SITE IMPROVEMENT PLANS FOR A PROPOSED

MINOR SUBDIVISION

145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

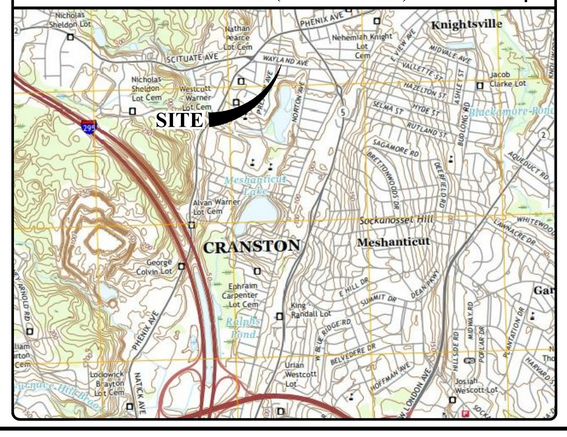
ZONING DISTRICT: RESIDENTIAL A-6

SUBMISSIONS:
CITY OF CRANSTON PLANNING COMMISSION - PRELIMINARY PLAN FOR A MINOR SUBDIVISION
PROVIDENCE WATER SUPPLY BOARD - WATER MAIN EXTENSION AND DOMESTIC SERVICE CONNECTION
CRANSTON SEWER DEPARTMENT / VEOLIA WATER

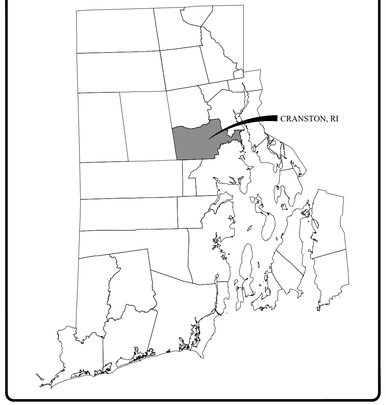
PROJECT TEAM

OWNER/ APPLICANT:	MR. BRYAN WHITE 145 WAYLAND AVENUE CRANSTON, RI 02920-4154
ARCHITECT:	BUCKINGHAM ARCHITECTURAL DESIGN INC. 4 HIXON STREET BELLINGHAM, MA 02019 PHONE: 508-380-4540
CIVIL ENGINEER:	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313
LAND SURVEYOR:	OCEAN STATE PLANNERS INC. 1255 OAKLAWN AVENUE CRANSTON, RI 02920 PHONE: 401-463-9696

LOCUS MAP (NOT TO SCALE) ↑N



STATE WIDE MAP



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REFERENCE PLAN:

R1	BOUNDARY STAKE-OUT SURVEY PREPARED BY OCEAN STATE PLANNERS, INC., JANUARY 2019

JCE
JOE CASALI ENGINEERING, INC.
Civil · Site Development · Transportation
Drainage · Wetlands · ISDS · Traffic · FEMA Floodplain
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JOSEPH A. CASALI
No. 7250
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:		
NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

COVER SHEET

SHEET 1 OF 7

O:\19-34 Herrick & White\ACAD\Wayland Ave [Working Plans].dwg Apr. 21, 2021 10:50am

GENERAL NOTES:

1. CLASS I PROPERTY LINE AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY OCEAN STATE PLANNERS, INC. 1255 OAKLAWN AVE., CRANSTON, RI, IN JANUARY 2019.
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 THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
3. THE ENTIRE PROJECT SITE LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FIRM MAP FOR KENT COUNTY, RHODE ISLAND, MAP NUMBER 44007C0311H, EFFECTIVE DATE OCTOBER 2, 2015.
4. THERE ARE NO KNOWN FRESHWATER WETLANDS ON OR ADJACENT TO THE SUBJECT SITE, NOR ARE THERE ANY KNOWN HIGH HAZARD AREAS ON OR ADJACENT TO THE SUBJECT SITE.
5. SOILS EXISTING ON THE SITE CONSIST OF HINCKLEY LOAMY SAND, 8 TO 15% SLOPES (HkC). SOIL EVALUATIONS WERE OBSERVED AND DOCUMENTED BY JOE CASALI ENGINEERING, INC. IN MARCH 2021. SOIL EVALUATION LOGS ARE PRESENTED WITHIN THESE PLANS.
6. THERE ARE NO KNOWN EASEMENTS WITHIN THE PROJECT AREA.
7. PUBLIC WATER, SEWER, GAS AND ELECTRIC IS AVAILABLE FROM ELMHURST AVENUE AND FROM WAYLAND AVENUE.

SITE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
2. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS, AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICAN WITH DISABILITIES ACT AND WITH ALL APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS, WHICHEVER IS MORE STRINGENT.
3. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
4. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
5. 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.
6. 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.
7. 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.
8. REFER TO ARCHITECTURAL PLANS, STRUCTURAL PLANS, PLUMBING PLANS AND ELECTRICAL PLANS FOR ACTUAL SIZE OF THE PROPOSED BUILDINGS AND WORK WITHIN 5 FEET OF THE PROPOSED BUILDINGS.
9. 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.
10. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER OR THE CITY.
11. 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.
12. THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.
13. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED.
14. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
15. LEDGE TO BE REMOVED BY MECHANICAL MEANS OR BY BLASTING.
16. 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.
17. 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.

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.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE SILT FENCE / HAY BALE 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 HAYBALES (R.I. STD. 9.8.0) 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 STANDING 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/HAYBALES 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/HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES 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.

MISCELLANEOUS UTILITY NOTES:

1. PRIOR TO CONSTRUCTION ALL POTENTIAL UTILITY/DRAINAGE CONFLICTS MUST BE IDENTIFIED BY THE CONTRACTOR. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
2. OVERHEAD ELECTRIC AND TELEPHONE SERVICES ARE TO BE REMOVED BY THE APPROPRIATE UTILITY COMPANY AND COORDINATED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE A SUFFICIENT NUMBER OF WORKMEN AND GUARDS AS MAY BE NECESSARY TO PROPERLY SAFEGUARD THE PUBLIC FROM THEIR OPERATIONS.
4. THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OF PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES AND SHALL PROMPTLY REPAIR AT THEIR OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER OR TOWN. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
5. EXISTING UTILITY FRAMES AND COVERS FOR SANITARY SEWER, WATER, GAS, STORM DRAINAGE AND OTHER UTILITIES SHALL BE ADJUSTED TO GRADE AS REQUIRED IN NEW PAVING AND PAVEMENT OVERLAY AREAS.
6. THE CONTRACTOR SHALL CONFINE HIS CONSTRUCTION OPERATIONS AND ACTIVITIES TO WITHIN THE STREET LINES, EASEMENT AND/OR RIGHT-OF-WAY, AS SHOWN ON THE DRAWINGS.

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 OLD COUNTY VILLAGE CONDOMINIUM ASSOCIATION 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.

ROOF DRAIN LEADERS
- PERFORM ROUTINE ROOF INSPECTIONS QUARTERLY.
- KEEP ROOFS CLEAN AND FREE OF DEBRIS.
- KEEP ROOF DRAINAGE SYSTEMS CLEAR.

UNDERGROUND INFILTRATION SYSTEM
- INFILTRATION SYSTEMS SHALL BE INSPECTED ON A BI-ANNUAL BASIS TO ENSURE PROPER FUNCTIONS. INSPECTION PORTS SHALL BE USED TO VERIFY THAT THE SYSTEMS ARE DRAINING WITHIN 72 HOURS. IF THE SYSTEM FAILS TO DRAIN WITHIN 72-HOURS, THE SYSTEM SHALL BE CLEANED OR REPLACED AS NECESSARY.
- THE INFILTRATION SYSTEM SHALL BE INSPECTED BI-ANNUALLY FOR SEDIMENT ACCUMULATIONS.. IF THE SYSTEM HAS ACCUMULATED 3 INCHES OF SEDIMENT, THE SEDIMENT SHALL BE REMOVED BY FLUSHING FROM THE SYSTEM WITH HIGH PRESSURE WATER JETS AND AND VACUUMING THE SEDIMENT AND DEBRIS THROUGH THE ACCESS PORTS. ALL SEDIMENT REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL STATE AND FEDERAL REGULATIONS.

INFILTRATION BASIN
- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE INFILTRATION BASINS SHALL BE INSPECTED AFTER THE FIRST TWO RAINFALL EVENTS OF AT LEAST 1.0 INCH TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, INSPECTIONS SHALL BE CONDUCTED ON A BI-ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2 INCHES.
- SILT AND SEDIMENT SHALL BE REMOVED FROM THE INFILTRATION BASINS WHEN THE ACCUMULATION EXCEEDS 6 INCHES, OR WHEN WATER PONDS ON THE SURFACE OF THE INFILTRATION BASIN FOR MORE THAN 48 HOURS.
- SOIL EROSION GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.
- THE OUTLET DEVICES SHALL BE CLEANED/REPAIRED WHEN NECESSARY.
- TRASH AND DEBRIS SHALL BE REMOVED WHEN NECESSARY OR ANNUALLY AT A MINIMUM.
- THE OUTFLOW WEIR SHOULD BE INSPECTED ANNUALLY TO ENSURE THAT IT IS FUNCTIONING PROPERLY.

LOAMING & SEEDING NOTES:

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
- BUILDING SETBACK LINE
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- EXISTING STONE WALL
- EXISTING CURB
- PROPOSED CURB
- EXISTING GUARD RAIL
- D EXISTING DRAIN LINE
- D PROPOSED DRAIN LINE
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- TEL EXISTING TELECOM DUCTBANK
- E EXISTING ELECTRIC DUCTBANK
- E RELOCATED ELECTRIC DUCTBANK
- GAS EXISTING GAS LINE
- GAS PROPOSED GAS LINE
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- EXISTING WATER SHUT OFF VALVE
- PROPOSED WATER SHUT OFF VALVE
- S EXISTING SEWER LINE
- S PROPOSED SEWER LINE
- S EXISTING SEWER MANHOLE
- S PROPOSED SEWER MANHOLE
- N/F NOW OR FORMERLY
- TREELINE
- COMPOST FILTER SOCK
- LOD LIMIT OF DISTURBANCE
- TEST HOLE
- B-1 BORING

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JOSEPH A. CASALI
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PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:

NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

GENERAL NOTES & LEGEND

SHEET 2 OF 7

Test Pit Location: See Plan | **Date Start / Finish:** March 31, 2021
Ground Surface El. / Datum: 98.0 | **Conditions:** Overcast, 65 deg. F
Excavator Type: Wacker Neuson 3503 Mini-Excavator | **Excavator Reach:** Approx. 10-feet
Operator: Bryan White | **JCE Rep.:** Daniel R. DeCesaris (RI P.E. No. 10162)

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Depth (ft)	Sample Type/No.	Layer	Remarks	Soil and Rock Description	Estimated Hydraulic Conductivity
1		TS		(0 - 10"): SILTY SAND (SM); Dark brown/black, dry, ~75% fine sand, ~15% nonplastic fines, ~10% fine gravel, TOPSOIL.	
2		FILL	Occasional cobbles/ boulders throughout; max. size = 12".	(10 - 36"): SILTY SAND WITH GRAVEL (SM); Dark brown/brown, dry, ~60% fine to medium sand, ~25% nonplastic fines, ~15% fine to coarse gravel, FILL.	NA
3		GLACIAL DEPOSITS	Occasional cobbles/ boulders throughout; max. size = 20".	(36 - 120"): SILTY SAND WITH GRAVEL (SM); Brown, dry, ~65% fine to coarse sand, ~20% nonplastic fines, ~15% fine to coarse gravel. *Loamy Sand.*	HSG B 2.41 in/hr
12				Bottom of test hole at 10'. Open excavation backfilled with previously excavated material upon completion.	

Notes:

SHWT: Not Encountered
Impervious/Limiting Layer Depth: Not Encountered

Project Name: Bryan White, 145 Wayland Ave., Cranston
Project Number: 19-34a
JOE CASALI ENGINEERING, INC.

