PRELIMINARY PLAN for a PROPOSED MINOR LAND DEVELOPMENT PROJECT

ITRI COMMONS

AN 8-UNIT RESIDENTIAL DEVELOPMENT

1455 PARK AVENUE
CRANSTON, RHODE ISLAND
AP 11-2, LOTS 269, 2822 & 2823

ZONING DISTRICT: COMMERCIAL C-2

ELEVATION VIEW COURTESY OF ACME ARCHITECT LLC, JANUARY 2024

FILINGS:

CITY OF CRANSTON PLAN COMMISSION - MINOR LAND DEVELOPMENT WITH WAIVERS - PRELIMINARY PLAN
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM) - STORMWATER PERMIT APPLICATION
RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) - PHYSICAL ALTERATION PERMIT APPLICATION
PROVIDENCE WATER SUPPLY BOARD
CITY OF CRANSTON SEWER DEPARTMENT / VEOLIA WATER

PROJECT TEAM

OWNER/ APPLICANT: MR. DANIEL BALKUN
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CRANSTON, RI 02921-3571

CIVIL ENGINEER: JOE CASALI ENGINEERING, INC.
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PHONE: 401-944-1300
FAX: 401-944-1313

ARCHITECT: ACME ARCHITECT LLC
9 SIMMONS ROAD
LITTLE COMPTON, RI 02837
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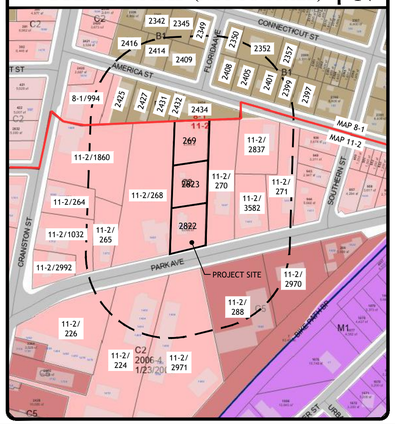
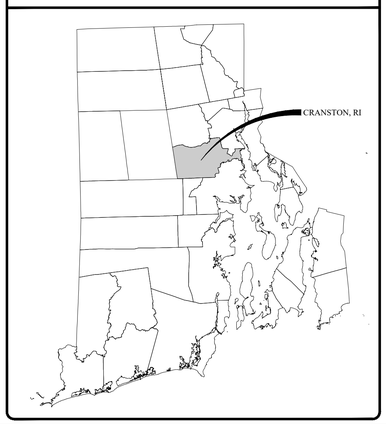
SURVEYOR: OCEAN STATE PLANNERS INC.
1255 OAKLAWN AVE.
CRANSTON, RI 02920
PHONE: 401-463-9696

VICINITY MAP (NOT TO SCALE) ↑ N



LOCUS MAP (NOT TO SCALE) ↑ N

STATE WIDE MAP



INDEX OF DRAWINGS

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
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JOSEPH A. CASALI
NO. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
03/13/2024

ITRI COMMONS
8-UNIT RESIDENTIAL DEVELOPMENT
1455 PARK AVENUE
CRANSTON, RHODE ISLAND
AP 11-2, LOTS 269, 2822 & 2823

REVISIONS:

NO.	DATE.	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2024
PROJECT NO:	23-84

PRELIMINARY, NOT FOR CONSTRUCTION

COVER SHEET

SHEET 1 OF 7

Q:\23-84 Daniel Balkun\ACAD\1455 Park Avenue\ [PRELIMINARY].dwg Mar. 29, 2024 10:44am

GENERAL NOTES:

1. CLASS I PROPERTY LINE SURVEY AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY OCEAN STATE PLANNERS, OAKLAWN AVENUE, CRANSTON, RI.
2. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AND BEST 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 AREA LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR PROVIDENCE COUNTY, RHODE ISLAND, MAP NUMBER 44007C0312H, EFFECTIVE DATE OCTOBER 2, 2015.
4. THERE ARE NO KNOWN WETLANDS ON OR ADJACENT TO THE SUBJECT SITE NOR ARE THERE ANY KNOWN HIGH HAZARD AREAS ON OR ADJACENT TO THE PROJECT SITE.
5. SOILS EXISTING ON THE SITE CONSIST OF MERRIMAC-URBAN LAND COMPLEX, 0-8% SLOPES (MU), WHICH CLASSIFY AS HYDROLOGIC SOIL GROUP "A".
6. SOIL EVALUATIONS WERE COMPLETED BY JOE CASALI ENGINEERING, INC. INC. IN JANUARY 2024. TEST PIT LOGS CONTAINING ESTIMATED SEASONAL HIGH GROUND WATER ELEVATIONS ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
7. THE PROPOSED DEVELOPMENT IS LOCATED WITHIN THE POCASSET RIVER WATERSHED. THERE ARE NO EXTRAORDINARY OR UNUSUAL FEATURES ON THE SUBJECT SITE.
8. THERE ARE NO KNOWN EASEMENTS WITHIN THE SUBJECT PARCEL.
9. TELEPHONE, ELECTRIC, GAS, WATER, AND SEWER ARE AVAILABLE WITHIN PARK 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, FIRE PROTECTION PLANS, AND ELECTRICAL PLANS, FOR WORK WITHIN 5 FEET OF THE PROPOSED BUILDING.
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, THE CITY OF CRANSTON, OR THE STATE OF RHODE ISLAND.
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, THE CITY OF CRANSTON, OR THE STATE OF RHODE ISLAND.
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. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
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).
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY SITE LIGHTING DURING CONSTRUCTION.

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 ANY STATE OR CITY 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 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 STAND 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 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.

BMP MAINTENANCE SCHEDULE:

1. PRIOR TO THE START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL STAKE OUT AND PROTECT ALL SURFICIAL STORMWATER INFILTRATION AREAS, INCLUDING THE UNDERGROUND INFILTRATION CHAMBER SYSTEM AND INFILTRATION BASIN. CONSTRUCTION TRAFFIC IS NOT ALLOWED WITHIN THE INFILTRATION AREAS. CONSTRUCTION FENCING SHALL BE USED TO PROTECT THESE AREAS FROM CONSTRUCTION TRAFFIC. STORMWATER INFILTRATION AREAS SHALL BE PROTECTED FROM RUNOFF DURING CONSTRUCTION AND MAY NOT BE USED AS TEMPORARY SEDIMENTATION AREAS DURING CONSTRUCTION. SILT FENCE SHALL BE USED TO PROTECT THESE AREAS FROM RUNOFF.
2. ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE:
3. 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.
4. 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.
5. 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.
6. 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).
7. AFTER CONSTRUCTION, STORMWATER BMPS SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS:

   CATCH BASINS/MANHOLES/ 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 ACCUMULATION. IF THE SYSTEM HAS ACCUMULATED 3 INCHES OF SEDIMENT, THE SEDIMENT SHALL SHALL BE REMOVED BY FLUSHING FROM THE SYSTEM WITH HIGH PRESSURE JETS 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. KEEP ROOFS CLEAN AND FREE OF DEBRIS.

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, AS REQUIRED, 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 HIS OWN EXPENSE ANY DAMAGE TO SUCH PAVING, SIDEWALKS, UTILITIES, OR PRIVATE PROPERTIES TO THE SATISFACTION OF THE OWNER, THE CITY OR CRANSTON, OR THE STATE OF RHODE ISLAND.
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. ALL NEW SEWER PIPES AND MANHOLES SHALL BE CLEANED AND TESTED PRIOR TO ACCEPTANCE. GRAVITY SEWER PIPES SHALL BE REQUIRED TO PASS BOTH LOW PRESSURE AIR AND DEFLECTION (IE., MANDREL) TESTING. LOW PRESSURE SEWER PIPING SHALL BE REQUIRED TO PASS A LOW PRESSURE (IE., HYDROSTATIC) TEST.
7. A BACKFLOW PREVENTION DEVICE MUST BE INSTALLED AT EACH SEWER SERVICE BUILDING CONNECTION THAT IS BELOW THE RIM ELEVATION OF THE NEAREST SEWER MANHOLE, AS REQUIRED BY THE INTERNATIONAL PLUMBING CODE.
8. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS TO OWNER COMPLETION OF CONSTRUCTION, PRIOR TO FINAL ACCEPTANCE. AS-BUILT PLANS SHALL INCLUDE FIELD MEASUREMENTS OF ALL INSTALLED PIPE AND APPURTENANCES, INCLUDING LENGTH, SLOPE, MANHOLE RIMS AND INVERTS, AS WELL AS SWING TIES/MEASUREMENTS TO ALL MANHOLES, SEWER STUBS, AND/OR LATERAL SERVICE CONNECTIONS.
9. APPLICANT IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM LOCAL, STATE, AND/OR FEDERAL AGENCIES WITH REGULATORY JURISDICTION OVER THE PROPOSED WORK. COPIES OF ALL PERMITS SHALL BE PROVIDED TO THE CITY OF CRANSTON DEPARTMENT OF PUBLIC WORKS PRIOR TO CONSTRUCTION. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE CITY OF CRANSTON.
10. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.
11. 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.
12. ALL CONSTRUCTION MATERIALS, AS WELL AS ALL MATERIAL SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS SHALL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER, THE CITY OF CRANSTON, OR ITS REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION, AND SUBMITTED TO THE CITY OF CRANSTON DEPARTMENT OF PUBLIC WORKS PRIOR TO CONSTRUCTION FOR THEIR RECORDS.

