

PERMIT DOCUMENTS for a MINOR LAND DEVELOPMENT PROJECT

# LUNDGREN EQUITY PARTNERS LLC 54-UNIT RESIDENTIAL DEVELOPMENT

135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

ZONING DISTRICT: C-2 (GENERAL COMMERCIAL DISTRICT)

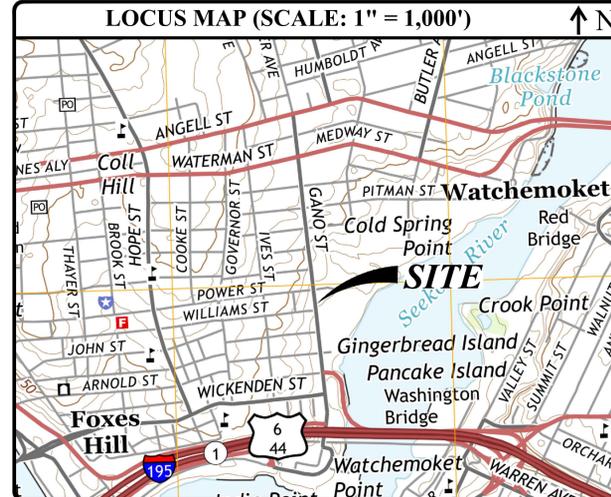
**FILINGS:**  
 MINOR LAND DEVELOPMENT - PROVIDENCE PLANNING DEPARTMENT  
 NARRAGANSETT BAY COMMISSION - SEWER CONNECTION PERMIT  
 PROVIDENCE WATER SUPPLY BOARD  
 PROVIDENCE PARKS DEPARTMENT / CITY FORESTER  
 PROVIDENCE ENGINEERING DIVISION  
 PROVIDENCE TRAFFIC DIVISION

**NOTES TO CONTRACTOR - WORK IN CITY RIGHT-OF-WAY:**

1. A PERMIT MUST BE OBTAINED FROM THE TRAFFIC ENGINEERING DIVISION AND THE ENGINEERING DIVISION AT THE CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO THE REMOVAL OF SIDEWALKS WITHIN WATERMAN AND/OR BROOK STREETS. THE PERMIT APPLICATION MUST ADDRESS ALTERNATIVE PEDESTRIAN PATHS OF TRAVEL.

**PROJECT TEAM**

<b>OWNER:</b>	LEP CENTECH LLC & LUNDGREN EQUITY PARTNERS LLC; 39 BEACON ST LLC & 273 LEISURE LANE LLC; ATTN: TYLER ALTEN 163 WASHINGTON STREET AUBURN, MA 01501 PHONE: 732-233-9212	<b>CIVIL:</b>	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313
<b>APPLICANT:</b>	LUNDGREN EQUITY PARTNERS LLC ATTN: TYLER ALTEN, PARTNER 163 WASHINGTON STREET AUBURN, MA 01501 PHONE: 732-233-9212	<b>SURVEYOR:</b>	OCEAN STATE PLANNERS, INC. 1255 OAKLAWN AVENUE CRANSTON, RI 02920 PHONE: 401-463-9696
<b>ARCHITECT:</b>	ACME ARCHITECT LLC 9 SIMMONS ROAD LITTLE COMPTON, RI 02837 PHONE: 401-465-5247	<b>TRAFFIC ENGINEER:</b>	BETA GROUP, INC. 701 GEORGE WASHINGTON HWY LINCOLN, RI 02865 PHONE: 401-333-2382



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R1	BOUNDARY STAKE-OUT SURVEY, PREPARED BY OCEAN STATE PLANNERS, INC., DATED MAY 2023

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 LUNDGREN EQUITY PARTNERS LLC  
 135, 141 & 149 GANO STREET  
 PROVIDENCE, RHODE ISLAND  
 AP 14, LOTS 324, 325, 357 & 574

**REVISIONS:**

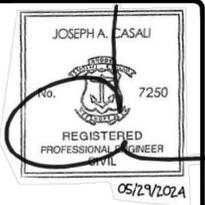
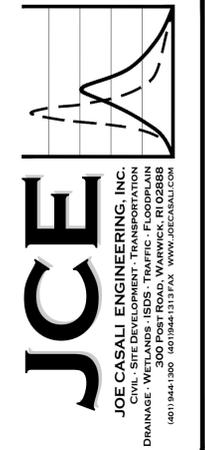
NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
 DRAWN BY: SEP/SD  
 CHECKED BY: JAC  
 DATE: MAY 2024  
 PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**COVER SHEET**

**SHEET 1 OF 7**



**GENERAL NOTES:**

- 1. CONTRACTOR SHALL NOTIFY "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE EXCAVATING.
- 2. THIS PLAN IS BASED ON A CLASS I BOUNDARY STAKE-OUT SURVEY PLAN, PREPARED BY OCEAN STATE PLANNERS, INC., 1255 OAKLAWN AVE., CRANSTON, RI, DATED MAY 9, 2023.
- 3. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
- 4. THE SITE IS LOCATED ON THE FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, MAP NUMBER 440007C0309K, EFFECTIVE DATE OCTOBER 2, 2015. BASED ON THE FEMA FLOOD INSURANCE RATE MAP, THE MAJORITY OF THE SITE AND AREAS TO THE NORTH AND WEST LIE WITHIN ZONE X - AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD HAZARD AREA. THE SOUTHEASTERLY MOST CORNER OF THE SITE AND AREAS SOUTH AND EAST OF THE PROJECT SITE LIE WITHIN ZONE X - AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE.
- 5. SOILS ON THE SITE CONSIST OF PAXTON-URBAN LAND COMPLEX, 3 TO 15 PERCENT SLOPES (PD) AND UDORTHTENS-URBAN LAND COMPLEX (UD). PD SOILS ARE GENERALLY WELL DRAINED, WITH A DEPTH TO THE SEASONAL HIGH GROUNDWATER TABLE OF 18 TO 37-INCHES, BELONGING TO HYDROLOGIC GROUP C. UD SOILS ARE GENERALLY WELL DRAINED, WITH A DEPTH TO THE SEASONAL HIGH GROUNDWATER TABLE OF 42 TO 54-INCHES, BELONGING TO HYDROLOGIC SOIL GROUP A.
- 6. THERE ARE NO KNOWN WETLANDS ON OR IMMEDIATELY ADJACENT TO THE SITE. THE SITE IS LOCATED WITHIN THE SEEKONK-PROVIDENCE RIVER WATERSHED (RIDEAM INVENTORY NO. 010900040901).
- 7. AS NOTED WITHIN THE CLASS I BOUNDARY SURVEY, THE ABANDONED WILLIAMS STREET IS SUBJECT TO NARRAGANSETT ELECTRIC CO. AND RIGHTS OF OTHER OWNERS OF LOTS OF RECORD TO USE THE ABANDONED PORTION OF WILLIAMS STREET (DEED BK. 10237, PAGE 63). IN ADDITION, THERE IS AN EASEMENT 7-INCHES WIDE MORE OR LESS ALONG THE SOUTHERLY PORTION OF AP 14, LOT 325 FOR MAINTAINING THE BUILDING ON LOT 325 (DEED BK. 1155, PAGE 571). THERE ARE NO OTHER KNOWN EXISTING EASEMENTS WITHIN THE SUBJECT PROPERTIES.
- 8. THERE ARE NO KNOWN ACTIVE AGRICULTURAL USES ON OR ADJACENT TO THE SITE. THERE ARE NO HISTORIC CEMETERIES ON OR IMMEDIATELY ADJACENT TO THE SITE. THE SITE LIES ADJACENT TO LOCAL CONSERVATION LAND, GANO STREET PARK.
- 9. WATER, SEWER, STORMWATER, GAS AND ELECTRIC SERVICES ARE AVAILABLE WITHIN GANO STREET.

**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.
- 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. IF ENCOUNTERED, 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. ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH THE CITY'S STANDARD DETAILS AVAILABLE AT [HTTPS://WWW.PROVIDENCERI.GOV/WP-CONTENT/UPLOADS/2019/06/PROVIDENCE-DPW-STANDARDS-DETAILS.PDF](https://www.providenceri.gov/wp-content/uploads/2019/06/PROVIDENCE-DPW-STANDARDS-DETAILS.PDF).

**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:**

- 1. ALL CITY RELATED TRAFFIC ISSUES SHALL BE COORDINATED WITH THE CITY TRAFFIC ENGINEER, NATE URSO, IN THE PROVIDENCE DEPARTMENT OF PUBLIC WORKS AT 401-680-7518.
- 2. 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.
- 3. 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.
- 4. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE CITY RIGHT-OF-WAY.
- 5. 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.
- 6. 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 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.
- 2. ALL CATCH BASINS SHALL BE PROTECTED WITH SILTSACK SEDIMENT TRAPS 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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 CITY.
- 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 SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING SEWER REQUIREMENTS.
- 7. 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.
- 8. 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 AND THE NARRAGANSETT BAY COMMISSION.
- 9. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS TO NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING DEPARTMENT UPON 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.
- 10. INSPECTION OF ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING DEPARTMENT. APPLICANT SHALL PROVIDE SCHEDULE FOR CONSTRUCTION AS SOON AS POSSIBLE TO ALLOW FOR DEVELOPMENT OF INSPECTION FEE, TO BE PAID BY APPLICANT DIRECTLY TO THE NARRAGANSETT BAY COMMISSION AND TO THE CITY OF PROVIDENCE. UPON PAYMENT OF FEE, COMMENCEMENT OF CONSTRUCTION INSPECTION REQUIRES MINIMUM NOTIFICATION OF 48-HOURS.
- 11. A SEWER PERMIT WILL ONLY BE ISSUED TO A MASTER PLUMBER OR A UNDER GROUND CONTRACTOR LICENSED WITH THE STATE OF RHODE ISLAND. ALL OTHER PERMITS FOR EXCAVATION IN THE PUBLIC RIGHT OF WAY WILL BE ISSUED TO A CONTRACTOR LICENSED WITH PROVIDENCE DPW.
- 12. 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 NARRAGANSETT BAY COMMISSION AND CITY ENGINEER PRIOR TO CONSTRUCTION. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE CITY OF PROVIDENCE.
- 13. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.
- 14. 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.
- 15. PRIOR TO CONSTRUCTION OF THE RELOCATION OF ALL WATER MAINS, THE CONTRACTOR SHALL COORDINATE WITH PROVIDENCE WATER SUPPLY BOARD FOR INSPECTION AND CHLORINATION OF NEW PIPING, FITTINGS AND VALVES.

**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

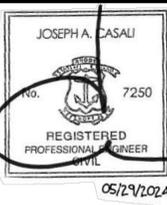
RECOMMENDED SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.

