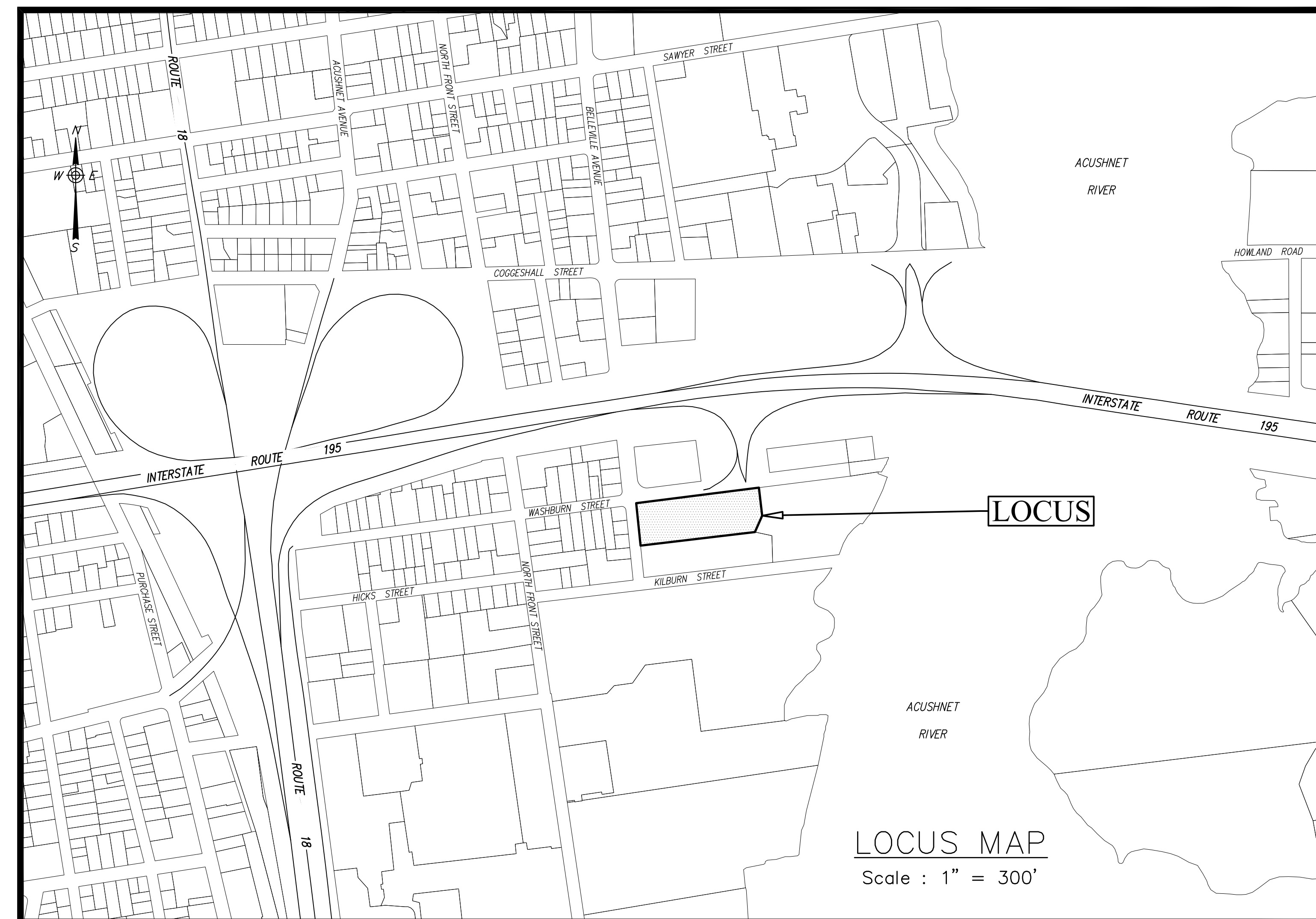


PROPOSED SELF-STORAGE FACILITY AT #8 WASHBURN STREET NEW BEDFORD, MASSACHUSETTS ASSESSORS MAP 86 PARCEL 16

MAY 9, 2019

PAGE	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	DEMOLITION AND EROSION CONTROL
4	LAYOUT AND LANDSCAPING
5	GRADING, DRAINAGE AND UTILITIES
6	CONSTRUCTION NOTES AND DETAILS



LOCUS MAP
Scale : 1" = 300'

EXISTING		PROPOSED	
---100---	MINOR CONTOUR	---100---	MAJOR/MINOR CONTOUR
---99---	MAJOR CONTOUR	99x9	SPOT ELEVATION
100x1	SPOT ELEVATION	~~~~~	LIMIT OF WORK/EDGE OF CLEARING
TP10	TEST PITS	-x-x-	SILT FENCE
~~~~~	EDGE OF CLEARING	-w-	WATER SERVICE
-w-	WATER SERVICE	W	WATER GATE
W	WATER GATE	W	HYDRANT
W	WATER HYDRANT	-g-	GAS SERVICE
-g-	GAS SERVICE	-e-	ELECTRIC SERVICE
-e-	GAS GATE	-d-	DRAIN LINE
⊕	ELECTRIC MANHOLE	⊕	DRAIN MANHOLE
⊕	TELEPHONE MANHOLE	⊕	CATCH BASIN
-d-	DRAIN LINE	6" VCC	6" WIDE VERTICAL CONCRETE CURB
⊕	DRAIN MANHOLE	-s-	SEWER SERVICE
⊕	CATCH BASIN	▷	BUILDING EGRESS
-s-	SEWER LINE		
⊕	SEWER MANHOLE		
-p-	HIGHWAY/ROAD SIGN		
▷	BUILDING EGRESS		

**OWNER/APPLICANT/DEVELOPER:**

MA NEW BEDFORD & WASHBURN, LLC  
c/o DANIEL LYMAN, manager  
786 REDFORD DRIVE  
PROVO, UT 84604

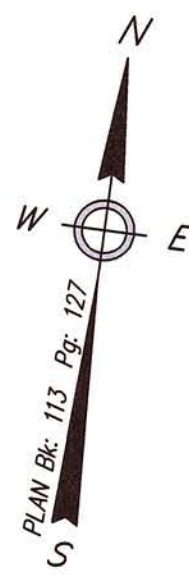
**CIVIL ENGINEER / LAND SURVEYOR:**

**BRACKEN ENGINEERING, INC.**  
48 HERRING POND ROAD BUZZARDS BAY, MA 02532  
(Tel) 508.833.0070 (Fax) 508.833.2282  
19 OLD SOUTH ROAD NANTUCKET, MA 02554  
(Tel) 508.325.0044 (Fax) 508.325.0044  
www.brackeneng.com

**ARCHITECT:**

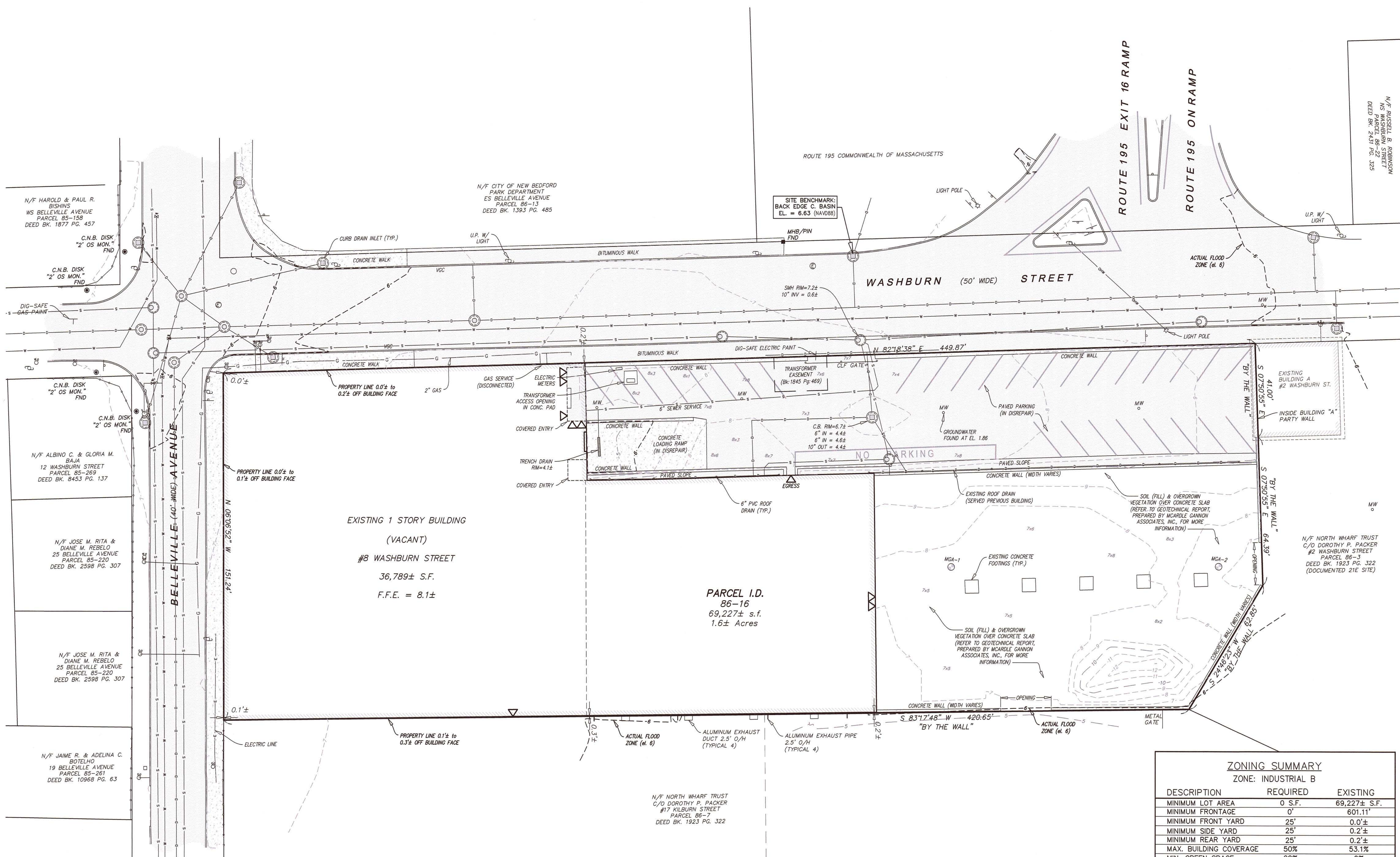
**D**  
di'velept  
454 N 600 W, SLC, UT 84116  
dhowdy@divlept.com  
p: 801-688-4485  
www.divlept.com

NO.	DATE	DESCRIPTION	BY



**Notes**

- LOCUS: #8 WASHBURN STREET MAP 86 PARCEL 16
- OWNER: MA NEW BEDFORD & WASHBURN, LLC 101 SOUTH 200 EAST, SUITE 200 SALT LAKE CITY, UT 84111
- DEED REF: Bk: 12713 Pg: 70
- PLAN REF: Bk: 113 Pg: 127
- LOCUS PARTIALLY FALLS WITHIN SPECIAL FLOOD HAZARD ZONE "AE" (el. 6) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25005C-0393-G dated 07/16/2014.
- LOCUS DOES NOT FALL WITHIN THE NATURAL HERITAGE and ENDANGERED SPECIES PROGRAM (NHESP) AREAS OF ESTIMATED HABITATS OF RARE WILDLIFE and PRIORITY HABITATS OF RARE SPECIES.
- LOCUS FALLS WITHIN THE WORKING WATERFRONT OVERLAY DISTRICT.
- LOCUS FALLS WITHIN THE HICKS LOGAN SAWYER INTERIM PLANNING OVERLAY DISTRICT.
- AN ON THE GROUND SURVEY WAS CONDUCTED BY THIS FIRM IN AUGUST and SEPTEMBER OF 2018.
- A WATER LOGGER WAS SET ON SITE FROM 4/16/19 thru 4/23/19. HIGH GROUNDWATER WAS FOUND TO BE AT EL. 1.86 AND IS TIDALLY INFLUENCED.

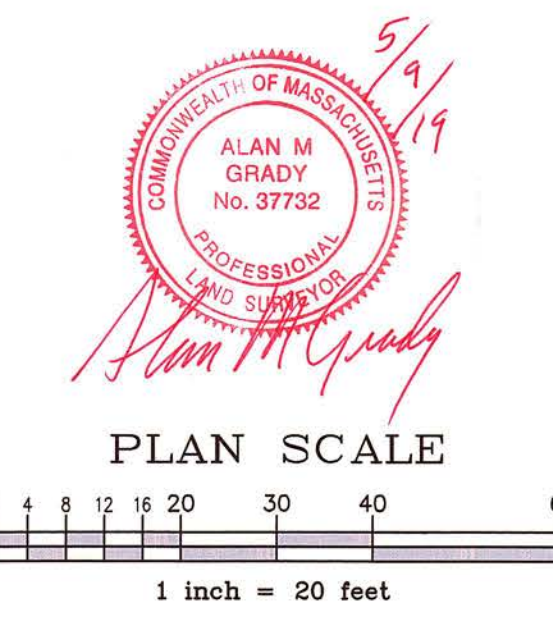


EXISTING 1 STORY BUILDING  
(VACANT)  
#8 WASHBURN STREET  
36,789± S.F.  
F.F.E. = 8.1±

PARCEL I.D.  
86-16  
69,227± s.f.  
1.6± Acres

**ZONING SUMMARY**  
ZONE: INDUSTRIAL B

DESCRIPTION	REQUIRED	EXISTING
MINIMUM LOT AREA	0 S.F.	69,227± S.F.
