GROSS FLOOR AREA, TOTAL GROSS FLOOR AREA = 101,005 SF.)

BUILDING AREAS

	EXISTING	PROPOSED	RENOVATED	CHANGE
HALFWAY HOUSE				
RESTROOMS AND SNACK BAR		840 SF		840 SF
COVERED PORCH AND WALKWAYS		1,771 SF		1,771 SF
GOLF BUILDING				
LOCKER ROOM AND SNACK BAR DEMOLITION	1,595 SF			-1,595 SF
GOLF BUILDING RENOVATION			3,240 SF	0 SF
GOLF BUILDING EXPANSION		1,800 SF		1,800 SF
COVERED WALKWAYS		1,560 SF		1,560 SF
PROJECT TOTALS	1,595 SF	5,971 SF	3,240 SF	4,376 SF

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

Michael J. Fowler 5/3/2024
SIGNATURE MICHAEL J. FOWLER DATE SIGNED
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800

LANGAN

Langan Engineering and
Environmental Services, LLC.
300 Kimball Drive
Parsippany, NJ 07054

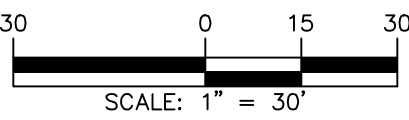
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA2789400

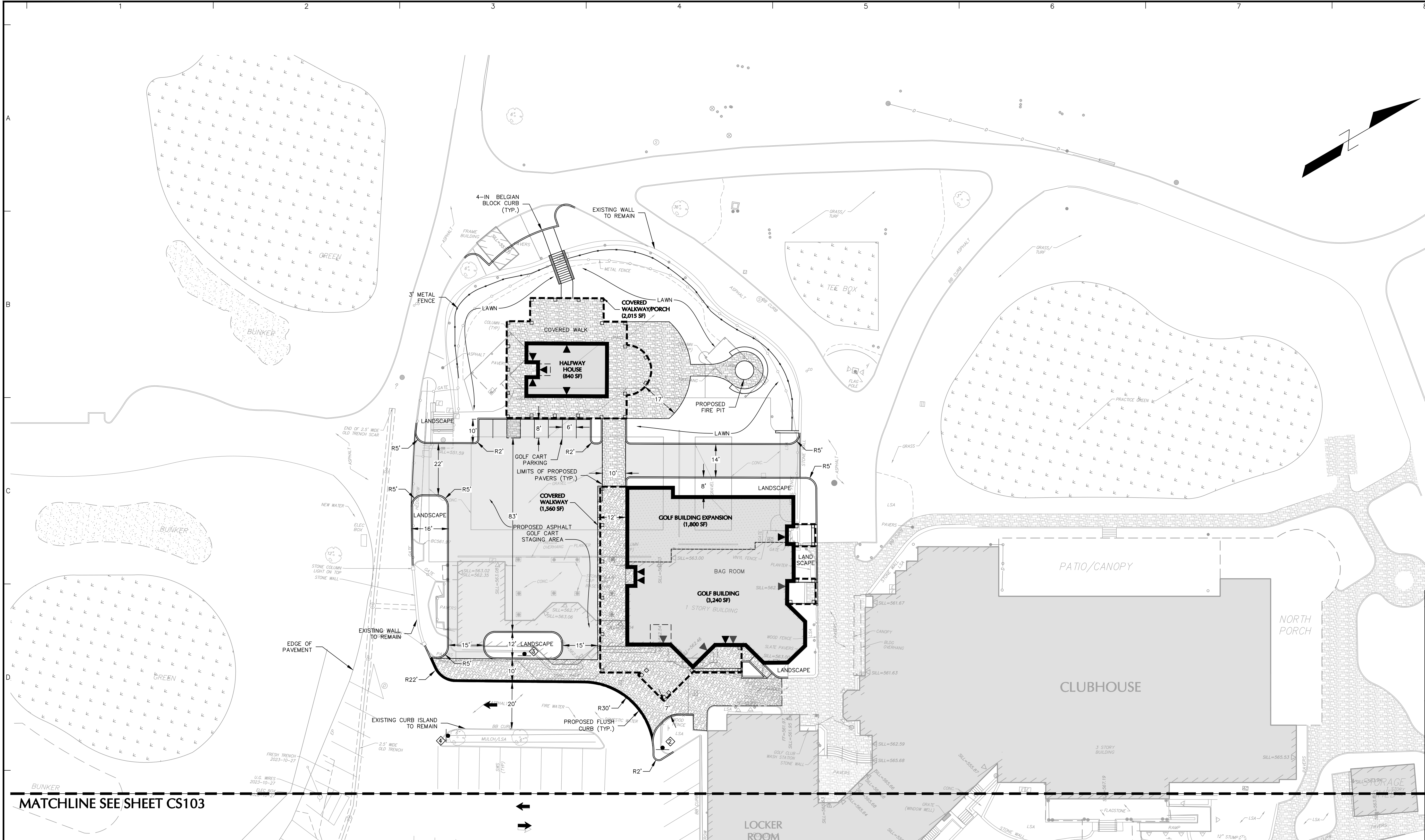
Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY WEST ORANGE NEW JERSEY
Drawing Title

**OVERALL
SITE PLAN**

Project No.	CS101
001039208	
Date	
01/17/2024	
Drawn By	RB
Checked By	
TD/GED	





MATCHLINE SEE SHEET CS103

LEGEND	
	PROPERTY LINE
	PROPOSED BUILDING OVERHANG
	PROPOSED WALL
	PROPOSED 4" CURB
	PROPOSED FLUSH CURB
	PROPOSED FENCE
	BUILDING ENTRY
	PROPOSED SIGN
	PROPOSED PAVERS
	INFORMATIONAL DIRECTIONAL ARROW (DO NOT PAINT)

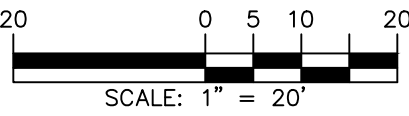
SIGN LEGEND	
	R1-1 30"x30" 1
	CUSTOM SIGN 2
	CUSTOM SIGN 3
	R5-1 30"x30" 4
	R6-1L 36"x12" 5
	CUSTOM SIGN 6

GENERAL NOTES	
1.	EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019.
2.	THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
3.	ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
SEE SHEET CS103 FOR SITE PLAN NOTES	

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.
Revisions		
Signature: Michael J. Fowler DATE SIGNED: 5/3/2024 PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800 LANGAN Langan Engineering and Environmental Services, LLC. 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400		

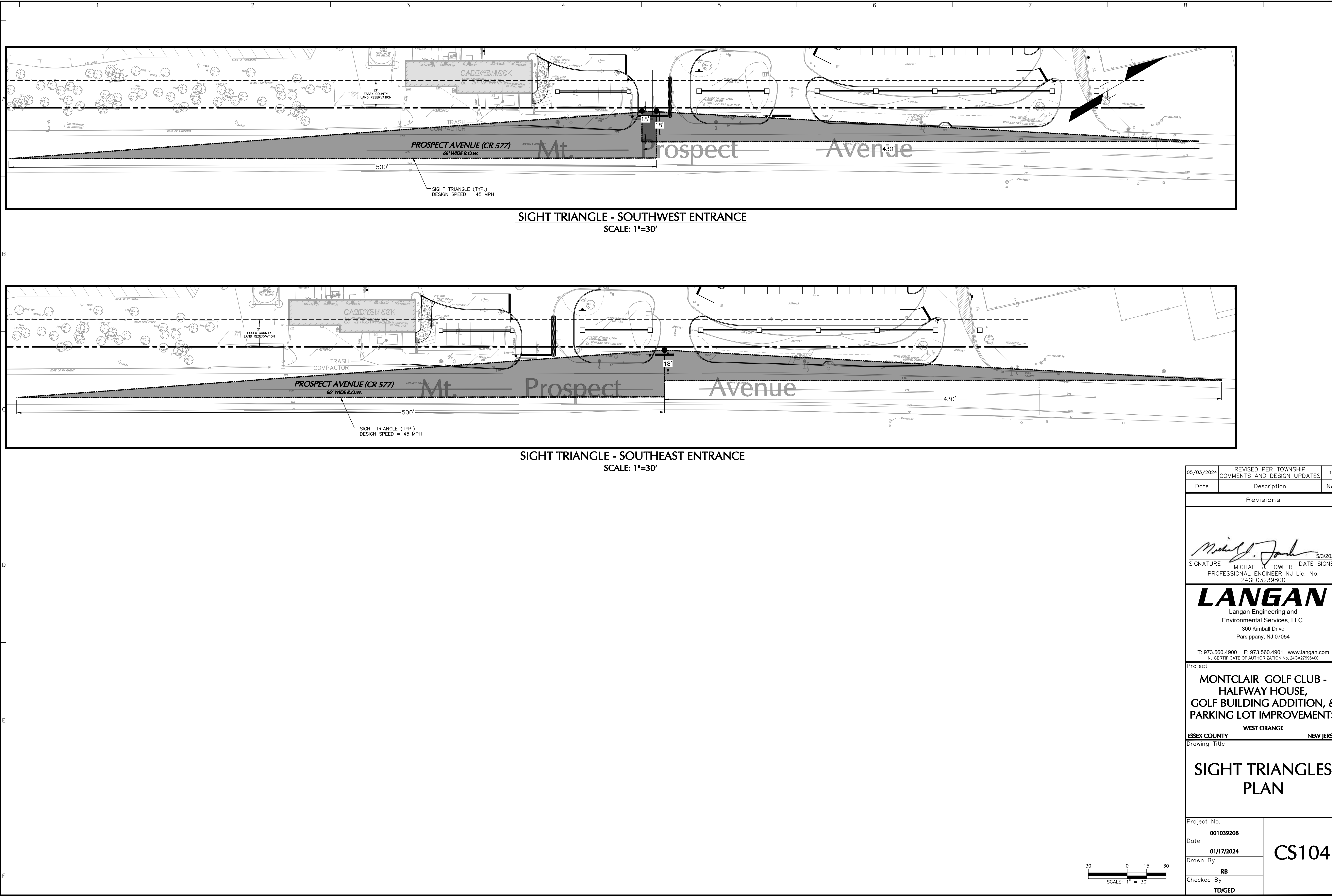
Project	
MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS	
WEST ORANGE NEW JERSEY	
Drawing Title	
SITE PLAN I	

Project No.	CS102
001039208	
Date	
01/17/2024	
Drawn By	RB
Checked By	
TD/GED	





Filename: C:\bms\langan-pw-01\dms56695\001039208-0503-CS101-0101.dwg Date: 5/6/2024 Time: 13:58 User: rbailey Style Table: Langan.stb Layout: CS103



SIGHT TRIANGLE - SOUTHWEST ENTRANCE
SCALE: 1"=30'

SIGHT TRIANGLE - SOUTHEAST ENTRANCE
SCALE: 1"=30'

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

Michael J. Fowler 5/3/2024
SIGNATURE MICHAEL J. FOWLER DATE SIGNED
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800

LANGAN
Langan Engineering and
Environmental Services, LLC.
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Parsippany, NJ 07054

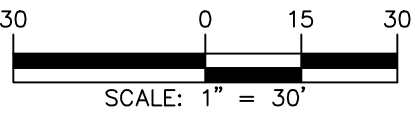
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400

Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY **NEW JERSEY**
Drawing Title

**SIGHT TRIANGLES
PLAN**

Project No. 001039208	CS104
Date 01/17/2024	
Drawn By RB	
Checked By TD/GED	

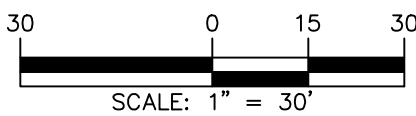
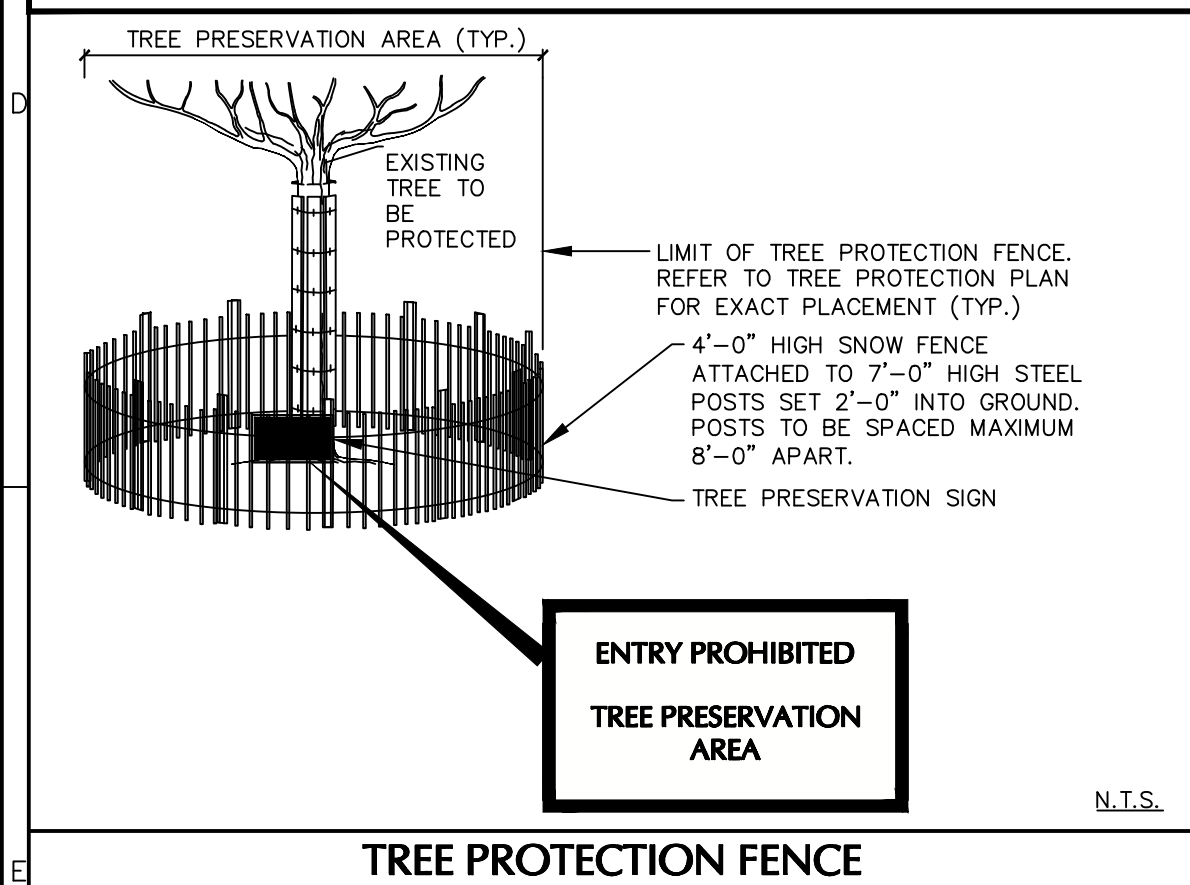


DEMOLITION NOTES

1. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
4. BACKFILLING SHALL BE DONE IN ONE FOOT THICK MAXIMUM LOOSE LIFTS. EACH LIFT SHALL BE COMPACTED USING A MINIMUM OF 6 PASSES WITH A 5 TON STATIC DRUM WEIGHT VIBRATORY ROLLER TO OBTAIN A MINIMUM OF 95% OF THE SOIL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D1557, MODIFIED PROCTOR METHOD.
5. THE CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF ANY AND ALL ABOVE GROUND STRUCTURES AND APPURTENANCES WITHIN THE LIMIT OF DISTURBANCE, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED ON THIS PLAN. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO PAVEMENT, CURBS, CONCRETE PADS, RAMPS, PLATFORMS, CONCRETE WALLS, RAILROAD TIES, ETC.
6. THE EXISTING STRUCTURES SHOULD BE COMPLETELY DEMOLISHED. APPROVED MASONRY AND CONCRETE RUBBLE FREE OF DELETERIOUS MATERIAL MAY BE RECYCLED FOR USE AS CONTROLLED FILL BELOW THE PAVEMENT. THIS MATERIAL SHOULD BE SUITABLY CRUSHED TO FORM A WELL GRADED GRANULAR MIXTURE WITH MAXIMUM AGGREGATE SIZE NOT EXCEEDING 3 INCHES. THE RE-USE OF ANY ON-SITE MATERIAL SHOULD BE COORDINATED WITH ANY ENVIRONMENTAL RE-USE REQUIREMENTS ESTABLISHED FOR THIS SITE.
7. THE EXISTING ASPHALT CAN BE MILLED, REMOVED AND RE-USED AS PAVEMENT SUB-BASE MATERIAL PER NJDEP REQUIREMENTS. THE ASPHALT MUST NOT BE MIXED WITH ANY SITE SOILS TO BE USED AS FILL. ALL PAVEMENT REMOVED TO BE CRUSHED AND USED FOR PAVEMENT SUBBASE.
8. EXISTING UTILITIES AND FOUNDATIONS BELOW THE NEW BUILDING FOOTPRINTS MUST BE REMOVED IN ITS ENTIRETY. THE CONTRACTOR'S PROPOSED MEANS AND METHODS FOR ABANDONING EXISTING UTILITIES SHOULD BE SUBMITTED FOR REVIEW BEFORE PERFORMING WORK.
9. AFTER PAVEMENT REMOVAL AND EXISTING UTILITY ABANDONMENT, THE AREA OF NEW PAVEMENT CONSTRUCTION SHOULD BE BROUGHT TO THE REQUIRED SUBGRADE LEVEL. WHERE EXCAVATION IS REQUIRED, THE AREA SHOULD BE FILL-ROLLED (AFTER CUTTING TO THE REQUIRED GRADE LEVEL) TO AT LEAST THE UNIFORM COVERAGES OF A 5-TON (STATIC DRUM WEIGHT) VIBRATORY ROLLER. SHOULD ANY SOFT OR OTHERWISE UNSUITABLE CONDITIONS BE OBSERVED, THE MATERIAL SHOULD BE REMOVED AND REPLACED WITH APPROVED PROPERLY COMPACTED FILL. IN ADDITION THE SUBGRADE SOIL SHOULD BE COMPACTED TO OBTAIN A MINIMUM OF 95% OF THE SOIL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D1557 MODIFIED PROCTOR METHOD.
10. OFF SITE FILL MATERIAL SHOULD CONSIST OF WELL GRADED SAND AND/OR GRAVEL HAVING NOT MORE THAN 15% BY DRY WEIGHT PASSING THE NO. 200 SIEVE. ALL IMPORTED FILL SHOULD BE FREE OF CLAY AND OTHER SOILS. CONTRACTOR SHOULD HAVE A MAXIMUM PARTICLE SIZE OF NO GREATER THAN 3 INCHES. ANY IMPORTED FILL PROPOSED FOR USE AT THE SITE SHOULD BE FREE OF ALL HAZARDOUS SUBSTANCES AS LISTED BY THE NJDEP IN NJAC TITLE 7(CHAPTER 1E, APPENDIX A) AND SHOULD NOT CONTAIN SUBSTANCES IN LEVELS WHICH EXCEED THE MOST RECENT NJDEP SOIL CLEANUP CRITERIA. THE CONTRACTOR SHOULD PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE. GRAIN-SIZE DISTRIBUTION, MAXIMUM DRY DENSITY AND THE OPTIMUM MOISTURE CONTENT DETERMINATIONS SHOULD BE MADE ON RESPECTIVE SAMPLES OF THE BACKFILL MATERIALS PROPOSED BY THE CONTRACTOR.
11. CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING BUILDING ROOF CONNECTIONS TO THE EXISTING STORM SEWER SYSTEM AND MAINTAIN DRAINAGE SERVICE THROUGHOUT CONSTRUCTION.

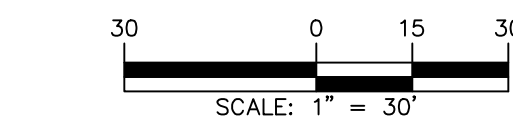
DUE TO COMPACTION REQUIREMENTS FOR PREVIOUSLY PAVED AREAS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS SHALL BE REMOVED TO 48 INCHES BELOW GRADE AND BACKFILLED WITH PLANTING SOIL IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS. IN ADDITION, PLANTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE. SUBGRADE WITHIN 2'-6" OF FINISH GRADE IN PLANTING AREAS SHALL CONSIST OF FREE DRAINING SANDY SOIL FILL.

1. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE DURATION OF WORK. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIP-LINE OF THE PROTECTED TREE UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED WITHIN THE LIMIT OF BRANCHING. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
2. TREE PROTECTION PLANKING SHALL BE INSTALLED AROUND ALL EXISTING TREES AS NOTED ON THIS DRAWING. REFER TO DETAIL ON THIS SHEET.
3. TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
4. IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
5. DEMOLITION WORK ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
6. ALL EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
7. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR THE PROJECT LANDSCAPE ARCHITECT.



