

# SITE DEVELOPMENT PLAN

FOR

## ASSESSORS MAP 113 PARCEL 19A

### 100 & 102 VALLEY ROAD

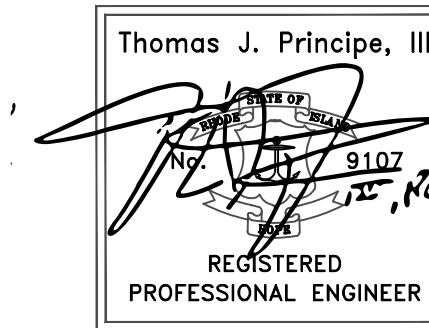
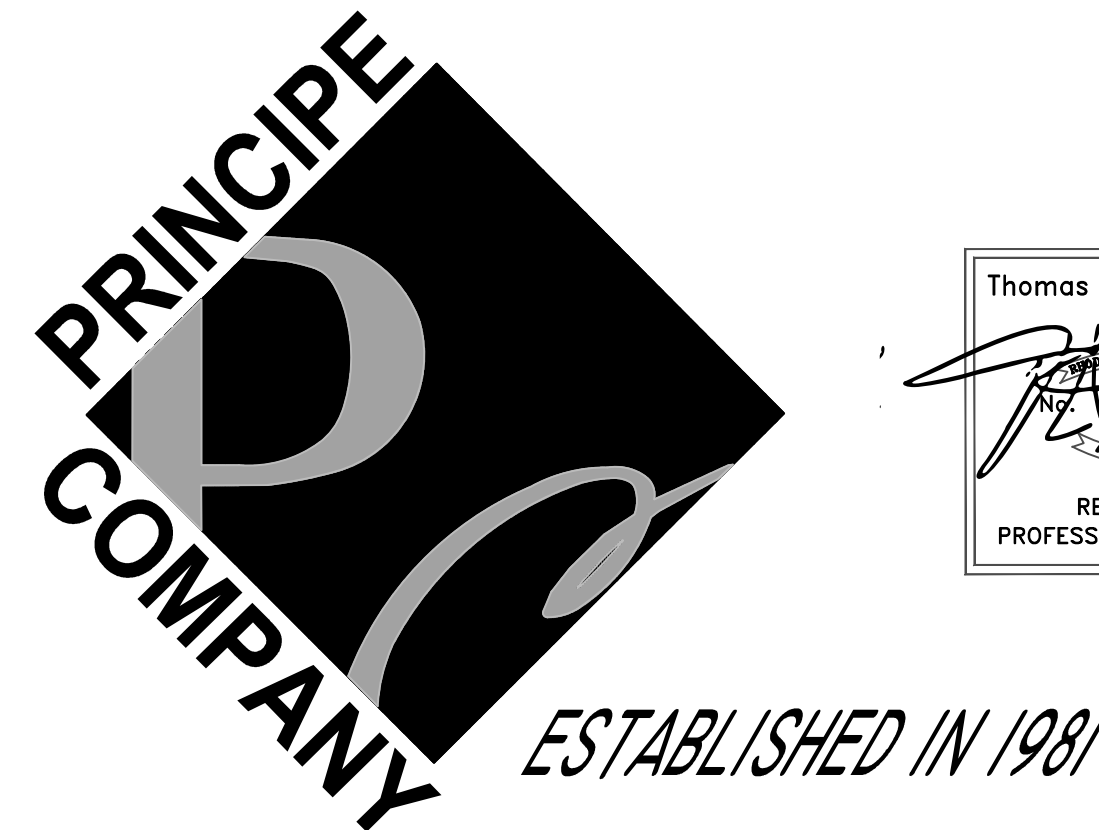
### MIDDLETOWN, RHODE ISLAND



**LOCUS MAP**  
SCALE: 1"=1000'

**LIST OF DRAWINGS**

1. TITLE
  2. SITE CONTEXT
  3. EXISTING CONDITIONS SURVEY PLAN
  4. SITE DEVELOPMENT
  5. DETAILS
- STAMPED LANDSCAPE PLAN (BY VERDE DESIGN)



PREPARED BY:  
**PRINCIPE COMPANY, INC.**  
ENGINEERING DIVISION

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DATE: DECEMBER 07, 2020  
REVISED: 4/27/21  
REVISED: 8/25/21  
REVISED: 10/27/21  
REVISED: 12/23/21

**NOTES:**

1. EXISTING CONDITIONS INFORMATION WAS COMPILED FROM AN ACTUAL ON THE GROUND CLASS I BOUNDARY SURVEY PERFORMED BY MJ GASTON & ASSOCIATES, LLC ON FEBRUARY 18, 2020.
2. ELEVATIONS ARE REFERENCED TO NAVD88.
3. THE SITE IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS AS DETERMINED FROM THE TOWN OF MIDDLETOWN FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 44005C 0093 J (EFFECTIVE DATE SEPTEMBER 4, 2013).
4. THIS PLAN AND ANY ACCOMPANYING CERTIFICATIONS DO NOT CONSTITUTE A CERTIFICATION OF TITLE TO THE PROPERTY DISPLAYED HEREON. THE OWNER OF LOCUS AND ABUTTING PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.
5. EXISTING UTILITY LINES SHOWN ON THIS PLAN ARE FROM AVAILABLE INFORMATION AND ARE APPROXIMATE LOCATIONS. THERE MAY BE EXISTING LINES OTHER THAN THOSE INDICATED. MJ GASTON AND ASSOCIATES, LLC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER PUBLIC UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED.