MINIMUM FRONTAGE	0'	601.11'
MINIMUM FRONT YARD	25'	0.0'±
MINIMUM SIDE YARD	25'	0.2'±
MINIMUM REAR YARD	25'	0.2'±
MAX. BUILDING COVERAGE	50%	53.1%
MIN. GREEN SPACE	20%	0%
MAX. BUILDING HEIGHT	100'	16'±



Prepared By:  
**BRACKEN ENGINEERING, INC.**  
49 HERRING POND ROAD BUZZARDO'S BAY, MA 02532  
(tel) 608.833.0070 (fax) 608.833.2282  
19 OLD SOUTH ROAD NANTUCKET, MA 02584  
(tel) 608.325.0044 (fax) 608.325.0044 www.brackeneng.com

Sheet Title:  
**EXISTING CONDITIONS**

Project:  
**PROPOSED SELF-STORAGE FACILITY IN NEW BEDFORD, MASSACHUSETTS**  
PREPARED FOR:  
**MA NEW BEDFORD & WASHBURN, LLC**  
#8 WASHBURN STREET  
PARCEL I.D.: 86-16

No.	Date	Revision Description	By

Date: MAY 9, 2019  
Drawn: RMM/ERC/BEI  
Checked: DFB/AMG  
Sheet: 2 of 6

**EROSION CONTROL NOTES:**

**PROTECTION OF NATURAL FEATURES**  
DUE REGARD SHALL BE SHOWN FOR ALL NATURAL FEATURES, SUCH AS TREES, WATER COURSES, SCENIC POINTS AND SENSITIVE AREAS. EXISTING TREES NEAR CONSTRUCTION TO BE PROTECTED WITH SNOW FENCING OR CONTRACTOR FENCING.

**MINIMIZE SITE DISTURBANCE**  
DURING THE CONSTRUCTION OF THE ROADWAY AND DRAINAGE SYSTEM, DISTURBANCE TO THE SITE SHALL BE MINIMIZED. CONSTRUCTION EQUIPMENT AND TRUCKS MUST STAY WITHIN THE AREAS OF PROPOSED WORK AS SHOWN ON THE APPROVED DEFINITIVE PLAN.

**TEMPORARY STABILIZATION**  
TEMPORARY SURFACES SHOULD BE STABILIZED AS SOON AS ACTIVE GRADING IS SUSPENDED, REGARDLESS OF THE TIME OF YEAR. DISTURBED AREAS SHOULD BE RE-VEGETATED EARLY ENOUGH IN THE FALL THAT GOOD COVER IS ESTABLISHED BEFORE COLD WEATHER COMES. TEMPORARY VEGETATION, MULCHING, OR OTHER PROTECTIVE MEASURES MUST BE PROVIDED FOR AREAS THAT WILL BE EXPOSED FOR ONE OR MORE MONTHS. THESE TEMPORARY MEASURES MUST BE APPLIED IMMEDIATELY AFTER DISRUPTION. TEMPORARY MEASURES INCLUDE: SEEDING WITH RYE GRASS OR OTHER ANNUAL GRASSES, JUTE NETTING, SPREADING STRAW MULCH, AND ANY OTHER METHOD ACCEPTABLE TO THE BOARD. IF A DISTURBED AREA WILL BE EXPOSED FOR GREATER THAN ONE YEAR, PERMANENT GRASSES OR OTHER APPROVED COVER MUST BE INSTALLED.  
IN DISTURBED AREAS, IF THE SURFACE MATERIAL IS NOT SUITABLE FOR THE GROWING OF SEED, A MINIMUM OF 4 INCHES OF LOAM WILL BE REQUIRED.

**PERMANENT STABILIZATION**  
STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. WOOD CHIPS AND MULCHES WILL NOT GENERALLY BE PERMITTED. AREAS WHERE THE HORIZONTAL DISTURBANCE IS LESS THAN EIGHT FEET MAY BE TREATED WITH A PERENNIAL GRASS MIXTURE OR SOD.  
A MINIMUM OF FOUR (4) INCHES OF LOAM IS REQUIRED FOR AREAS THAT WILL

BE SEED. THE LOAM MUST BE RAKED AND FREE OF ROOTS, STONES, AND TWIGS.

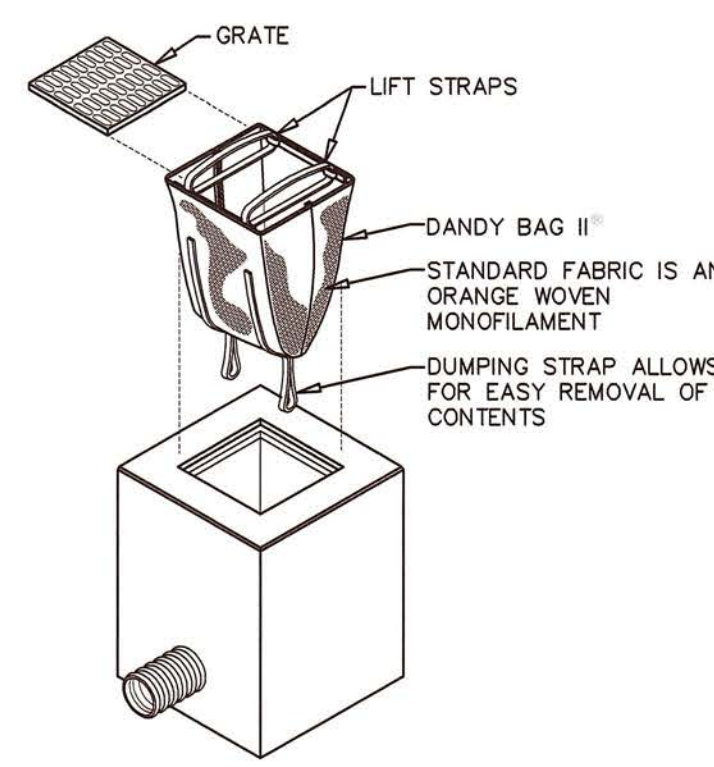
**TEMPORARY SEDIMENT CONTROL FOR DRAINAGE**  
TEMPORARY SEDIMENT CONTROLS MAY BE REQUIRED FOR UNPAVED ROADS, PAVED ROADS WHERE CURBING HAS NOT BEEN INSTALLED, DRAINAGE INLETS, AND DRAINAGE OUTFALLS. TEMPORARY SEDIMENT CONTROLS ALSO MAY BE REQUIRED FOR ALL UNPAVED DRIVEWAYS AND DISTURBED LOTS THAT SLOPE TOWARD THE ROAD.

TEMPORARY SEDIMENT CONTROL DEVICES MAY INCLUDE: SILT FENCES, FILTER STRIPS, STAKED HAYBALES, SILT TRAPS, SEDIMENT BASINS, AND CRUSHED ROCK BERMS. TEMPORARY SEDIMENT CONTROL DEVICES MUST BE PLACED ALONG ROAD SIDES WHERE RUNOFF MAY OCCUR AND AROUND STORM DRAIN INLETS AND OUTFALLS. THE PLANNING BOARD MAY REQUIRE A SPECIFIC TYPE OF TEMPORARY SEDIMENT CONTROLS. ALL SEDIMENTS MUST BE REMOVED FROM THE ROADWAY AND OTHER COLLECTION AREAS ON A REGULAR BASIS.

**DUST CONTROL**  
DUST CONTROL IS REQUIRED TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED AREAS TO PREVENT OFF-SITE DAMAGE.  
1. TEMPORARY STABILIZATION METHODS AS NOTED ABOVE SHALL BE INSTITUTED TO LIMIT THE AMOUNT OF EXPOSED AREAS.  
2. EXPOSED SURFACES SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.  
3. STONE SHALL BE UTILIZED TO COVER SURFACES IN HEAVY TRAFFIC AREAS IF NECESSARY IN CONJUNCTION WITH WATERING.  
4. CALCIUM CHLORIDE SHALL NOT BE USED FOR THIS PROJECT.

**RESPONSIBILITY**  
THE DEVELOPER IS RESPONSIBLE FOR PREVENTING ALL EROSION AND THE BUILD-UP OF SEDIMENT WITHIN THE AREA DISTURBED DUE TO THE CONSTRUCTION OF THE ROAD AND DRAINAGE SYSTEM. EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND REPLACED AND REPAIRED AS NEEDED.

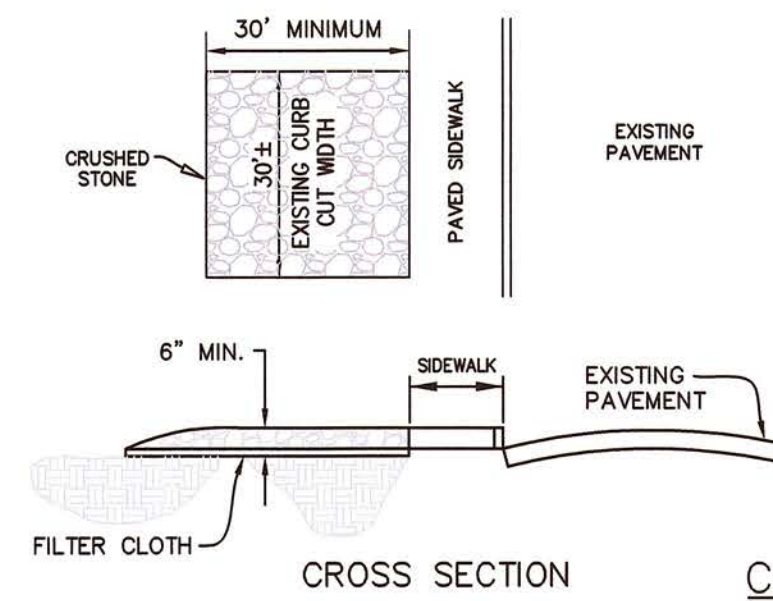
**STREET SWEEPING**  
THE DEVELOPER SHALL PERFORM STREET SWEEPING OF PAVED SURFACES AS REQUIRED DURING THE CONSTRUCTION PERIOD.



**DANDY BAG II[®]**  
INSTALLATION AND MAINTENANCE GUIDELINES

**INSTALLATION:**  
REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END, MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS, HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.  
**MAINTENANCE:**  
REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II. IF THE CONTAINMENT AREA IS MORE THAN 1/4 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.

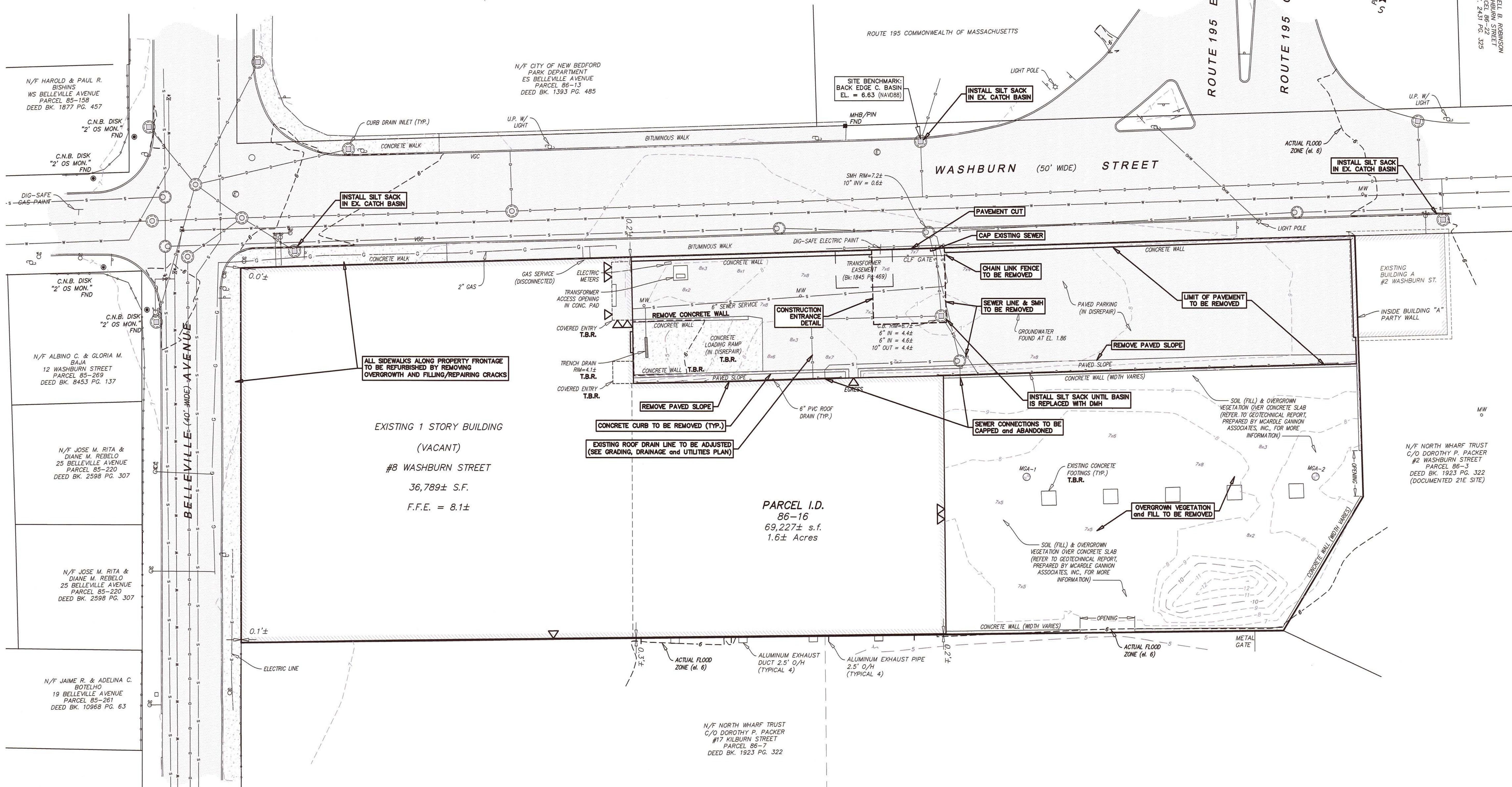
**SILT SACK DETAIL**  
NOT TO SCALE



**CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE

**TRACKING PAD NOTES:**

STONE SIZE - USE 2" CRUSHED STONE  
FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. STONE USED SHALL BE LARGE ENOUGH SO THAT IT DOES NOT GET PICKED UP AND TRACKED OFF THE SITE BY THE VEHICLE TRAFFIC.  
SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.  
MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.



**Notes**

- ALL BMP EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION OR ANY SITE WORK.
- EROSION CONTROL BMPs SHALL CONFORM TO US EPA, NPDES, MA DEP AND MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.
- MAINTENANCE SPECIFICATIONS FOR ALL PROPOSED EROSION AND SEDIMENTATION CONTROLS.

**PLAN SCALE**  
0 4 8 12 16 20 30 40 60  
1 inch = 20 feet

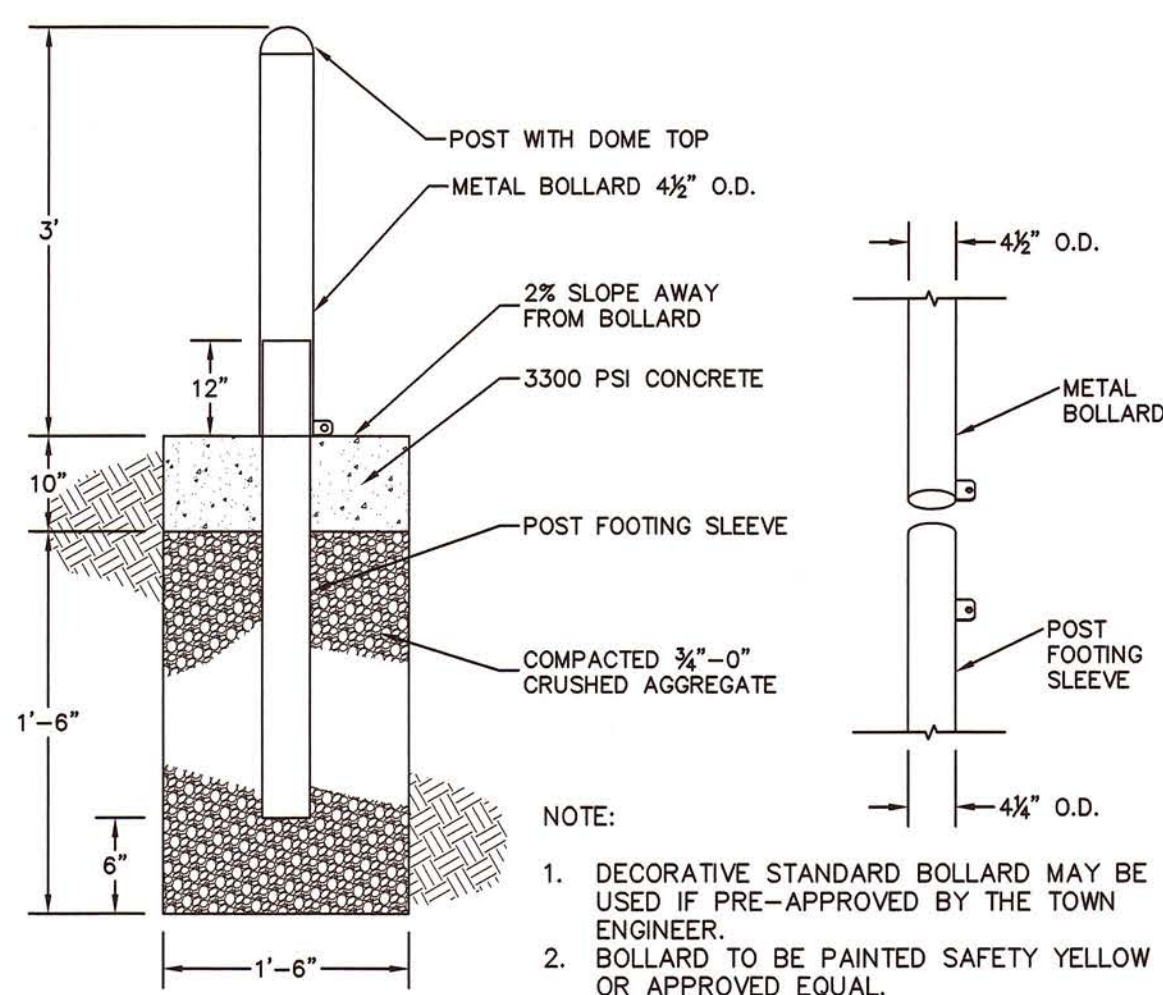
Prepared By:  
**BRACKEN ENGINEERING, INC.**  
49 HERRING POND ROAD BUZZARDS BAY, MA 02532  
(tel) 508.833.0070 (fax) 508.833.2282  
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(tel) 508.325.0044 (www.brackeneng.com)

Sheet Title:  
**DEMOLITION and EROSION CONTROL**

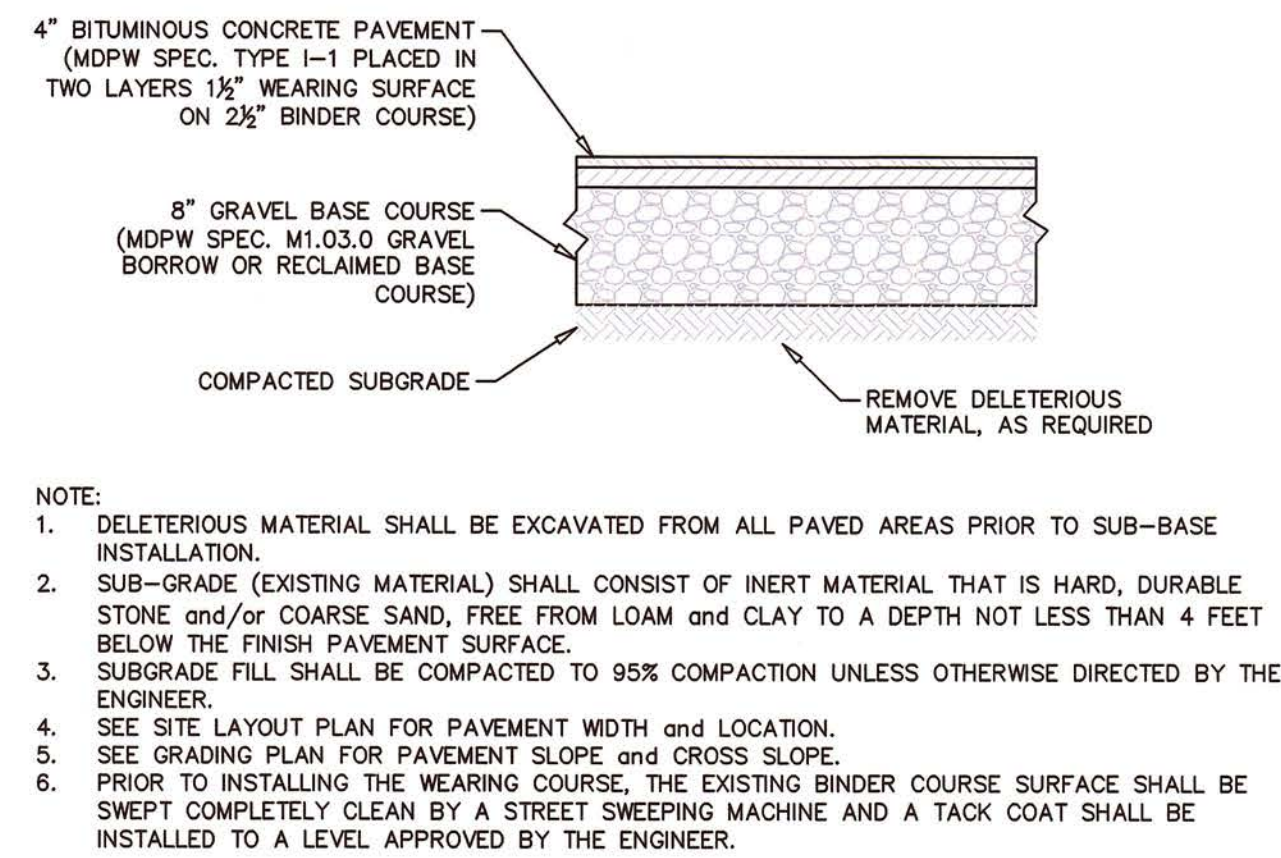
Project:  
**PROPOSED SELF-STORAGE FACILITY IN NEW BEDFORD, MASSACHUSETTS**  
PREPARED FOR:  
**MA NEW BEDFORD & WASHBURN, LLC**  
#8 WASHBURN STREET  
PARCEL I.D.: 86-16

No.	Date	Revision Description	By

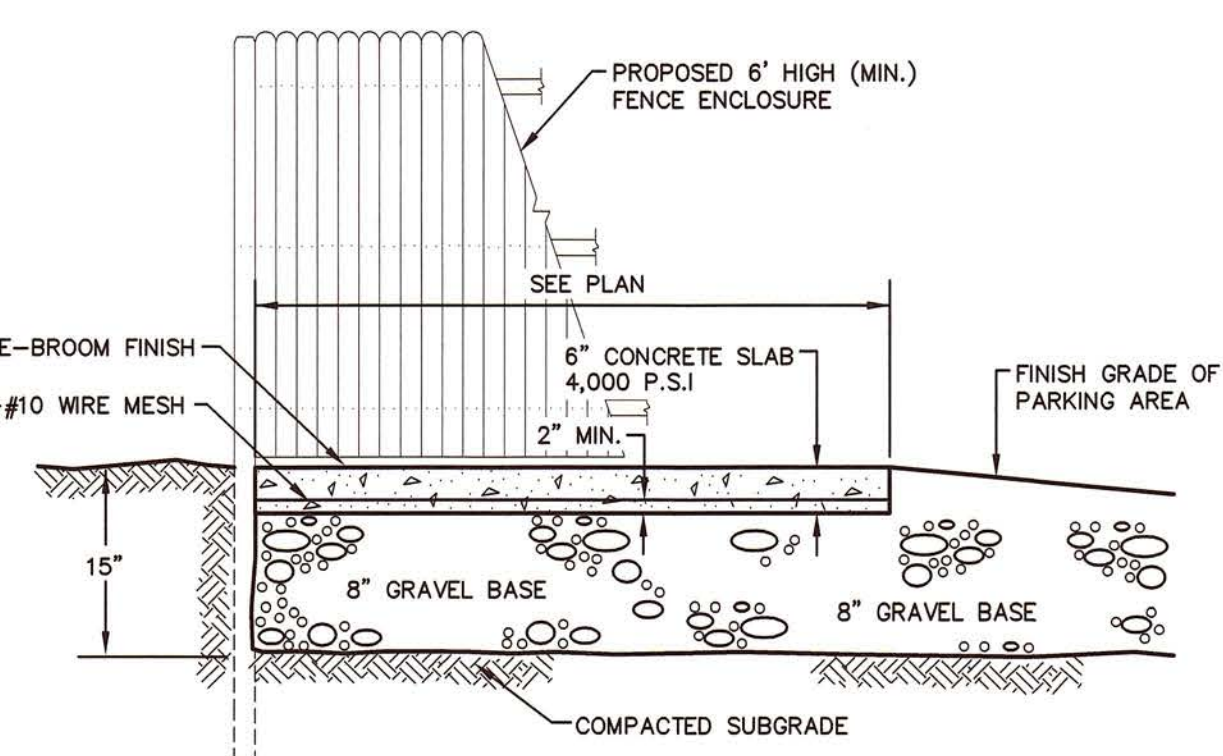
Date: MAY 9, 2019  
Drawn: RMM/ERC/BEI  
Checked: DFB/AMG  
Sheet: 3 of 6



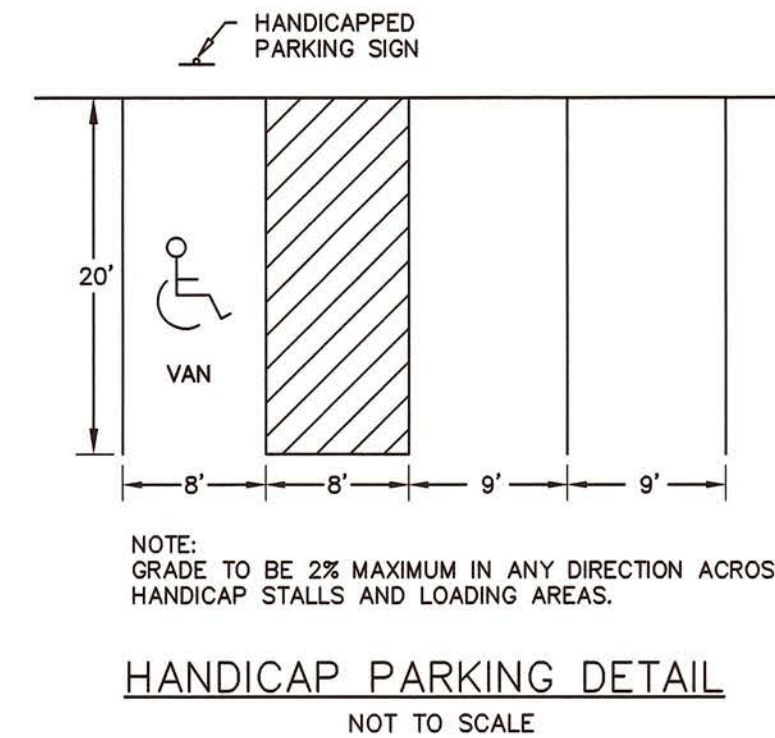
**BOLLARD DETAIL**  
NOT TO SCALE



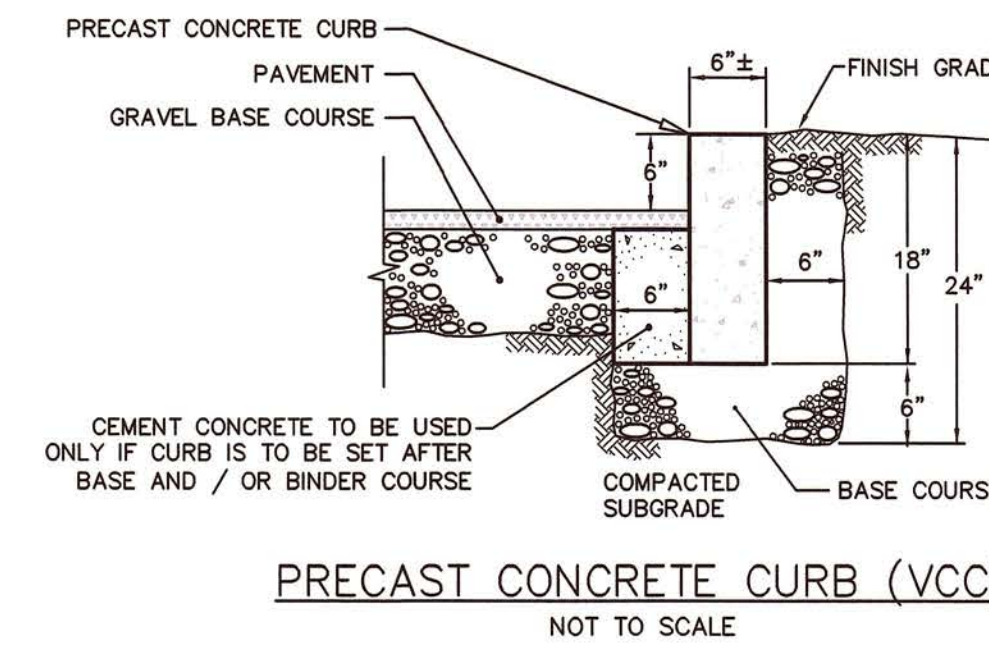
**PARKING AREA PAVEMENT SECTION**  
NOT TO SCALE