Project No.	CD101
001039208	
Date	
01/17/2024	
Drawn By	CD101
RB	
Checked By	
TD/GED	

CD101



1. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

 5/3/2024
SIGNATURE _____ DATE SIGNED _____
MICHAEL J. FOWLER
PROFESSIONAL ENGINEER NJ Lic. No.
24GE03239800

Langan Engineering and
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

ESSEX COUNTY WEST ORANGE NEW JERSEY

Project No.

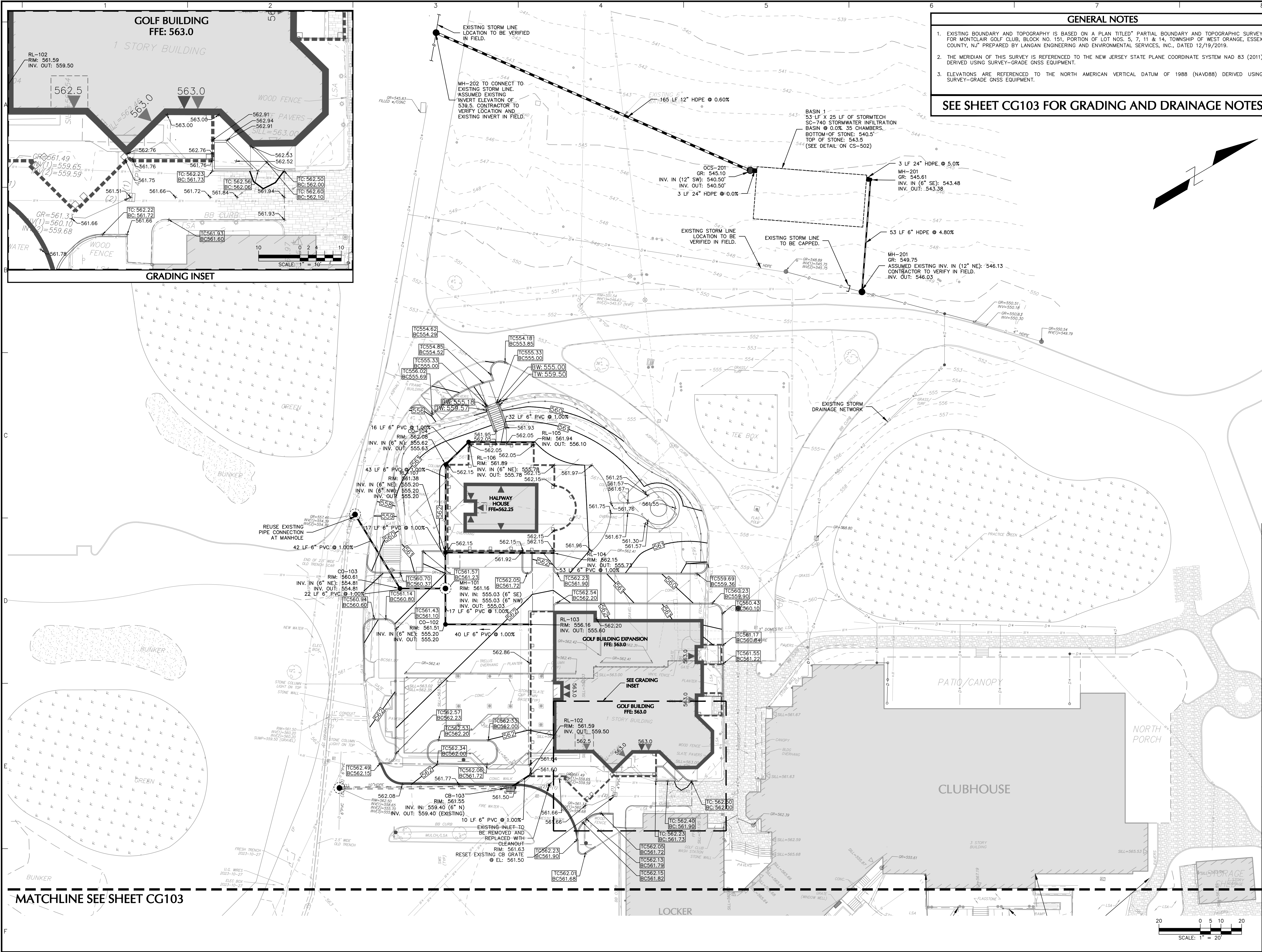
001039208

01/17/2024

Drawn By

RB
Checked By

CG101



GENERAL NOTES

- EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019.
- THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.

SEE SHEET CG103 FOR GRADING AND DRAINAGE NOTES

LEGEND	
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED DRAINAGE PIPE
	PROPOSED CATCH BASIN
	PROPOSED AREA DRAIN
	PROPOSED DRAINAGE MANHOLE
	PROPOSED GRADE BREAK

Date	Description	No.
05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.

Revisions

Michael J. Fowler 5/3/2024
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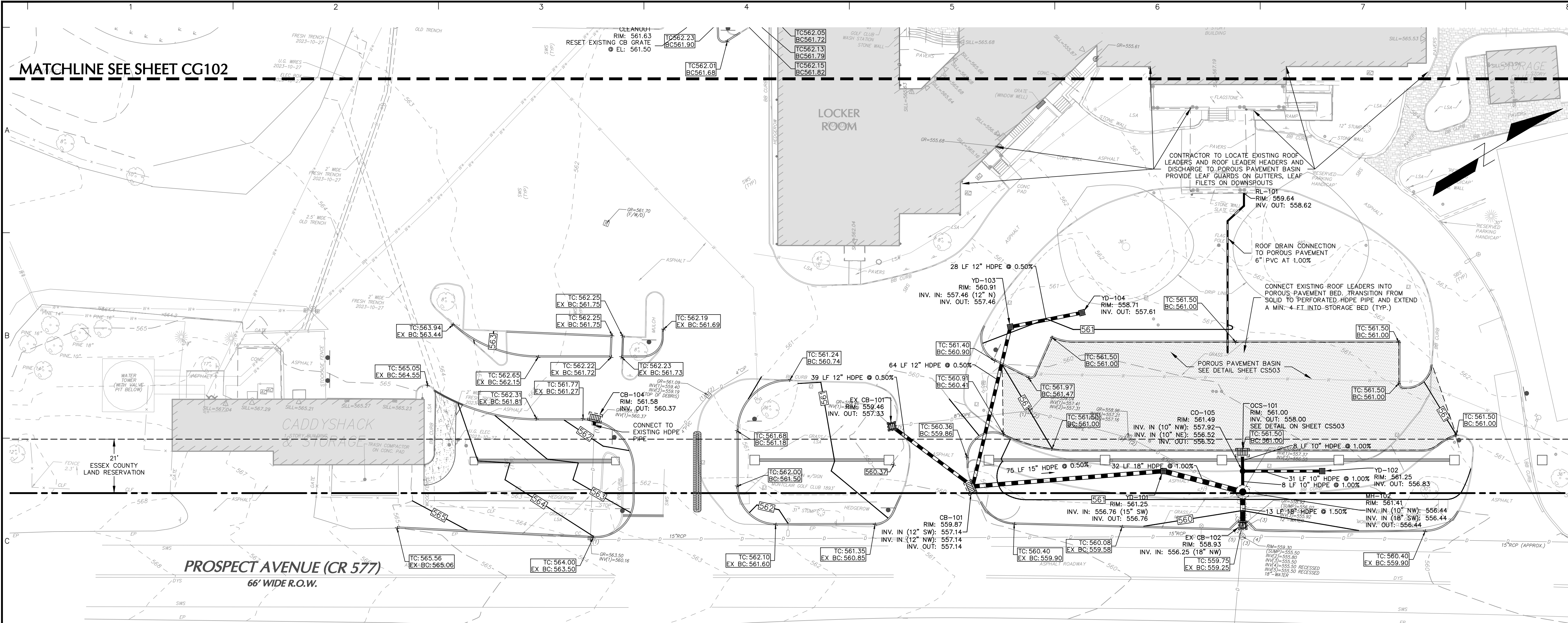
Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

WEST ORANGE NEW JERSEY
ESSEX COUNTY
Drawing Title

**GRADING &
DRAINAGE PLAN I**

Project No.	001039208	CG102
Date	01/17/2024	
Drawn By	RB	
Checked By	TD/GED	

MATCHLINE SEE SHEET CG102



STORMWATER MANAGEMENT FACILITY MAINTENANCE TASKS AND SCHEDULE

- NOTE: SEE THE STORMWATER MAINTENANCE PLAN LAST REVISED 8 APRIL 2020 FOR ADDITIONAL MAINTENANCE SCHEDULING AND TASKS.
- UNDERGROUND EXTENDED DETENTION BASIN (STORMTRAP)
- SHORT-TERM MEASURES (AT LEAST ONCE EVERY 3 MONTHS OR AFTER EACH STORM EXCEEDING 1 INCH OF RAINFALL UNTIL BASIN IS STABILIZED)
1. MAINTAIN CONTRIBUTING DRAINAGE AREA
 2. INSPECT THE INLET STRUCTURES
 3. INSPECT THE OUTLET STRUCTURE:
- MEDIUM-TERM MEASURES (AT LEAST ONCE EVERY SIX MONTHS)
1. INSPECT THE INLET STRUCTURES
 2. INSPECT THE OUTLET STRUCTURE
- LONG-TERM MEASURES (AT LEAST ONCE EVERY YEAR)
1. REMOVE SEDIMENT FROM BASIN USING METHODS OUTLINES IN THE MANUFACTURER'S (STORMTRAP) MAINTENANCE MANUAL.
- UNDERGROUND DETENTION BASIN (PIPE SYSTEM)
- SHORT-TERM MEASURES (AT LEAST ONCE EVERY 3 MONTHS OR AFTER EACH STORM EXCEEDING 1 INCH OF RAINFALL UNTIL BASIN IS STABILIZED)
1. MEASURE THE SEDIMENT BUILDUP AT EACH MANHOLE. CLEANING SHOULD BE PERFORMED IF SEDIMENT BUILDUP IS GREATER THAN 2.4 INCHES.
 2. A THOROUGH CLEANING OF THE SYSTEM (HEADERS AND LATERALS) CAN BE PERFORMED BY EITHER MANUAL METHODS OR BY A VACUUM TRUCK.
 3. INSPECT THE INLET AND THE OUTLET STRUCTURES:
- LONG-TERM MEASURES (AT LEAST ONCE EVERY YEAR)
1. REMOVE SEDIMENT FROM BASIN USING LIGHT WEIGHT CONSTRUCTION EQUIPMENT
- STORMWATER CONVEYANCE SYSTEM
- SHORT-TERM MEASURES (ONCE A YEAR OR AFTER A STORM EXCEEDING 1-INCH OF RAINFALL)
1. ALL CONVEYANCE SYSTEMS INCLUDING INLETS, MANHOLES, CONCRETE CHAMBERS AND PIPES ARE EXPECTED TO ACCUMULATE DEBRIS AND SEDIMENT OVER TIME.
 2. A THOROUGH CLEANING OF THE SYSTEM CAN BE PERFORMED BY EITHER MANUAL METHODS OR BY A VACUUM TRUCK.
 3. ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION. THE CONDITION OF SURROUNDING AND ABOVE LYING MATERIALS SHALL BE INSPECTED FOR EVIDENCE OF POTENTIAL FAILURES OR DETERIORATION.
 4. INSPECT OUTLET PROTECTION AND REPLACE/REPLENISH RIP-RAP AS NECESSARY. IDENTIFY AREAS OF EROSION AT OUTLETS AND REMEDIATE WITH ADDITIONAL RIP-RAP PLACEMENT IN ACCORDANCE WITH APPROVED DRAWINGS FOR THIS PROJECT AND THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- RESPONSIBLE PARTY
- MONTCLAIR GOLF CLUB
ATTN: MICHAEL CAMPBELL, DIRECTOR OF GOLF COURSE OPERATIONS
25 PROSPECT AVENUE
WEST ORANGE, NEW JERSEY 07052
PHONE NUMBER: (973) 239-1800

GRADING & DRAINAGE NOTES

1. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
4. ONCE EXISTING UTILITIES TO REMAIN ARE LOCATED, ANY POTENTIAL CONFLICTS WITH OTHER UTILITIES, RELOCATED UTILITY POLES, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL ALL THE APPROPRIATE UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAYS AT LEAST 72 HOURS BEFORE ANY EXCAVATION OR GRADING TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, DEPTHS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THESE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF LANGAN ENGINEERING. CALL BEFORE YOU DIG- 1-800-272-1000.
6. ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, GRATES, MANHOLE COVERS, VALVE BOXES, ETC. TO BE FLUSH WITH THE PROPOSED SURFACE ELEVATIONS WITHIN THE LIMITS OF CONSTRUCTION.
7. ALL PROPOSED ON-SITE UTILITIES TO BE INSTALLED UNDERGROUND. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
8. ALL STORM DRAINAGE PIPES ARE TO BE AS SPECIFIED ON THE PLANS:
 - HIGH-DENSITY POLYETHYLENE PIPE (HDPE): AASHTO M294 TYPE S FOR PIPE AND FITTINGS. MATERIAL SHALL MEET ASTM D1298 TYPE III, CATEGORY 4, GRADE P33, CLASS C, OR ASTM D3350 CELL CLASSIFICATION 324420C. PIPE SHALL BE SURE-LOCK 10.8 PIPE MANUFACTURED BY ADS, INC. WITH WATER-TIGHT JOINTS ACCORDING TO THE REQUIREMENTS OF ASTM D3212 OR APPROVED EQUIVALENT. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321.
7. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST UNLESS OTHERWISE NOTED.
8. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (HS20) LOADING AND BE INSTALLED ACCORDINGLY.
9. ALL PROPOSED ROOF LEADERS SHALL BE CONNECTED TO THE BELOW GRADE DETENTION BASIN-2.
10. SITE FILL SHALL CONSIST OF MATERIAL FROM APPROVED ONSITE SOURCES OR APPROVED OFFSITE MATERIAL. THE GEOTECHNICAL ENGINEER WILL REVIEW AND APPROVE ALL MATERIALS.
11. PAVING ROLL ALL CUT AREAS. PLACE AND COMPACT APPROVED FILL MATERIALS IN 12-INCH MAXIMUM LOOSE LIFTS USING AT LEAST 6 PASSES WITH, AT MINIMUM, A 5 TON STATIC DRUM WEIGHT VIBRATORY ROLLER. COMPACT TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
12. PARKING LOT SUBGRADES SHALL BE FIRM AND NON-YIELDING. SOFT AREAS AND UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH APPROVED MATERIALS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
13. PIPE BEDDING MATERIAL SHALL BE AASHTO NO. 67 PROCESSED SAND AND GRAVEL FREE FROM DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIALS, AND COMPLYING WITH THE FOLLOWING GRADATION REQUIREMENTS:

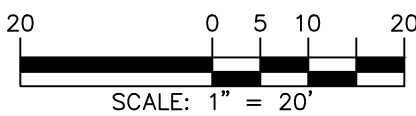
SIEVE SIZE PERCENT PASSING (BY WEIGHT)	
1" INCH	100
3/4" INCH	90-100
3/8" INCH	20-55
#4	0-10
#8	0-5

FILL SHALL BE CLEAN, WELL GRADED GRANULAR SOIL WHICH IS NON-EXPANSIVE AND NON-COLLAPSIBLE AND SHALL HAVE LESS THAN 20% BY WEIGHT PASSING THE #200 SIEVE. THE PORTION PASSING THE #200 SIEVE SHALL BE NON-PLASTIC.
14. THE SUBJECT PROJECT AREA IS LOCATED WITHIN ZONE X, OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AREA AS PER EFFECTIVE FIRM FLOOD INSURANCE RATE MAP OF ESSEX COUNTY, NEW JERSEY, COMMUNITY MAP NUMBER 34013C0103F, PANEL 103 OF 200 - DATED JUNE 4, 2007.
15. ANY STORMWATER FACILITIES SHOWN TO REMAIN SHOULD BE INSPECTED, REPAIRED AND CLEANED AS NECESSARY.
16. STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED REGULARLY TO INSURE CONTINUAL FUNCTIONING OF THE SYSTEM AT DESIGN CAPACITY. SEE MAINTENANCE REPORT FOR MAINTENANCE SCHEDULE, INSTRUCTIONS AND PROCEDURES.
17. ABBREVIATIONS:

AD	= AREA DRAIN
BC	= BOTTOM OF CURB
BW	= BOTTOM OF WALL
CB	= CATCH BASIN
PFE	= FINISHED FLOOR ELEVATION
GR	= GRATE ELEVATION
HDPE	= HIGH DENSITY POLYETHYLENE PIPE
INV	= INVERT
LF	= LINEAR FEET
MH	= MANHOLE
OCS	= OUTLET CONTROL STRUCTURE
PVC	= POLYVINYL CHLORIDE PIPE
RL	= ROOF LEADER
TC	= TOP OF CURB
TW	= TOP OF WALL

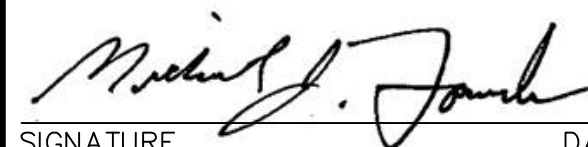
LEGEND

- | | |
|--|---------------------------|
| | EXISTING MAJOR CONTOUR |
| | EXISTING MINOR CONTOUR |
| | PROPOSED MAJOR CONTOUR |
| | PROPOSED MINOR CONTOUR |
| | PROPOSED DRAINAGE PIPE |
| | PROPOSED CATCH BASIN |
| | PROPOSED AREA DRAIN |
| | PROPOSED DRAINAGE MANHOLE |
| | PROPOSED GRADE BREAK |



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Date	Description	No.

Revisions


SIGNATURE MICHAEL J. FOWLER DATE SIGNED 5/3/2024
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LANGAN

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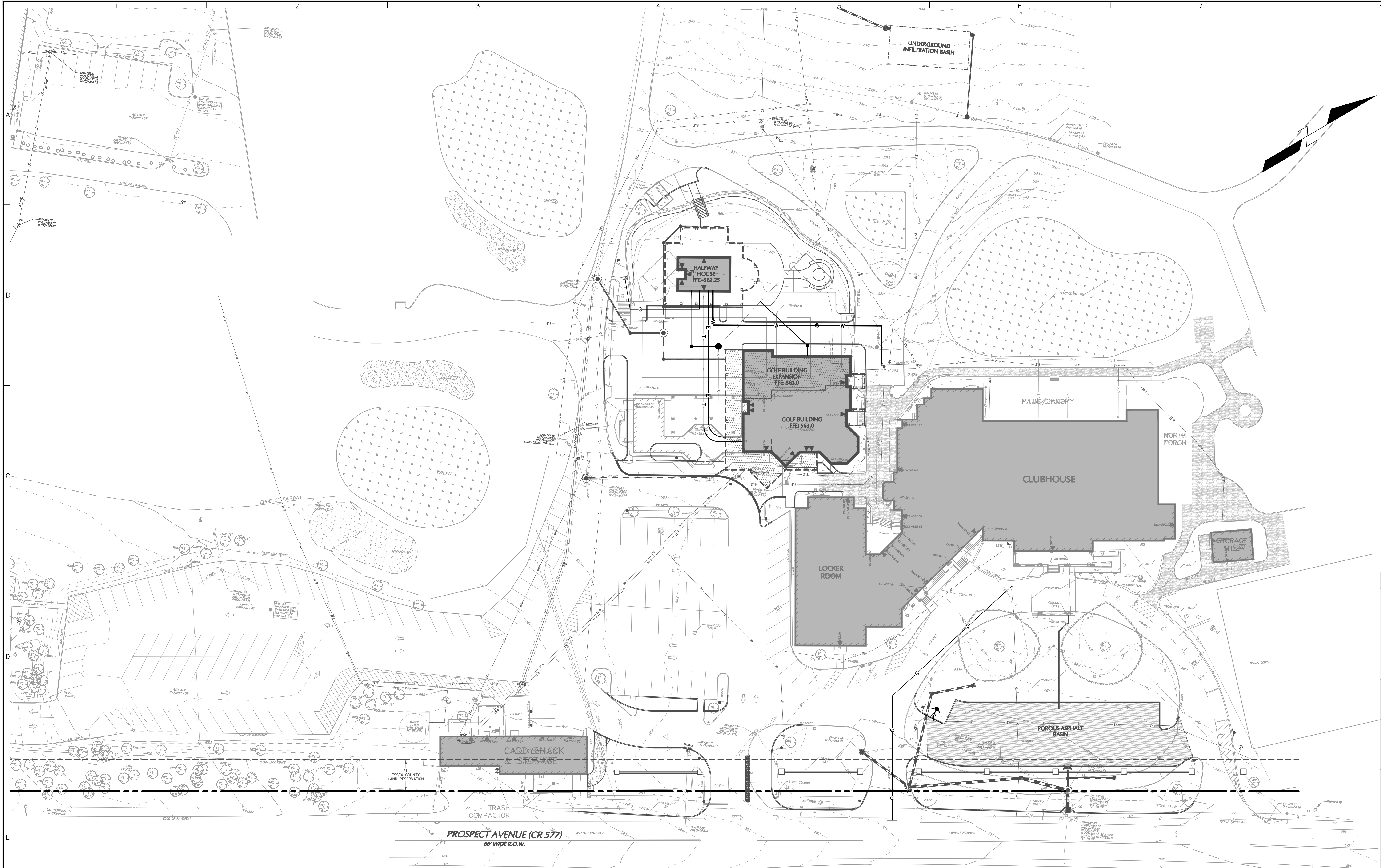
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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27896400

Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY **NEW JERSEY**
Drawing Title

**GRADING &
DRAINAGE PLAN II**

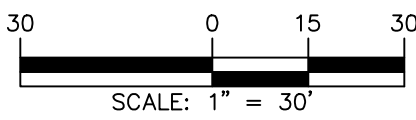
Project No. 001039208	CG103
Date 01/17/2024	
Drawn By RB	
Checked By TD/GED	



LEGEND	
	PROPOSED SEWER MAIN
	PROPOSED SEWER MANHOLE
	PROPOSED SEWER CLEANOUT
	PROPOSED WATER/FIRE SERVICE LINE
	PROPOSED ELECTRIC & TELECOMMUNICATION LINE
	PROPOSED GAS LINE
	PROPOSED FIRE HYDRANT ASSEMBLY
	PROPOSED WATER VALVE

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SEE SHEET CU103 FOR UTILITY NOTES	

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PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800		
LANGAN		
Langan Engineering and Environmental Services, LLC. 300 Kimball Drive Parsippany, NJ 07054		
T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400		
Project		
MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS		
WEST ORANGE NEW JERSEY		
Drawing Title		
OVERALL UTILITY PLAN		
Project No.		
001039208		
Date		
01/17/2024		
Drawn By		
RB		
Checked By		
TD/GED		



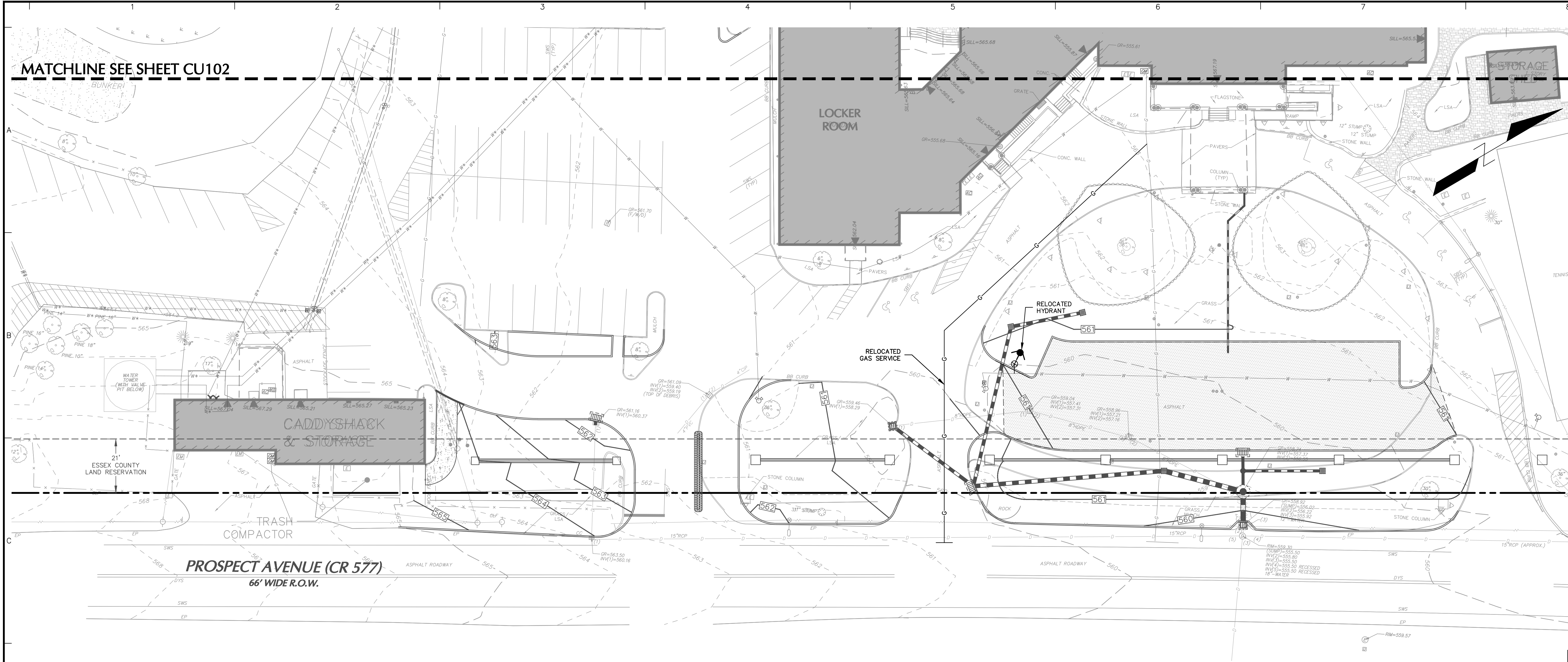
Project No.	001039208	CU102
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SEE SHEET CU103 FOR UTILITY NOTES	

20 0 5 10 20

SCALE: 1" = 20'

MATCHLINE SEE SHEET CU102

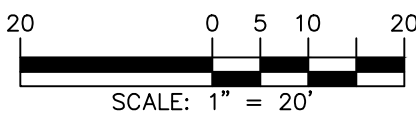


UTILITY NOTES

1. THE SITE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE SITE CONTRACTOR MUST CONTACT "DIG SAFE" FOR THE LOCATION AND MARKING OF ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR TO RELOCATE ALL UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE SITE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.
3. SITE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, AND GAS SERVICE, ROOF DRAINS, AND ALL OTHER UTILITIES. SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION OF AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
4. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES 72 HOURS PRIOR TO BEGINNING EXCAVATION.
5. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND ALL PAVEMENT REPAIRS REQUIRED AS A RESULT OF ANY UTILITY WORK.
6. SITE CONTRACTOR TO COORDINATE GAS MAIN, ELECTRIC, AND TELEPHONE INSTALLATION WITH APPROPRIATE UTILITY COMPANIES.
7. SITE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2 FEET OF COVER FOR ALL UNDERGROUND ELECTRIC, TELEPHONE AND GAS UTILITIES.
8. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4' ABOVE TOP OF PIPE.
9. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS 10'. THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS 18".
10. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVES HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
11. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
12. SET MANHOLE RIMS AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
13. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
 - 13.A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
 - 13.B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
 - 13.C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION
14. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
15. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
 - 15.A. WATER PIPES SHALL BE C-900 POLYVINYL CHLORIDE (PVC) OR DUCTILE IRON PIPE (DIP) CLASS 52, AS INDICATED ON THE DESIGN DRAWINGS OR BY TOWN/UTILITY AUTHORITY.
 - 15.B. SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE FOR GRAVITY PIPES UNLESS OTHERWISE NOTED.
 - 15.C. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
16. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASUREMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
17. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
18. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURE BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE FIVE FEET.
19. ELECTRIC AND TELECOMMUNICATION SERVICE TO EACH BUILDINGS SHALL BE INSTALLED UNDERGROUND.

LEGEND

- PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEANOUT
- PROPOSED WATER/FIRE SERVICE LINE
- PROPOSED ELECTRIC & TELECOMMUNICATION LINE
- PROPOSED GAS LINE
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED WATER VALVE



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Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY NEW JERSEY
Drawing Title

UTILITY PLAN II

Project No. 001039208	CU103
Date 01/17/2024	
Drawn By RB	
Checked By TD/GED	



101.dwg Date: 5/6/2024 Time: 14:24 User: omunn Style Table: Langan.stb Layout: CE10

HEP SOIL EROSION NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND MULCH MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER UNTIL THIS TEMPORARY PROTECTION CAN BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
3. SEEDING DATES. THE FOLLOWING SEEDING DATES ARE RECOMMENDED TO MOST STABLISH PERMANENT VEGETATION AT THE PROJECT LOCATIONS IN THE HEPSCD: SPRING = 3/1-5/15 AND FALL = 8/15 - 10/1.
4. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
6. MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING IT DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
7. ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
8. THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX: (201) 333-4502 OR EMAIL - INFORMATION@HEPSCD.ORG
9. THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ = DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-6508 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE EROSION CONTROL MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED.
10. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FINDER OR ARROW BOARD TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMEDIATION PUMPING SYSTEMS, PUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
11. ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING, SODDING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, LAST REVISED DECEMBER 2017.
12. ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
13. IF NECESSARY, A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2" $\frac{1}{2}$ "-1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
14. STEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. EROSION CONTROL MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
15. THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS, NEW OWNERS' INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES, DEEMED NECESSARY, BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.

DUST CONTROL MATERIALS			
MATERIAL	WATER DILUTION	TYP. OF NOZZLE	APPLY GALLONS/ACRE
MINERAL EMULSION	1:1	Coarse Spray	1200
LATEX EMULSION	12:5:1	Fine Spray	200
RESIN IN WATER	4:1	Fine Spray	375
POSTCUTTING GRASS (PAM) - SPRAY ON			
POSTCUTTING GRASS (PAM) - DRY SPREAD		APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS	
SPRINKLED FOR WIND STOP SYSTEM	None	Coarse Spray	1200

- MULCHES
- VEGETATIVE COVER
- SPRAY-ON ADHESIVES
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. THE TYPE TILLAGE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
- BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER TECHNIQUES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

	ACTIVITY	DURATION
1.	NOTIFY THE HEPSCD IN WRITING AT LEAST 48 HOURS PRIOR TO ANY PROJECT PRE CONSTRUCTION MEETING OR SITE DISTURBANCES.	1 DAY
2.	COORDINATE ACCESS WITH THE GOLF CLUB.	1 DAY
3.	INSTALL SEDIMENT BARRIERS (HAY BALE OR SILT FENCE), CONSTRUCTION FENCE, AND INLET PROTECTIONS IMMEDIATELY AFTER INITIAL DISTURBANCE. TRAFFIC SHOULD USE ONLY THIS AREA FOR INGRESS AND EGRESS. PLACE AND MAINTAIN SEDIMENT BARRIERS AS SHOWN ON THE PLAN.	3 DAYS
4.	DEMOLISH EXISTING FEATURES AND TREES AS SHOWN ON PLAN CD101.	1 MONTH
5.	CLEAR AND ROUGH GRADE.	2 WEEKS
6.	INSTALL STORM SEWER AND BASINS, AND OTHER UNDERGROUND UTILITIES IN ACCORDANCE WITH PLANS CG101, CG102, CG103, CU101, CU102, AND CU103.	1 MONTH
7.	CONSTRUCT HALFWAY HOUSE, GOLF BUILDING ADDITION, AND PARKING LOT IMPROVEMENTS.	6 MONTHS
8.	ESTABLISH FINAL GRADING AND INSTALL PAVEMENT.	4 WEEKS
9.	INSTALL LANDSCAPING AND 5" OF TOPSOIL TO ALL AREAS SEEDED IN ACCORDANCE WITH PLAN LP101.	3 WEEKS
10.	PERMANENT SEED ALL AREAS.	3 DAYS
11.	REMOVE SOIL EROSION CONTROL DEVICES.	1 DAY

2	3
SOIL COMPACTION REMEDATION EXEMPTION	
THIS SITE IS CONSIDERED AN URBAN REDEVELOPMENT AND IS IDENTIFIED IN THE STATE PLAN POLICY MAP (SPM) AS A METROPOLITAN PLANNING AREA (MPA). ACCORDING TO THE "STANDARDS FOR LAND GRADING" IN THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED DECEMBER 2017, URBAN REDEVELOPMENT AREAS ARE EXEMPT FROM SOIL COMPACTION REMEDIATION.	
GENERAL NOTES	
1. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON A PLAN TITLED "PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY FOR MONTCLAIR GOLF CLUB, BLOCK NO. 151, PORTION OF LOT NOS. 5, 7, 11 & 14, TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NJ" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED 12/19/2019. 2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT. 3. ELEVATIONS ARE REFERENCED TO THE NORTH-AMERICAN VERTICAL DATUM OF 1988 (NAVD88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.	

SITE PREPARATION:

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND DISKING. HARROWING, AND SEEDING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A MINIMUM OF 4 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALLED EROSION CONTROL STRUCTURES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

SEEDBED PREPARATION:

- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COUNTY CO-OPERATIVE EXTENSION OFFICE ([HTTP://NJAES.RUTGERS.EDU/COUNTY/](http://NJAES.RUTGERS.EDU/COUNTY/)). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACR. OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN TO PROVIDE A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT THE OTHER ONE-HALF DURING APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- B. WORK LINE AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITHIN DISC, SPINNING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH 12 INCHES OF SOIL DURING A PH ADJUSTMENT PERFORMED BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

SEEDING:

- A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED APPLICATION SHALL BE ACCORDING TO THE RECOMMENDATIONS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST

4. 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.

5. MULCH NETTINGS -- STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

6. GRIMPER (MULCH ANCHORING COILUER TOOL) -- A TRACTOR-DRAWN IMPLEMENT WITH A SKEWED BAR AND A COIL OF FIBER MULCH. USE 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.

PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH TO 10 INCHES LONG AND SO AS TO ANCHOR IT AND LEAVE IT 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.

TOP DRESSING.

SINCE SOIL ORGANIC MATTER CONTENT AND LOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS REQUIRED. AN EXCEPTION TO THIS STANDARD IS WHERE A NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAIRLY MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 4 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

THE FOLLOWING SEEDING SCHEDULE SHOULD BE USED FOR PERMANENT SEEDING (UNLESS OTHERWISE NOTED):

- A. LIME - 90 lbs/1,000 sf GROUND LIMESTONE.
- B. FERTILIZER - 11 lbs/1,000 sf, 10-20-10 OR EQUIVALENT, WITH 50 % WATER INSOLUBLE NITROGEN, WORKED INTO SOIL TO A DEPTH OF 4 INCHES.
- C. SEED - 70% TURF TYPE TALL FESCUE
20% PERENNIAL RYEGRASS
10% KENTUCKY BLUEGRASS
SEED AT A RATE OF 200 LBS/ACRE, PLANT BETWEEN MARCH 1 AND APRIL 30 OR BETWEEN AUGUST 15 AND NOVEMBER 15.
- D. MULCH - SALT HY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 lbs/sf, TO BE USED ACCORDING TO NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.e. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDING).

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH						
SEED SELECTIONS	SEEDING RATE (pounds) Zone ^a	OPTIMUM SEEDING DATE Based on Plant Hardiness			OPTIMUM SEED DEPTH (inches)	
		Per Acre	Per 1000 Sq. Ft.	ZONE 20-60		ZONE 70-80
COOL SEASON GRASSES						
1. Perennial ryegrass	100	1.0	31/5- 6/1 8/5- 9/15	3/15- 5/5 8/5- 10/1	21/5- 5/1 8/5- 10/5	0.5
2. Spring oats	86	2.0	31/5- 6/1 8/5- 9/15	3/1- 5/5 8/5- 10/1	21/5- 5/1 8/5- 10/5	1.0
3. Winter Barley	96	2.2	8/1- 9/15	8/15- 10/1	8/15- 10/15	1.0
4. Annual ryegrass	100	1.0	31/5- 6/1 8/5- 9/15	31/5- 5/1 8/5- 10/1	21/5- 5/1 8/5- 10/5	0.5
5. Winter Cereal Rye	112	2.8	8/1- 11/1	8/1- 11/15	8/1- 12/15	1.0
WARM SEASON GRASSES						
6. Punt millet	20	6.0	6/1-8/1	5/15- 8/5	5/15-9/1	1.0

NOTES:
SEEDING RATE FOR WARM SEASON GRASS SELECTIONS 5 - 7 SHALL BE

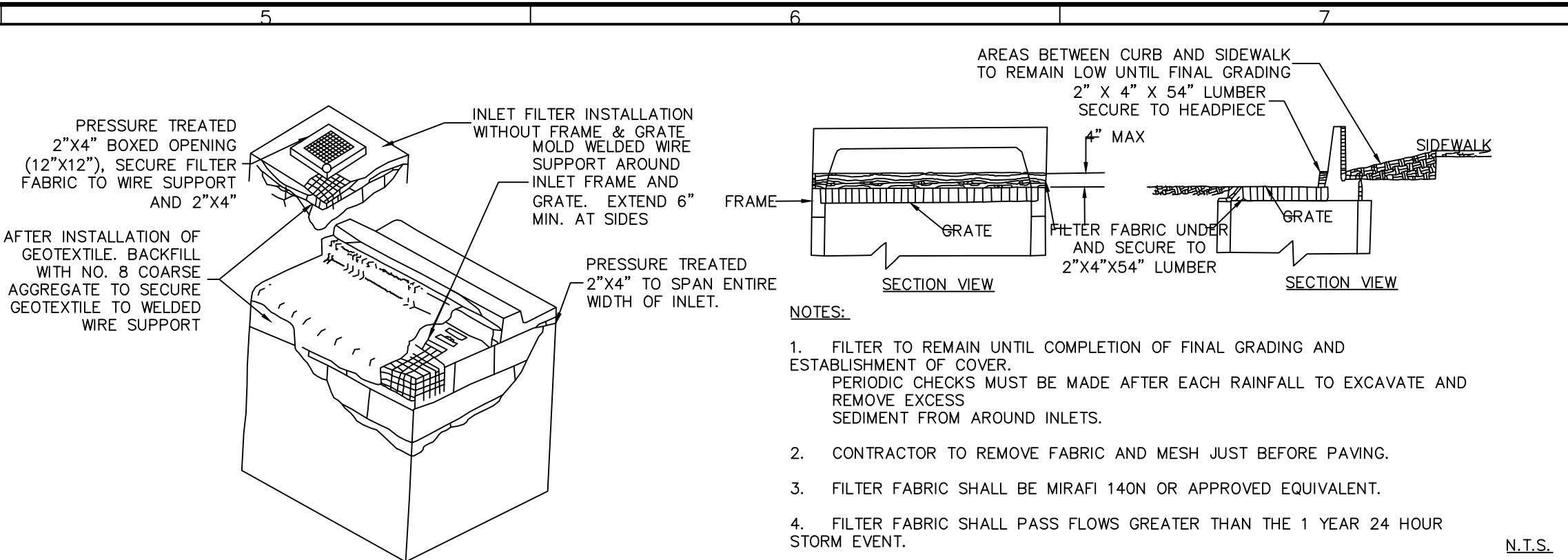
Date	Time	Location	Observations

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO COMPEL FULL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION – SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

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



SECTION

STONE PAD AASHTO NO. 1 ROCK
MINIMUM 8" THICK

FILTER FABRIC MIRAFI
OR APPROVED EQUAL 600X

WELL COMPACTED
SUB-GRADE

PLAN

AS SHOWN
ON PLAN

NOTE:
FOR CONSTRUCTION PAD LOCATION SEE
SOIL EROSION AND SEDIMENT CONTROL
PLAN, CE101

MAINTENANCE:
THE STRUCTURES THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED
DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED
ON THE SITE FOR THE PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL
SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO
THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER IS NOT PERMITTED.

SECTION

FENCE POST (SPACED AT 8 FT. C/C)

FILTER FABRIC WITH DRAWSTRING THROUGH
TOP EDGE. (MAX. EQUIV. OPENING SIZE =
U.S. STANDARD SIEVE NO. 7) MIRAFI 100X
OR APPROVED EQUAL

2' T (MIN.)

6" (MIN.)

PLAN

AS SHOWN
ON PLAN

INSTALLATION NOTES:

- EXCAVATE AND SECURE BOTTOM 8 IN. OF SILT FENCE BELOW GRADE AS SHOWN.
- EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF
TRENCH, SPACED A MAXIMUM OF 8 FT ON CENTER.
- SECURE FILTER FABRIC WITH DRAWSTRING TO POST WITH METAL FASTENERS AND
REINFORCEMENT BETWEEN FASTENER AND FABRIC.

FLOW

STOCKPILE AREA

3'

2'

PLAN VIEW

TYPICAL BALE BARRIER

3'

2'

1'

FLOW

SECURELY TIED BALES PLACED ON CONTOUR

2 HARDWOOD STAKES OR NO. 3 REBAR STAKES PER BALE (TYP.)

ANGLE FIRST STAKE TOWARD PREVIOUSLY LAID BALE (TYP.)

ISOMETRIC VIEW

FLOW

BALE

4" VERTICAL FACE

EMBEDDING DETAIL

N.T.S.