**OWNER & APPLICANT**

ENDEAVOR HOLDINGS, LLC  
51 LONG WHARF MALL  
NEWPORT, RI 02840

**ZONING REQUIREMENTS:**

THE SITE IS IN ZONED OBA BUSINESS  
OTHER PERMITTED USES IN THE OBA  
ZONING DISTRICT

**DEED REFERENCE:**  
BK.1559/PG.0296

PROFESSIONAL SERVICES DEVELOPMENT  
GENERAL PROFESSIONAL OFFICES  
PERMITTED IN THE BUSINESS DISTRICT

**PLAN REFERENCE:**  
SURVEY (NON-OFFICIAL) PLAN  
ENTITLED "SURVEY AND SITE  
PLAN"  
DATE: MARCH 23, 2020

	REQUIRED	PROVIDED
LOT AREA	40,000 S.F.	51,400 S.F.
LOT WIDTH/FRONTAGE	300 FT.	100.37 FT.
FRONT YARD SETBACK	10 FT.	49.2 FT.
REAR YARD SETBACK	50 FT.	275 FT.
SIDE YARD SETBACK	35 FT.	18.7 FT.
MAX. BLD. COVERAGE RATIO	35%	8.66%

**SITE LOCATION:**  
100 & 102 VALLEY ROAD  
MIDDLETOWN, RHODE ISLAND

**ASSESSORS REFERENCE:**  
MAP 113 PARCEL 19A



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**SITE CONTEXT**

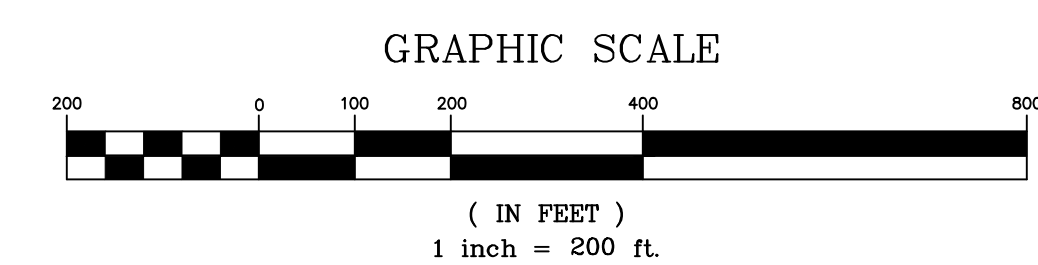
Thomas J. Principe, III  
REGISTERED  
PROFESSIONAL ENGINEER

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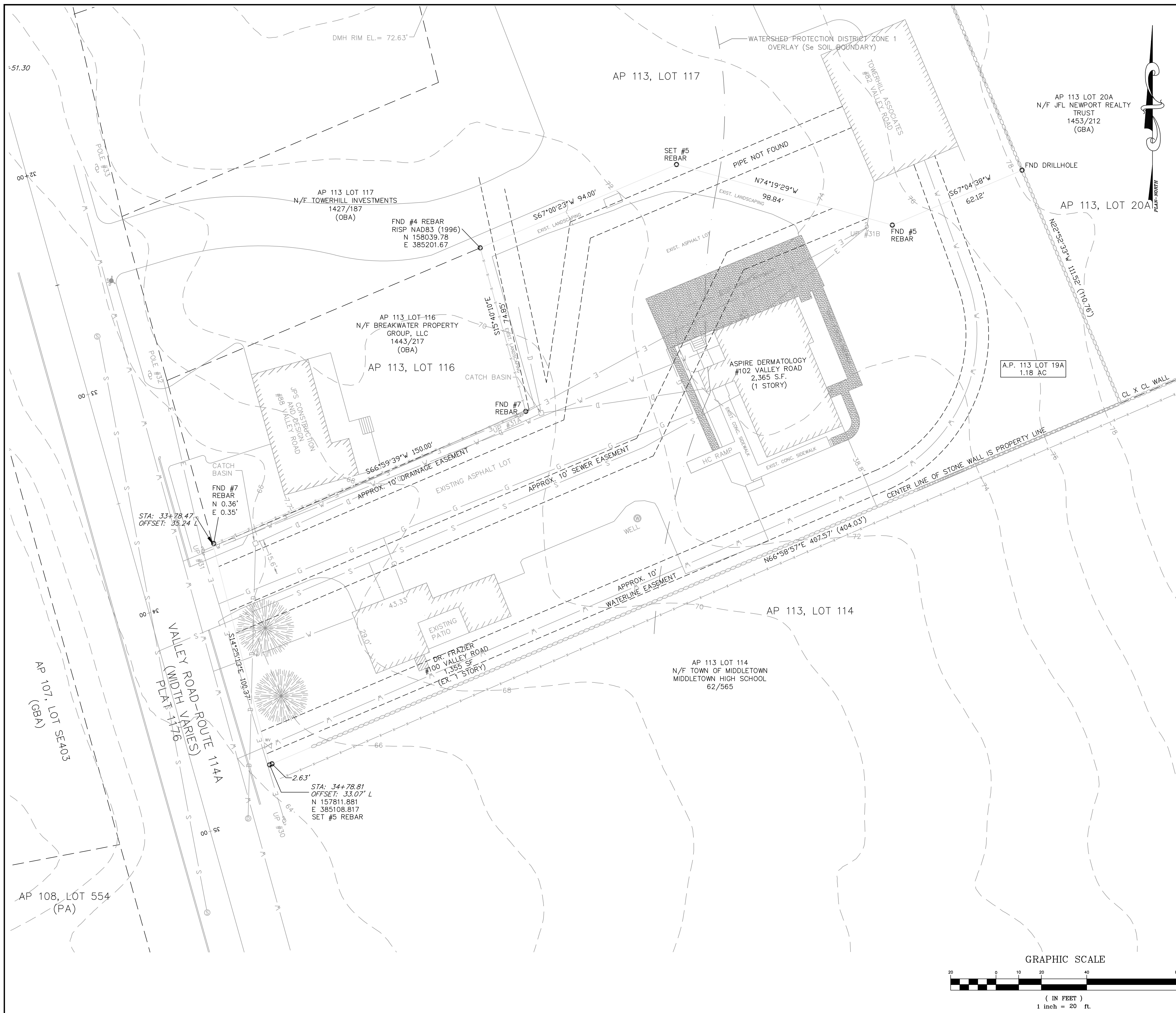
**REVISIONS**