**LEGEND**

- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STONE WALL
- EXISTING CURB
- PROPOSED CURB
- EXISTING GUARD RAIL
- EXISTING DRAIN LINE
- PROPOSED DRAIN LINE
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING TELECOM DUCTBANK
- EXISTING ELECTRIC DUCTBANK
- RELOCATED ELECTRIC DUCTBANK
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING WATER SHUT OFF VALVE
- PROPOSED WATER SHUT OFF VALVE
- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- NOW OR FORMERLY
- TREELINE
- SILT FENCE
- LIMIT OF DISTURBANCE
- TEMPORARY LIMIT OF DISTURBANCE
- TEST HOLE



**JOE CASALI ENGINEERING, INC.**  
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**54-UNIT RESIDENTIAL DEVELOPMENT**  
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REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

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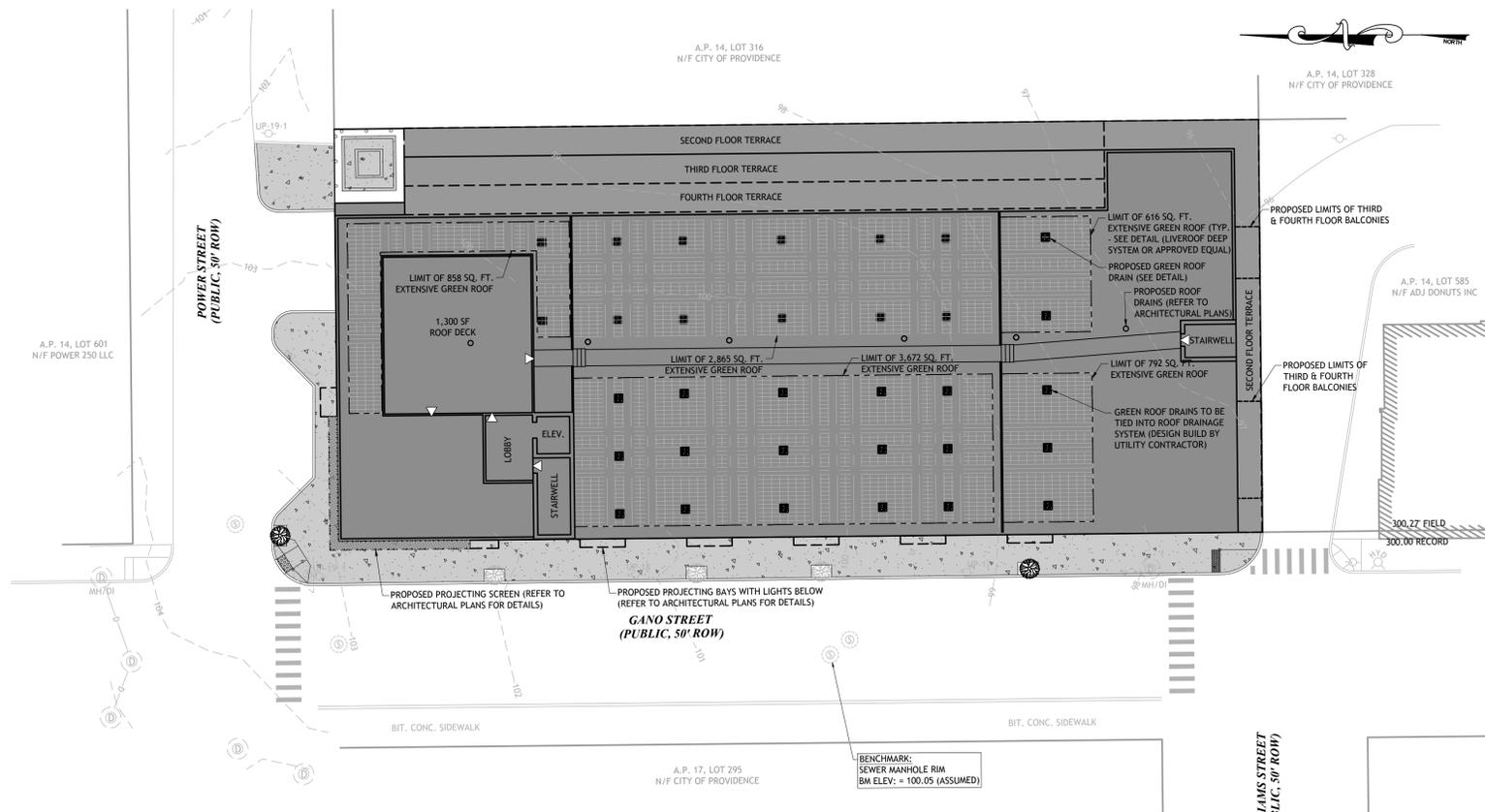
**GENERAL NOTES & LEGEND**

**SHEET 2 OF 7**

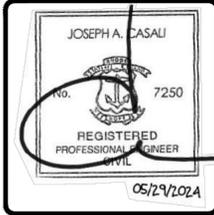
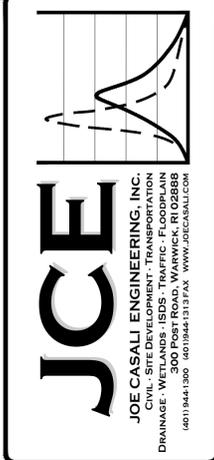
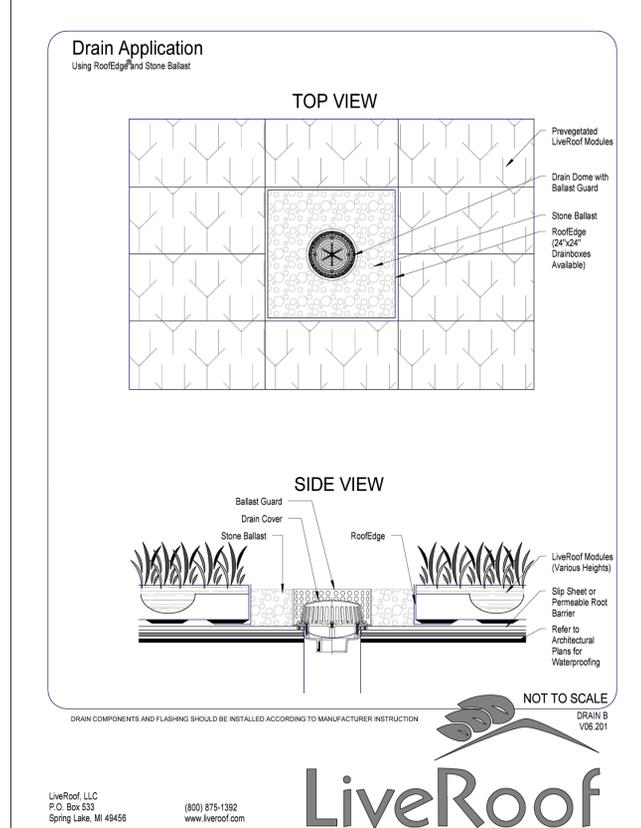
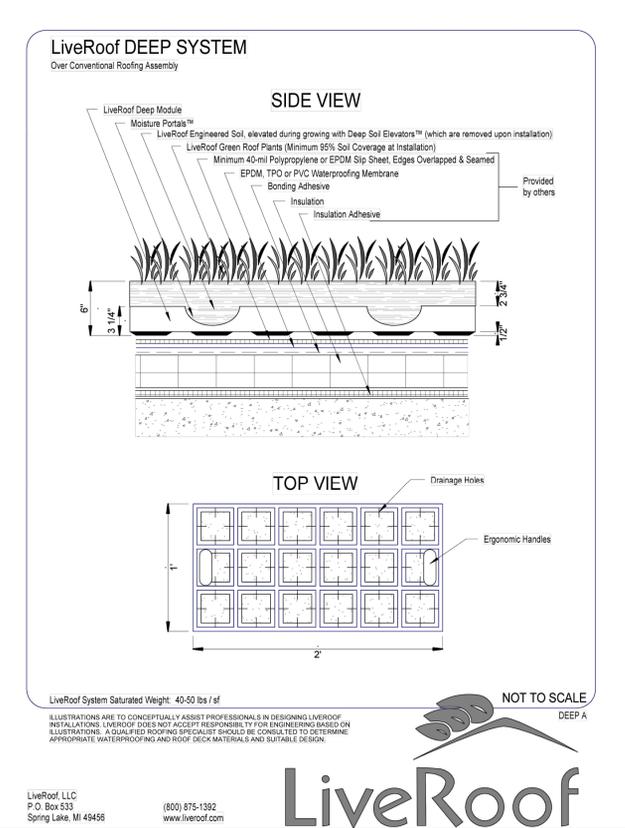
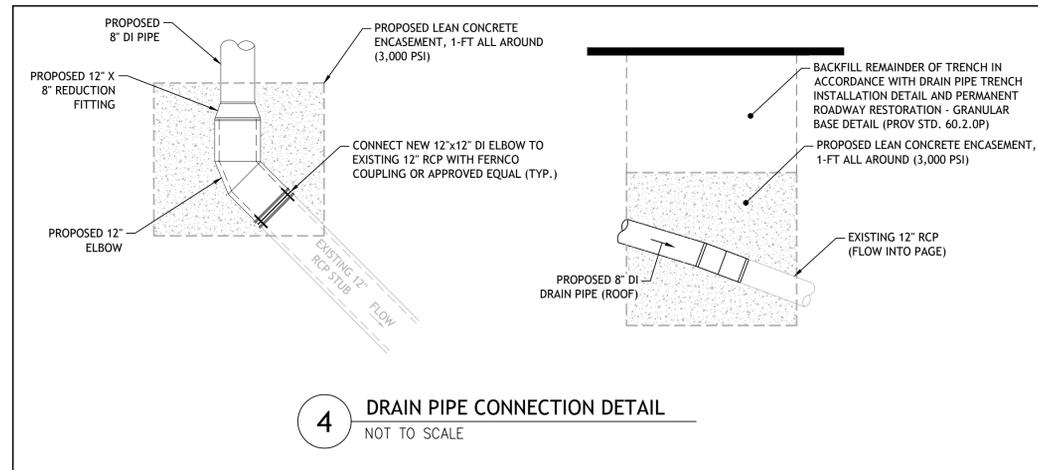
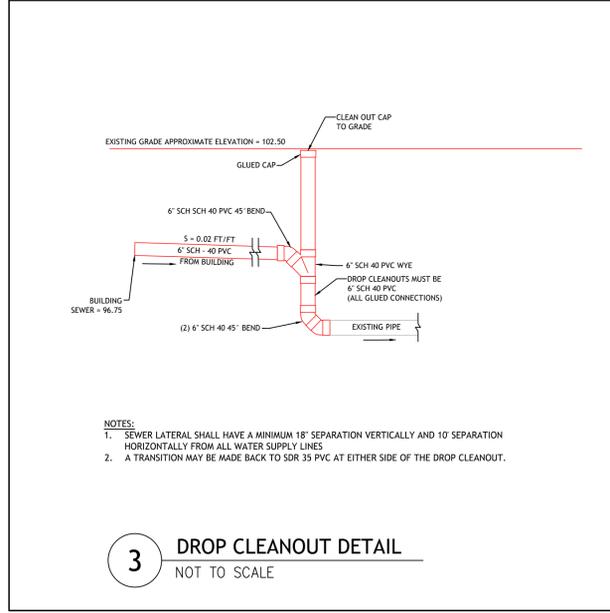








**ROOF PLAN**  
SCALE: 1 INCH = 20 FEET



**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

REVISIONS:

NO.	DATE	DESCRIPTION

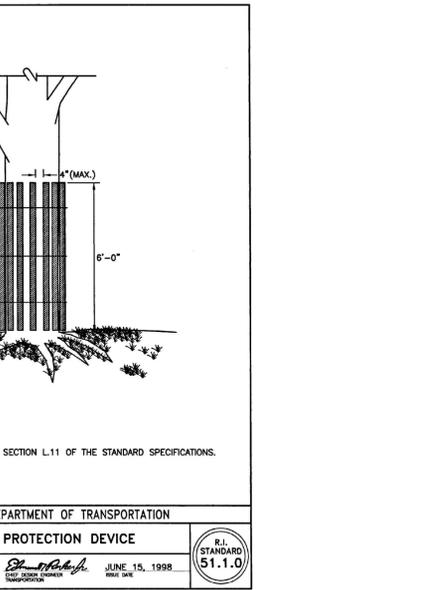
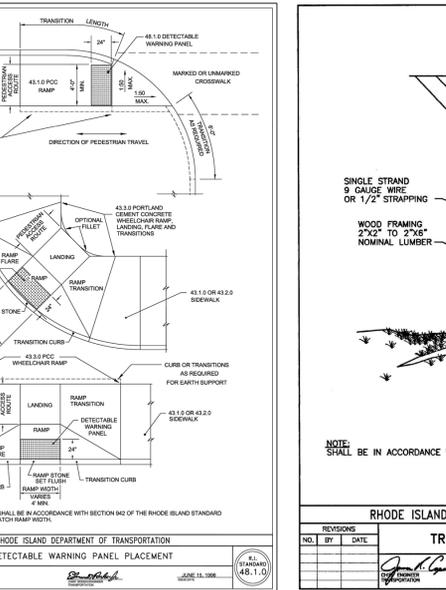
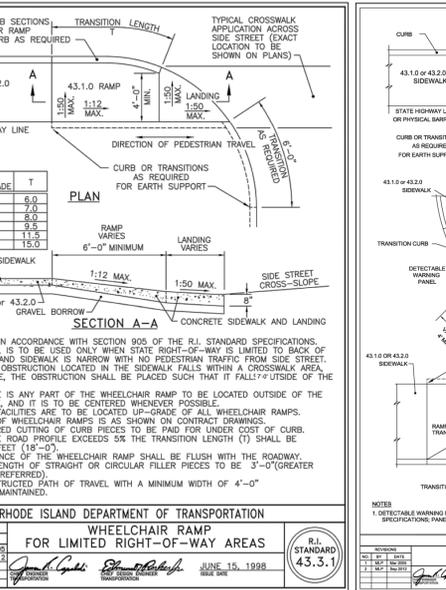
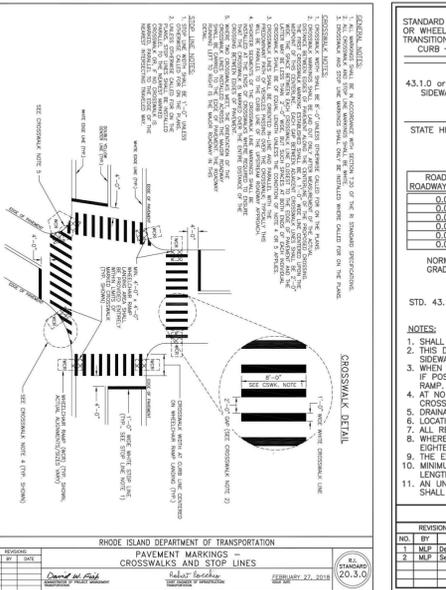
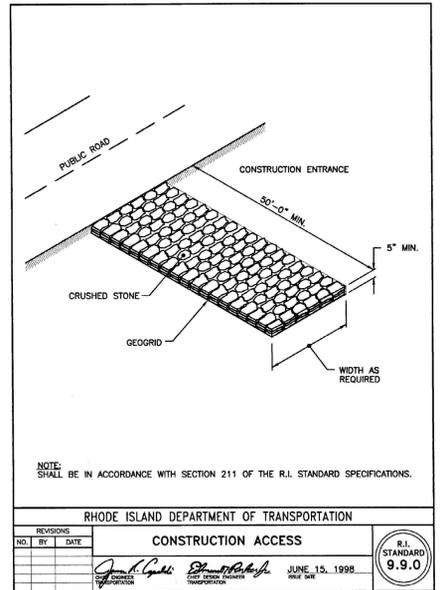
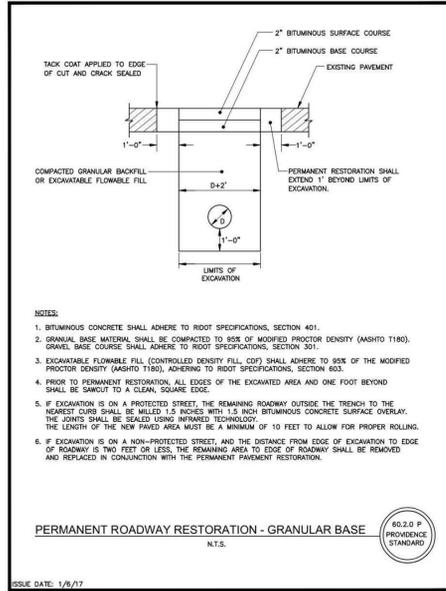
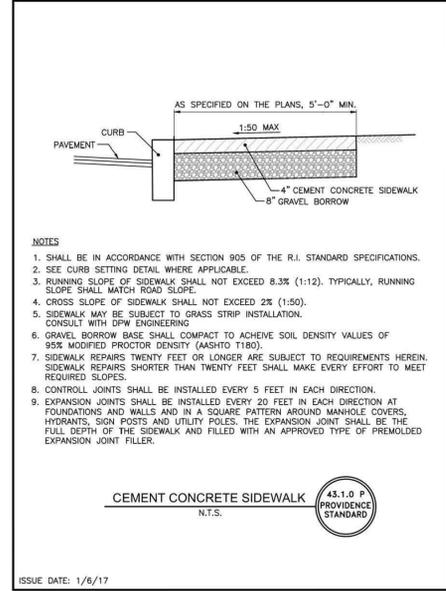
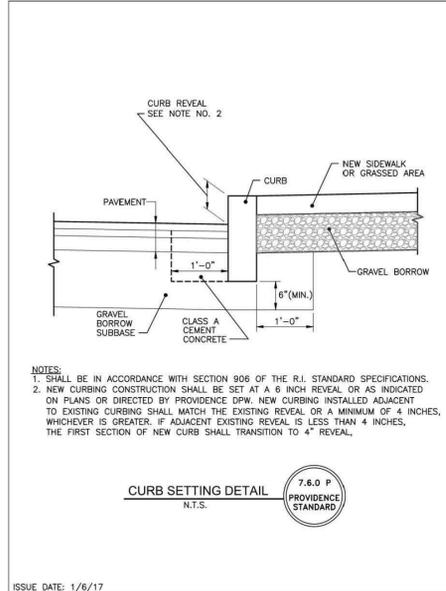
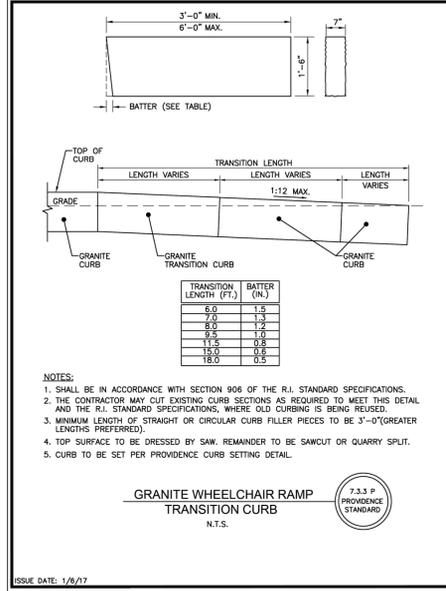
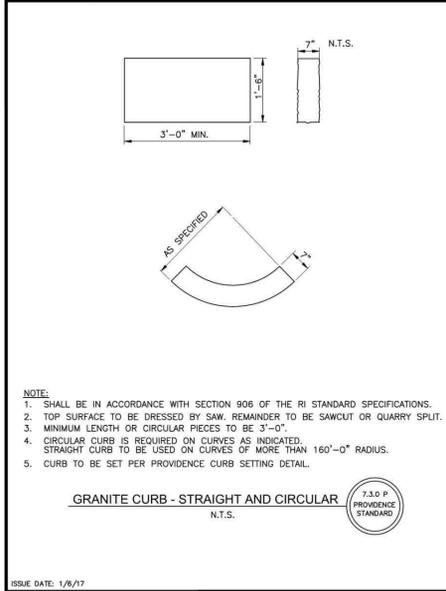
DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**SITE PLAN II**

**SHEET 5 OF 7**

02/22/24 Lundgren Equity Partners/CA/JAC/Gano Street Apartments (PERMIT - SET) dwg. May 29, 2024 8:54am



**JCE**

JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEERING - TRAFFIC ENGINEERING  
DRAINAGE - WETLANDS - EROSION CONTROL  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 WWW.JCEASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED  
PROFESSIONAL ENGINEER  
05/29/2024

**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

REVISIONS:

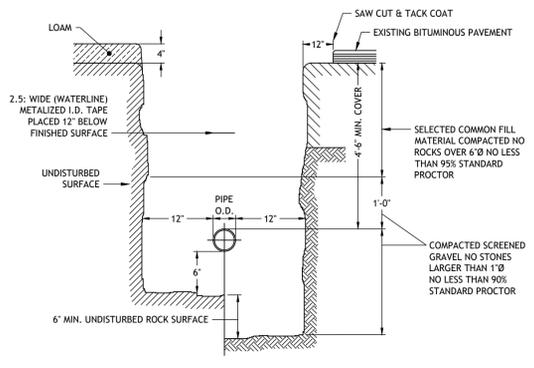
NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**DETAILS I**

**SHEET  
6 OF 7**



**5 WATER TRENCH DETAIL**  
NOT TO SCALE

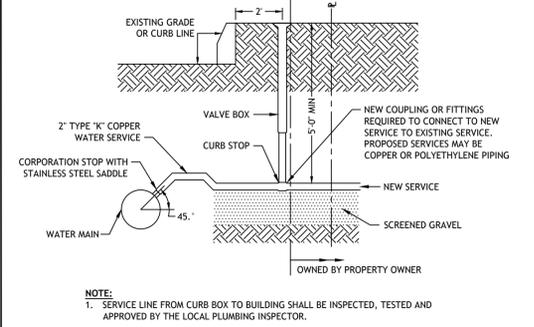
**PROVIDENCE WATER SUPPLY BOARD (PWSB)**  
WATER SERVICE INSTALLATION/SANITARY SEWER FACILITIES SEPARATION REQUIREMENTS

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, VALVE, 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)

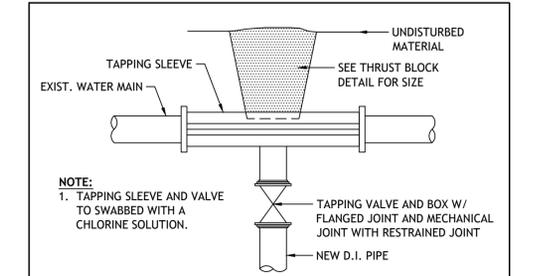
- WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, A DEVIATION MAY BE GRANTED ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO WATER SERVICE, PROVIDED THAT:
  - THE SEWER LINE AND WATER SERVICE ARE LAID IN SEPARATE TRENCHES AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.
  - 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.
- 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:
  - 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
  - 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.

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



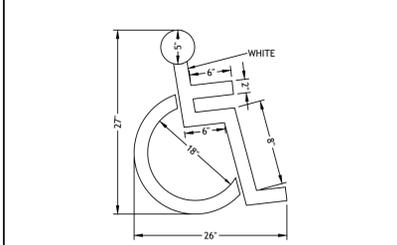
**6 TYPICAL WATER SERVICE CONNECTION**  
NOT TO SCALE



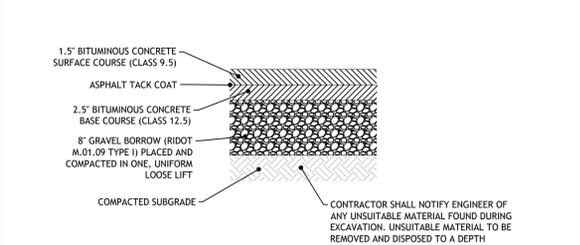
**10 TAPPING SLEEVE AND VALVE**  
NOT TO SCALE



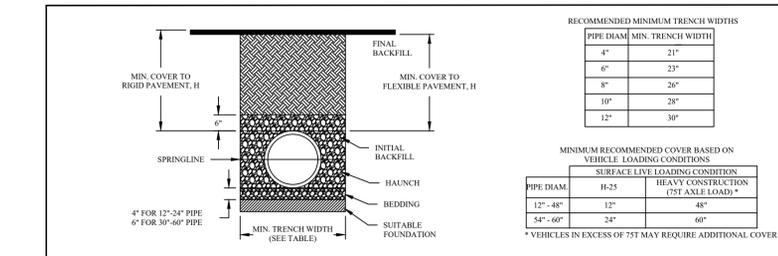
**7 HANDICAP PARKING SIGNS**  
NOT TO SCALE