LOAMING & 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 MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.
6. THE TOP SOIL 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:

Symbol	Description
	EXISTING PROPERTY LINE
	ABUTTING PROPERTY LINE
	BUILDING SETBACK LINE
163.8x	EXISTING SPOT ELEVATION
100	EXISTING CONTOUR
100	PROPOSED CONTOUR
	EXISTING STONE WALL
	EXISTING CURB
	PROPOSED CURB
	EXISTING METAL FENCE
	CHAIN LINK FENCE
D	EXISTING DRAIN LINE
D	PROPOSED DRAIN LINE
	EXISTING DRAINAGE MANHOLE
	PROPOSED DRAINAGE MANHOLE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
UP#T2	EXISTING UTILITY POLE
	PROPOSED UTILITY POLE
TEL	EXISTING TELECOM DUCTBANK
E	EXISTING ELECTRIC DUCTBANK
GAS	EXISTING GAS LINE
GAS	PROPOSED GAS LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
WG	WATER GATE
	WATER VAVLE
S	EXISTING SEWER LINE
S	PROPOSED SEWER LINE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
N/F	NOW OR FORMERLY
	TREELINE
	COMPOST SOCK
LOD	LIMIT OF DISTURBANCE
	TEST HOLE

MA · ME · NH · RI · VT
CALL TOLL FREE
1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

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

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No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
03/13/2024

ITRI COMMONS

8-UNIT RESIDENTIAL DEVELOPMENT
1455 PARK AVENUE
CRANSTON, RHODE ISLAND
AP 11-2, LOTS 269, 2822 & 2823

REVISIONS:

NO.	DATE.	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2024
PROJECT NO:	23-84

PRELIMINARY, NOT FOR CONSTRUCTION

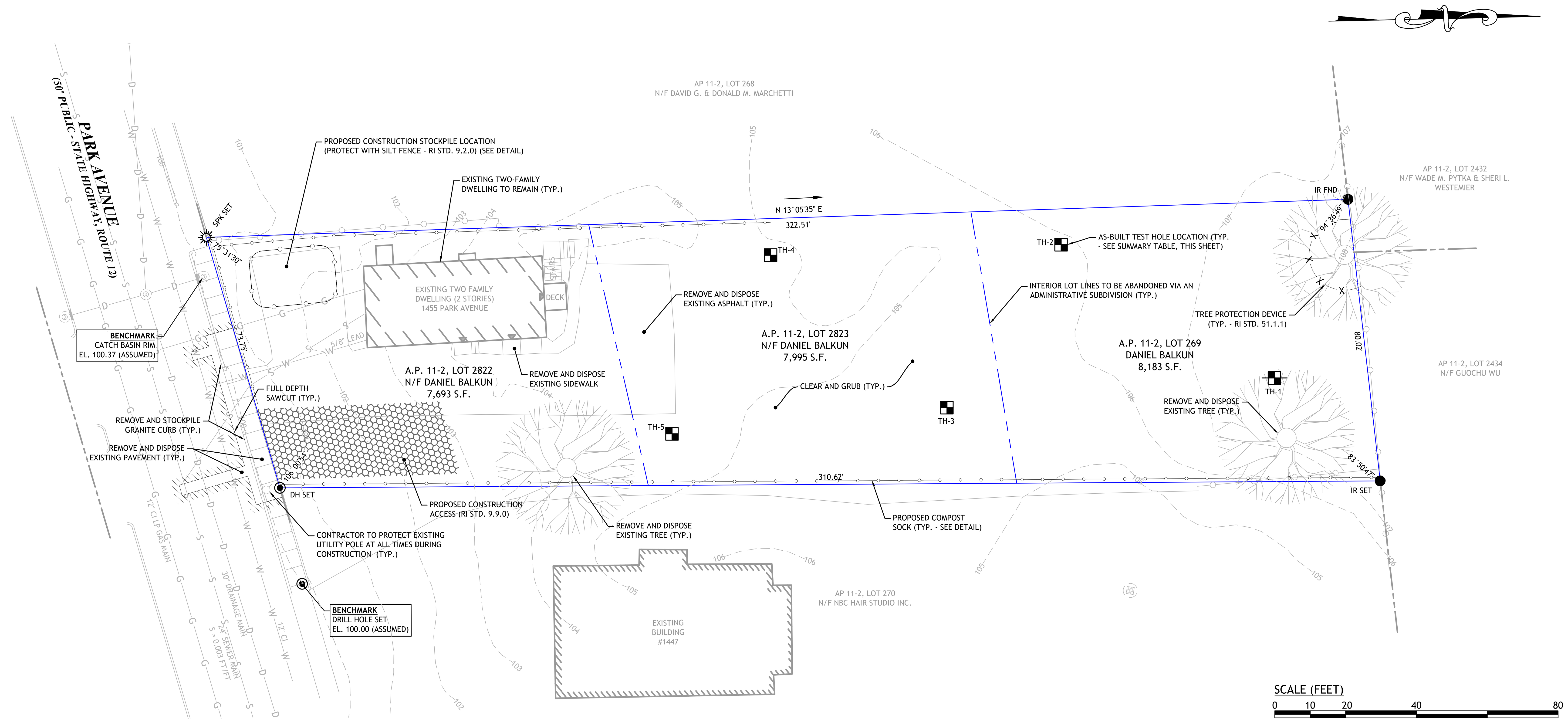
GENERAL NOTES AND LEGEND

ZONING DIMENSIONAL REQUIREMENTS:

ZONING CRITERIA	REQUIRED	EXISTING LOT 269	EXISTING LOT 2822	EXISTING LOT 2823
ZONING DISTRICT	C-2	C-2	C-2	C-2
MINIMUM LOT AREA	6,000 SF	8,183 SF	7,693 SF	7,995 SF
MINIMUM FRONTAGE	60 FT	0 FT[1]	73.75 FT	0 FT[1]
MINIMUM LOT WIDTH	60 FT	> 60 FT	74.47 FT	> 60 FT
MINIMUM FRONT YARD	25 FT	N/A	34.84 FT	N/A
MINIMUM SIDE YARD	8 FT	N/A	8.43 FT	N/A
MINIMUM REAR YARD	20 FT	N/A	14.84 FT	N/A
MAXIMUM BUILDING HEIGHT	30 FT	N/A	<30 FT	N/A
MAXIMUM LOT COVERAGE	60%	N/A	15.1%	N/A

NOTES:
1. PRE-EXISTING, NON-CONFORMING CONDITION.

SOIL EVALUATION TEST HOLE DATA		
	SURFACE EL.	SHWT / EL.
TH-1	107.50	>114"/ 98.00
TH-2	106.00	>108"/ 97.00
TH-3	104.50	>108"/ 95.50
TH-4	104.50	>108"/ 95.50
TH-5	104.50	>108"/ 95.50



EXISTING CONDITIONS & SITE PREPARATION PLAN

ZONING DIMENSIONAL REQUIREMENTS:

ZONING CRITERIA	REQUIRED	PARCEL A
ZONING DISTRICT	C-2	C-2
MINIMUM LOT AREA	34,000 SF[2]	23,871 SF[3]
MINIMUM FRONTAGE	60 FT	73.75 FT
MINIMUM LOT WIDTH	60 FT	74.47 FT
MINIMUM FRONT YARD	25 FT	34.84 FT
MINIMUM SIDE YARD	8 FT	8.00 FT
MINIMUM REAR YARD	20 FT	82.4 FT
MAXIMUM BUILDING HEIGHT	30 FT	<30 FT
MAXIMUM LOT COVERAGE	60%	23.3%

(1)

NOTES:
1. THE PROPOSED USE - MULTI-FAMILY DWELLING - IS ALLOWED BY RIGHT IN THE C-2 ZONE.
2. PER SECTION 17.20.090 OF THE CRANSTON ZONING ORDINANCE, MULTI-FAMILY DWELLINGS SHALL HAVE A MINIMUM LOT AREA OF 6,000 SQ. FT. FOR THE FIRST DWELLING UNIT, PLUS 4,000 SQ. FT. FOR EACH OF THE NINE (9) DWELLING UNITS. SEE CALCULATION BELOW.
3. RELIEF REQUESTED

CHAPTER 17.20.090A DENSITY CALCULATION:

MINIMUM LOT AREA FOR MULTI-FAMILY DWELLINGS:
6,000 SF FOR THE FIRST DWELLING UNIT,
PLUS 4,000 SF FOR THE EACH OF THE NEXT 9 DWELLING UNITS,
PLUS 3,500 SF FOR EACH DWELLING UNIT IN EXCESS OF 10 DWELLING UNITS

23,871 SF - 6,000 SF = 17,871 SF / 4,000 SF = 4.46 UNITS + 1 = 5.56 UNITS
= 5 UNITS ALLOWED BY RIGHT; 8 UNITS PROPOSED

MINIMUM LOT AREA FOR 8 UNITS:
6,000 SF + (4,000 SF X 7 UNITS) = 34,000 SF

(1) MINIMUM LOT AREA: 34,000 SF
COMBINED TOTAL AREA (PARCEL A): 23,871 SF
RELIEF REQUESTED: 10,129 SF OR 3 UNITS

CHAPTER 17.84-140 - LANDSCAPE STANDARDS:

MINIMUM LANDSCAPING: 15% OF THE SF OF THE LOT

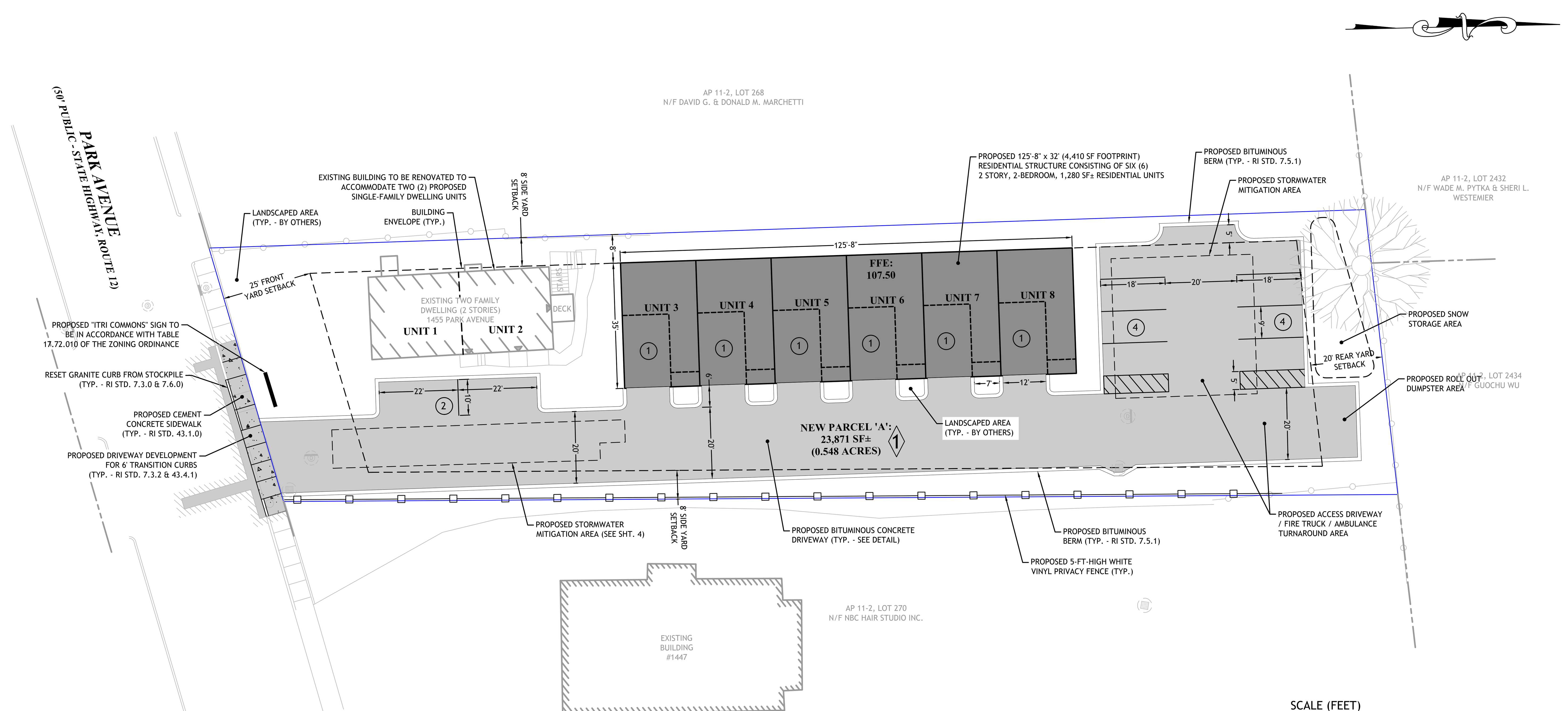
23,871 SF TOTAL LOT AREA x 15% OF LOT AREA
= 3,581 SF OF LANDSCAPING

REQUIRED: 3,581 SF OF LANDSCAPING
PROPOSED: 7,911 SF OF LANDSCAPING*
*REFER TO LANDSCAPE PLAN FOR ADDITIONAL DETAILS

CHAPTER 17.64 - OFF-STREET PARKING:

MULTI-FAMILY DWELLING STRUCTURES -
FOR RESIDENTIAL STRUCTURES OR GROUPS OF
STRUCTURES WITH 3 OR MORE DWELLING UNITS:
2 SPACES PER DWELLING UNIT
2 SPACES * 8 UNITS = 16 SPACES

16 SPACES REQUIRED
16 SPACES PROVIDED



SITE PLAN

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
03/13/2024

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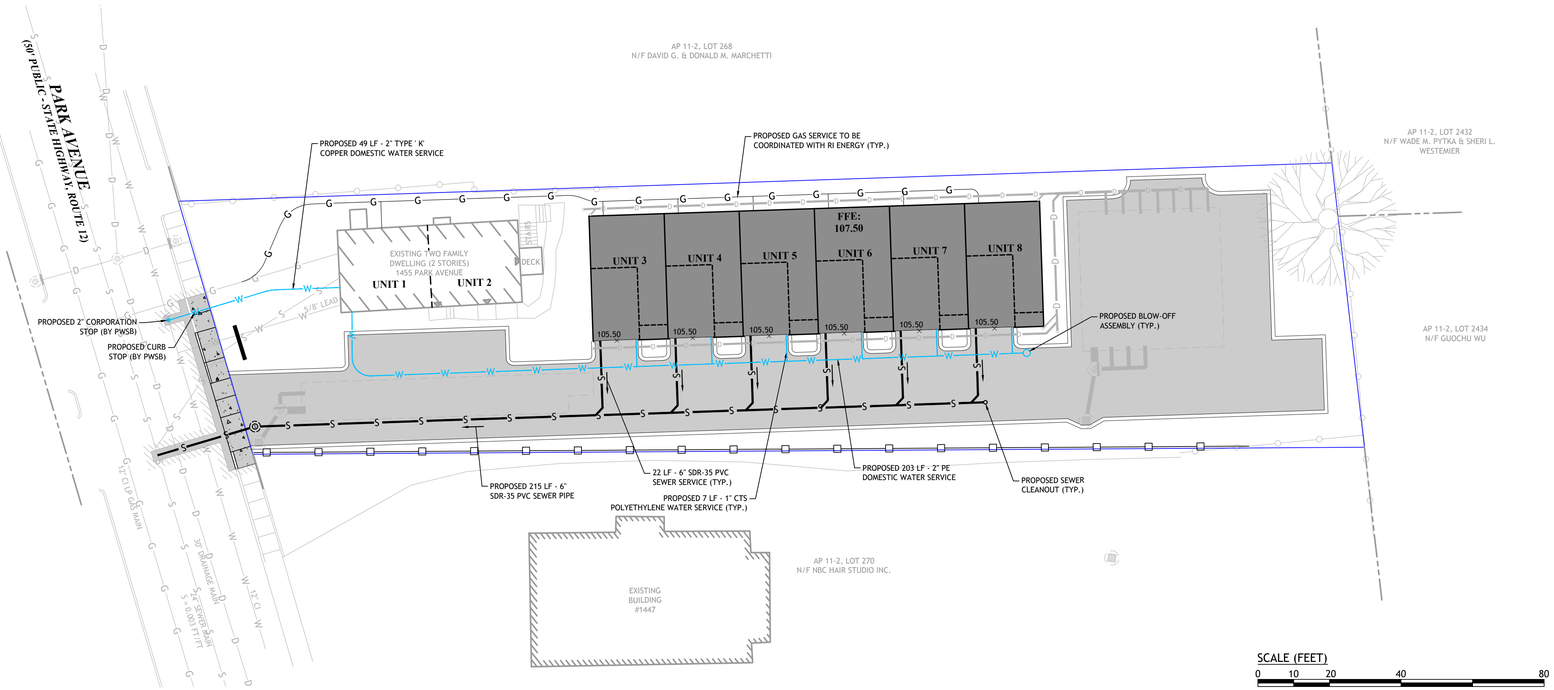
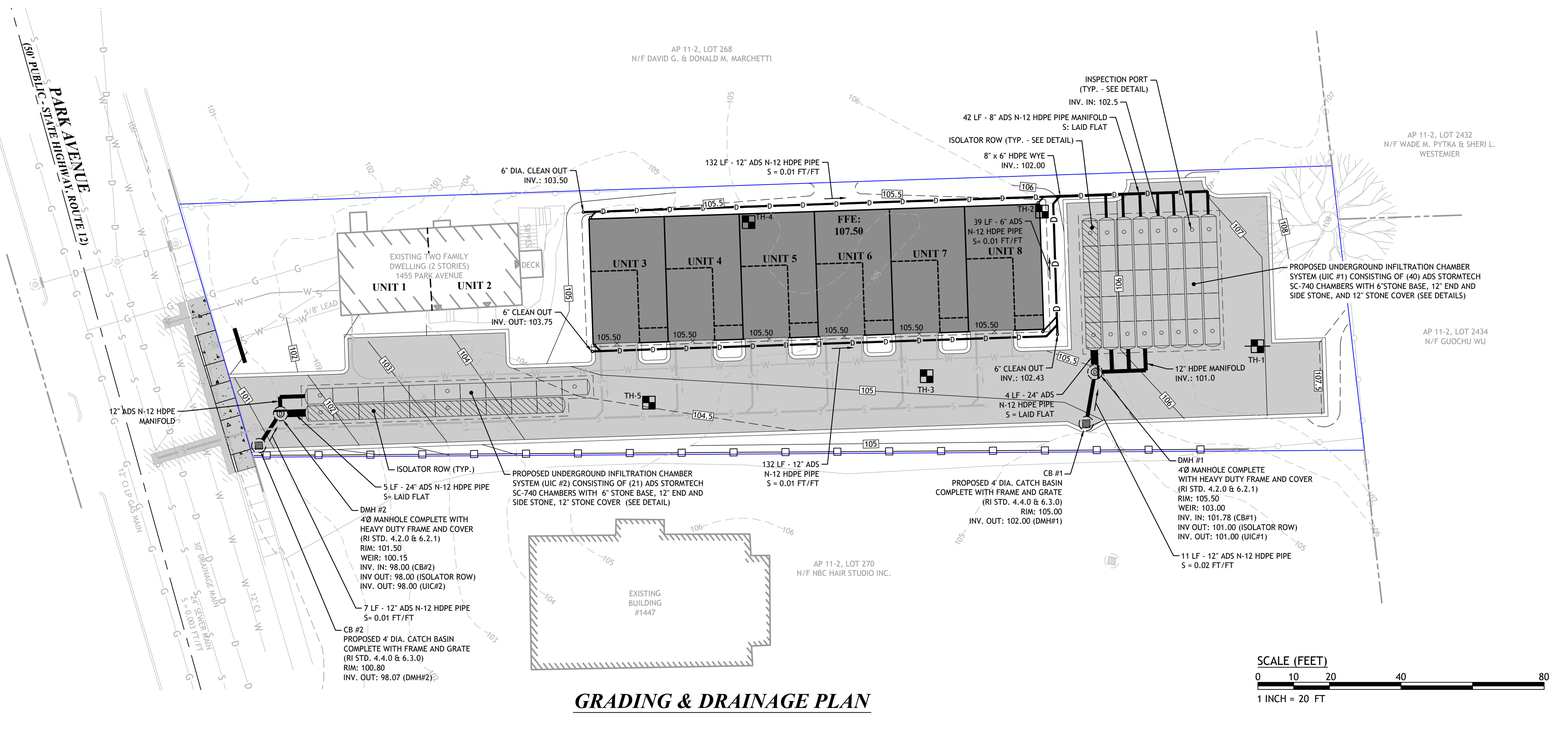
EXISTING COND. & SITE PREP. PLAN; SITE PLAN