No.	DATE	DRWN	CHKD
1	4/27/21	TJP	TJP
2	8/27/21	KAB	TJP
3	10/27/21	KAB	TJP
4	12/23/21	KAB	TJP

**SITE DEVELOPMENT PLAN**  
FOR  
**ASSESSORS MAP 113 PARCEL 19A**  
**100 & 102 VALLEY ROAD**  
IN  
**MIDDLETOWN, RHODE ISLAND**



SCALE: 1" = 200' SHEET NO: 2 OF 5  
DRAWN BY: JRM DESIGN BY: JRM CHECKED BY: TJP  
DATE: 12/03/2020 PROJECT NO.: LD-2020-4



**LEGEND**

- |  |                        |  |                              |
|--|------------------------|--|------------------------------|
|  | EXISTING STONE WALL    |  | EXISTING WATER/GAS VALVE     |
|  | EXISTING SPOT GRADE    |  | EXISTING ELECTRIC (OVERHEAD) |
|  | EXISTING CONTOUR LINE  |  | EXISTING UTILITY POLE        |
|  | EXISTING TREE LINE     |  | EXISTING EASEMENT LINE       |
|  | EXISTING BUILDING      |  | PROPOSED CONTOUR             |
|  | EXISTING SEWER MANHOLE |  | PROPOSED STORM DRAIN         |
|  | EXISTING SEWER LINE    |  | PROPOSED WATER MAIN          |
|  | EXISTING DRAIN MANHOLE |  | PROPOSED RETAINING WALL      |
|  | EXISTING DRAIN LINE    |  | PROPOSED CLEARING LIMIT      |
|  | EXISTING CATCH BASIN   |  | PROPOSED WATER GATE          |
|  | EXISTING WATER LINE    |  | PROPOSED LIGHT POST          |
|  | EXISTING HYDRANT       |  | PROPOSED STONE WALL          |
|  |                        |  | PROPOSED SPOT GRADE          |

**SOILS:**

PmB - PITTSBURY SILT LOAM, 3-8% SLOPES  
 Se - STISSING SILT LOAM

**EXISTING BUILDING COVERAGE:**

100 VALLEY ROAD (DR. FRAZIER) = 1,355 SF  
 102 VALLEY ROAD (ASPIRE) = 2,365.45 SF  
 TOTAL EXISTING STRUCTURE COVERAGE = 3,720.45  
 TOTAL EX. LOT COVERAGE (%) 3,720.45 / 51,400 = 7.24% COVERAGE

**EXISTING IMPERVIOUS COVERAGE:**

TOTAL EXISTING STRUCTURE COVERAGE = 3,720.45 S.F.  
 EXISTING IMPERVIOUS DRIVEWAY/SIDEWALK = 19,503 S.F.  
 TOTAL EXISTING IMPERVIOUS COVERAGE = 24,432.45 S.F.  
 NOTE: 2,375 S.F. EXISTING PERMEABLE PAVEMENT

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Thomas J. Principe, III  
  
 REGISTERED  
 PROFESSIONAL ENGINEER

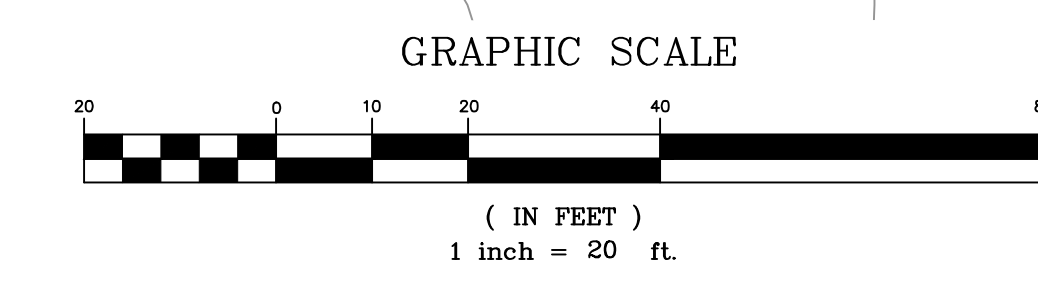
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 FOR  
**ASSESSORS MAP 113 PARCEL 19A**  
**100 & 102 VALLEY ROAD**  
 IN  
**MIDDLETOWN, RHODE ISLAND**

