LANDSCAPE PLANS

MATUNUCK BEACH CONDOMINIUM

LOCATED AT:

Piping Plover Drive Assessor's Plat 92-2, Lots 56 South Kingstown, Rhode Island

PREPARED FOR THE:

Matunuck Beach Road Partners, LLC

P.O. Box 402

Narragansett, Rhode Island

SHEET INDEX

		ISSUED						
		FOR						
NUMBER	TITLE	PERMITTING	REV	ISIONS				
	COVER SHEET							
1	PLANTING PLAN	08-11-2021	09-02-21	10-25-21	02-24-22	05-04-22	05-11-22	07-11-22
2	DETAILS & TYPICAL PLANTING	08-11-2021	09-02-21	10-25-21	02-24-22	05-04-22	05-11-22	07-11-22
3	PLANTING NOTES & DETAILS	08-11-2021	09-02-21	10-25-21				



PREPARED BY:

JOHN C. CARTER & CO., INC.

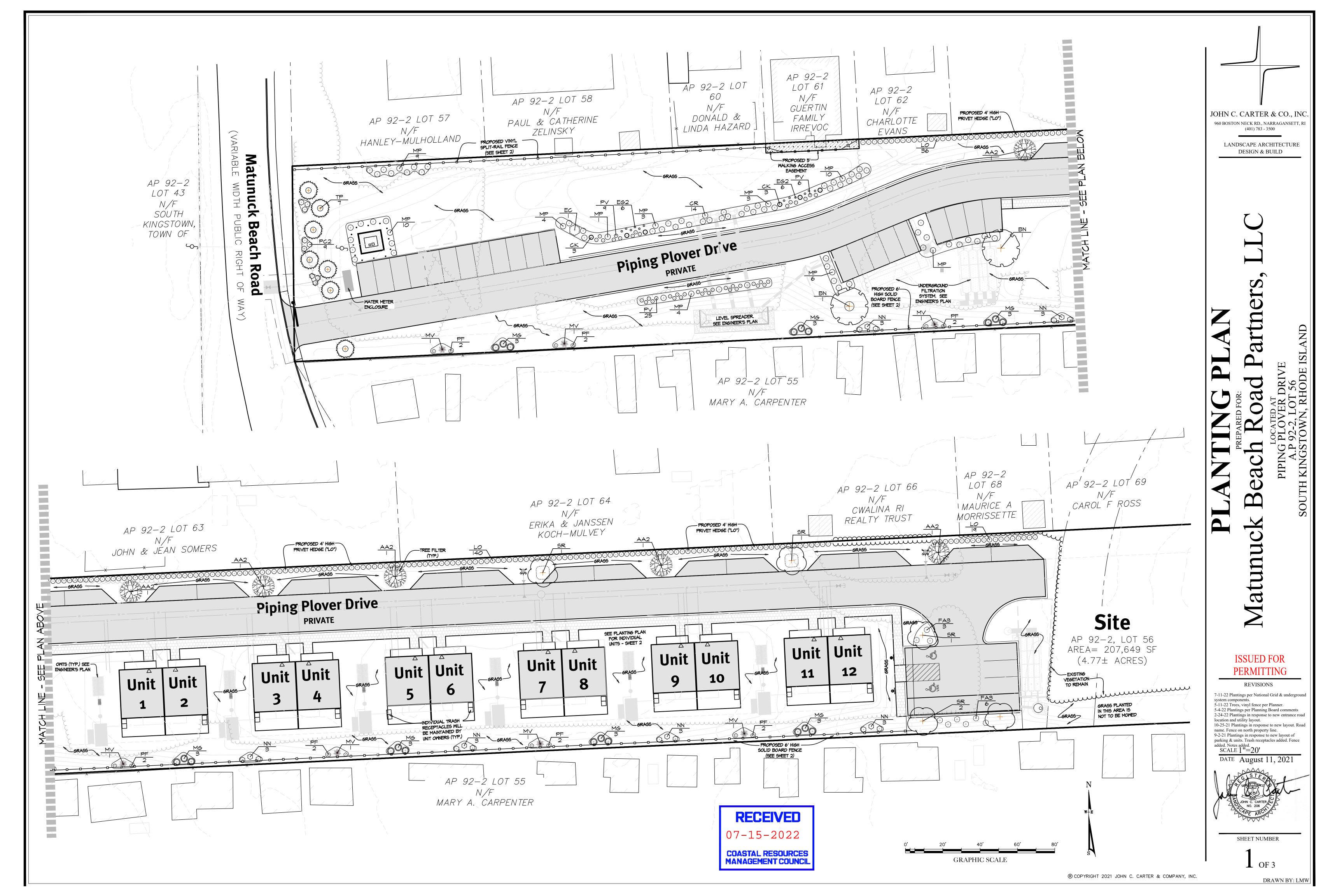
960 BOSTON NECK RD., NARRAGANSETT, RI (401) 783 - 3500

LANDSCAPE ARCHITECTURE
DESIGN & BUILD

ENGINEER
DiPrete Engineering
2 Stafford Court
Cranston, Rhode Island
401-943-1000



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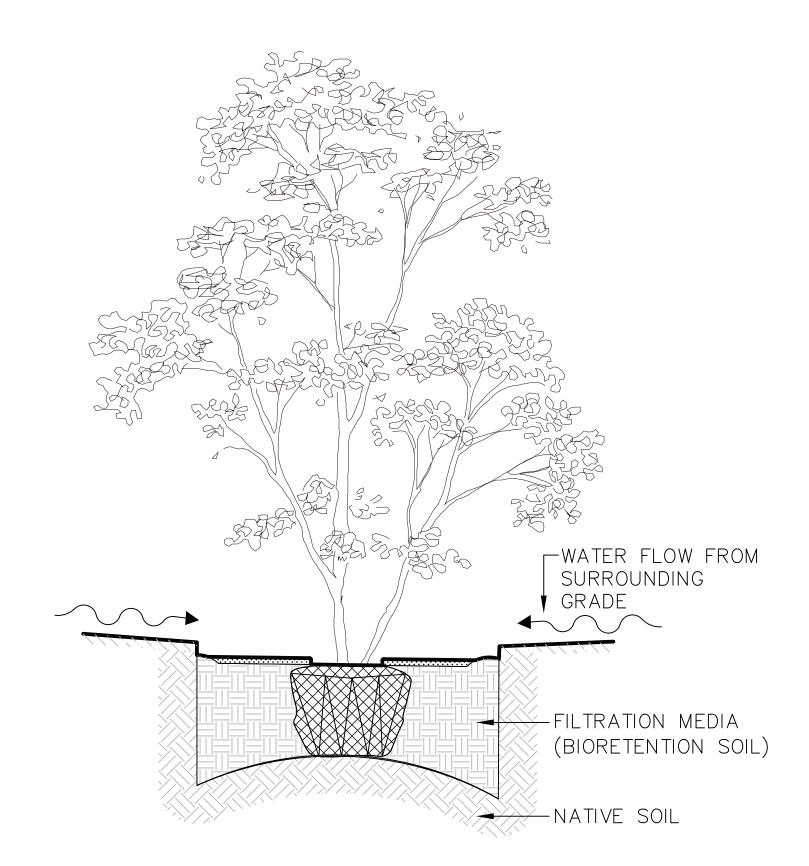


PRIVACY FENCE

A 6' PRIVACY FENCE WILL BE INSTALLED ALONG THE SOUTH PROPERTY LINE
BETWEEN THE MARY CARPENTER RESIDENCES AND THE PROPOSED CONDOMINIUMS.
PLANTINGS ARE PROPOSED TO SOFTEN THE EXPANSE OF THE FENCE.



MHITE VINYL SPLIT-RAIL FENCE WILL BE INSTALLED ALONG A SECTION OF THE NORTH PROPERTY LINE BETWEEN THE HOLDEN ROAD RESIDENCES AND THE PROPOSED CONDOMINIUMS TO DISCOURAGE CUT-THROUGH PEDESTRIAN MOVEMENTS FROM HOLDEN ROAD THROUGH THE SITE. THE FENCE WILL BE INSTALLED 6" ABOVE GRADE.

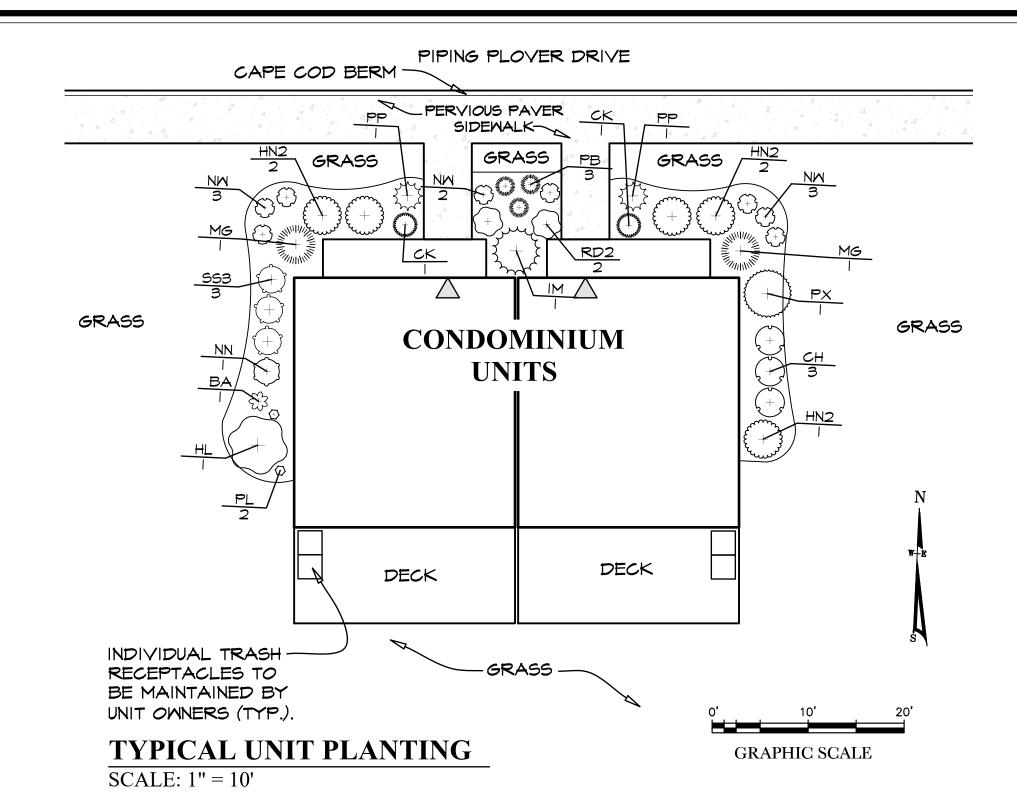


TREE FILTER

NTS

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PLANT SCHEDUL	E - UN	TIV		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CH	з	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SUMMERSWEET	15-18" HT
HN2	5	HYDRANGEA MACROPHYLLA NANTUCKET BLUE	NANTUCKET BLUE HYDRANGEA	18-24" HT
HL	ı	HYDRANGEA PANICULATA 'LIMELIGHT' TM	LIMELIGHT HYDRANGEA	18-24" HT.
IM	ı	ILEX X MESERVEAE 'BLUE MAID' TM	BLUE MAID HOLLY - PYRAMIDAL FORM	24-36" HT
PX	ı	PIERIS X 'BROUWER'S BEAUTY'	BROUWER'S BEAUTY HYBRID PIERIS	18-24" HT
PP	2	PINUS MUGO 'PUMILIO'	MUGO PINE	5 GAL
553	3	SPIRAEA JAPONICA 'SHIROBANA'	SHIROBANA SPIREA	15-18" HT
GRASSES	at Y	BOTANICAL NAME	COMMON NAME	SIZE
ck	2	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL
MG	2	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT MAIDEN GRASS	2 GAL
PB	3	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	2 GAL
ANNUALS/PERENNIALS	aty	BOTANICAL NAME	COMMON NAME	SIZE
BA		BAPTISIA AUSTRALIS	BLUE WILD INDIGO	2 GAL

PLANT SCHEDULE - 9	SHEET I			
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
4A2	6	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	1.5-2" CAL.
BN	2	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	12-14' HT.
5R	5	SYRINGA RETICULATA	JAPANESE TREE LILAC	1.5-2" CAL.
TP	7	THUJA PLICATA	GIANT ARBORVITAE	5-6' HT.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CR	14	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE CLETHRA	18-24" HT
EC	T _I	ENKIANTHUS CAMPANULATUS	ENKIANTHUS	24-30" HT.
FA3	9	FOTHERGILLA GARDENII 'MT. AIRY'	DWARF WITCHALDER	15-18" HT
LO	195	LIGUSTRUM OVALIFOLIUM	CALIFORNIA PRIVET	4' MINIMUM
MP	61	MORELLA PENSYLVANICA	NORTHERN BAYBERRY	30-36" HT.
PC2	9	PHYSOCARPUS OPULIFOLIUS 'CENTER GLOW'	CENTER GLOW NINEBARK	18-24" HT
GRASSES	aty	BOTANICAL NAME	COMMON NAME	SIZE
CK	6	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL
MG	21	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT MAIDEN GRASS	2 GAL
MV	7	MISCANTHUS SINENSIS 'VARIEGATUS'	VARIEGATED MAIDEN GRASS	2 GAL
P V	40	PANICUM VIRGATUM	SMITCH GRASS	2 GAL
ANNUALS/PERENNIALS	aty	BOTANICAL NAME	COMMON NAME	SIZE
E62	12	EUPATORIUM MACULATUM 'GATEMAY'	GATEMAY JOE-PYE MEED	2 GAL
NN	18	NIPPONANTHEMUM NIPPONICUM	MONTAUK DAISY	2 GAL
PF	14	PEROVSKIA ATRIPLICIFOLIA 'FILIGRAN'	RUSSIAN SAGE	2 GAL

PLANT SCHEDULE: SHEET 1

PLANT SCHEDULE: TYPICAL UNIT

ALL REQUIRED PLANT MATERIAL HAS BEEN SELECTED FROM THE PUBLICATION ENTITLED 'SUSTAINABLE TREES AND SHRUBS FOR SOUTHERN NEW ENGLAND", PER SOUTH KINGSTOWN SUBDIVISION & LAND DEVELOPMENT REGULATIONS, ARTICLE IV SPECIAL REQUIREMENTS, G. LANDSCAPING - GENERAL STANDARDS AND SPECIFICATIONS.

ILS & TYPICAL PLANTING PREPARED FOR: THICK Beach Road Partners, LLC

JOHN C. CARTER & CO., INC. 960 BOSTON NECK RD., NARRAGANSETT, RI

(401) 783 - 3500

LANDSCAPE ARCHITECTURE

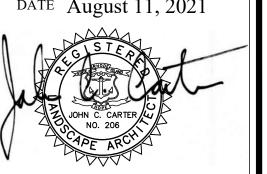
DESIGN & BUILD

ISSUED FOR PERMITTING

REVISIONS
5-11-22 Trees, vinyl fence, pavers, & Cape Cod berm per Planner.
5-4-22 Plantings per Planning Board comments, wooden fence & chain-link fence notes
2-24-22 Planting plans for individual units due to unit design changes. Planting plans.
10-25-21 Planting plans for individual units due to unit design changes. Sheet 1 plant list. Road name. Fence added.
9-2-21 Planting plans for individual units due to unit design updates. Trash receptacles & note added.

added.

SCALE 1"=20'



SHEET NUMBER

 2_{OF}

- I. THE EXISTING SITE INFORMATION WAS TAKEN FROM A PLAN PREPARED BY DIPRETE ENGINEERING, TITLED ACAD-2389-002-SEND-MODEL DATED JULY 13, 2021.
- 2. ANY PROPERTY LINES DEPICTED ON THIS PLAN ARE PICTORIAL ONLY. THIS PLAN IS TO BE USED FOR THE SELECTION, LOCATION AND INSTALLATION OF LANDSCAPE MATERIALS ONLY AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. ALL FOUNDATIONS, RETAINING WALLS AND DRAINAGE COMPONENTS SHALL BE STAKED OUT BY THE ENGINEER OR SURVEYOR.
- 3. WRITTEN DIMENSIONS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- 4. THE LOCATION OF UTILITIES IF SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. DIG-SAFE SHALL BE CONTACTED AT LEAST 72 HOURS BEFORE EXCAVATION. DIG-SAFE CAN BE REACHED AT 1-888-344-7233.

PLANTING BED PREPARATION:

- ALL PLANTING BEDS ARE TO BE TREATED AS FOLLOWS:
- I. ALL PLANTING BEDS ARE TO BE EXCAVATED TO A DEPTH OF 8" BELOW FINISHED GRADE.
- THE BOTTOM OF THE PLANTING BEDS ARE TO BE SCARIFIED TO ENCOURAGE DRAINAGE AND PREVENT COMPACTION.
- 3. ALL PLANTING BEDS ARE TO BE BACKFILLED WITH 8" OF LOOSE, FRIABLE, ORGANIC LOAM OR COMPOST.