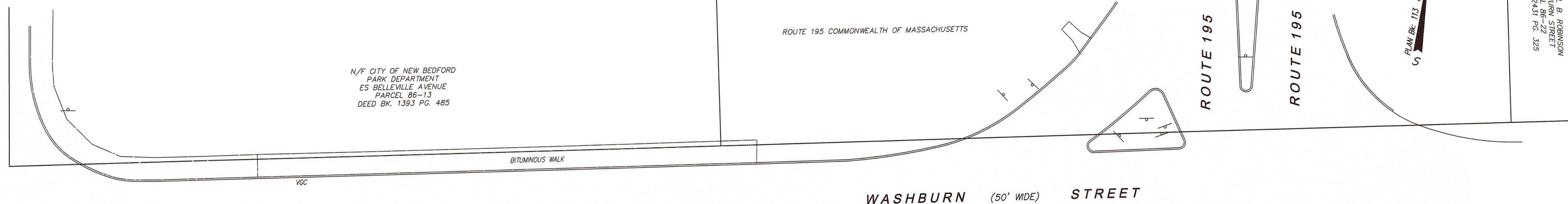
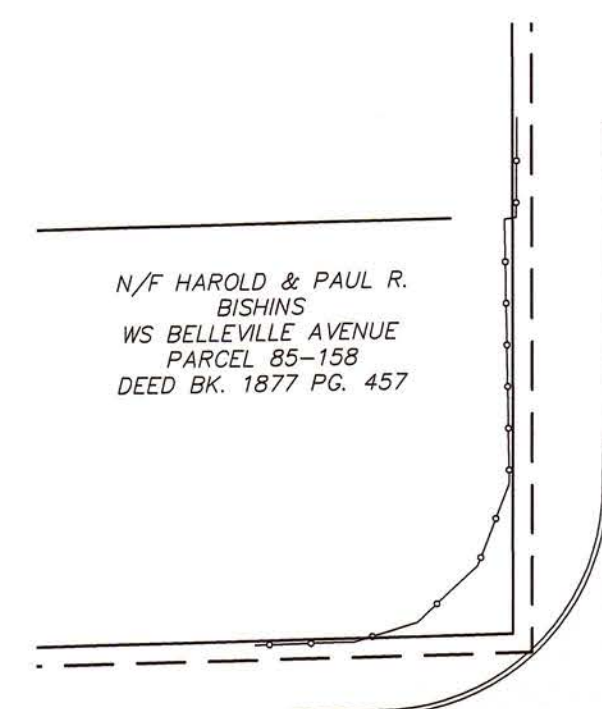
**CONCRETE PAD and FENCE FOR DUMPSTER**  
NOT TO SCALE



**HANDICAP PARKING DETAIL**  
NOT TO SCALE

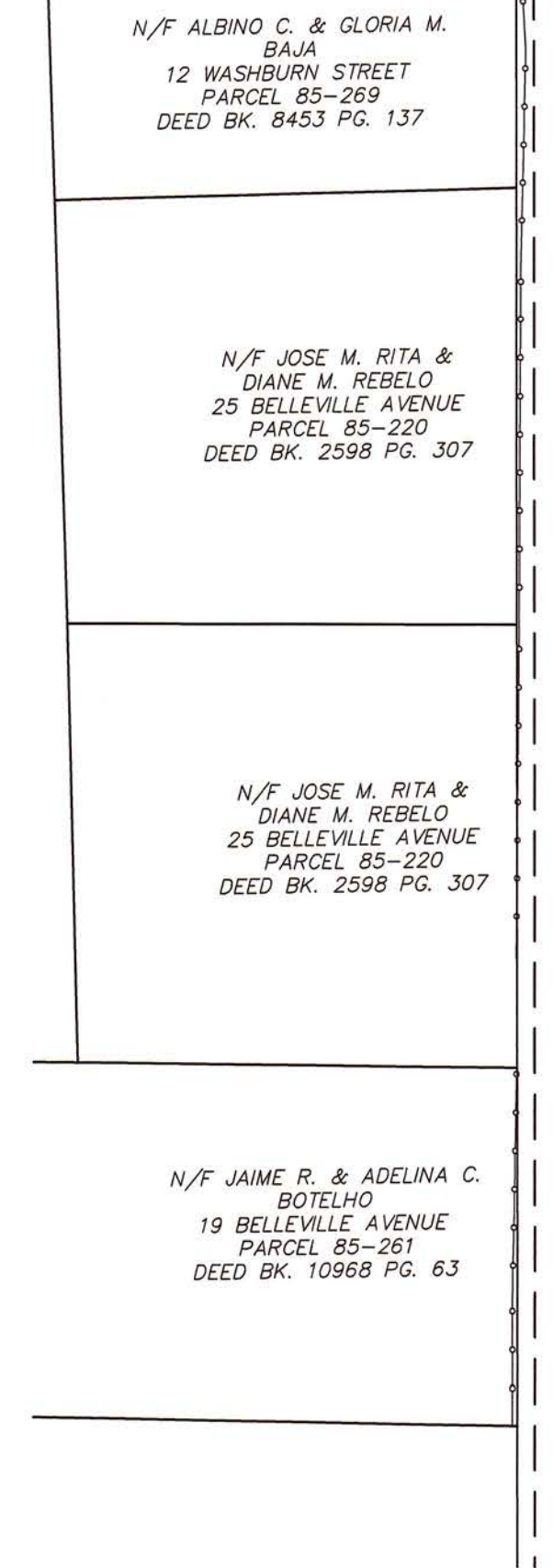
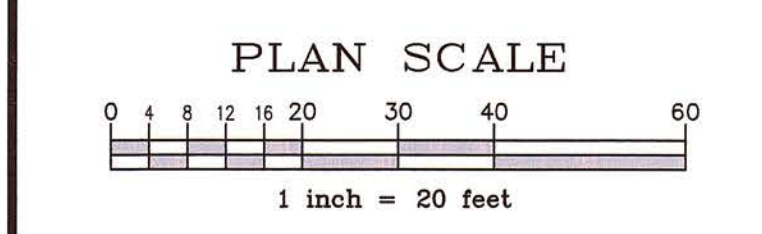


**PRECAST CONCRETE CURB (VCC)**  
NOT TO SCALE

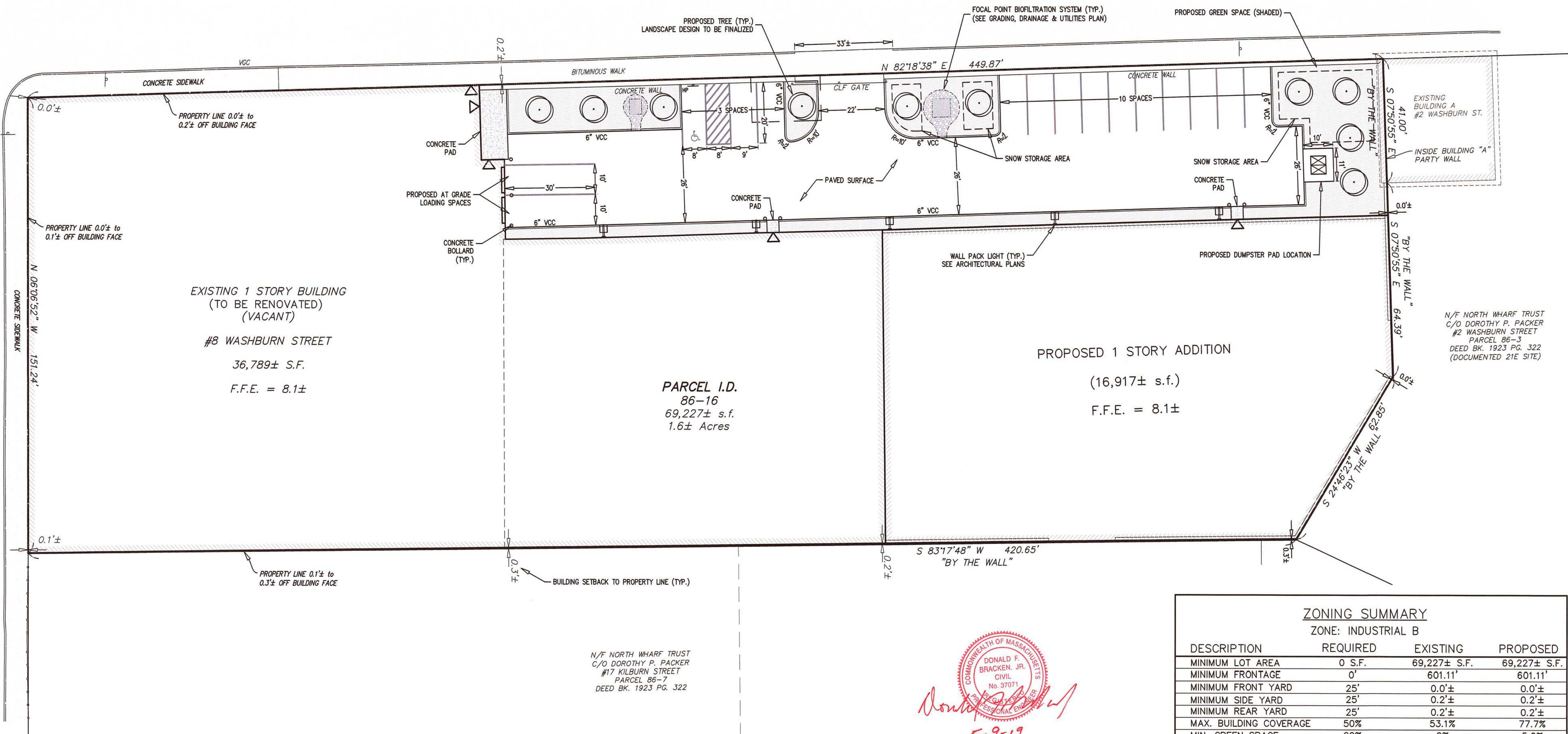


- Notes**
- ANY MINOR MODIFICATIONS (AS DETERMINED BY THE CITY ENGINEER) TO THE INFORMATION SHOWN ON THE APPROVED SITE PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER AS A MINOR PLAN REVISION FOR APPROVAL PRIOR TO THE WORK BEING PERFORMED.
  - ANY WORK AND MATERIALS WITHIN THE CITY RIGHT OF WAY SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
  - ALL HANDICAP PARKING, RAMP AND ACCESS SHALL CONFORM TO AAB AND MAAB REQUIREMENTS.
  - ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO MUTCD REQUIREMENTS.

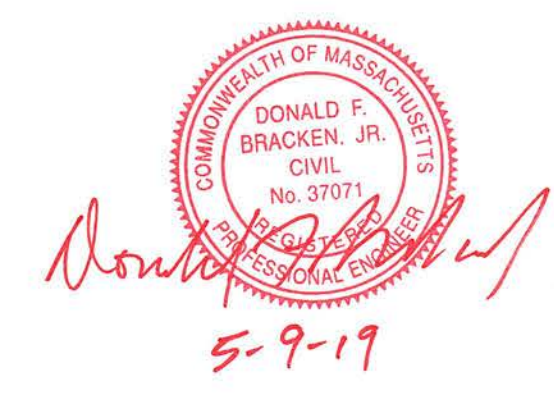
- Landscaping Notes**
- ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 NURSERY STOCK, LATEST EDITION (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)
  - 4" AGED PINEBARK MULCH SHALL BE APPLIED TO ALL SHRUB & GROUNDCOVER BEDS.
  - PLANT PIT BACKFILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 1 PART OF DEHYDRATED COW MANURE. USE EXISTING ON SITE TOPSOIL AS PART OF BACKFILL WHEN AVAILABLE.
  - ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEEDING OR SODDING AS INDICATED ON PLANS.
  - ALL SOD, SEED, SHRUB AND TREE AREAS SHALL RECEIVE 6" PH CORRECTED TOPSOIL. AFTER TOP-SOIL IS SPREAD EVENLY OVER ENTIRE AREA, ALL CLODS, LUMPS, STONES AND OTHER DELETERIOUS MATERIAL SHALL BE RAKED UP AND REMOVED.
  - APPLICATION OF GRASS SEED, FERTILIZERS, LIME AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED.
  - NEWLY GRADED AREAS REQUIRING SLOPE PROTECTION OUTSIDE OF NORMAL SEEDING SEASON SHALL RECEIVE HAY MULCH AT THE APPROXIMATE RATE OF NO MORE THAN 3 TONS PER ACRE.
  - ANY CHANGES IN PLANT LOCATIONS OR TYPE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
  - CLEAR AND GRUB (TO LIMITS SHOWN ON GRADING PLAN) TO REMOVE TREES, ROCKS, DEBRIS, ROOTS, ETC. STUMPS SHALL BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH STATE REGULATIONS. AFTER CLEARING, ROTOTILL, STRIP AND STOCKPILE ALL ON-SITE TOPSOIL FOR REUSE TO THE MAXIMUM EXTENT POSSIBLE.
  - FOR SEED AND SOD AREAS G.C. TO USE EXISTING TOPSOIL, IF AVAILABLE, FOR A 4" DEPTH AND TOP DRESS WITH 2" OF SCREENED TOPSOIL, UNLESS OTHERWISE NOTED ON PLAN.
  - ALL TREES, SHRUBS AND SOD SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR AFTER ACCEPTANCE.



**BELLEVILLE (40' WIDE) AVENUE**



N/F NORTH WHARF TRUST  
C/O DOROTHY P. PACKER  
#17 KILBURN STREET  
PARCEL 86-7  
DEED BK. 1923 PG. 322



ZONING SUMMARY			
ZONE: INDUSTRIAL B			
DESCRIPTION	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	0 S.F.	69,227± S.F.	69,227± S.F.
MINIMUM FRONTAGE	0'	601.11'	601.11'
MINIMUM FRONT YARD	25'	0.0'±	0.0'±
MINIMUM SIDE YARD	25'	0.2'±	0.2'±
MINIMUM REAR YARD	25'	0.2'±	0.2'±
MAX. BUILDING COVERAGE	50%	53.1%	77.7%
MIN. GREEN SPACE	20%	0%	5.6%
MAX. BUILDING HEIGHT	100'	16'±	16'±

Prepared By:

**BRACKEN ENGINEERING, INC.**

49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532  
(tel) 508.833.0070  
(fax) 508.833.2282

19 OLD SOUTH ROAD  
NANTUCKET, MA 02554  
(tel) 508.325.0044  
www.brackeneng.com

Sheet Title:

**LAYOUT & LANDSCAPING**

Project:

**PROPOSED SELF-STORAGE FACILITY  
IN NEW BEDFORD, MASSACHUSETTS**

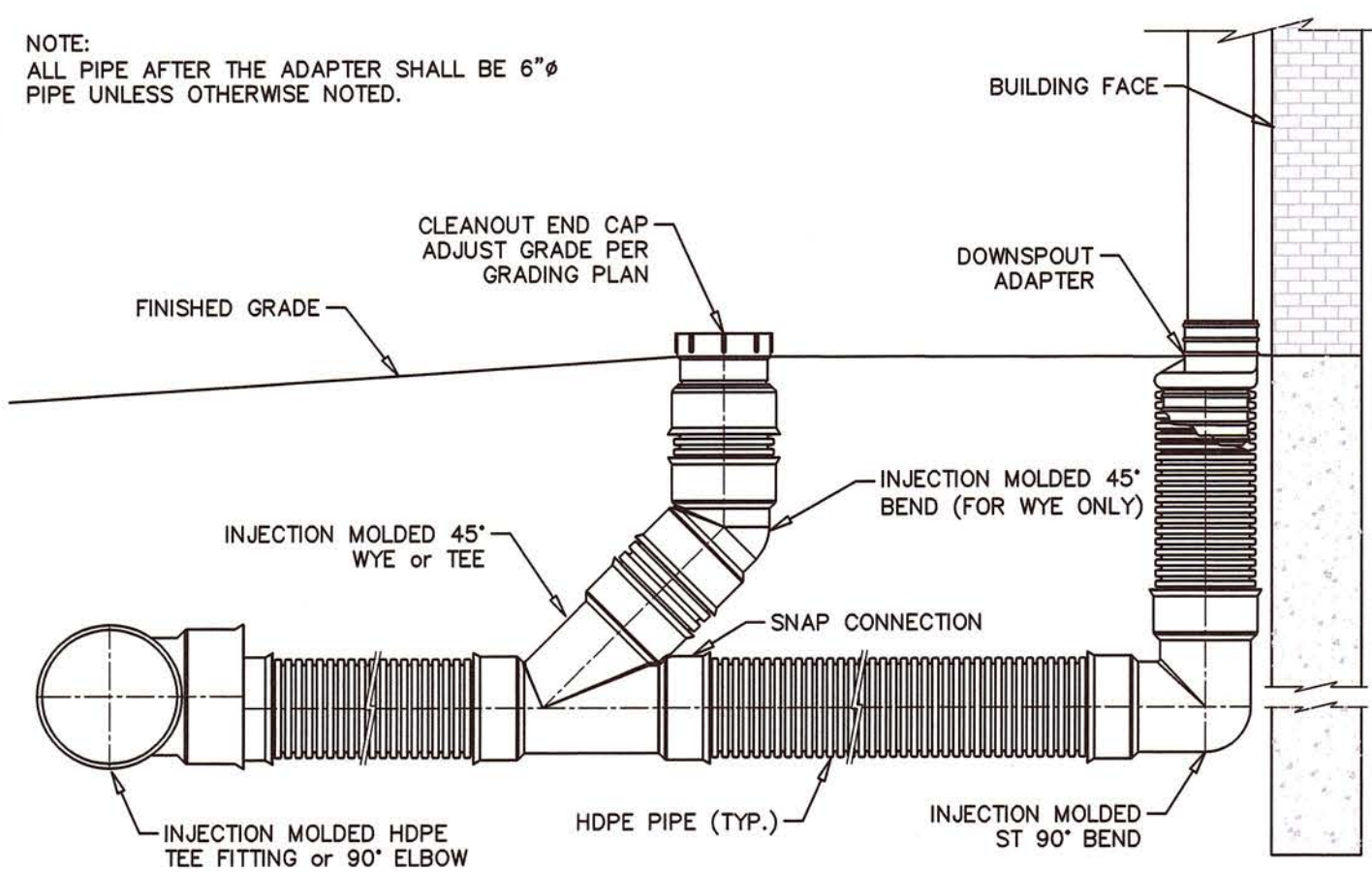
PREPARED FOR:

**MA NEW BEDFORD &  
WASHBURN, LLC**

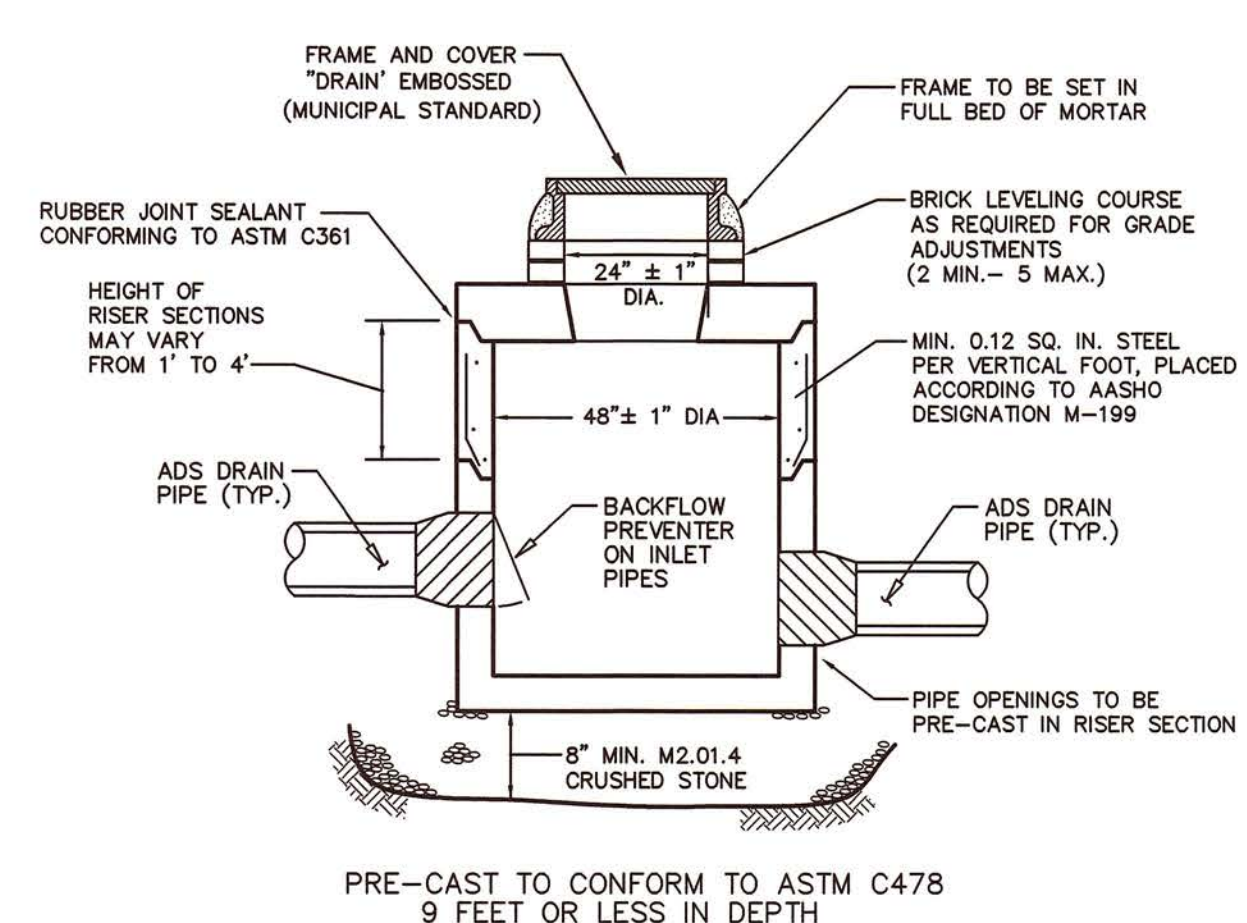
#8 WASHBURN STREET  
PARCEL I.D.: 86-16

No.	Date	Revision Description	By
1	MAY 9, 2019	Drawn: RMM/ERC/BEI Checked: DFB/AMG	4 of 6

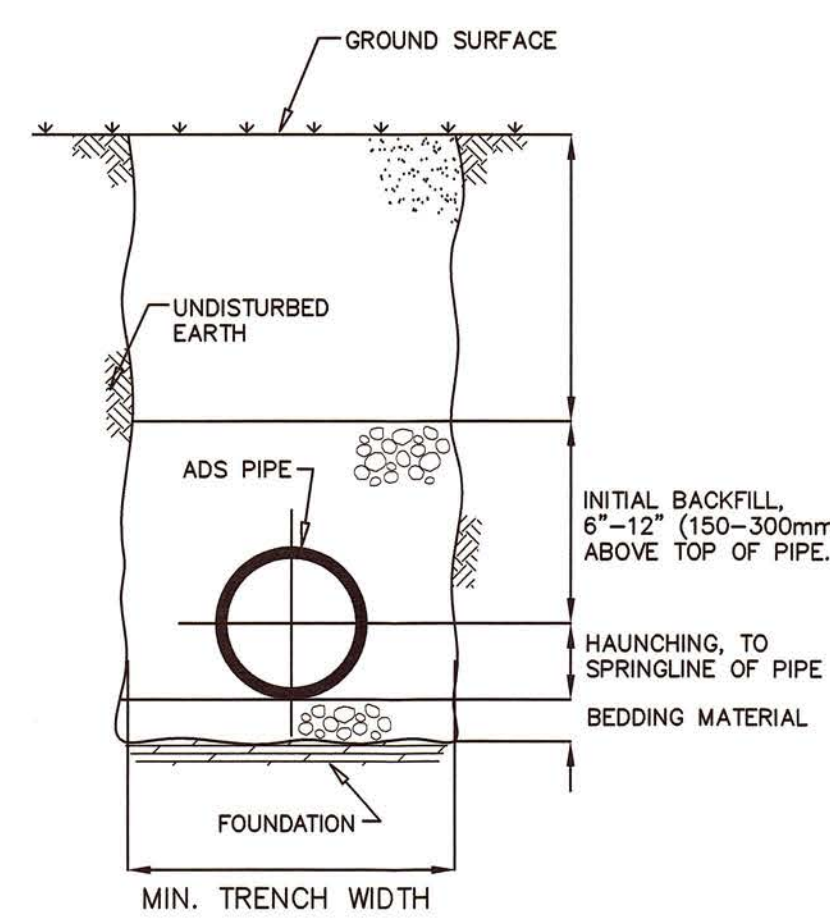
NOTE:  
ALL PIPE AFTER THE ADAPTER SHALL BE 6"Ø  
PIPE UNLESS OTHERWISE NOTED.



TYPICAL ROOF DRAIN DETAIL  
NOT TO SCALE



PRE-CAST CONCRETE DRAIN MANHOLE  
NOT TO SCALE



TRENCH CROSS-SECTION & A.D.S. PIPE INSTALLATION DETAIL  
NOT TO SCALE

NOTES:

1. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321. "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION; AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.

