

SITE PLANS FOR A PROPOSED  
PARKING LOT EXPANSION TO SERVICE

# ANCHOR AUTO GROUP

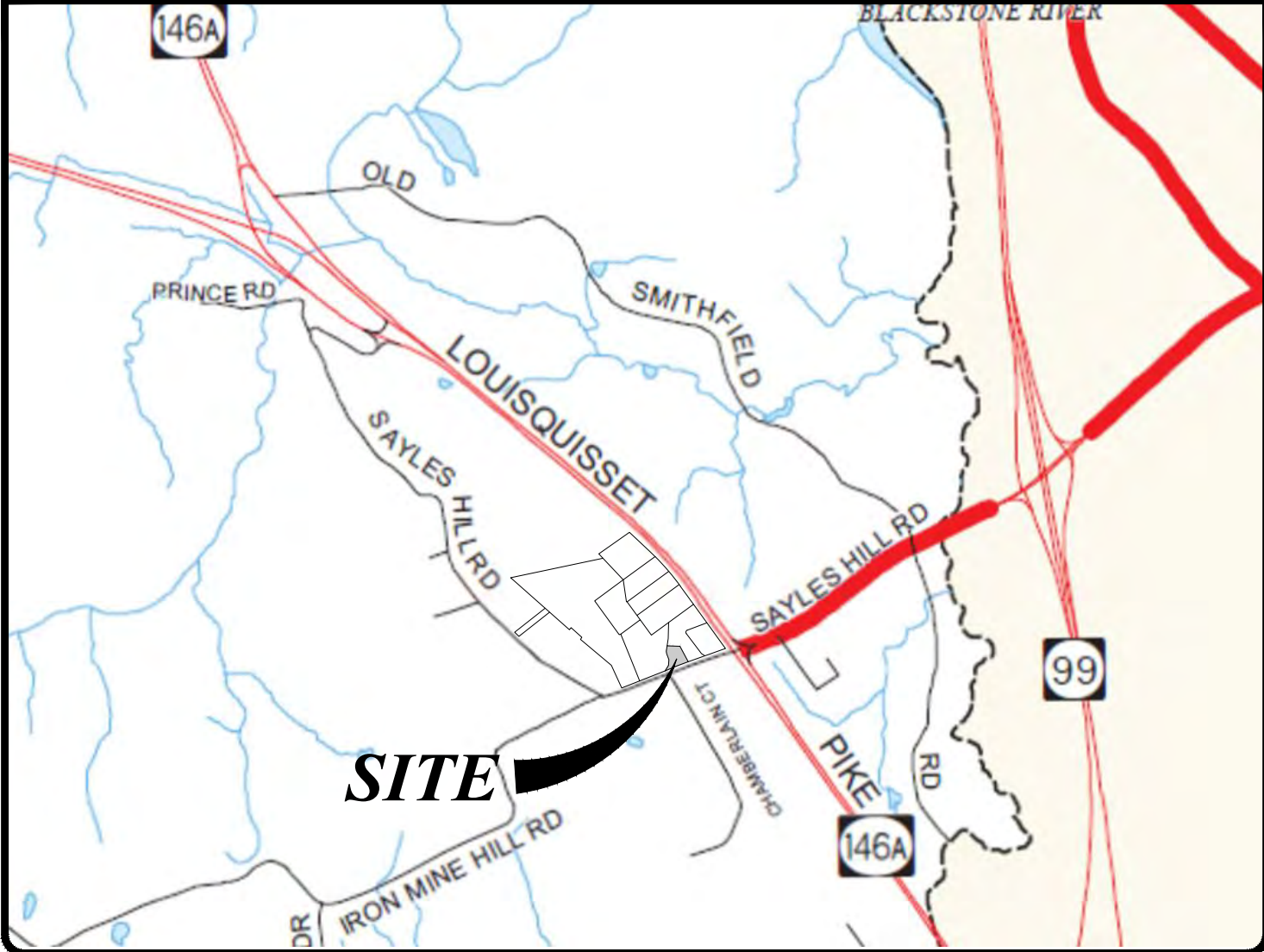


AP 17, LOT 15  
NORTH SMITHFIELD, RHODE ISLAND  
ZONING DISTRICT: (BUSINESS-HIGHWAY DISTRICT)

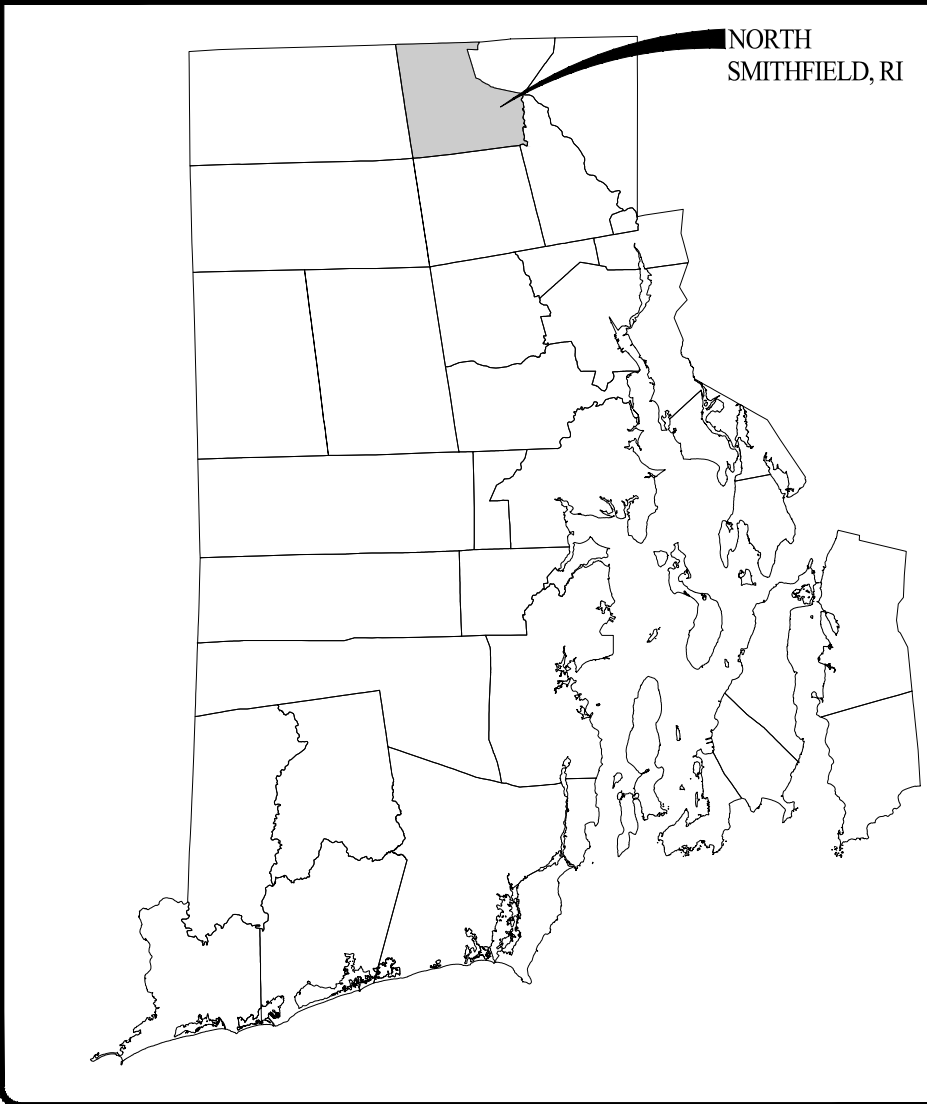
#### PROJECT TEAM

<b>OWNER:</b>	BENOIT RESIDENTIAL REALTY, LLC 949 EDDIE DOWLING HIGHWAY NORTH SMITHFIELD, RHODE ISLAND 02896
<b>CIVIL:</b>	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RHODE ISLAND 02888 PHONE: (401) 944-1300 FAX: (401) 944-1313
<b>WETLAND BIOLOGIST:</b>	NATURAL RESOURCE SERVICES, INC. 180 TINKHAM LANE HARRISVILLE, RI 02830 PHONE: 401-568-7390
<b>SURVEYOR:</b>	INTERNATIONAL MAPPING AND SURVEYING, CORP. 19 INDUSTRIAL DRIVE SMITHFIELD, RHODE ISLAND 02917 PHONE: (401) 232-2620 FAX: 401-232-3820

#### LOCUS MAP (1" = 2000')

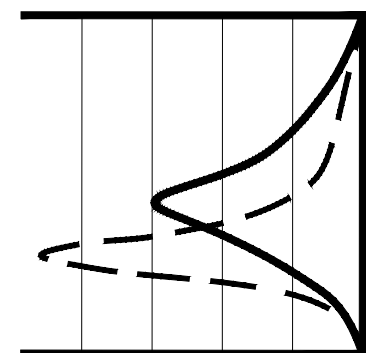


#### STATE WIDE MAP

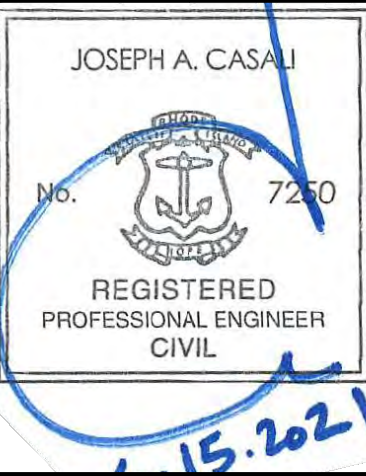


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**JOE CASALI ENGINEERING, INC.**  
CIVIL ENGINEERING & SURVEYING  
300 POST ROAD, WARWICK, RI 02888  
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**ANCHOR AUTO GROUP**  
**PARKING LOT EXPANSION**  
**194 SAYLES HILL ROAD**  
**NORTH SMITHFIELD, RHODE ISLAND**  
**AP 17, LOT 15**

NO.	DATE	DESCRIPTION
1	6/2021	RIDEM COMMENTS

DESIGNED BY:	WMLJR
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2021
PROJECT NO:	03-47h

PRELIMINARY, NOT FOR  
CONSTRUCTION

**COVER  
SHEET**

**SHEET  
1 OF 7**



Q:\03-47-Marc-N. Nyberg\03-47th-Anchor-Subaru\2021-Parking-Lot-Expansion\ACAD\Anchor-Parking-Lot-Expansion-Preliminary-Plan-DGN-RTCP-RI.dwg Jun 15, 2021 4:38pm

GENERAL NOTES:

1. CLASS I PROPERTY LINE AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY INTERNATIONAL MAPPING AND SURVEYING, INC., 19 INDUSTRIAL DRIVE, SMITHFIELD, RI IN NOVEMBER 2013.
2. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
3. THIS SITE LIES IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ZONE), AS SHOWN ON THE FIRM MAP FOR THE TOWN OF NORTH SMITHFIELD, RI COMMUNITY PANEL NO. 440021 0010 C, MAP REVISED DECEMBER 3, 1993.
4. SOILS EXISTING ON THE SITE ARE WOODBRIDGE AND UDORTHENT. THESE SOILS ARE CONSIDERED HYDROLOGIC SOIL GROUP C.
5. SOIL EVALUATIONS WERE COMPLETED BY JOE CASALI ENGINEERING, INC. IN DECEMBER 2020 & MAY 2021.
6. WETLAND RESOURCES WERE FLAGGED BY NATURAL RESOURCE SERVICES, INC. OF HARRISVILLE, RHODE ISLAND IN FEBRUARY OF 2014.