<u>PLANTING:</u>

- PROVIDE QUALITY PLANTS IN THE GENUS, SPECIES AND VARIETY INDICATED IN THE PLANT SCHEDULE, COMPLYING WITH APPLICABLE REQUIREMENTS OF "ANSI Z60.1 AMERICAN STANDARD FOR NURSERY
- 2. PROVIDE PLANTS IN THE SIZE AND NUMBER INDICATED IN THE PLANT SCHEDULE. PLANTS SHALL BE GROWN IN NURSERIES LOCATED IN THE NORTHEASTERN U.S.
- 3. DELIVER FRESH DUG TREES WHICH ARE BALLED AND BURLAPPED, AND SHRUBS WHICH ARE BALLED AND BURLAPPED OR IN NURSERY CONTAINERS. ALL PLANTS ARE TO BE HEALTHY, VIGOROUS AND FREE OF INSECTS AND DISEASE.
- 4. PLANTS ARE TO BE INSTALLED AS SPECIFIED IN THE PLANTING DETAILS WITH ADEQUATE WATER PROVIDED DURING PLANTING TO ALLOW COMPACTION OF THE PLANTING SOIL TO PREVENT ANY AIR POCKETS OR SETTLEMENT AFTER PLANTING.
- 5. ALL PLANTING BEDS ARE TO BE COVERED WITH 2" SHREDDED PINE BARK MULCH.
- 6. AFTER THE TREES AND SHRUBS ARE PLANTED, THE DISTURBED AREAS BETWEEN THE PLANTING BEDS SHALL BE LOAMED AND SEEDED WITH A SEED MIX AS SPECIFIED IN THE LOAMING AND SEEDING NOTES.
- 7. ALL DECIDUOUS AND EVERGREEN TREES OVER 5' TALL ARE TO BE STAKED AS SHOWN IN THE PLANTING DETAILS. TREES ARE TO REMAIN PLUMB AND SHALL BE ADJUSTED AS NEEDED. ALL STAKES AND ARBOR TIES ARE TO BE MAINTAINED AND ADJUSTED TO PREVENT GIRDLING OF THE TRUNK AND REMOVED WHEN NO LONGER NEEDED.
- 8. PLANT SUBSTITUTIONS SHALL BE ALLOWED BASED ON AVAILABILITY AND SITE CONDITIONS. ANY SUBSTITUTIONS OF LANDSCAPE MATERIALS SHALL BE SUBJECT TO THE PRIOR WRITTEN APPROVAL OF THE ADMINISTRATIVE OFFICER WITH DIRECT APPROVAL FROM THE LANDSCAPE ARCHITECT OR OWNER.
- AFTER THE PLANTING BEDS ARE PREPARED, THE PLANTS SHALL BE PLACED ON THE GROUND WHERE SHOWN ON THE PLAN.
- 2. THE PLANTS SHALL BE ORIENTED IN SUCH A MANNER TO RESULT IN THE MOST UNIFORM AND VIGOROUS SIDE OF THE PLANT FACING THE FRONT.
- 3. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED AND SHALL INSPECT AND APPROVE THE LOCATIONS BEFORE THEY ARE PLANTED.

MAINTENANCE & WARRANTY:

- I. THE CONTRACTOR SHALL WARRANTY ALL PLANTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.
- 2. AFTER PLANTING IS COMPLETED, THE OWNER SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE WATER TO ENSURE HEALTHY AND VIGOROUS GROWTH.
- 3. ANY PLANT WHICH IS NOT HEALTHY AND GROWING VIGOROUSLY AFTER ONE YEAR SHALL BE REPLACED BY THE CONTRACTOR IN CONFORMANCE WITH THE PLANTING SPECIFICATIONS.
- 4. IF NECESSARY, THE CONTRACTOR SHALL OVERSEED OR SOD ANY AREAS WHICH ARE NOT SUBSTANTIALLY COVERED BY ADEQUATE GRASS GROWTH FOR TWO YEARS AFTER THE INITIAL SEED APPLICATION.

LOAMING & SEEDING:

- I. AREAS LABELED AS 'GRASS' ARE TO BE SEEDED OR SODDED AS DIRECTED BY THE OWNER.
- 2. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS WHICH ARE LABELED AS "GRASS", ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. IF COMPACTED, THE SUBGRADE IS TO BE SCARIFIED TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE TO RESULT IN AN UNCOMPACTED SUBSOIL. THEN 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.
- 3. THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RI DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 4. LIME IS TO BE APPLIED AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATED INTO THE TOP 1-2" OF TOPSOIL.
- 5. AFTER THE SEED BED IS PREPARED, THE AREA IS TO BE HYDRO-SEEDED. THE HYDRO-SEED SHALL BE APPLIED EVENLY OVER THE SURFACE WITH A BONDED 100% WOOD FIBER MATRIX USING ACCEPTED HORTICULTURAL PRACTICES. THE SLURRY SHALL INCLUDE WATER, SEED, WOOD FIBER AND A HIGH PHOSPHORUS STARTER FERTILIZER.
- RATHER THAN HYDRO-SEEDING AS DESCRIBED ABOVE, WITH PERMISSION FROM THE OWNER, THE CONTRACTOR MAY BROADCAST SEED. PRIOR TO SEEDING, FERTILIZE WITH A HIGH PHOSPHORUS STARTER FERTILIZER APPLIED AT THE MANUFACTURER'S RECOMMENDED RATES. SEED SHALL BE BROADCAST EVENLY OVER THE PREPARED SURFACE AND WORKED INTO THE TOP I" OF SOIL.

SEED MIXES

- PROVIDE QUALITY SEED DERIVED FROM THE VARIETY INDICATED UNDER 'SEEDING'.
- ALL SEED IS TO BE VIABLE, HEALTHY AND FREE OF INSECTS AND DISEASE.
- SEED IS TO BE INSTALLED AS SPECIFIED IN THE SEEDING NOTES WITH ADEQUATE WATER. PROVIDED TO ESTABLISH A HEALTHY GRASS CATCH.
- RECOMMENDED SEEDING DATES ARE APRIL I TO JUNE 30 AND AUGUST 15 TO NOVEMBER 15. LATE FALL AND WINTER DORMANT SEEDING REQUIRE AN INCREASE IN THE SEEDING RATE.
- SEED SUBSTITUTIONS SHALL BE ALLOWED BASED ON AVAILABILITY ONLY WITH <u>DIRECT</u> APPROVAL FROM THE LANDSCAPE ARCHITECT OR OWNER.

SEED MIX SHALL BE AS FOLLOWS:

ALLEN'S (DROUGHT RESISTANT) 'FAIRPLAY'

40% RENEGADE TURF TYPE TALL FESCUE 40% PERENNIAL RYE 20% ACTION KENTUCKY BLUE GRASS

AVAILABLE THROUGH ALLEN'S SEED, 693 SOUTH COUNTY TRAIL, EXETER, RHODE ISLAND PHONE: 401-294-2722 OR APPROVED EQUAL.

IF THE AREAS THAT ARE LABELED 'GRASS' ARE TO BE SODDED:

- I. SOD SHALL BE LIVE, FRESH, AND OF SUITABLE CHARACTER FOR THE PURPOSE INTENDED AND FOR THE SOIL ON WHICH IT WILL BE PLACED. SODS SHALL BE AT LEAST 2-SQUARE FEET IN AREA AND SHALL BE THICK ENOUGH TO CONTAIN ALL NATURAL ROOTS WITHOUT MUTILATION. IN NO CASE WILL SODS BE PERMITTED TO BE UNDER $^3\!4$ " THICK OR OVER I" THICK, UNLESS EXPRESS WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT IS PROCURED. SOD STORED LONGER THAN 36 HOURS WILL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES.
- 2. RECOMMENDED SODDING DATES ARE APRIL I TO JUNE 30 AND AUGUST 15 TO NOVEMBER 15.
- 3. SOD INSTALLATION: THE SOD BED SHALL BE MOIST AND BE WATERED CONTINUOUSLY DURING THE SODDING OPERATION. SOD SHALL BE LAID IN THE LONGEST DIMENSION PARALLEL TO THE CONTOURS. THE FIRST ROW OF SOD SHALL BE LAID A STRAIGHT LINE WITH THE SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY AGAINST EACH OTHER. LATERAL/VERTICAL JOINTS SHALL BE STAGGERED BY A MINIMUM OF 12" TO PROMOTE UNIFORM GROWTH AND STRENGTH. SOD SHALL NOT BE STRETCHED OR OVERLAPPED AND ALL JOINTS SHALL BE BUTTED TIGHT.
- 4. AFTER THE SOD IS PLACED, IT SHALL BE PRESSED FIRMLY INTO CONTACT WITH THE SOD BED BY TAMPING OR HAND ROLLING. THIS PROCEDURE SHALL NOT DEFORM THE SOD. THE CONTRACTOR SHALL CUT THE SOD TO LINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.

BECAUSE OF THE INTENSE BROWSING BY THE RESIDENT WHITE TAIL DEER IN THIS AREA, IT IS RECOMMENDED THAT A REPUTABLE COMPANY BE ENGAGED TO PROVIDE A SPRAY PROGRAM. THERE ARE NO PLANTS WHICH CAN BE GUARANTEED TO BE 'DEER PROOF.'

TOWN OF SOUTH KINGSTOWN

2. STREET LANDSCAPING

WHENEVER A PARKING OR LOADING AREA ADJOINS A PUBLIC STREET RIGHT-OF-WAY, OR THE RIGHT-OF-WAY OF A PRIVATE STREET WHICH IS OR MAY BE CUSTOMARILY USED BY THE PUBLIC AS ACCESS TO THE PARKING OR LOADING FACILITY, A LANDSCAPED STRIP OF LAND SHALL BE CONSTRUCTED OR MAINTAINED ALONG THE ENTIRE STREET FRONTAGE, EXCEPT FOR ANY NECESSARY DRIVEWAYS, AS PROVIDED HEREIN.

a) A STRIP OF LAND OF MINIMUM 10 FOOT WIDTH BETWEEN THE RIGHT-OF-WAY AND THE PARKING/LOADING FACILITY PLANTED AS A PARTIAL LANDSCAPE

AN OPTION FOR A PARTIAL LANDSCAPE SCREEN FOR YARDS GREATER THAN TEN (IO) FEET WIDE IS: 4 EVERGREEN TREES PLUS I LOW SHRUB FOR EVERY 40 LINEAR FEET.

THERE IS ONE PARKING AREA THAT IS LOCATED APPROXIMATELY 40 FEET AWAY FROM MATUNUCK BEACH ROAD. THE LENGTH OF THE AREA TO BE SCREENED IS APPROXIMATELY 40 LINEAR FEET. A PARTIAL LANDSCAPE SCREEN IS PROPOSED TO SCREEN THIS PARKING AREA FROM THE MATUNUCK BEACH ROAD. THE PROPOSED PLANTING IS FOUR (4) EVERGREEN TREES AND NINE (9) SHRUBS.

TREES REQUIRED TREES PROPOSED SHRUBS REQUIRED SHRUBS PROPOSED

3. PERIMETER LANDSCAPING - PARKING LOTS AND LOADING FACILITIES

THE PERIMETER OF THE PARKING LOT AND LOADING FACILITY SHALL BE SURROUNDED BY A LANDSCAPED STRIP AS ILLUSTRATED IN FIGURE 7. THE WIDTH OF THE PERIMETER LANDSCAPING STRIP SHALL BE AS FOLLOWS:

NO LESS THAN IO (TEN) FEET IN WIDTH WHERE THE PARKING AREA CONTAINS FIVE (5) SPACES OR MORE OR WHICH EXCEEDS 2500 SQ. FT. OF PAVED AREA; AND NO LESS THAN FIVE (5) FEET IN WIDTH WHERE THE PARKING AREA CONTAINS LESS THAN FIVE (5) SPACES OR WHICH HAS LESS THAN 2,500 SQ. FT. OF PAVED

LANDSCAPING OF THE PERIMETER OF A PARKING LOT SHALL INCLUDE AT LEAST ONE TREE PLUS THREE (3) LOW SHRUBS OR GROUNDCOVER PLANTS FOR EVERY THIRTY-FIVE LINEAR FEET OF PERIMETER

LANDSCAPE STRIPS SURROUNDING THE PARKING AREAS OF AT LEAST TEN FEET IN WIDTH ARE PROVIDED WHERE PARKING AREAS CONTAIN FIVE SPACES OR MORE OR EXCEEDS 2,500 SQ. FT. OF PAVED AREA AND NO LESS THAN FIVE (5) FEET IN WIDTH WHERE THE PARKING AREA CONTAINS LESS THAN FIVE (5) SPACES OR WHICH HAS LESS THAN 2,500 SQ. FT. OF PAVED PARKING AREA.

A SIX FOOT HIGH SOLID BOARD FENCE IS PROPOSED FOR THE SOUTH PROPERTY LINE WHICH WILL HELP TO PROVIDE SCREENING. IN ADDITION, AT LEAST ONE (1) TREE PLUS THREE (3) LOW SHRUBS OR GROUNDCOVER PLANTS FOR EVERY THIRTY-FIVE (35) LINEAR FEET OF PARKING PERIMETER IS PROVIDED.

TREES REQUIRED TREES PROPOSED SHRUBS REQUIRED SHRUBS PROPOSED

4. INTERIOR LANDSCAPING

THE INTERIOR AREAS OF PARKING LOTS (EXCLUSIVE OF LOADING AREAS) SHALL ALSO BE LANDSCAPED. THE MINIMUM AMOUNT OF INTERIOR PARKING LOT LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING

TOTAL AREA OF PARKING LOT

MINIMUM PERCENT OF TOTAL PARKING LOT AREA THAT MUST BE AN INTERIOR LANDSCAPE

<2,500 SQ. FT. NO REQUIREMENT

2,500 TO 20,000 SQ. FT.

SUCH INTERIOR LANDSCAPING SHALL BE PROVIDED AS A COMBINATION OF ANY OF THE WAYS PROVIDED BELOW.

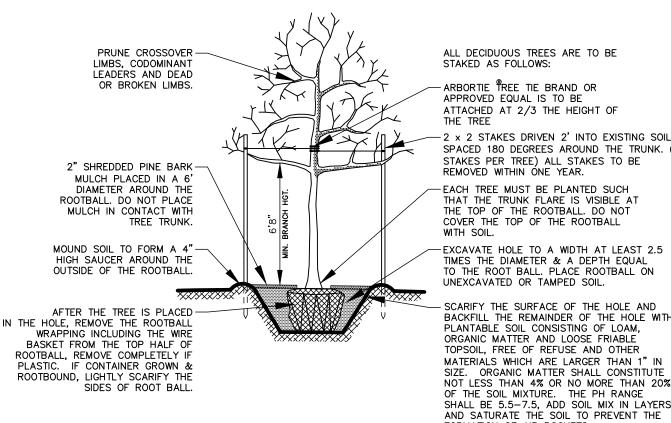
a) 9-FOOT WIDE X 18' INTERMEDIATE ISLANDS: AT LEAST I TREE, PLUS AT LEAST 3 LOW SHRUBS OR GROUNDCOVER PLANTS AND/OR TURF GRASS.

WHERE PARKING AREAS ARE LESS THAN 2,500 SQ. FT. NO LANDSCAPE PLANTING

THERE IS ONE PARKING AREA THAT MEASURES 2,032 SQ. FT. NO INTERIOR LANDSCAPE PLANTING IS REQUIRED.

LEADERS AND DEAD OR BROKEN LIMBS. ATTACHED AT 2/3 THE HEIGHT OF THE TREE - 2 x 2 STAKES DRIVEN 2' INTO EXISTING SOIL, SPACED 180 DEGREES AROUND THE TRUNK. (2 STAKES PER TREE) ALL STAKES TO BE 2" SHREDDED PINE BARK-REMOVED WITHIN ONE YEAR. MULCH PLACED IN A 6' DIAMETER AROUND THE THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOTBALL. DO NOT ROOTBALL. DO NOT PLACE MULCH IN CONTACT WITH COVER THE TOP OF THE ROOTBALL TREE TRUNK MOUND SOIL TO FORM A 4' TIMES THE DIAMETER & A DEPTH EQUAL TO HIGH SAUCER AROUND THE THE ROOT BALL. PLACE ROOTBALL ON UNEXCAVATED OR TAMPED SOIL. OUTSIDE OF THE ROOTBALL. AFTER THE TREE IS PLACED -BACKFILL THE REMAINDER OF THE HOLE WITH IN THE HOLE, REMOVE THE ROOTBAL PLANTABLE SOIL CONSISTING OF LOAM, WRAPPING INCLUDING THE WIR ORGANIC MATTER AND LOOSE FRIABLE BASKET FROM THE TOP HALF OF TOPSOIL, FREE OF REFUSE AND OTHER ROOTBALL, REMOVE COMPLETELY MATERIALS WHICH ARE LARGER THAN 1" IN PLASTIC. IF CONTAINER GROWN & ROOTBOUND, LIGHTLY SCARIFY THE SIZE. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 4% OR NO MORE THAN 20%

EVERGREEN TREE PLANTING DETAIL © 2020 JOHN C. CARTER & CO., INC.