**8 HANDICAP PAVEMENT MARKING**  
NOT TO SCALE

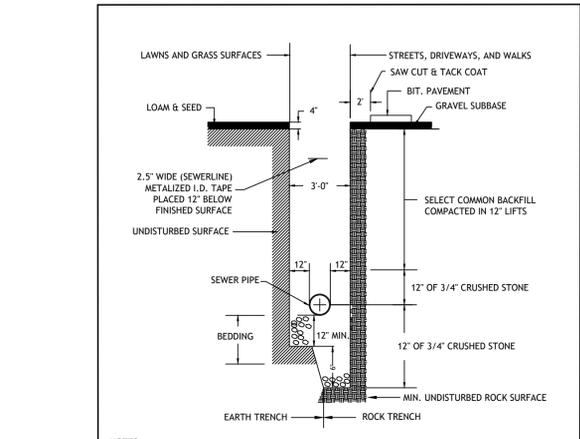


**9 BITUMINOUS CONCRETE PAVEMENT**  
NOT TO SCALE



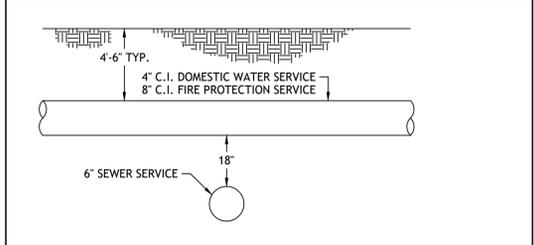
- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
  - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
  - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-900mm)
  - 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. TRENCH BACKFILL WITHIN CITY RIGHT-OF-WAY SHALL BE CONTROLLED LOW-STRENGTH MATERIAL (CLSM). CLSM SHALL BE INCLUDED ON THE LATEST VERSION OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION'S APPROVED READY-MIX PORTLAND CEMENT CONCRETE MIX CLASSIFICATIONS.
  - 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" COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

**11 DRAIN PIPE TRENCH INSTALLATION DETAIL**  
NOT TO SCALE

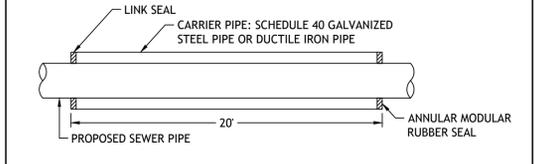


- NOTES:**
- 3/4-INCH CRUSHED STONE FOUNDATION SHALL BE PLACED 12" UNDER THE PIPE UP TO THE PIPE GRADE. THE PIPE LAID THEREON, AND 3/4-INCH CRUSHED STONE PULLED AGAINST THE PIPE SIDE TO FIRMLY HOLD THE PIPE IN PLACE. NO BLOCKS OR STONES SHALL BE USED TO SUPPORT THE PIPE.
  - 3/4-INCH CRUSHED STONE HAUNCHING 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.

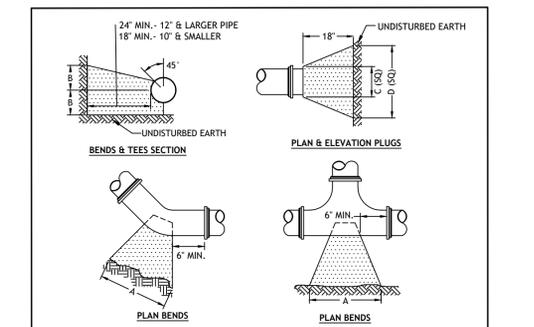
**12 TYPICAL SEWER LINE TRENCH DETAIL**  
NOT TO SCALE



- NOTES:**
- THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED SEWER SHALL BE A MINIMUM OF 18 INCHES.
  - THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED SEWER SHALL BE A MINIMUM OF 10 FEET.
  - 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.
  - SEWER PIPE SHALL BE SUPPORTED WITHIN THE CARRIER PIPE TO MAINTAIN A CONSTANT SLOPE WITHIN THE CARRIER PIPE.



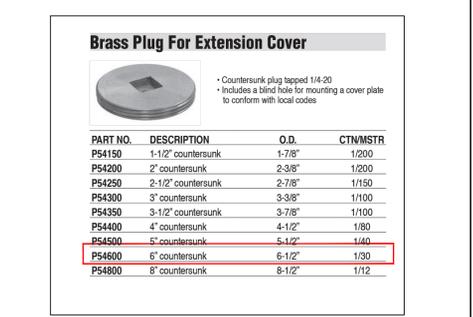
**13 SEWER/WATER SEPARATION DETAIL**  
NOT TO SCALE



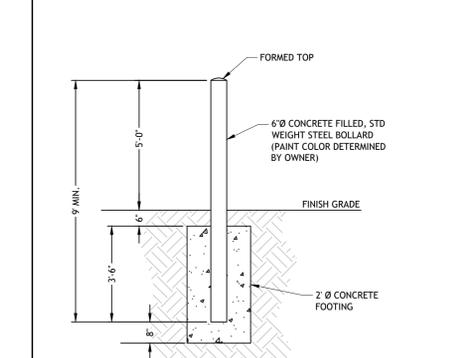
- NOTE:**
- ALL CONCRETE SHALL BE 4000 P.S.I. @ 28 DAYS.
  - CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
  - FORMS TO BE USED AS NECESSARY.
  - ALL BOLTS AND NUTS TO BE PROTECTED FROM CONCRETE AND EASILY ACCESSIBLE WHEN THRUST BLOCK INSTALLED.

SIZE	TEES			PLUGS			90° BEND			45° BEND			22 1/2° BEND			11 1/4° BEND		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4"	22"	12"	22"	12"	24"	16"	20"	10"	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"						

**14 THRUST BLOCK DETAIL**  
NOT TO SCALE



**15 BRASS CAP DETAIL**  
NOT TO SCALE



**16 BOLLARD DETAIL**  
NOT TO SCALE

**JCE**  
JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEER  
DRYDEN ROAD, SUITE 100  
PROVIDENCE, RHODE ISLAND 02908  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
05/29/2024

**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

**REVISIONS:**

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**DETAILS II**

**SHEET 7 OF 7**





PERMIT DOCUMENTS for a MINOR LAND DEVELOPMENT PROJECT

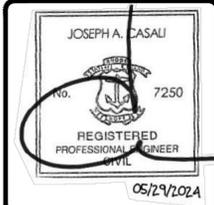
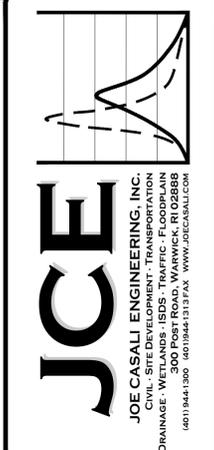
# LUNDGREN EQUITY PARTNERS LLC 54-UNIT RESIDENTIAL DEVELOPMENT

135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

ZONING DISTRICT: C-2 (GENERAL COMMERCIAL DISTRICT)

**FILINGS:**  
 MINOR LAND DEVELOPMENT - PROVIDENCE PLANNING DEPARTMENT  
 NARRAGANSETT BAY COMMISSION - SEWER CONNECTION PERMIT  
 PROVIDENCE WATER SUPPLY BOARD  
 PROVIDENCE PARKS DEPARTMENT / CITY FORESTER  
 PROVIDENCE ENGINEERING DIVISION  
 PROVIDENCE TRAFFIC DIVISION

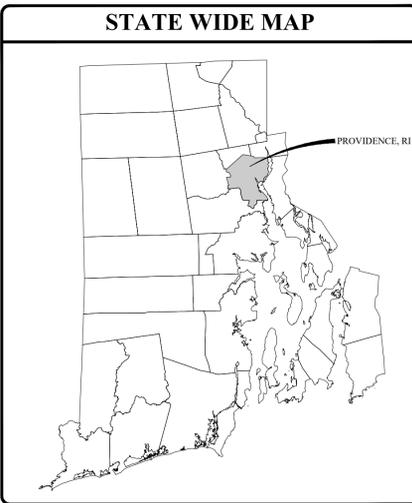
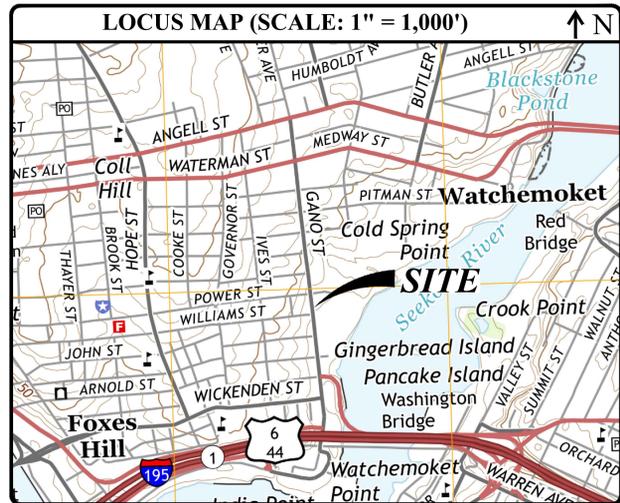
**NOTES TO CONTRACTOR - WORK IN CITY RIGHT-OF-WAY:**  
 1. A PERMIT MUST BE OBTAINED FROM THE TRAFFIC ENGINEERING DIVISION AND THE ENGINEERING DIVISION AT THE CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO THE REMOVAL OF SIDEWALKS WITHIN WATERMAN AND/OR BROOK STREETS. THE PERMIT APPLICATION MUST ADDRESS ALTERNATIVE PEDESTRIAN PATHS OF TRAVEL.



**54-UNIT RESIDENTIAL DEVELOPMENT**  
 LUNDGREN EQUITY PARTNERS LLC  
 135, 141 & 149 GANO STREET  
 PROVIDENCE, RHODE ISLAND  
 AP 14, LOTS 324, 325, 357 & 574

C:\22\_48 Lundgren Equity Partners\CAD\Gano Street Apartments [PERMIT SET].dwg, May 29, 2024, 8:54am

PROJECT TEAM			
<b>OWNER:</b>	LEP CENTECH LLC & LUNDGREN EQUITY PARTNERS LLC; 39 BEACON ST LLC & 273 LEISURE LANE LLC; ATTN: TYLER ALTEN 163 WASHINGTON STREET AUBURN, MA 01501 PHONE: 732-233-9212	<b>CIVIL:</b>	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313
<b>APPLICANT:</b>	LUNDGREN EQUITY PARTNERS LLC ATTN: TYLER ALTEN, PARTNER 163 WASHINGTON STREET AUBURN, MA 01501 PHONE: 732-233-9212	<b>SURVEYOR:</b>	OCEAN STATE PLANNERS, INC. 1255 OAKLAWN AVENUE CRANSTON, RI 02920 PHONE: 401-463-9696
<b>ARCHITECT:</b>	ACME ARCHITECT LLC 9 SIMMONS ROAD LITTLE COMPTON, RI 02837 PHONE: 401-465-5247	<b>TRAFFIC ENGINEER:</b>	BETA GROUP, INC. 701 GEORGE WASHINGTON HWY LINCOLN, RI 02865 PHONE: 401-333-2382



INDEX OF DRAWINGS	
SHEET NO.	PLAN
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	EXISTING CONDITIONS & SITE PREPARATION PLAN
4	SITE PLAN I
5	SITE PLAN II
6	DETAILS I
7	DETAILS II
R1	BOUNDARY STAKE-OUT SURVEY, PREPARED BY OCEAN STATE PLANNERS, INC., DATED MAY 2023

REVISIONS:		
NO.	DATE	DESCRIPTION

DESIGNED BY:	DRD
DRAWN BY:	SEP/SD
CHECKED BY:	JAC
DATE:	MAY 2024
PROJECT NO.:	22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**COVER SHEET**

**SHEET 1 OF 7**

Elevation View along Gano Street, Courtesy of Acme Architect LLC (NTS)