Test Pit Location: See Plan | **Date Start / Finish:** March 31, 2021
Ground Surface El. / Datum: 87.0 | **Conditions:** Overcast, 65 deg. F
Excavator Type: Wacker Neuson 3503 Mini-Excavator | **Excavator Reach:** Approx. 10-feet
Operator: Bryan White | **JCE Rep.:** Daniel R. DeCesaris (RI P.E. No. 10162)

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Page 1 of 1

Depth (ft)	Sample Type/No.	Layer	Remarks	Soil and Rock Description	Estimated Hydraulic Conductivity
1		TS		(0 - 10"): SILTY SAND (SM); Dark brown/black, dry, ~75% fine sand, ~15% nonplastic fines, ~10% fine gravel, TOPSOIL.	
2		FILL		(10 - 32"): WELL GRADED SAND WITH SILT (SW-SM); Brown/gray, dry, ~75% fine to coarse sand, ~15% fine to coarse gravel, ~10% nonplastic fines, FILL.	NA
3		GLACIAL DEPOSITS		(32 - 109"): SILTY SAND WITH GRAVEL (SM); Gray, dry, ~60% fine to coarse sand, ~20% nonplastic fines, ~20% fine to coarse gravel, *Loamy Sand.*	HSG B 2.41 in/hr
12				Bottom of test hole at 109". Open excavation backfilled with previously excavated material upon completion.	

Notes:

SHWT: Not Encountered
Impervious/Limiting Layer Depth: Not Encountered

Project Name: Bryan White, 145 Wayland Ave., Cranston
Project Number: 19-34a
JOE CASALI ENGINEERING, INC.

Test Pit Location: See Plan | **Date Start / Finish:** March 31, 2021
Ground Surface El. / Datum: 97.0 | **Conditions:** Overcast, 65 deg. F
Excavator Type: Wacker Neuson 3503 Mini-Excavator | **Excavator Reach:** Approx. 10-feet
Operator: Bryan White | **JCE Rep.:** Daniel R. DeCesaris (RI P.E. No. 10162)

TH-3

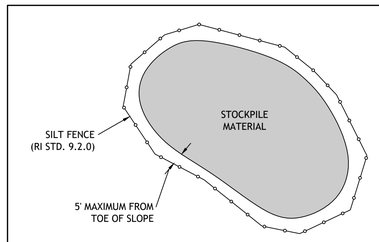
Page 1 of 1

Depth (ft)	Sample Type/No.	Layer	Remarks	Soil and Rock Description	Estimated Hydraulic Conductivity
1		TS		(0 - 6"): SILTY SAND (SM); Dark brown/black, dry, ~75% fine sand, ~15% nonplastic fines, ~10% fine gravel, TOPSOIL.	
2		FILL	Occasional cobbles throughout; max. size = 8"	(6 - 60"): SILTY SAND WITH GRAVEL (SM); Brown, dry, ~65% fine to medium sand, ~25% nonplastic fines, ~10% fine to coarse gravel. FILL.	NA
3		GLACIAL DEPOSITS		(60 - 120"): SILTY SAND WITH GRAVEL (SM); Brown/gray , dry, ~65% fine to coarse sand, ~20% nonplastic fines, ~15% fine to coarse gravel, *Loamy Sand.*	HSG B 2.41 in/hr
12				Bottom of test hole at 10'. Open excavation backfilled with previously excavated material upon completion.	

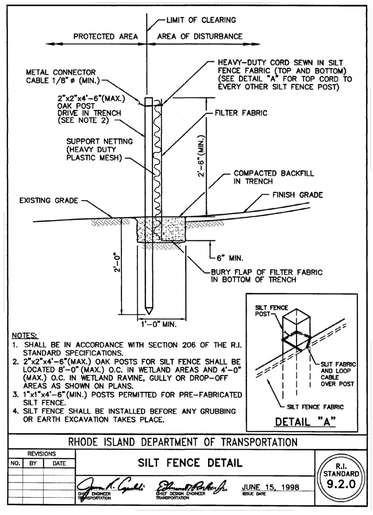
Notes:

SHWT: Not Encountered
Impervious/Limiting Layer Depth: Not Encountered

Project Name: Bryan White, 145 Wayland Ave., Cranston
Project Number: 19-34a
JOE CASALI ENGINEERING, INC.



1 STOCKPILE DETAIL
NOT TO SCALE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6"(MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
3. 1"x1"x4'-6"(MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

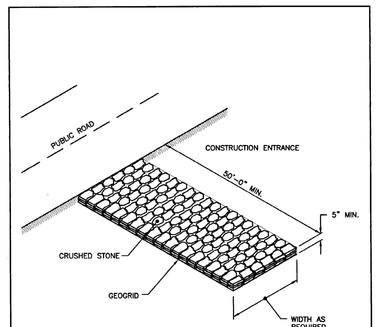
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

SILT FENCE DETAIL

CHIEF ENGINEER — CHIEF OPTION ENGINEER TRANSPORTATION — JUNE 15, 1998 WEEK DATE

R.I. STANDARD 9.2.0



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

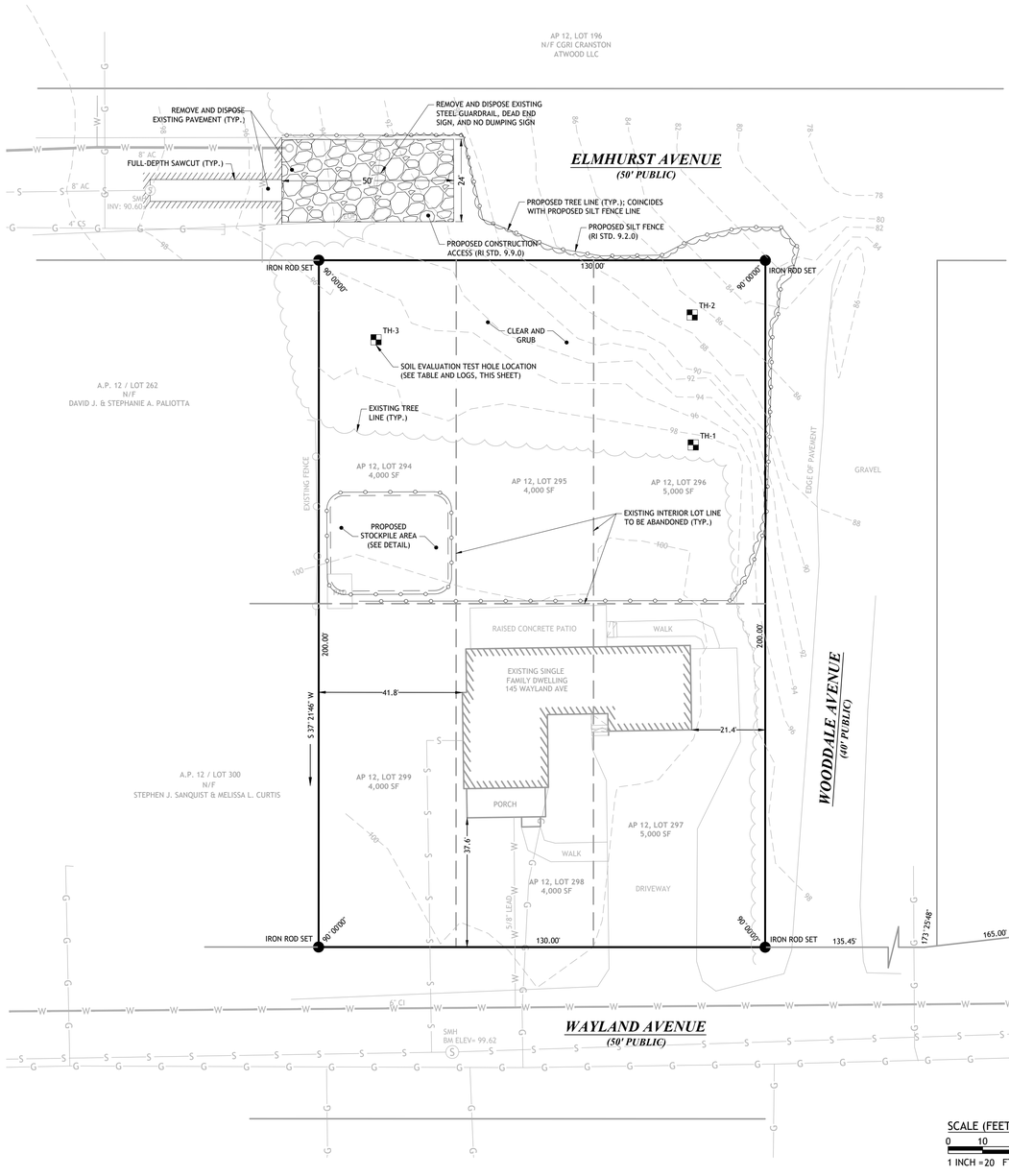
REVISIONS		
NO.	BY	DATE

CONSTRUCTION ACCESS

CHIEF ENGINEER — CHIEF OPTION ENGINEER TRANSPORTATION — JUNE 15, 1998 WEEK DATE

R.I. STANDARD 9.9.0

SOIL EVALUATION TEST PIT DATA		
TEST HOLE ID	SURFACE EL.	SHWT / EL.
TH-1	98.0	>120" / >88.0
TH-2	87.0	>100" / >78.7
TH-3	97.0	>120" / >87.0



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JOSEPH A. CASALI
No. 12250
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:	
NO.	DATE. DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

EXISTING CONDITIONS & SITE PREP. PLAN

SHEET 3 OF 7

SEWER MAIN CONSTRUCTION NOTES:

1. FOR GENERAL SPECIFICATIONS REGARDING ALL CONSTRUCTION AS WELL AS THE SANITARY SEWERS THE CONTRACTOR SHALL REFERENCE THE CITY OF CRANSTON CITY CODE, CHAPTER 26, SEWERS, SPECIFICATIONS FOR HIGHWAYS COVERING RESIDENTIAL AND INDUSTRIAL PLAT DEVELOPMENTS, AND OTHER CITY OF CRANSTON DEPARTMENT OF PUBLIC WORKS GUIDELINES, RULES, REGULATIONS AND OTHER APPLICABLE LAWS, INCLUDING ANNEX A-DESIGN OF SEWERS (PROMULGATED 8/15/02), REGARDING SANITARY SEWER CONSTRUCTION, THE CONTRACTOR SHALL SPECIFICALLY REFERENCE THE TECHNICAL RELEASE #16 GUIDE FOR THE DESIGN OF WASTEWATER TREATMENT WORKS (PUBLISHED BY THE N.E. INTERSTATE WATER POLLUTION CONTROL COMMISSION).

2. PRIVATE SEWERS AND SEWER EXTENSION INTO ADJACENT COMMUNITIES WHICH CONNECT TO THE CITY SEWER SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH THE CITY SEWER USE ORDINANCE AND THESE REGULATIONS UNLESS OTHERWISE APPROVED BY THE CITY PUBLIC WORKS DIRECTOR.

3. ALL SANITARY SEWER CONSTRUCTION SHALL BE INSPECTED BY THE VEOLIA WATER NORTH AMERICAL COLLECTIONS SYSTEM DEPARTMENT. (VEOLIA-CRANSTON WPCF).

4. NO PERSON SHALL MAKE A CONNECTION OF ROOF DOWNSPOUTS, FLOOR DRAINS, SUMP PUMPS, EXTERIOR FOUNDATION DRAINS, AREA WAY DRAINS, OR OTHER SOURCES OF SURFACE RUNOFF OR GROUNDWATER TO ANY COMPONENT OF THE SANITARY SEWER SYSTEM.

5. NO GRAVITY SEWER MAIN SHALL BE LESS THAN EIGHT (8) INCHES (20.3 cm) DIAMETER.

6. GRAVITY SEWER PIPE SHALL BE ASTM RIGID SCHEDULE 35 PVC PIPE FOR SEWER USE CONFORMING TO ASTM SPECIFICATIONS D-3034. ALL PIPES SHALL HAVE COMPRESSION POINTS WITH AN ELASTOMETRIC GASKET TYPE CONFORMING TO ASTM D-3212: OR AS APPROVED BY THE CITY PUBLIC WORKS DIRECTOR.

7. MAIN GRAVITY SEWER PIPE SHALL BE INSTALLED BY USING A LASER INVERT MACHINE THAT SETS UP IN AN INVERT IN THE DOWNSTREAM MANHOLE. A TARGET WILL BE PLACED AT THE END OF EACH PIPE THAT IS INSTALLED TO ENSURE PROPER ALIGNMENT AND SLOPE.