STOCKPILE PROTECTION - BALE BARRIERS

100%

Revisions	
	
SIGNATURE	DATE SIGNED
MICHAEL J. FOWLER	5/3/2024
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800	

LANGAN

Langan Engineering and
Environmental Services, LLC.
300 Kimball Drive
Parsippany, NJ 07054

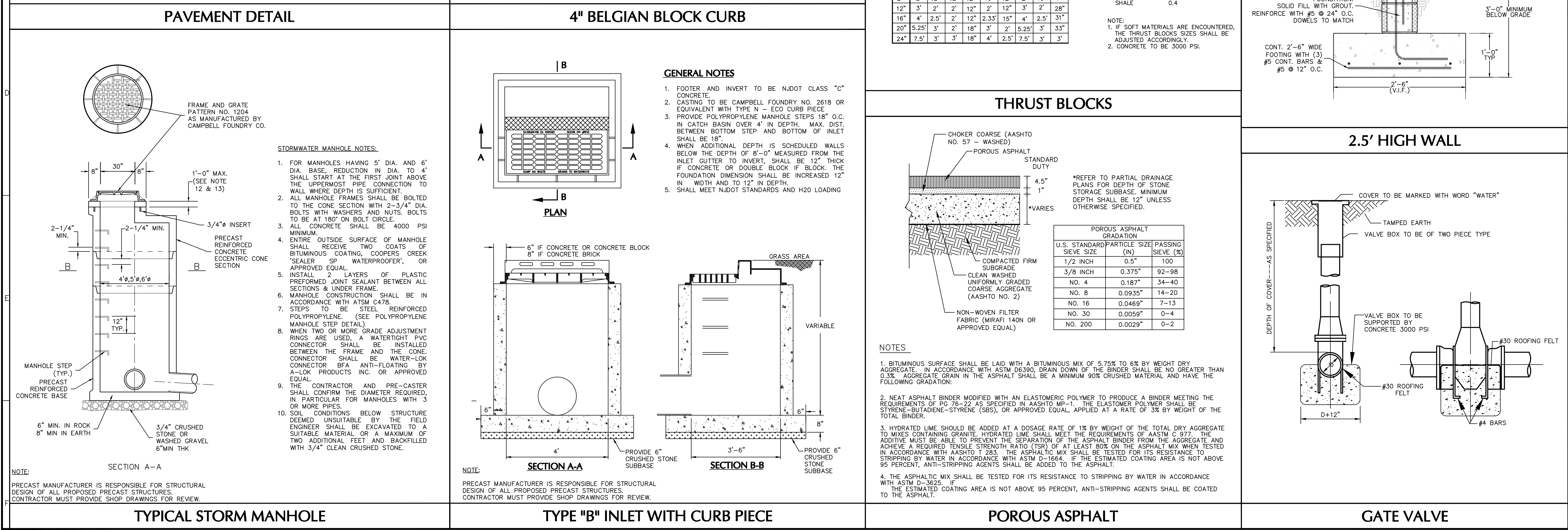
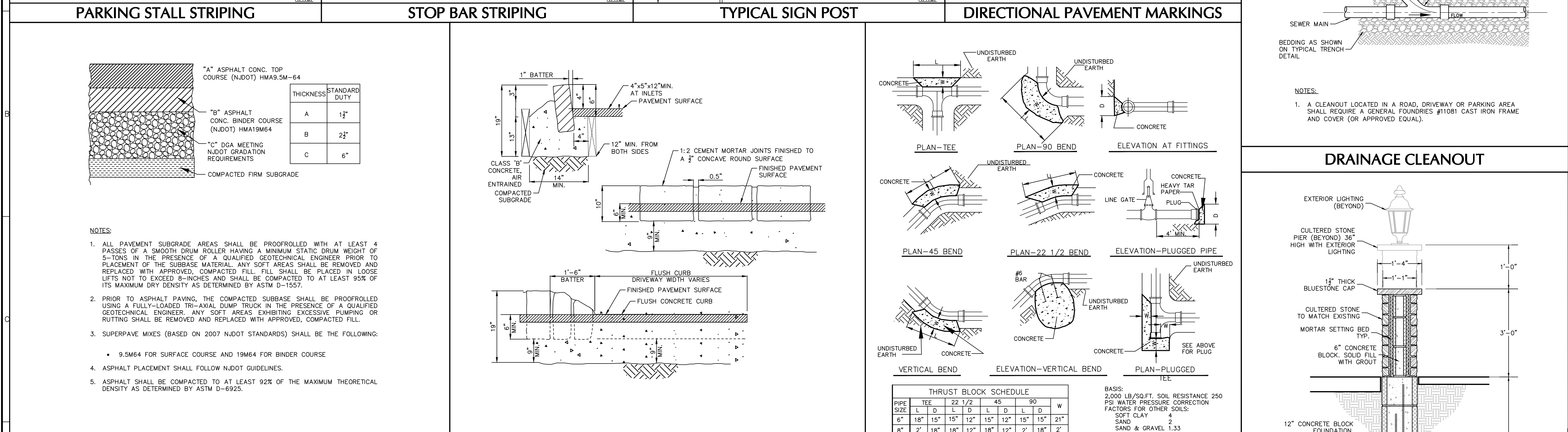
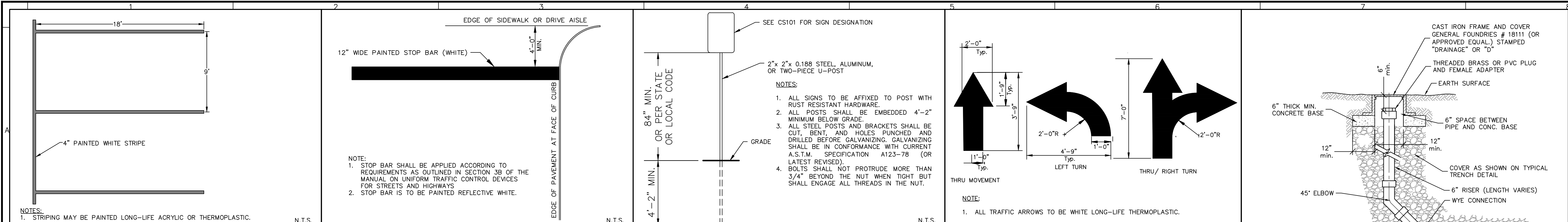
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY NEW JERSEY

SOIL EROSION AND SEDIMENT CONTROL NOTES

Project No. 001039208	DrawingFigure CE501
Date 01/17/2024	
Drawn By RB	
Checked By TD/GED	



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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA2798400

Project: **MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS**

WEST ORANGE NEW JERSEY

Project No. **001039208**

Date: **01/17/2024**

Drawn By: **RB**

Checked By: **TD/GED**

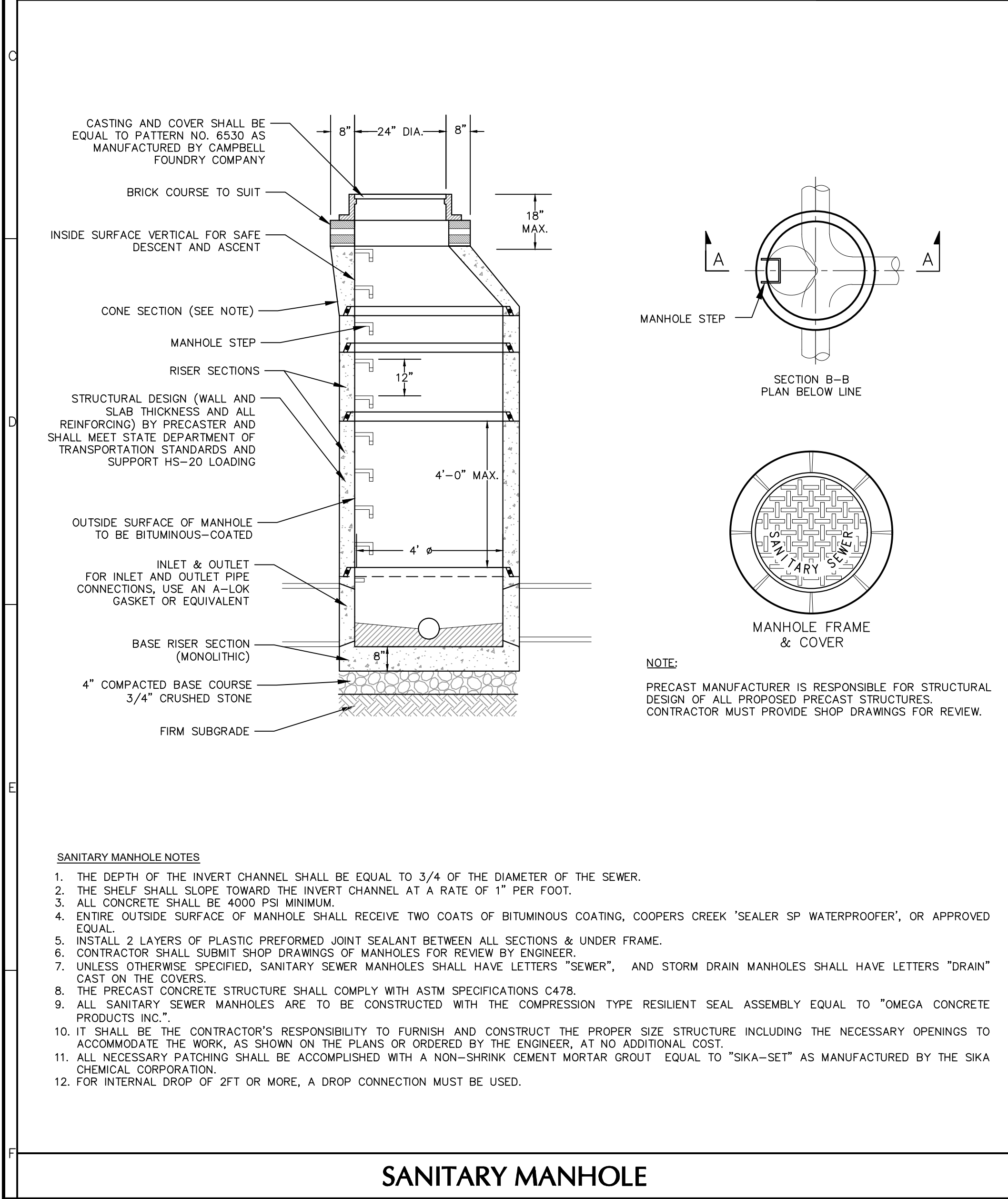
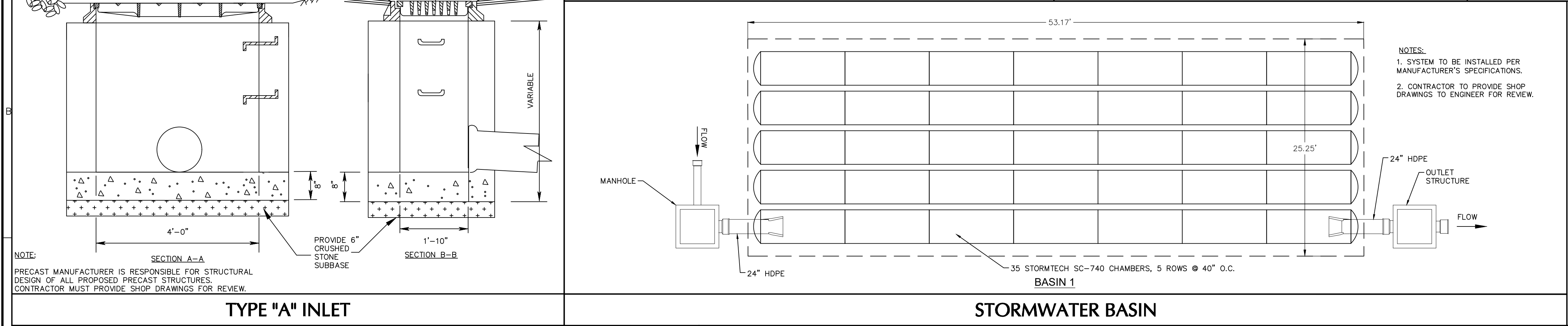
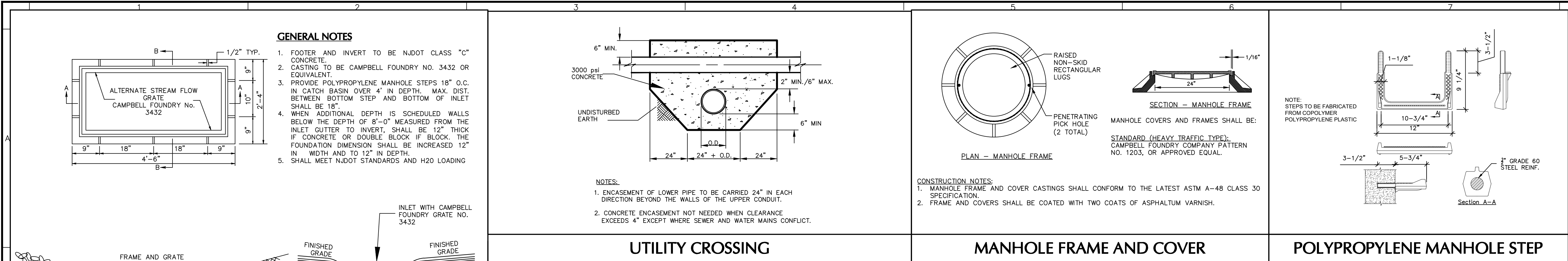
CS501

Project No. **001039208**

Date: **01/17/2024**

Drawn By: **RB**

Checked By: **TD/GED**



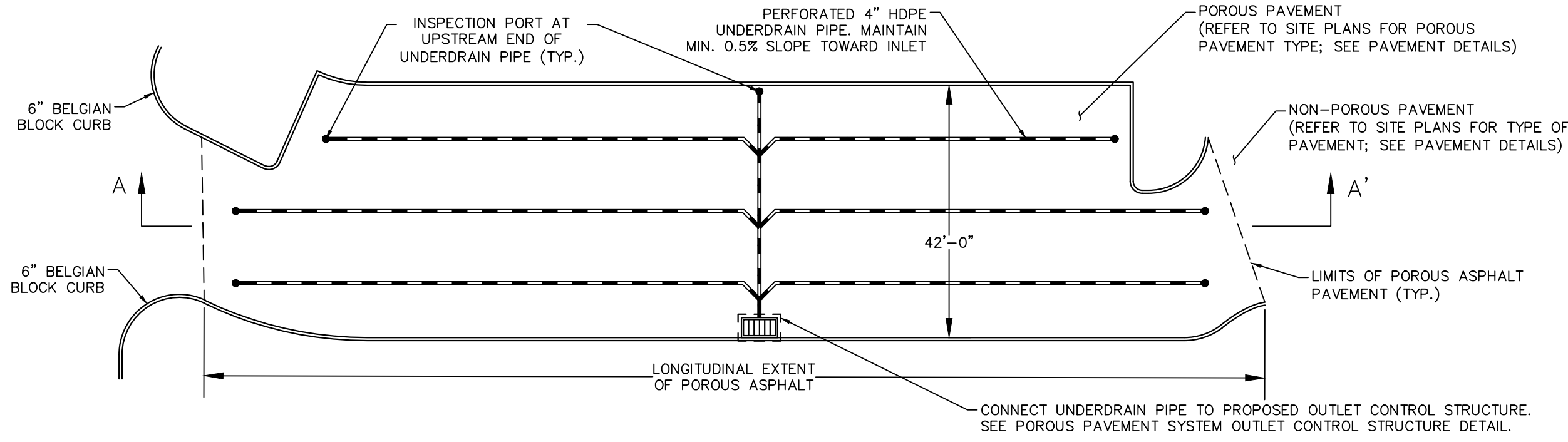
LANGAN
Langan Engineering and Environmental Services, LLC.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GE032796400

Montclair Golf Club - Halfway House, Golf Building Addition, & Parking Lot Improvements
WEST ORANGE, NEW JERSEY

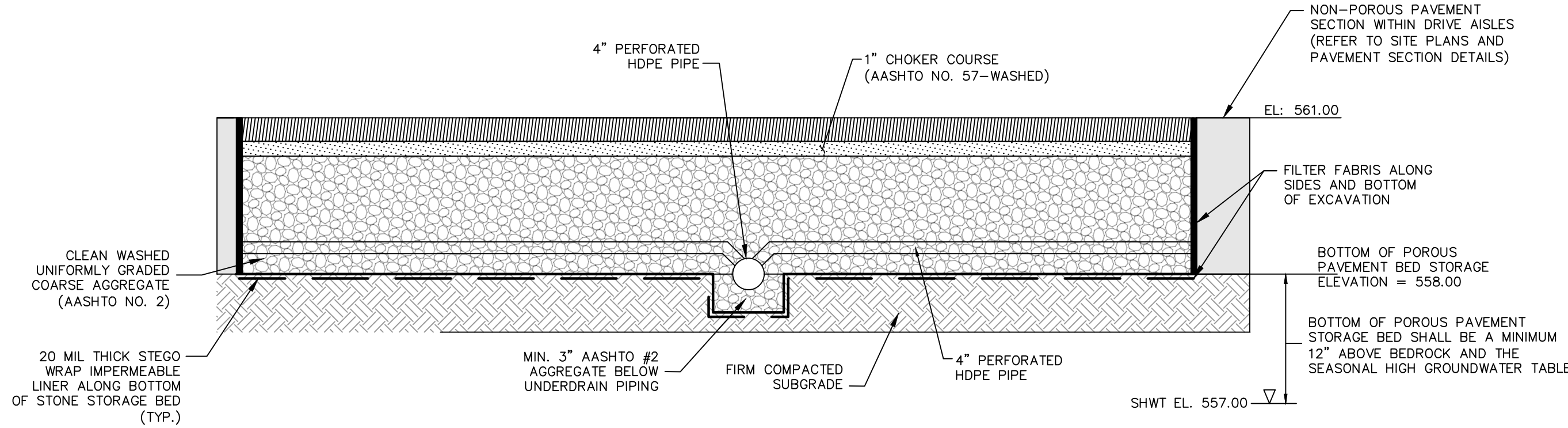
DETAILS II

Project No. **001039208**
Date **01/17/2024**
Drawn By **RB**
Checked By **TD/GED**

CS502



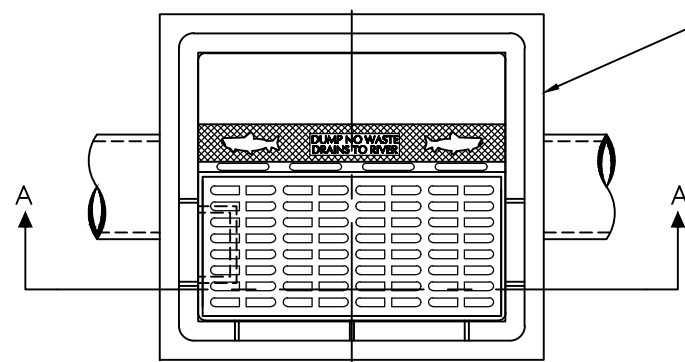
PLAN VIEW



SECTION A-A'

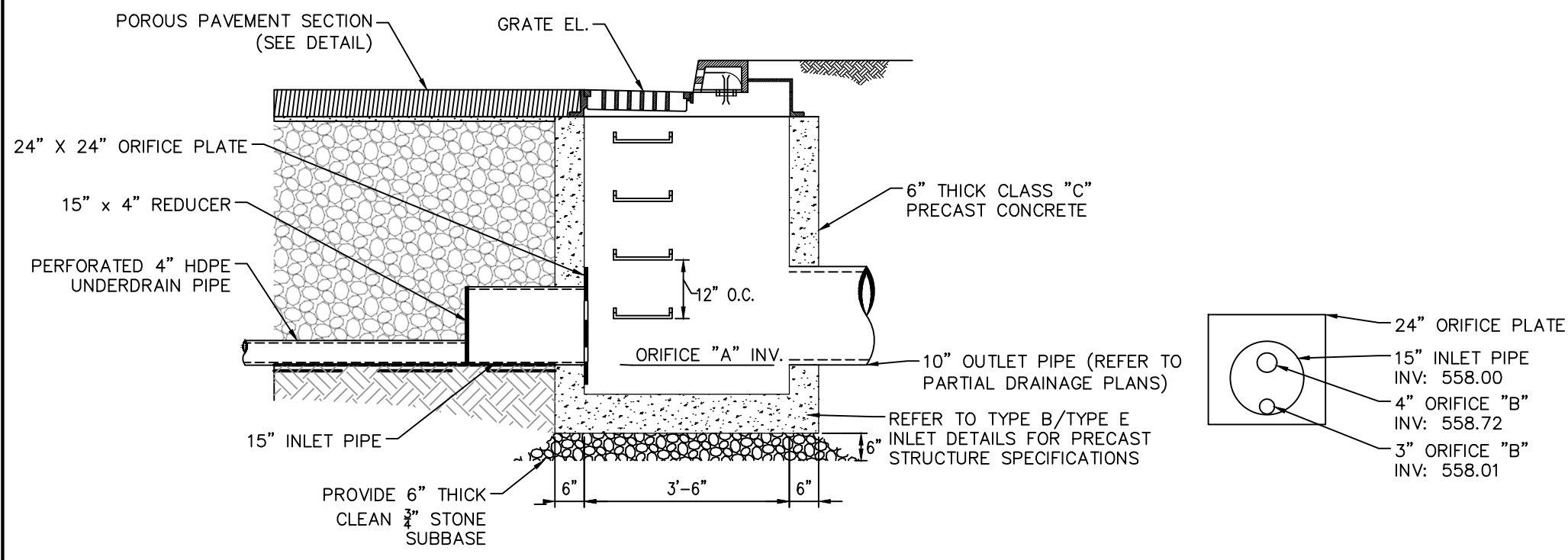
N.T.S.