SIDES OF ROOT BALL.

2 x 2 STAKES DRIVEN 2' INTO EXISTING SOIL SPACED 180 DEGREES AROUND THE TRUNK. (2 STAKES PER TREE) ALL STAKES TO BE REMOVED WITHIN ONE YEAR. EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOTBALL. DO NOT COVER THE TOP OF THE ROOTBALL

OF THE SOIL MIXTURE. THE PH RANGE

FORMATION OF AIR POCKETS.

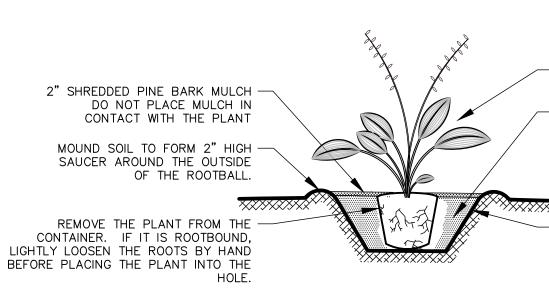
SHALL BE 5.5-7.5, ADD SOIL MIX IN LAYERS

AND SATURATE THE SOIL TO PREVENT THE

TIMES THE DIAMETER & A DEPTH EQUAL TO THE ROOT BALL. PLACE ROOTBALL ON BACKFILL THE REMAINDER OF THE HOLE WITH PLANTABLE SOIL CONSISTING OF LOAM, ORGANIC MATTER AND LOOSE FRIABLE TOPSOIL, FREE OF REFUSE AND OTHER MATERIALS WHICH ARE LARGER THAN 1" II SIZE. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 4% OR NO MORE THAN 20%

FORMATION OF AIR POCKETS.

TREE PLANTING DETAIL NOT TO SCALE (C) 2020 JOHN C. CARTER & CO., INC.



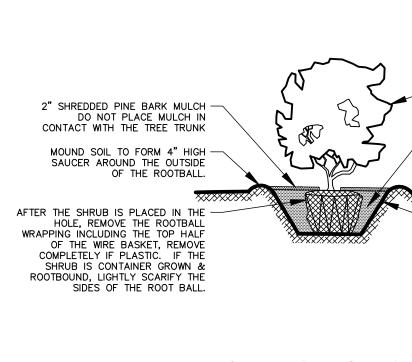
CUT & REMOVE DEAD, BROKEN AND DISEASED VEGETATION.

- EXCAVATE THE HOLE TO A WIDTH OF AT LEAST 2 TIMES THE DIAMETER OF AND A DEPTH EQUAL TO THE CONTAINER HEIGHT. PLACE ROOTBALL ON UNEXCAVATED OR TAMPED SOIL.

BACKFILL THE REMAINDER OF THE HOLE WITH PLANTABLE SOIL CONSISTING OF LOAM, ORGANIC MATTER AND LOOSE FRIABLE TOPSOIL, FREE OF REFUSE AND OTHER MATERIALS WHICH ARE LARGER THAN 1" IN SIZE. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 4% OR NO MORE THAN 20% OF THE SOIL MIXTURE. THE PH RANGE SHALL BE 5.5-7.5. SATURATE THE SOIL TO PREVENT THE FORMATION OF AIR POCKETS.

PERENNIAL PLANTING DETAIL NOT TO SCALE © 2020 JOHN C. CARTER & COMPANY, INC.





SHRUB PLANTING DETAIL

PRUNE DEAD, BROKEN AND DISEASED - EXCAVATE THE HOLE TO A WIDTH OF AT LEAST 2.5 TIMES THE DIAMETER OF AND A DEPTH EQUAL TO THE ROOTBALL, PLACE ROOTBALL ON UNEXCAVATED OR SCARIFY THE SURFACE OF THE HOLE AND BACKFILL THE REMAINDER OF THE HOLE WITH PLANTABLE SOIL CONSISTING OF LOAM, ORGANIC MATTER AND LOOSE FRIABLE TOPSOIL, FREE OF REFUSE AND OTHER MATERIALS WHICH ARE LARGER THAN 1" IN SIZE. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 4% OR NO MORE THAN 20% OF THE SOIL MIXTURE. THE PH RANGE ADD SOIL MIX IN LAYERS AND SATURATE THE SOIL TO PREVENT THE FORMATION OF AIR

NOT TO SCALE ©2020 JOHN C. CARTER & COMPANY, INC.

C Q a

JOHN C. CARTER & CO., INC

960 BOSTON NECK RD., NARRAGANSETT, R

(401) 783 - 3500

LANDSCAPE ARCHITECTURE

DESIGN & BUILD

ISSUED FOR PERMITTING

REVISIONS

10-25-21 Road name on title block 9-2-21 Planting notes: Interior Landscaping.

SCALE None DATE August 11, 2021

SHEET NUMBER

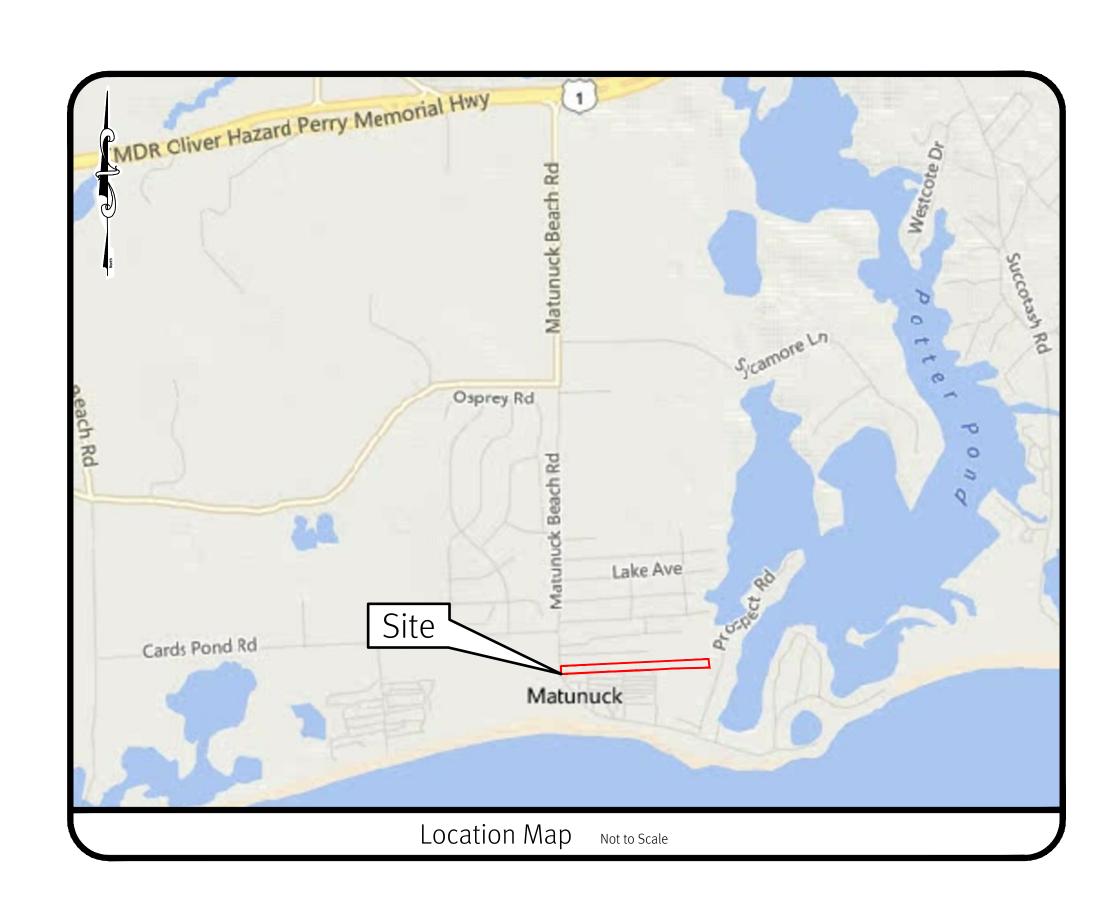
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DRAWN BY: LMW

Matunuck Beach Condos

Matunuck Beach Road South Kingstown, Rhode Island

Assessor's Plat 92-2 Lot 56



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- 3 General Notes & Legend
- 4 Boundary and Topographic Survey
- 5 Soil Erosion & Sediment Control Plan
- Site Layout Plan
- 7 Grading Plan
- 8 Drainage and Utilities
- 9 Plan & Profile
- 10 Stormtech & UIS Detail Sheet 1
- Stormtech & UIS Detail Sheet 2
- 12 Stormtech & UIS Detail Sheet 3
- 13 Detail Sheet 1
- 14 Detail Sheet 2
- 15 Detail Sheet 3

L1-L3 Landscape Architect Plan by Others

RECEIVED

07-15-2022

COASTAL RESOURCES
MANAGEMENT COUNCIL

Applicable State Permits:

DEM OWTS APPLICATION #2032—1432, 2132—0908, 2132—0909, 2132—0910, 2132—0911, 2132—0912. RMC ASSENT — TO BE SUBMITTED STORICAL PRESERVATION & HERITAGE COMMISSION CRMC FILE NO. 2019—03—087 (DATED: APRIL 15, 2019 RMC PRELIMINARY DETERMINATION FILE NO. 2019—03—087 (DATE: MARCH 25, 2019) CHRISTOPHER A. DUHAMEL

15013

REGISTERED
PROFESSIONAL ENGINEER
CIVIL

Professional Engineer of DiPrete Engineering.

DiPrete Engineering only warrants plans on a DiPrete Engineering title block stamped by registered Professional Engineer of DiPrete Engineering. DiPrete Engineering does not warrant plans by any other party.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

Existing utilities shown on this plan are approximate only. DiPrete

 11
 06-29-2022
 CRMC Response to Comments
 B.J.D.

 10
 06-07-2022
 Revised North Landscape Fence and Planting Buffer
 J.A.R.

 9
 05-11-2022
 Rev 8. Level spreader and cape cod berm detail
 C.R.H

 7
 02-17-2022
 Response To TRC Comments
 S.P.B.

 6
 12-03-2021
 Response To TRC Comments
 S.P.B.

 5
 10-22-2021
 Response To TRC Comments
 S.D.M.

 4
 10-66-2021
 CRMC Assent Application Submission
 S.R.

 3
 09-01-2021
 Town Submission
 J.A.C.

 4
 08-11-2021
 Preliminary Plan Submission
 J.A.C.

 0
 07-01-2021
 RIDEM Submission
 S.R.

 NO.
 Date
 Description
 By:

Cover Sheet

Matunuck Beach Condos

Assessor's Plat 92-2 Lot 56
South Kingstown, Rhode Island
Applicant/owner

Matunuck Beach Road Partners, LLC
P.O. Box 385
Wakefield R102880

SHEET 1

2:\demain\braiects\2389-002 matuniick heach condos\autocad drawings\2389-007-cvar.dwg Plotted: 7/7/2022

2013. (FLOOD PLAIN DESCRIPTIONS SHOWN BELOW) ZONE AE - THIS SITE IS LOCATED IN FEMA FLOOD ZONE AE. ZONE AE ARE SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD. BASE FLOOD

ELEVATIONS HAVE BEEN DETERMINED. ZONE X (SHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE

THIS SITE IS LOCATED IN FEMA FLOOD ZONES AE, X (SHADED) AND X (UNSHADED).

REFERENCE FEMA FLOOD INSURANCE RATE MAP 44009C0193J, DATED OCTOBER 16,

AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

ZONE X (UNSHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.

THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS THE RESULTS OF A CLASS I BOUNDARY RETRACEMENT SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY RETRACEMENT SURVEY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD SURVEY PLAN.

CONTOUR DATA SHOWN ON THIS PLAN CONFORMS TO A T-4 TOPOGRAPHICAL SURVEY STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS; SAID DATA IS BASED ON ELEVATION INFORMATION THAT WAS COLLECTED WITH AIRBORNE LIDAR TECHNOLOGY FOR THE ENTIRE AREA OF RHODE ISLAND BETWEEN APRIL 22 AND MAY 6, 2011 AS PART OF THE NORTHEAST LIDAR PROJECT. THIS DATA'S POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED BY DIPRETE ENGINEERING AND IS SUBJECT TO CHANGES AN AUTHORITATIVE FIELD SURVEY MAY DISCLOSE.

ALL WORK PERFORMED HEREIN IS TO BE GOVERNED BY CURRENT EDITIONS OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. TOWN OF SOUTH KINGSTOWN STANDARD SPECIFICATIONS AND DETAILS AND SPECIFICATIONS INCLUDED AS PART OF THE DRAWINGS. IN AREAS OF CONFLICT BETWEEN THE DIFFERENT SPECIFICATIONS, THE DESIGN PLANS AND PROJECT SPECIFICATIONS WILL TAKE PRECEDENCE OVER THE GENERAL SPECIFICATIONS AND THE DESIGN ENGINEER WILL INTERPRET THE CONSTRUCTION REQUIREMENT. THE CONTRACTOR IS ADVISED TO SUBMIT A REQUEST FOR INFORMATION (RFI) FOR ANY AREAS OF CONFLICT BEFORE COMMITTING TO CONSTRUCTION.

THE SITE IS WITHIN A:

SALT PONDS SPECIAL AREA MANAGEMENT PLAN (CRMC) NARROW RIVER LAND TRUST (TOWN) STATEWIDE IMPORTANCE FARMLAND SOILS COASTAL RESILIENCY OVERLAY DISTRICT (TOWN)

SPECIAL FLOOD HAZARD AREA OVERLAY DISTRICT (TOWN)

THE SITE IS NOT WITHIN A: HISTORIC CEMETERY UNIQUE HISTORIC FEATURES

> NATURAL HERITAGE AREA GROUNDWATER PROTECTION AREA TMDL WATERSHED DRINKING WATER SUPPLY WATERSHED (RIDEM)

NATURAL REGISTER OF HISTORIC PLACES

UNIQUE NATURAL FEATURES

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/ OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL

• SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC). THE SESC CONTAINS THE

EROSION CONTROL MEASURES SHORT TERM MAINTENANCE

 ESTABLISHMENT OF VEGETATIVE COVER • CONSTRUCTION POLLUTION PREVENTION SEQUENCE OF CONSTRUCTION

• STORMWATER OPERATION AND MAINTENANCE PLAN (0&M). THE 0&M CONTAINS: LONG TERM MAINTENANCE • LONG TERM POLLUTION PREVENTION

THE SITE IS TO BE SERVICED BY PUBLIC WATER AND PRIVATE OWTS.

PROPOSED RIGHTS OF WAY ARE TO BE 22.0' WIDE WITH 20' WIDE PAVEMENT (10' TRAVEL LANES AND 12" BITUMINOUS BERM ON BOTH SIDES IN SOME AREAS).

THE STORMWATER MANAGEMENT SYSTEM MEETS THE RIDEM BEST MANAGEMENT PRACTICES.

THE SITE IS PROPOSED TO BE BUILT IN ONE PHASE.

CRMC COASTAL WETLAND AND BUFFER TO BE PROTECTED BY A CONSERVATION EASEMENT.

SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON 02/20/2019 AND 11/09/2020.

WETLAND EDGE DELINEATED BY DIPRETE ENGINEERING AND LOCATED BY DIPRETE ENGINEERING USING SUBMETER GPS ON FEBRUARY 20, 2019.

ANY PROPRIETARY PRODUCTS REFERENCED IN THIS PLAN SET ARE REPRESENTATIVE OF THE MINIMUM DESIGN REQUIREMENTS FOR THE PURPOSE IT PROPOSES TO SERVE. ALTERNATIVES TO ANY PROPRIETARY PRODUCT MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR CONSIDERATION, WHICH MUST BE ACCOMPANIED BY APPROPRIATE SPECIFICATION SHEETS/ DESIGN CALCULATIONS THAT DEMONSTRATE THE ALTERNATIVE(S) MEET THE MINIMUM DESIGN PARAMETERS OF THE PRODUCT SHOWN ON THE PLANS. NO ALTERNATIVES MAY BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

THIS PLAN SET MAY REFERENCE AND / OR INCLUDE REPRODUCTIONS OF PROPRIETARY PRODUCTS/ DETAILS BY OTHERS, AND/ OR THEIR ASSOCIATED SPECIFICATIONS. ANY REFERENCED OR REPRODUCED PROPRIETARY PRODUCT OR DETAIL BY OTHERS THAT IS SHOWN ON DIPRETE PLANS IS STRICTLY FOR INFORMATION / SPECIFICATION PURPOSES ONLY. DIPRETE ENGINEERING DOES NOT WARRANT ANY PROPRIETARY PRODUCTS, DETAILS BY OTHERS OR THEIR RESPECTIVE DESIGNS. IF A DIPRETE ENGINEERING PLAN INCLUDES A PROPRIETARY PRODUCT/ DETAIL BY OTHERS (EITHER EXPLICITLY OR IMPLIED) AND IS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING, SAID STAMP DOES NOT EXTEND TO ANY PORTION OF THE PROPRIETARY PRODUCT/ DETAIL BY OTHERS OR ITS DESIGN.