8. ALL SANITARY SEWER CONNECTIONS SHALL BE MADE GAS TIGHT.

9. THE MINIMUM COVER SHALL BE FOUR (4) FEET OVER THE CROWN OF THE PIPE FOR ALL MAINS AND LATERALS EXCEPT THAT INSULATION MAY BE PROVIDED FOR SEWERS THAT CANNOT BE PLACED AT A DEPTH SUFFICIENT TO PREVENT FREEZING UPON THE APPROVAL OF THE PUBLIC WORKS DIRECTOR.

10. SEWER LATERALS SHALL BE 6" PVC SCHEDULE 35 AND BE INSTALLED AT THE MINIMUM SLOPE OF AT LEAST ONE-QUARTER INCH PER FOOT. ALL PIPES SHALL HAVE COMPRESSION JOINTS.

11. WHERE PRACTICAL, SEWER LATERALS SHALL BE TIED INTO A MANHOLE. A BORING MACHINE SHALL BE USED TO MAKE A HOLE THROUGH ANY MANHOLE STRUCTURE. A FLEXIBLE WATERTIGHT GASKET SHALL BE USED TO CONNECT THE STRUCTURE TO THE PIPE OR AN APPROVED WATERTIGHT FLEXIBLE SLEEVE. THE PIPE SHALL BE CEMENTED ON THE INSIDE OF THE MANHOLE TO MAKE THE INVERT CLEAN

12. WHERE SEWER LATERALS CONNECT TO A SEWER MAIN A WYE SHALL BE INSTALLED IN THE MAIN TO MAKE THE CONNECTION. A 6" SDR-35 ANGLE, NOT GREATER THAN 45˚, IS TO BE USED TO PROVIDE THE PROPER FLOW ALIGNMENT.

13. NO LATERAL MAY SERVICE MORE THAN ONE BUILDING OR PRIVATELY OWNED BUILDING UNITS.

14. MINIMUM BEDDING MATERIAL REQUIREMENTS FOR SEWER PIPE INSTALLATION SHALL BE CLASS "B" AS DESCRIBED IN ASTM C-12 WITH A MINIMUM DEPTH OF SIX (6) INCHES.

15. BEDDING MATERIAL SHALL BE COMPACTED EVENLY UNDER AND ON BOTH SIDES OF THE PIPE SO THAT THE PIPE REMAINS ALIGNED AND TRUE.

16. BACKFILL SHALL BE INSTALLED IN LAYERS NO MORE THAN 8" THICK AFTER COMPACTION AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DRY DENSITY ACCORDING TO AASHTO T-180.

17. BACKFILL MATERIAL SHALL NOT CONTAIN FROZEN MATERIAL, LARGE DIRT CLODS, STONES, ORGANIC MATTER, OR UNSUITABLE MATERIALS. ADDITIONAL BACKFILL DETAILS, FOR CITY STANDARDS CR-10/5-1, WHICH ARE AVAILABLE IN THE DIVISION OF ENGINEERING.

18. MANHOLES SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, ASTM C-478, LATEST EDITION; OR AS APPROVED BY THE DIRECTOR, AND SHALL HAVE O-RINGS OR BITUMINOUS BASED GASKETED JOINTS. A TWELVE-INCH (12") BEDDING OF COMPACTED ¾-INCH CRUSHED STONE SHALL BE PLACED UNDERNEATH ALL MANHOLE STRUCTURES. THE MINIMUM INTERNAL DIAMETER SHALL BE FORTY-EIGHT- INCHES (48"). ALL MANHOLE JOINTS AND PINHOLES SHALL BE PARGED FROM THE OUTSIDE AND INSIDE TO PREVENT INFILTRATION. FOLLOWING WHICH, A BITUMINOUS COATING SHALL BE INSTALLED ON THE ENTIRE EXTERIOR. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED, FLEXIBLE WATERTIGHT CONNECTION OR WITH ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS FOR DIFFERENTIAL SETTLEMENT OF THE PIPE AND THE MANHOLE. ALL INVERTS AND TABLES SHALL BE CONSTRUCTED WITH SMOOTH RED SEWER BRICKS. AT LEAST ONE ROW OF RED SEWER BRICKS SHALL BE INSTALLED BETWEEN THE MANHOLE STRUCTURE AND THE SEWER COVERS FRAME, BUT NOT TO EXCEED A (MAX. OF 12" HIGH); THE BRICKS SHALL BE WELL CEMENTED BUT NO CEMENT IS ALLOWED ON THE FACE OF THE BRICKS.

19. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. DEVIATIONS OR CHANGES WILL NOT BE ALLOWED USLESS APPROVED BY THE CITY PUBLIC WORKS DIRECTOR.

20. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

SEWER MAIN ORDER OF PROCEDURE:

1. THE OWNER OR THE DEVELOPER SHALL SUBMIT TO THE CITY OF CRANSTON'S DIRECTOR OF PUBLIC WORKS THE NAME OF THE QUALIFIED SEWER CONTRACTOR THAT WILL BE RESPONSIBLE FOR THE INSTALLATION OF THE SANITARY SEWER SYSTEM, TOGETHER WITH A BREAKDOWN OF ITEMS, QUANTITIES AND UNIT PRICES FOR THE PROJECT.

2. NO WORK CAN COMMENCE ON ANY SEWER INSTALLATION WITHOUT THE DIRECTOR'S APPROVAL OF THE PLANS AND CONTRACTOR.

3. THE CONTRACTOR THAT WAS APPROVED SHALL NOTIFY VEOLIA WATER OF NORTH AMERICA COLLECTIONS SYSTEM DEPARTMENT AND THE DIRECTOR OF PUBLIC WORKS FIVE (5) WORKING DAYS PRIOR TO COMMENCING ANY SEWER RELATED EXCAVATION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION: COMPANY NAME, PHONE NUMBER AND ADDRESS OF BOTH THE DEVELOPER AND CONTRACTOR ALONG WITH THE NAME AND PHONE NUMBER OF THE SEWER CONTRACTOR'S FOREMAN.

4. VEOLIA WATER SHALL INSPECT THE NEW PLAT CONSTRUCTION CONSISTING OF EXCAVATION, LYING OF SEWER MAINS AND STREET LATERALS, INSTALLATION OF MANHOLES, AND BACKFILLING TO THE ELEVATION OF THE EXISTING GROUND, CAMERA INSPECTION, AND PRESSURE TESTING: AND SHALL PERFORM THE FLOW TEST. THE CONTRACTOR AT HIS CHOICE AND EXPENSE HAS THE OPTION OF USING A PRIVATE CONTRACTOR OR HIRING VEOLIA WATER TO CAMERA AND VIDEOTAPE THE SEWER SYSTEM. IF THE CONTRACTOR CHOOSES TO USE A PRIVATE CAMERA CONTRACTOR TO VIDEOTAPE THE SEWER SYSTEM AN INSPECTOR FROM VEOLIA WATER SHALL BE PRESENT FOR THE VIDEOTAPING.

5. AFTER THE SEWER SYSTEM HAS BEEN INSTALLED THE CONTRACTOR SHALL HAVE THE ENTIRE MANHOLES VACUUM TESTED: TEN (10) INCHES OF VACUUM FOR SIXTY (60) SECONDS, THEN THE GRAVITY SEWER PIPES SHALL BE TESTED FOR: FIVE (5) LBS OF PRESSURE FOR TEN (10) MINUTES. VEOLIA'S INSPECTOR SHALL BE PRESENT FOR ALL TESTING OF MANHOLES AND PIPES.

6. AFTER THE TESTING OF THE MANHOLES AND PIPES THE CONTRACTOR SHALL HAVE THE ENTIRE SEWER SYSTEM FLUSHED AND CLEANED.

7. NEXT THE SYSTEM SHALL BE CAMERA INSPECTED AND VIDEOTAPED.

8. VEOLIA WATER SHALL REVIEW THE VIDEOTAPES AND WRITE A PUNCH LIST OF ALL OR ANY ITEMS THAT REQUIRE ATTENTION.

9. AS A CONDITION OF THE FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM, THE CONTRACTOR SHALL FORMALLY REQUEST, THROUGH THE CITY ENGINEERING DIVISION, A FINAL INSPECTION BY VEOLIA.

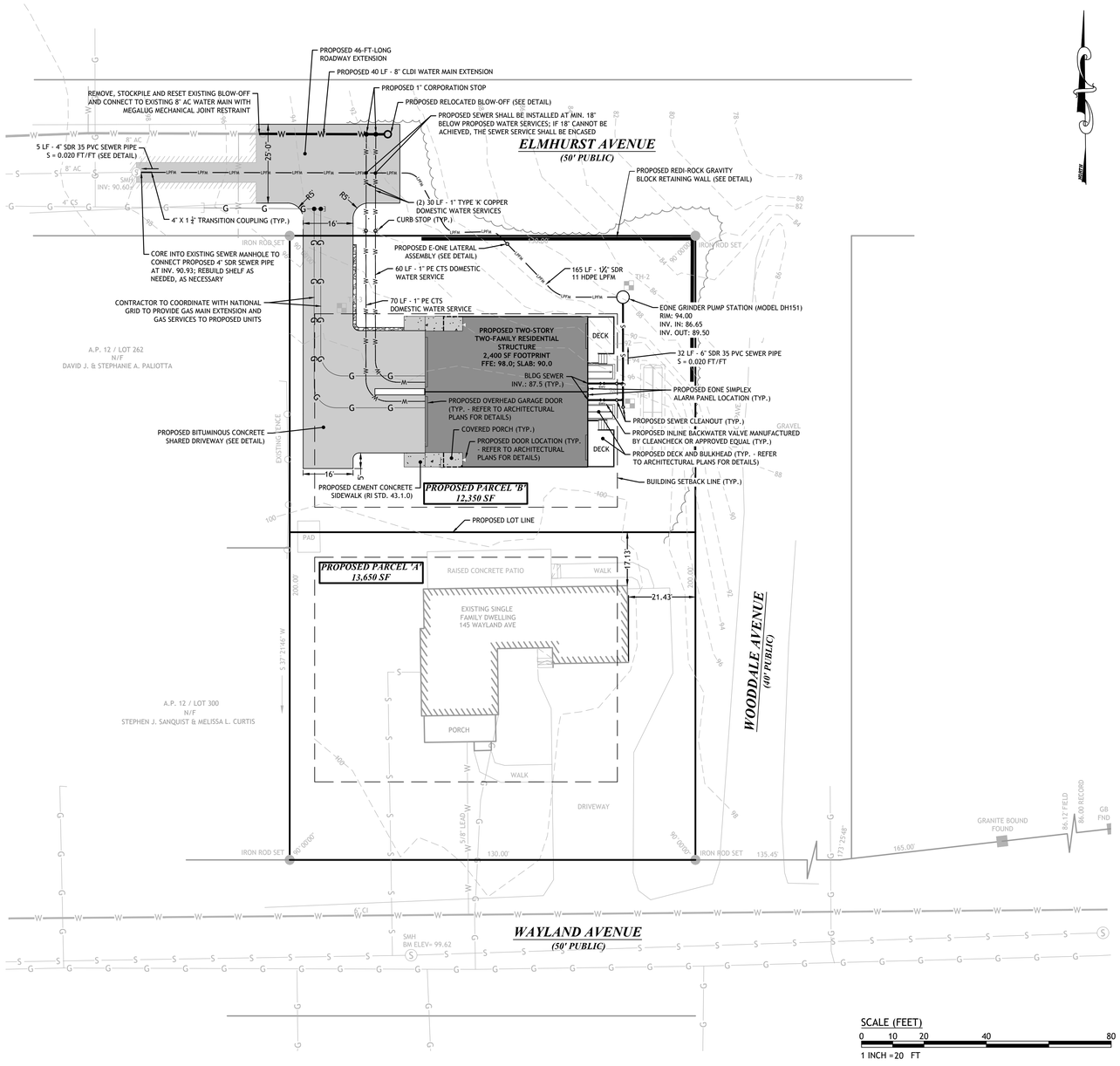
10. BEFORE FINAL APPROVAL OF THE SEWER SYSTEM CAN BE GRANTED AND CERTIFICATES OF OCCUPANCY ARE ISSUED, THE CONTRACTOR SHALL SUBMIT TO VEOLIA TWO (2) SETS OF SEWER AS-BUILT PLANS WITH GIS COORDINATES FOR EACH MANHOLE. THE AS-BUILTS SHALL BE OF 'COPY-TUFF" MEDIA AND IN COMPUTER .dxf OR AUTOCAD R14 OR AUTOCAD LT 2002 VERSION FILE FORMAT AND MEET THE FOLLOWING CRITERIA:

10.1. ALL RECORD PLANS ARE REQUIRED TO BE THE UNIFORM SIZE OF 20" x 40".
10.2. SCALE FOR THE PLANS: HORIZONTAL 1" = 40' AND VERTICAL 1" = 10'.
10.3. STATION FIGURES ARE TO BE SHOWN ON ALL MANHOLES.
10.4. DISTANCES OF LATERALS ARE TO BE SHOWN WITH DEPTHS OF THE END OF THE PIPE AT THE STREET LINE.
10.5. TIES TO THE "Y's", MANHOLES, AND ENDS OF LATERALS ARE TO BE SHOWN FROM PERMANENT STRUCTURES.
10.6. LEDGE AND SELECT MATERIALS ARE TO BE SHOWN ON THE PROFILE.
10.7. SLOPE, SIZE, LENGTH, AND TYPE OF PIPE ARE TO BE SHOWN ON THE PROFILE. ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO BE SHOWN ON THE PROFILE.
10.8. SEWER RECORD AND STORM DRAIN PLANS ARE TO BE DRAWN SEPARATELY.
10.9. THE RECORD PLAN SHALL BE DRAWN SO THAT THE NORTH DESIGNATION IS POINTING IN THE UPPER QUADRANT. AN ID TABLE NEEDS TO BE PROVIDED ON THE PLANS.
10.10. THE X AND Y COORDINATES SHALL BE THE NAD 83 RI STATE PLANE FEET COORDINATES.
10.11. ELEVATIONS SHALL BE BASED ON THE CITY OF CRANSTON' S MEAN HIGH WATER (MHW) DATA FOR THE VERTICAL COORDINATES.