SCALE (FEET)
0 10 20 40 80
1 INCH = 20 FT

UTILITY PLAN



SCALE (FEET)
0 10 20 40 80
1 INCH = 20 FT

GRADING & DRAINAGE PLAN

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JOE CASALI ENGINEERING, INC.
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WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
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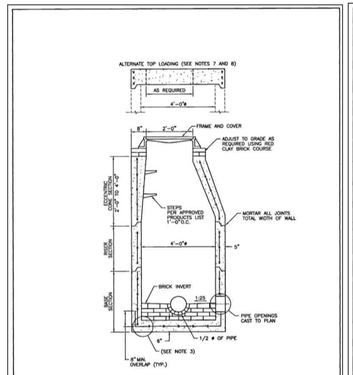
PRELIMINARY, NOT FOR CONSTRUCTION

UTILITY PLAN; GRADING & DRAINAGE PLAN

SHEET 4 OF 7

O:\23-84 Daniel Balkun\ACAD\1455 Park Avenue [PRELIMINARY].dwg Mar 29, 2024 10:45am



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED IN ALL BRICK SECTIONS.
3. STEEL REINFORCEMENT SHALL BE PROVIDED AT A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. ALL PRECAST SECTIONS SHALL BE MANUFACTURED TOTALLY WITHIN A R.I. APPROVED PLANT.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
8. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
9. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 05

PRECAST 4'-0" ROUND MANHOLE

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 4.2.0

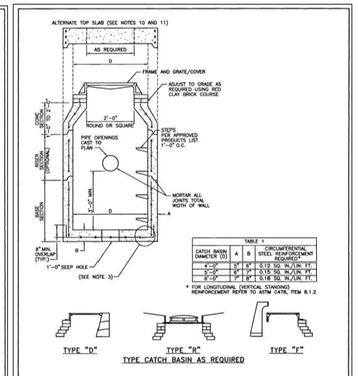


TABLE 1

CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
3'-0"	5"	4"	0.12 SQ. IN./LIN. FT.
3'-6"	5"	4"	0.15 SQ. IN./LIN. FT.
4'-0"	7"	6"	0.18 SQ. IN./LIN. FT.

* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2

TYPE CATCH BASIN AS REQUIRED

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. CIRCUMFERENTIAL STEEL REINFORCEMENT SHALL BE PROVIDED AND SHALL BE INSTALLED AT THE CASTING PLANT.
5. ONE POUR MONOLITHIC BASE SECTION.
6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
7. CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED TO FORM THE CONE SECTION OF THE 4'-0"CATCH BASIN ONLY.
8. ALL PRECAST SECTIONS SHALL BE MANUFACTURED TOTALLY WITHIN A R.I. APPROVED PLANT.
9. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H=25 LOADING (SEE STD. 4.7.2).
11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
12. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

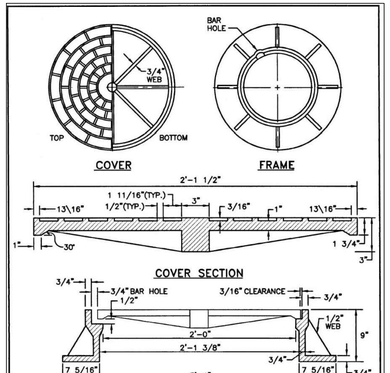
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 05

PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 4.4.0



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.

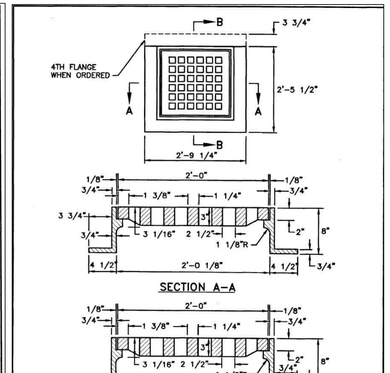
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

HEAVY-DUTY ROUND FRAME AND COVER

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 6.2.1



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

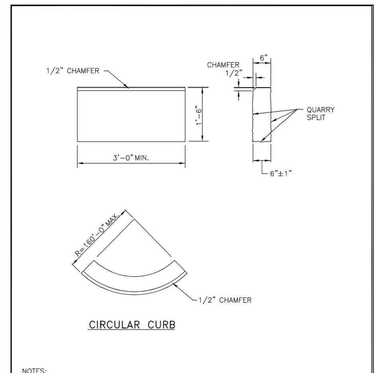
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

SQUARE FRAME AND GRATE

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 6.3.0



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER MAY BE QUARRY SPLIT.
3. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR PIECES TO BE 3'-0".
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.

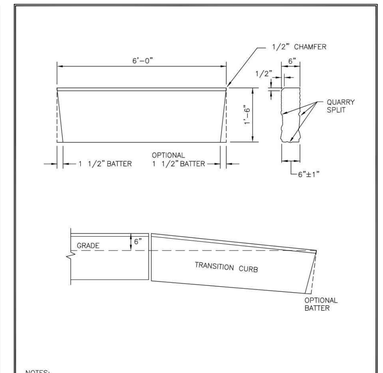
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 2005
2	MLP	Sep. 2012

GRANITE CURB

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.3.0



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. THE CONTRACTOR MAY CUT EXISTING CURB SECTIONS AS REQUIRED TO MEET THIS DETAIL AND THE R.I. STANDARD SPECIFICATIONS, WHERE OLD CURBING IS BEING REUSED.
3. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER MAY BE QUARRY SPLIT.

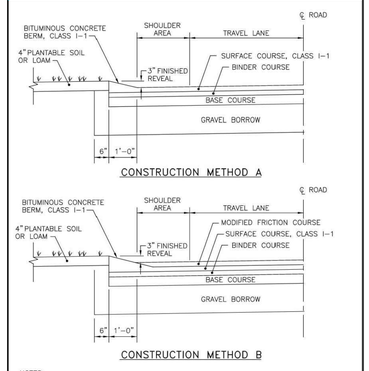
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 2005
2	MLP	Sep. 2012

6'-0" GRANITE TRANSITION CURB

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.3.2



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.

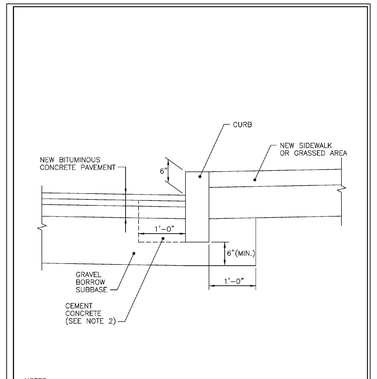
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 05

BITUMINOUS BERM

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.5.1



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. CEMENT CONCRETE SHALL BE USED ONLY WHEN THE CURB IS SET AFTER THE BASE AND/OR BINDER COURSES ARE IN PLACE, OTHERWISE THE CEMENT CONCRETE WILL BE ELIMINATED AND THE GRAVEL BROUGHT UP TO BOTTOM OF THE BASE COURSE.

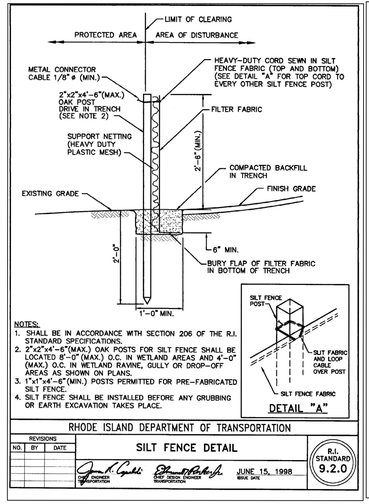
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	Mar. 05

CURB SETTING DETAIL

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.6.0



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.

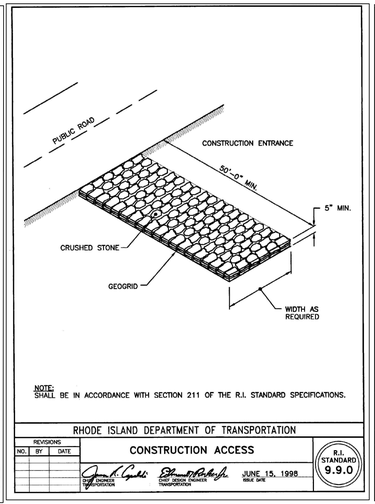
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

SILT FENCE DETAIL

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 9.2.0



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

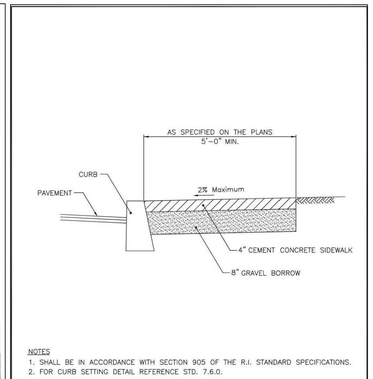
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

CONSTRUCTION ACCESS

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 9.9.0



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.

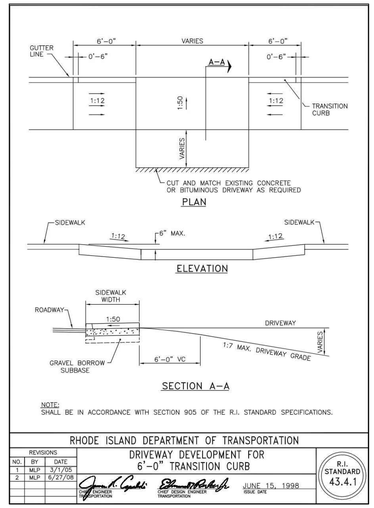
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

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

CEMENT CONCRETE SIDEWALK

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.1.0



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.