Soil Information:

(REFERENCE: SOIL MAPPING OBTAINED FROM RIGIS. SOIL GEOGRAPHIC DATA DEVELOPED BY THE RHODE ISLAND SOIL SURVEY PROGRAM IN PARTNERSHIP WITH THE NATIONAL COOPERATIVE SOIL SURVEY)

SOIL NAME <u>DESCRIPTION</u>

BRIDGEHAMPTON SILT LOAM, 3 TO 8 PERCENT SLOPES FORTRESS SAND

MERRIMAC-URBAN LAND COMPLEX

NOTE: *PRIME FARMLAND **FARMLAND OF STATEWIDE IMPORTANCE

MATUNUCK MUCKY PEAT

Soil Erosion and Sedimentation Control Notes:

THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON SITE WHICH MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS AND AUTHORITY HAVING JURISDICTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER. AND RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

ALL EROSION CONTROL INCLUDING (BUT NOT LIMITED TO) TEMPORARY SEDIMENT TRAPS, ETC. TO BE INSTALLED PER THE LATEST EDITION OF THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL (RISESC) HANDBOOK AND THE SOIL EROSION & SEDIMENTATION CONTROL PLAN(S). NOTE THE SOIL EROSION AND SEDIMENT CONTROL SHOWN ON THESE PLANS ARE THE MINIMUM QUANTITY/ TYPE OF EROSION CONTROL DEVICES AND MATERIALS DEEMED REQUIRED BY DIPRETE ENGINEERING TO MEET THE OBJECTIVES OF THE RISESC HANDBOOK, BUT IS CONSIDERED A GUIDE ONLY. ADDITIONAL MEASURES/ ALTERNATE CONFIGURATIONS MAY BE REQUIRED IN ORDER TO MEET THE RISESC HANDBOOK BASED ON FACTORS INCLUDING (BUT NOT LIMITED TO) SITE PARAMETERS, WEATHER, INSPECTIONS AND UNIQUE FEATURES. THE SESC WILL CONTINUE TO EVOLVE THROUGHOUT CONSTRUCTION/PHASES. PURSUANT TO NOTE 1 ABOVE, SESC REMAINS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED AND/ OR SESC RESPONSIBILITIES ARE ASSUMED BY THE OWNER IN WRITING.

ONCE THE SEDIMENT TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE TEMPORARY SEDIMENTATION TRAPS TO BE CLEANED AND BROUGHT TO FINAL DESIGN GRADES.

INLET PROTECTION IS TO BE INSTALLED ON ALL CATCH BASINS ONCE CONSTRUCTED.

FOR SEQUENCE OF CONSTRUCTION, PROJECT PHASING AND CONSTRUCTION PHASING SEE SESC PLAN

CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER AND OWNER

IF CONCRETE TRUCKS ARE WASHED OUT ON SITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.

Demolition Notes:

CONTRACTOR TO OBTAIN ALL FEDERAL, STATE, AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.

CONTRACTOR TO PERFORM DAILY SWEEPING AT CONSTRUCTION ENTRANCE DURING DEMOLITION AND CONSTRUCTION TO MINIMIZE SEDIMENTS ON EXTERNAL STREETS.

ANY EXISTING BUILDING(S) AND PROPERTY PROPOSED TO REMAIN WHICH ARE DAMAGED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS SPECIFIED OTHERWISE HERE IN. R&D MATERIALS MUST INCLUDE BUT ARE NOT LIMITED TO PAVEMENT, GRAVEL, CATCH BASINS, MANHOLES, GRATES/FRAMES/COVERS, AND ANY EXCESS SOIL THAT IS NOT INCORPORATED INTO THE WORK.

IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, ALL DISTURBED AREAS INCLUDING THE CONTRACTOR'S STOCKPILE AND STAGING AREAS WITHIN THE LIMIT OF WORK MUST BE RESTORED TO MATCH THE DESIGN PLANS.

CONTRACTOR MUST DOCUMENT LOCATION OF ALL SUBSURFACE UTILITIES REMAINING IN PLACE AFTER DEMOLITION (ACTIVE AND INACTIVE/ABANDONED). LOCATION MUST BE DOCUMENTED BY FIELD SURVEY OR SWING TIES. COPIES OF LOCATION DOCUMENTATION MUST BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF DEMOLITION AND PRIOR TO START OF NEW CONSTRUCTION. A MARKER MUST BE INSTALLED TO FINISH GROUND AT ALL INSTALLED CAPS/PLUGS. THE MARKER CAN BE A POST IN CONSTRUCTION AREAS OR PAINTED ON A PERMANENT SURFACE.

ayout and Materials:

DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.

CURBING WITHIN THE PUBLIC RIGHT OF WAY TO BE CONCRETE. CURBING WITHIN THE SITE TO BE BITUMINOUS BERM OR AS LABELED ON THE PLANS.

SIDEWALK WITHIN THE PUBLIC RIGHT OF WAY TO BE CONCRETE. SIDEWALK WITHIN THE SITE TO BE PERVIOUS CONCRETE OR AS LABELED ON THE PLANS.

SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR MUST REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES. STAIRWAYS. UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.

PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION MUST BE SET OR RESET BY A PROFESSIONAL LICENSED

CONTRACTOR MUST NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS. CONTRACTOR MUST VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE STAMPED PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

ALL GUARDRAIL ONSITE MUST BE STEEL BACKED TIMBER GUARDRAIL WITH STEEL POSTS, IN CONFORMANCE WITH SECTION 5.4.1.7 OF THE AASHTO ROADSIDE DESIGN GUIDE. ALTERNATIVE GUARDRAILS WILL BE CONSIDERED BY THE DESIGN ENGINEER IF THEY ARE DOT APPROVED EQUAL AND ACCEPTABLE TO THE OWNER. ALTERNATIVES MUST BE APPROVED IN WRITING BY THE OWNER AND DESIGN ENGINEER PRIOR TO CONSTRUCTION.

Americans with Disabilities Act Notes:

ALL IMPROVEMENTS MUST COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)" BY THE DEPARTMENT OF JUSTICE (CURRENT

MAXIMUM RUNNING SLOPE ALONG ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 4.5% (0.045 FT/FT), AND MAXIMUM CROSS SLOPE ACROSS ALL ACCESSIBLE PATHS OF TRAVEL MUST BE 1.5% (0.015 FT/FT).

ADA PARKING SPACES AND LOADING AREAS: THE STEEPEST SLOPE OF THE SPACE, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.

A MINIMUM 5'x5' LANDING MUST BE PROVIDED IN FRONT OF ALL PUBLICLY ACCESSIBLE BUILDING ENTRANCES/ EGRESSES. THE STEEPEST SLOPE OF THE LANDING, MEASURED IN ANY DIRECTION (INCLUDING DIAGONAL), MUST BE LESS THAN OR EQUAL TO 2% (0.02 FT/FT). DIPRETE ENGINEERING GENERALLY RECOMMENDS A MAXIMUM OF 1.4% (0.014 FT/FT) BE USED FOR BOTH RUNNING AND CROSS SLOPES IN ORDER TO COMPLY.

FOR EVERY 6 (OR FRACTION OF 6) ADA PARKING SPACES, AT LEAST ONE MUST BE A VAN PARKING SPACE. FOR EXAMPLE, IF 7 ADA PARKING SPACES ARE REQUIRED, A MINIMUM OF 2 MUST BE VAN SPACES.

NOTWITHSTANDING THE NOTES LISTED ABOVE, TOWN OR STATE-SPECIFIC STANDARDS MAY BE MORE STRINGENT AND OVERRULE. IT IS THE RESPONSIBILITY OF THE USER OF THIS PLAN SET TO MAINTAIN COMPLIANCE WITH THE CONTROLLING

NOTE THAT THE GRADING/ PLAN VIEWS AND DETAILS CONTAINED WITHIN THIS PLAN SET MAY NOT SHOW THE DETAIL NECESSARY TO CONSTRUCT WALKWAYS, RAMPS AND SPACES TO COMPLY WITH THE ABOVE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE LEVEL OF CARE NECESSARY TO BE CERTAIN THAT THE CONSTRUCTED PRODUCT MEETS ADA/ CONTROLLING STANDARDS. IN THE EVENT OF ANY NON COMPLIANCE THE CONTRACTOR MUST NOTIFY THE DESIGNER BEFORE CONSTRUCTION FOR ADVICE IN FINDING A RESOLUTION.

Grading and Utility Notes:

CONSTRUCTION TO COMMENCE FALL 2021 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.

THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDINGS. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDINGS TO ENSURE SURFACE WATER AND/OR GROUNDWATER ARE DIRECTED AWAY FROM THE STRUCTURES.

PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY EXISTING PAVEMENT FLEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS. AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES. CONTRACTOR MUST NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH OWNER, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.

ALL RETAINING WALLS AND STEEP SLOPES ARE SUBJECT TO FINAL STRUCTURAL DESIGN. DIPRETE ENGINEERING IS NOT PROVIDING THE STRUCTURAL DESIGN OF THESE ITEMS. ALL WALLS AND STEEP SLOPES ARE TO BE DESIGNED AND BUILT UNDER THE DIRECTION OF A RHODE ISLAND LICENSED PROFESSIONAL ENGINEER SUITABLY QUALIFIED IN GEOTECHINCAL ENGINEERING AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS TO BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DESIGN MUST INCORPORATE THE INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.

ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE APPLICANT AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.

NO STOCKPILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.

ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISCARDED OFF SITE IN AN ACCEPTABLE MANNER AT AN APPROVED LOCATION STUMPS MUST BE GROUND ON SITE OR REMOVED.

ALL LOAM IN DISTURBED AREAS TO BE STOCKPILED FOR FUTURE USE.

THE SITE WILL HAVE 6" CONCRETE CURBING. SITE GRADING/CONTOURS SHOWN ON THE PLANS DO NOT NECESSARILY REFLECT THE APPROPRIATE CURBING REVEAL. CONTRACTOR TO INSTALL CURBING WITH APPROPRIATE REVEAL UNLESS OTHERWISE

NO STUMP DUMPS ARE PROPOSED ON SITE.

ALL DRAINAGE PIPING TO BE HIGH-DENSITY POLYETHYLENE (HDPE) WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.

DRAINAGE STRUCTURES TO BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):

• MANHOLES TO BE RIDOT STD. 4.2.0, 4.2.1 OR 4.2.2 AS REQUIRED • DRAINAGE MANHOLE COVERS TO BE RIDOT STD 6.2.1

• DROP INLETS TO BE RIDOT STD. 4.5.0, 4.5.1 OR 4.5.2. • APRON STONE, WHERE REQUIRED, TO BE RIDOT STD 7.1.7 OR 7.1.8.

ALL DRAINAGE STRUCTURES MUST BE WATERTIGHT.

DRAINAGE CONNECTIONS FROM ALL YARD DRAINS (YD). AREA DRAINS (AD). TRENCH DRAINS (TD), FRENCH DRAINS (FD), WALL DRAINS (WD), AND DOWNSPOUTS (DS) ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. THE LEVEL OF DETAIL SHOWN DOES NOT INCLUDE ALL JOINTS THAT MAY BE REQUIRED FOR CONSTRUCTION. ALL FITTINGS & PIPE SLOPES TO TIE INTO MAIN TRUNK LINE TO BE FIELD FIT BY CONTRACTOR.

ONSITE WASTEWATER TREATMENT SYSTEM

MULTIPLE ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS) ARE PROPOSED TO SERVICE THE SITE. INDIVIDUAL APPROVALS WILL BE REQUIRED FOR EACH OWTS.

ALL WATER MAINS TO BE CONCRETE LINED DUCTILE IRON PIPE (CLDIP). ALL WATER MAIN IMPROVEMENTS MUST COMPLY WITH THE SOUTH KINGSTOWN WATER REGULATIONS AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION, INCLUDING (BUT NOT LIMITED TO) MATERIALS, DIMENSIONS AND ACCESS COVERS. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND SUBMITTALS TO THE ENGINEER OF RECORD FOR APPROVAL FOR ALL WATER IMPROVEMENTS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO PIPES, VALVES, FITTINGS, HEAT ENCLOSURES, AND BACKFLOWS. ALL COMPONENTS OF THE WATER SYSTEM TO BE ASBUILT PER SOUTH KINGSTOWN WATER REQUIREMENTS. ALL COMPONENTS OF THE WATER SYSTEM TO BE INSPECTED BY SOUTH KINGSTOWN WATER. CONTRACTOR TO COORDINATE ALL IMPROVEMENTS WITH SOUTH KINGSTOWN WATER TO ENSURE INSPECTOR IS ON SITE.

IN THE CASE OF ANY NEW HYDRANT INSTALLED IN OR NEXT TO AN EXISTING SIDEWALK, THE CONTRACTOR MUST INCREASE THE WIDTH OF THE SIDEWALK, AS NECESSARY, TO MAINTAIN A MINIMUM OF 3'-0" CLEAR WIDTH FROM THE OUTERMOST COMPONENTS OF THE HYDRANT TO THE EDGE OF THE SIDEWALK. THE 3'-O" SIDEWALK WIDTH IS REQUIRED ONLY ON ONE SIDE OF THE HYDRANT TO PROVIDE A CLEAR PATH ON THE SIDEWALK.

ELECTRIC/TELECOM/GAS

PROPOSED GAS, ELECTRIC, CABLE AND DATA UTILITIES ARE SHOWN SCHEMATICALLY AND ARE PROPOSED TO BE UNDERGROUND. OWNER & CONTRACTOR TO COORDINATE FINAL DESIGN WITH APPROPRIATE UTILITY COMPANIES. ALL WORK TO BE IN ACCORDANCE WITH EACH UTILITY COMPANY'S STANDARDS AND DETAILS AS WELL AS LOCAL AND FEDERAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO, POLES, TRANSFORMERS, PULL BOXES, CONCRETE PADS, CONCRETE ENCASEMENTS AND CONDUITS. CONNECTION POINTS FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING INFRASTRUCTURE, ARE CURRENTLY SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE UNDERGROUND OR OVERHEAD AND WILL BE COORDINATED WITH NATIONAL GRID PRIOR TO CONSTRUCTION.

SITE LIGHTING

SITE LIGHTING (TEMPORARY AND PERMANENT) MUST BE DIRECTED AWAY FROM AND SHIELDED FROM ENVIRONMENTALLY SENSITIVE AREAS AND ABUTTING LANDS. EXACT LOCATIONS OF LIGHT POLE TO BE COORDINATED WITH OTHER UTILITIES AND TO BE LOCATED WITHIN THE STREET RIGHTS OF WAY. FINAL LIGHTING AND CONDUIT LOCATIONS BY

Abbreviations Legend

ADA AMERICANS WITH DISABILITY ACT OHW OVERHEAD WIRE AUTHORITY HAVING JURISDICTION PE POLYETHYLENE ASSESSOR'S PLAT P PROPERTY LINE BC PR PROPOSED BOTTOM OF CURB PVC POLYVINYL CHLORIDE BOTTOM OF TESTHOLE BIT BITUMINOUS (BERM) R RADIUS BIO BIORETENTION R&D REMOVE AND DISPOSE BS BASEMENT SLAB ELEVATION RCP REINFORCED CONCRETE PIPE RIHB RHODE ISLAND BW FINISHED GRADE AT BOTTOM OF WALL CB CATCH BASIN HIGHWAY BOUND (C) CALCULATED RL ROOF LEADER ROW RIGHT OF WAY CENTERLINE (CA) CHORD ANGLE S SLOPE CLDIP CONCRETE LINED DUCTILE IRON PIPE SD SUBDRAIN CO CLEAN OUT SED SEDIMENT FOREBAY CONC CONCRETE SF SQUARE FOOT (D) DEED SFL STATE FREEWAY LINE DCB DOUBLE CATCH BASIN SFM SEWER FORCE MAIN DI DROP INLET SG SLAB ON GRADE ELEVATION DRAINAGE MANHOLE SHL STATE HIGHWAY LINE SMH SEWER MANHOLE DP DETENTION POND ELEVATION SNDF SAND FILTER EOP EDGE OF PAVEMENT SS SIDE SLOPE ESC EROSION AND SEDIMENT CONTROL STA STATION TC TOP OF CURB EXISTING FES FLARED END SECTION TD TRENCH DRAIN TF TOP OF FOUNDATION FFE FINISH FLOOR ELEVATION GARAGE SLAB ELEVATION TRANS TRANSITION GWT GROUND WATER TABLE TW TOP OF WALL (FINISHED HEADWALL GRADE AT TOP OF WALL) HIGH CAPACITY CATCH BASIN GRATE TYP TYPICAL HDPE HIGH DENSITY POLYETHYLENE UDS UNDERGROUND

N/F NOW OR FORMERLY

LIMIT OF DISTURBANCE

IP INFILTRATION POND

ID INLINE DRAIN

LF LINEAR FEET

LP LIGHT POLE

(M) MEASURED

INV INVERT

LOD

(7.1.0) RI STD PRECAST CONCRETE CURB

(7.6.0) RI STD CURB SETTING DETAIL

(9.9.0) RI STD CONSTRUCTION ACCESS

(12W) STOP LINE (REFERENCE MUTCD SECTION 3B.16)

Site Callouts Legend

DETENTION SYSTEM

INFILTRATION SYSTEM

UIS UNDERGROUND

UP UTILITY POLE

WQ WATER QUALITY

WO WALKOUT ELEVATION

(43.3.1) RI STD WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS

CROSSWALK PAVEMENT MARKINGS, SOLID 2' WHITE LINES CWK SPACED 4' OC (REFERENCE MUTCD SECTION 3B.18)

Proposed Legend NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

> RETAINING WALL MINOR CONTOUR LINE

CHAINLINK FENCE **GUARDRAIL SEE LAYOUT** AND MATERIALS NOTE 8.