11. FINAL APPROVAL AND ISSUANCE OF THE CERTIFICATES OF OCCUPANCY ARE CONTINGENT UPON THE OWNER/DEVELOPER'S SUBMISSION OF AN ACCEPTABLE, PERPETUAL OPERATION AND MAINTENANCE PLAN TO THE CITY AND VEOLIA FOR THE PRIVATE SEWAGE SYSTEM.

ZONING CRITERIA	REQUIRED	PROPOSED PARCEL A	PROPOSED PARCEL B
ZONING DISTRICT	A-6	A-6	A-6
MINIMUM LOT AREA	6,000 SF	13,650 SF	12,350 SF
MINIMUM LOT WIDTH AND FRONTAGE	60 FT	130 FT	130 FT
MINIMUM FRONT YARD	25 FT	21.4 FT*	26 FT
MINIMUM REAR YARD	20 FT	N/A	N/A
MINIMUM SIDE YARD	8 FT	17.13 FT	20.90 FT
MAXIMUM LOT BUILDING COVERAGE	30%	14.12%	19.43%
MAXIMUM BUILDING HEIGHT	35 FT	<35 FT	34.25 FT

* EXISTING NON-CONFORMING CONDITION



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No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:

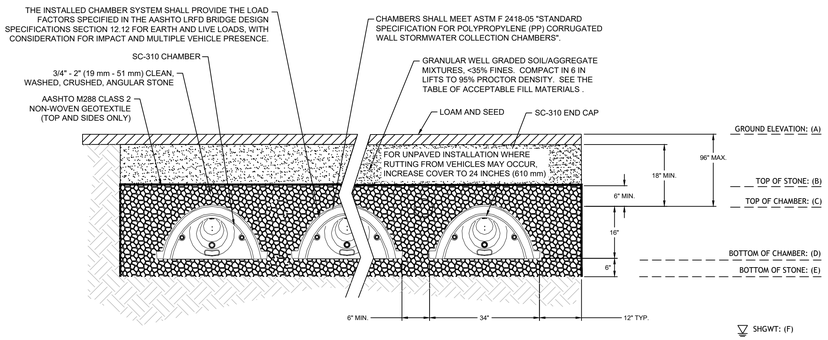
NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

SITE AND UTILITY PLAN

SHEET 4 OF 7

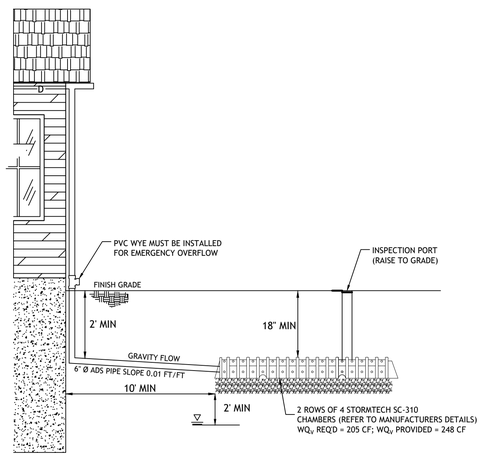


UNDERGROUND INFILTRATION SYSTEM NOTES:

1. STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL **1-888-892-2694** TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT **WWW. STORMTECH.COM** TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
3. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.):MINIMUM COVER IS 18" (457 mm) NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" (2438 mm) INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" (610 mm), MAXIMUM COVER IS 96" (2438 mm).
4. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
5. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
6. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
8. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: **WWW.STORMTECH.COM.** THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
9. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
10. STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT **1-888-892-2694** OR VISIT **WWW.STORMTECH.COM**

A (GROUND ELEVATION)	94.0
B (TOP OF STONE)	92.3
C (TOP OF CHAMBER)	91.8
D (BOTTOM OF CHAMBER)	90.5
E (BOTTOM OF STONE)	90.0
F (SHGWT)	88.0
DIST. E-F (SEP. TO SHGWT)	2.0'
TEST HOLE REFERENCE	TH-1

2 ROOFTOP UIC DETAIL
NOT TO SCALE



4 ROOFTOP INFILTRATION SYSTEMS - TYPICAL SECTION
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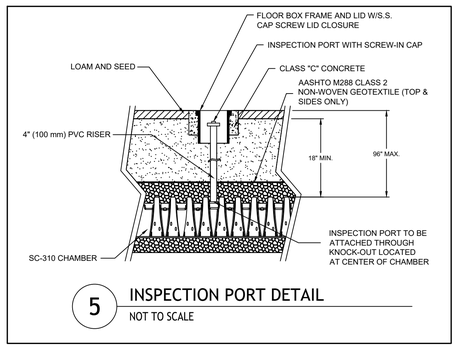

5 INSPECTION PORT DETAIL
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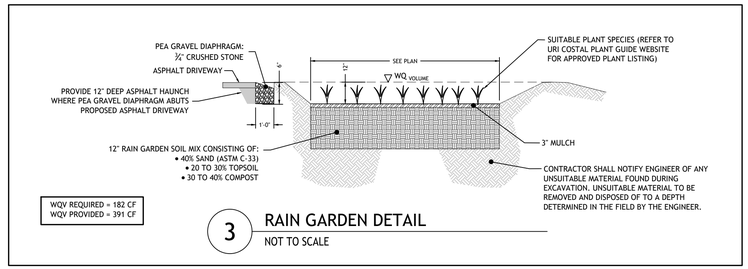

3 RAIN GARDEN DETAIL
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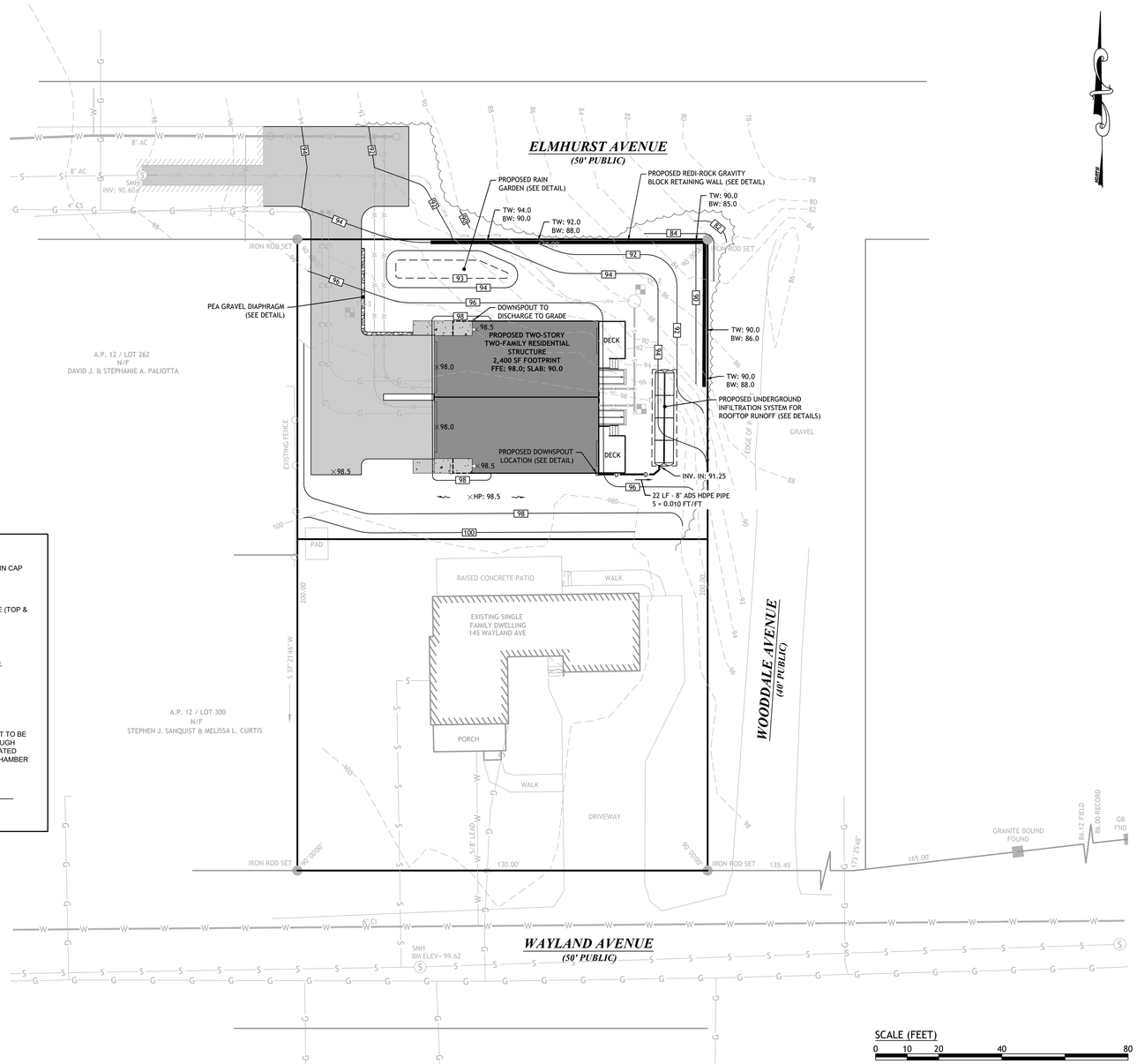

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PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:

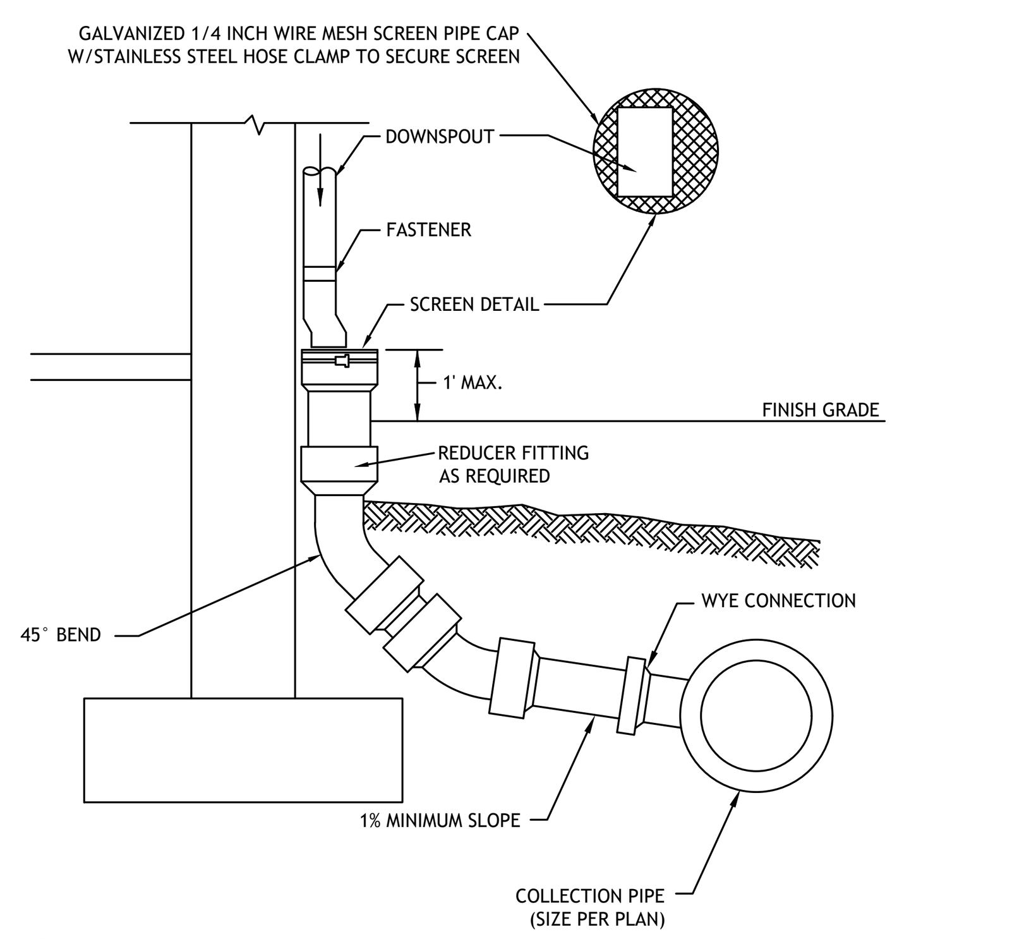
NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

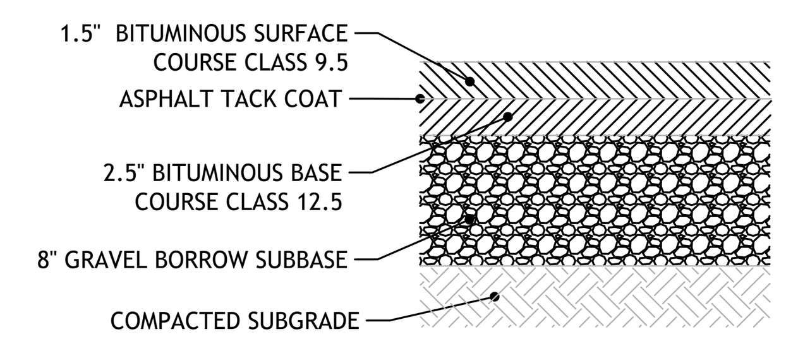
GRADING AND DRAINAGE PLAN

SHEET 5 OF 7



6 DOWNSPOUT LEADER CONNECTION DETAIL

NOT TO SCALE

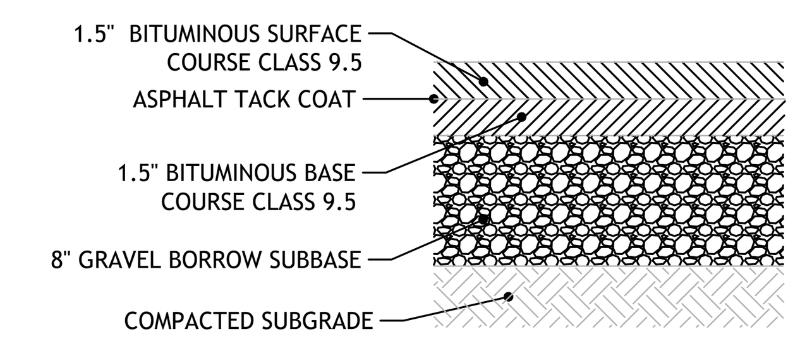


NOTE:

1. IN AREAS OF EARTH EXCAVATION FOR BITUMINOUS CONCRETE PAVEMENT, THE CONTRACTOR SHALL REMOVE 12 INCHES OF EXISTING MATERIAL. IF UNSUITABLE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE DEPTH OF UNSUITABLE MATERIAL TO BE REMOVED WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE THE UNSUITABLE MATERIALS AND REPLACE WITH SUITABLE MATERIAL APPROVED BY THE ENGINEER.
2. PAVEMENT DETAIL IS FOR THE ROADWAY ONLY.

7 BITUMINOUS CONCRETE PAVEMENT FOR PROPOSED ROADWAY

NOT TO SCALE

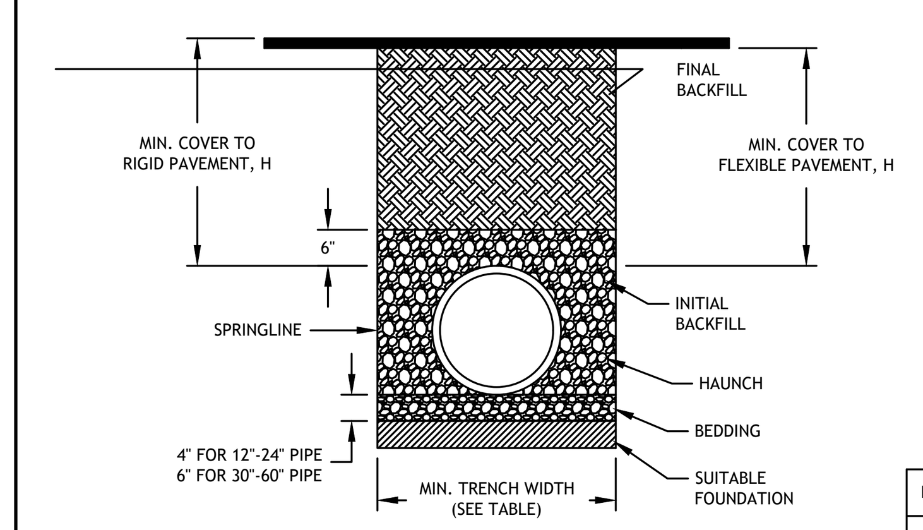


NOTE:

1. IN AREAS OF EARTH EXCAVATION FOR BITUMINOUS CONCRETE PAVEMENT, THE CONTRACTOR SHALL REMOVE 12 INCHES OF EXISTING MATERIAL. IF UNSUITABLE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE DEPTH OF UNSUITABLE MATERIAL TO BE REMOVED WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE THE UNSUITABLE MATERIALS AND REPLACE WITH SUITABLE MATERIAL APPROVED BY THE ENGINEER.
2. PAVEMENT DETAIL IS FOR THE PRIVATE DRIVEWAY ONLY.

8 BITUMINOUS CONCRETE PAVEMENT FOR PROPOSED DRIVEWAY

NOT TO SCALE



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"

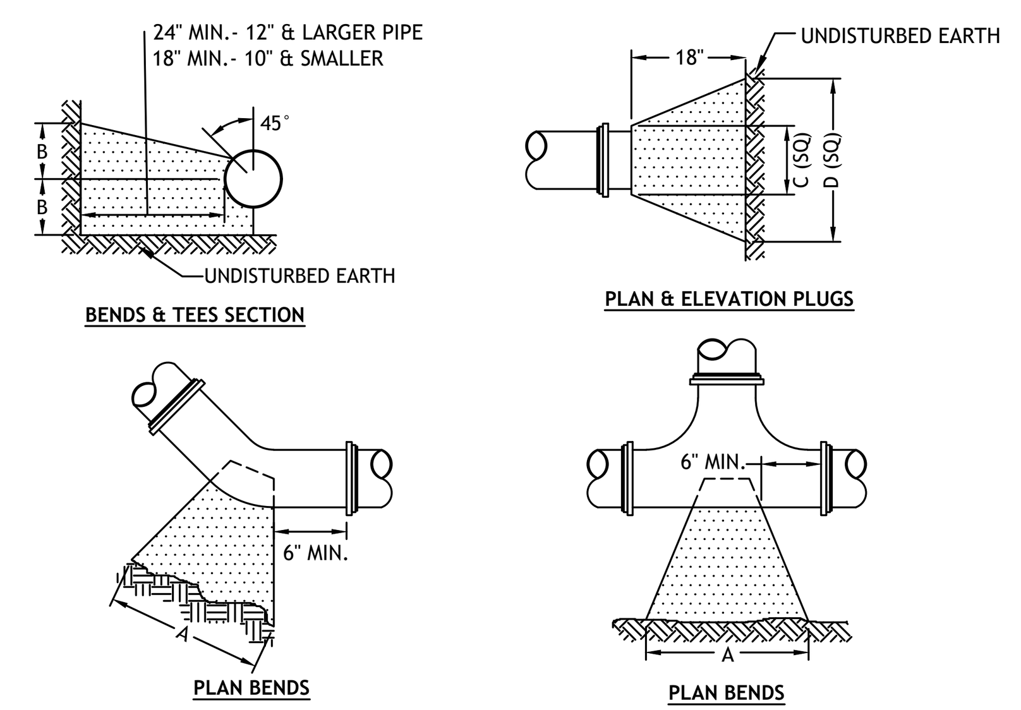
* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

NOTES:

1. 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" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) 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 FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

9 ADS PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



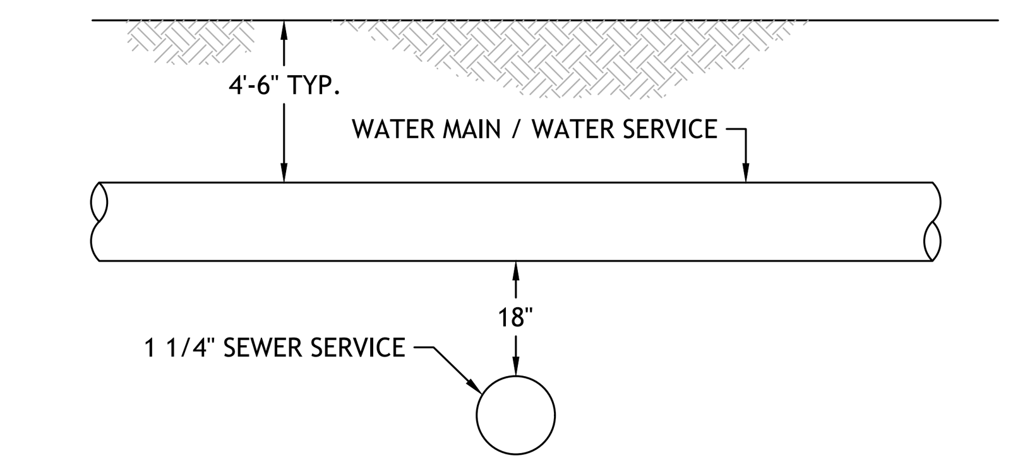
NOTE

1. ALL CONCRETE SHALL BE 4000 P.S.I. @ 28 DAYS.
2. CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
3. FORMS TO BE USED AS NECESSARY.
4. ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED.