TYPICAL POROUS PAVEMENT CROSS SECTION DETAIL



PLAN VIEW

	ORIFICE "A"		ORIFICE "B"		INLET PIPE		OUTLET PIPE		GRATE EL.
	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	
OCS-101	3" DIA.	558.01	4" DIA.	558.72	12" HDPE	558.00	18" HDPE	558.00	561.00

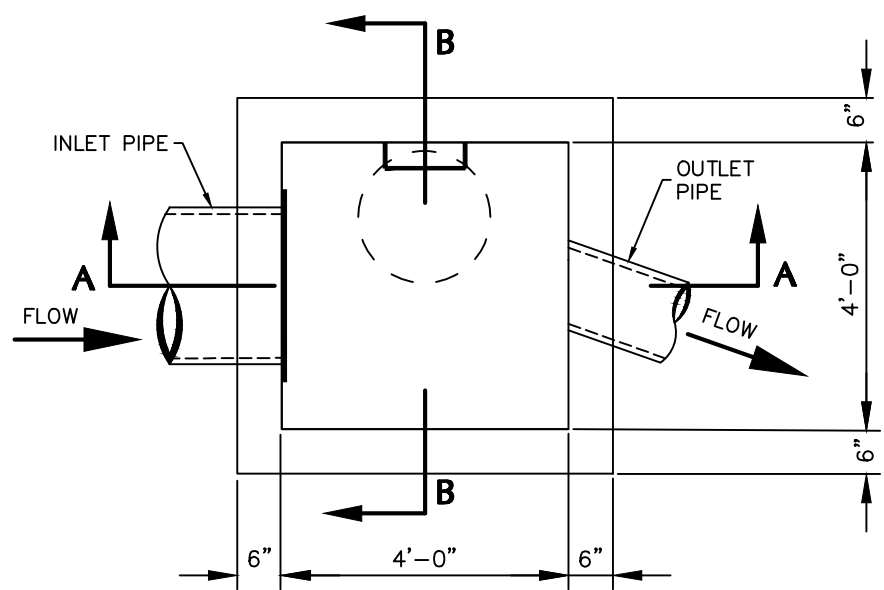


SECTION A-A

ORIFICE PLATE

N.T.S.

POROUS PAVEMENT SYSTEM OUTLET CONTROL STRUCTURE

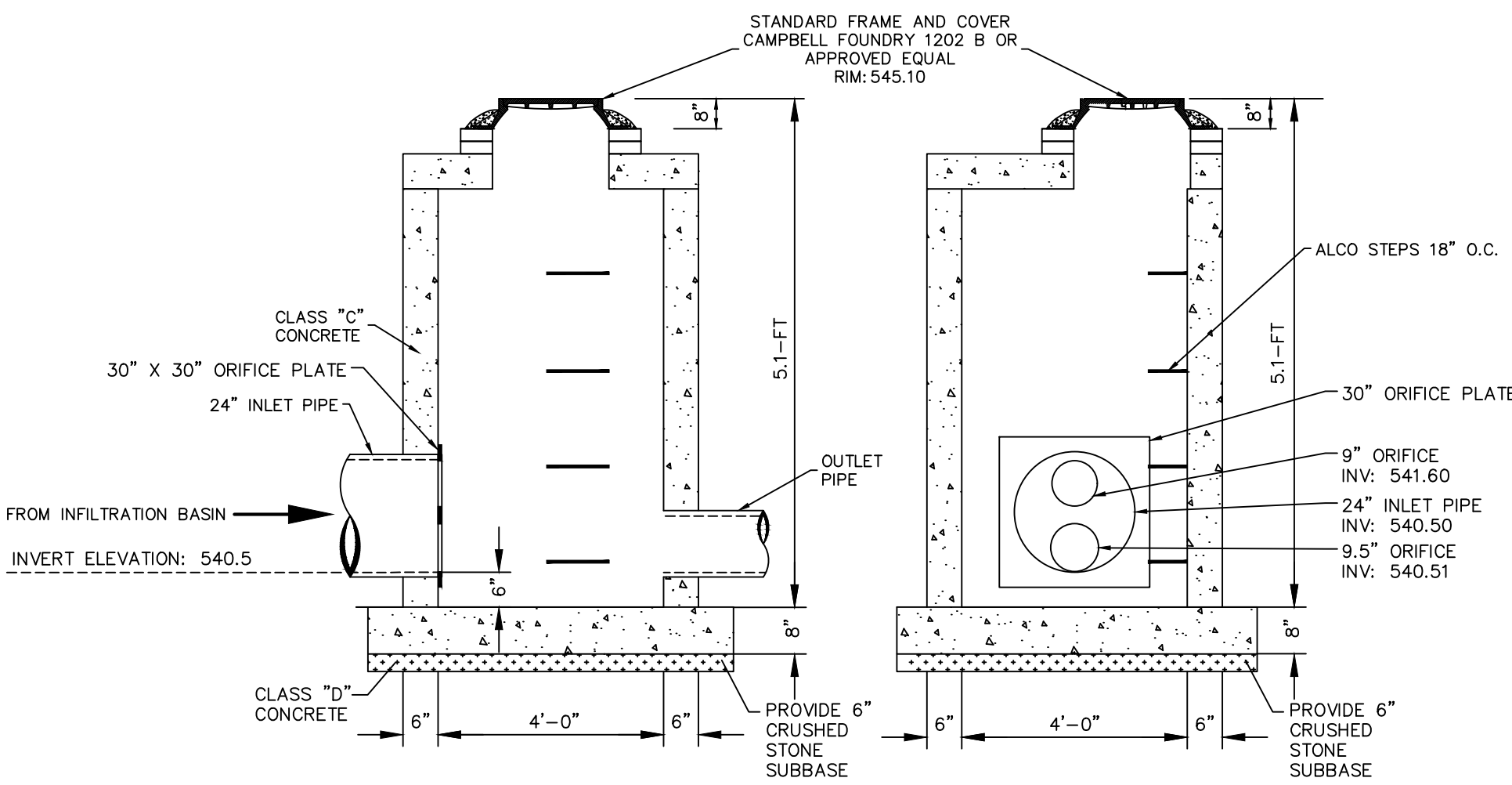


PLAN

GENERAL NOTES

- FOOTER AND INVERT TO BE NJDOT CLASS "C" CONCRETE.
- IF WALL CONSTRUCTION OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
- CASTING TO BE CAMPBELL FOUNDRY NO. 1202B OR EQUIVALENT.
- PROVIDE ALUMINUM ALCO STEPS 6061T6 18" O.C. IN CATCH BASIN OVER 4' IN DEPTH. MAX. DIST. BETWEEN BOTTOM STEP AND BOTTOM OF INLET SHALL BE 18".
- WHEN ADDITIONAL DEPTH IS SCHEDULED WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET OUTER TO INVERT, SHALL BE 12" THICK IF CONCRETE OR DOUBLE BLOCK IF BLOCK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
- SHALL MEET NJDOT STANDARDS AND H20 LOADING

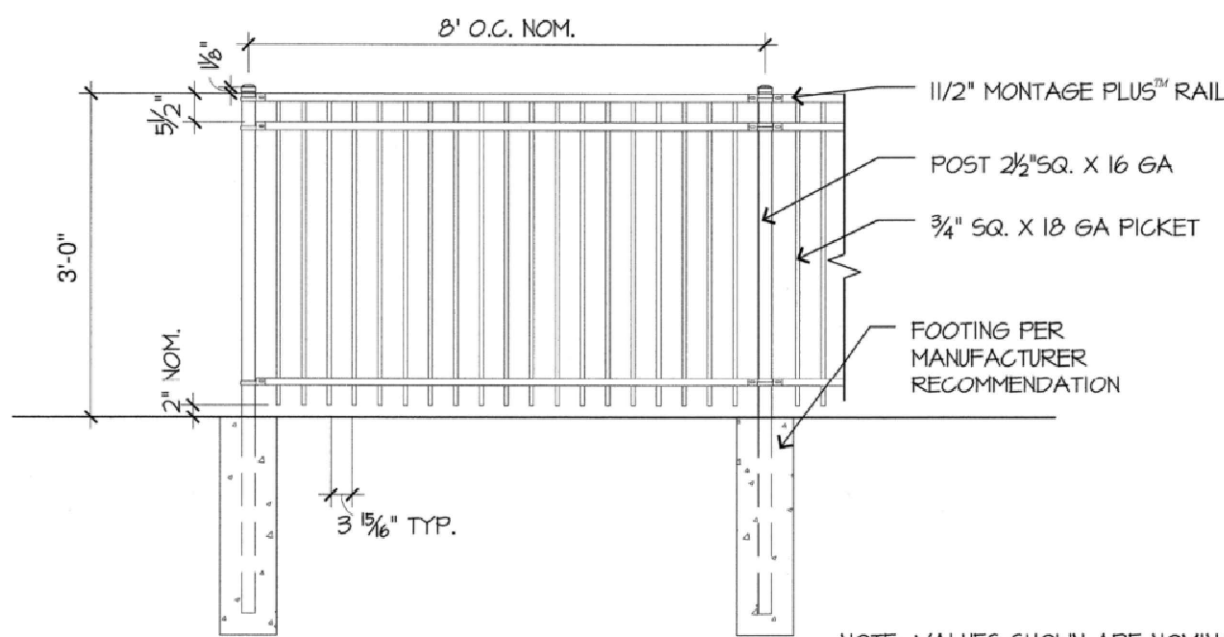
	ORIFICE "A"		ORIFICE "B"		INLET PIPE		OUTLET PIPE		GRATE EL.
	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	
OCS-201	9.5" HDPE	540.51	9" HDPE	541.60	24" HDPE	540.50	12" HDPE	540.50	545.10



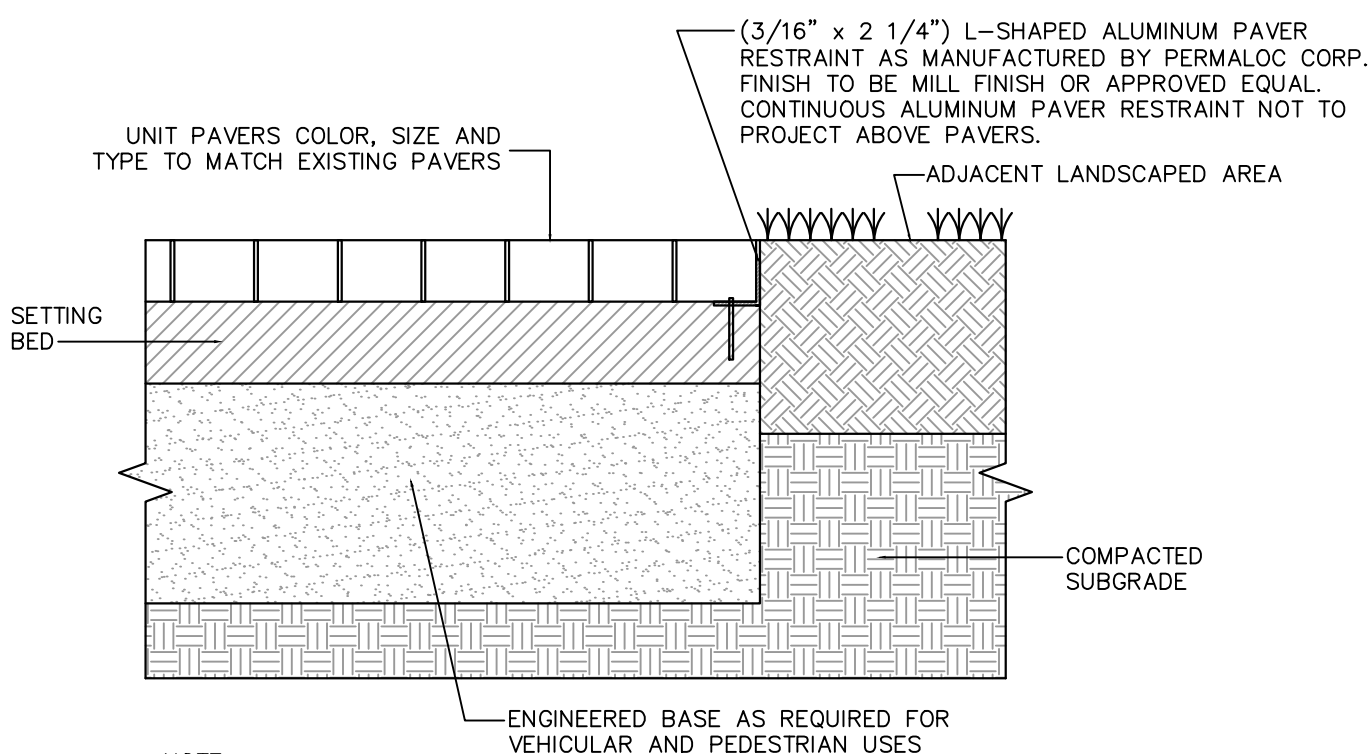
SECTION A-A

SECTION B-B

UNDERGROUND INFILTRATION BASIN OUTLET CONTROL STRUCTURE



3' HIGH METAL FENCE



NOTE:
PAVER EDGE RESTRAINT TO INCLUDE STEEL EDGING FLUSH CURB AND RAISED CURB.

PAVERS

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

Michael J. Fowler 5/3/2024
SIGNATURE MICHAEL J. FOWLER DATE SIGNED
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03239800

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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400

Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

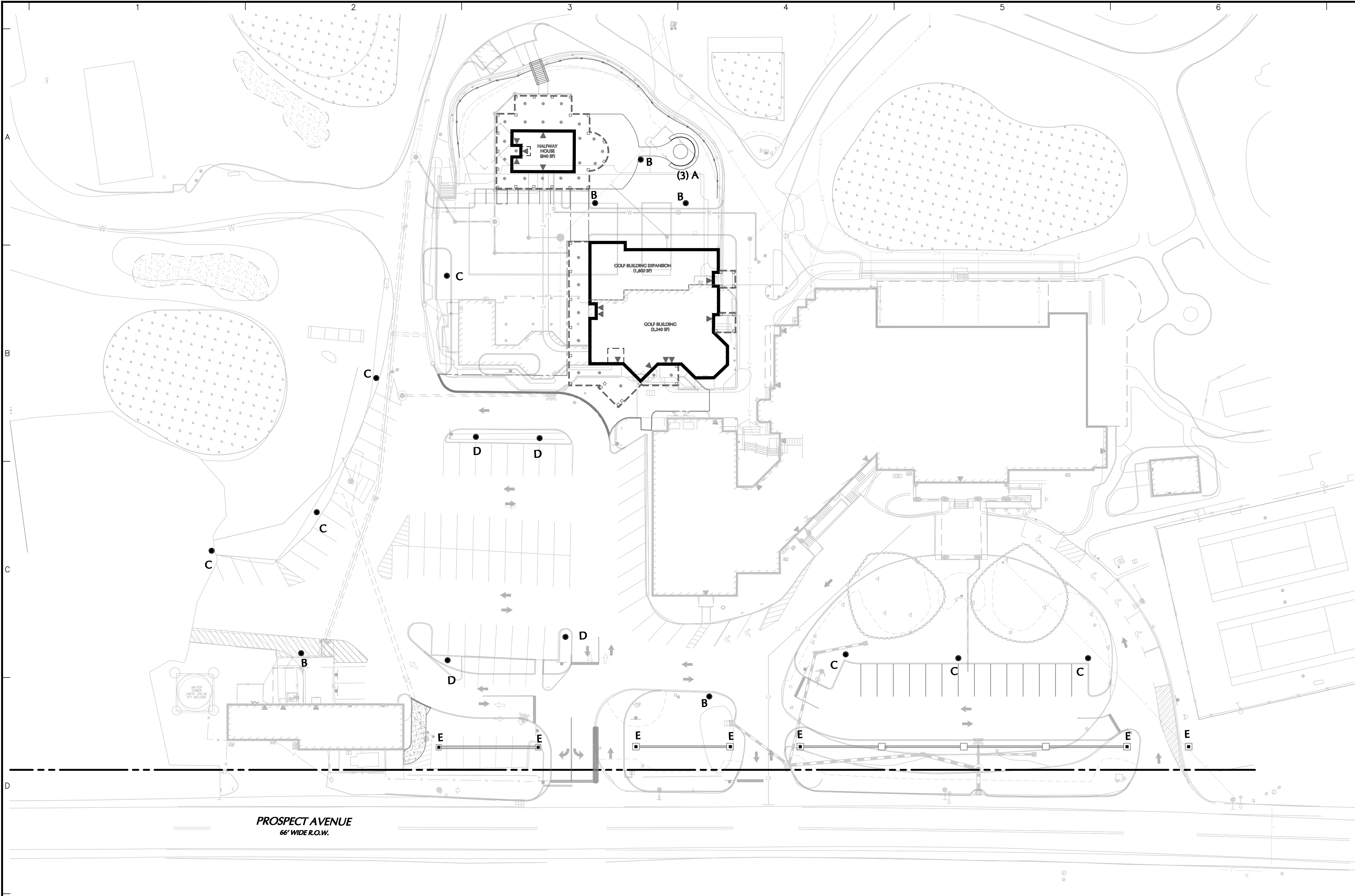
WEST ORANGE NEW JERSEY

ESSEX COUNTY

Drawing Title

DETAILS III

Project No.	CS503
001039208	
Date	
01/17/2024	
Drawn By	RB
Checked By	
TD/GED	



SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	OPTICS	LUMENS	LLF	COLOR TEMPERATURE	IES FILE	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
---	A	3	BK LIGHTING	YUKON LED (INDIRECT)	STEP-LIGHT FOR SEAT WALL; COLOR - BLACK	0'-9"	LED	--	348	0.92	3000K	YK-LED-A4080-WHP-S0-S0-B1-010-MT-PROTOTYPE .IES	YK-LED-A4080-WHP-S0-S0-B1-010-MT-PROTOTYPE .IES				
•	B	5	EATON LIGHTING	UTLD-AF TRADITIONAIRE LED	POST-TOP SINGLE AREA LIGHT FIXTURE; COLOR - BLACK	11'-6"	LED	TYPE 4 WIDE WITH HOUSE SIDE SHIELD	1,709	0.92	3000K	UTLD-AF24-20-D-U-T4W-7030-HSS .IES	UTLD-AF24-20-D-VOLTS-T4W-7030-HSS	EATON LIGHTING	ROUND STRAIGHT STEEL POLE; COLOR - BLACK	10'-0"	RSS-4-A-10-S-Y-9-X-X-E-G
•	C	7	EATON LIGHTING	UTLD-AF TRADITIONAIRE LED	POST-TOP SINGLE AREA LIGHT FIXTURE; COLOR - BLACK	16'-6"	LED	TYPE 4 WIDE WITH HOUSE SIDE SHIELD	6,137	0.92	3000K	UTLD-AF24-90-D-U-T4W-7030-HSS .IES	UTLD-AF24-90-D-VOLTS-T4W-7030-HSS	EATON LIGHTING	ROUND STRAIGHT STEEL POLE; COLOR - BLACK	15'-0"	RSS-4-A-15-S-Y-9-X-X-E-G
•	D	4	EATON LIGHTING	UTLD-AF TRADITIONAIRE LED	POST-TOP SINGLE AREA LIGHT FIXTURE; COLOR - BLACK	16'-6"	LED	TYPE 5 WIDE	8,717	0.92	3000K	UTLD-AF24-90-D-U-5WQ-7030 .IES	UTLD-AF24-90-D-VOLTS-T4W-7030-HSS	EATON LIGHTING	ROUND STRAIGHT STEEL POLE; COLOR - BLACK	15'-0"	RSS-4-A-15-S-Y-9-X-X-E-G
■	E	7	EATON LIGHTING	LXINGTON LED	PIER-TOP SINGLE AREA LIGHT FIXTURE; COLOR - BLACK	5'-0" AFG	LED	TYPE 5 WIDE	2,466	0.92	3000K	LXF.LXT-AF24-20-D-U-5WQ-7030 .IES	LXT-AF24-20-D-VOLTS-5WQ-7030		SQUARE BASE COVER FOR MOUNTING ON PIER		

- NOTES:
- REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES.
 - CONTRACTOR TO CONFIRM CONTROLS SYSTEM REQUIRED BY THE OWNER AND PER CODE. BID PRICING SHALL INCLUDE CONTROL SYSTEM.
 - PROVISION FOR GFCI CONVENIENCE OUTLET TO BE FACTORY INSTALLED AT 12 INCHES BELOW TOP OF POLE. CONTRACTOR TO PROVIDE A GFCI RECEPTACLE FOR EACH POLE.

NOTES:

- REFER TO SHEETS LL102 AND LL103 FOR PARTIAL LIGHTING PLANS.
- REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.