Existing Legend

(AS SHOWN ON PROPOSED PLANS) NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

ASSESSORS LINE **0**/© **O**/**• BUILDING BRUSHLINE** TREELINE GUARDRAIL FENCE CB RETAINING WALL DCB STONE WALL DMH _ __ _2__ __ MINOR CONTOUR LINE FES MAJOR CONTOUR LINE _____ WATER LINE SEWER LINE UP SEWER FORCE MAIN GAS LINE ELECTRIC LINE OVERHEAD WIRES DRAINAGE LINE SOILS LINES 50' PERIMETER WETLAND 100' RIVERBANK WETLAND 200' RIVERBANK WETLAND FEMA BOUNDARY

PROPERTY LINE

 Δ / \triangle

NAIL FOUND/SET

BOUND FOUND/SET

SOIL EVALUATION

DOUBLE CATCH BASIN

DRAINAGE MANHOLE

FLARED END SECTION

ELECTRIC MANHOLE

UTILITY/POWER POLE

SEWER/SEPTIC MANHOLE

CATCH BASIN

GUY POLE

LIGHTPOST

SEWER VALVE

IRRIGATION VALVE

MONITORING WELL

UNKNOWN MANHOLE

STREAM FLOW DIRECTION

WATER VALVE

GAS VALVE

BENCH MARK

CLEANOUT

HYDRANT

WELL

 \longrightarrow

SIGN

BOLLARD

DRILL HOLE FOUND/SET

bo

Christopher A. Duhamel

RÉGISTERED

PROFESSIONAL ENGINEER CIVIL

WETLAND LINE & FLAG ----- STATE HIGHWAY LINE ------ STATE FREEWAY LINE

PROPERTY LINE — — BUILDING SETBACKS

MAJOR CONTOUR LINE SPOT ELEVATION

EDGE OF PAVEMENT

BITUMINOUS BERM CONCRETE CURB (RIDOT STD 7.1.0)

BUILDING FOOTPRINT ---- BUILDING OVERHANG

ASPHALT PAVEMENT ASPHALT PAVEMENT

CONCRETE SIDEWALK

ASPHALT SIDEWALK SAWCUT LINE SIGN (RIDOT STD 24.6.2

DOUBLE LIGHT

OVERHANGING LIGHT ACCESSIBLE PARKING SPACE SYMBOLS

AS APPLICABLE)

BUILDING INGRESS/EGRESS

SINGLE LIGHT

STORMCRETE

POROUS CONCRETE

DRAINAGE LINE PERFORATED SUBDRAIN $-- \rightarrow -- \rightarrow -- \rightarrow -- \rightarrow -$ SWALE SEWER FORCE MAIN GAS LINE WATER LINE HYDRANT ASSEMBLY WATER SHUT OFF WATER VALVE THRUST BLOCK SEWER LINE _____s ____ OVERHEAD WIRE ELECTRIC, TELEPHONE, CABLE LINE LIMIT OF DISTURBANCE/ LIMIT OF CLEARING SEDIMENTATION BARRIER, SILT FENCE (RIDOT STD 9.2.0), COMPOST SOCK OR APPROVED EQUAL SLOPES STEEPER THAN 3: (2:1 OR 1:1 SLOPES) UNDERGROUND INFILTRATION OUTLINE POND ACCESS

SAND FILTER

BIO RETENTION CATCH BASIN DOUBLE CATCH BASIN

MANHOLE FLARED END SECTION HEADWALL

PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES, UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS

DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED. ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.

ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY.

LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING,

THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE

GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 811. DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY

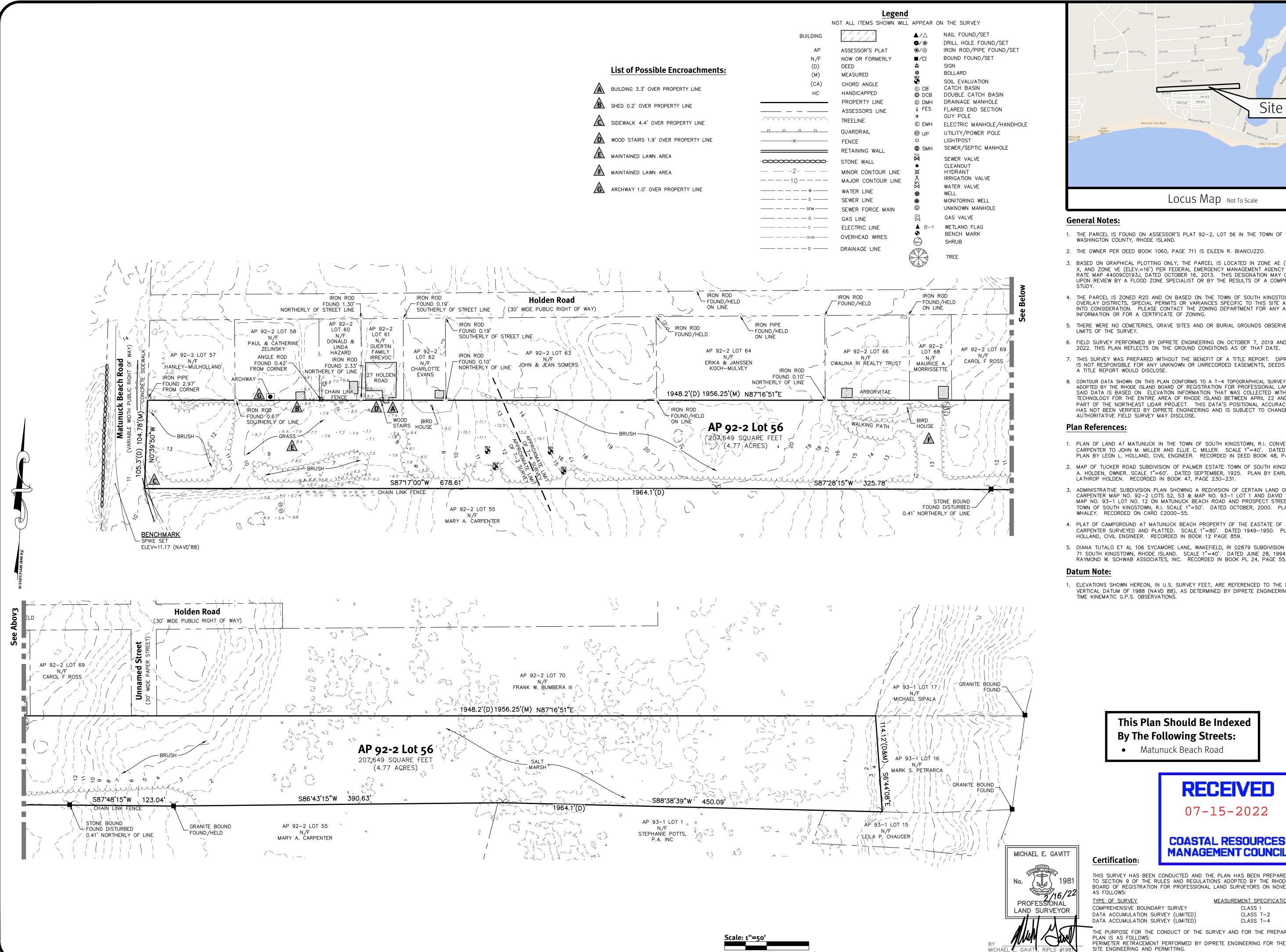
RECOMMENDED.

MEMBER UTILITIES ARE IN THE AREA.

Utility Note:

07-15-2022

COASTAL RESOURCES MANAGEMENT COUNCIL





Locus Map Not To Scale

- 1. THE PARCEL IS FOUND ON ASSESSOR'S PLAT 92-2, LOT 56 IN THE TOWN OF SOUTH KINGSTOWN, WASHINGTON COUNTY, RHODE ISLAND.
- 2. THE OWNER PER DEED BOOK 1060, PAGE 711 IS EILEEN R. BIANCUZZO.
- 3. BASED ON GRAPHICAL PLOTTING ONLY, THE PARCEL IS LOCATED IN ZONE AE (ELEV.=13'), ZONE X, AND ZONE VE (ELEV.=16') PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 44009C0193J, DATED OCTOBER 16, 2013. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD
- 4. THE PARCEL IS ZONED R20 AND CN BASED ON THE TOWN OF SOUTH KINGSTOWN GIS. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
- 5. THERE WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE
- 6. FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON OCTOBER 7, 2019 AND FEBRUARY 10. 2022. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
- 7. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS, DEEDS OR CLAIMS THAT
- 8. CONTOUR DATA SHOWN ON THIS PLAN CONFORMS TO A T-4 TOPOGRAPHICAL SURVEY STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS; SAID DATA IS BASED ON ELEVATION INFORMATION THAT WAS COLLECTED WITH AIRBORNE LIDAR TECHNOLOGY FOR THE ENTIRE AREA OF RHODE ISLAND BETWEEN APRIL 22 AND MAY 6, 2011 AS PART OF THE NORTHEAST LIDAR PROJECT. THIS DATA'S POSITIONAL ACCURACY AND RELIABILIT HAS NOT BEEN VERIFIED BY DIPRETE ENGINEERING AND IS SUBJECT TO CHANGES AN AUTHORITATIVE FIELD SURVEY MAY DISCLOSE.
- 1. PLAN OF LAND AT MATUNUCK IN THE TOWN OF SOUTH KINGSTOWN, R.I. CONVEYED BY S. LEROY CARPENTER TO JOHN M. MILLER AND ELLIE C. MILLER. SCALE 1"=40'. DATED MAY, 1934. PLAN BY LEON L. HOLLAND, CIVIL ENGINEER. RECORDED IN DEED BOOK 48, PAGE 568-569.
- 2. MAP OF TUCKER ROAD SUBDIVISION OF PALMER ESTATE TOWN OF SOUTH KINGSTOWN, R.I. HENRY A. HOLDEN, OWNER. SCALE 1"=60'. DATED SEPTEMBER, 1925. PLAN BY EARL WHALEY AND LATHROP HOLDEN. RECORDED IN BOOK 47, PAGE 230-231.
- 3. ADMINISTRATIVE SUBDIVISION PLAN SHOWING A REDIVISION OF CERTAIN LAND OF: MARY A. CARPENTER MAP NO. 92-2 LOTS 52, 53 & MAP NO. 93-1 LOT 1 AND DAVID VAN PELT YALE MAP NO. 93-1 LOT NO. 12 ON MATUNUCK BEACH ROAD AND PROSPECT STREET ROAD IN THE TOWN OF SOUTH KINGSTOWN, R.I. SCALE 1"=50'. DATED OCTOBER, 2000. PLAN BY LLOYD L.
- 4. PLAT OF CAMPGROUND AT MATUNUCK BEACH PROPERTY OF THE EASTATE OF ARTHUR B. CARPENTER SURVEYED AND PLATTED. SCALE 1"=80'. DATED 1949-1950. PLAN BY LEON L. HOLLAND, CIVIL ENGINEER. RECORDED IN BOOK 12 PAGE 859.
- 5. DIANA TUTALO ET AL 106 SYCAMORE LANE, WAKEFIELD, RI 02879 SUBDIVISION A.P. 92-2 LOT 71 SOUTH KINGSTOWN, RHODE ISLAND. SCALE 1"=40'. DATED JUNE 28, 1994. PLAN BY RAYMOND W. SCHWAB ASSOCIATES, INC. RECORDED IN BOOK PL 24, PAGE 55.

1. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL

> This Plan Should Be Indexed By The Following Streets:

Matunuck Beach Road



THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015,

DATA ACCUMULATION SURVEY (LIMITED)

MEASUREMENT SPECIFICATION CLASS I CLASS T-2 CLASS T-4

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PERIMETER RETRACEMENT PERFORMED BY DIPRETE ENGINEERING FOR THE PURPOSE OF SITE ENGINEERING AND PERMITTING.

d Topographic Survey **3each Condos** Jundary ar

eering

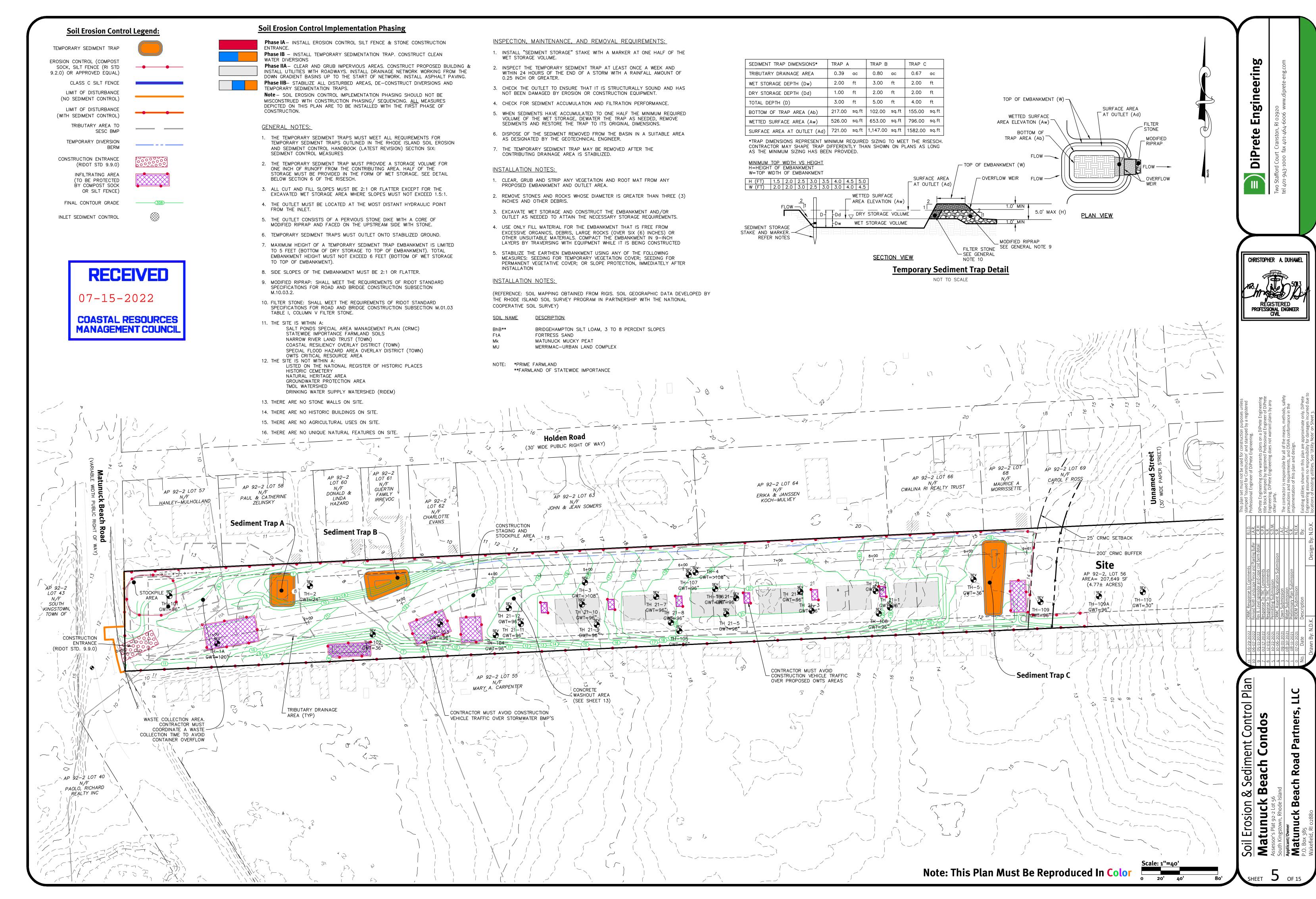
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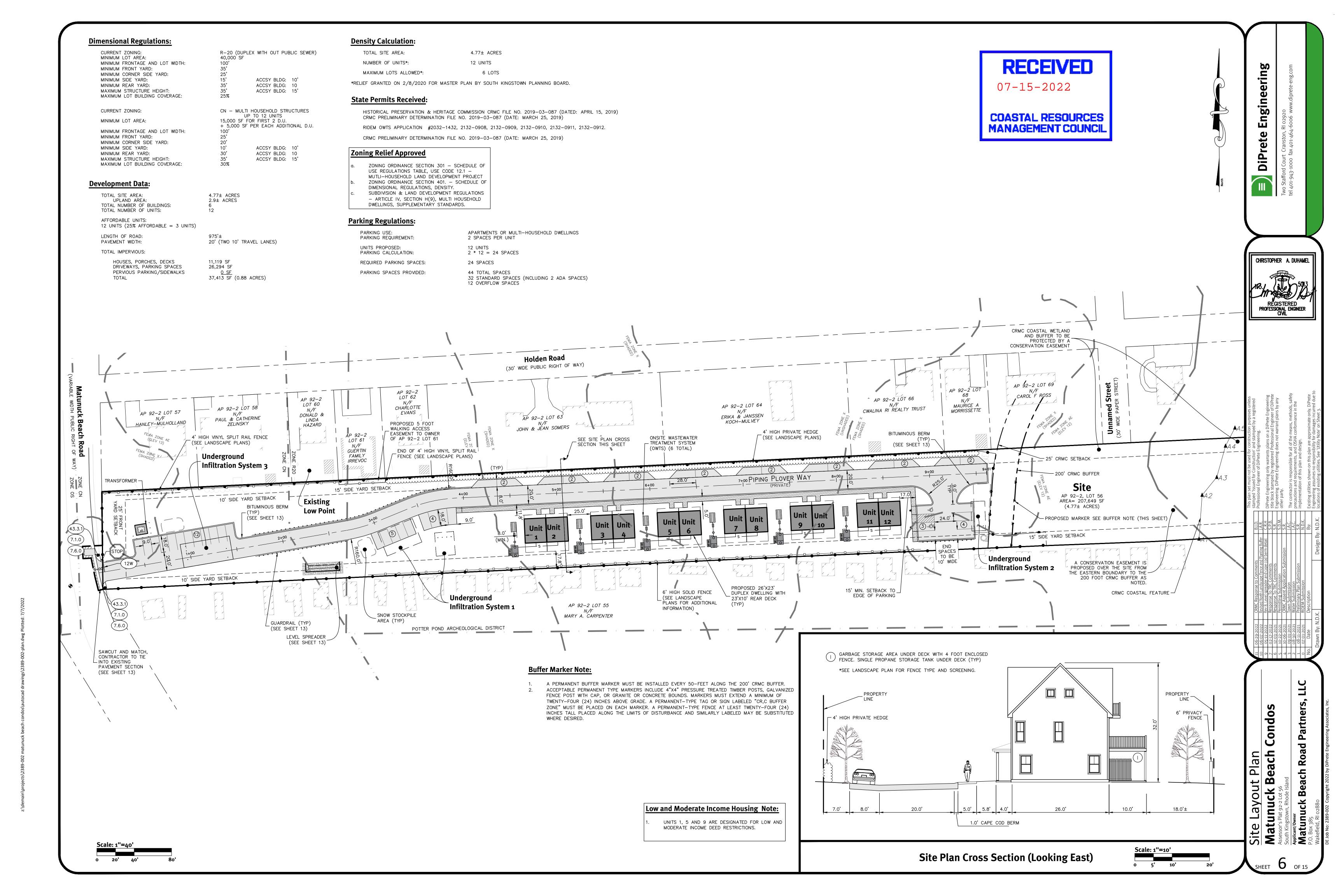
Boston