SIZE	TEES		PLUGS		90° BEND		45° BEND		22 1/2" BEND		11 1/4" BEND	
	A	B	C	D	A	B	A	B	A	B	A	B
4"	22"	12"	22"	12"	24"	16"	20"	10"	14"	7"	11"	5"
6"	30"	18"	30"	18"	35"	22"	27"	15"	19"	12"	13"	8"
8"	38"	24"	38"	24"	46"	29"	33"	22"	25"	14"	19"	10"
10"	41"	28"	41"	28"	48"	34"	36"	24"	27"	17"	21"	11"

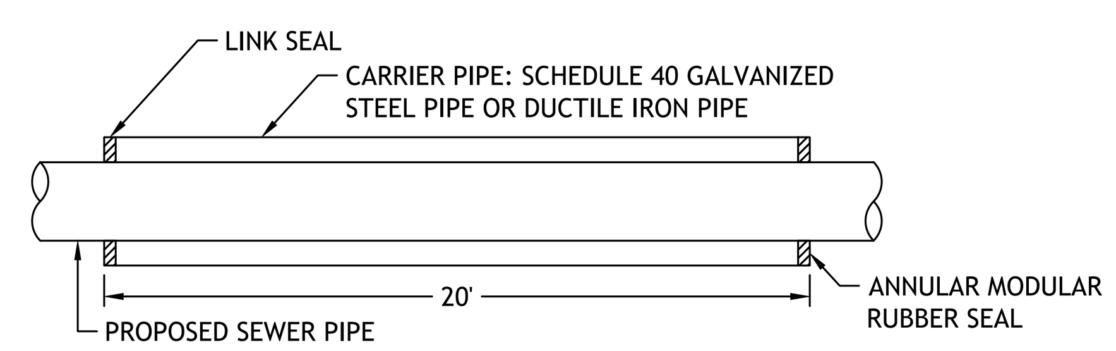
10 THRUST BLOCK DETAIL

NOT TO SCALE



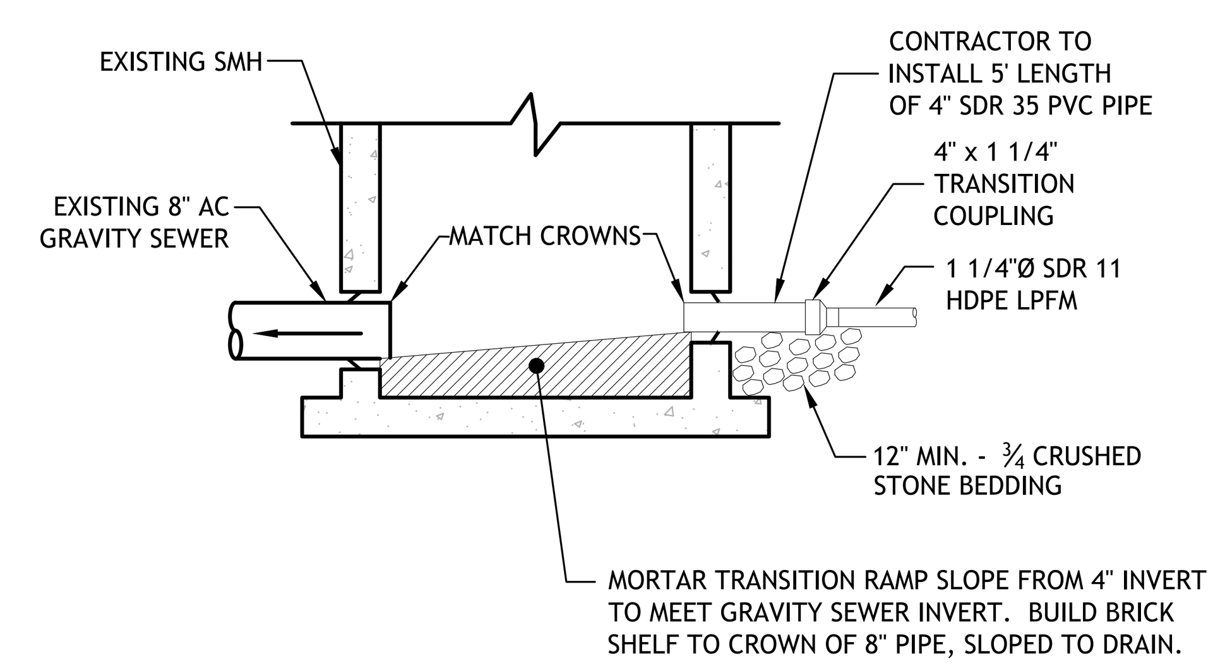
NOTES:

1. THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED SEWER SHALL BE A MINIMUM OF 18 INCHES.
2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED SEWER SHALL BE MINIMUM OF 10 FEET.
3. IF 1 OR 2 CANNOT BE MAINTAINED THE PROPOSED SEWER SHALL BE INSTALLED WITHIN A CARRIER PIPE. SEWER MAIN AND SERVICES ARE NOT ALLOWED TO CROSS OVER THE TOP OF WATER MAIN.
4. SEWER PIPE SHALL BE SUPPORTED WITHIN THE CARRIER PIPE TO MAINTAIN A CONSTANT SLOPE WITHIN THE CARRIER PIPE.



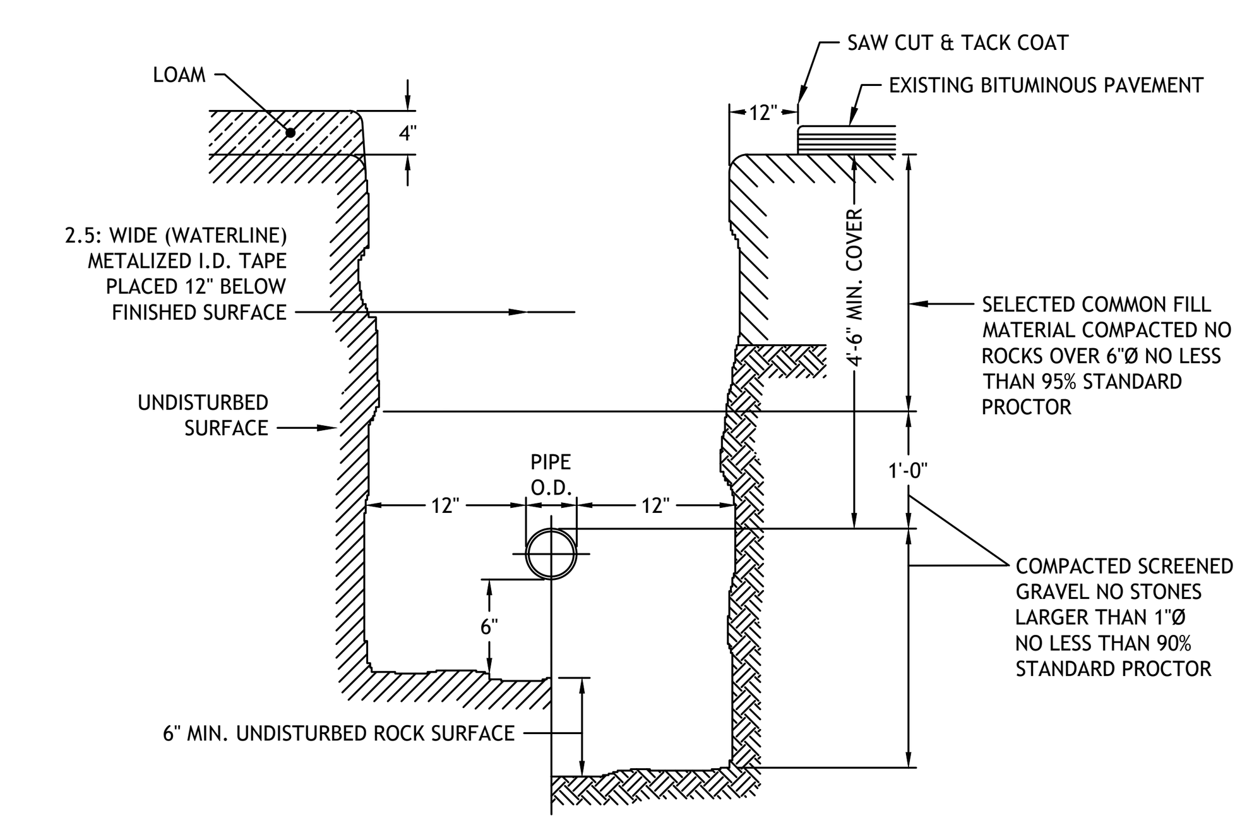
11 SEWER/WATER SEPARATION DETAIL

NOT TO SCALE



12 LPFM TO GRAVITY SEWER MANHOLE CONNECTION

NOT TO SCALE



13 WATER TRENCH DETAIL

NOT TO SCALE

PROVIDENCE WATER SUPPLY BOARD (PWSB)

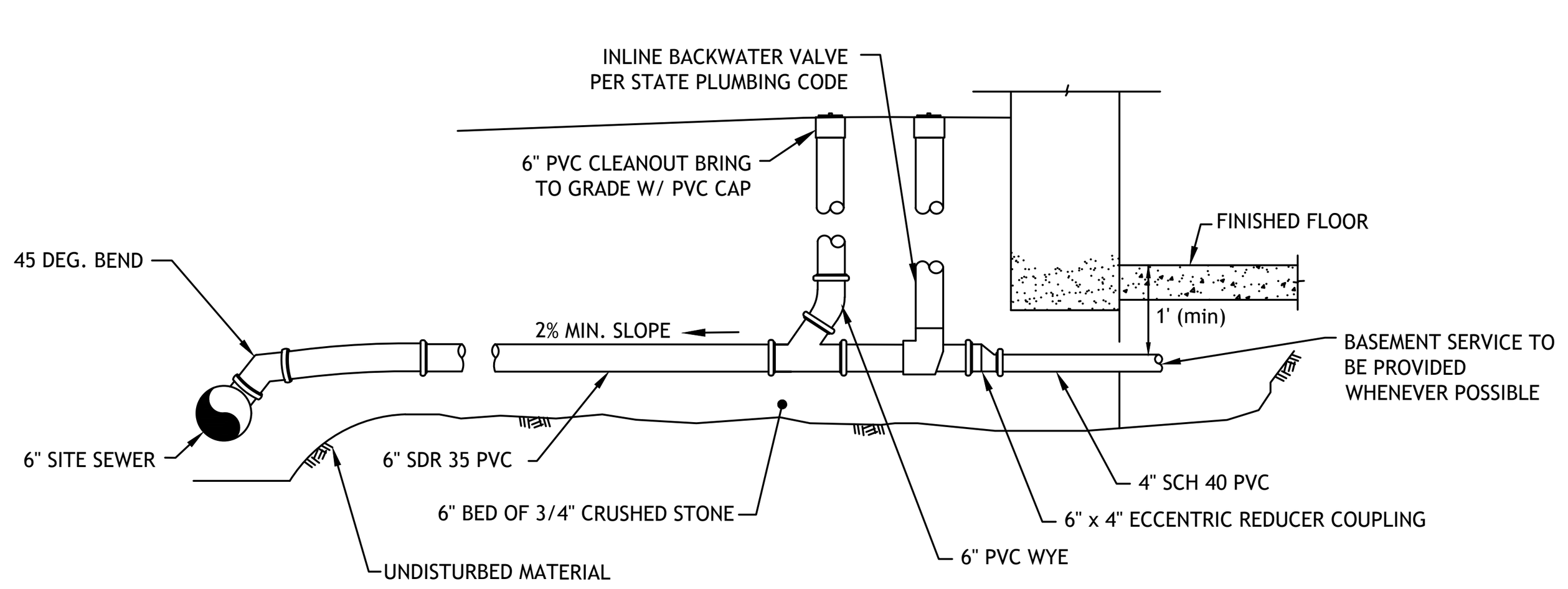
WATER SERVICE INSTALLATION/SANITARY SEWER FACILITIES SEPARATION REQUIREMENTS

PROPOSED WATER SERVICE LINES AND/OR APPURTENANCES SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING COMPONENT OF A PUBLIC SANITARY SEWER SYSTEM (PIPELINE, MANHOLE, VAULT, METER PIT, PUMP STATION WET WELL, ETC.). DISTANCE SHALL BE MEASURED PERPENDICULARLY FROM THE EDGE OF PIPE TO THE EDGE OF PIPE. NO VERTICAL SEPARATION IS REQUIRED PROVIDED THE 10 FOOT HORIZONTAL SEPARATION IS MAINTAINED. WHEN THIS CRITERIA CANNOT BE MET, THE FOLLOWING STIPULATIONS APPLY. (SEE BOTTOM OF PAGE FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEMS)

1. WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, A DEVIATION MAY BE GRANTED ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO WATER SERVICE, PROVIDED THAT:
   - A. THE SEWER LINE AND WATER SERVICE ARE LAID IN SEPARATE TRENCHES AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.
     OR
   - B. THE SEWER LINE AND WATER SERVICE MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER SERVICE PLACED ON A BENCH OF UNDISTURBED EARTH AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.
2. IN CASES WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE(INCLUDES CROSSING OVER) THE FOLLOWING PROTECTION SHALL BE PROVIDED:
   - A. ENCASEMENT OF THE SEWER PIPE IN CONCRETE WITH A MINIMUM THICKNESS OF 6" IN ALL DIRECTIONS AROUND THE OUTSIDE OF THE PIPE EXTENDING TO A DISTANCE THAT WILL PROVIDE THE REQUIRED 10 FEET HORIZONTAL OR 18 INCH VERTICAL SEPARATION BETWEEN THE UNENCLOSED PORTIONS OF THE PIPES.
     OR
   - B. PLACING EITHER THE SEWER LINE OR WATER SERVICE IN A WATERTIGHT CARRIER PIPE EXTENDING TO A DISTANCE THAT WILL PROVIDE THE REQUIRED 10 FEET HORIZONTAL OR 18 INCH VERTICAL SEPARATION BETWEEN THE UNENCLOSED PORTION OF THE PIPES.