2. BEDDING, HAUNCHING & INITIAL BACKFILL: SUITABLE MATERIAL SHALL CONSIST OF CLEAN, HARD, PARTICLES OF GRAVEL MEETING THE FOLLOWING:

SEIVE SIZES	PASSING
3/8"	85-95%
NO. 4	5-15%
NO. 8	0-2%

MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100-600MM) AND 42"-48" (1050-1200MM) CORRUGATED POLYETHYLENE PIPE (CPEP); 6" (150MM) FOR 30"-36" (750-900MM) CPEP.

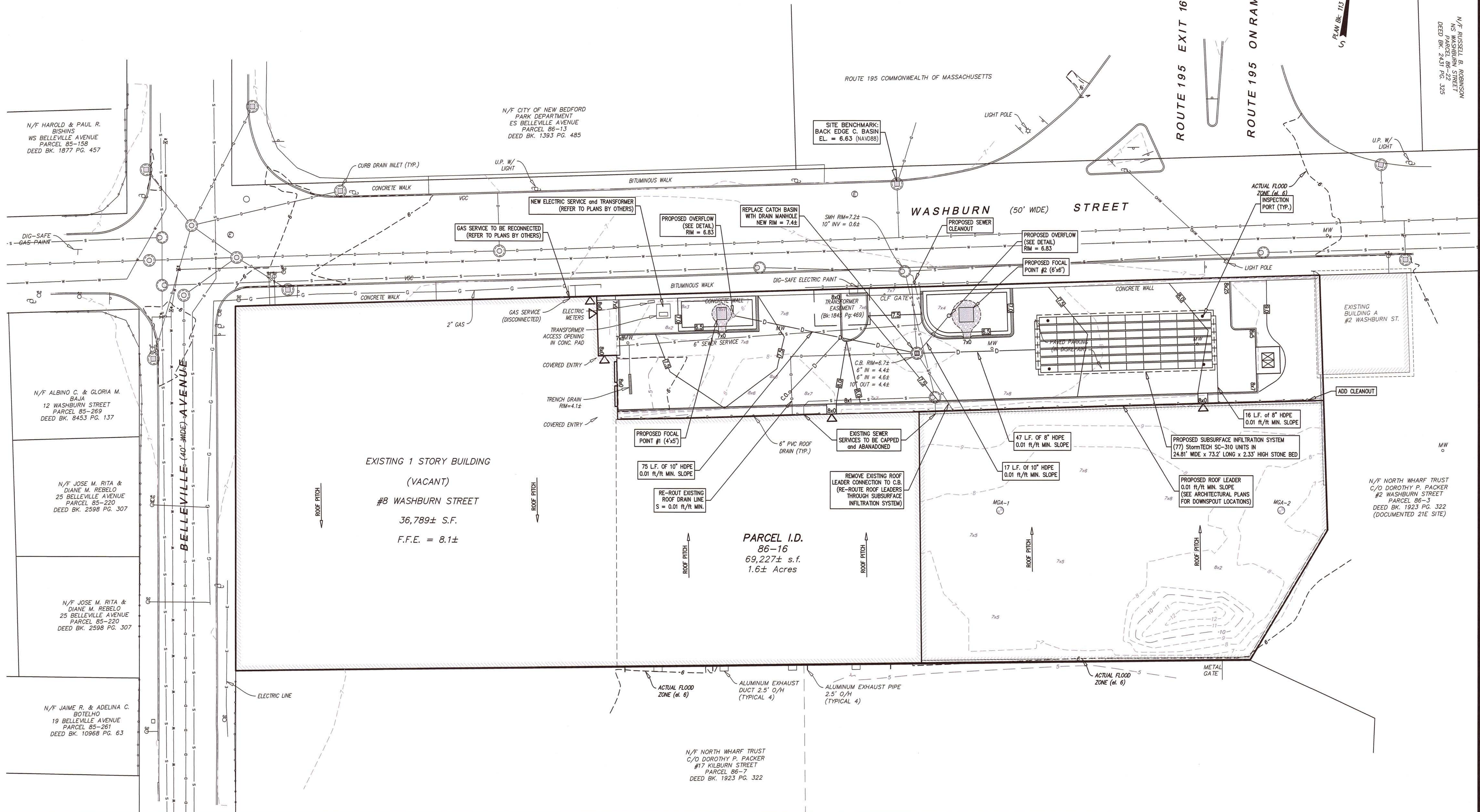
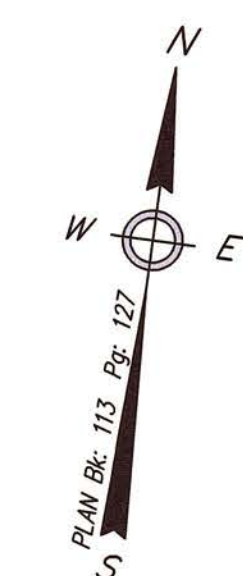
4. MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

NOMINAL Ø in (mm)	MIN. RECOMMENDED TRENCH WIDTH, in (mm)
8 (200)	25 (630)
10 (250)	28 (710)
12 (300)	31 (790)
15 (375)	34 (860)
18 (450)	39 (990)

5. MINIMUM COVER: MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

SURFACE LIVE LOADING CONDITION	MINIMUM RECOMMENDED COVER, in (mm)
H25 (FLEXIBLE PAVEMENT)	12 (300)
H25 (RIGID PAVEMENT)	12 (300)
E80 RAILWAY	24 (610)
HEAVY CONSTRUCTION	48 (1220)

*TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION



Seal of the Commonwealth of Massachusetts, signed by Donald F. Bracken, Jr., dated 5-9-19.

PLAN SCALE  
0 4 8 12 16 20 30 40 60  
1 inch = 20 feet

Prepared By:  
**BRACKEN ENGINEERING, INC.**  
49 HERRING POND ROAD BUZZARDS BAY, MA 02532  
(tel) 608.833.0070 (fax) 608.833.2282

19 OLD SOUTH ROAD NANTUCKET, MA 02554  
(tel) 508.325.0044 (www.brackeneng.com)

Sheet Title:  
**GRADING, DRAINAGE & UTILITIES**

Project:  
**PROPOSED SELF-STORAGE FACILITY IN NEW BEDFORD, MASSACHUSETTS**  
PREPARED FOR:  
**MA NEW BEDFORD & WASHBURN, LLC**  
#8 WASHBURN STREET  
PARCEL I.D.: 86-16

No.	Date	Revision Description	By

Date: MAY 9, 2019  
Drawn: RMM/ERC/BEI  
Checked: DFB/JMG  
Sheet: 5 of 6

**GENERAL CONSTRUCTION NOTES:**

- ALL NECESSARY POLICE DETAIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS.
- ALL EXISTING CONDITIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN, AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD LOCATED UTILITIES. DISCREPANCIES TO THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY OR INACCURATELY SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. ALL COST RELATED TO THE REPAIR OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL UTILIZE ALL PRECAUTIONS AND MEASURES TO ENSURE THE SAFETY OF THE PUBLIC, ALL PERSONNEL, AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAIL AND/OR FLAGMEN AS DETERMINED NECESSARY BY THE ENGINEER AND/OR TOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL REQUIRED POLICE DETAIL.
- ALL TRENCHING WORK WITHIN A ROADWAY SHALL BE COORDINATED WITH THE PROPER LOCAL & STATE AGENCY. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCHWORK. THIS WORK MAY BE REQUIRED TO TAKE PLACE OUTSIDE OF NORMAL HOURS OF OPERATION FOR THE FACILITY, THE CONTRACTOR SHALL PLAN ACCORDINGLY.
- THE CONTRACTOR SHALL MAKE ALL CONNECTION ARRANGEMENTS WITH UTILITY COMPANIES, AS REQUIRED.
- ALL IMPORTED MATERIAL, IF REQUIRED, SHALL BE CLEAN. NO MATERIAL WILL BE ACCEPTED FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40.0000.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS SHALL BE COORDINATED WITH THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES SHALL REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. ANY RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES SHALL BE THE RESPONSIBILITY (INCLUDING COSTS) OF THE CONTRACTOR.
- UNLESS OTHERWISE SPECIFIED ON THE PLANS AND DETAILS/SPECIFICATIONS, ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE MOST RECENT VERSION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (THE MASSACHUSETTS HIGHWAY DEPARTMENT 1988 STANDARD SPECIFICATION FOR HIGHWAYS AND BRIDGES, THE 2002 SUPPLEMENTAL SPECIFICATIONS AND THE 2006 SPECIAL PROVISIONS).
- CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
- SOLID WASTES SHALL BE COLLECTED AND STORED IN A SECURED DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- THE CONTRACTOR SHALL RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE. AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. THE CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO SHRUBS, TREES, OTHER LANDSCAPING, AND/OR NATURAL FEATURES. WHEREAS THE PLANS DO NOT SHOW ALL LANDSCAPE FEATURES, EXISTING CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF THE WORK.
- ALL UNPAVED AREAS DISTURBED BY THE WORK SHALL HAVE A MINIMUM OF 4-INCHES OF LOAM INSTALLED AND BE SEEDED WITH GRASS SEED AS SHOWN ON THE PLAN AND/OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ANY LOAM AND SEEDED AREAS UNTIL LAWN GROWTH IS ESTABLISHED AND APPROVED BY THE ENGINEER AND/OR OWNER.
- ALL PROPOSED STRUCTURES SHALL BE DESIGNED BY THEIR MANUFACTURERS FOR AASHTO H-20 LOADING, PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED HEREIN.
- ALL WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATION AND CONSTRUCTION AND TRAFFIC STANDARD DETAILS (1998) DRAWING NUMBER 107.1.0 AND 107.2.0 RAMPS SHALL HAVE AN 8% MAX. SLOPE AND 2% CROSS SLOPE.
- LEDGE OR BOULDER EXCAVATION IS NOT ANTICIPATED FOR THIS SITE. HOWEVER, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE COST IN CUBIC YARD MEASURE FOR LEDGE AND/OR BOULDER REMOVAL. LEDGE AND/OR BOULDERS LESS THAN 1 CUBIC YARD IN SIZE BASED ON THE AVERAGE DIMENSIONS WILL NOT BE CONSIDERED PAYABLE ROCK. UNIT PRICE SHALL BE GIVEN FOR BOTH ON AND OFF SITE DISPOSAL. COST OF REPLACEMENT MATERIAL SHALL BE INCLUDED IF ADDITIONAL FILL MATERIAL IS REQUIRED.
- THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO AN APPROVED DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
- CONCRETE TRUCKS SHALL NOT BE WASHED ONSITE. ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA SHALL BE REMOVED BY HAND AT THE CONTRACTOR'S EXPENSE.
- BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED. NO ROAD SALT OR OTHER DE-ICING CHEMICALS SHALL BE USED ON THE PARKING AREAS.
- IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR IS TO IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER.
- AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF ALL THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED FROM THE SITE.

**GENERAL GRADING & DRAINAGE NOTES:**

- ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLAN AND SPECIFICATIONS FOR EARTHWORK AND COMPACTION REQUIREMENTS FOR ALL SLABS AND BUILDING FOUNDATIONS.
- PROPOSED ELEVATIONS ARE SHOWN TO FINISH PAVEMENT OR GRADE UNLESS NOTED OTHERWISE.