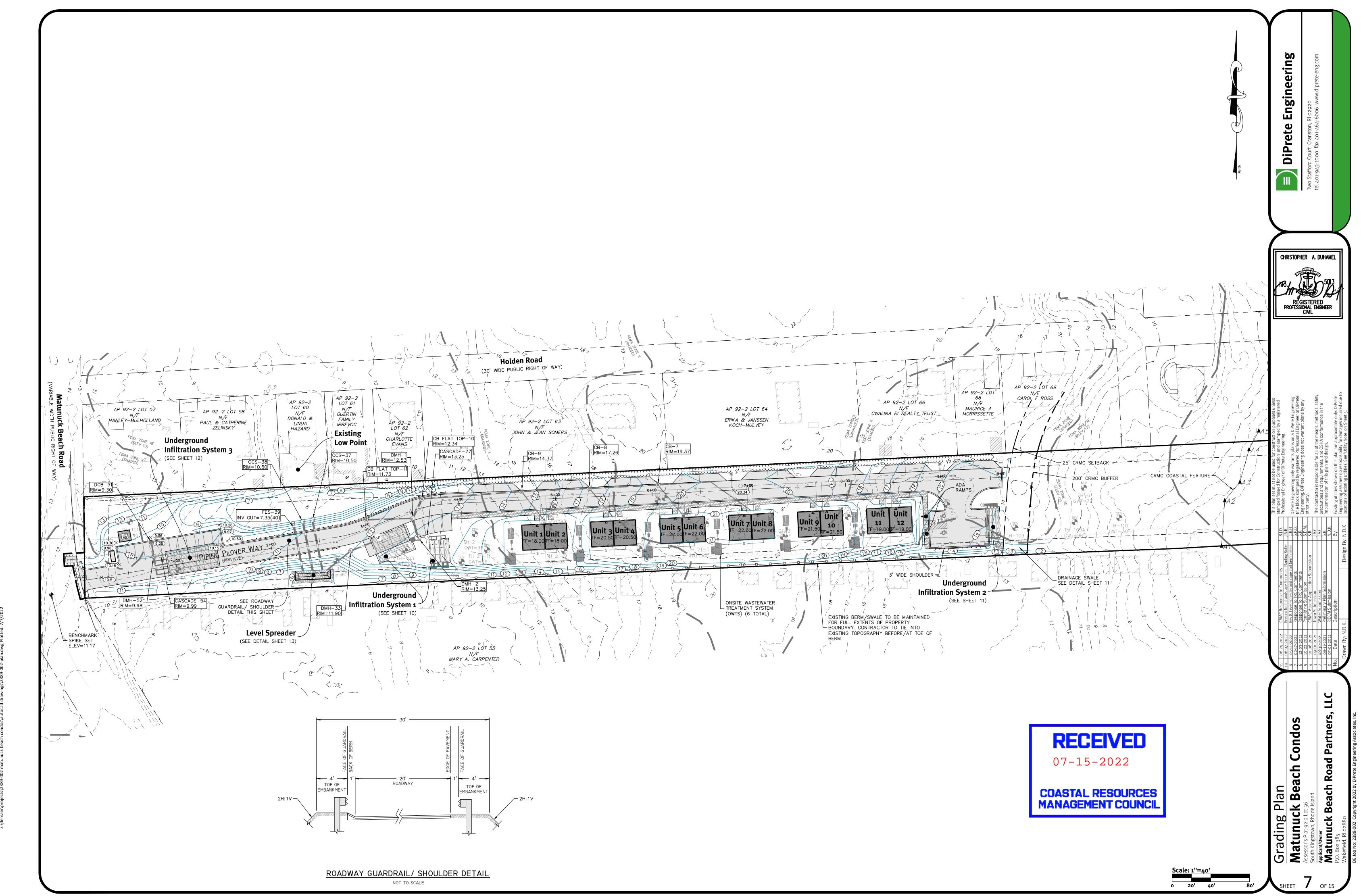
DeSim

Stephen
PO Box 5674. Wake

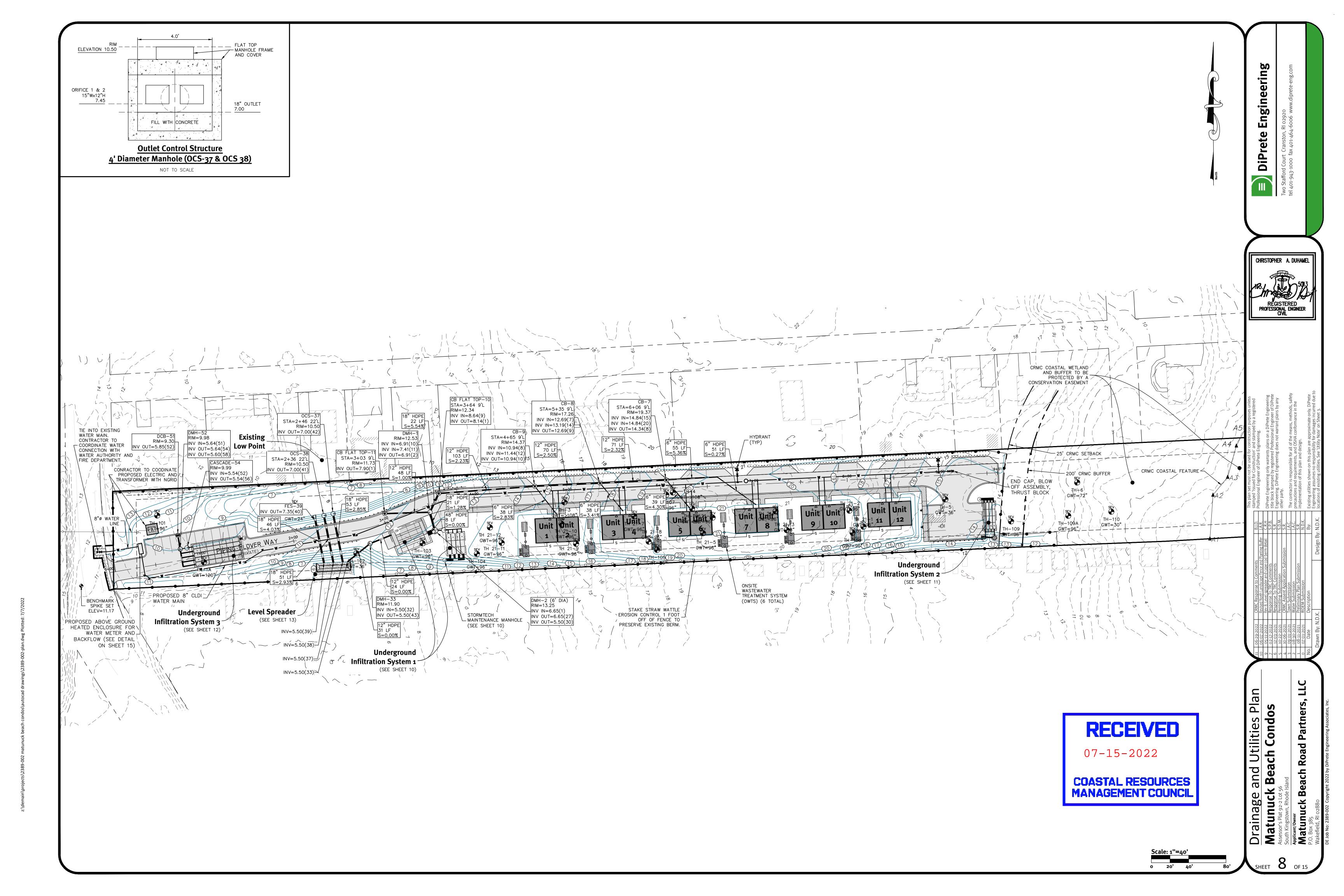


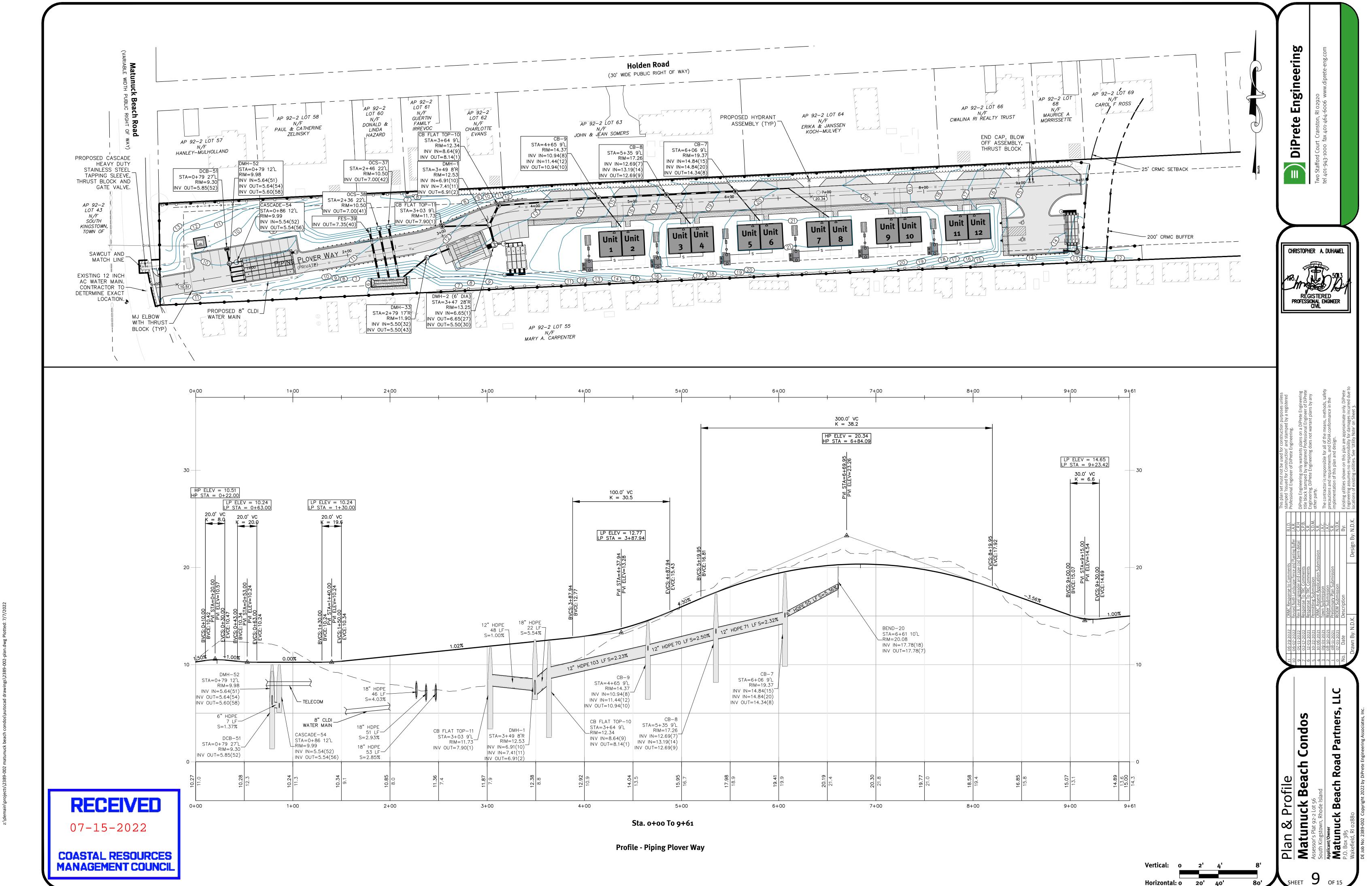
בי למכווומון אלו כל רכים לבסכן סכב ווומנמון מכון בסכן לממנסממ מומאוונים לבסכן סכב למווימאים במכון בסכן לממנסממ