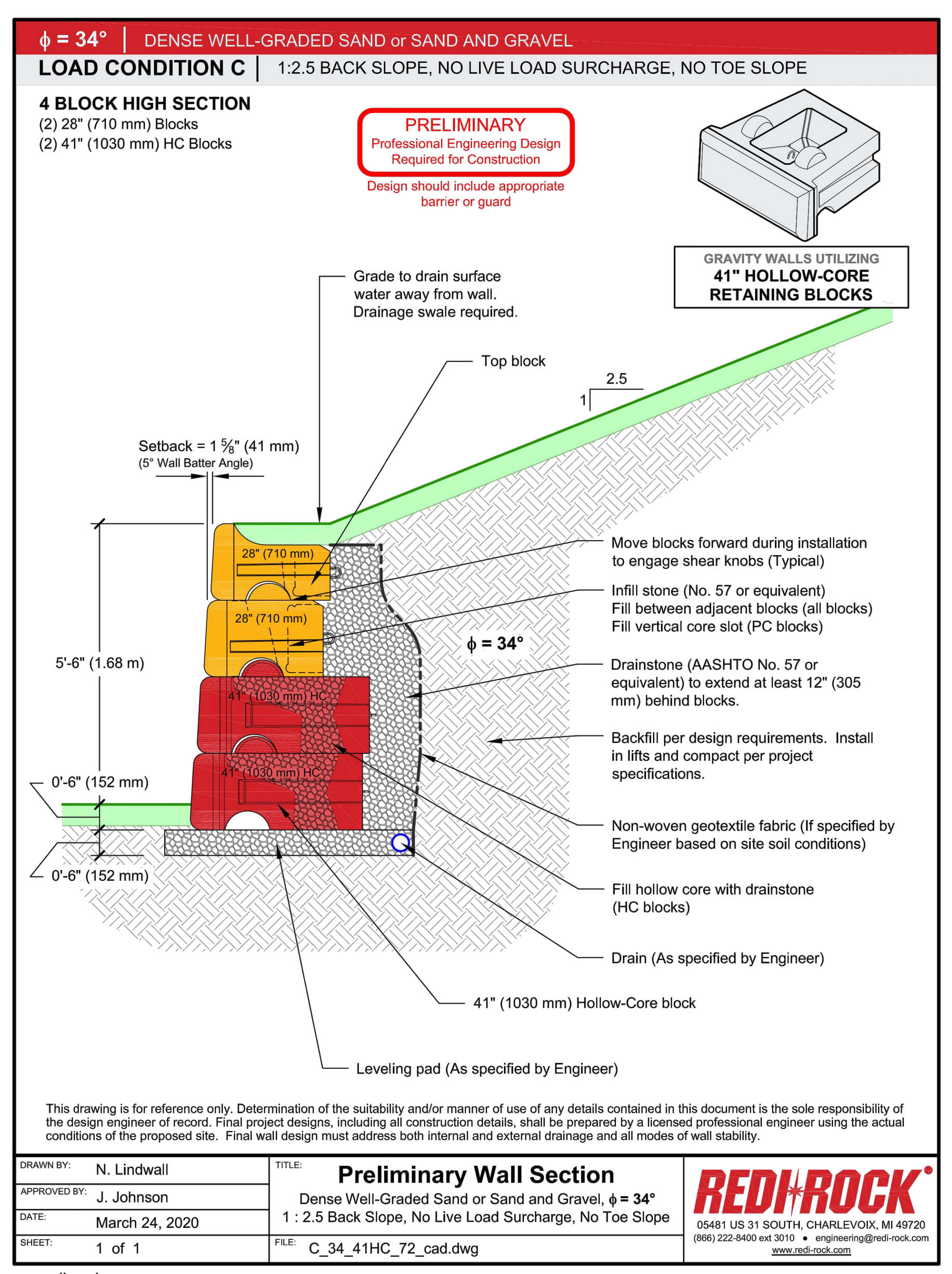
INDIVIDUAL SEWAGE DISPOSAL SYSTEMS (SEPTIC SYSTEMS) ARE REGULATED BY R.I. DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). MINIMUM DISTANCES BETWEEN DRINKING WATER LINES AND SEPTIC SYSTEM COMPONENTS ARE: 25 FEET(MIN.) TO LEACHING TRENCHES, BEDS AND PITS AND 10 FEET MIN. TO SEPTIC TANKS, DISTRIBUTION BOXES, GREASE TRAPS, DOSING CHAMBERS, PUMP CHAMBERS, AND BUILDING SEWERS. WHEN THESE DISTANCES CANNOT BE MET, RIDEM REQUIRES ENCASEMENT OF WATER LINES AT LEAST TO THE POINT WHERE THE REQUIRED MINIMUM DISTANCES CAN BE MET. ENCASEMENT MUST BE APPROVED BY RIDEM AND THE APPROVED PLAN MUST BE PRESENTED AS PART OF THE APPLICATION PROCESS TO OBTAIN WATER SERVICE. PRESSURIZED SEWER LINES CANNOT CROSS WATER LINES.

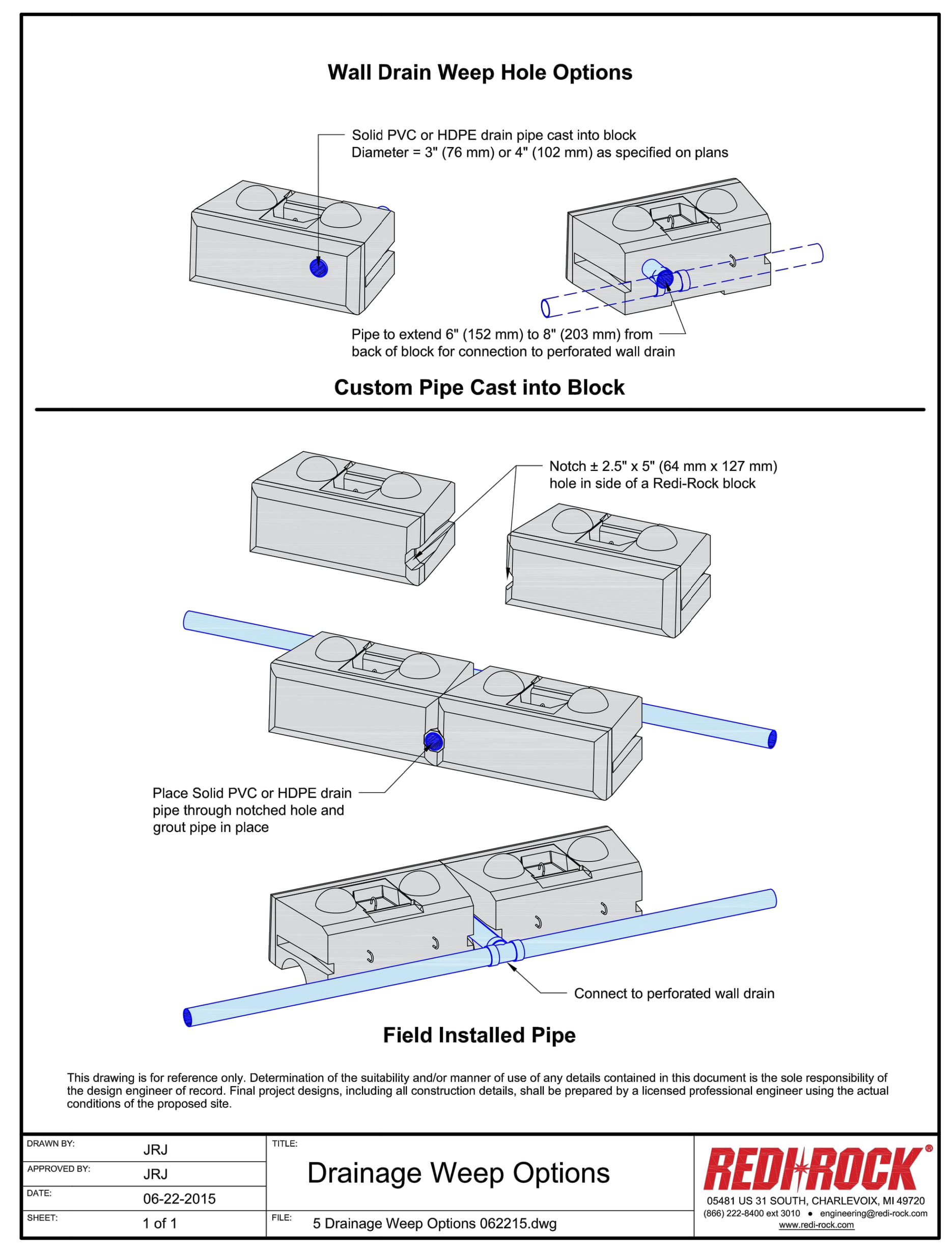
3. DOMESTIC WATER SERVICE TO BE INSPECTED BY PWSB PRIOR TO BACKFILLING AND THE CONTRACTOR MUST GIVE PWSB 48 HOURS NOTIFICATION.
4. CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE PWSB AS INDICATED IN SECTION 400 - CONSTRUCTION PROCEDURES.



14 GRAVITY SEWER BUILDING CONNECTION DETAIL

NOT TO SCALE





JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
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300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401)944-1313 FAX WWW.JCECASALI.COM

JOSEPH A. CASALI
No. 5250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
4-20-2021

PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:

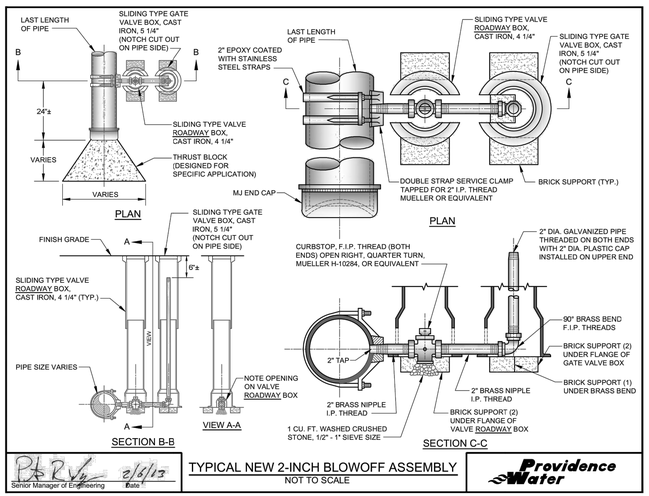
NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

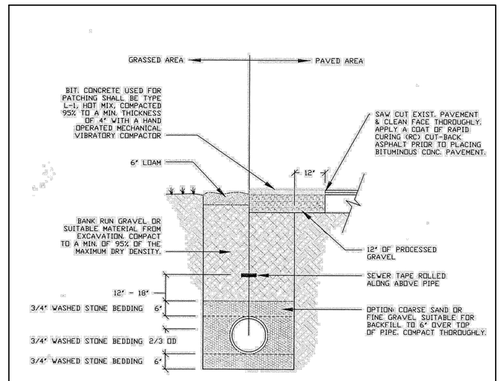
SITE DETAILS I

Q:\19-34 Herrick & White\ACAD\Wayland Ave [Working Plan].dwg Apr. 21, 2021 10:50am



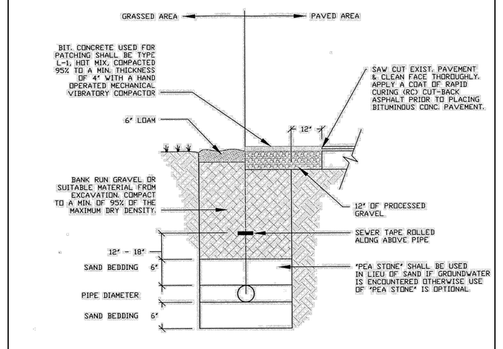
Senior Manager of Engineering	Date	TYPICAL NEW 2-INCH BLOWOFF ASSEMBLY NOT TO SCALE	Providence Water

14 2-INCH BLOWOFF ASSEMBLY
NOT TO SCALE



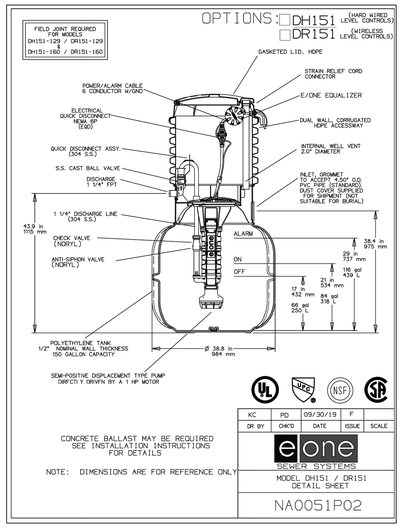
NOTES:
1) WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
2) SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
3) CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4) CRUSHED STONE HAUNCHING 3/4" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS EVEVATION FOR ALL PIPE.