SCALE: 1" = 20'  
 SHEET NO: 3 OF 5  
 DRAWN BY: JRM    DESIGN BY: JRM    CHECKED BY: TJP  
 DATE: 12/03/2020    PROJECT NO.: LD-2020-4





**VEGETATIVE COVER AND PLANTING**

- THE NORMAL ACCEPTABLE SEASONABLE SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
  - TOP SOIL FOR PERMANENT OR LONG TERM TEMPORARY SEEDING SHOULD HAVE A SANDY LOAM TEXTURE, RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS. TOP SOIL SHALL CONFORM WITH MASSACHUSETTS SPECIFICATIONS.
  - THE DESIGN SEED MIX UTILIZED IN ALL DISTURBED AREAS TO BE SEEDED SHALL BE COMPRISED OF THE FOLLOWING:
- | TYPE                | % BY WEIGHT | SEEDING DATE           |
|---------------------|-------------|------------------------|
| CREEPING RED FESCUE | 70          |                        |
| ASTORIA BENTGRASS   | 5           | APRIL 1 – JUNE 15      |
| BIRDFOOT TREFOIL    | 15          | AUGUST 15 – OCTOBER 15 |
| PERENNIAL RYE GRASS | 10          |                        |
- APPLICATION RATE – 100 LBS PER ACRE
- SEED MIX SHALL BE INOCULATED WITHIN 24 – HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULATION FOR EACH SEED VARIETY. ALTERNATE SEED TYPES DUE TO SITE SPECIFIC CONDITIONS AND SOILS ARE ACCEPTABLE WITH THE ENGINEER'S APPROVAL.
- IN TOPSOIL SEEDING AREAS, THE CONTRACTOR WILL LIME AND FERTILIZE AS REQUIRED TO COMPLIMENT OR UPGRADE SOIL CONDITIONS.
  - THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY PERMANENT VEGETATIVE COVER AREAS THAT DO NOT DEVELOP OR WHICH ERODE WITHIN A ONE (1) YEAR PERIOD.