SITE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
2. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
3. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
4. THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO THE CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE OF RHODE ISLAND TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEMS FOUND WHICH DO NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SURVEY LAYOUT SERVICES FOR THE WORK AND SHALL SUBMIT "AS-BUILT" DRAWINGS OF ALL WORK, WHICH SHALL BE STAMPED AND CERTIFIED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR.
6. ANY ITEM OF WORK NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE CONTRACT BID PRICE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS.
7. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
8. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER.
9. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY OTHER OBJECT AFFECTED BY THIS OPERATION, UNLESS OTHERWISE NOTED ON THE SITE PLANS.
10. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
11. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
12. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
13. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN THE DRY. THE CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL PUMPS, DRAINS, WET POINTS, SCREENS, OR OTHER FACILITIES NECESSARY TO CONTROL, COLLECT AND DISPOSE OF ALL SURFACE AND SUBSURFACE WATER ENCOUNTERED IN THE PERFORMANCE OF THE WORK.
14. ALL SITE WORK, INCLUDING BUT NOT LIMITED TO, BITUMINOUS PAVEMENT, ROADWAY CONSTRUCTION, AGGREGATE MATERIALS, DRAINAGE STRUCTURES, CURBING, SIDEWALK, LANDSCAPING, SAW CUTTING, ETC. SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, AMENDED DECEMBER 2010 (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH LATEST ADDENDA).

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION.
2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR TOWN RIGHT-OF-WAY.
4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. THE SILT FENCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
  2. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
  3. ALL CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH STAKED SILT FENCE (R.I. STD. 9.2.0), SILT SACK SEDIMENT TRAPS OR COMPOST SOCKS DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE OUTLET PROTECTION (R.I. STD. 9.1.0), OR STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) OUTLET PROTECTION (STAKED HAYBALE OR STAKED HAYBALE WITH SILT FENCE) SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE CLEANED AND FLUSHED.
  4. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND OF VEGETATION IS MAINTAINED.
  5. ALL SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
  6. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
  7. THE SILT FENCE/STRAW WATTLE SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY SILT FENCE/STRAW WATTLE AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE SILT FENCE/STRAW WATTLE BECOMES FILLED WITH SEDIMENTS.
  8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER, TOWN ENGINEER, OR OWNER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
  9. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993 AMENDED 2014.
- SEDIMENTATION CONTROL PROGRAM:**
1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE STORMWATER MANAGEMENT AREAS. THESE AREAS CANNOT BE USED AS SEDIMENT CONTROL DEVICES.
  2. ALL DISTURBED AREAS SUBJECT TO EROSION TENDENCIES WHETHER THEY ARE NEWLY FILLED OR EXCAVATED, SHALL RECEIVE SUITABLE SLOPE PROTECTION.
  3. ALL UPSLOPED AREAS ARE TO BE STABILIZED PRIOR TO CONNECTING TO THE STORMWATER FACILITIES.
  4. DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF DURING STORMS AND PERIODS OF RAINFALL.
  5. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERMS/BARS/CHANNELS AS NECESSARY TO DIRECT FLOW TO TEMPORARY SEDIMENT TRAPS. BERM/BAR/CHANNEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (2016).
  6. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED PERIODICALLY AND AFTER PERIODS OF RAINFALL. SUCH DEVICES SHALL BE REPAIRED OR REPLACED AS NEEDED.
  7. REFERENCE THE "RHODE ISLAND EROSION AND SEDIMENT CONTROL HANDBOOK" ISSUED IN 1989 (REVISED 2014, UPDATED 2016).
  8. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
  9. MATERIAL STOCKPILES SHALL BE ENCLOSED BY SILT FENCE (RI STD. 9.2.0) AND SLOPES TO NOT EXCEED 2:1.

ORDER OF PROCEDURE:

1. SEDIMENT CONTROL DEVICES SHALL SET IN PLACE PRIOR TO THE START OF ANY CONSTRUCTION.
2. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY CLEANED AND MAINTAINED DURING THE CONSTRUCTION.
3. IF WORK PROGRESS IS INTERRUPTED AT ANY TIME, REFERENCE EROSION & SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.
4. SPECIFIED PLANTINGS ARE TO TAKE PLACE IN EARLY SPRING (APRIL 1 THRU JUNE 15) OR EARLY FALL (SEPTEMBER 1 THRU OCTOBER 15) AND ARE TO BE MAINTAINED FOR A PERIOD OF ONE GROWING SEASON AND SHALL BE REPLACED IF NECESSARY.

DRAINAGE SYSTEM NOTES:

1. THE PROPOSED DRAINAGE LINES SHALL BE ADS N-12 HDPE PIPE OR AN APPROVED EQUAL UNLESS OTHERWISE NOTED ON THE SITE PLANS.
2. ALL RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.

BMP MAINTENANCE SCHEDULE:

1. ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
  - A. MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF THE STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS ALL PIPES, INTAKE AND DISCHARGE STRUCTURES, CATCH BASIN SUMPS, AND MANHOLES.
  - B. INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES FOR STRUCTURAL INTEGRITY/STABILITY AND EVIDENCE OF SOIL EROSION PROCESSES, AND MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF 1/2 INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.
2. UPON COMPLETION OF THE PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION AND CLEANING OF THE DRAINAGE SYSTEM AND ALL ASSOCIATED STRUCTURES.
3. ALL INSTALLATION, CLEANING, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL FOLLOW AT LEAST THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION MINIMUM STANDARDS, SECTION 212 AND SECTION 708. WHERE APPROPRIATE, PROCEDURES REGARDING THE DRAINAGE INSTALLATION, CLEANING, INSPECTION, AND MAINTENANCE OF THE STORMWATER DRAINAGE SYSTEM SHALL BE FOLLOWED AS OUTLINED IN THE "RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL" (RIDEM/RICRMC, 2010).
4. AFTER CONSTRUCTION, STORMWATER BMPs SHALL BE INSPECTED AND MAINTAINED BY THE CONDOMINIUM ASSOCIATION OR OWNER AS FOLLOWS:

CATCH BASINS/ DRAIN LINES

- INSPECTIONS SHALL BE PERFORMED A MINIMUM OF 2 TIMES PER YEAR (SPRING/FALL). UNITS SHALL BE CLEANED WHENEVER THE DEPTH OF SEDIMENT IS GREATER THAN OR EQUAL TO 2-FEET (LESS THAN 2-FEET FROM THE BOTTOM OF PIPE). ALL REMOVED SEDIMENT SHALL BE TESTED TO DETERMINE POLLUTANT CONTENT AND SHALL BE REMOVED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
- THE INLET GRATE SHALL NOT BE WELDED TO THE FRAME SO THAT THE SUMP CAN BE EASILY INSPECTED AND MAINTAINED.

STORMTECH INFILTRATION SYSTEMS

- INFILTRATION PRACTICES SHALL BE INSPECTED ANNUALLY AND AFTER STORMS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE III STORM EVENT
- IF SEDIMENT OR DEBRIS BUILD UP HAS LIMITED THE INFILTRATION CAPABILITIES OF THE SYSTEM, THE ISOLATOR ROW SHALL BE CLEANED OUT WITH A VACUUM TRUCK

LOADING & SEEDING

SEEDING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH SECTION L.02 SEEDING OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA), AND SHALL ALSO CONFORM TO THE FOLLOWING:

1. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS AND AREAS LABELED AS 'LOAM AND SEED' ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. SCARIFY THE SUBGRADE TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.
  2. 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 RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA),
  3. PRIOR TO SEEDING OR SODDING, FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 1-2" OF THE PLANTING SOIL. APPLY AT A RATE OF 8 LBS. PER 1000 SQUARE FEET.
  4. APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.
  5. SEEDING:  
AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL. SEED SHALL BE APPROVED URI #2 OR APPROVED EQUAL. APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET OR AS OTHERWISE DIRECTED BY THE MANUFACTURER.
- URI #2 IMPROVED SEED MIX, % BY WEIGHT:
- 40% CREEPING RED FESCUE  
20% IMPROVED PERENNIAL RYEGRASS  
20% IMPROVED KENTUCKY BLUEGRASS  
20% KENTUCKY BLUEGRASS
- RECOMMENDED SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.
6. THE TOPSOIL IN THE SAND FILTER SHALL CONSIST OF 40% COMPOST AND 60% SAND (ASTM C-33) THE TOPSOIL SHALL ALSO HAVE AN ORGANIC CONTENT BETWEEN 8-10% AND THE PERCENT PASSING THE #200 SIEVE BETWEEN 2-5%. TYPICAL GRADATION OF THE TOP SOIL MIXTURE SHALL MEET THE FOLLOWING:

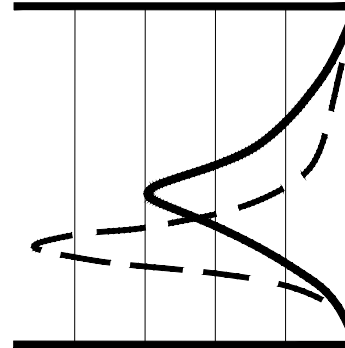
SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95-100
#10	75-90
#40	25-40
#100	4-10
#200	2-5