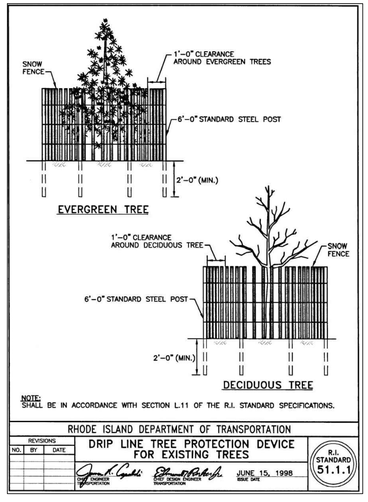
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE
1	MLP	3/1/05
2	MLP	6/27/08

DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.4.1



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES

Jean M. Cigdil, CHIEF ENGINEER, RI DEPARTMENT OF TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER, RI DEPARTMENT OF TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 51.1.1

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
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03/13/2024

ITRI COMMONS
8-UNIT RESIDENTIAL DEVELOPMENT
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CRANSTON, RHODE ISLAND
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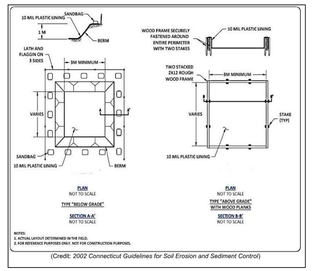
PRELIMINARY, NOT FOR CONSTRUCTION

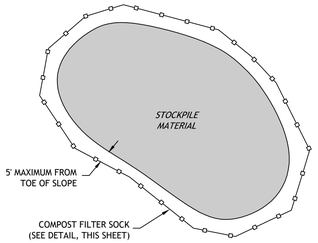
RHODE ISLAND STANDARD DETAILS

SHEET 5 OF 7

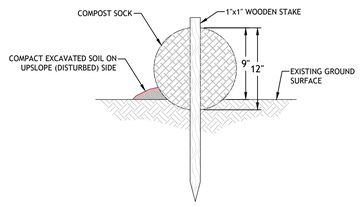


(Credit: 2002 Connecticut Guidelines for Soil Erosion and Sediment Control)

1 TEMP. CONCRETE WASHOUT FACILITY
NOT TO SCALE



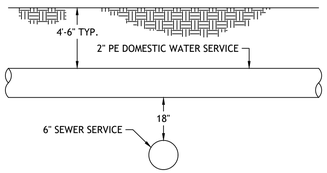
2 STOCKPILE DETAIL
NOT TO SCALE



NOTES:

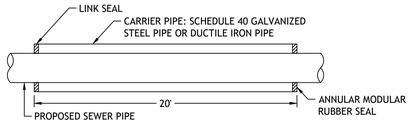
1. BEGIN SOCK INSTALLATION BY EXCAVATING A 2 TO 3-INCH-DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE OR ALONG THE EXISTING GROUND SURFACE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE OR ON THE DISTURBED SIDE OF THE ANCHOR TRENCH.
2. PLACE SOCK IN THE TRENCH SUCH THAT IT CONTOURS TO THE EXISTING 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.

3 COMPOST FILTER SOCK
NOT TO SCALE

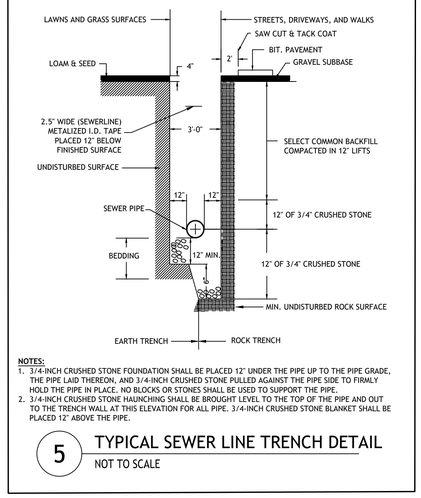


NOTES:

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.



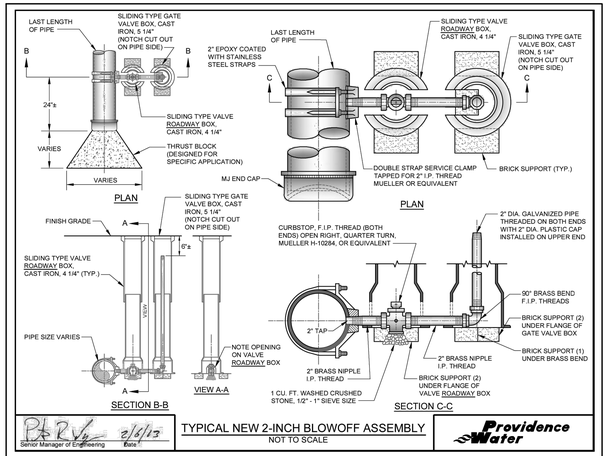
4 SEWER/WATER SEPARATION DETAIL
NOT TO SCALE



NOTES:

1. 3/4-INCH CRUSHED STONE FOUNDATION SHALL BE PLACED 12" UNDER THE PIPE UP TO THE PIPE GRADE, THE PIPE LAID THEREON, AND 3/4-INCH CRUSHED STONE PULLED AGAINST THE PIPE SIDE TO FIRMLY HOLD THE PIPE IN PLACE. NO BLOCKS OR STONES SHALL BE USED TO SUPPORT THE PIPE.
2. 3/4-INCH CRUSHED STONE HAUNCHING SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE. 3/4-INCH CRUSHED STONE BLANKET SHALL BE PLACED 12" ABOVE THE PIPE.

5 TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE

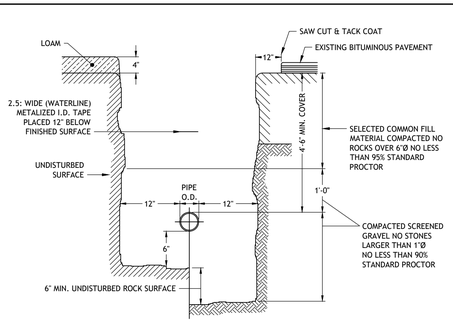


P&RVg 2/4/13
Senior Manager of Engineering Date

TYPICAL NEW 2-INCH BLOWOFF ASSEMBLY
NOT TO SCALE

Providence Water

6 2" BLOWOFF ASSEMBLY
NOT TO SCALE

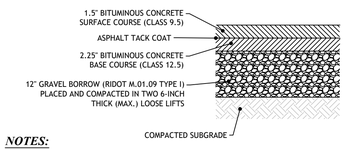


7 WATER TRENCH DETAIL
NOT TO SCALE

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)

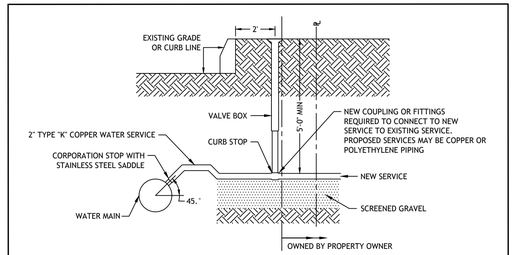
1. WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, A DEVIATION MAY BE GRANTED ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO WATER SERVICE, PROVIDED THAT:
   A. THE SEWER LINE AND WATER SERVICE ARE LAID IN SEPARATE TRENCHES AND THE CROWN OF 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.
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.



NOTES:

1. IF UNSUITABLE MATERIALS ARE ENCOUNTERED AT SUBGRADE ELEVATION, 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. MINIMUM COMPACTION FOR GRAVEL BORROW SUB-BASE AND SUBGRADE: 95% MODIFIED PROCTOR.

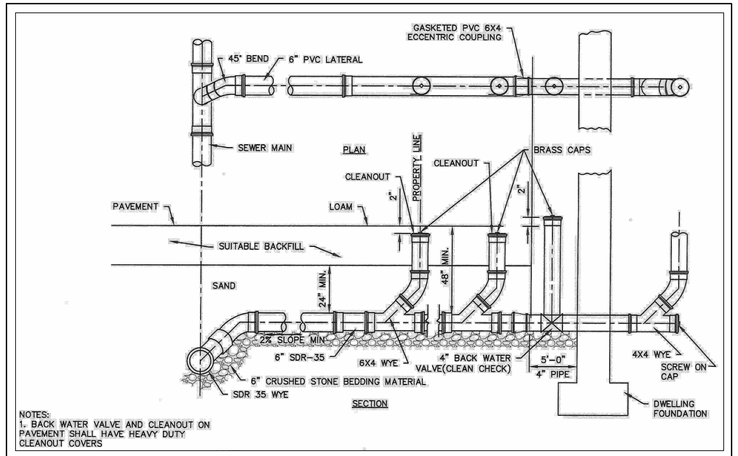
8 BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



NOTE:

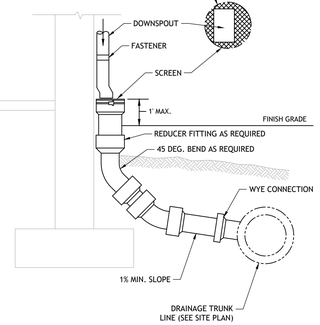
1. SERVICE LINE FROM CURB BOX TO BUILDING SHALL BE INSPECTED, TESTED AND APPROVED BY THE LOCAL PLUMBING INSPECTOR.