**GENERAL NOTES:**

- 1. CONTRACTOR SHALL NOTIFY "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE EXCAVATING.
- 2. THIS PLAN IS BASED ON A CLASS I BOUNDARY STAKE-OUT SURVEY PLAN, PREPARED BY OCEAN STATE PLANNERS, INC., 1255 OAKLAWN AVE., CRANSTON, RI, DATED MAY 9, 2023.
- 3. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
- 4. THE SITE IS LOCATED ON THE FLOOD INSURANCE RATE MAP FOR PROVIDENCE COUNTY, MAP NUMBER 440007C0309K, EFFECTIVE DATE OCTOBER 2, 2015. BASED ON THE FEMA FLOOD INSURANCE RATE MAP, THE MAJORITY OF THE SITE AND AREAS TO THE NORTH AND WEST LIE WITHIN ZONE X - AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD HAZARD AREA. THE SOUTHEASTERLY MOST CORNER OF THE SITE AND AREAS SOUTH AND EAST OF THE PROJECT SITE LIE WITHIN ZONE X - AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE.
- 5. SOILS ON THE SITE CONSIST OF PAXTON-URBAN LAND COMPLEX, 3 TO 15 PERCENT SLOPES (PD) AND UDORTHTENS-URBAN LAND COMPLEX (UD). PD SOILS ARE GENERALLY WELL DRAINED, WITH A DEPTH TO THE SEASONAL HIGH GROUNDWATER TABLE OF 18 TO 37-INCHES, BELONGING TO HYDROLOGIC GROUP C. UD SOILS ARE GENERALLY WELL DRAINED, WITH A DEPTH TO THE SEASONAL HIGH GROUNDWATER TABLE OF 42 TO 54-INCHES, BELONGING TO HYDROLOGIC SOIL GROUP A.
- 6. THERE ARE NO KNOWN WETLANDS ON OR IMMEDIATELY ADJACENT TO THE SITE. THE SITE IS LOCATED WITHIN THE SEEKONK-PROVIDENCE RIVER WATERSHED (RIDEAM INVENTORY NO. 010900040901).
- 7. AS NOTED WITHIN THE CLASS I BOUNDARY SURVEY, THE ABANDONED WILLIAMS STREET IS SUBJECT TO NARRAGANSETT ELECTRIC CO. AND RIGHTS OF OTHER OWNERS OF LOTS OF RECORD TO USE THE ABANDONED PORTION OF WILLIAMS STREET (DEED BK. 10237, PAGE 63). IN ADDITION, THERE IS AN EASEMENT 7-INCHES WIDE MORE OR LESS ALONG THE SOUTHERLY PORTION OF AP 14, LOT 325 FOR MAINTAINING THE BUILDING ON LOT 325 (DEED BK. 1155, PAGE 571). THERE ARE NO OTHER KNOWN EXISTING EASEMENTS WITHIN THE SUBJECT PROPERTIES.
- 8. THERE ARE NO KNOWN ACTIVE AGRICULTURAL USES ON OR ADJACENT TO THE SITE. THERE ARE NO HISTORIC CEMETERIES ON OR IMMEDIATELY ADJACENT TO THE SITE. THE SITE LIES ADJACENT TO LOCAL CONSERVATION LAND, GANO STREET PARK.
- 9. WATER, SEWER, STORMWATER, GAS AND ELECTRIC SERVICES ARE AVAILABLE WITHIN GANO STREET.

**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.
- 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. IF ENCOUNTERED, 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. ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH THE CITY'S STANDARD DETAILS AVAILABLE AT [HTTPS://WWW.PROVIDENCERI.GOV/WP-CONTENT/UPLOADS/2019/06/PROVIDENCE-DPW-STANDARDS-DETAILS.PDF](https://www.providenceri.gov/wp-content/uploads/2019/06/PROVIDENCE-DPW-STANDARDS-DETAILS.PDF).

**MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:**

- 1. ALL CITY RELATED TRAFFIC ISSUES SHALL BE COORDINATED WITH THE CITY TRAFFIC ENGINEER, NATE URSO, IN THE PROVIDENCE DEPARTMENT OF PUBLIC WORKS AT 401-680-7518.
- 2. 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.
- 3. 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.
- 4. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE CITY RIGHT-OF-WAY.
- 5. 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.
- 6. 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 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.
- 2. ALL CATCH BASINS SHALL BE PROTECTED WITH SILTSACK SEDIMENT TRAPS 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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 CITY.
- 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 SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING SEWER REQUIREMENTS.
- 7. 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.
- 8. 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 AND THE NARRAGANSETT BAY COMMISSION.
- 9. APPLICANT IS REQUIRED TO PROVIDE TWO SETS OF FINAL AS-BUILT PLANS TO NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING DEPARTMENT UPON 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.
- 10. INSPECTION OF ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY NARRAGANSETT BAY COMMISSION AND PROVIDENCE DEPARTMENT OF PUBLIC WORKS ENGINEERING DEPARTMENT. APPLICANT SHALL PROVIDE SCHEDULE FOR CONSTRUCTION AS SOON AS POSSIBLE TO ALLOW FOR DEVELOPMENT OF INSPECTION FEE, TO BE PAID BY APPLICANT DIRECTLY TO THE NARRAGANSETT BAY COMMISSION AND TO THE CITY OF PROVIDENCE. UPON PAYMENT OF FEE, COMMENCEMENT OF CONSTRUCTION INSPECTION REQUIRES MINIMUM NOTIFICATION OF 48-HOURS.
- 11. A SEWER PERMIT WILL ONLY BE ISSUED TO A MASTER PLUMBER OR A UNDER GROUND CONTRACTOR LICENSED WITH THE STATE OF RHODE ISLAND. ALL OTHER PERMITS FOR EXCAVATION IN THE PUBLIC RIGHT OF WAY WILL BE ISSUED TO A CONTRACTOR LICENSED WITH PROVIDENCE DPW.
- 12. 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 NARRAGANSETT BAY COMMISSION AND CITY ENGINEER PRIOR TO CONSTRUCTION. ALL SEWER CONSTRUCTION SHALL BE PERFORMED BY A DRAIN LAYER LICENSED IN THE STATE OF RHODE ISLAND AND THE CITY OF PROVIDENCE.
- 13. NO FLOW WILL BE ACCEPTED UNTIL A COMPLETION CERTIFICATE IS ISSUED.
- 14. 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.
- 15. PRIOR TO CONSTRUCTION OF THE RELOCATION OF ALL WATER MAINS, THE CONTRACTOR SHALL COORDINATE WITH PROVIDENCE WATER SUPPLY BOARD FOR INSPECTION AND CHLORINATION OF NEW PIPING, FITTINGS AND VALVES.

**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.

**LEGEND**

- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STONE WALL
- EXISTING CURB
- PROPOSED CURB
- EXISTING GUARD RAIL
- EXISTING DRAIN LINE
- PROPOSED DRAIN LINE
- EXISTING DRAINAGE MANHOLE
- PROPOSED DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING TELECOM DUCTBANK
- EXISTING ELECTRIC DUCTBANK
- RELOCATED ELECTRIC DUCTBANK
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING WATER SHUT OFF VALVE
- PROPOSED WATER SHUT OFF VALVE
- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- NOW OR FORMERLY
- TREELINE
- SILT FENCE
- LIMIT OF DISTURBANCE
- TEMPORARY LIMIT OF DISTURBANCE
- TEST HOLE

**JCE**  
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JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
05/29/2024

**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**GENERAL NOTES & LEGEND**

**SHEET 2 OF 7**





**LANDSCAPING REQUIREMENTS:**

PER SECTION 1503 - ONSITE LANDSCAPING AND REQUIRED TREES SECTION C - REQUIRED TREE CANOPY (ALL OTHER DISTRICTS: 15% OF THE SQUARE FOOTAGE OF THE LOT).

22,500 SF TOTAL LOT AREA x 15% OF LOT AREA = 3,375 SF OF TREE CANOPY REQUIRED

**REQUIRED:** 3,375 SF OF TREE CANOPY  
**PROPOSED:** 5,000 SF (7 LARGE STREET TREE)\*

\*THREE (3) EXISTING STREET TREES AND TWO (2) PROPOSED TREES ADJACENT TO THE SUBJECT PROPERTY ARE ASSUMED TO MEET THIS REQUIREMENT (LARGE STREET TREE = 1,000 SF CANOPY)

**VEHICLE, BICYCLE and LOADING SPACE REQUIREMENTS:**

**VEHICLE PARKING:** PER SECTION 1402, TABLE 14-1: OFF STREET VEHICLE AND BICYCLE PARKING REQUIREMENTS

USE: MULTI-FAMILY DWELLING  
 MINIMUM 1 PARKING SPACE PER DWELLING UNIT  
 54 DWELLING UNITS PROPOSED

**REQUIRED:** 54 PARKING SPACES  
**PROVIDED:** 54 PARKING SPACES (3 ADA) (4 COMPACT) (6 ELECTRIC CHARGING)

**BICYCLE PARKING:** ONE (1) BICYCLE SPACE IS REQUIRED PER FIVE (5) DWELLING UNITS. 54 UNITS ARE PROPOSED, THEREFORE 11 BICYCLE SPACES ARE REQUIRED. ALL 18 BICYCLE SPACES ARE PROPOSED WITHIN THE BASEMENT OF THE PROPOSED STRUCTURES; REFER TO ARCHITECTURAL PLANS FOR DETAILED LOCATIONS.

**LOADING:** MULTI-FAMILY DWELLING, 40,000 SQ. FT. OR MORE GFA, ONE (1) LOADING SPACE REQUIRED.

**REQUIRED:** 1 LOADING SPACE  
**PROVIDED:** 1 LOADING SPACE

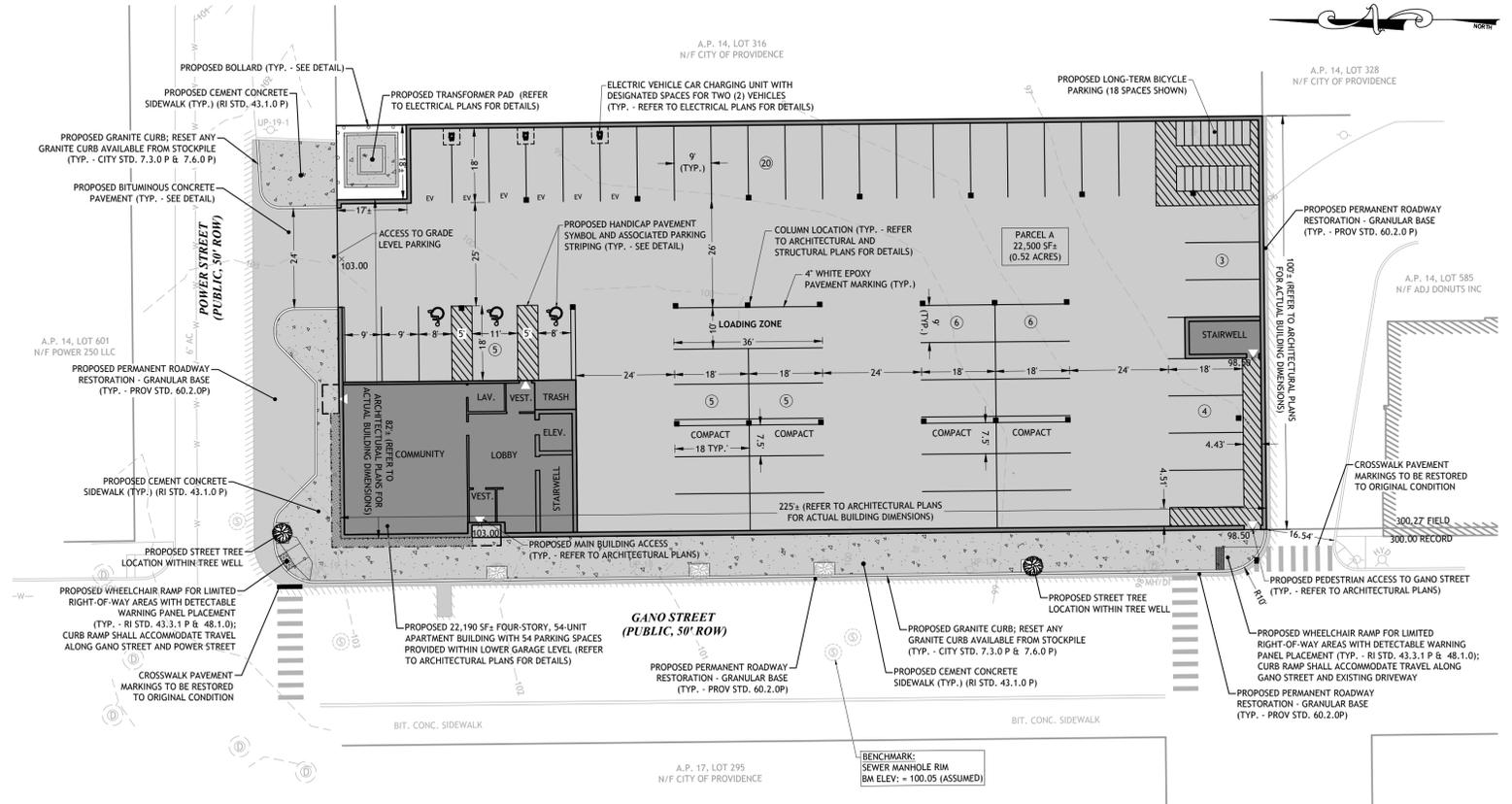
**CITY OF PROVIDENCE DEPT. OF PUBLIC WORKS (DPW) NOTES:**

- CONTACT DPW ENGINEERING BEFORE ANY EXCAVATION IN THE PUBLIC RIGHT-OF-WAY OR SEWER CONNECTION AT 401-680-7525.
- ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH THE CITY'S STANDARD DETAILS.
- ANY AND ALL SURPLUS GRANITE CURBING SHALL BE RETURNED TO THE CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS.
- ANY CONSTRUCTION ACTIVITY THAT HINDERS VEHICLE TRAFFIC OR PEDESTRIAN TRAFFIC MUST BE PERMITTED THROUGH THE CITY TRAFFIC ENGINEER.
- CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING A LETTER OF APPROVAL AND SUBMITTING TO THE DEPARTMENT OF STANDARDS. A PHYSICAL ALTERATION PERMIT, ROAD EXCAVATION PERMIT FOR EACH UTILITY AND SEWER PERMITS ARE REQUIRED BEFORE THAT PARTICULAR WORK COMMENCES.
- ROOF DRAINS SHALL NOT BE TIED INTO THE SANITARY SEWER CONNECTION.