LEGEND

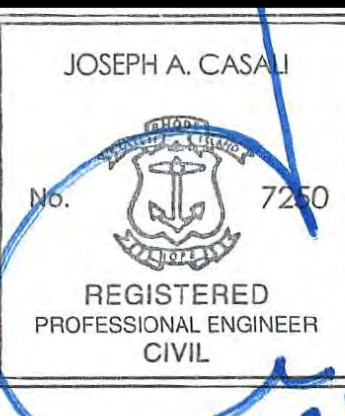
- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- ○ ○ ○ ○ EXISTING STONE WALL
- — — — — EXISTING CURB
- — — — — PROPOSED BERM
- — — — — EXISTING FENCE
- D — EXISTING DRAIN LINE
- D — PROPOSED DRAIN LINE
- ⊙ — — — — — EXISTING DRAINAGE MANHOLE
- ⊙ — — — — — PROPOSED DRAINAGE MANHOLE
- ⊞ — — — — — EXISTING CATCH BASIN
- ⊞ — — — — — PROPOSED CATCH BASIN
- ⊞ — — — — — EXISTING UTILITY POLE
- N/F — — — — — NOW OR FORMERLY
- ~~~~~ TREELINE
- ○ — ○ — ○ — SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- ⊕ — — — — — TEST HOLE
- TH-1 — — — — — WETLAND EDGE
- Δ — — — — — WETLAND FLAG
- — — — — 50' PERIMETER WETLAND
- - - - - 100' RIVERBANK WETLAND
- ⊗ — — — — — WELL



LOCATION OF EXISTING UTILITIES SHOWN ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DIGSAFE AT: 1-888-DIG-SAFE  
1-888-344-7233



JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEERING, TRAFFIC ENGINEERING, SURVEYING, EROSION CONTROL, DRAINAGE, WATER TREATMENT, AND CONSULTING  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



**ANCHOR AUTO GROUP**  
**PARKING LOT EXPANSION**  
**194 SAYLES HILL ROAD**  
**NORTH SMITHFIELD, RHODE ISLAND**  
**AP 17, LOT 15**

REVISIONS:		
NO.	DATE	DESCRIPTION
1	6/2021	RIDEM COMMENTS

DESIGNED BY:	WMLJR
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2021
PROJECT NO:	03-47th

PRELIMINARY, NOT FOR CONSTRUCTION

**GENERAL NOTES & LEGEND**

**SHEET 2 OF 7**



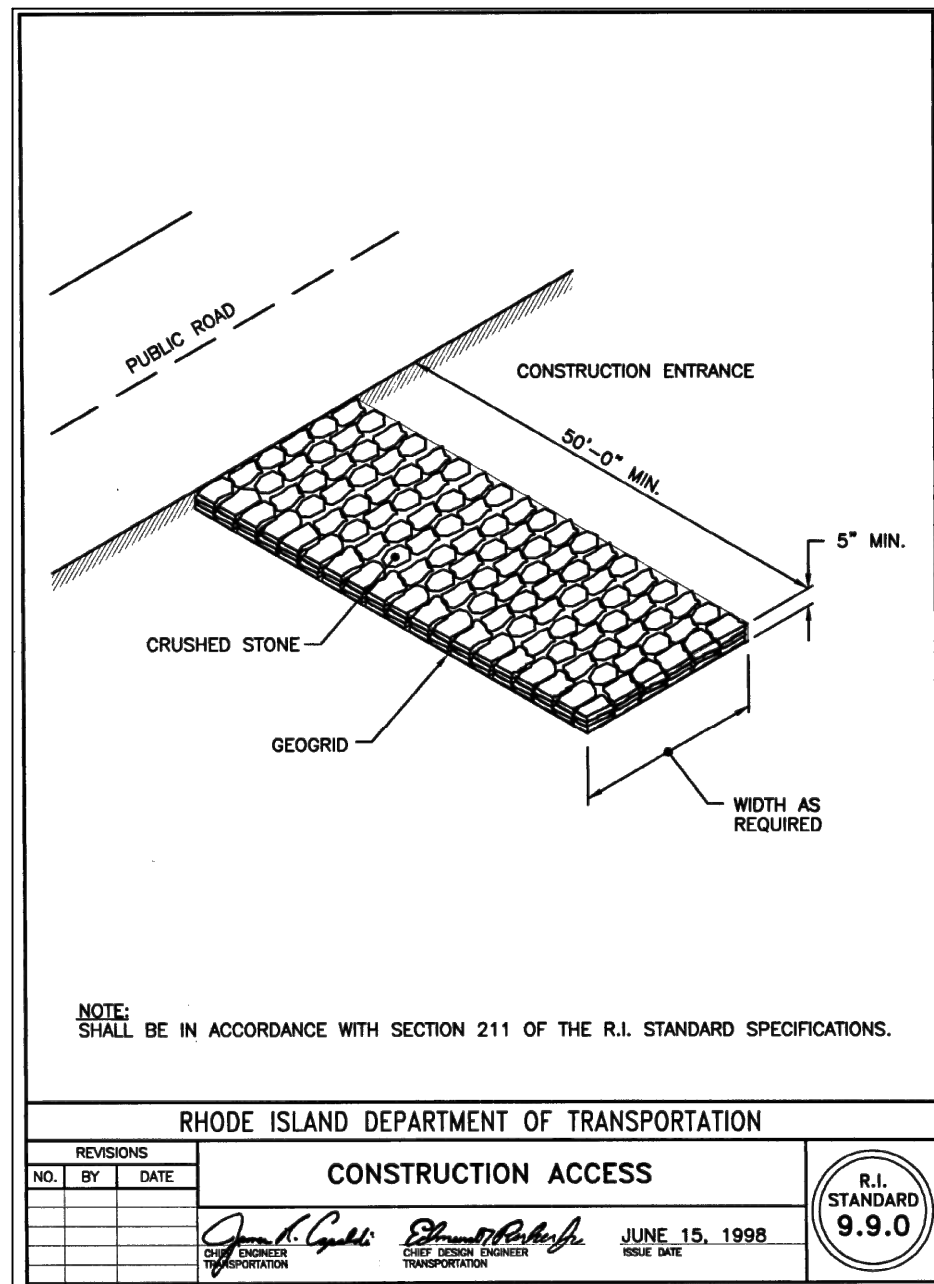
Q:\03-47-Marc N. Nyberg\03-47th Anchor Subaru\2021 Parking Lot Expansion\ACD\Anchor Parking Lot Expansion Preliminary Plan - DDM RTCC - R1.dwg Jun 15, 2021 4:38pm

Test Pit Location: See Plan		Date Start / Finish: December 11, 2020
Ground Surface E1 / Datum: TSD		Conditions: Cloudy, 32 deg. F
Excavator Type: CAT 3082 Mini-Excavator		Excavator Reach: Approx. 12 feet
Operator: Smithfield Pest Co.		JCE Rep.: Daniel R. Donnelly, P.E.
TH-1		Page 1 of 1
Depth (ft)	Sample Type/No.	Remarks
0	TS	(0'-8") SILTY SAND (SM); Dark brown, dry, ~70% fine to medium sand, ~20% nonplastic fines, ~10% fine gravel, TOPSOIL (loamy sand).
1		Occasional boulders throughout (max. size ~ 30").
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
Notes:		SHWT: ~46 inches Impervious/Limiting Layer Depth: Not encountered.
Project Name: Anchor Nissan		Project Number: 20-026
JOE CASALI ENGINEERING, INC.		

Test Pit Location: See Plan		Date Start / Finish: December 11, 2020
Ground Surface E1 / Datum: TSD		Conditions: Cloudy, 32 deg. F
Excavator Type: CAT 3082 Mini-Excavator		Excavator Reach: Approx. 12 feet
Operator: Smithfield Pest Co.		JCE Rep.: Daniel R. Donnelly, P.E.
TH-2		Page 1 of 1
Depth (ft)	Sample Type/No.	Remarks
0	TS	(0'-8") SILTY SAND (SM); Brown/dark brown, dry, ~50% fine to medium sand, ~20% nonplastic fines, ~20% fine gravel, TOPSOIL (loamy sand).
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
Notes:		SHWT: Not determined Impervious/Limiting Layer Depth: Possible ledge at 102-inches.
Project Name: Anchor Nissan		Project Number: 20-026
JOE CASALI ENGINEERING, INC.		

Test Pit Location: See Plan		Date Start / Finish: December 11, 2020
Ground Surface E1 / Datum: TSD		Conditions: Cloudy, 32 deg. F
Excavator Type: CAT 3082 Mini-Excavator		Excavator Reach: Approx. 12 feet
Operator: Smithfield Pest Co.		JCE Rep.: Daniel R. Donnelly, P.E.
TH-3		Page 1 of 1
Depth (ft)	Sample Type/No.	Remarks