- BACKFILL ADJACENT TO PIPES AND STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED SIX INCHES IN THICKNESS AND COMPACTED TO A DENSITY OF 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN +/-2% OF OPTIMUM. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99. TESTING OF BACKFILL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**EROSION & SEDIMENT CONTROL NOTES:**

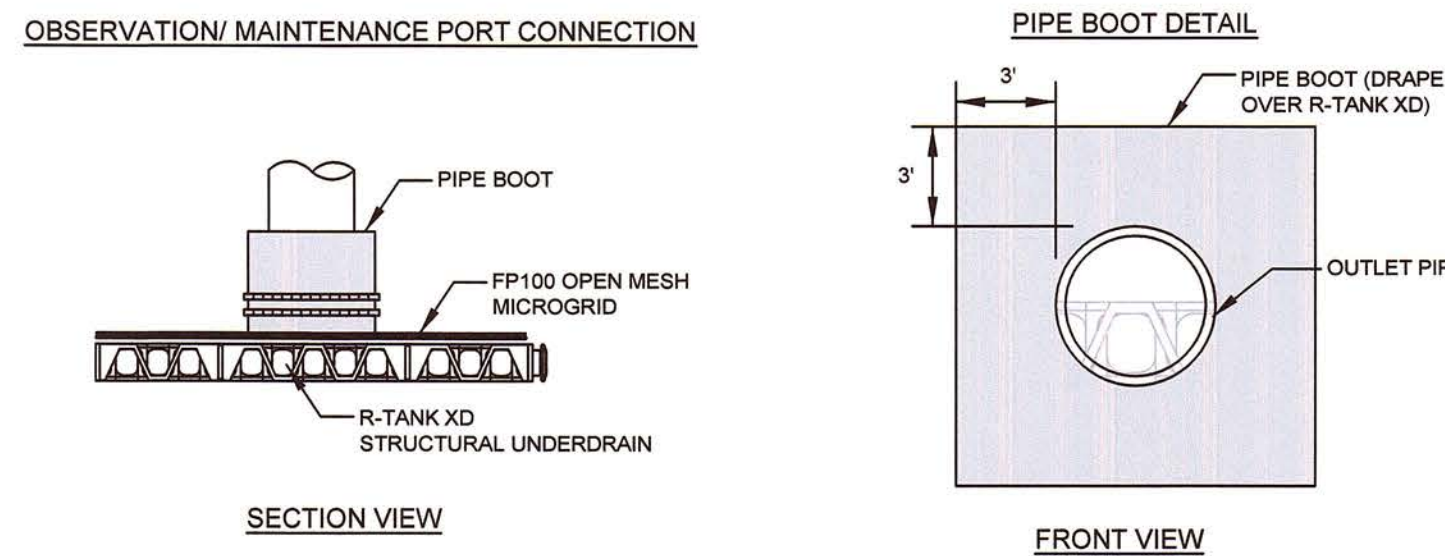
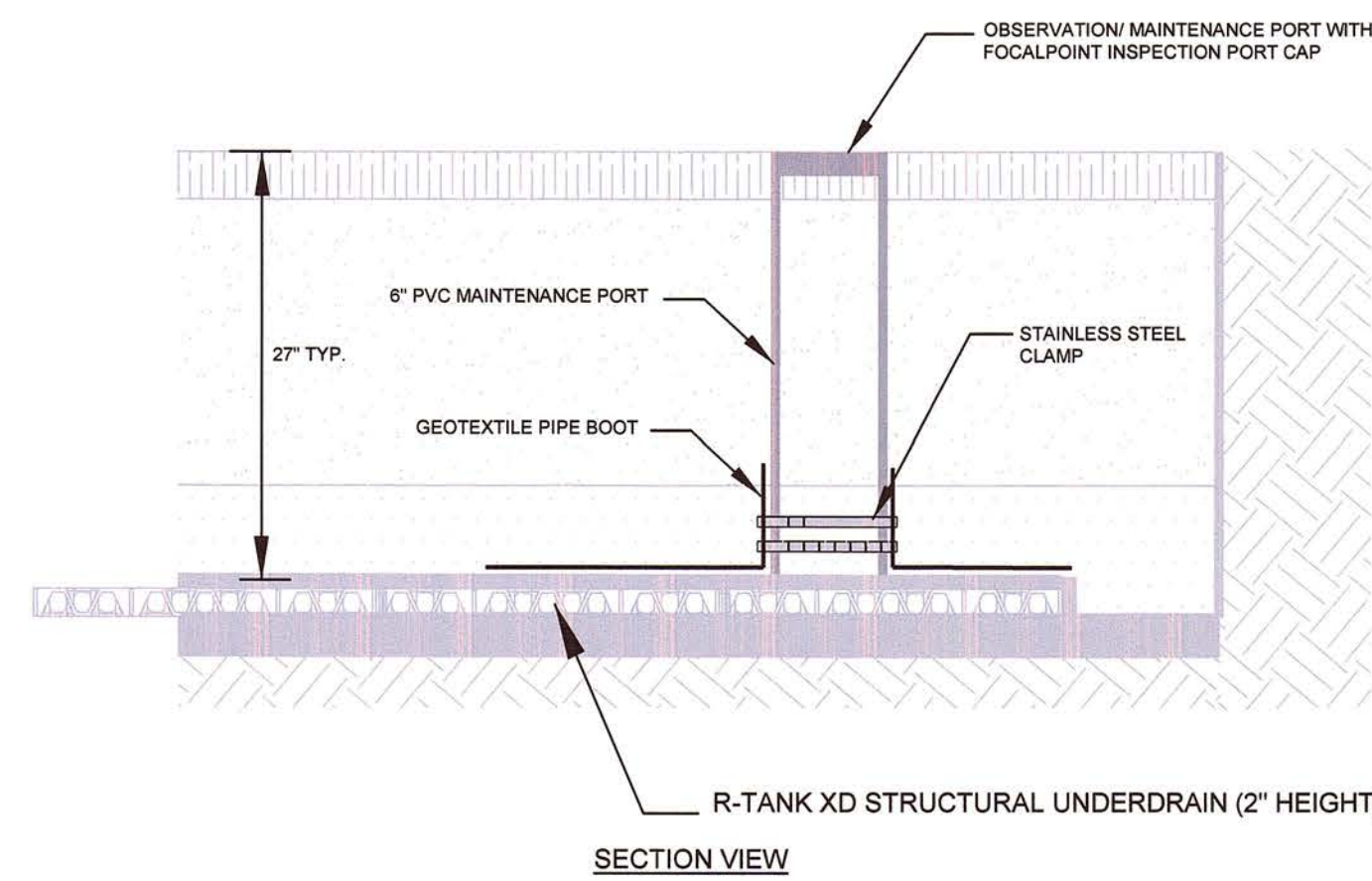
- THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED, REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT, SUCH MEASURES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
- A MINIMUM SURPLUS OF 200 FEET OF EROSION CONTROL BARRIER (SILT FENCE, STRAWBALE AND/OR SILT SOCK) SHALL BE STOCKPILED ONSITE AT ALL TIMES.
- THE CONTRACTOR SHALL PROTECT THE ADJACENT PROPERTIES FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER.
- THE LIMIT OF ALL CLEARING, GRADING AND DISTURBANCES SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. THE CONTRACTOR SHALL PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE ENTIRE SITE, ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION SHALL BE GRUBBED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH WILL LEAVE LARGE DISTURBED AREAS UN-STABILIZED. IF INCLEMENT WEATHER IS PREDICTED, THE CONTRACTOR SHALL USE THEIR BEST PROFESSIONAL JUDGMENT WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR ENSURING THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
- ESC MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.50 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
- SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED ON THEIR PERIMETERS WITH SILT SOCK, SILT FENCE, STRAWBALES OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
- DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY THAT AREA IS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 3:1 SHALL BE REINFORCED WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERTY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.

- THE CONTRACTOR SHALL INSTALL A SILT SOCK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, THE CONTRACTOR SHALL INSTALL A SILT SOCK OR APPROVED EQUIVALENT. THESE ARE TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPTIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
- SMALL, TEMPORARY, SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AND IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
- THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ONSITE. ALL EXITS FROM THE SITE WILL BE SWEEP AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEP AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
- PROPER MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IF DEWATERING IS NECESSARY DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE DEWATERING BAGS, TEMPORARY STRAWBALES, SILT FENCES, SILT SOCKS, AND/OR OTHER APPROVED DEVICES. THE DEWATERING SET UP SHALL BE APPROVED BY THE ENGINEER.
- ALL SEDIMENT COLLECTED IN THE TEMPORARY PARTIALLY CONSTRUCTED BIOTRETENTION AREAS WILL BE REMOVED AND DISPOSED OF PROPERLY PRIOR TO FILTER FABRIC AND/OR MEDIA INSTALLATION WITHIN THE BIOTRETENTION AREAS. PARTIALLY CONSTRUCTED BIOTRETENTION AREAS WILL HAVE A SURFACE ELEVATION AT A MINIMUM OF 1-FOOT ABOVE THE BOTTOM OF MEDIA ELEVATION AS SHOWN ON THE BIOTRETENTION SCHEDULE. THIS WILL ALLOW AN OVER-DIG OF THE COLLECTED SEDIMENT FROM WITHIN THE BIOTRETENTION AREA PRIOR TO MEDIA/FABRIC INSTALLATION.
- DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.

**STORMWATER FACILITY OPERATION & MAINTENANCE:**

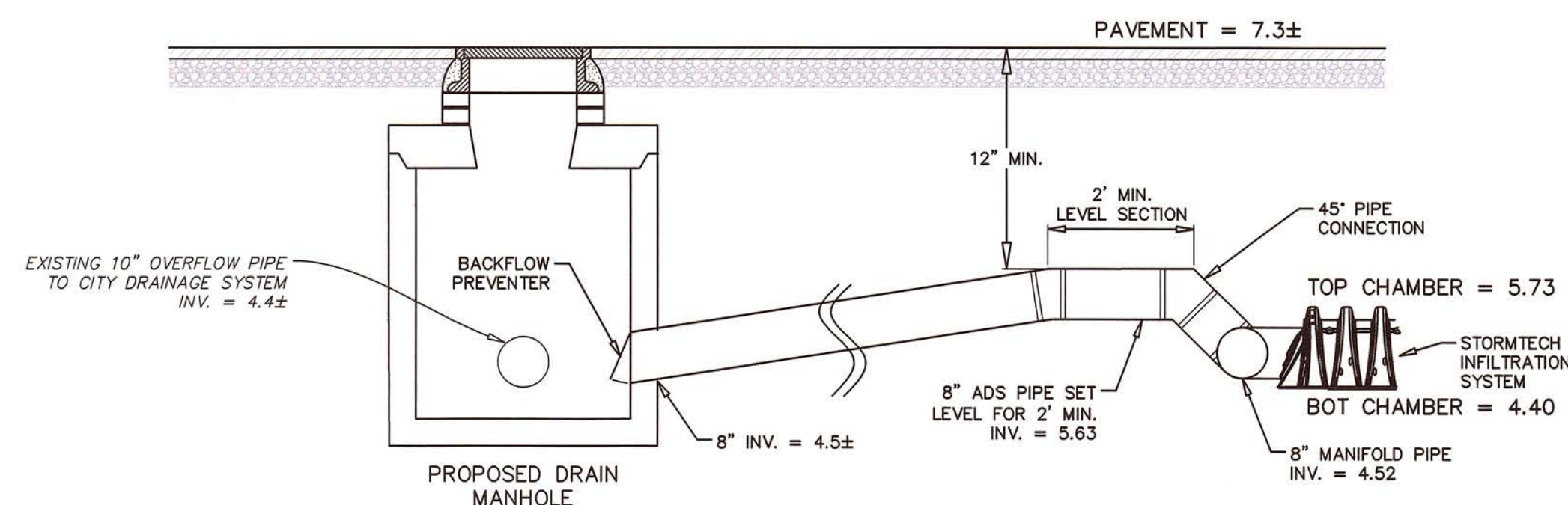
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES UNTIL SUCH TIME THAT THE PARKING LOT, BUILDING, AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.
- THE CONTRACTOR SHALL INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, ETC.) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
- ALL SEDIMENT AND DEBRIS SHALL BE DISPOSED OF PROPERLY IN A PRE-APPROVED LOCATION.
- THE CONTRACTOR SHOULD REFER TO THE OPERATION & MAINTENANCE PLAN FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS AND SHALL MAINTAIN A WORKING COPY ON SITE AT ALL TIMES.
- ALL STORMWATER FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AFTER EVERY MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.