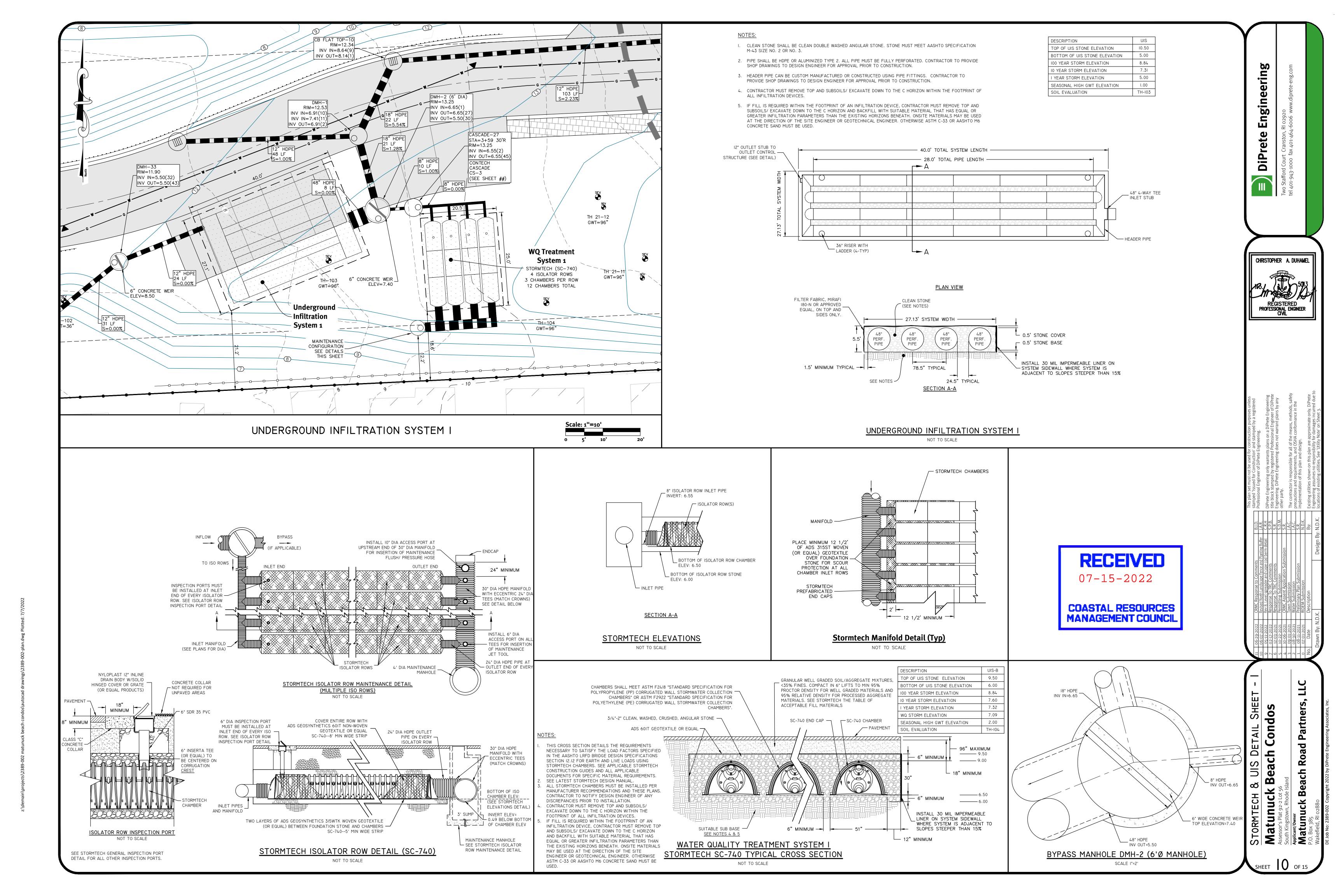


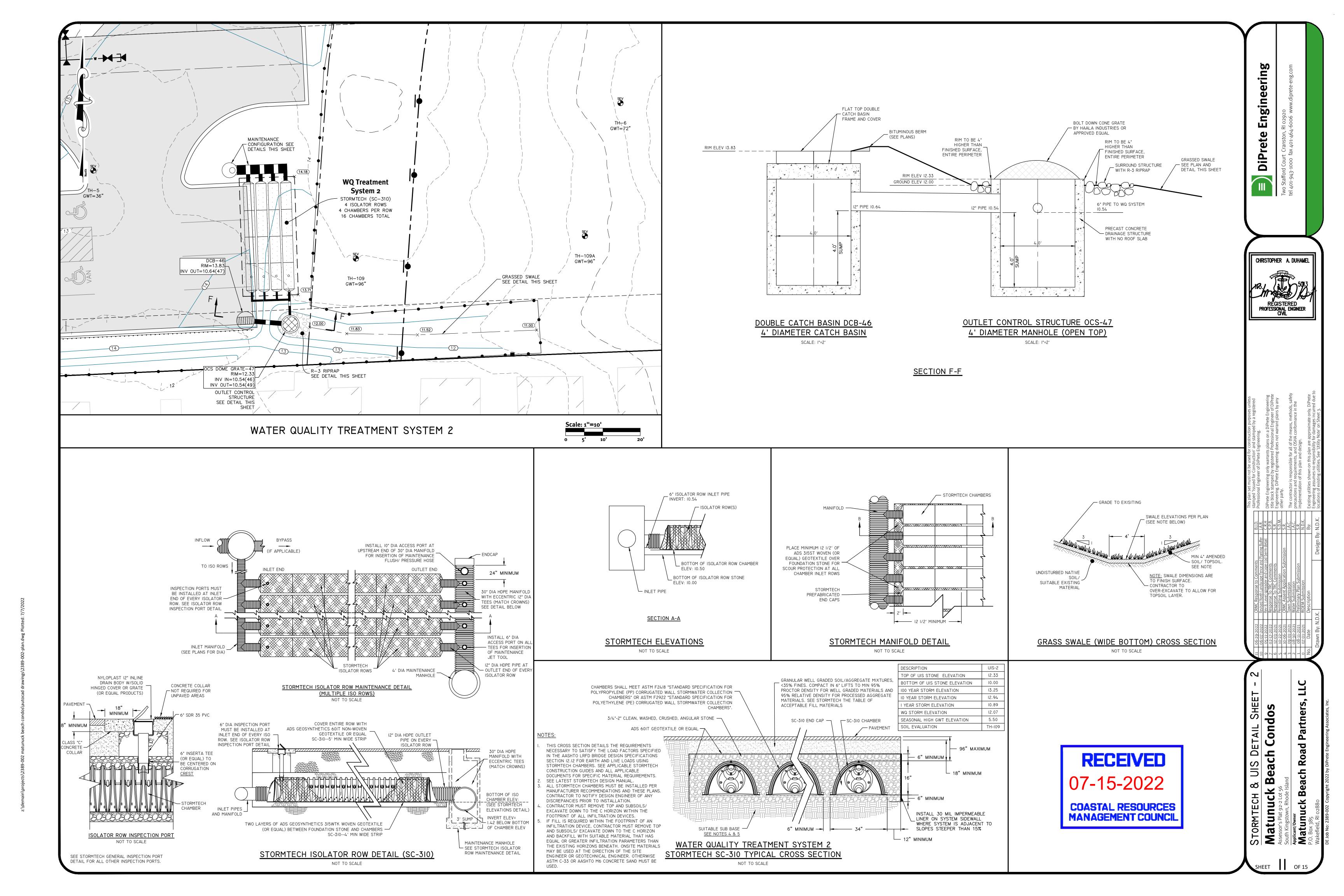


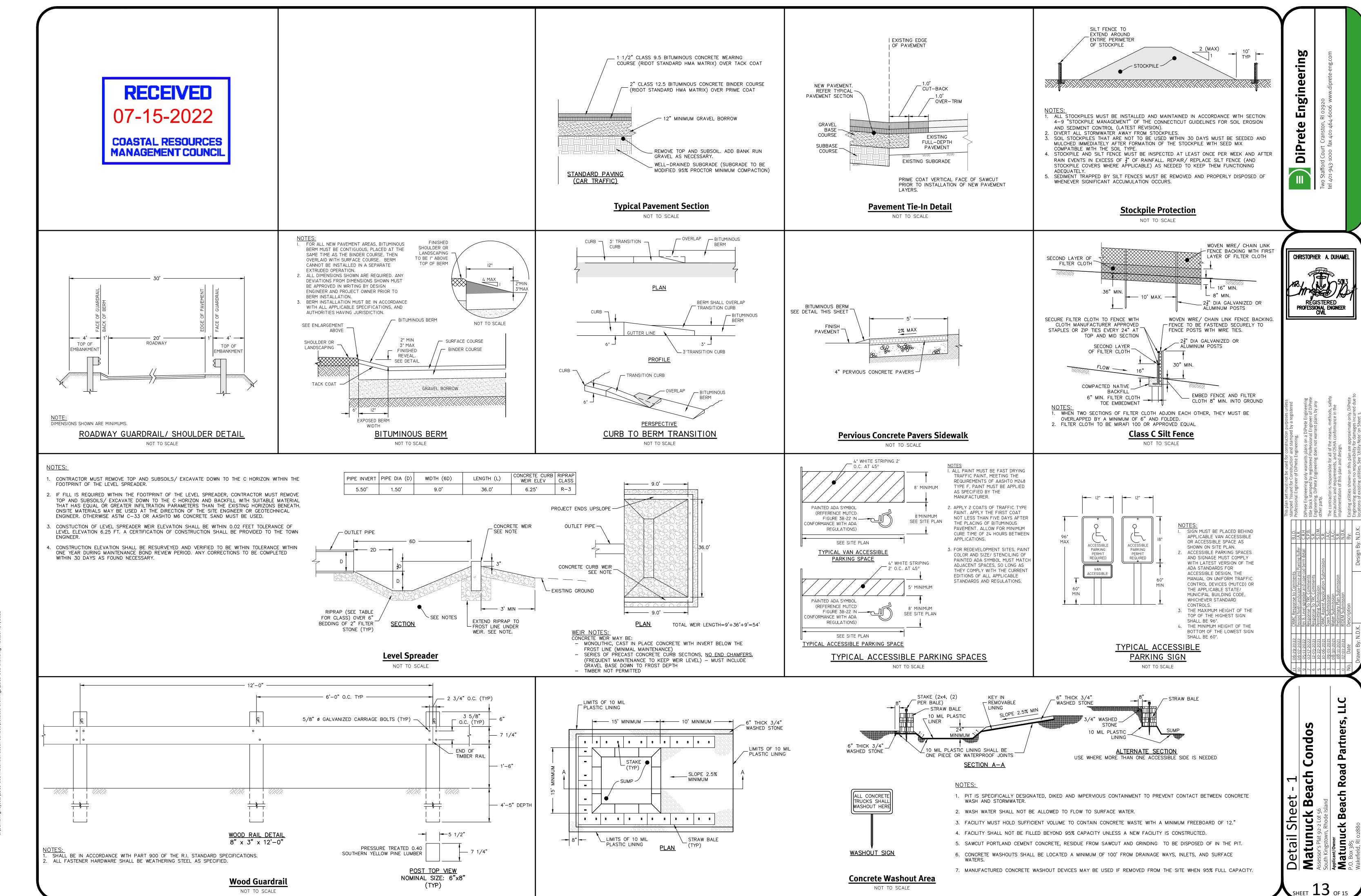
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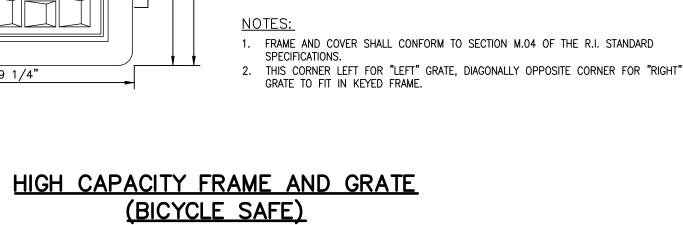








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ALTERNATE TOP LOADING (SEE NOTES 7 AND 8)

4'-0" Ø

PRODUCTS LIST 1'-0" O.C.

4'-0" ø

- MORTAR ALL WIDTH OF WALL

1'-11 7/8'

SECTION A-A

AS REQUIRED

LEAKAGE AND PRESSURE TESTING FOR WATERMAINS

- HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED WATERMAIN PIPELINE IN ACCORDANCE WITH AWWA C600, THE TOWN OF SOUTH KINGSTOWN, AND AS
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR TESTING.
- ALL AIR SHALL BE EXPELLED AT THE HIGH POINTS AND THE PIPELINE SLOWLY FILLED WITH POTABLE WATER.
- THE INTERNAL PRESSURE SHALL BE BUILT UP TO 150 PSI AND MAINTAINED FOR A PERIOD OF NOT LESS THAN ONE (1) HOUR.
- ALL LEAKS IN THE PIPELINE SHALL BE STOPPED; CRACKED OR DEFECTIVE PIPE, FITTINGS OR ACCESSORIES SHALL BE REMOVED AND REPLACED WITH NEW BY THE
- THE PIPELINE SHALL BE RETESTED AS MAY BE REQUIRED AND NECESSARY UNTIL THE LEAKAGE FALLS WITHIN THE ALLOWABLE DETERMINED FOR THE PIPE NETWORK, AT WHICH TIME THE PIPELINE MAY BE CONSIDERED READY FOR: a. WATERMAINS - DISINFECTION STEP

FRAME AND GRATE/COVER

PER APPROVED

_____1'−0" O.C.

PRODUCTS LIST

- MORTAR ALI

JOINTS TOTAL

WIDTH OF WALL

CATCH BASIN

DIAMETER (D)

- ADJUST TO GRADE AS

REQUIRED USING RED

CLAY BRICK COURSE

ALTERNATE TOP SLAB (SEE NOTES 10 AND 11)

AS REQUIRED

ROUND OR SQUARE

PIPE OPENINGS

(SEE NOTE 3)

HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.

STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.

OVERLAP

1'-0" SEEP HOLE

NOTE: OPEN UNLESS NOTED OTHERWISE

TYPE "D"

(TO BE SEALED)

R.I. STANDARD

6.3.4

PAVEMENT REPLACEMENT REQUIREMENTS (AS APPLICABLE) 1 FT. OF COVER OVER-TEMPORARY PATCH: 2" CLASS I-1 SURFACE COURSE MAGNETIC TAPE MARKED PERMANENT PATCH: 1.5" CLASS I-1 SURFACE & 2.5" CLASS I-"CAUTION WATER LINE BURIED BELOW" MODIFIED BINDER SAW CUT &-EXISTING ASPHALT PAVEMENT TO BE TACK COAT CRUSHED AND RECLAIMED AS EDGES (TYP.) ROADWAY BASE COURSE AS APPLICABLE ROADWAY BASE MATERIALS (4" PROCESSED GRAVEL W/ RECLAIMED ASPHALT PAVEMENT OVER 12" BANK RUN GRAVEL) CLEAN FILL (VARIES) MACHINE PLACED IN LIFTS OF 12" OR LESS COMPACTED TO 95% OPTIMUM DENSITY CLASS 52 DUCTILE IRON WATERMAIN — SELECT FILL FREE OF CLAY, ORGANIC MATERIAL LOAM, WOOD, TRASH, ICE, FROZEN SOIL, ROCKS OVER 4" OR ANY OTHER OBJECTIONAL MATERIAL TRENCH BOTTOM TO BE SMOOTH AND MATERIAL TO BE HAND PLACED AND HAND TAMPED FREE FROM BOULDERS. LEDGE ROCK AND LARGE STONES TO PROVIDE A -12" MINIMUM BEDDING SAND OR FINE GRAVEL MINIMUM OF 12" CLEARANCE TO EACH COMPACT 95% OPTIMUM DENSITY AWWA TYPE 5 SIDE AND BELOW THE PIPE EXISTING UTILITY POLES TO BE BRACED DURING TRENCH EXCAVATION TO ENSURE STABILITY.

---RED HEAD STYLE 438 & AG -ERIE SERVICE BOX MUELLER STYLE H-15008 CORPORATION STOP 12" MIN. COPPER — WHIP INTO HOUSE -COPPER TYPE K OR - DISTRIBUTION MAIN --- MUELLER STYLE MARK II OR POLYETHYLENE 'CTS' RED HEAD STYLE CURB STOP 200 PSI, 2" DIA. OR AS

TYPICAL 2" OR SMALLER WATER SERVICE N.T.S.

SPECIFIED

WATER TRENCH DETAIL N.T.S.

WATER DETAILS

R.I.

//STANDARD\

\ 4.4.0 *)*

CIRCUMFERENTIAL

STEEL REINFORCEMENT

5" 6" 0.12 SQ. IN./LIN. FT.

6" 7" 0.15 SQ. IN./LIN. FT.
7" 8" 0.18 SQ. IN./LIN. FT.

TYPE "F"

REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2

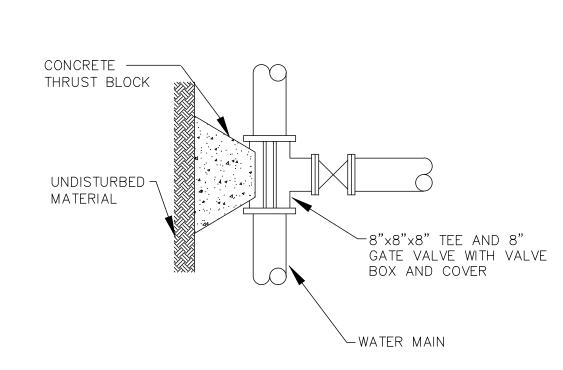
REQUIRED *

ALL CATCHBASINS TO BE 4' UNLESS OTHERWISE NOTED.