0	TS	(0'-8") SILTY SAND (SM); Brown/dark brown, dry, ~50% fine to medium sand, ~20% nonplastic fines, ~20% fine gravel, TOPSOIL (loamy sand).
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
Notes:		SHWT: Unable to determine Impervious/Limiting Layer Depth: Possible ledge at 100-inches.
Project Name: Anchor Nissan		Project Number: 20-026
JOE CASALI ENGINEERING, INC.		

Test Pit Location: See Plan		Date Start / Finish: December 11, 2020
Ground Surface E1 / Datum: TSD		Conditions: Cloudy, 32 deg. F
Excavator Type: CAT 3082 Mini-Excavator		Excavator Reach: Approx. 12 feet
Operator: Smithfield Pest Co.		JCE Rep.: Daniel R. Donnelly, P.E.
TH-4		Page 1 of 1
Depth (ft)	Sample Type/No.	Remarks
0	TS	(0'-8") SILTY SAND (SM); Brown, dry, ~50% fine to medium sand, ~20% nonplastic fines, ~10% fine gravel, TOPSOIL (loamy sand).
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
Notes:		SHWT: Unable to determine Impervious/Limiting Layer Depth: Not encountered.
Project Name: Anchor Nissan		Project Number: 20-026
JOE CASALI ENGINEERING, INC.		



**PERMANENT WELL ABANDONMENT PROCEDURE:**

1. THE WELL SHALL BE PLUGGED TO PREVENT THE ENTRANCE OF SURFACE WATER, CIRCULATION OF WATER BETWEEN OR AMONG PRODUCING ZONES, OR ANY OTHER PROCESS RESULTING IN THE CONTAMINATION OR POLLUTION OF GROUNDWATER RESOURCES.
2. THE WELL SHALL BE SEALED WITH A WATERTIGHT CAP OR SEAL.
3. THE WELL SHALL BE CHLORINATED PRIOR TO ABANDONMENT USING A CHLORINE SOLUTION WITH A MINIMUM CONCENTRATION OF ONE HUNDRED FIFTY PARTS PER MILLION (150 PPM) OF RESIDUAL CHLORINE.
4. THE WELL SHALL BE CHECKED FROM LAND SURFACE TO THE ENTIRE DEPTH OF THE WELL BEFORE IT IS SEALED, TO ENSURE AGAINST THE PRESENCE OF ANY OBSTRUCTION THAT WILL INTERFERE WITH SEALING OPERATIONS.
5. ALL CASING AND SCREEN MATERIALS THAT HAVE SALVAGE VALUE MAY BE REMOVED BY THE CONTRACTOR.
6. THE WELL BORE SHALL BE FILLED AND SEALED WITH ANY OF THE FOLLOWING MATERIALS: HEAT CEMENT GROUT, OR SAND CLAY OR BENTONITE CEMENT GROUT.
7. THE GROUT MATERIAL SHALL BE PLACED THROUGH A PIPE EXTENDING TO THE BOTTOM OF THE WELL, WHICH SHALL BE RAISED AS THE WELL IS FILLED.
8. ANY WELL CONSTRUCTED IN A CONSOLIDATED ROCK FORMATION, MAY BE FILLED WITHIN FINE SAND IN THE ZONE OR ZONES OF CONSOLIDATED ROCK BUT CANNOT ALLOW THE CIRCULATION OF WATER BETWEEN OR AMONG PRODUCING ZONES. THE TOP OF THE SAND FILL SHALL BE AT LEAST TEN (10) FEET BELOW THE TOP OF THE CONSOLIDATED ROCK, AND THE REMAINING SPACE WITH THE MATERIALS SPECIFIED IN SUBSECTION F (F) OF THE RULES AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS.
9. ANY TEST WELL OR BORE SHALL BE ABANDONED IN SUCH A MANNER THAT IT DOES NOT BECOME A CHANNEL FOR THE VERTICAL MOVEMENT OF WATER OR OTHER SUBSTANCE TO THE POTABLE GROUNDWATER RESOURCE.
10. UPON COMPLETION OF ABANDONMENT OF THE WELL, THE TOP OF THE CASING OR GROUT MATERIAL SHALL BE TERMINATED AT LEAST FOR (4) FEET BELOW THE GROUND SURFACE.
11. PLUGGING AND ABANDONING OF A WELL TO BE ABANDONED SHALL BE PERFORMED ONLY BY A LICENSED WELL DRILLER.

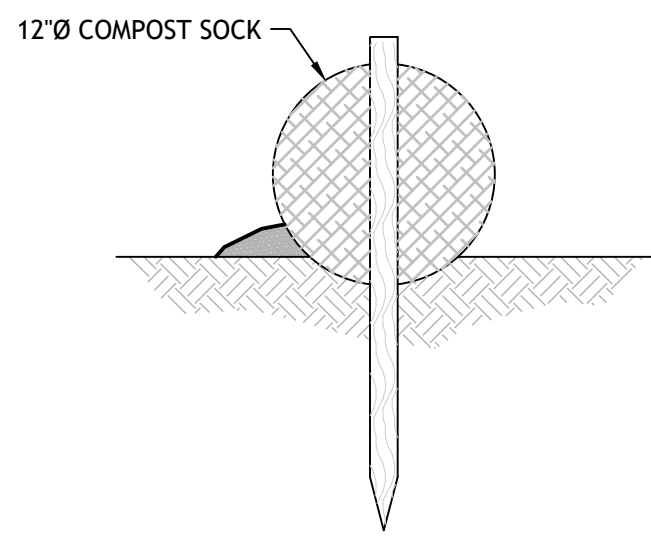
**CESSPOOL ABANDONMENT PROCEDURE:**

1. EXISTING CESSPOOL TO BE EMPTIED OF ALL CONTENTS, CRUSHED AND FILLED WITH COMMON BORROW PLACED IN 12" THICK LOOSE LIFTS COMPACTED TO 92% MODIFIED PROCTOR.

**1 TEST PIT LOGS**  
NOT TO SCALE

**NOTE:**

1. TWO (2) ADDITIONAL SOIL EVALUATIONS WERE COMPLETED IN MAY 2021. PLEASE REFER TO SHEET 5 FOR THE TEST PIT LOGS.