ORDINANCE COMPLIANCE CHART

ORDINANCE SECTION	ORDINANCE REQUIREMENT	PROPOSED	COMPLIANCE
LIGHTING	25-14.2	MINIMUM ILLUMINATION LEVEL OF 0.5 FOOTCANDLES TO BE PROVIDED FOR PARKING AREAS.	MINIMUM ILLUMINATION LEVEL OF 0.5 FOOTCANDLES IN PARKING AREAS
	25-14.2	MINIMUM ILLUMINATION LEVEL OF 0.4 FOOTCANDLES TO BE PROVIDED FOR PEDESTRIAN WALKWAYS.	MINIMUM ILLUMINATION LEVEL OF 1.0 FOOTCANDLES IN PEDESTRIAN WALKWAYS

STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX/MIN.	AVG/MIN.
PARKING	1.3 fc	5.3 fc	0.5 fc	10.6:1	2.6:1
WALKWAY	1.6 fc	2.2 fc	1.0 fc	2.2:1	1.6:1

NOTES:
1. LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO REMAIN ARE NOT INCLUDED IN THE ABOVE STATISTICS.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

Michael Szura
SIGNATURE MICHAEL SZURA DATE SIGNED
CERTIFIED LANDSCAPE ARCHITECT NJ Lic. No. 21AS00081500

LANGAN
Langan Engineering and Environmental Services, LLC.

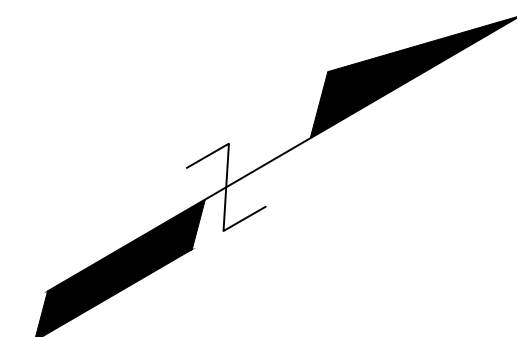
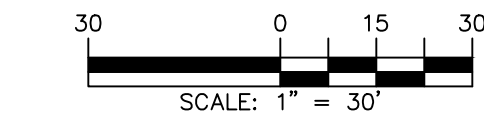
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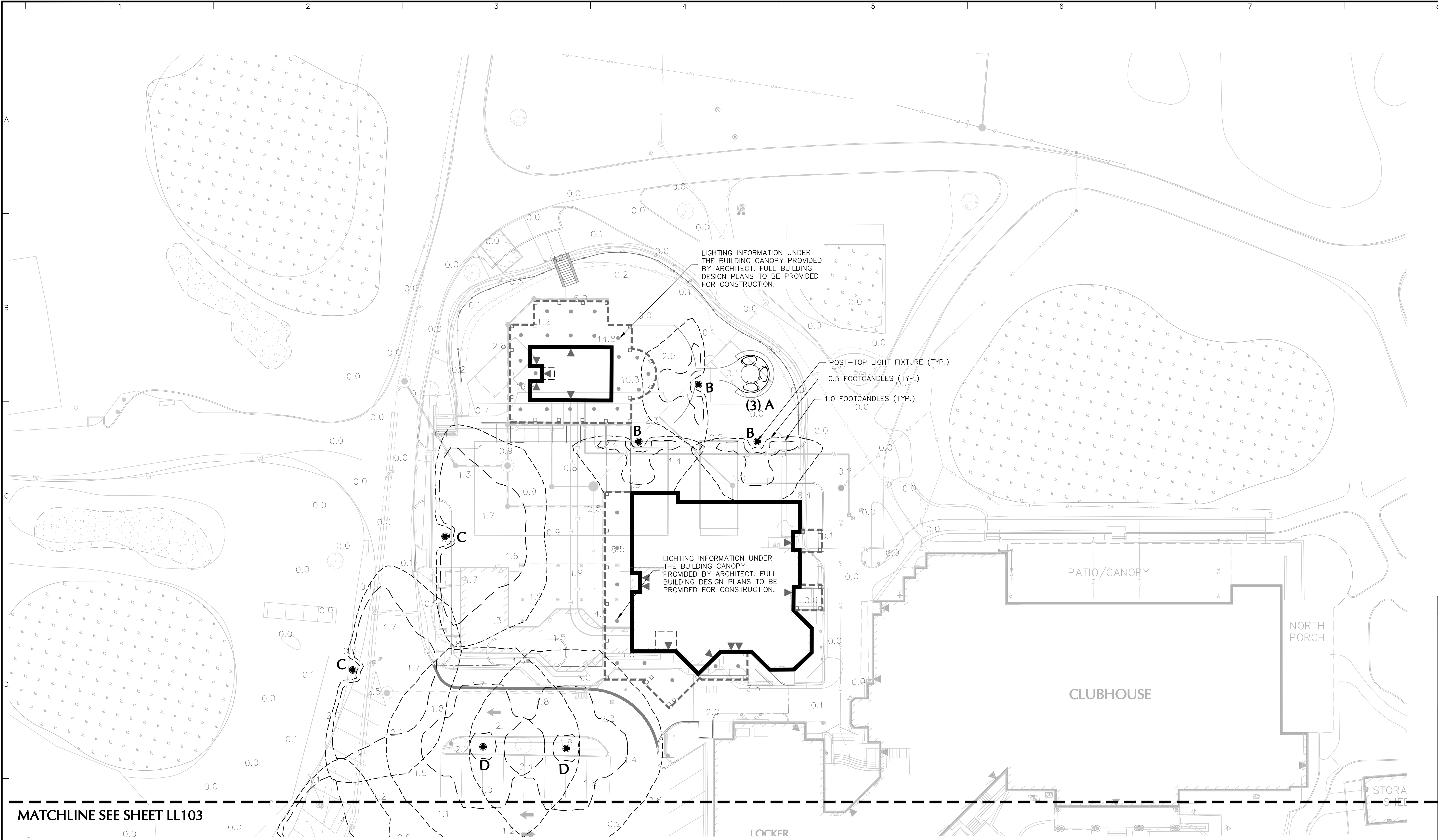
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Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**
WEST ORANGE NEW JERSEY
ESSEX COUNTY
Drawing Title

OVERALL LIGHTING PLAN

Project No.	001039208	LL101
Date	01/17/2024	
Drawn By	GR	
Checked By	DB	

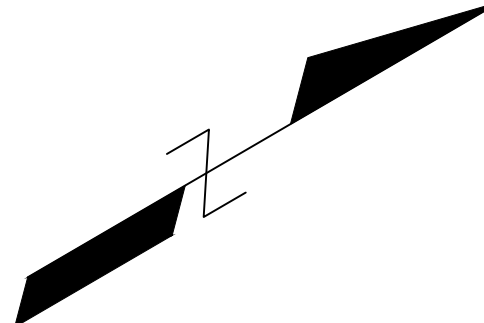
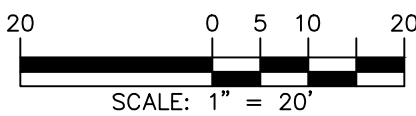


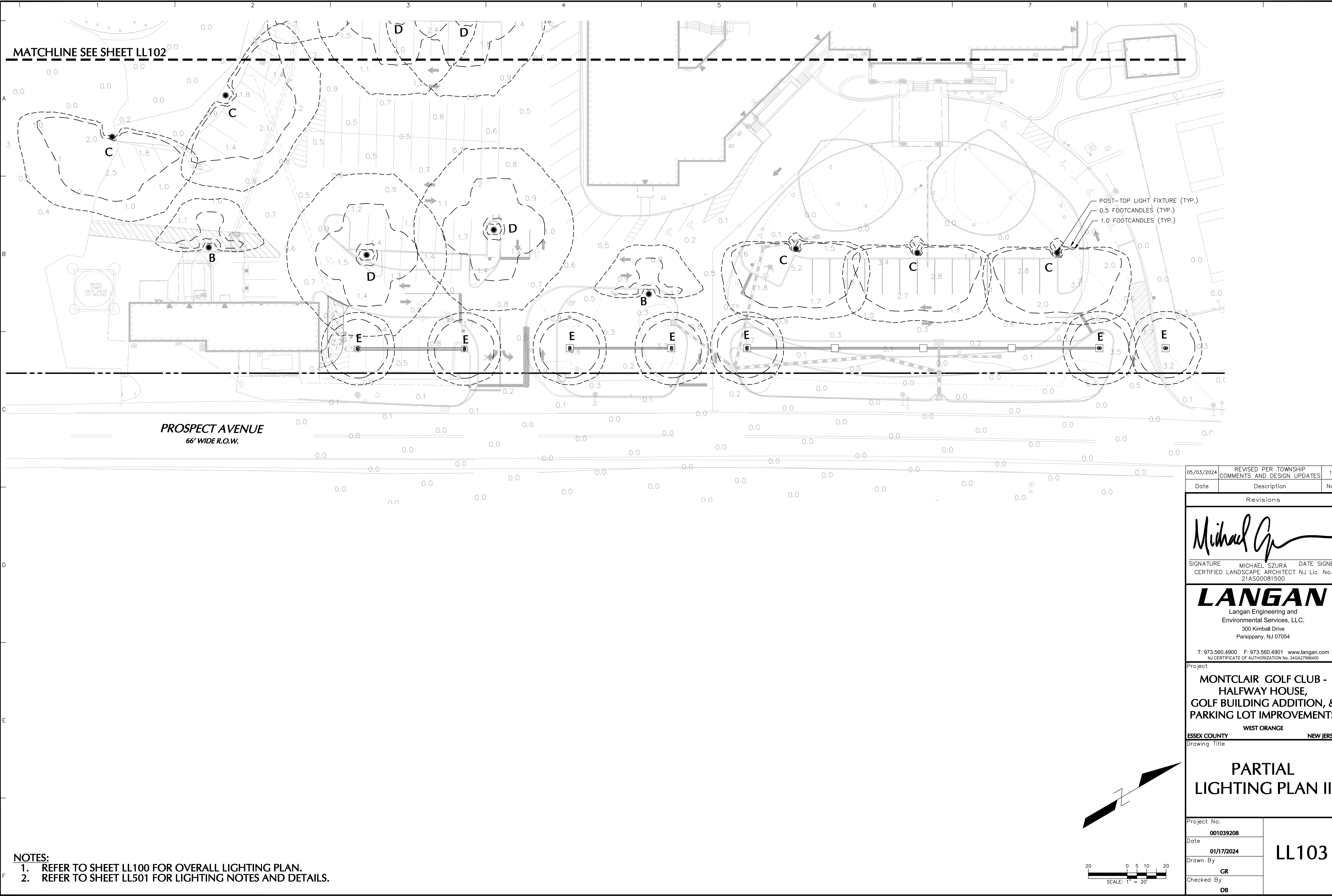


MATCHLINE SEE SHEET LL103

- NOTES:
- REFER TO SHEET LL100 FOR OVERALL LIGHTING PLAN.
 - REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.
Revisions		
		
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Project		
MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS WEST ORANGE NEW JERSEY		
Drawing Title		
PARTIAL LIGHTING PLAN I		
Project No.		LL102
001039208		
Date		
01/17/2024		
Drawn By		GR
Checked By		DB





MATCHLINE SEE SHEET LL102

PROSPECT AVENUE
66' WIDE R.O.W.

POST-TOP LIGHT FIXTURE (TYP.)
0.5 FOOTCANDLES (TYP.)
1.0 FOOTCANDLES (TYP.)

- NOTES:
- REFER TO SHEET LL100 FOR OVERALL LIGHTING PLAN.
 - REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

Michael Szura
SIGNATURE MICHAEL SZURA DATE SIGNED
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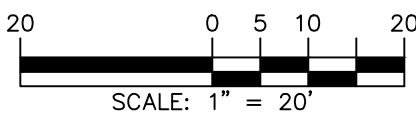
Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

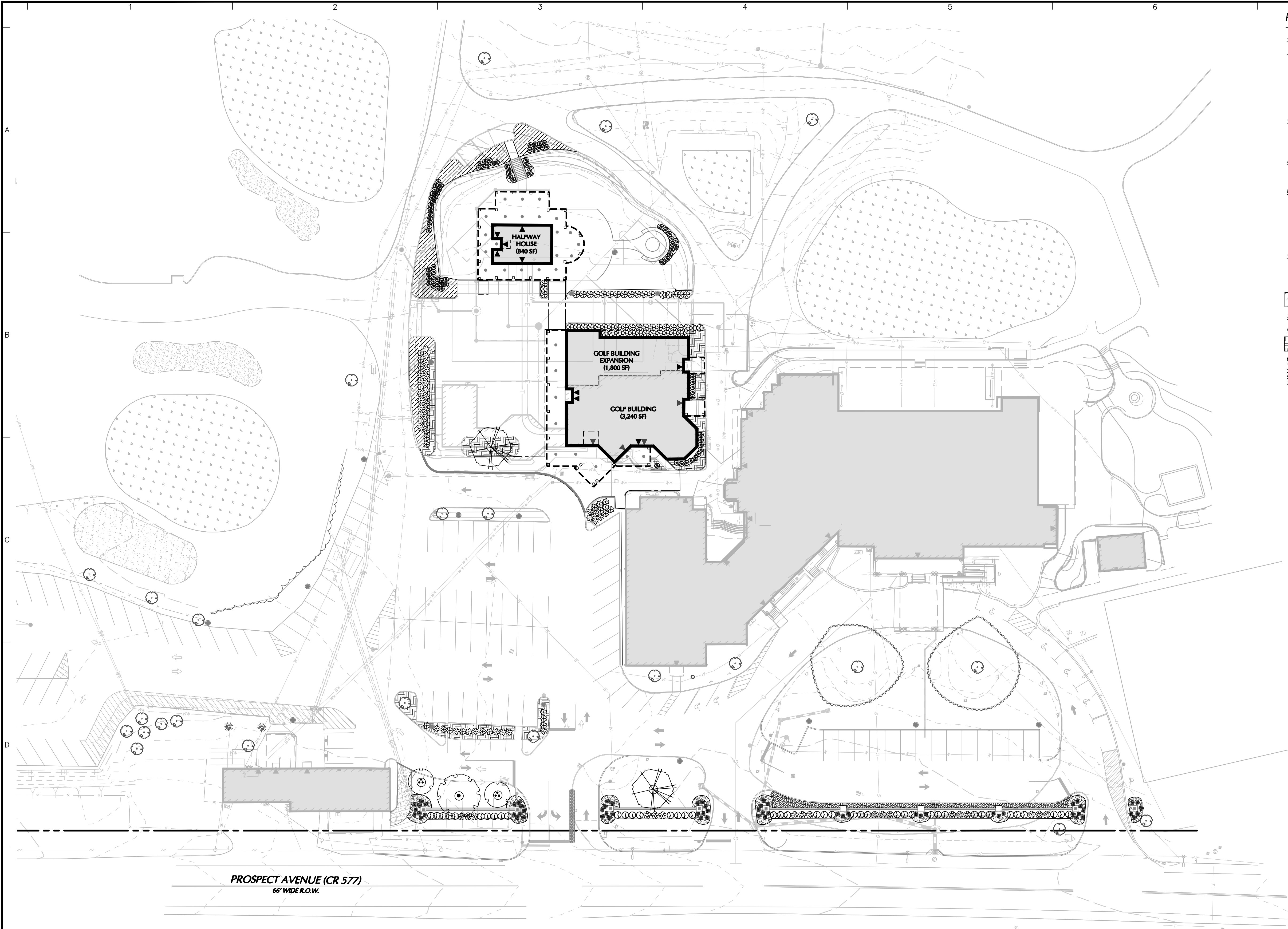
ESSEX COUNTY NEW JERSEY

Drawing Title

**PARTIAL
LIGHTING PLAN II**

Project No. 001039208	LL103
Date 01/17/2024	
Drawn By GR	
Checked By DB	



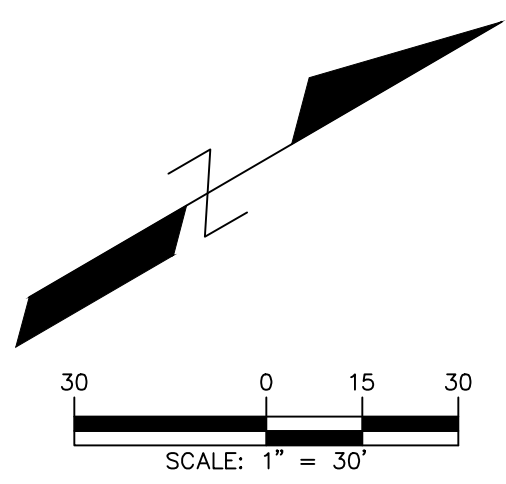


PLANT SCHEDULE - OVERALL					
SYMBOL	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
TREES					
	ARF	1	ACER RUBRUM 'FRANKSRED' TM / RED SUNSET MAPLE	5-5 1/2" CAL.	B4B
	LSR	2	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' / SEEDLESS SWEETGUM	5-5 1/2" CAL.	B4B
ORNAMENTAL TREES					
	CG	2	CERCIS CANADENSIS / EASTERN REDBUD MULTI-TRUNK	8-10' HT	B4B
DECIDUOUS SHRUBS					
	EG	56	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	5 GAL.	CONTAINER
EVERGREEN SHRUBS					
	JHEH	42	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	24-36" SPRD.	3 GAL.
	MD	18	MICROBIOTA DECUSSATA / RUSSIAN CYPRESS	18-24" SPRD.	3 GAL.
	RHU	53	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	18-24" SPRD.	3 GAL.
ORNAMENTAL GRASS					
	AND	86	ANDROPOGON VIRGINICUS / BROOKSIDE BLUESTEM	3 GAL.	CONTAINER
	SSGO	226	SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM	2 GAL.	CONTAINER
GROUND COVERS					
	LM	642	LIRIOPE MUSCARI / LILYTURF	1 GAL.	CONTAINER 12" o.c.
NOTES:					
1. IF ANY DISCREPANCIES OCCUR BETWEEN PLANT QUANTITIES SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.					
2. ALL LANDSCAPE AREAS ADJACENT TO BUILDINGS, WITHIN PARKING LOTS, AT PARKING PERIMETERS, AND BERMS SHALL BE PERMANENTLY IRRIGATED VIA AUTOMATIC SYSTEM. CONTRACTOR SHALL PROVIDE ADD/ALTERNATE BID FOR REMAINING LANDSCAPE AREAS ON SITE FOR OWNER CONSIDERATION.					
3. CONTRACTOR TO CONFIRM LIMITS OF IRRIGATION WITH OWNER PRIOR TO BID.					