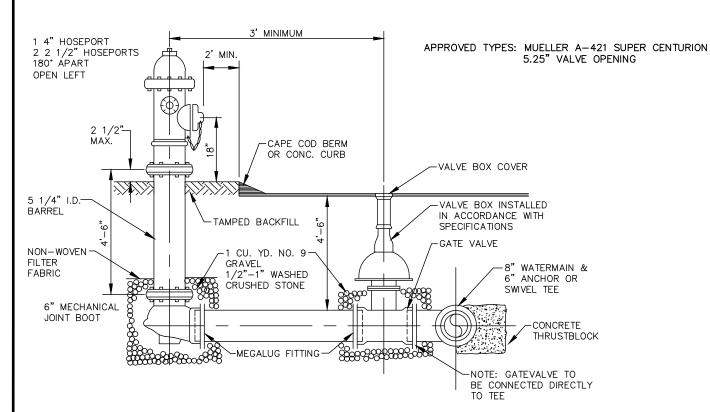
* FOR LONGITUDINAL (VERTICAL STANDING

- 1. ALL WORK AND MATERIAL OF WATER LINE SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS SET FORTH BY THE TOWN OF SOUTH KINGSTOWN. INSTALLATION PROCEDURES AND MATERIALS TO CONFORM TO AWWA SPECIFICATIONS AND ART. III OF THE SOUTH KINGSTOWN TOWN ORDINANCES. A PRECONSTRUCTION MEETING SHALL BE HELD PRIOR TO ORDER OF MATERIALS AND WATER MAIN INSTALLATION.
- 2. WATER MAIN INSTALLATION SHALL BE INSPECTED BY THE TOWN OF SOUTH KINGSTOWN PRIOR TO BACKFILLING THE TRENCH.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN OF SOUTH KINGSTOWN FIVE (5) DAYS PRIOR TO START OF CONSTRUCTION.
- 4. CHLORINATION OF SYSTEM AND SAMPLING SHALL CONFORM TO AWWA REQUIREMENTS FOR SERVICE AND MAIN INSTALLATIONS.
- 5. THE CONTRACTOR SHALL NOTIFY THE DIRECTOR OF WATER SUPPLY AT LEAST TWO WORKING DAYS IN ADVANCE FOR FINAL INSPECTION.
- 6. WHENEVER, IN THESE SPECIFICATIONS, REFERENCE IS MADE TO THE REQUIREMENTS OF AWWA, ANSI, ASTM OR ANY OTHER STANDARD SPECIFICATION, THE REFERENCE IS MADE TO THE LATEST REVISIONS OR MODIFICATIONS OF SUCH REQUIREMENTS AND SPECIFICATIONS.
- 7. ALL PIPE, FITTINGS, AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA AND ANSI STANDARDS AND THE MANUFACTURER'S SUGGESTED RECOMMENDATIONS FOR INSTALLATIONS.
- 8. PIPELINES SHALL BE CONSTRUCTED IN DRY TRENCHES AND LAID TO THE LINE GRADE. WHENEVER PIPE IS TO BE INSTALLED IN SATURATED SOIL CONDITIONS A BEDDING OF PROCESSED GRANULAR FILTER MATERIAL SHALL BE PROVIDED.
- 9. ALL BENDS, CROSSES, TEES, END CAPS AND PLUGS, VALVES AND ANY OTHER APPURTENANCES SHALL BE RESTRAINED WITH THRUST BLOCKS, STRAPPING OR ANCHORS.
- 10. JOINTING OF MECHANICAL AND PUSH ON TYPE JOINTS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH AWWA STANDARD C-600, AND THE TOWN OF SOUTH KINGSTOWN SPECIFICATIONS. RUBBER GASKETS AND RINGS SHALL BE SUITABLE FOR USE WITH POTABLE WATER AND THOROUGHLY CLEANED TO REMOVE OIL, GRIT, AND OTHER FOREIGN MATTER PROIR TO ASSEMBLY. THE GASKETS SHALL BE INSPECTED BY THE DIRECTOR OF WATER SUPPLY OR HIS AGENT TO INSURE THAT THEY ARE ACCEPTABLE.
- 11. ALL FITTINGS USED FOR SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH AWWA C-800 AND SOUTH KINGSTOWN SPECIFICATIONS.
- 12. VALVES USED SHALL BE IN ACCORDANCE WITH AWWA C-500 SERIES, AND THE TOWN OF SOUTH KINGSTOWN REGULATIONS. VALVES SHALL BE MECHANICAL JOINT, DOUBLE DISC PARALLEL SEAT OR RESILLENT SEAT GATE STYLES AS FOLLOWS: a. MUELLER CORPORATION STOP DOUBLE DISC PARALLEL SEAT. b. AMERICAN DARLING VALVE RESILENT MODEL CRS-80.
- 13. BLOW-OFF ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C-800 SERIES, AND THE TOWN OF SOUTH KINGSTOWN.
- 14. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH MUELLER A421, AWWA C-502 "DRY BARREL FIRE HYDRANTS" AND THE TOWN OF SOUTH KINGSTOWN SPECIFICATIONS.
- 15. HYDROSTATIC AND LEAKAGE TESTS SHALL BE PERFORMED ON ALL COMPLETED SECTIONS OF NEWLY INSTALLED PIPELINE IN ACCORDANCE WITH AWWA C-600, AND TOWN SPECIFICATIONS.
- 16. ALL PIPE SHALL BE DISINFECTED PRIOR TO BEING ACTIVATED IN ACCORDANCE WITH AWWA B-300, AWWA C-601 AND TOWN SPECIFICATIONS.
- 17. DISTRIBUTION PIPING SHALL BE CL 52 DUCTILE IRON, DOUBLE CEMENT LINED, WITH PUSH ON JOINTS. PIPE SHALL MEET ANSI/AWWA C151 A21.51. JOINTS SHALL MEET ANSI/AWWA /C111/A21.11. AMERICAN MANUFACTURER ONLY.
- 18. FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CL350 CEMENT MORTAR LINED AND MEET ANSI/AWWA/C153/A21.53. MECHANICAL JOINTS SHALL MEET ANSI/AWWA/C111/A21.11 AMERICAN MANUFACTURER ONLY.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL STATE AND TOWN PERMITS PRIOR TO CONSTRUCTION.
- 20. THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS RELATED TO INSTALLATION OF THE WATER MAIN.
- 21. EXCAVATIONS THAT EXTEND INTO PUBLIC RIGHT -OF-WAY SHALL BE BACKFILLED AND COMPACTED IN 12" LIFTS. A TEMPORARY SURFACE COURSE IS TO BE APPLIED. FINAL BINDER AND FINISH COURSE TO BE PLACED AFTER REMOVAL OF TEMPORARY PAVEMENT AND COMPACTION OF GRAVEL BASE. CONTRACTOR SHALL MAKE ROAD PASSABLE FOR ONE LANE OF TRAFFIC AT ALL TIMES.
- 22. CONTRACTOR SHALL NOTIFY DIG SAFE PRIOR TO DIGGING ANY TRECHES.
- 23. WHEN WORK IS NOT IN PROGRESS AND AT THE END OF EACH DAY, ALL OPEN ENDS OF THE PIPE AND FITTINGS SHALL BE SECURELY CLOSED.
- 24. DIPRETE ENGINEERING DOES NOT CERTIFY AS TO THE WATER FLOW RATE

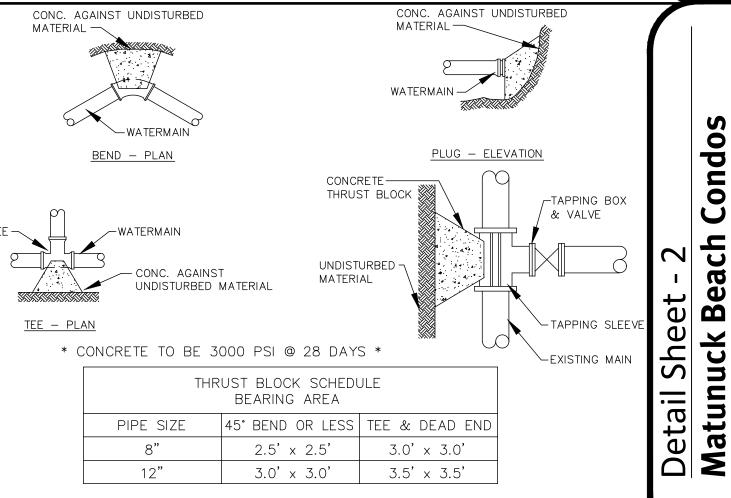
COASTAL RESOURCES MANAGEMENT COUNCI



TYPICAL 4" OR GREATER WATER SERVICE N.T.S.



AWWA C502 DRY BARREL FIRE HYDRANT N.T.S.



THRUST BLOCK DETAILS N.T.S.

Engine

CHRISTOPHER A. DUHAMEI

PROFESSIONAL ENGINEER CIVIL

FOUNDATION

21-3/4" В

<u>PLAN</u>

___ 3" ___ 2−7/8" −

FRAME SECTIONS **DOUBLE CATCHBASIN GRATE** 2-3 FLANGE 4" C.I. FRAMES

8. FOR CATCH BASIN TYPES "D" AND "F" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS

TYPE "R"

TYPE CATCH BASIN AS REQUIRED

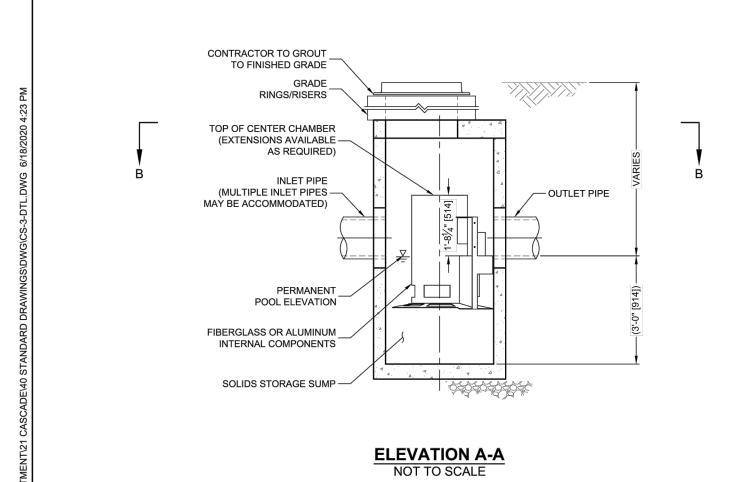
5. ONE POUR MONOLITHIC BASE SECTION.
6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS,

SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).

. CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 4'-0" CATCH BASIN ONLY.

O. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2) 11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
12. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES. PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN →|- 1/4" CLEARANCE

— 29-1/8" GRATE 31-7/8" DIRECTION OF DIRECTION OF BEARING BARS BEARING BARS



RECEIVED

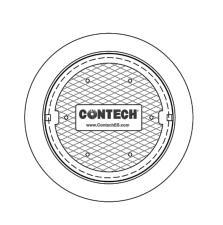
07-15-2022

COASTAL RESOURCES MANAGEMENT COUNCIL

CASCADE

separator™

CASCADE SEPARATOR DESIGN NOTES THE STANDARD CS-3 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS. CONFIGURATION DESCRIPTION GRATED INLET ONLY (NO INLET PIPE) GRATED INLET WITH INLET PIPE OR PIPES CURB INLET ONLY (NO INLET PIPE) CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER

NOT TO SCALE

STRUCTURE ID			
WATER QUALITY FLO	./s])		
PEAK FLOW RATE (cf	s [L/s])		
RETURN PERIOD OF	rs)		
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

- GENERAL NOTES

 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED
- SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN HIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- 4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

 5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN

6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE

- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE
- CENTERLINES TO MATCH PIPE OPENING CENTERLINES.

CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CNTECH **ENGINEERED SOLUTIONS LLC**

CS-3 CASCADE SEPARATOR STANDARD DETAIL

800-338-1122 513-645-7000 513-645-7993 FAX

9 3/8" 15 7/18**"** - 356 mm -GRADE 60 STEEL-REINFORCEMENT MEETS: ASTM-C-478 ASTM-D-4101 ASTM-A-615

MANHOLE STEP

NOT TO SCALE

C ← GUTTER SIDE

)(|||)(

∠ 4th FLANGE

→ / WHEN ORDERED

ALL DIMENSIONS ARE NOMINAL. AND SPACERS 3. PE THREADED ROD WITH WING NUTS PROVIDED FOR END SECTIONS 12"-24". RIGHT SIDE VIEW 4. 30" AND 36" END SECTIONS REQUIRE TWO (2) THREADED RODS FOR ASSEMBLE. → A I W - → A I -TOP VIEW FRONT VIEW PART # PIPE SIZE A B (MAX) Н 1210NP | 12 IN (300 | 6.50 IN | 10 IN (254 | 6.50 IN | 25 IN (635 | 29 IN (737 MM) (165 MM) 1510NP | 15 IN (375 | 6.50 IN | 10 IN (254 | 6.50 IN | 25 IN (635 | 29 IN (737 (165 MM) MM) (165 MM) 1810 NP | 18 IN (450 | 7.50 IN (191 | 15 IN (381 | 6.50 IN | 32 IN (813 35 IN (889 (165 MM) MM) 24 IN (600 | 7.50 IN (191 | 18 IN (457 | 6.50 IN | 36 IN (914 45 IN (1143 (165 MM) MM) MM) 30 IN (750 | 7.50 IN (191 | 12 IN (305 | 8.60 IN | 58 IN (1473 | 63 IN MM) (218 MM) MM) 36|5NP | 36 | N (900 | 7.50 | N (191 | 25 | N (635 | 8.60 | N | 58 | N (1473 | 63 | N (1600 MM) MM) (218 MM) MM)

ADS OR APPROVED EQUAL

PE THREADED ROD WITH WING NUTS

//STANDARD

|-|-|-|-|-|

SECTION C-C

HDPE FLARED END SECTION

NOT TO SCALE

CHRISTOPHER A. DUHAMEL PROFESSIONAL ENGINEER CIVIL

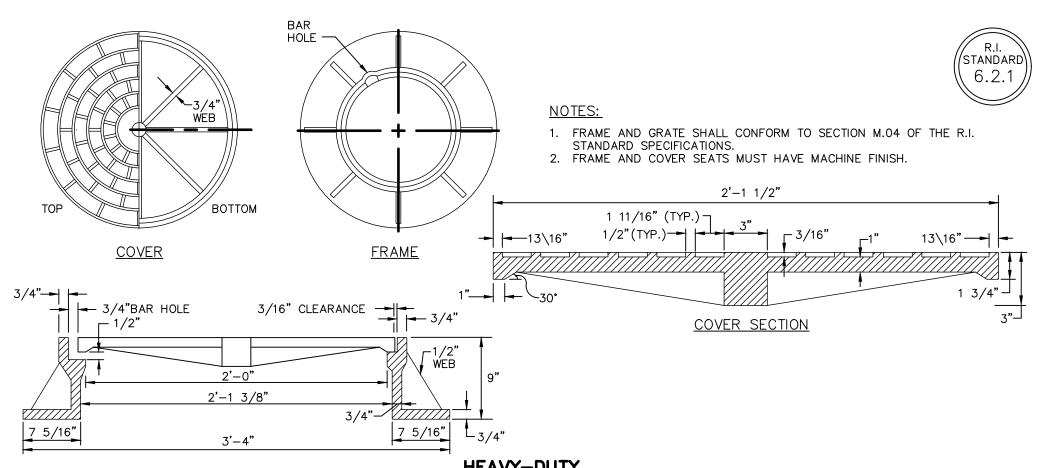
Engineering

DiP

SECTION B-B SQUARE FRAME AND GRATE (BICYCLE SAFE)

|-1 7/16" 1"--| |--

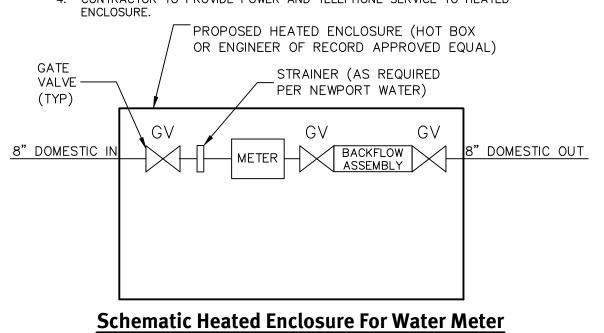
SECTION A-A



HEAVY-DUTY ROUND FRAME AND COVER

- NOTES:

 1. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF WATER METER PIT PRIOR TO WATERMAIN CONSTRUCTION. SHOP DRAWINGS TO BE APPROVED BY SOUTH
- 2. METER MODEL IS A 8" NEPTUNE PROTECTUS III WITH A 8" WATTS LF909 RPZ 3. FINAL DESIGN SUBJECT TO REVIEW AND APPROVAL BY SOUTH KINGSTOWN WATER
- 4. CONTRACTOR TO PROVIDE POWER AND TELEPHONE SERVICE TO HEATED



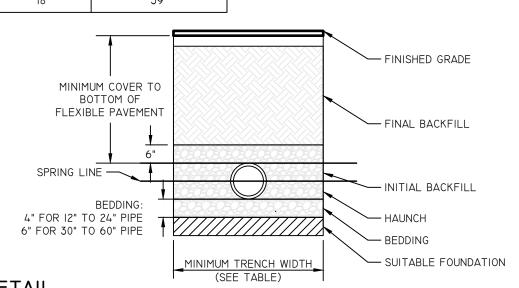
& Backflow

NOT TO SCALE

INSTALLATION NOTES:

- I. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS, LATEST ADDITION.
- 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
- 3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
- 4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (I00MM) FOR 4"-24" (I00MM-600MM); 6" (I50MM) FOR 30"-60" (750MM-900MM).
- 5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
- 6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" Ø PIPE AND 24" OF COVER FOR 60" Ø PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

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



HDPE TRENCH DETAIL NOT TO SCALE

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atunu

Roa