**NOTES:**

1. BEGIN SOCK INSTALLATION BY EXCAVATING A 2 TO 3-INCH-DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE OR ALONG THE EXISTING GROUND SURFACE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE OR ON THE DISTURBED SIDE OF THE ANCHOR TRENCH.
2. PLACE SOCK IN THE TRENCH SUCH THAT IT CONTOURS TO THE EXISTING SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UP-SLOPE OR DISTURBED SIDE. ADJACENT SOCKS SHOULD TIGHTLY ABUT.
3. SECURE SOCK WITH 18 TO 24-INCH-LONG STAKES. INSTALL AN ADDITIONAL STAKE AT EACH END OF THE SOCK. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2 TO 3 INCHES OF STAKE EXTENDING ABOVE. THE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE OR GROUND SURFACE.
4. COMPOST FILTER SOCK SPACING BASED ON 12-INCH DIAMETER SOCK; SHOULD SMALLER OR LARGER DIAMETER SOCK BE USED, SPACING SHALL BE ADJUSTED BASED ON TABLE 2 (TO THE RIGHT).
5. COMPOST FILTER SOCK INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, 2014.
6. COMPOST FILTER SOCKS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.

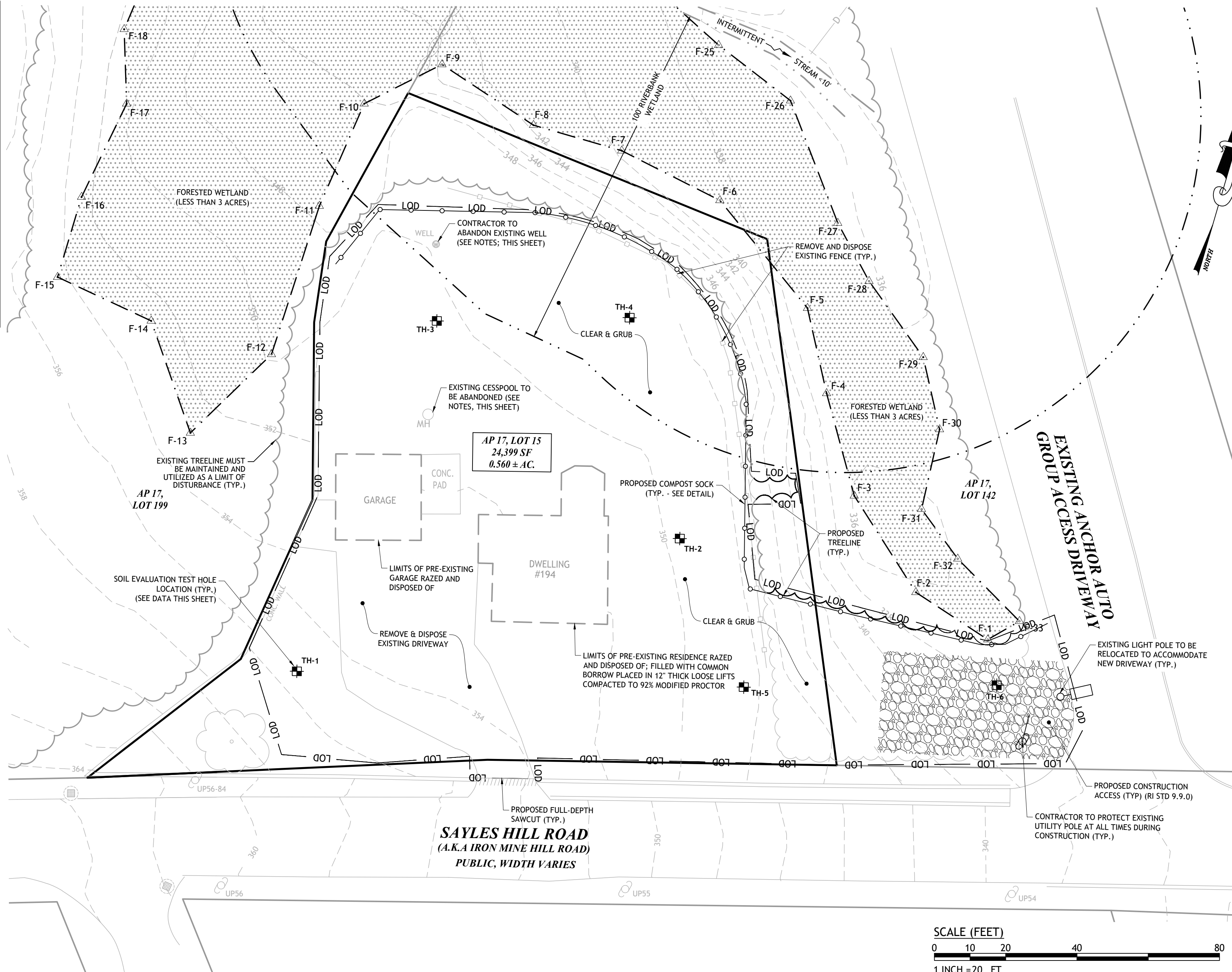
Slope %	Maximum slope length above compost filter sock in ft (m)			
	8-inch (200-mm)	12-inch (300-mm)	18-inch (450-mm)	24-inch (600-mm)
2 (or less)	800 (90)	375 (110)	600 (160)	650 (200)
5	200 (60)	250 (75)	275 (85)	325 (100)
10	100 (30)	125 (35)	150 (45)	200 (60)
15	70 (20)	85 (25)	100 (30)	100 (30)
20	60 (15)	65 (20)	70 (20)	100 (30)
25	40 (12)	50 (15)	55 (16)	100 (30)
30	30 (9)	40 (12)	45 (13)	65 (20)
35	30 (9)	40 (12)	45 (13)	55 (18)
40	30 (9)	40 (12)	45 (13)	50 (15)
45	20 (6)	25 (8)	30 (9)	40 (12)
50	20 (6)	25 (8)	30 (9)	35 (10)

**FIGURE 2: RECOMMENDED SPACING AND DIAMETER REQUIREMENTS FOR COMPOST FILTER SOCKS**

**2 COMPOST FILTER SOCK**  
NOT TO SCALE



**ANCHOR AUTO GROUP CAMPUS MAP**  
SCALE: 1 INCH = 200 FEET



**ANCHOR AUTO GROUP**  
**PARKING LOT EXPANSION**  
**194 SAYLES HILL ROAD**  
**NORTH SMITHFIELD, RHODE ISLAND**  
**AP 17, LOT 15**

REVISIONS:		
NO.	DATE.	DESCRIPTION
1	6/2021	RIDEM COMMENT

DESIGNED BY:	WMLJR
DRAWN BY:	SDSEP
CHECKED BY:	JAC
DATE:	MARCH 2021
PROJECT NO:	03-47th

PRELIMINARY, NOT FOR CONSTRUCTION

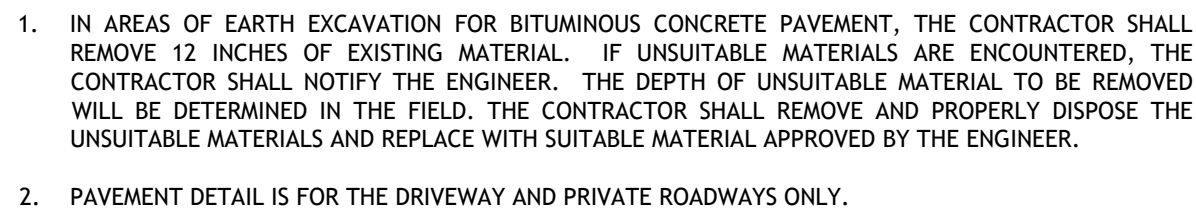
**EXISTING CONDITIONS & SITE PREP. PLAN**

**SHEET 3 OF 7**

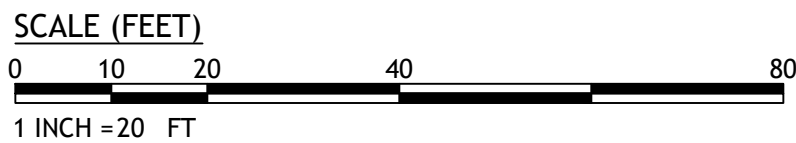
**JOE CASALI ENGINEERING, INC.**  
CIVIL ENGINEERING & TRANSPORTATION  
150 STATE STREET, SUITE 200  
WARWICK, RI 02888  
(401) 944-1300 FAX: (401) 944-1313  
WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 720  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
6-15-2021





BITUMINOUS CONCRETE PAVEMENT



REVISIONS:		
NO.	DATE.	DESCRIPTION
1	6/2021	RIDEM COMMENTS

DESIGNED BY:	WMLJR
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2021
PROJECT NO:	03-47h

PRELIMINARY, NOT FOR  
CONSTRUCTION

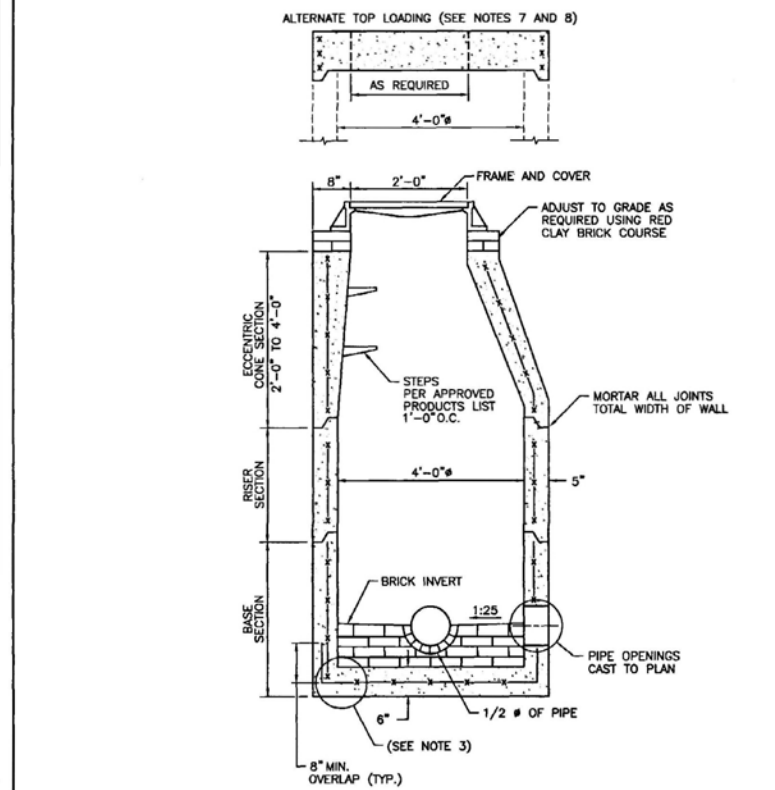
# SITE PLAN

**SHEET  
4 OF 7**





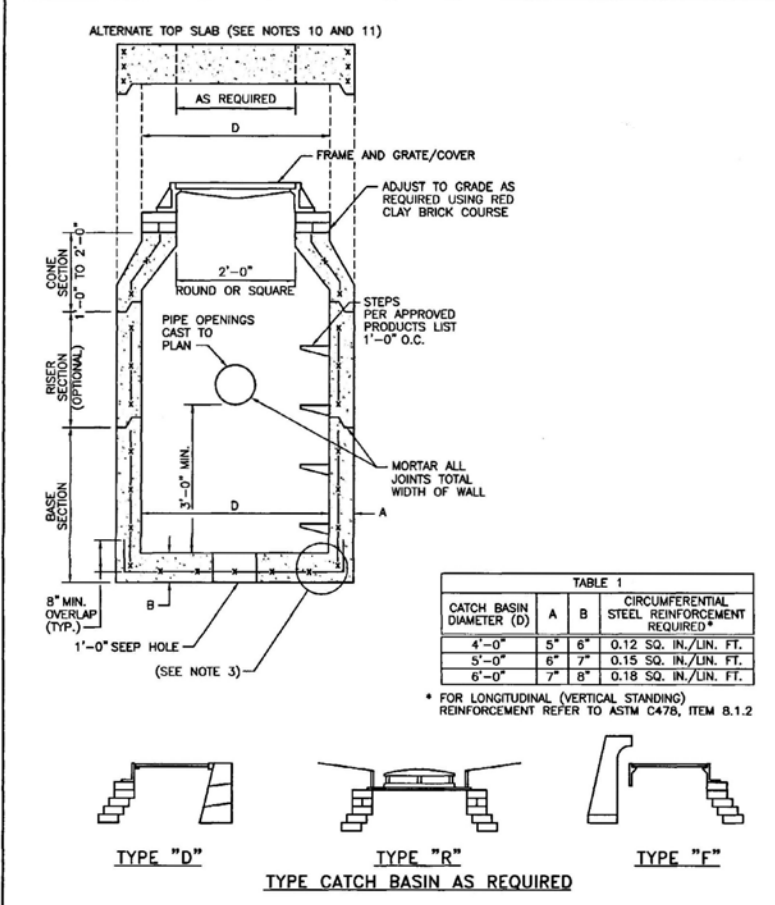




Notes:

1. SHALL BE IN ACCORDANCE WITH SECTION 7.02 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR SIDE SECTION DETAIL SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ANY NECESSARY ALTERATIONS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS OR CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
5. STEEL SHALL CONFORM TO A572-50 AND SHALL BE INSTALLED AT THE CURVE SIDE OF THE STRUCTURE.
6. FOR CATCH BASIN TYPES "D" AND "E" STEPS MUST BE INSTALLED ON THE CURVE SIDE OF THE STRUCTURE.