NOTE: OPERATION AND MAINTENANCE CHECKLIST AVAILABLE UPON REQUEST

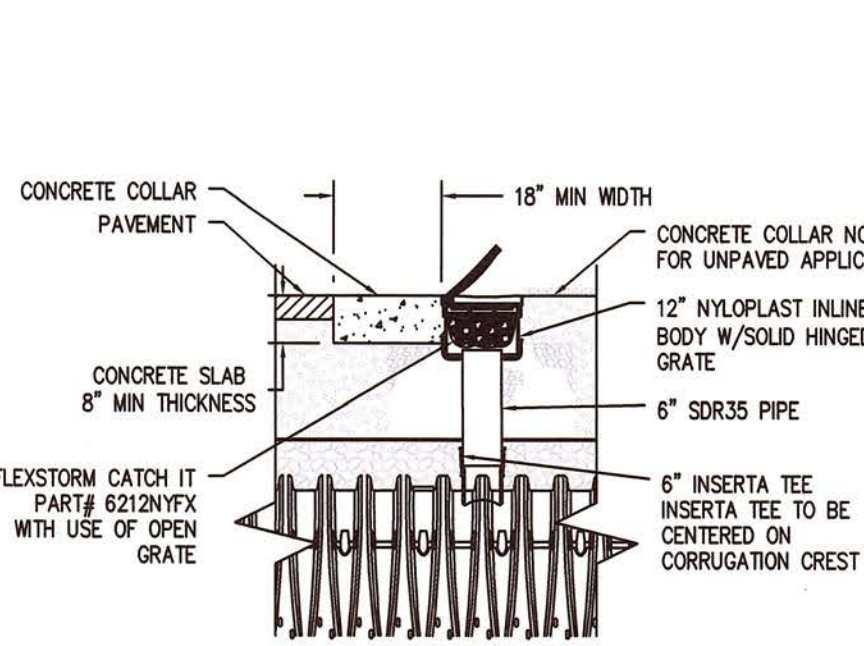


**FOCAL POINT INSPECTION PORT DETAIL**  
NOT TO SCALE

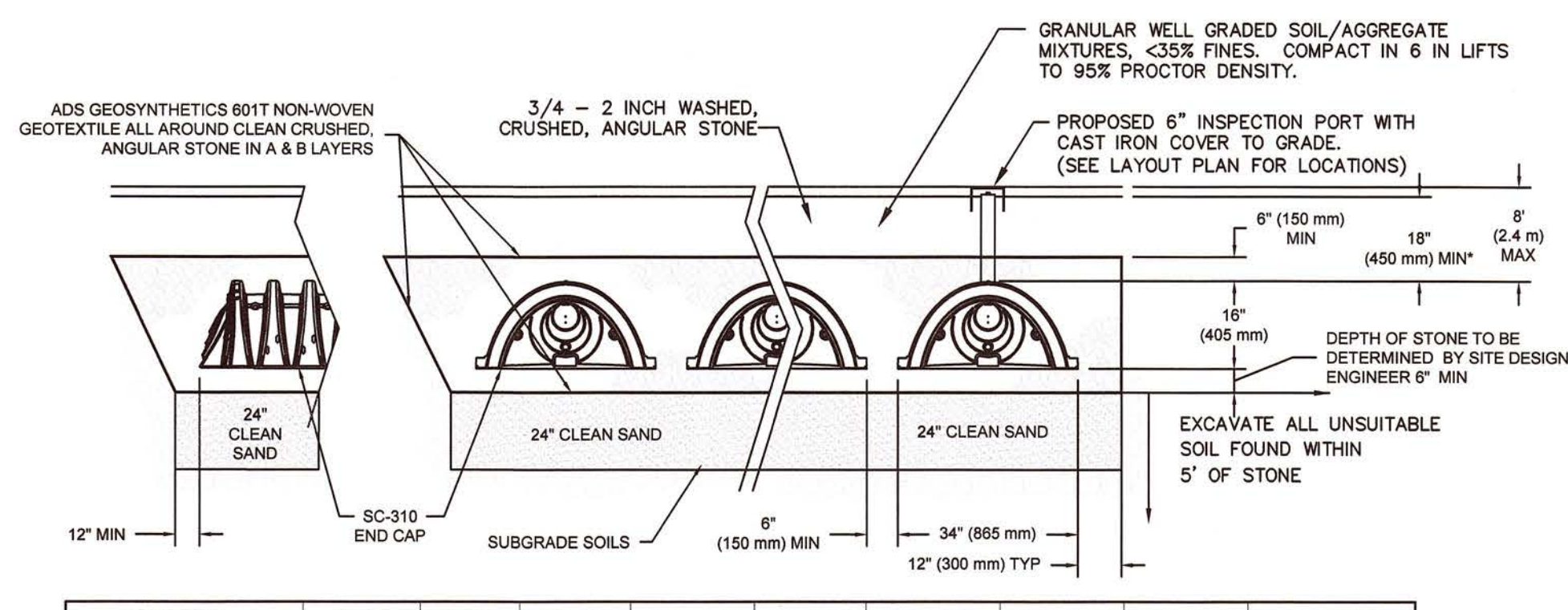
FOCALPOINT HP CONSTRUCTION GUIDE			
DESCRIPTION	FOCAL POINT #1	FOCAL POINT #2	
A FOCALPOINT LENGTH	5'	6'	
B # FOCALPOINT LONG	2	2	
C FOCALPOINT WIDTH	4'	6'	
D # FOCAL POINT WIDE	2	3	
E WATER QUALITY VOLUME	163 FT ³	289 FT ³	
F OVERFLOW RIM ELEVATION	6.83	6.83	
G OVERFLOW OUTLET INVERT	5.25	4.70	
H TOP OF MULCH	6.33	6.33	
J UNDERDRAIN HEIGHT	2"	2"	



**INFILTRATION SYSTEM CONNECTION TO OVERFLOW**  
NOT TO SCALE



**STORMTECH INSPECTION PORT DETAIL**  
NOT TO SCALE



SYSTEM SIZE	# OF UNITS	# OF ROWS	TOP OF STONE	TOP OF CHAMBER	INVERT IN (8")	INVERT OUT (8")	BOTTOM CHAMBER	BOTTOM STONE	FINISHED GRADE
24.81' x 73.20' x 2.33'	77	7	6.23	5.73	4.46	4.52	4.40	3.90	7.3± to 8.0±

**STORMWATER MANAGEMENT AREA**  
NOT TO SCALE

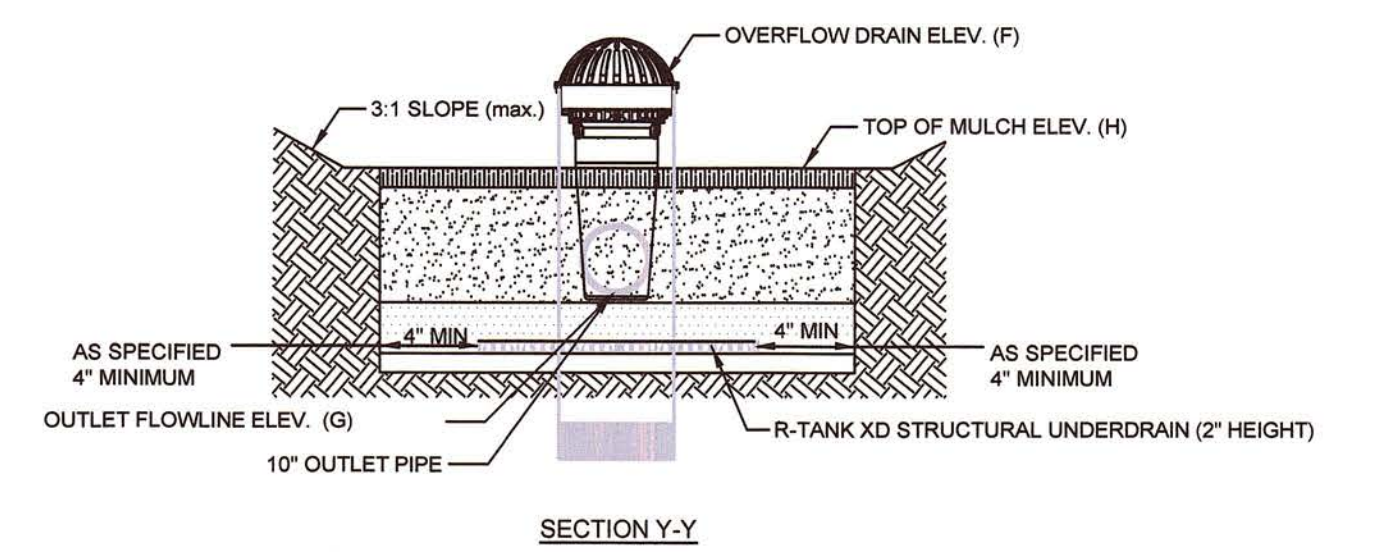
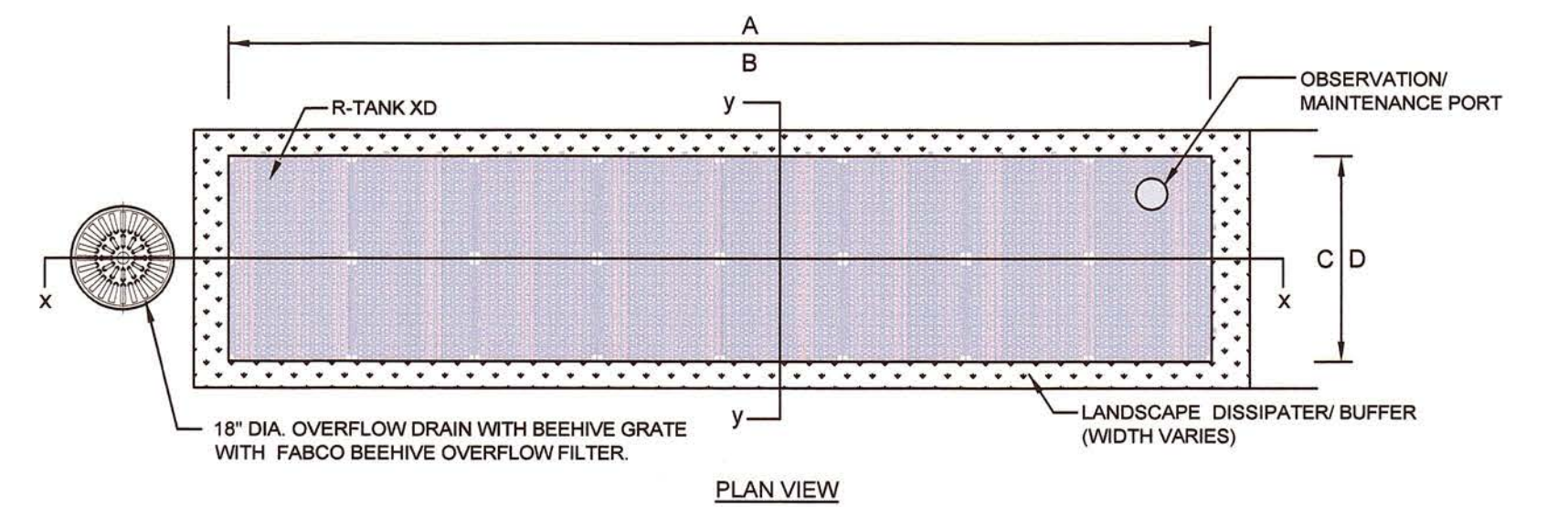
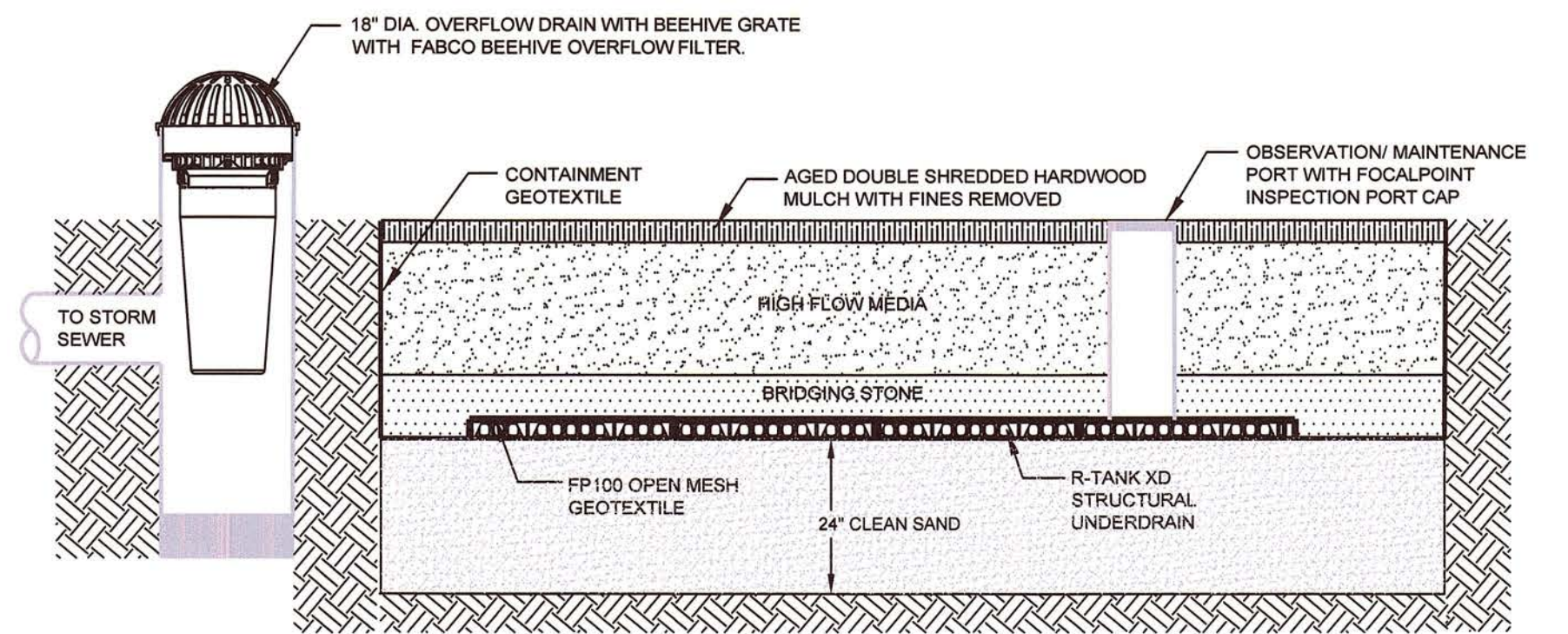
**FOCALPOINT HP PERFORMANCE SPECIFICATION:**

**HIGH PERFORMANCE MEDIA**

HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100 PER HOUR INFILTRATION RATE. FIELD HYDRAULIC CONDUCTIVITY TESTING MUST BE CONDUCTED WITHIN 30 DAYS OF INSTALLATION. FIELD TEST MUST BE CONDUCTED WITH PROSCRIBED INFILTRATOR AND SOP (SEE SPECIFICATION). FAILURE TO MEET FIELD TESTING WILL RESULT IN THE REMOVAL OF MEDIA AND REPLACEMENT FROM ALTERNATE BATCH.

**HIGH PERFORMANCE STRUCTURAL UNDERDRAIN**

MUST HAVE A MINIMUM OF 18 SQUARE INCHES OF ORIFICE OPENING PER SQUARE FOOT. MUST MEET H20 LOADING REQUIREMENTS. MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE. MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.



**FOCAL POINT BIOFILTRATION SYSTEM DETAILS**  
NOT TO SCALE

Professional Engineer Seal for Donald F. Bracken, Jr., No. 37071, Registered Professional Engineer, State of Massachusetts. Signature: Donald F. Bracken, Jr., Date: 5-9-19.

Prepared By:  
**BRACKEN ENGINEERING, INC.**  
49 HERRING POND ROAD BUZZARDS BAY, MA 02552 (tel) 508.833.0070 (fax) 508.833.2282  
19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 508.325.0044 (fax) 508.325.0444 www.brackeneng.com

Sheet Title:  
**CONSTRUCTION NOTES & DETAILS**

Project:  
**PROPOSED SELF-STORAGE FACILITY IN NEW BEDFORD, MASSACHUSETTS**  
PREPARED FOR:  
**MA NEW BEDFORD & WASHBURN, LLC**  
#8 WASHBURN STREET  
PARCEL I.D.: 86-16

No.	Date	Revision	Description	By
1	MAY 9, 2019		RMM/ERC/BEI	DFB/AMG

**NOTES:**  
CHAMBERS SHALL MEET ASTM F 2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".  
THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.  
THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS.  
UNSATISFACTORIAL SOILS: SURFICIAL ORGANICS, SURFICIAL OR BURIED TOP SOIL/SUB SOIL, OLD FOUNDATION, UTILITIES, PAVEMENT, FILL AND ALL OTHER DELETERIOUS MATERIAL.  
SOIL INSPECTION: THE DESIGN ENGINEER SHALL CONDUCT A BOTTOM OF EXCAVATION TEST, TO VERIFY THE UNSATISFACTORIAL MATERIALS HAVE BEEN REMOVED PRIOR TO BACKFILL OF SAND AND PRIOR TO THE INSTALLATION OF THE CRUSHED STONE BASE.  
PROTECTION: INFILTRATION AREAS ARE TO BE PROTECTED DURING CONSTRUCTION AND AVOID OVER COMPACTION TO INSURE THE INFILTRATION CAPACITY IS MAINTAINED.