**EROSION CONTROL, SOIL STABILIZATION AND SEDIMENT CONTROL PLAN**

- PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRUBBING, DEMOLITION OR EARTHWORK ACTIVITY, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE PLANS ARE TO BE INSTALLED BY THE CONTRACTOR.
- CONSTRUCTION ACCESS STABILIZATION ENTRANCE PADS ARE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE GRUBBING OR EARTHWORK ACTIVITY.
- EXISTING CATCH BASINS ARE TO BE PROTECTED WITH HAY BALES AND/OR SILT SACS PRIOR TO THE START OF SITE GRUBBING, EARTHWORK OR UNDERGROUND UTILITY AND DRAINAGE INFRASTRUCTURE INSTALLATION TO SERVE THE DEVELOPMENT SITE.
- THE PROJECT CONSTRUCTION SEQUENCE, TO THE EXTENT PRACTICAL, SHOULD REQUIRE THE INSTALLATION OF DOWN GRADE AND OFF SITE STORM DRAINAGE SYSTEM IMPROVEMENTS BEFORE THE START OF SITE GRUBBING AND EARTHWORK ACTIVITY.
- TEMPORARY SITE SLOPE TREATMENTS FOR SOIL STABILIZATION SHALL CONSIST OF HAY, STRAW, FIBER MULCH, RIP RAP OR PROTECTIVE COVERS SUCH AS MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, AND EXCELSIOR OR EQUAL PRODUCTS). THESE AND OTHER ACCEPTABLE MEASURES SHALL BE INCORPORATED INTO THE SITE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- CONSTRUCTION SITES ARE DYNAMIC, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND OR MOVEMENT AND MAINTENANCE OF EROSION CONTROLS, SOIL STABILIZATION AND SEDIMENT CONTROL MEASURES AS NEEDED TO MAXIMIZE THE INTENT OF THE PLAN FOR ALL SITE CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODIC INSPECTION, MAINTENANCE, REPAIR, AND REPLACEMENT OF EROSION CONTROLS, SOIL STABILIZATION AND SEDIMENT CONTROL DEVICES UNTIL AN ACCEPTABLE PERMANENT VEGETATIVE GROWTH IS ESTABLISHED. THE CONTRACTOR SHALL MAINTAIN A DETAIL LOG OF ALL EROSION CONTROL INSPECTIONS, COMPLAINTS RELATED TO EROSION OR SEDIMENT, AND CORRECTIVE REMEDIAL MEASURES TAKEN THROUGHOUT THE COURSE OF THE PROJECT CONSTRUCTION.
- SOIL EROSION AND SEDIMENT CONTROL IS NOT LIMITED TO DAMAGES CAUSED BY WATER BUT ALSO INCLUDES EROSION AND SEDIMENT RESULTING FROM WINDS. MEASURES, SUCH AS TEMPORARY GROUND COVERS, WATER AND CALCIUM APPLICATIONS ARE TO BE UNDERTAKEN AS NEEDED TO MINIMIZE WIND RELATED SOIL AND DUST CONTROL.
- STOCK PILES OF EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS OR WETLANDS. STOCK PILES SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY PERCENT (30%), STOCK PILES SHALL BE SURROUNDED ON THE DOWN GRADIENT OF THE EXISTING GROUND SURFACE BY HAY BALES OR SILT FENCE. THE STOCK PILES SHALL ALSO BE SEEDED OR STABILIZED IN SOME MANNER TO PREVENT SOIL EROSION.
- THE SMALLEST POSSIBLE SITE AREAS SHALL BE DISTURBED OR EXPOSED AT ONE TIME AND DENUDED SLOPES OR WORK AREAS SHALL NOT BE LEFT EXPOSED FOR EXCESSIVE PERIODS OF TIME, SUCH AS INACTIVE PERIODS OR SITE WORK SHUT DOWNS.
- TO THE EXTENT POSSIBLE, ALL DISTURBED AREAS MUST BE SEEDED OR STABILIZED WITHIN THE CONSTRUCTION SEASON. STABILIZATION OF ONE FORM OR ANOTHER SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
- EXPOSED STEEP OR LONG SLOPES SHOULD BE TREATED WITH "CRIMPING" OR "TRACKING" TO REDUCE EROSION AND SEDIMENT AND TO TACK DOWN SEEDING OR MULCH APPLICATIONS.
- IF CONCRETE IS TO BE USED ON SITE, THE CONTRACTOR MUST ESTABLISH AND MAINTAIN SPECIFIC WASHOUT AREAS FOR THE CONCRETE TRUCKS WITH APPROPRIATE PROTECTION CONTROLS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING COLLECTION AND STORAGE LOCATIONS ON-SITE FOR ALL CONSTRUCTION DEBRIS AND TRASH SO THAT THIS MATERIAL DOES NOT BECOME A NEIGHBORHOOD NUISANCE.
- EXISTING TREES AND VEGETATION WILL BE RETAINED WHENEVER FEASIBLE.
- SITE SOIL EROSION AND SOIL STABILIZATION AND SEDIMENT CONTROLS MUST CONFORM TO ALL REQUIREMENTS OF THE APPLICABLE LOCAL COMMUNITY ORDINANCES AND STATE REGULATIONS.

**EROSION CONTROL & SOIL STABILIZATION PROGRAM**

- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
- ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE, FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
- THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH R.I. STD SPECIFICATION M.18.
- THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS, BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- THE DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING PERMANENT SEEDING MIXTURES:
  - MOWED AREA (ALL FLATS OR SLOPES LESS THAN 3:1)
 

MIXTURE:	% BY WEIGHT:
RED FESCUE	75
KENTUCKY BLUEGRASS	15
COLONIAL BENTGRASS	5
PERENNIAL RYEGRASS	5
<b>TOTAL:</b>	<b>100 lbs/Ac.</b>
  - UNMOWED AREA OR INFREQUENTLY MOWED (ALL SLOPES GREATER THAN 3:1)
 

MIXTURE:	% BY WEIGHT:
RED FESCUE	75
COLONIAL BENTGRASS	5
PERENNIAL RYEGRASS	5
BIRDFOOT TREFOIL	15
<b>TOTAL:</b>	<b>100 lbs/Ac.</b>
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000 – 4,000 lbs/Ac.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP MINIMIZE THE EROSION. A TEMPORARY SEEDING GUIDE MUST BE INCLUDED AS A REFERENCE. THE FOLLOWING SPECIES ARE RECOMMENDED:

MIXTURE:	lbs./1,000 S.F.
ANNUAL RYEGRASS	1.0 – 1.5
PERENNIAL RYEGRASS	1.0 – 1.5
SUDAN GRASS	0.7 – 1.0
MILLET	0.7 – 1.0
WINTER RYE	3.0
OATS	0.5 – 3.0
KEEPING COVER GRASS	0.5 – 5.0

- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE R.I.D.P.W. STD SPECIFICATIONS SECTION 202.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS, THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED.
- ON BOTH STEEP AND LONG SLOPES CONSIDERATION SHALL BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION
- THE DRAINAGE SYSTEM SHALL RECEIVE ONE FINAL CLEANING PRIOR TO ACCEPTANCE TO THE OVERALL PROJECT BY THE OWNER. SEDIMENTS SHALL BE DISPOSED OF IN A PROPER MANNER.

**ORDER OF PROCEDURE:**

PRIOR TO ANY CLEARING AND GRUBBING OR ANY ROUGH GRADING, TEMPORARY HAYBALES AND SANDBAGS SHALL BE PLACED OUTSIDE THE LIMITS OF CONSTRUCTION AS PER THE PLANS (I.E. ALONG ROADWAYS, STREAM BANKS, CRITICAL AREAS, ETC.).

ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.

IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.

TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.