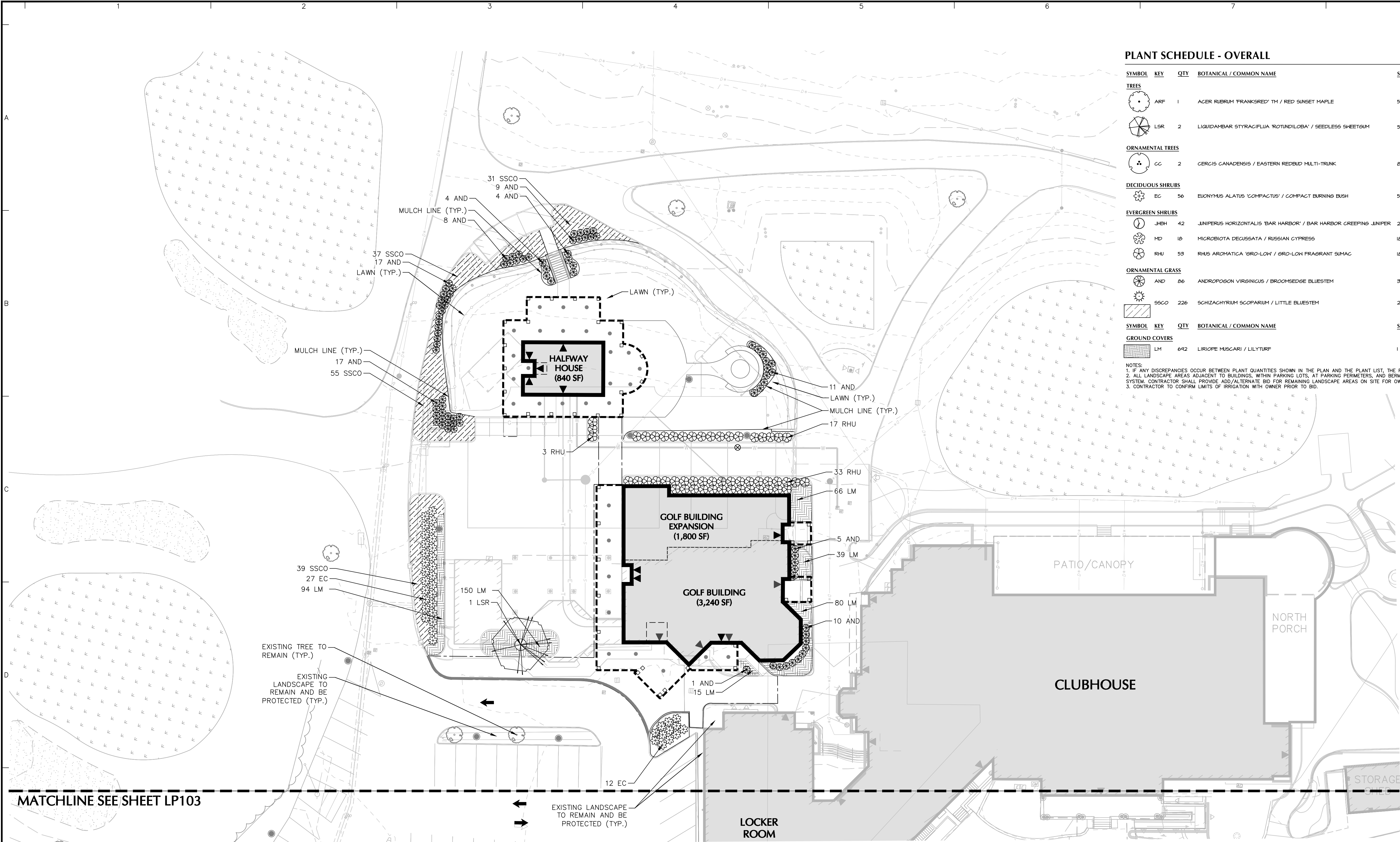
COMPLIANCE CHART - TOWNSHIP OF WEST ORANGE, NJ

SECTION		REQUIREMENT	PROPOSED	COMPLIANCE
§ 25-12 PARKING AND LOADING SPACE REQUIREMENTS.	1.E	ANY PARKING AREA SHALL BE SCREENED ON ANY SIDE WHICH ADJOINS OR FACES PREMISES SITUATED IN ANY RESIDENCE DISTRICT BY A FENCE, WALL, BERM, EVERGREEN OR HEDGE MAINTAINED IN GOOD CONDITION AS REQUIRED.	SEE LANDSCAPE PLANS AND PLANT SCHEDULE.	COMPLIES
	1.O.	LANDSCAPED PLANS SHALL BE SUBMITTED FOR DETAILED PLANTING WITHIN THE PARKING AREA. IN PARKING AREAS WITH 30 OR MORE PARKING SPACES, THERE SHALL BE A MINIMUM OF ONE TREE PLUS GROUND LEVEL PLANTING FOR EACH 10 PARKING STALLS, WHICH MAY BE PROVIDED WITHIN AND/OR ON THE PERIMETER OF THE PARKING AREA. THE MAXIMUM LENGTH OF A SINGLE ROW OF PARKING SPACES SHALL BE 20 SPACES, AT WHICH POINT A LANDSCAPED AREA WITH A MINIMUM WIDTH OF EIGHT FEET SHALL BE PROVIDED.	SEE LANDSCAPE PLANS AND PLANT SCHEDULE. 2 PROPOSED TREES FOR 15 NEWLY PROPOSED PARKING SPACES.	COMPLIES

- NOTES:
- REFER TO SHEETS LP102 & LP103 FOR PARTIAL LANDSCAPE PLANS.
 - REFER TO SHEET LP501 FOR LANDSCAPE NOTES AND DETAILS.



05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.
Revisions		
SIGNATURE MICHAEL SZURA DATE SIGNED CERTIFIED LANDSCAPE ARCHITECT NJ Lic. No. 21AS00081500		
LANGAN Langan Engineering and Environmental Services, LLC. 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400		
Project MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS WEST ORANGE NEW JERSEY		
ESSEX COUNTY Drawing Title OVERALL LANDSCAPE PLAN		
Project No. 001039208	LP101	
Date 01/17/2024		
Drawn By IZ		
Checked By DB		



PLANT SCHEDULE - OVERALL

SYMBOL	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
TREES					
	ARF	1	ACER RUBRUM 'FRANKSRED' TM / RED SUNSET MAPLE	5-5 1/2" CAL.	B4B
	LSR	2	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' / SEEDLESS SHEETGUM	5-5 1/2" CAL.	B4B
ORNAMENTAL TREES					
	CC	2	CERCIS CANADENSIS / EASTERN REDBUD MULTI-TRUNK	8-10" HT	B4B
DECIDUOUS SHRUBS					
	EC	56	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	5 GAL.	CONTAINER
EVERGREEN SHRUBS					
	JEH	42	JUNIFERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIPER	24-36" SPRD.	3 GAL.
	MD	18	MICROBIOTA DECUSSATA / RUSSIAN CYPRESS	18-24" SPRD.	3 GAL.
	RHU	53	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	18-24" SPRD.	3 GAL.
ORNAMENTAL GRASS					
	AND	86	ANDROPOGON VIRGINICUS / BROOMSEDGE BLUESTEM	3 GAL.	CONTAINER
	SSGO	226	SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM	2 GAL.	CONTAINER
GROUND COVERS					
	LM	642	LIRIOPE MUSCARI / LILYTURF	1 GAL.	CONTAINER 18" o.c.

NOTES:
1. IF ANY DISCREPANCIES OCCUR BETWEEN PLANT QUANTITIES SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
2. ALL LANDSCAPE AREAS ADJACENT TO BUILDINGS, WITHIN PARKING LOTS, AT PARKING PERIMETERS, AND BERMS SHALL BE PERMANENTLY IRRIGATED VIA AUTOMATIC SYSTEM. CONTRACTOR SHALL PROVIDE ADD/ALTERNATE BID FOR REMAINING LANDSCAPE AREAS ON SITE FOR OWNER CONSIDERATION.
3. CONTRACTOR TO CONFIRM LIMITS OF IRRIGATION WITH OWNER PRIOR TO BID.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.
Revisions		
SIGNATURE MICHAEL SZURA DATE SIGNED		
CERTIFIED LANDSCAPE ARCHITECT NJ Lic. No. 21AS00081500		
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Project

**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

WEST ORANGE NEW JERSEY

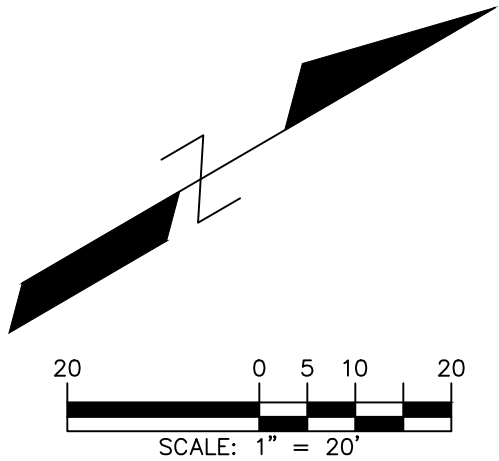
ESSEX COUNTY

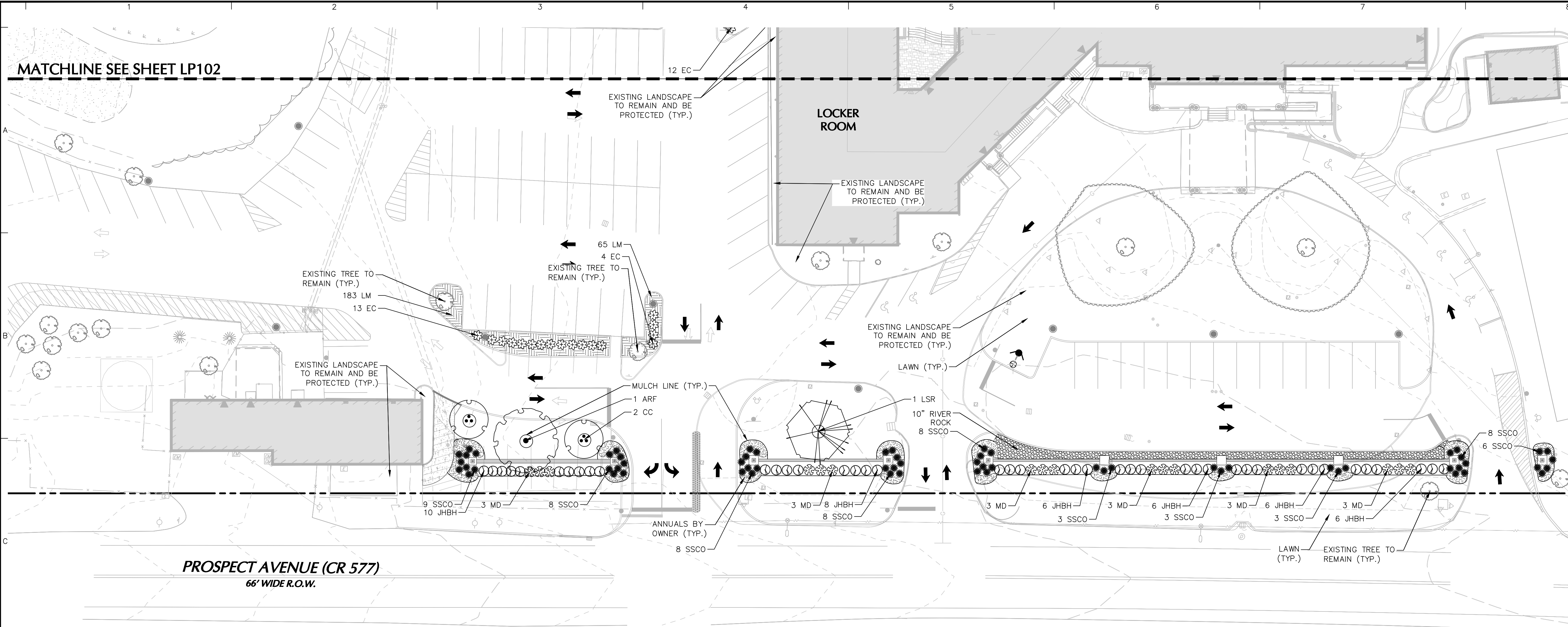
Drawing Title

**PARTIAL
LANDSCAPE PLAN I**

Project No.	LP102
001039208	
Date	
01/17/2024	
Drawn By	IZ
Checked By	DB

NOTES:
1. REFER TO SHEET LP100 FOR OVERALL LANDSCAPE PLAN.
2. REFER TO SHEET LP501 FOR LANDSCAPE NOTES AND DETAILS.





PLANT SCHEDULE - OVERALL

SYMBOL	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT
TREES					
	ARF	1	ACER RUBRUM 'FRANKSRED' TM / RED SUNSET MAPLE	5-5 1/2" GAL.	B4B
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ORNAMENTAL TREES					
	CC	2	CERCIS CANADENSIS / EASTERN REDBUD MULTI-TRUNK	8-10" HT	B4B
DECIDUOUS SHRUBS					
	EC	56	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	5 GAL.	CONTAINER
EVERGREEN SHRUBS					
	JHBH	42	JUNIPERUS HORIZONTALIS 'BAR HARBOR' / BAR HARBOR CREEPING JUNIFER	24-36" SPRD.	3 GAL.
	MD	18	MICROBIOTA DECUSATA / RUSSIAN CYPRESS	18-24" SPRD.	3 GAL.
	RHU	53	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	18-24" SPRD.	3 GAL.
ORNAMENTAL GRASS					
	AND	26	ANDROPOGON VIRGINICUS / BROOMSEDGE BLUESTEM	3 GAL.	CONTAINER
	SSCO	226	SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM	2 GAL.	CONTAINER
GROUND COVERS					
	LM	642	LIRIOPE MUSCARI / LILYTURF	1 GAL.	CONTAINER 18" o.c.

NOTES:
1. IF ANY DISCREPANCIES OCCUR BETWEEN PLANT QUANTITIES SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
2. ALL LANDSCAPE AREAS ADJACENT TO BUILDINGS, WITHIN PARKING LOTS, AT PARKING PERIMETERS, AND BERMS SHALL BE PERMANENTLY IRRIGATED VIA AUTOMATIC SYSTEM. CONTRACTOR SHALL PROVIDE ADD/ALTERNATE BID FOR REMAINING LANDSCAPE AREAS ON SITE FOR OWNER CONSIDERATION.
3. CONTRACTOR TO CONFIRM LIMITS OF IRRIGATION WITH OWNER PRIOR TO BID.

NOTES:
1. REFER TO SHEET LP100 FOR OVERALL LANDSCAPE PLAN.
2. REFER TO SHEET LP501 FOR LANDSCAPE NOTES AND DETAILS.

05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.

Revisions

SIGNATURE MICHAEL SZURA DATE SIGNED
CERTIFIED LANDSCAPE ARCHITECT NJ Lic. No. 21AS00081500

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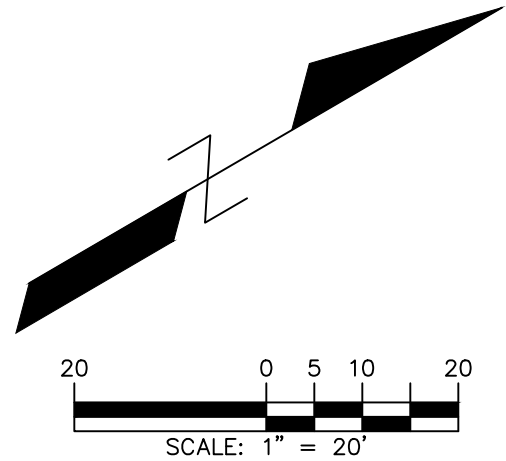
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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27896400

Project
**MONTCLAIR GOLF CLUB -
HALFWAY HOUSE,
GOLF BUILDING ADDITION, &
PARKING LOT IMPROVEMENTS**

ESSEX COUNTY NEW JERSEY
Drawing Title

**PARTIAL
LANDSCAPE PLAN II**

Project No. 001039208	LP103
Date 01/17/2024	
Drawn By IZ	
Checked By DB	



GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAT THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANTS ORIGINAL GRADE. BEFORE DIGGING, PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR, AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES. ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD AND MEET ALL REQUIREMENTS SPECIFIED. ANY TREE THAT LOSES THE MAIN LEADER SHALL BE REPLACED.
4. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND SUBGRADE DRAINAGE OR PERCOLATION CHARACTERISTICS, WHETHER THE SUBGRADE SOLS ARE EXISTING TO REMAIN OR IMPORTED AND PLACED. CONTRACTOR TO ENSURE POSITIVE VERTICAL DRAINAGE THROUGHOUT PLANTED AREAS. DISCREPANCIES SHALL BE ADDRESSED WITH THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANT MATERIALS.
6. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE FINISH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
7. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 - JUNE 15 OR AUGUST 15 - NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.
8. ALL FENCE AND GUIDE RAIL INSTALLATIONS SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND UTILITIES DAMAGE TO THE QUALITY OF CONSTRUCTION. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
10. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1) TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA 2) TO PROTECT OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD 3) TO REPAIR ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE CONSTRUCTION.
11. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
12. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
13. ALL MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER NEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME. DURING PROGRESS OF WORK, THE CONTRACTOR SHALL REMOVE REJECTED MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
14. ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE. ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, MISSING, OR MORE DEAD, WHICH DO NOT COME FROM PLANTING STOCK, THAT APPEAR UNHEALTHY OR UNSIGHTLY AND/OR HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES DEAD, OR REJECTED FOR ANY OTHER REASON (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING PER SPECIFICATIONS TO MAINTAIN HEALTHY PLANT CONDITIONS.
16. DELIVERY, STORAGE, AND HANDLING:
 - a. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETRIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
 - b. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUE FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
 - c. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
 - d. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANTING IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
17. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
18. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
19. CONTRACTOR'S GUARANTEE: ALL PLANTINGS AND PLANTING AREAS SHALL BE PERMANENTLY MAINTAINED. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY MAINTAINING (INCLUDING BUT NOT LIMITED TO: WATERING, PRUNING, SPRAYING, MULCHING, FERTILIZING, ETC.) ALL OF THE PLANT MATERIALS AND LAWN FOR THE DURATION OF THE GUARANTEED PERIOD. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
20. THE CONTRACTOR SHALL KEEP AREA CLEAR DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
21. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24- HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
22. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
23. ALL EXPOSED AREAS SHOULD BE COVERED BY THE CONTRACT LIME LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST. MULCH SHALL BE A FIBROUS SHREDDED HARDWOOD MULCH. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRINGING THE WORK. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
25. LANDSCAPE PRUNING LIST SITE VISITS TO BE PERFORMED BY THE PROJECT LANDSCAPE ARCHITECT, IF UNDER CONTRACT FOR SUCH WORK, WILL NOT BE SCHEDULED UNTIL CONFIRMATION IS RECEIVED THAT ALL PROPOSED LANDSCAPE ITEMS HAVE BEEN INSTALLED, OR DEFICIENCIES NOTED IN THE PRIOR PRUNING LIST REPORT HAVE BEEN CORRECTED. THE PRUNING LIST SITE VISIT WILL THEN BE PERFORMED WITHIN 10 BUSINESS DAYS.
26. CONTRACTOR SHALL ASSESS THE NEED FOR DEER PROTECTION ON SITE. IF DEEMED NECESSARY, SHADE AND ORNAMENTAL TREES SHALL BE PROTECTED THROUGH WINTER WITH SPIRAL WRAP TREE GUARDS, OR APPROVED EQUIV. PROTECTION LENGTH TO BE FROM BELOW THE LOWEST BRANCH AND DOWN TO WITHIN A FEW INCHES OF THE GROUND. THE GUARDS CAN BE REMOVED IN SPRING AND SAVED FOR RE-INSTALLATION DURING FOLLOWING WINTERS AS PART OF A MAINTENANCE PROGRAM. ANY TREE REPLACEMENT REQUIRED BASED ON ANIMAL DAMAGE WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
27. CONTRACTOR SHALL ASSESS THE NEED FOR DEER PROTECTION ON SITE. IF DEEMED NECESSARY, SHADE AND ORNAMENTAL TREES SHALL BE PROTECTED THROUGH WINTER WITH BREATHABLE SPIRAL WRAP TREE GUARDS, OR APPROVED EQUIV. PROTECTION LENGTH TO BE FROM BELOW THE LOWEST BRANCH AND DOWN TO WITHIN A FEW INCHES OF THE GROUND. THE GUARDS CAN BE REMOVED IN SPRING AND SAVED FOR RE-INSTALLATION DURING FOLLOWING WINTERS AS PART OF A MAINTENANCE PROGRAM.
28. ALL SLOPES 3:1 OR GREATER AND ALL SIDE SLOPES OF BASINS SHALL REQUIRE AN EROSION CONTROL BLANKET: ERONET SC150 BY NORTH AMERICAN GREEN, OR APPROVED EQUIV.