15 TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE



NOTES:
1) WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12".
2) SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR.
3) SAND OR PEA STONE, SHALL BE PLACED 6 INCHES UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, SAND OR PEA STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4) SAND OR PEA STONE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS EVEVATION FOR ALL PIPE.
5) SEWER TAPE OMEGA IS TO BE ROLLED 12" - 18" ABOVE THE PIPE INSTALLATION, WHICH IS THE FIRST LAYER TO BE COMPACTED.

16 LOW PRESSURE SEWER TRENCH
NOT TO SCALE

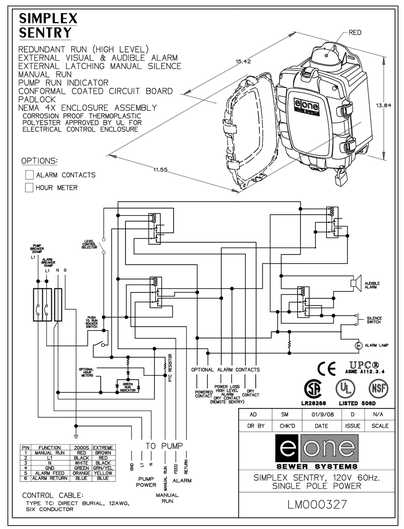


KC	PD	09/30/19	F	
DR BY	CHK'D	DATE	ISSUE	SCALE

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REFERENCE ONLY

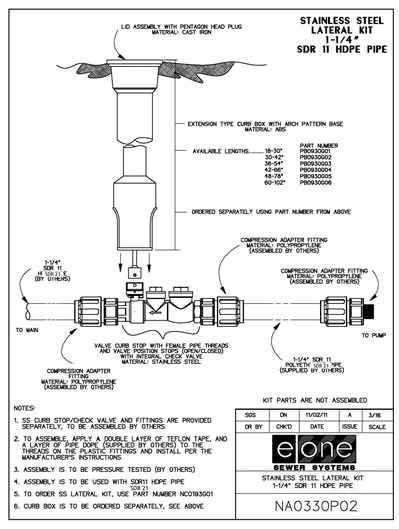
SEWER SYSTEMS
MODEL DH151 / DR151 DETAIL SHEET
NA0051P02



AO	SM	01/9/08	D	N/A
DR BY	CHK'D	DATE	ISSUE	SCALE

LR28184 LISTED 5040

SEWER SYSTEMS
SIMPLEX SENTRY, 120V 60Hz. SINGLE POLE POWER
LM000327



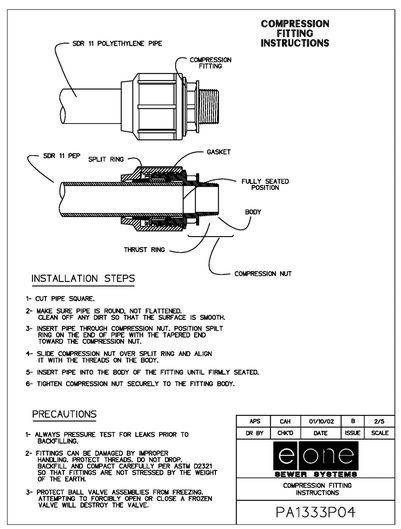
NOTES:
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF "PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE SDR11
5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193001
6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE

KIT PARTS ARE NOT ASSEMBLED

STAINLESS STEEL LATERAL KIT 1-1/4" SDR 11 HDPE PIPE

SGS	DN	11/02/11	A	3/16
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS
STAINLESS STEEL LATERAL KIT 1-1/4" SDR 11 HDPE PIPE
NA0330P02



INSTALLATION STEPS

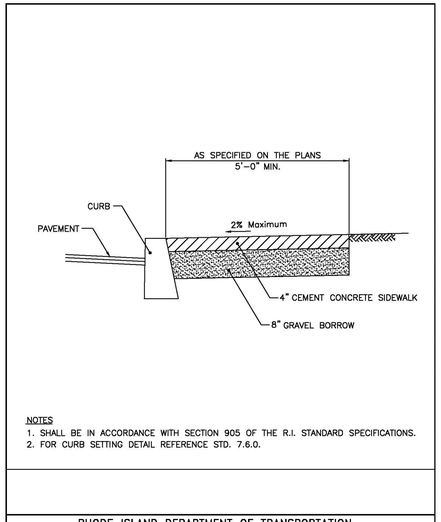
1- CUT PIPE SQUARE.
2- MAKE SURE PIPE IS ROUND, NOT FLATTENED. CLEAN OFF ANY DIRT SO THAT THE SURFACE IS SMOOTH.
3- INSERT PIPE THROUGH COMPRESSION NUT. POSITION SPILT RING ON THE END OF PIPE WITH THE TAPERED END TOWARD THE COMPRESSION NUT.
4- SLIDE COMPRESSION NUT OVER SPLIT RING AND ALIGN IT WITH THE THREADS ON THE BODY.
5- INSERT PIPE INTO THE BODY OF THE FITTING UNTIL FIRMLY SEATED.
6- TIGHTEN COMPRESSION NUT SECURELY TO THE FITTING BODY.

PRECAUTIONS

1- ALWAYS PRESSURE TEST FOR LEAKS PRIOR TO BACKFILLING.
2- FITTINGS CAN BE DAMAGED BY IMPROPER HANDLING. PROTECT THREADS, DO NOT DROP. BACKFILL AND COMPACT CAREFULLY PER ASTM D2321 SO THAT FITTINGS ARE NOT STRESSED BY THE WEIGHT OF THE EARTH.
3- PROTECT BALL VALVE ASSEMBLIES FROM FREEZING. ATTEMPTING TO FORCIBLY OPEN OR CLOSE A FROZEN VALVE WILL DESTROY THE VALVE.

APS	CAH	01/10/02	B	2/5
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS
COMPRESSION FITTING INSTRUCTIONS
PA1333P04



NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	3/1/05
2	MLP	06/01/10

CEMENT CONCRETE SIDEWALK

Chief Engineer Transportation — Chief Design Engineer Transportation — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.1.0

JCE
JOE CASALI ENGINEERING, INC.
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(401)944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PROPOSED MINOR SUBDIVISION
145 WAYLAND AVENUE
CRANSTON, RHODE ISLAND
AP 12-5, LOTS 294, 295, 296, 297, 298 & 299

REVISIONS:

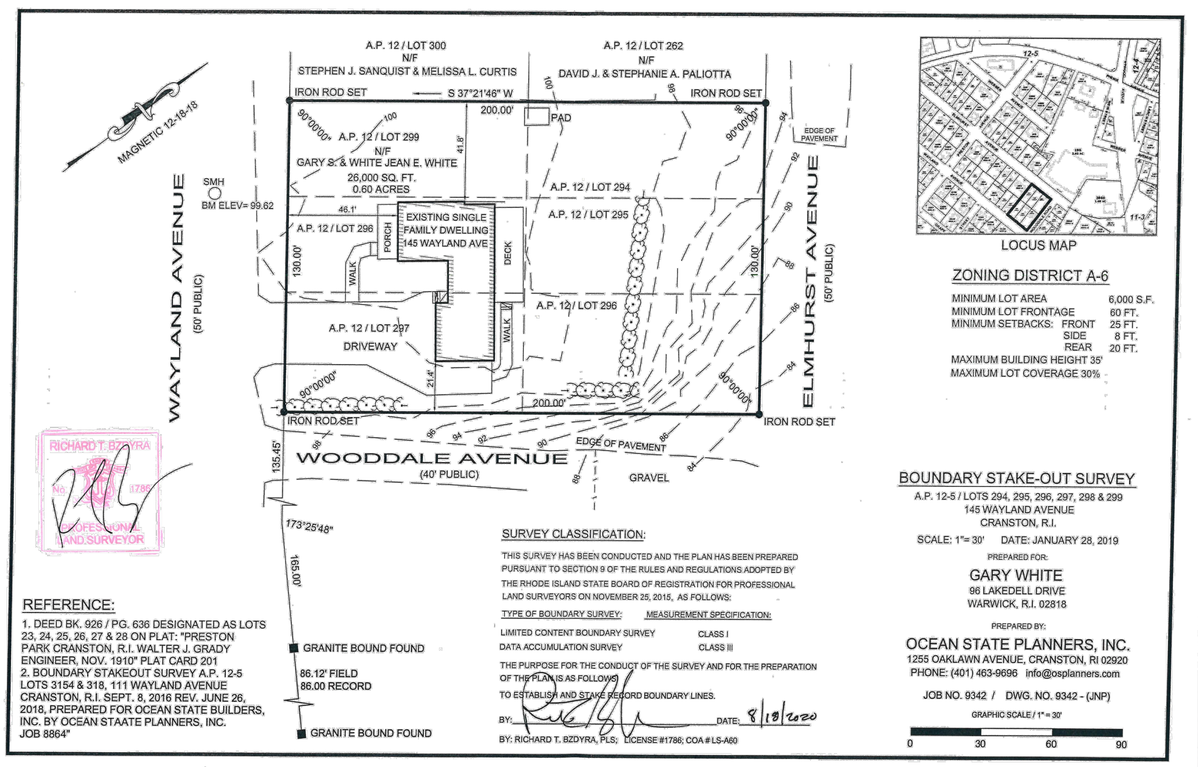
NO.	DATE.	DESCRIPTION

DESIGNED BY:	WMLJR
DRAWN BY:	JAS/SEP
CHECKED BY:	JAC
DATE:	APRIL 2021
PROJECT NO:	19-34a

PRELIMINARY, NOT FOR CONSTRUCTION

SITE DETAILS II

SHEET 7 OF 7



RICHARD T. BZDYRA
No. 1786
REGISTERED
LAND SURVEYOR

REFERENCE:

1. DEED BK. 926 / PG. 636 DESIGNATED AS LOTS 23, 24, 25, 26, 27 & 28 ON PLAT: "PRESTON PARK CRANSTON, R.I. WALTER J. GRADY ENGINEER, NOV. 1910" PLAT CARD 201
2. BOUNDARY STAKEOUT SURVEY A.P. 12-5 LOTS 3154 & 318, 111 WAYLAND AVENUE CRANSTON, R.I. SEPT. 8, 2016 REV. JUNE 26, 2018, PREPARED FOR OCEAN STATE BUILDERS, INC. BY OCEAN STAATE PLANNERS, INC. JOB 8864"

SURVEY CLASSIFICATION:

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, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY:	MEASUREMENT SPECIFICATION:
LIMITED CONTENT BOUNDARY SURVEY	CLASS I
DATA ACCUMULATION SURVEY	CLASS III

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:

TO ESTABLISH AND STAKE RECORD BOUNDARY LINES.

BY: _____ DATE: 8/18/2020

BY: RICHARD T. BZDYRA, PLS; LICENSE #1786; COA # LS-A60

BOUNDARY STAKE-OUT SURVEY

A.P. 12-5 / LOTS 294, 295, 296, 297, 298 & 299
145 WAYLAND AVENUE
CRANSTON, R.I.

SCALE: 1"= 30' DATE: JANUARY 28, 2019

PREPARED FOR:

GARY WHITE
96 LAKEDELL DRIVE
WARWICK, R.I. 02818

PREPARED BY:

OCEAN STATE PLANNERS, INC.
1255 OAKLAWN AVENUE, CRANSTON, RI 02920
PHONE: (401) 463-9696 info@osplanners.com

JOB NO. 9342 / DWG. NO. 9342 - (JNP)

GRAPHIC SCALE / 1" = 30'

0 30 60 90