HAYBALES LOCATED AT DRAINAGE OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

**SEDIMENTATION CONTROL PROGRAM:**

RIP RAP SPLASH PADS SHALL BE INSTALLED AT THE OUTLETS FOR ALL CULVERTS DISCHARGING INTO A WATERWAY.

EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL ENTERING THE WETLANDS.

ALL DISTURBED AREAS SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL BE SEEDED AND PROTECTED WITH A FIBER MULCH.

DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.

SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.

CARE SHOULD BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECTED TO STORM WATER FLOW.

ADDITIONAL HAYBALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT.

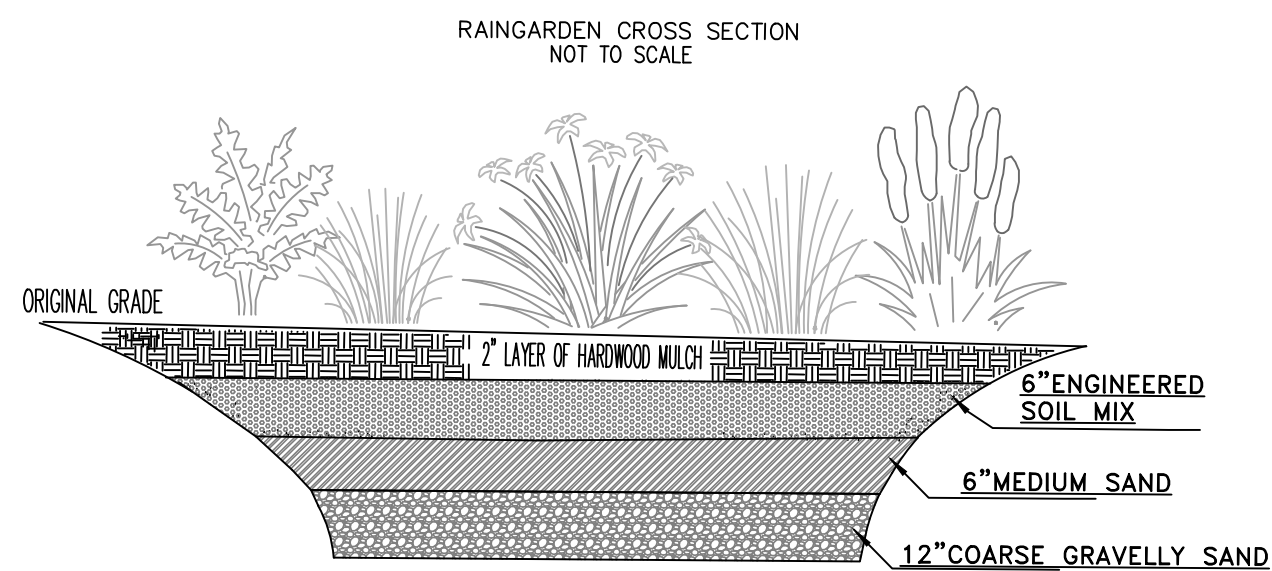
ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE AND DETENTION FACILITIES AS SCHEDULED FOR EACH FACILITY (SEE DETENTION BASIN MAINTENANCE, THIS SHEET).

REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, AS A GUIDE.

**GENERAL NOTES:**

- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH ANY APPLICABLE LOCAL, STATE AND FEDERAL LAWS GOVERNING HIS INTENDED ACTIVITIES. OSHA REGULATIONS ARE APPLICABLE OF PROJECT SITE CONSTRUCTION ACTIVITIES.
- ALL CONSTRUCTION WILL BE UNDERTAKEN IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE TOWN OF MIDDLETOWN.
- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF ALL EXISTING UTILITIES, STRUCTURES, AND ABUTTING PROPERTIES. THE COST OF ANY REPAIR OR REPLACEMENT OF DAMAGED ITEMS SHALL BE BORNE BY THE CONTRACTOR.
- IF THE MUNICIPALITY REQUIRES A PROJECT PRE-CONSTRUCTION CONFERENCE, THE PROJECT DEVELOPER AND THE PROJECT CONTRACTOR WILL ATTEND AND WILL PROVIDE ALL REQUESTED MATERIALS PRIOR TO COMMENCING ANY WORK.
- IF CEMENT CONCRETE MIX TRUCKS ARE TO BE WASHED OUT ON SITE, THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING A WASH OUT AREA WITH APPROPRIATE PROTECTION CONTROLS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING COLLECTION AND STORAGE LOCATIONS ON-SITE FOR ALL CONSTRUCTION DEBRIS AND TRASH SO THAT THIS MATERIAL DOES NOT BECOME A NEIGHBORHOOD NUISANCE.

**ROOF RUNOFF  
BIO-RETENTION DETAIL  
NOT TO SCALE**



**PLANT SPECIES TO BE USED**

BOTANICAL NAME	COMMON NAME
ASTER DIVARICATUS	WHITE WOOD ASTER
CAREX CRINITA	FRINGED SEDGE
IRIS VERSICOLOR	BLUE FLAG IRIS
LOBELIA CARDINALIS	CARDINAL FLOWER
OSMUNDA CINNAMOMEA	CINNAMON FERN

\*PLANT SPECIES IN ONE GALLON CONTAINERS TO BE INSTALLED AT 3' O.C. IN GROUPS OF THREE WITHIN EACH RAINGARDEN.