7. ALTERNATE TOP SLAB IS FOR USE WHERE REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
8. REFER TO STD. 30.0 FOR MANHOLE PIPE SIZES.

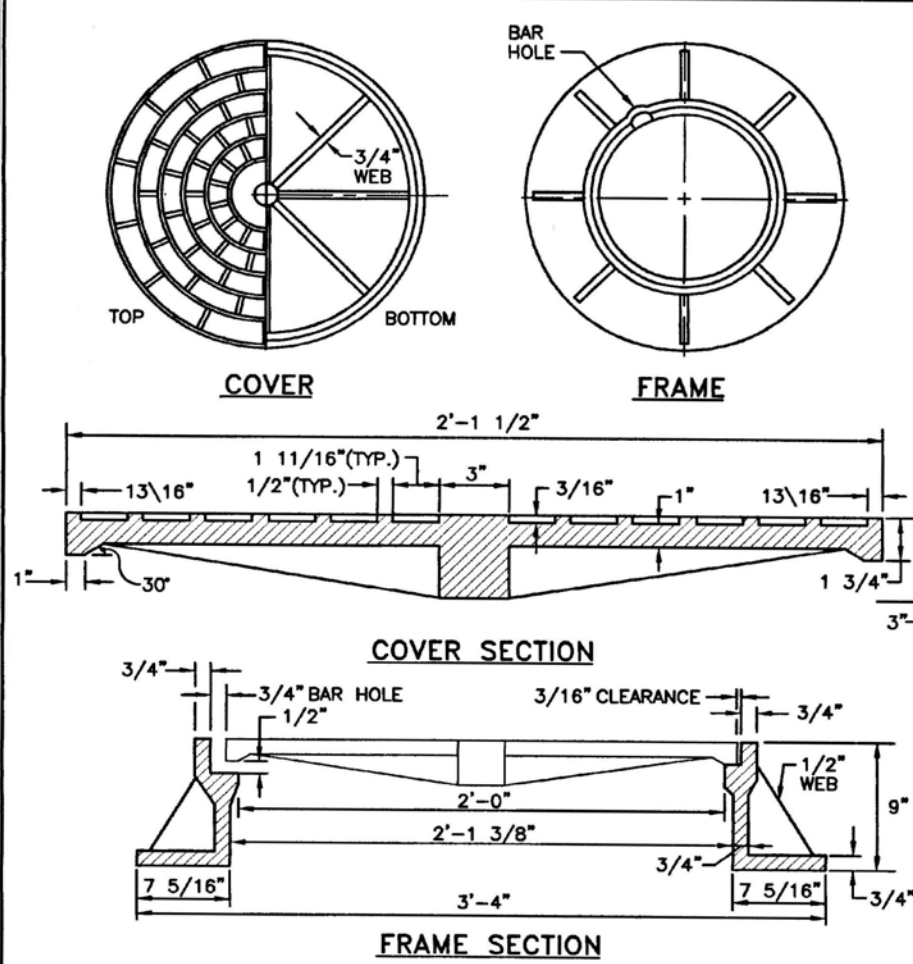
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
PRECAST 4'-0" ROUND MANHOLE  
JUNE 15, 1998  
R.I. STANDARD 6.2.0



Notes:

1. SHALL BE IN ACCORDANCE WITH SECTION 7.02 OF THE R.I. STANDARD SPECIFICATIONS.
2. STEEL SHALL CONFORM TO A572-50 AND SHALL BE INSTALLED AT THE CURVE SIDE OF THE STRUCTURE.
3. STEEL REINFORCEMENT FOR SIDE SECTION DETAIL SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ANY NECESSARY ALTERATIONS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS OR CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
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6. FOR CATCH BASIN TYPES "D" AND "E" STEPS MUST BE INSTALLED ON THE CURVE SIDE OF THE STRUCTURE.
7. ALTERNATE TOP SLAB IS FOR USE WHERE REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
8. REFER TO STD. 30.0 FOR MANHOLE PIPE SIZES.

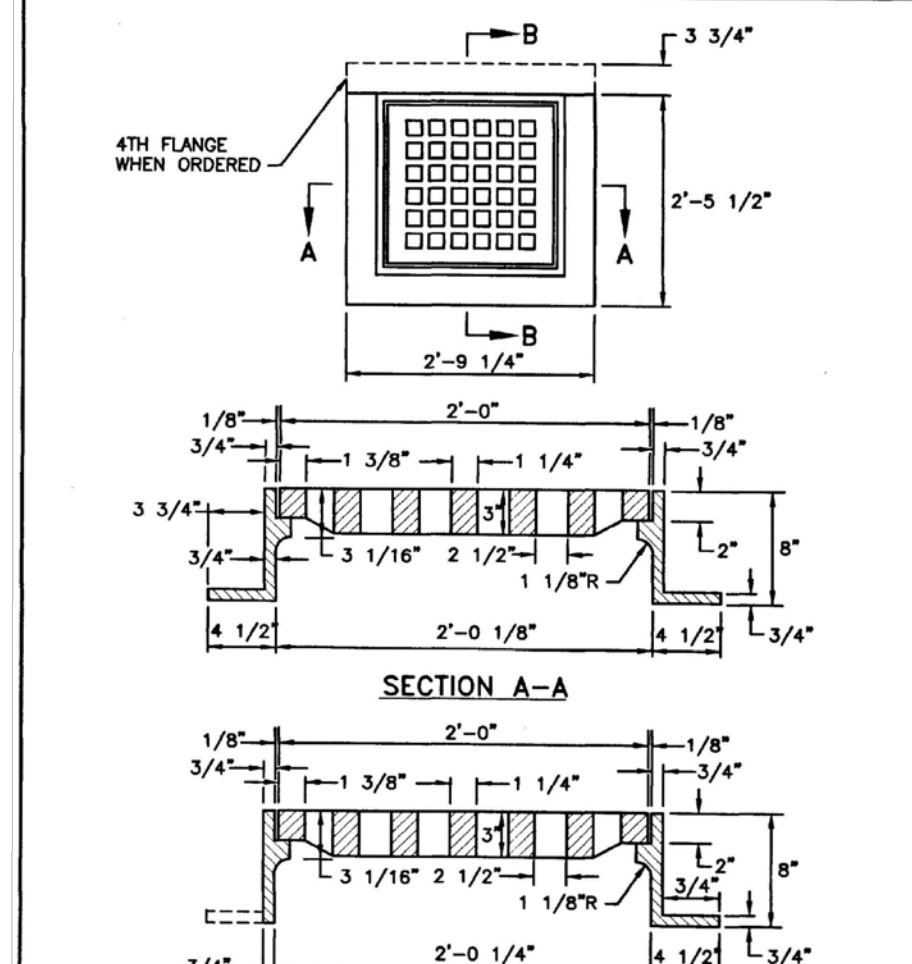
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN  
JUNE 15, 1998  
R.I. STANDARD 6.2.0



Notes:

1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

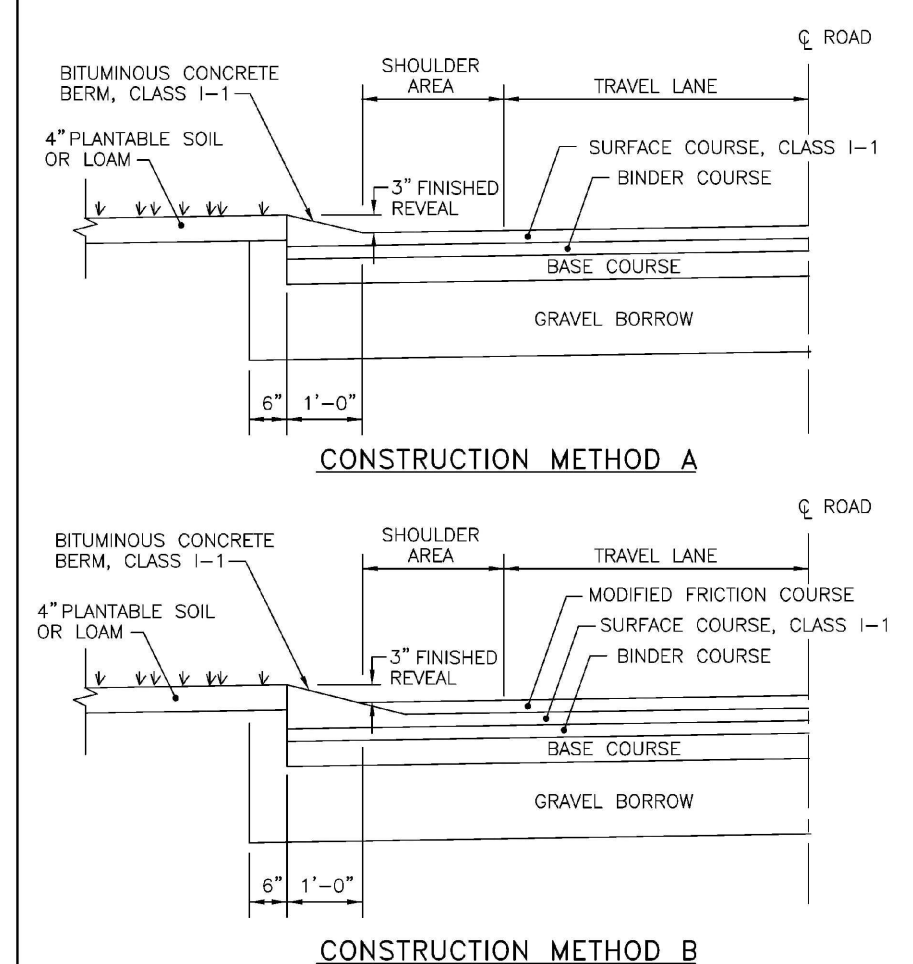
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
HEAVY-DUTY  
ROUND FRAME AND COVER  
JUNE 15, 1998  
R.I. STANDARD 6.2.1



Notes:

1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.

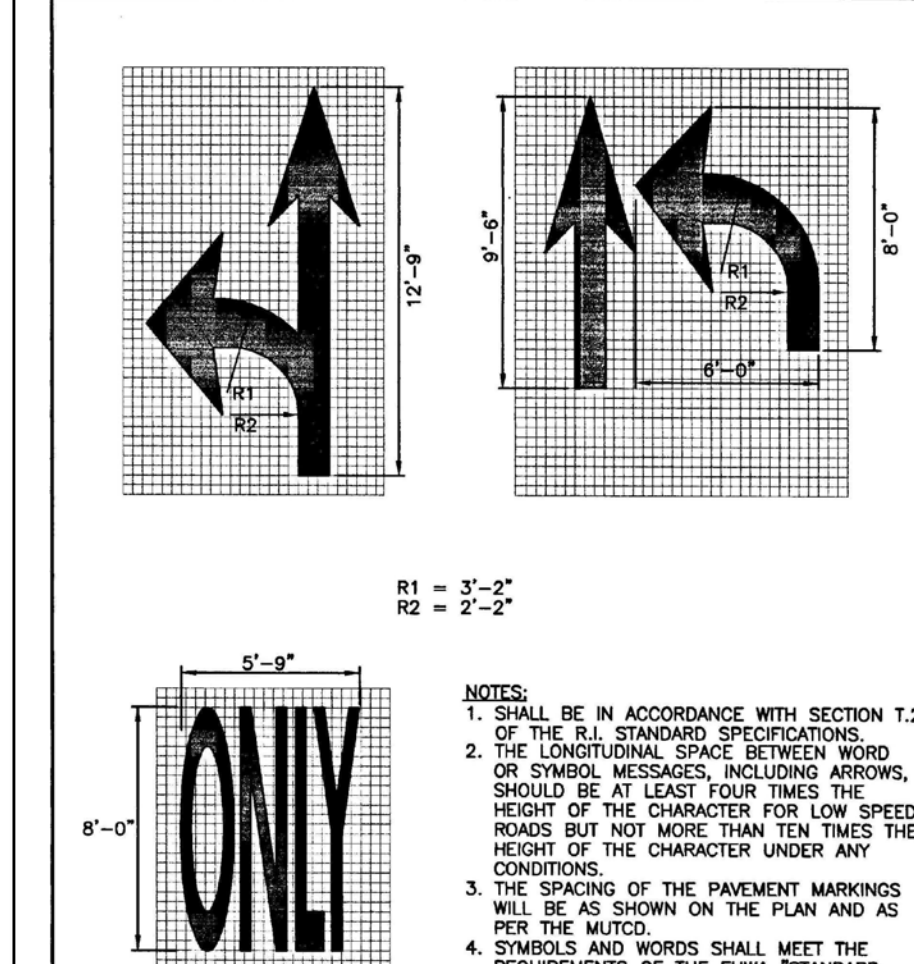
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
SQUARE FRAME AND GRATE  
JUNE 15, 1998  
R.I. STANDARD 6.3.0



Notes:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

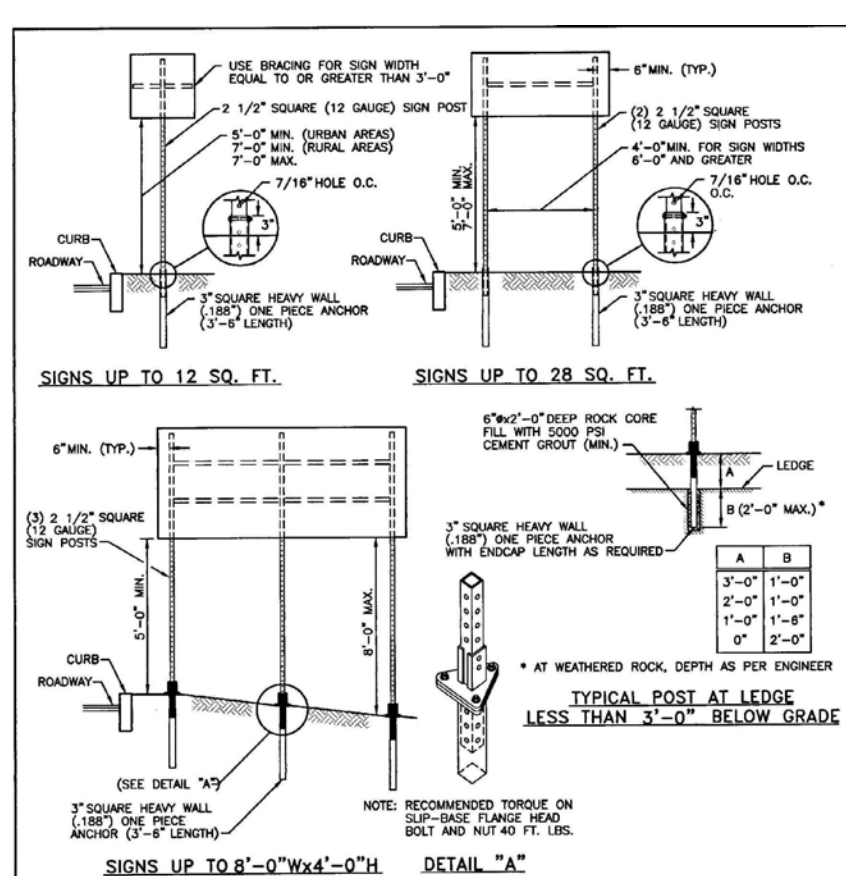
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
BITUMINOUS BERM  
JUNE 15, 1998  
R.I. STANDARD 7.5.1



Notes:

1. SHALL BE IN ACCORDANCE WITH SECTION 7.20 OF THE R.I. STANDARD SPECIFICATIONS.
2. THE LONGITUDINAL SPACE BETWEEN WORDS OR SYMBOLS, INCLUDING ARROWS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTER FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTER UNDER ANY CONDITIONS.
3. THE SPACING OF THE PAVEMENT MARKINGS WILL BE AS SHOWN ON THE PLAN AND AS PER THE MUTCD.
4. SYMBOLS AND WORDS SHALL MEET THE REQUIREMENTS OF THE FHWA STANDARD ALPHABET AND SYMBOLS FOR HIGHWAY PAVEMENT MARKINGS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
PAVEMENT MARKINGS  
ARROWS AND ONLY  
JUNE 15, 1998  
R.I. STANDARD 20.1.0



Notes:

1. SHALL BE IN ACCORDANCE WITH SECTION 7.15 OF THE R.I. STANDARD SPECIFICATIONS.
2. SIGN SUPPORTS SHALL BE DESIGNED IN ACCORDANCE WITH MAINTENANCE SPECIFICATIONS FOR A 10-YEAR MEAN WHO RECURRENT LIFE.
3. POSTS SHALL BE 2" SQUARE (2" SQUARE) SIGN POSTS.
4. FOR INSTALLATION IN CONCRETE SEE STD. 30.0 AND FOLLOW THE PROCEDURE IN NOTE 2.
5. FOR INSTALLATION IN ASPHALT SEE STD. 30.0 AND FOLLOW THE PROCEDURE IN NOTE 2.
6. FOR CURB IN ASPHALT, SEE STD. 30.0 AND FOLLOW THE PROCEDURE IN NOTE 2.
7. FOR CURB IN CONCRETE, SEE STD. 30.0 AND FOLLOW THE PROCEDURE IN NOTE 2.
8. SIGNPOSTS SHALL BE FABRICATED FROM STEEL AND SHALL CONFORM TO THE DIMENSIONS SHOWN ON THIS DETAIL.
9. THE DETAIL SHALL CONFORM TO ASTM A572-50. THE CROSS SECTION OF THE POST SHALL BE SQUARE THE FORMER OF 12 GAUGE (100 U.S. DASHES) GALVALUME COATED STEEL WITH RETRO-REFLECTIVE COATING (LITE-GLO) CONFORMING TO ASTM A572-50. THE COATING SHALL BE 0.005 IN. THICK.