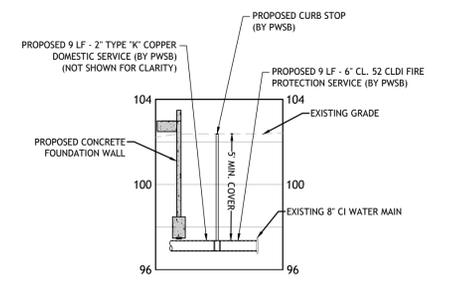
ZONING CRITERIA	REQUIRED	PROPOSED
ZONING DISTRICT	C-2	C-2
MINIMUM LOT AREA	NONE	22,500 SF
MINIMUM BUILDING HEIGHT	16 FT	40.17 FT
MINIMUM FIRST STORY HEIGHT	SEE NOTE 1	10 FT
MAXIMUM BUILDING HEIGHT	50 FT <sup>2</sup>	40.17 FT
MAXIMUM BUILDING COVERAGE	NONE	98.7%
TOTAL MAX. IMPERVIOUS SURFACE COVERAGE	NONE	100%
MINIMUM FRONT SETBACK	SEE NOTE 3	0 FT
MINIMUM SIDE SETBACK	SEE NOTE 4	0 FT
MINIMUM REAR SETBACK	SEE NOTE 5	0 FT

**NOTES:**

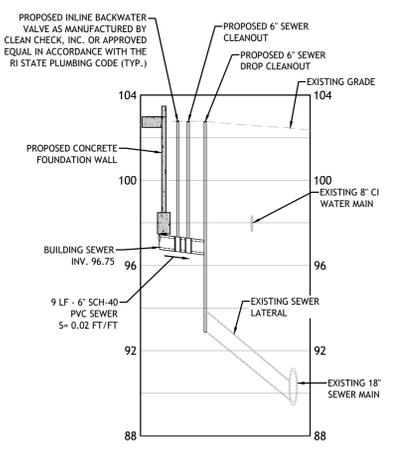
- 9 FT RESIDENTIAL USE; 11' NON-RESIDENTIAL USE
- 50 FT, NOT TO EXCEED 4 STORIES
- BUILD TO ZONE OF 0-5 FT; THE REQUIRED BUILD-TO PERCENTAGE IS 60% ON THE FRONT LOT LINE
- NONE, UNLESS ABUTTING A RESIDENTIAL DISTRICT, THEN 10 FT
- NONE, UNLESS ABUTTING A RESIDENTIAL DISTRICT, THEN 20 FT



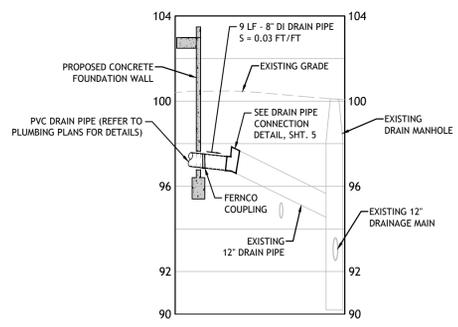
**SITE PLAN: FIRST FLOOR / GRADE LEVEL**  
 SCALE: 1 INCH = 20 FEET



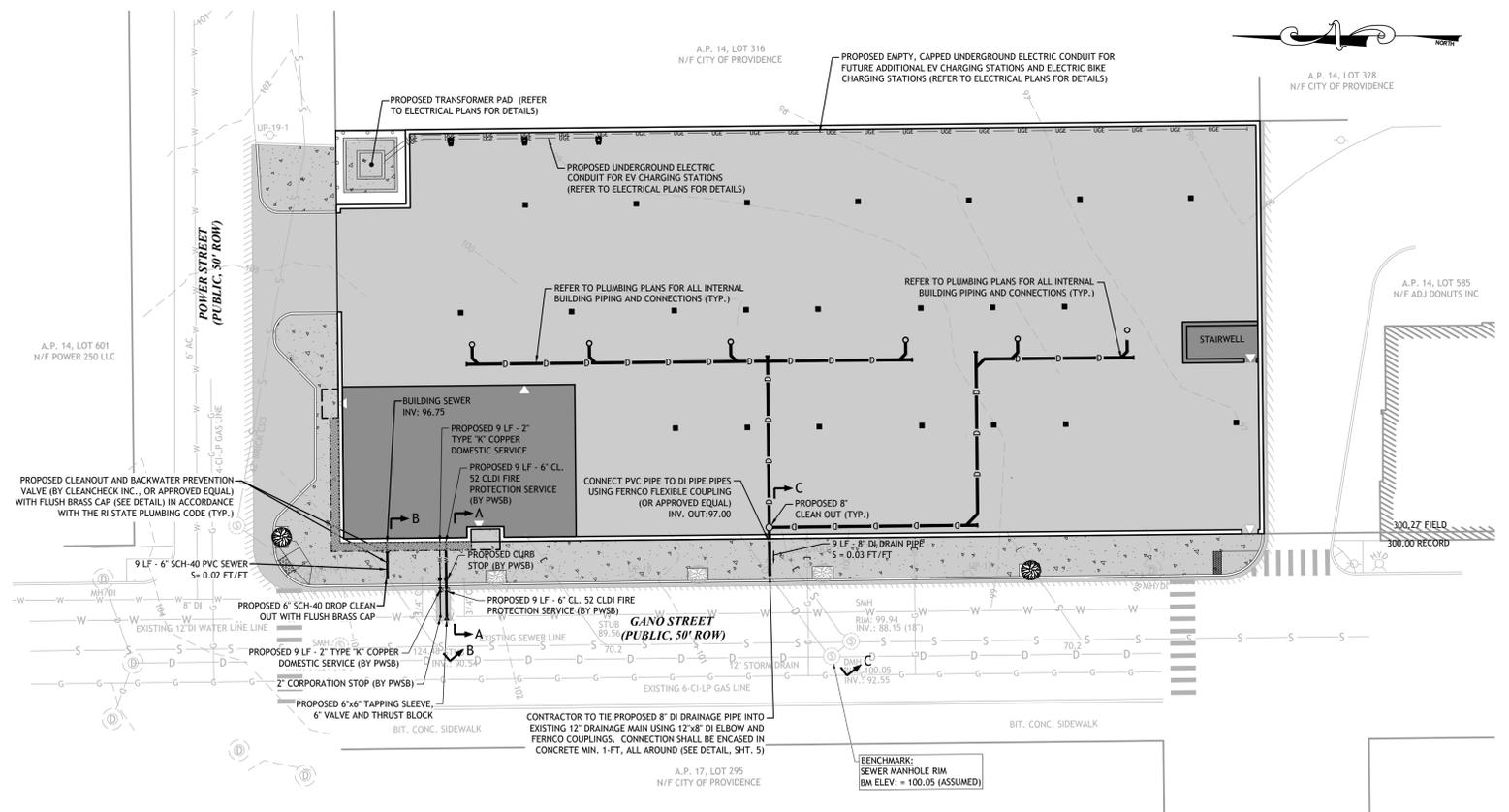
**WATER SERVICE PROFILE A-A**  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 4'



**SEWER PROFILE B-B**  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 4'



**DRAINAGE PROFILE C-C**  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 4'



**UTILITY PLAN: FIRST FLOOR / GRADE LEVEL**  
 SCALE: 1 INCH = 20 FEET



**JCE**

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 05/29/2024

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 135, 141 & 149 GANO STREET  
 PROVIDENCE, RHODE ISLAND  
 AP 14, LOTS 324, 325, 357 & 574