**\*RAINGARDEN ENGINEERED SOIL MIX:**  
A UNIFORM MIX SHALL BE IMPORTED TO THE SITE CONSISTING OF:

- 40% SAND (ASTM D 422)
- 20-30% SAND LOAM TOPSOIL
- MIN. 3% ORGANIC MATERIAL
- <5% CLAY
- <500 PPM SOLUBLE SALTS
- 30-40% COMPOST WITHOUT BIOSOLIDS
- pH 5.5-6.5
- FREE OF STONES & ORGANIC MATTER >2"
- FREE OF ANY SYNTHETIC MATERIAL

**RAIN GARDEN REQUIRED MAINTENANCE:**

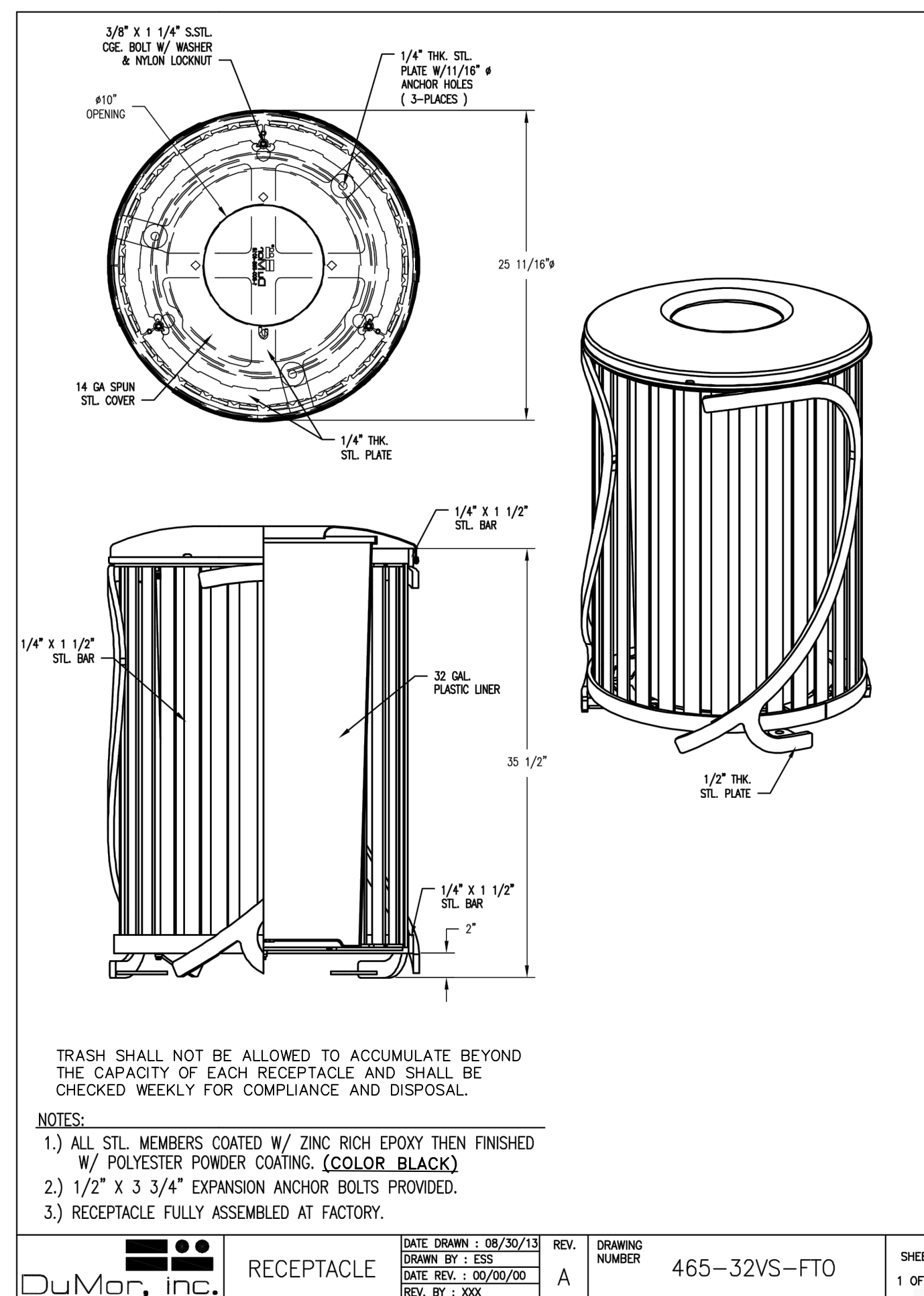
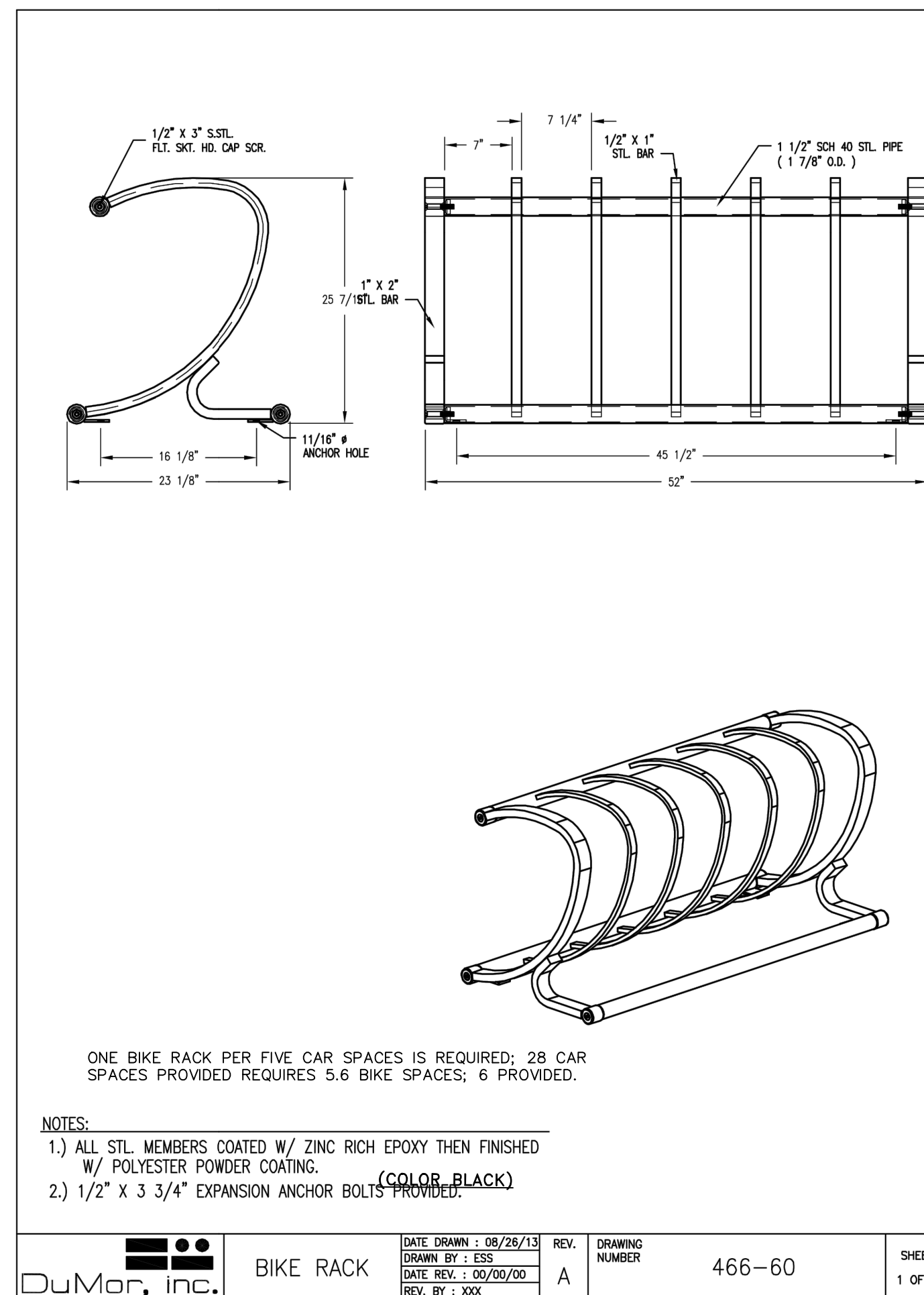
- MONTHLY:**
- INSPECT AND REMOVE ANY TRASH
  - REMOVE ANY INVASIVE SPECIES PLANTS
- ANNUALLY:**
- MULCH- SPRING, AS NEEDED
  - REPLACE ANY DEAD VEGETATION-SPRING
  - REMOVE DEAD VEGETATION-FALL OR SPRING
  - PRUNE-SPRING