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PLANTING SOIL SPECIFICATIONS

1. PLANTING SOIL, ALTERNATIVELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODOORS.
2. PLANTING SOIL:
 - a. REUSE SURFACE SOLS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOIL, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOLS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOLS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.
 - b. SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND EXISTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.
 - c. AT A MINIMUM, PLANTING SOLS MEETING THESE SPECIFICATIONS MAY BE OBTAINED FROM WECARE DENALI, P-888-325-1522, OR APPROVED EQUAL.
 - d. CONTRACTOR SHALL TEST SOLS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER. MATERIALS MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS, SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MOWING, SOIL MATERIALS SHALL BE COVERED WITH A TARP/AULUM UNTIL TIME OF ACTUAL USE.
 - e. ALL PLANTING SOLS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 SQ. YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOLS ARE DEFICIENT IN ANY MANNER, THEY MAY BE CORRECTED BY ADDING AMENDMENTS. THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.
3. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
 - a. WHERE A PERMANENT IRRIGATION SYSTEM IS PLANNED:
 - i. PARTICLE SIZE ANALYSIS - LOAMY SAND: 60-75% SAND, 25-40% SILT, AND 5-15% CLAY.
 - ii. GRAVEL CONTENT (20mm): LESS THAN 10%.
 - iii. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (0.2 TO 1.5 MMHCO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM.
 - iv. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS, UP TO 10% IN AMENDED SOILS.
 - v. TOXIC SUBSTANCE ANALYSIS.
 - vi. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED.
 - vii. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE.
 - b. WHERE NO PERMANENT IRRIGATION IS PLANNED:
 - i. PARTICLE SIZE ANALYSIS - LOAM: 40-65% SAND, 25-60% SILT, AND 5-20% CLAY.
 - ii. GRAVEL CONTENT (20mm): LESS THAN 10%.
 - iii. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (0.2 TO 1.5 MMHCO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM.
 - iv. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS, UP TO 10% IN AMENDED SOILS.
 - v. TOXIC SUBSTANCE ANALYSIS.
 - vi. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED.
 - vii. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE.
4. SOIL AMENDMENT FOR PLANT MATERIAL:
 - a. IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-50% BY WEIGHT 100% PASSING THROUGH 1" SIEVE; SOLUBLE SALT CONTENT LESS THAN 0.5 MM H2O/CM. MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL.
 - b. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60-90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".
 - c. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.
 - d. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
 - i. CEMENT LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PERENDING RESULTS OF SOIL ANALYSIS.
 - ii. BRING PH LEVELS TO 6.5 MIN. TO 6.5 FOR NON-ERICACEOUS PLANTS.
 - iii. BRING PH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS.
 - e. TERRA-SORB BY "PLANT HEALTH CARE" 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
 - f. MYCOR-ROOT SAVER BY "PLANT HEALTH CARE" 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.
5. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOLS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.
6. CLEAR SOIL FILL IN LANDSCAPE AREAS:
 - a. LANDSCAPE FILL MATERIAL, BELOW PLANTING SOLS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 - 7.
 - b. SOIL PLACEMENT:
 - i. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS.
 - ii. SCARIFY AND/OR TILL COMPACTED SUBSOLS TO A MINIMUM DEPTH OF 6 INCHES, THOROUGHLY MIX A 6 INCH DEPTH LAYER OF EXISTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOLS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.
 - iii. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.
 - c. SOIL CONDITIONING:
 - i. ADJUST PH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER PH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED.
 - ii. GROUND LIME OR LIME AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PERENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.
 - d. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
7. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):
 - a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOLS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.
 - b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR CHIPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO INCREASE THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX IMPROVE DRAINAGE IN HEAVY SOLS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
 - c. MODIFY EXTREMELY SANDY SOLS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

SEEDING NOTES

- LAWN AREAS
1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2" DIAMETER.
 2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
 3. SCD SEED MIX #14 SEEDING RATE AT 305 POUNDS PER ACRE:

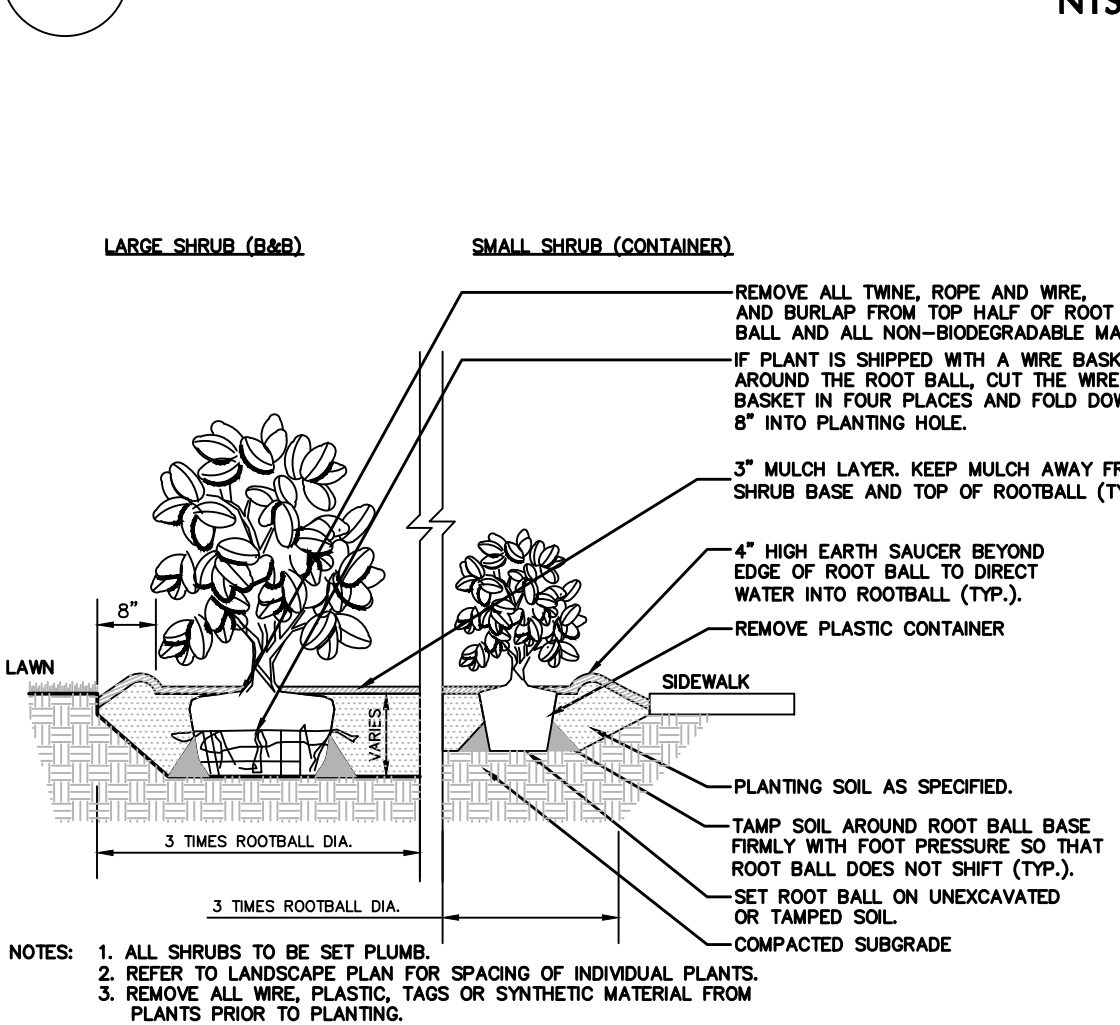
10% DEEPLUE KENTUCKY BLUEGRASS
40% DAKOTA TALL FESCUE
40% TALL FESCUE
10% FRONTIER PERENNIAL RYEGRASS
 4. SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN APRIL 1ST TO JUNE 1ST OR SEPTEMBER 1ST TO NOVEMBER 1ST.
 5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDING AREA UNTIL A STAND OF COVER IS ESTABLISHED AND FOUND ACCEPTABLE TO THE OWNER. SEE LAWN WATERING SCHEDULE NOTES.
- LAWN WATERING SCHEDULE (seed)
- THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.
- IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL PH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.
1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
 2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED, AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
 3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
 4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOT GROWTH.
 5. BEGON MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. NOW TO A HEIGHT OF NO LESS THAN 2-3 INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF AVAILABLE.

LANDSCAPE MAINTENANCE NOTES

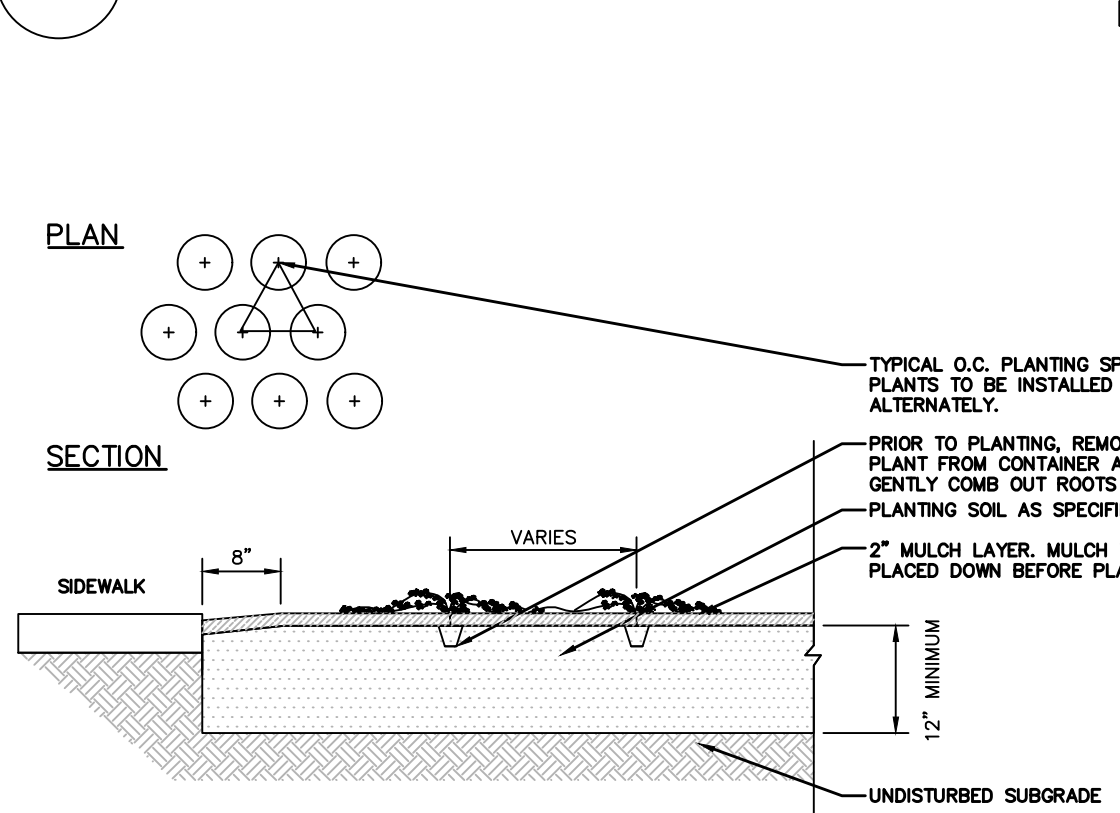
1. MAINTENANCE OPERATIONS BEFORE APPROVAL:
 - a. PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT.
 - b. CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RUNS OR SAUCERS, MAINTAINING STAKES AND GUYS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
 - c. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.
2. MAINTENANCE DURING CONSTRUCTION:
 - a. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, STAKED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL ACCEPTANCE. SETTLING PLANTS SHALL BE RESET TO PROPER GRADE AND PLANTING SAUCER RESTORED AND DEAD MATERIAL REMOVED. STAKES AND WIRES SHALL BE TIGHTENED AND REPAIRED. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.
 - b. IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE TIME REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEMAED ACCEPTABLE BY THE LANDSCAPE ARCHITECT.
 - c. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED. THE COST SHALL BE BORNE BY THE CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CIRCUMFERENCE OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
 - d. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER INSPECTION AND PROVISIONAL ACCEPTANCE.
 - e. AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLACED DURING THE NORMAL PLANTING SEASON.
3. LAWN MAINTENANCE:
 - a. BEGON MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.
 - b. WATER TO KEEP SURFACE SOIL MOIST, REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING, FERTILIZING AND RE-SEEDING. MOW TO 2 1/2 - 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

IRRIGATION CONTRACTOR NOTE:
ALL LANDSCAPE AREAS ADJACENT TO BUILDINGS, WITHIN PARKING LOTS, AND AT PARKING PERMETERS SHALL BE PERMANENTLY IRRIGATED VIA AUTOMATIC SYSTEM. CONTRACTOR SHALL PROVIDE ADD/ALTERNATE BID FOR REMAINING LANDSCAPE AREAS ON SITE FOR OWNER CONSIDERATION.

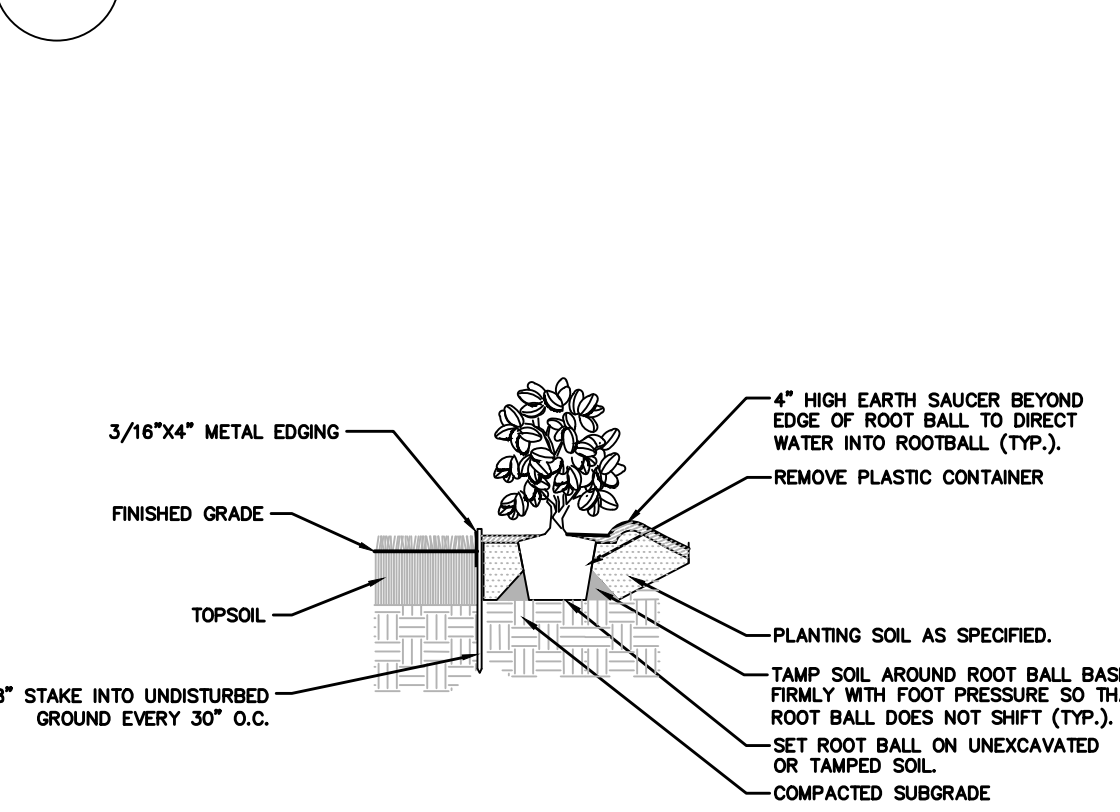
1 DECIDUOUS TREE PLANTING



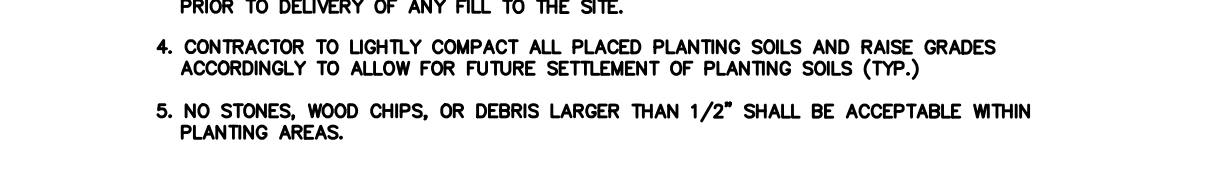
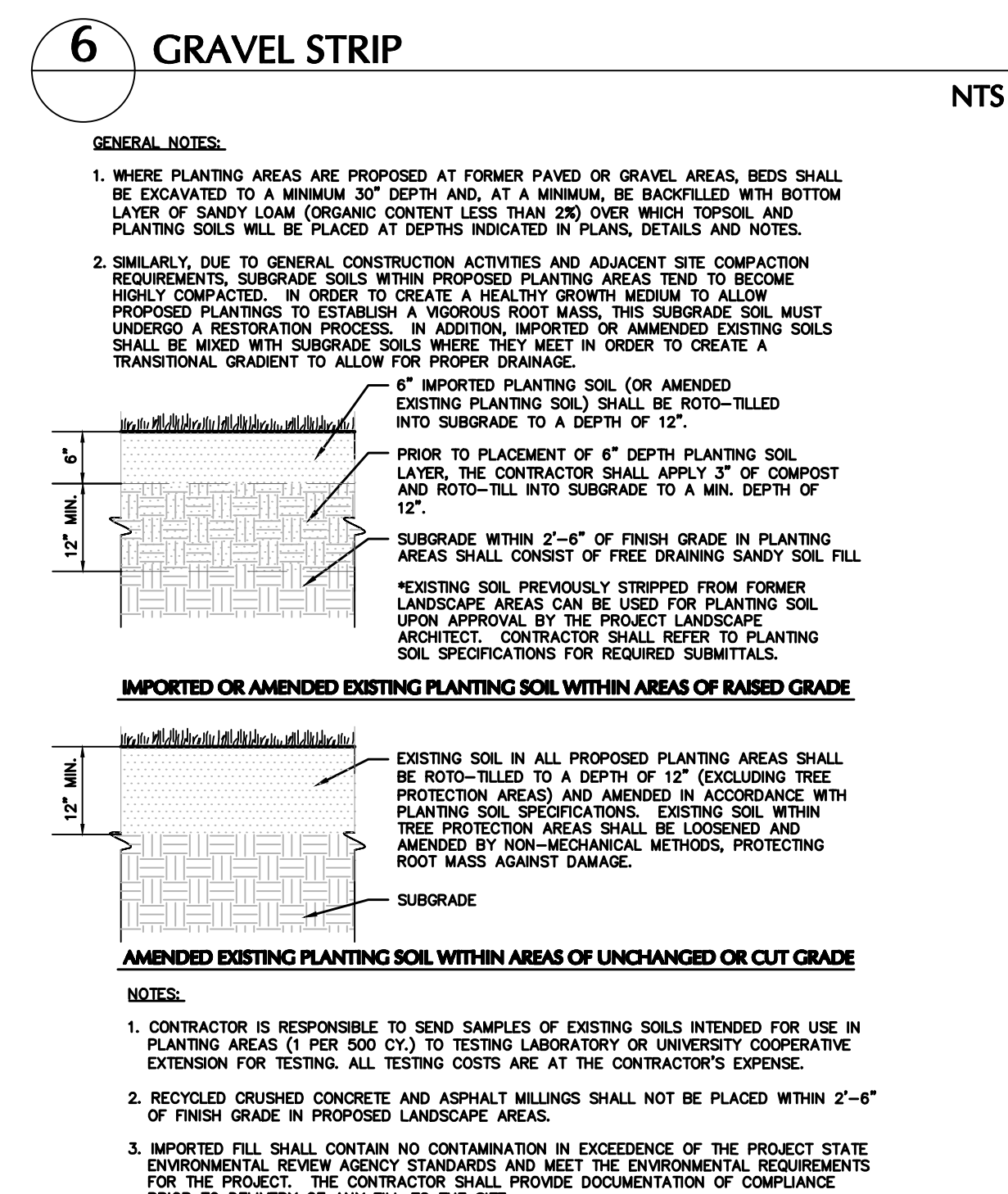
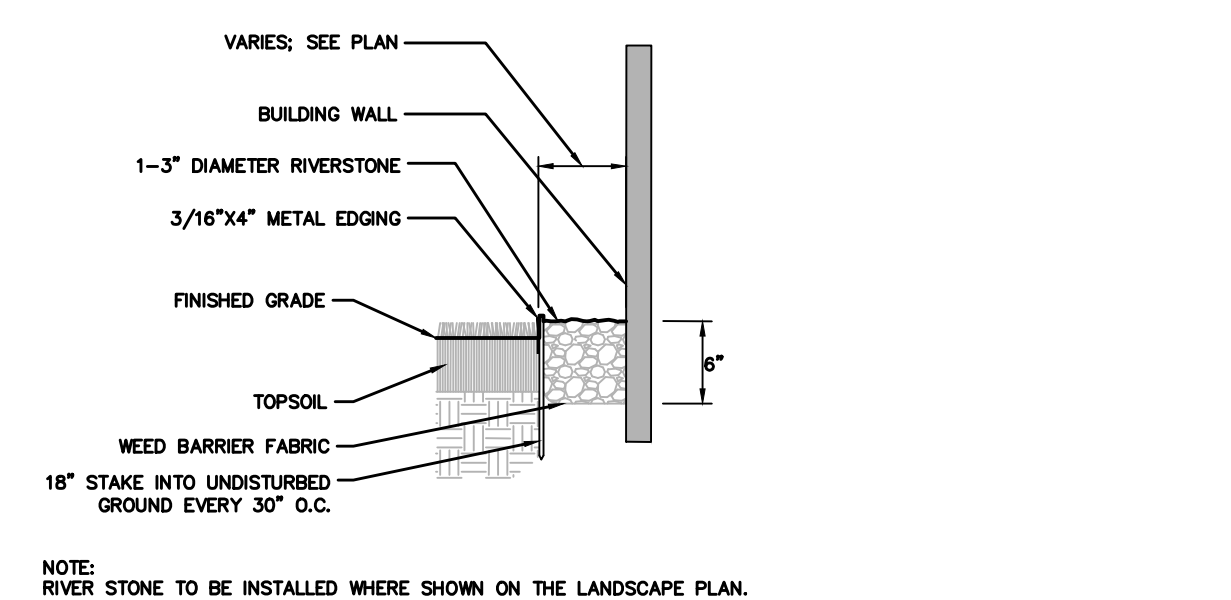
2 SHRUB PLANTING



3 GROUNDCOVER/ PERENNIAL PLANTING



4 LANDSCAPE EDGING AT PLANTING BED/LAWN ADJACENT TO BUILDING



Leonard Rigid Plastic Mesh Tree Guards 4-Inch Diameter, 48-Inch Length

Material:	High-Density Polyethylene	Length:	48 inches
Diameter:	4 inches	Bundle count:	15 guards

DIMENSIONS: 4\"/>

NTS

NTS

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05/03/2024	REVISED PER TOWNSHIP COMMENTS AND DESIGN UPDATES	1.
Date	Description	No.
Revisions		
		
SIGNATURE: MICHAEL SZURA DATE SIGNED: 05/03/2024 CERTIFIED LANDSCAPE ARCHITECT NJ Lic. No. 21AS00081500		
LANGAN Langan Engineering and Environmental Services, LLC. 300 Kimball Drive Parsippany, NJ 07054		
T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION No. 24G27996400		

Project		
MONTCLAIR GOLF CLUB - HALFWAY HOUSE, GOLF BUILDING ADDITION, & PARKING LOT IMPROVEMENTS		
WEST ORANCE NEW JERSEY		
Drawing Title		
LANDSCAPE NOTES & DETAILS		
Project No.	001039208	LP501
Date	01/17/2024	
Drawn By	iz	
Checked By	DB	