10. ALL SIGNS SHALL CONFORM TO THE DIMENSIONS SHOWN ON THIS DETAIL.
11. ALL SIGNS SHALL CONFORM TO THE DIMENSIONS SHOWN ON THIS DETAIL.
12. FOR SIGNS GREATER THAN 32 SQ. FT., REFER TO STD. 30.0, 30.1, 30.2, 30.3, 30.4, 30.5, 30.6, 30.7, 30.8, 30.9, 30.10, 30.11, 30.12, 30.13, 30.14, 30.15, 30.16, 30.17, 30.18, 30.19, 30.20, 30.21, 30.22, 30.23, 30.24, 30.25, 30.26, 30.27, 30.28, 30.29, 30.30, 30.31, 30.32, 30.33, 30.34, 30.35, 30.36, 30.37, 30.38, 30.39, 30.40, 30.41, 30.42, 30.43, 30.44, 30.45, 30.46, 30.47, 30.48, 30.49, 30.50, 30.51, 30.52, 30.53, 30.54, 30.55, 30.56, 30.57, 30.58, 30.59, 30.60, 30.61, 30.62, 30.63, 30.64, 30.65, 30.66, 30.67, 30.68, 30.69, 30.70, 30.71, 30.72, 30.73, 30.74, 30.75, 30.76, 30.77, 30.78, 30.79, 30.80, 30.81, 30.82, 30.83, 30.84, 30.85, 30.86, 30.87, 30.88, 30.89, 30.90, 30.91, 30.92, 30.93, 30.94, 30.95, 30.96, 30.97, 30.98, 30.99, 30.100.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
SIGN POST SELECTION AND INSTALLATION DETAILS  
SQUARE POST (SIGNS UP TO 8'-0" Wx4'-0" H)  
JUNE 15, 1998  
R.I. STANDARD 24.1.0

LEGEND

NO.	BY	DATE
1	JAC	6/15/2021

RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
REGULATORY SIGNS  
JUNE 15, 1998  
R.I. STANDARD 27.1.0

**ANCHOR AUTO GROUP**  
**PARKING LOT EXPANSION**  
**194 SAYLES HILL ROAD**  
**NORTH SMITHFIELD, RHODE ISLAND**  
**AP 17, LOT 15**

REVISIONS:

NO.	DATE	DESCRIPTION
1	6/20/21	RIDEM COMMENTS

DESIGNED BY: WMLJR  
DRAWN BY: SD/SEP  
CHECKED BY: JAC  
DATE: MARCH 2021  
PROJECT NO: 03-47h

PRELIMINARY, NOT FOR CONSTRUCTION

**RHODE ISLAND STANDARD DETAILS**

**SHEET 6 OF 7**

**JCE**  
JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEERING, TRAFFIC ENGINEERING, SURVEYING, LANDSCAPE ARCHITECTURE  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 720  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
6.15.2021

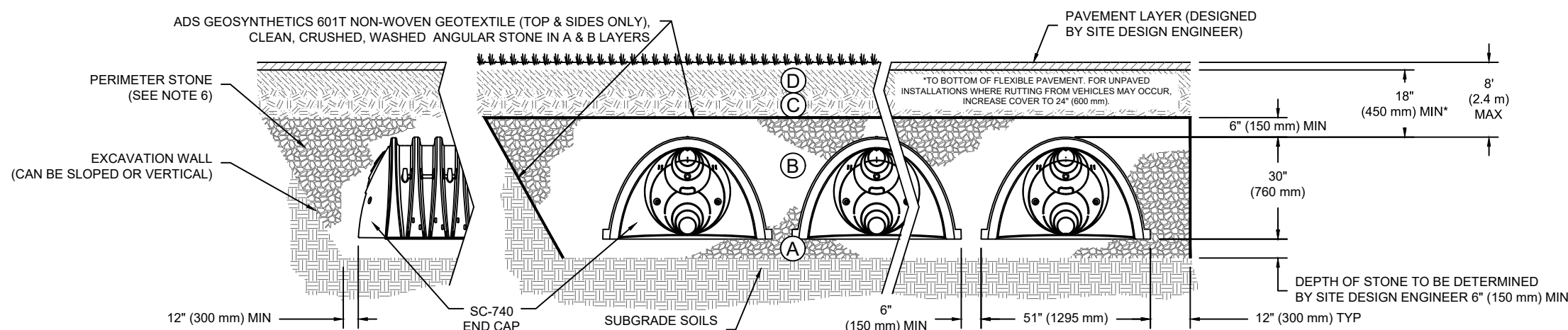


Q:\03-47-March-N-Hydrant-03-47th-Anchor-Subarea\2021-Parking-Lot-Expansion\ACID\Anchor-Parking-Lot-Expansion-Preliminary-Plan-DMA-RTCC-Rt.dwg Jun 15, 2021 4:30pm

### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D <b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C <b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3 OR AASHTO M43 <sup>2</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 90% PROCTOR DENSITY FOR WELL-GRADED MATERIAL AND 80% RELATIVE DENSITY FOR PROCESSED AGGREGATE. MATERIALS ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B <b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, WASHED, ANGULAR STONE.	AASHTO M43 <sup>2</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A <b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, WASHED, ANGULAR STONE.	AASHTO M43 <sup>2</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>1,2</sup>

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

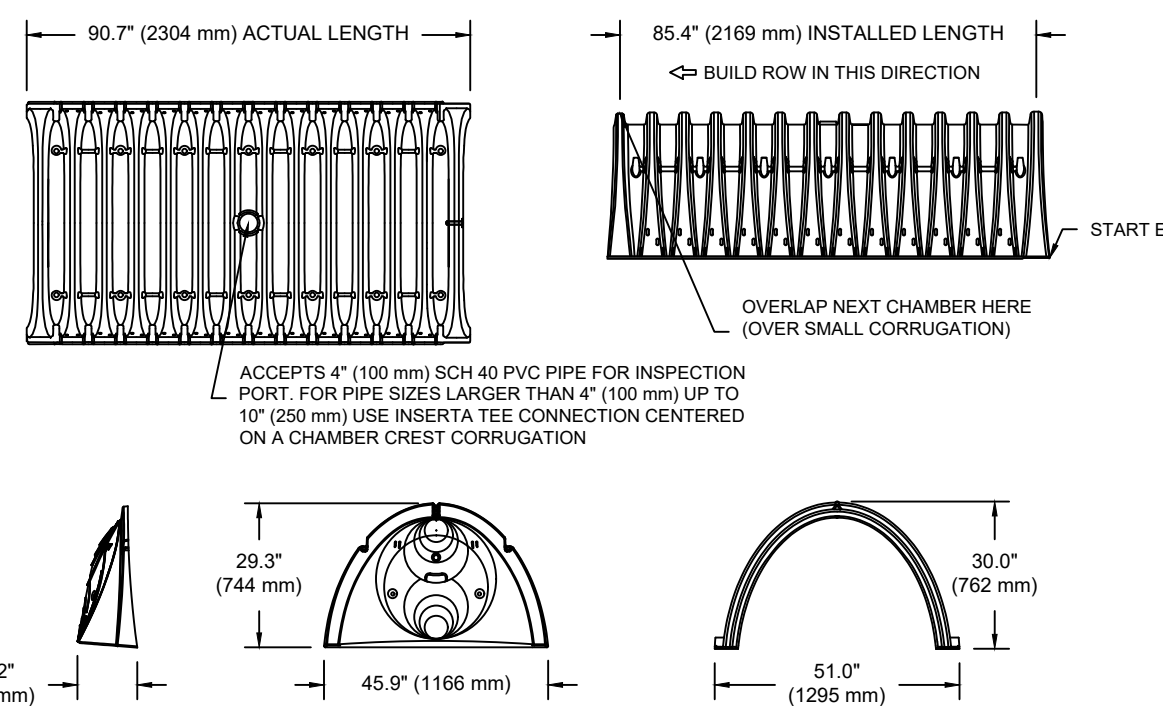


#### NOTES:

- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOLID MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

### 8 STORMTECH SC-740 CROSS SECTION DETAIL

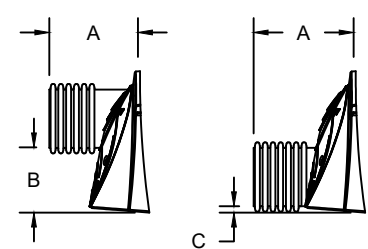
NOT TO SCALE



#### NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	CHAMBER STORAGE	MINIMUM INSTALLED STORAGE <sup>1</sup>
51.0" X 30.0" X 85.4" (1300 mm X 762 mm X 2169 mm)	45.9 CUBIC FEET (1.30 m <sup>3</sup> )	74.9 CUBIC FEET (2.12 m <sup>3</sup> )