**REVISIONS:**

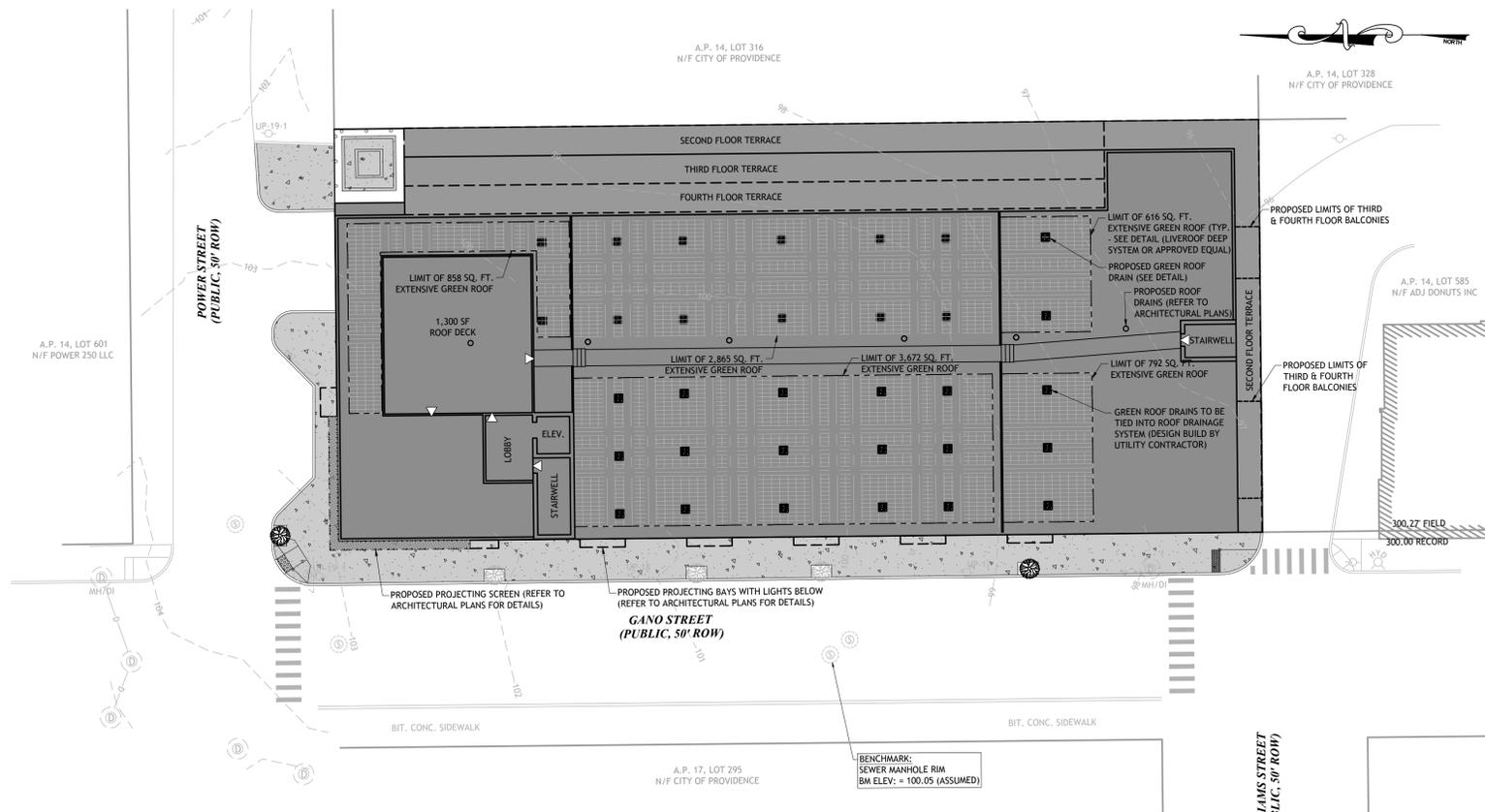
NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
 DRAWN BY: SEP/SD  
 CHECKED BY: JAC  
 DATE: MAY 2024  
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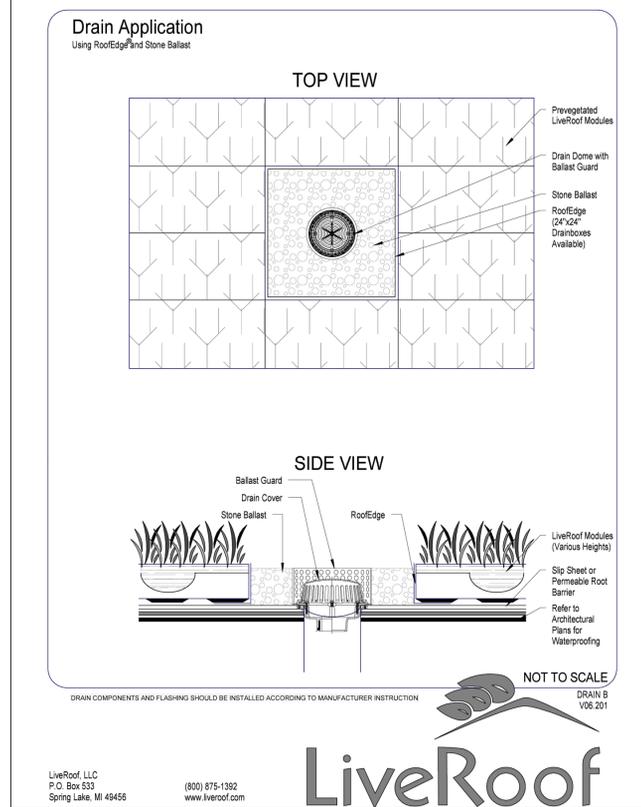
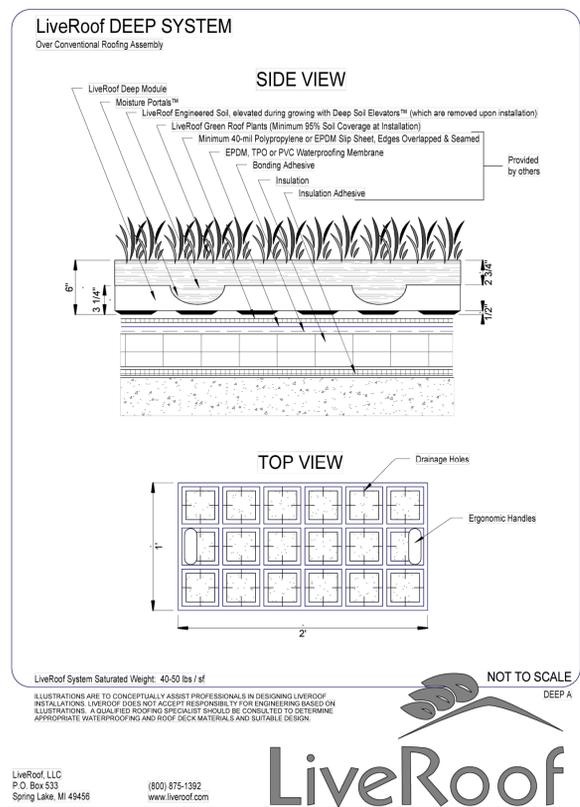
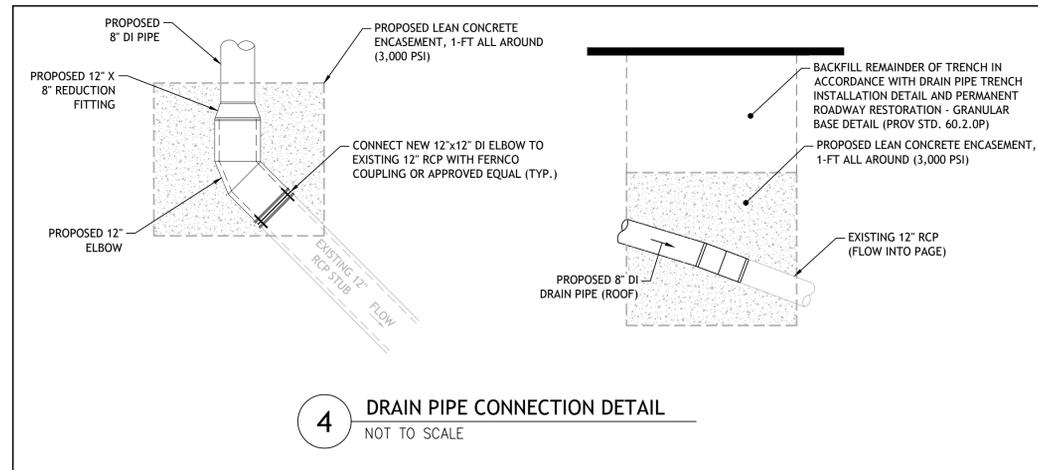
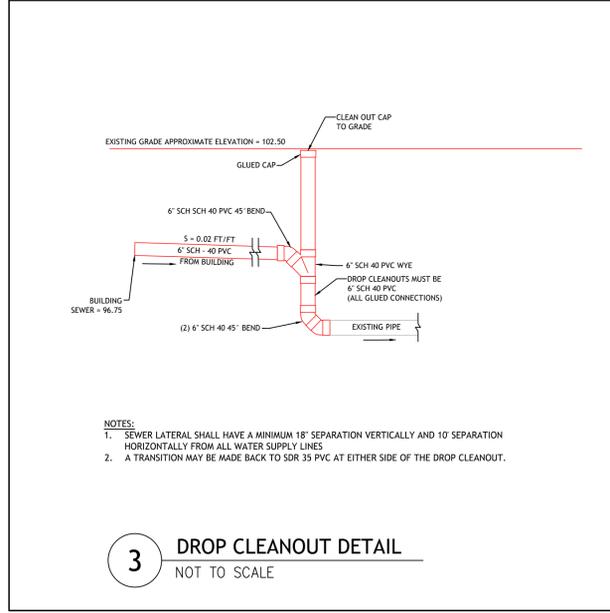
PRELIMINARY, NOT FOR CONSTRUCTION

**SITE PLAN I**

**SHEET 4 OF 7**



**ROOF PLAN**  
SCALE: 1 INCH = 20 FEET



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REVISIONS:

NO.	DATE	DESCRIPTION

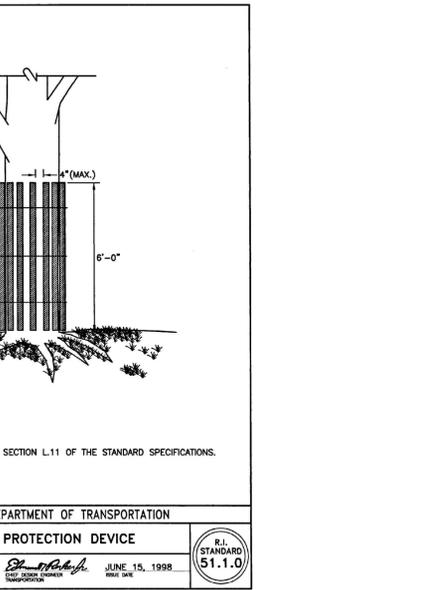
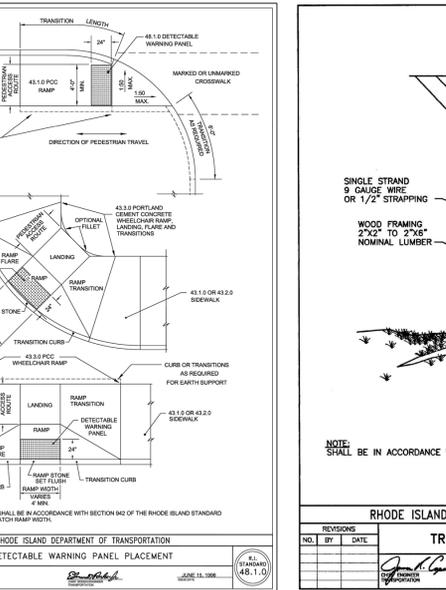
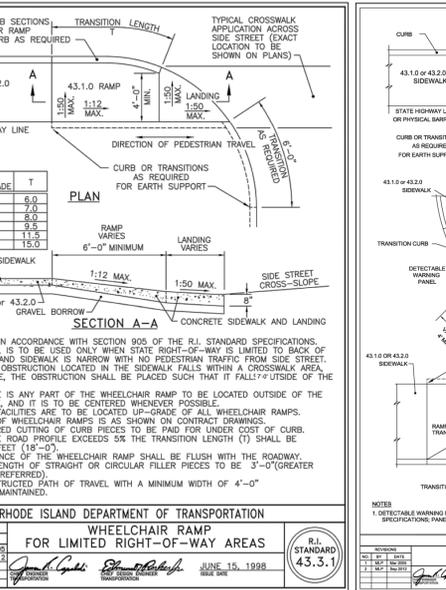
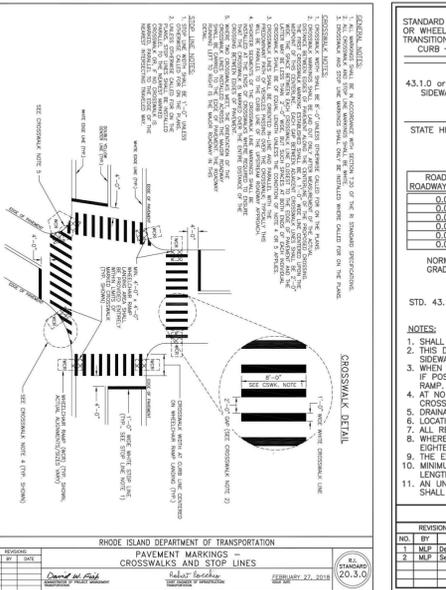
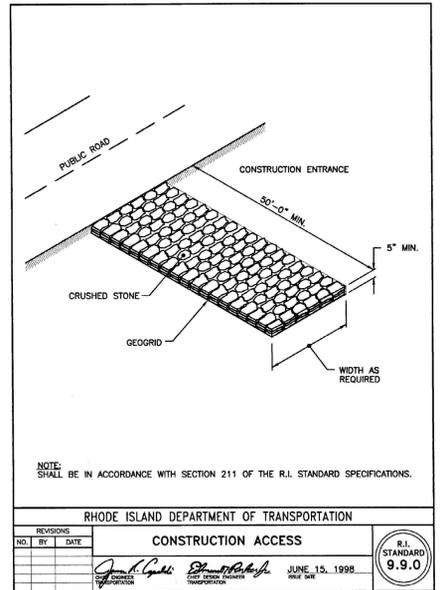
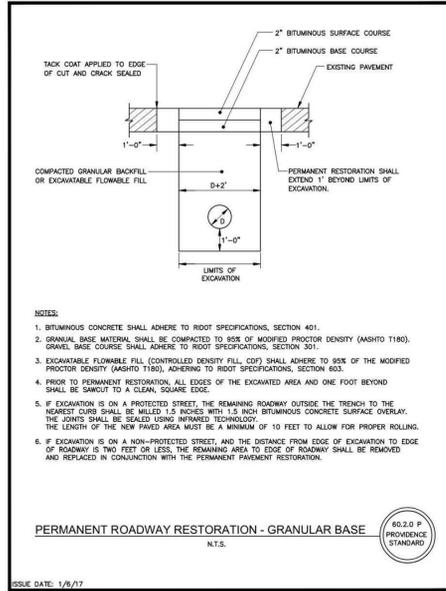
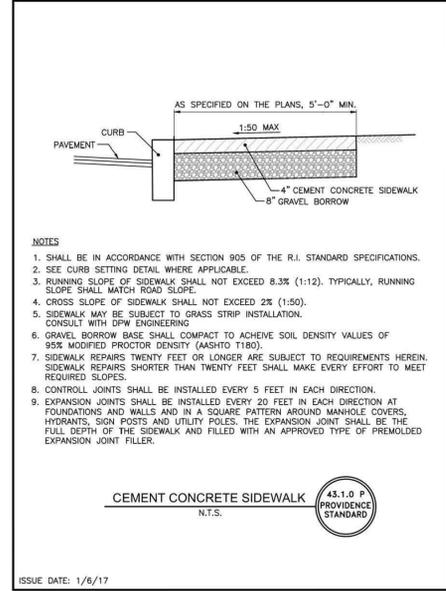
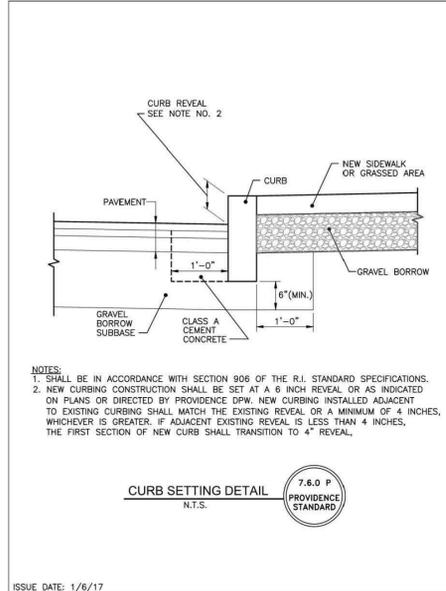
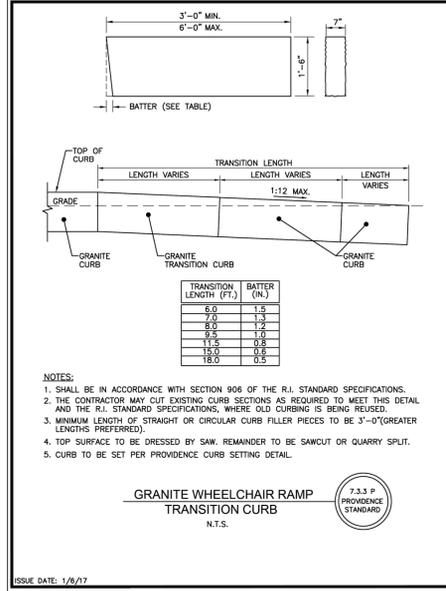
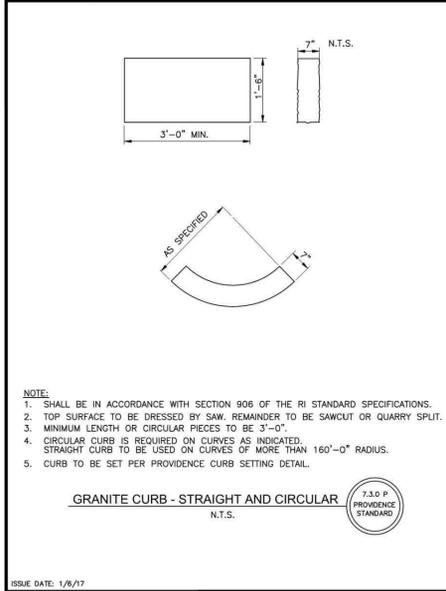
DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
PROJECT NO: 22-68