9 TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE



NOTES:
1. BACK WATER VALVE AND CLEANOUT ON PAVEMENT SHALL HAVE HEAVY DUTY CLEANOUT COVERS

10 TYPICAL SEWER SERVICE CONNECTION
NOT TO SCALE



11 DOWNSPOUT LEADER CONNECTION DETAIL
NOT TO SCALE

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RHODE ISLAND 02888
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JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
03/13/2024

ITRI COMMONS
8-UNIT RESIDENTIAL DEVELOPMENT
1455 PARK AVENUE
CRANSTON, RHODE ISLAND
AP 11-2, LOTS 269, 2822 & 2823

REVISIONS:

NO.	DATE.	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2024
PROJECT NO:	23-84

PRELIMINARY, NOT FOR CONSTRUCTION

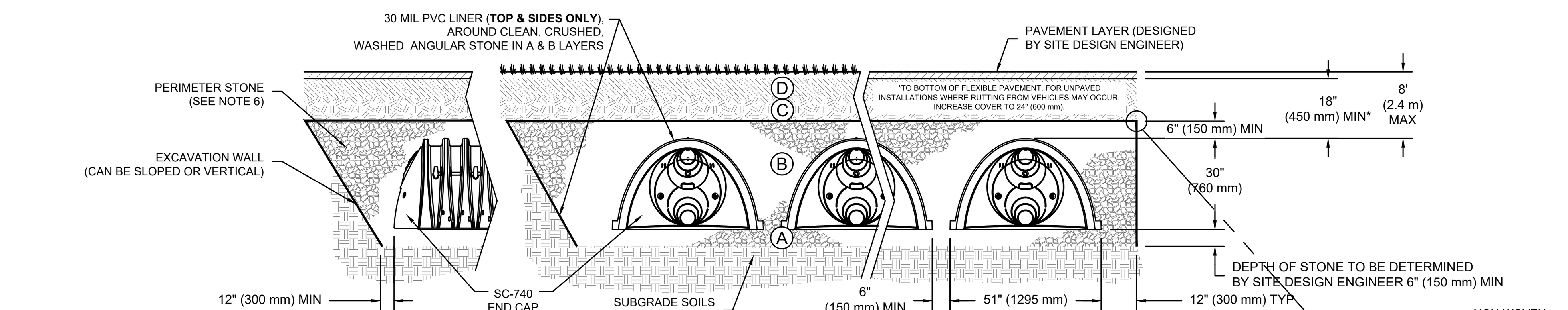
CIVIL DETAILS I

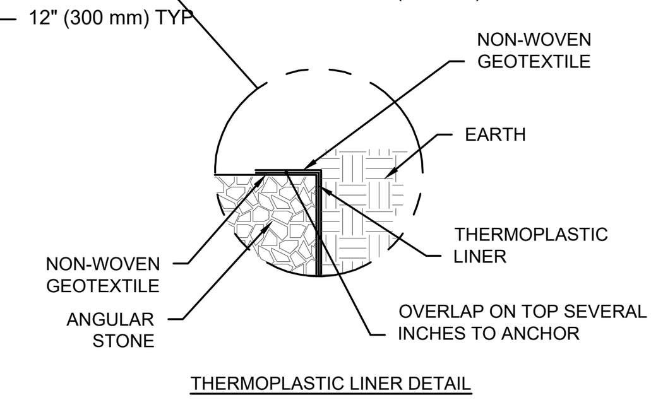
SHEET 6 OF 7

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** 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	**INITIAL FILL:** 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[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 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. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% 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	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, WASHED, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, WASHED, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2] [3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, WASHED, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. 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.
3. 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:

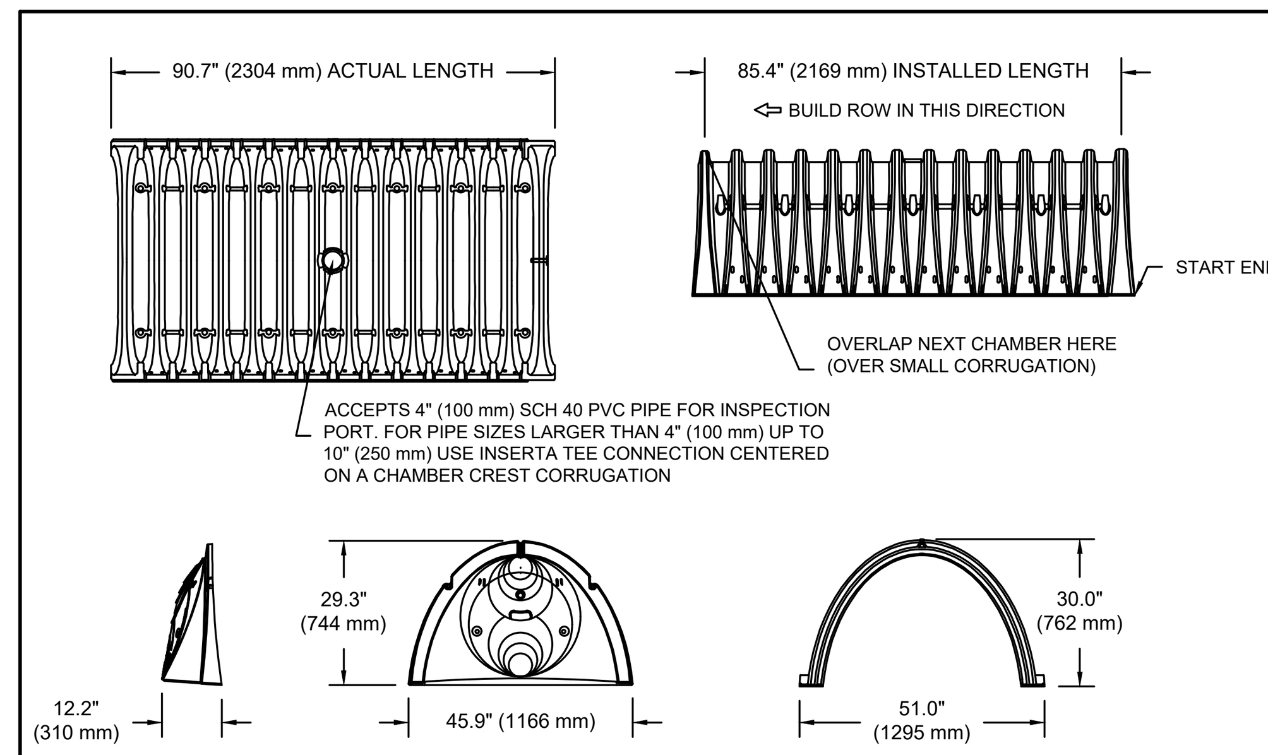
1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. 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.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/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.

SC-740 STANDARD CROSS SECTION — DATE: 11/18/14 — DRAWN: JLM — CHECKED: JLM — PROJECT #:

ADS — 4640 TRUEMAN BLVD, HILLIARD, OH 43026, 1-800-733-7473

SHEET 1 OF 1

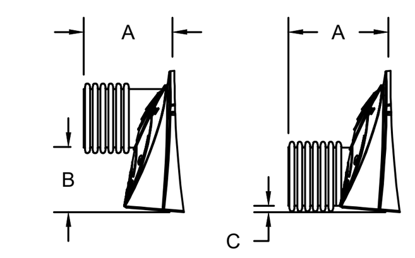
12 — STORMTECH SC-740 CROSS SECTION DETAIL
NOT TO SCALE



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*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)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 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.

* 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

13 — SC-740 TECHNICAL SPECIFICATION
NOT TO SCALE

NOTES FOR THE INSTALLATION OF THE SC-740 SYSTEM

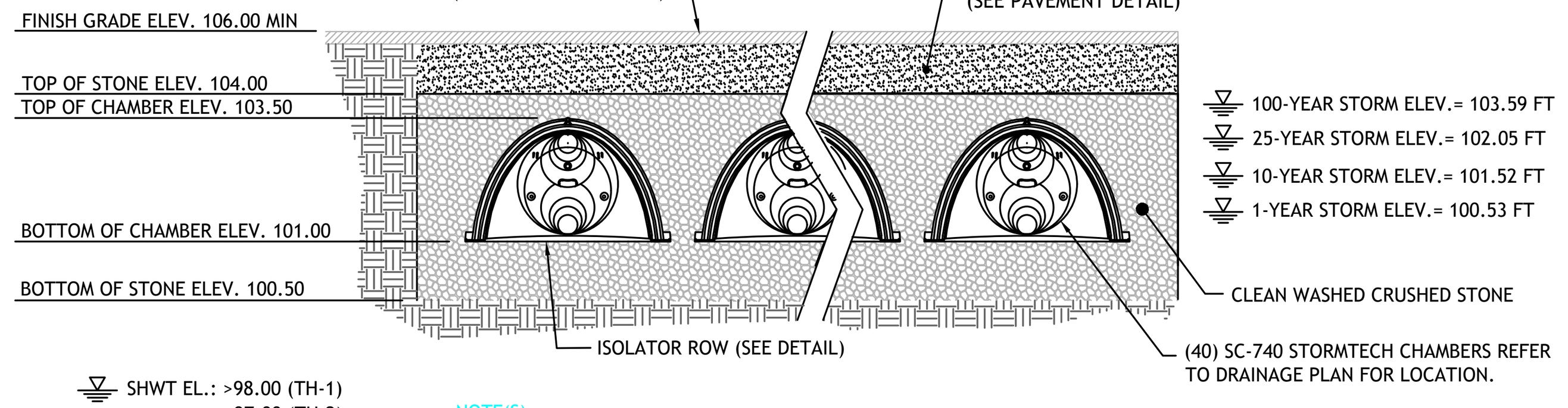
1. STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
   STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2".
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