		75.0 kg (164.3 lb)

<sup>1</sup> ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)	18.5" (470 mm)	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	—	0.6" (15 mm)
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)	14.5" (368 mm)	—
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.7" (18 mm)
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)	12.5" (318 mm)	—
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	12.5" (318 mm)	0.7" (18 mm)
SC740EPE12B / SC740EPE12BPC	12" (300 mm)	14.7" (373 mm)	—	1.2" (30 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	—	1.2" (30 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	9.0" (229 mm)	—
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)	9.0" (229 mm)	—
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.3" (33 mm)
SC740EPE18B / SC740EPE18BPC	18" (450 mm)	19.7" (500 mm)	—	1.6" (41 mm)
SC740EPE24B	24" (600 mm)	18.5" (470 mm)	—	0.7" (18 mm)

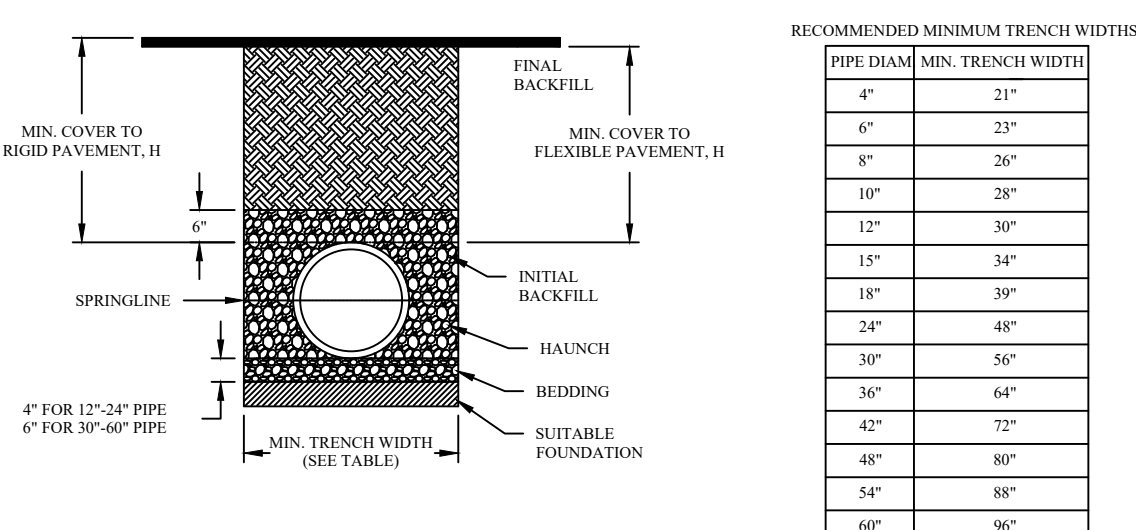
ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

<sup>1</sup> FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

### 10 SC-740 TECHNICAL SPECIFICATION

NOT TO SCALE



#### NOTES:

- 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 EDITION.
- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
- 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.
- 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" (100mm) FOR 4" (100mm) TO 6" (150mm) FOR 6" (150mm) TO 12" (300mm) FOR 12" (300mm) TO 24" (600mm) FOR 24" (600mm) TO 48" (1200mm) FOR 48" (1200mm) TO 60" (1500mm) FOR 60" (1500mm) TO 72" (1800mm) FOR 72" (1800mm) TO 84" (2100mm) FOR 84" (2100mm) TO 96" (2400mm) FOR 96" (2400mm) TO 108" (2700mm) FOR 108" (2700mm) TO 120" (3000mm) FOR 120" (3000mm) TO 132" (3300mm) FOR 132" (3300mm) TO 144" (3600mm) FOR 144" (3600mm) TO 156" (3900mm) FOR 156" (3900mm) TO 168" (4200mm) FOR 168" (4200mm) TO 180" (4500mm) FOR 180" (4500mm) TO 192" (4800mm) FOR 192" (4800mm) TO 204" (5100mm) FOR 204" (5100mm) TO 216" (5400mm) FOR 216" (5400mm) TO 228" (5700mm) FOR 228" (5700mm) TO 240" (6000mm) FOR 240" (6000mm) TO 252" (6300mm) FOR 252" (6300mm) TO 264" (6600mm) FOR 264" (6600mm) TO 276" (6900mm) FOR 276" (6900mm) TO 288" (7200mm) FOR 288" (7200mm) TO 300" (7500mm) FOR 300" (7500mm) TO 312" (7800mm) FOR 312" (7800mm) TO 324" (8100mm) FOR 324" (8100mm) TO 336" (8400mm) FOR 336" (8400mm) TO 348" (8700mm) FOR 348" (8700mm) TO 360" (9000mm) FOR 360" (9000mm) TO 372" (9300mm) FOR 372" (9300mm) TO 384" (9600mm) FOR 384" (9600mm) TO 396" (9900mm) FOR 396" (9900mm) TO 408" (10200mm) FOR 408" (10200mm) TO 420" (10500mm) FOR 420" (10500mm) TO 432" (10800mm) FOR 432" (10800mm) TO 444" (11100mm) FOR 444" (11100mm) TO 456" (11400mm) FOR 456" (11400mm) TO 468" (11700mm) FOR 468" (11700mm) TO 480" (12000mm) FOR 480" (12000mm) TO 492" (12300mm) FOR 492" (12300mm) TO 504" (12600mm) FOR 504" (12600mm) TO 516" (12900mm) FOR 516" (12900mm) TO 528" (13200mm) FOR 528" (13200mm) TO 540" (13500mm) FOR 540" (13500mm) TO 552" (13800mm) FOR 552" (13800mm) TO 564" (14100mm) FOR 564" (14100mm) TO 576" (14400mm) FOR 576" (14400mm) TO 588" (14700mm) FOR 588" (14700mm) TO 600" (15000mm) FOR 600" (15000mm) TO 612" (15300mm) FOR 612" (15300mm) TO 624" (15600mm) FOR 624" (15600mm) TO 636" (15900mm) FOR 636" (15900mm) TO 648" (16200mm) FOR 648" (16200mm) TO 660" (16500mm) FOR 660" 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