**AS NEEDED:**

- REPLACE SOIL MEDIA AND PLANTS WHEN PONDING DOES NOT SUBSIDE WITHIN 72 HRS (CAREFUL MAINTENANCE SHOULD PROLONG THIS REQUIREMENT)

\*ALL PLANT MATERIAL SHALL BE WATERED AND MAINTAINED BY THE OWNER TO ASSURE THAT SUITABLE GROWTH HAS BEEN ESTABLISHED.

SEE SEPARATE LANDSCAPE MAINTENANCE DOCUMENT FOR OTHER LANDSCAPE ITEMS ON SITE, AS PREPARED BY VDH, DATED AUGUST 30, 2021.



**DETAILS**

Thomas J. Principe, III  
REGISTERED PROFESSIONAL ENGINEER

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REVISIONS			
DATE	DRWN	CHKD	
4/27/21	TJP	TJP	
8/25/21	KAB	TJP	
10/27/21	KAB	TJP	
12/23/21	KAB	TJP	

**SITE DEVELOPMENT PLAN**  
FOR  
**ASSESSORS MAP 113 PARCEL 19A**  
**100 & 102 VALLEY ROAD**  
IN  
**MIDDLETOWN, RHODE ISLAND**

SCALE: NOT TO SCALE	SHEET NO: 5 OF 5
DRAWN BY: JRM	DESIGN BY: JRM
CHECKED BY: TJP	DATE: 12/03/2020
PROJECT NO.: LD-2020-4	