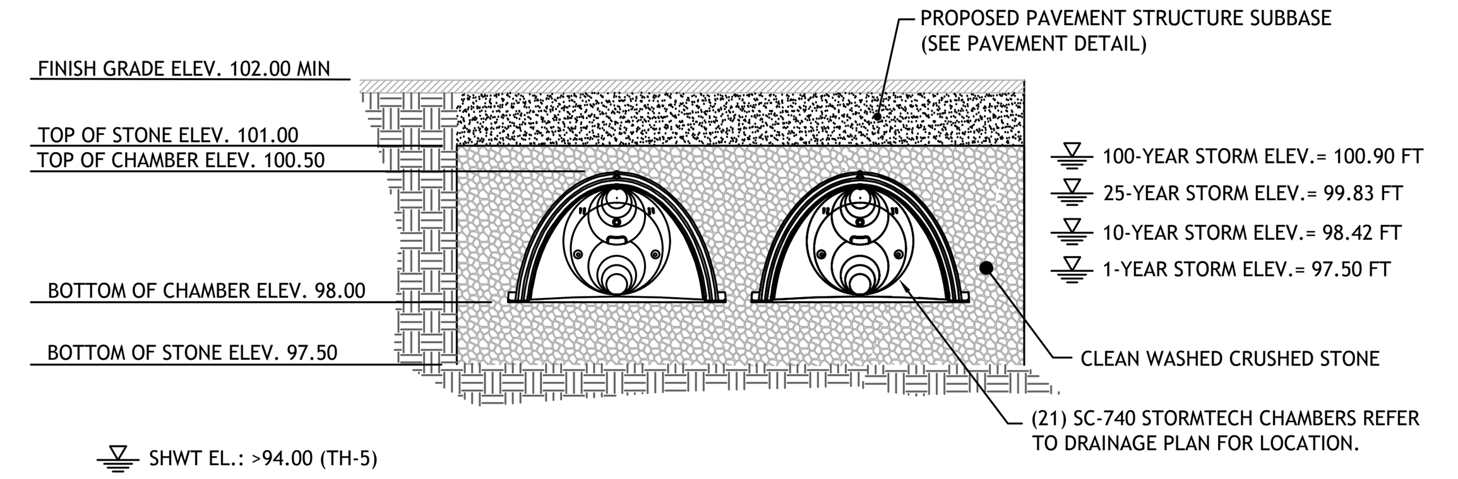
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



NOTE(S):
- UNDERGROUND INFILTRATION CHAMBER SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURES SPECIFICATIONS.

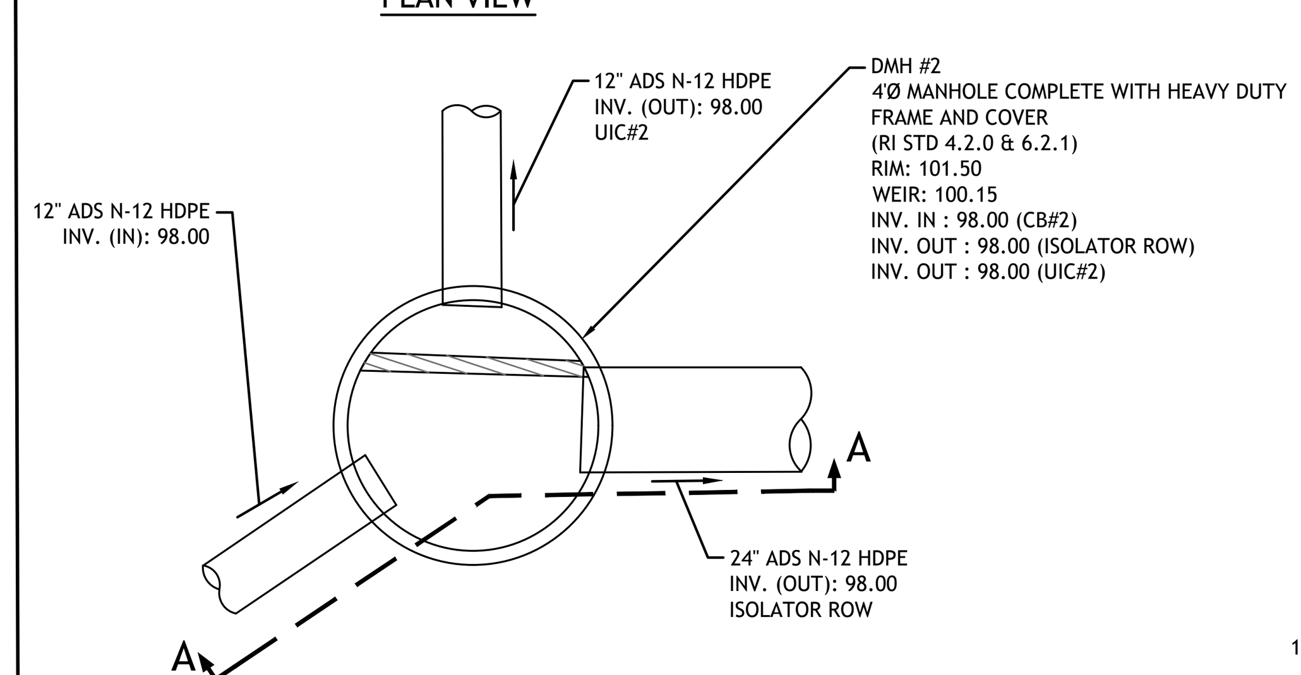
14 — UIC #1 INSTALLATION ELEVATION DETAIL
NOT TO SCALE

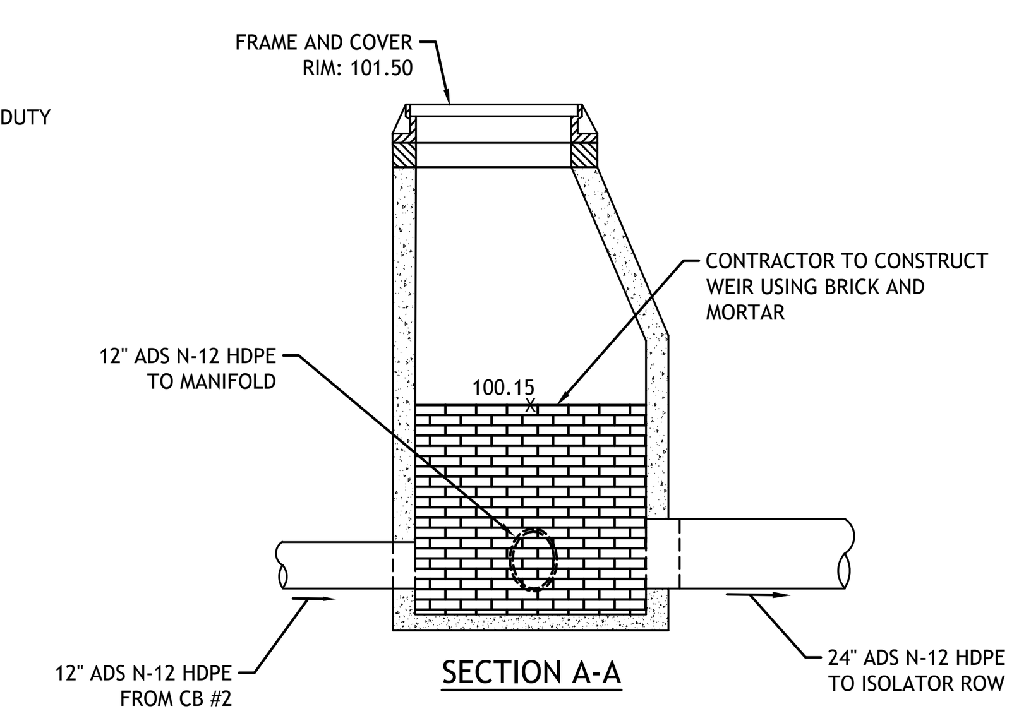


NOTE(S):
- UNDERGROUND INFILTRATION CHAMBER SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURES SPECIFICATIONS.

15 — UIC #2 INSTALLATION ELEVATION DETAIL
NOT TO SCALE

PLAN VIEW

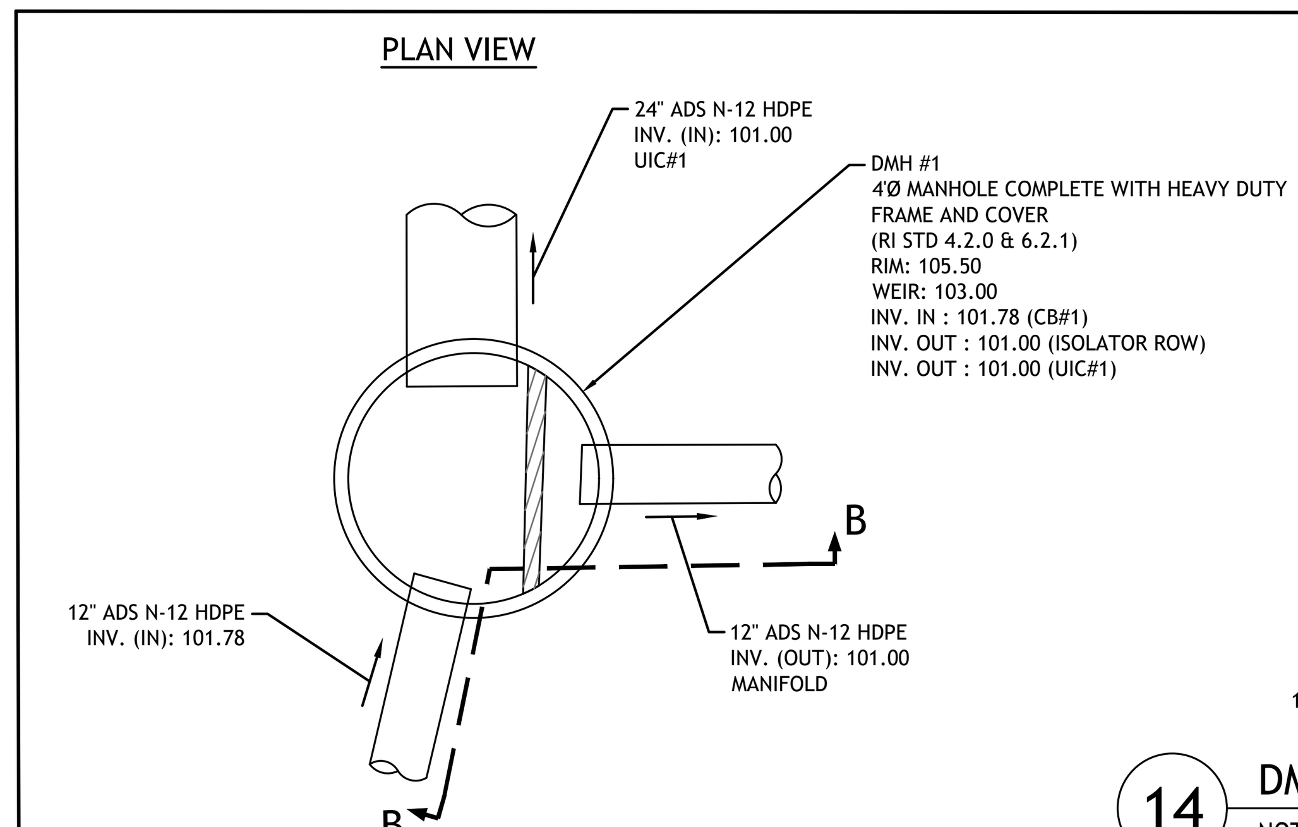


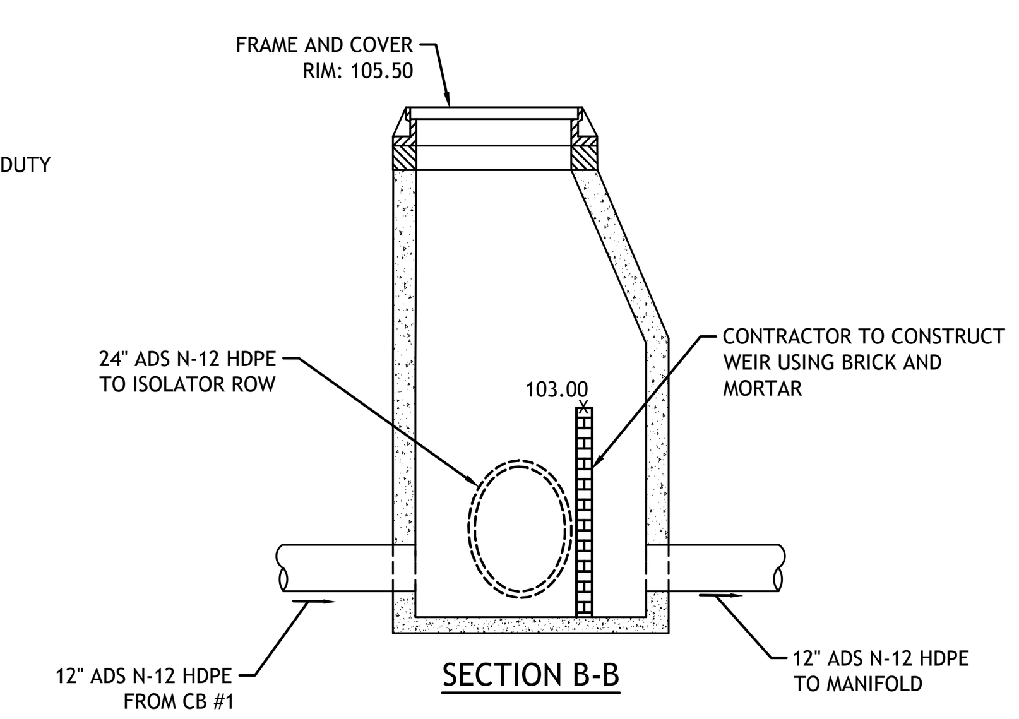


SECTION A-A

13 — DMH #2 - DIVERSION MANHOLE
NOT TO SCALE

PLAN VIEW





SECTION B-B

14 — DMH #1 - DIVERSION MANHOLE
NOT TO SCALE

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI — No. 7250 — REGISTERED PROFESSIONAL ENGINEER — CIVIL — 03/13/2024

ITRI COMMONS
8-UNIT RESIDENTIAL DEVELOPMENT
1455 PARK AVENUE
CRANSTON, RHODE ISLAND
AP 11-2, LOTS 269, 2822 & 2823

REVISIONS:

NO.	DATE.	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	JAC
DATE:	MARCH 2024
PROJECT NO:	23-84

PRELIMINARY, NOT FOR CONSTRUCTION

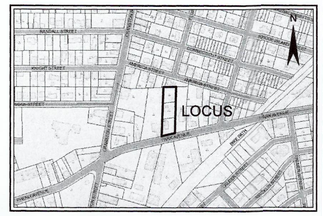
DRAINAGE DETAIL PLAN I

REFERENCE:

1. DEED BK. 5818 PG. 271
2. DEED BK. 200 PG. 323
3. DEED BK. 200 PG. 326
4. DEED BK. 200 PG. 329

NOTE:

1. THIS PROPERTY IS LOCATED IN A ZONE X AREA ON COMMUNITY PANEL 44007C0312H / 10-02-2015.

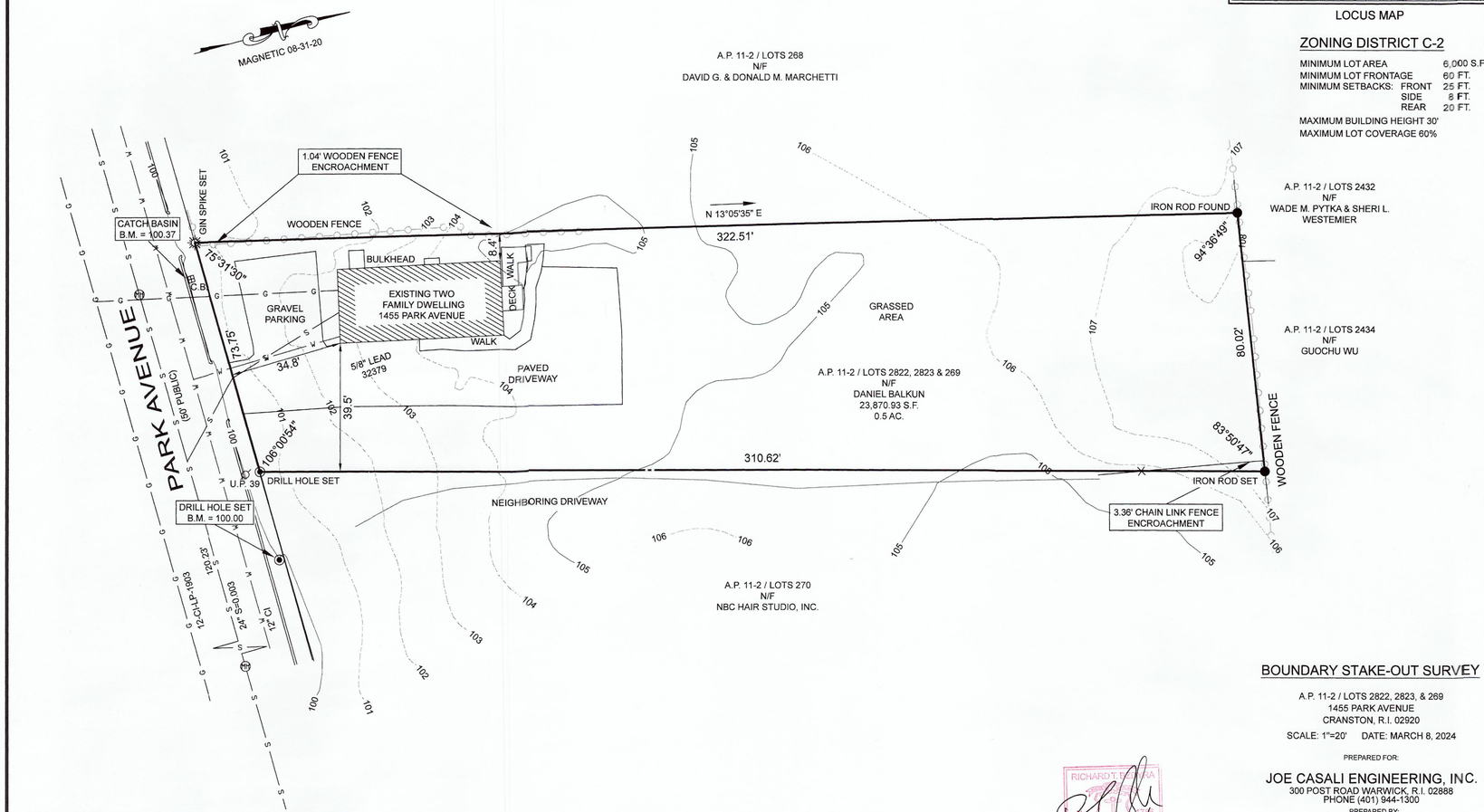


LOCUS MAP

ZONING DISTRICT C-2

MINIMUM LOT AREA		6,000 S.F.
MINIMUM LOT FRONTAGE		60 FT.
MINIMUM SETBACKS:	FRONT	25 FT.
	SIDE	8 FT.
	REAR	20 FT.

MAXIMUM BUILDING HEIGHT 30'
MAXIMUM LOT COVERAGE 60%



BOUNDARY STAKE-OUT SURVEY

A.P. 11-2 / LOTS 2822, 2823, & 269
1455 PARK AVENUE
CRANSTON, R.I. 02920
SCALE: 1"=20' DATE: MARCH 8, 2024

PREPARED FOR:

JOE CASALI ENGINEERING, INC.
300 POST ROAD WARWICK, R.I. 02888
PHONE (401) 944-1300

PREPARED BY:

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

JOB NO. 9761 / DWG. NO. 9761 - S - (AJB)

GRAPHIC SCALE / 1" = 20'

0 20 40 60

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: 3/08/24
RICHARD T. BZDYRA, PLS, LICENSE #1786, COA # LS-A60

RICHARD T. BZDYRA
REGISTERED
PROFESSIONAL
LAND SURVEYOR
3/08/24