PRELIMINARY, NOT FOR CONSTRUCTION

**SITE PLAN II**

**SHEET 5 OF 7**

02/22/24 Lundgren Equity Partners/CA/JAC/Gano Street Apartments (PERMIT - SET) dwg. May 29, 2024 8:54am



**JCE**

JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEERING - TRAFFIC ENGINEERING  
DRAINAGE - WATER RESOURCES ENGINEERING  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 WWW.JCEASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED  
PROFESSIONAL ENGINEER  
05/29/2024

**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

REVISIONS:

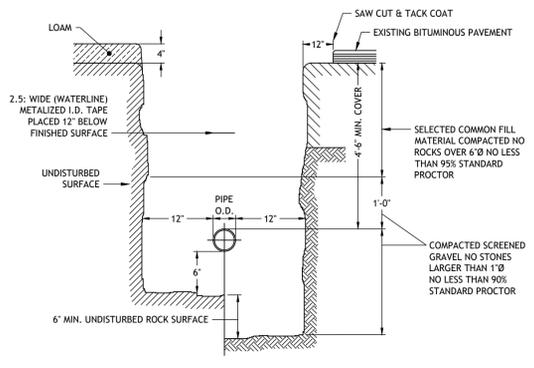
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DESIGNED BY: DRD  
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CHECKED BY: JAC  
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PRELIMINARY, NOT FOR CONSTRUCTION

**DETAILS I**

**SHEET  
6 OF 7**



**5 WATER TRENCH DETAIL**  
NOT TO SCALE

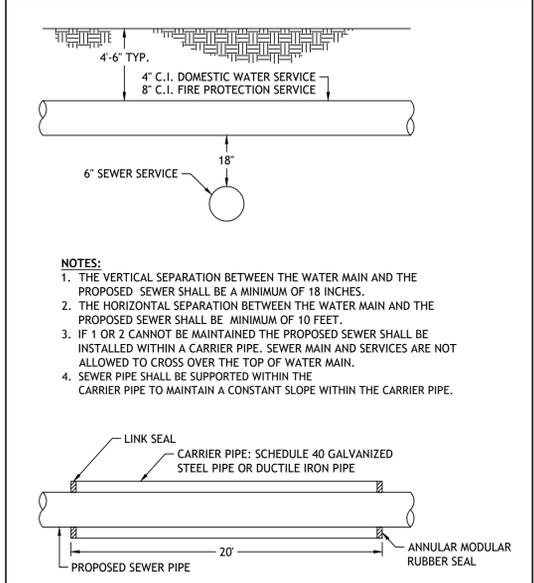
**PROVIDENCE WATER SUPPLY BOARD (PWSB)**  
WATER SERVICE INSTALLATION/SANITARY SEWER FACILITIES SEPARATION REQUIREMENTS

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, VALVE, 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)

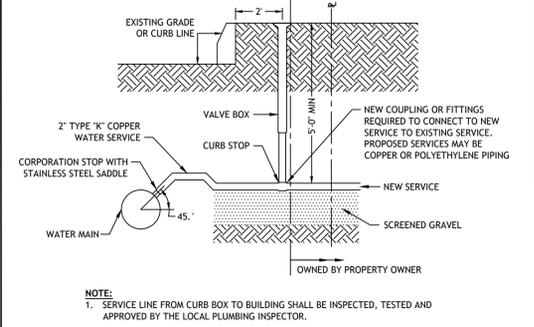
- WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, A DEVIATION MAY BE GRANTED ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO WATER SERVICE, PROVIDED THAT:
  - THE SEWER LINE AND WATER SERVICE ARE LAID IN SEPARATE TRENCHES AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.
  - 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.
- 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:
  - 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
  - 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.

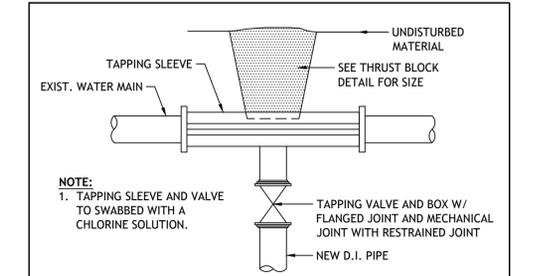
- DOMESTIC WATER SERVICE TO BE INSPECTED BY PWSB PRIOR TO BACKFILLING AND THE CONTRACTOR MUST GIVE PWSB 48 HOURS NOTIFICATION.
- CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE PWSB AS INDICATED IN SECTION 400 - CONSTRUCTION PROCEDURES.



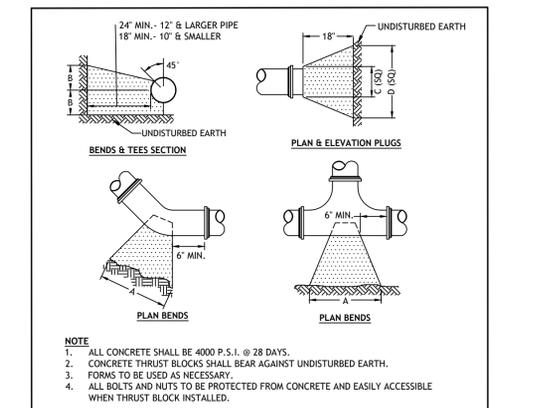
**13 SEWER/WATER SEPARATION DETAIL**  
NOT TO SCALE



**6 TYPICAL WATER SERVICE CONNECTION**  
NOT TO SCALE



**10 TAPPING SLEEVE AND VALVE**  
NOT TO SCALE



**14 THRUST BLOCK DETAIL**  
NOT TO SCALE

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

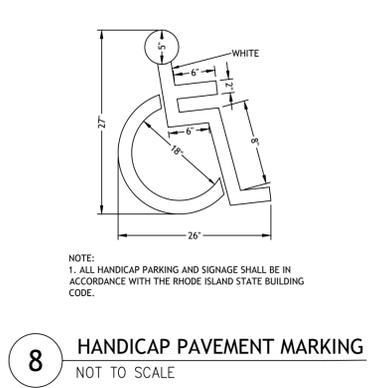
SIZE	TEES			PLUGS			90° BEND			45° BEND			22 1/2° BEND			11 1/4° BEND		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4"	22"	12"	22"	12"	24"	16"	20"	10"	7"	11"	5"							
6"	30"	18"	30"	18"	35"	22"	27"	15"	19"	12"	13"	8"						
8"	38"	24"	38"	24"	46"	29"	33"	22"	25"	14"	19"	10"						
10"	41"	28"	41"	28"	48"	34"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

**HANDICAPPED PARKING**  
CERTIFICATE REQUIRED  
TOWEL ENFORCED  
500.00 FINE  
VAN

NOTE: SIGNS ARE TO CONFORM WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.  
\* VAN ACCESSIBLE SIGNS FOR SPACES ADJACENT TO THE 8' STRIPED ISLE.

SIGN NOTES:  
1. SIGN POSTS SHALL BE GALVANIZED STEEL U CHANNEL (3 1/2" WIDE MIN) AND INSTALLED IN CONFORMANCE TO M.U.T.C.D. AND RHODE ISLAND STANDARD SPECIFICATIONS.  
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN).  
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.  
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8'X8'X6" SQUARE BOX FORM.

**7 HANDICAP PARKING SIGNS**  
NOT TO SCALE



**8 HANDICAP PAVEMENT MARKING**  
NOT TO SCALE

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"

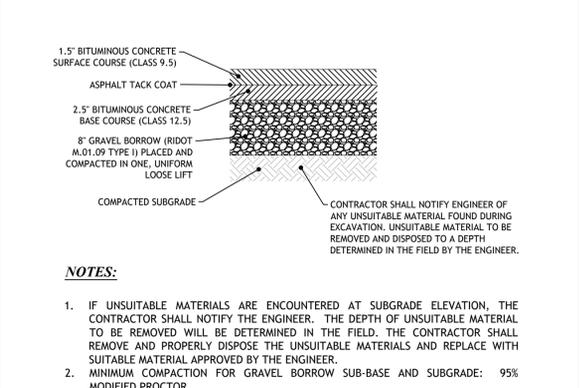
MINIMUM RECOMMENDED COVER BASED ON SURFACE LEVEL LOADING CONDITION

PIPE DIAM.	HEAVY CONSTRUCTION (75T AXLE LOAD)*
12"-48"	48"
54"-60"	24"
60"	60"

\*VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

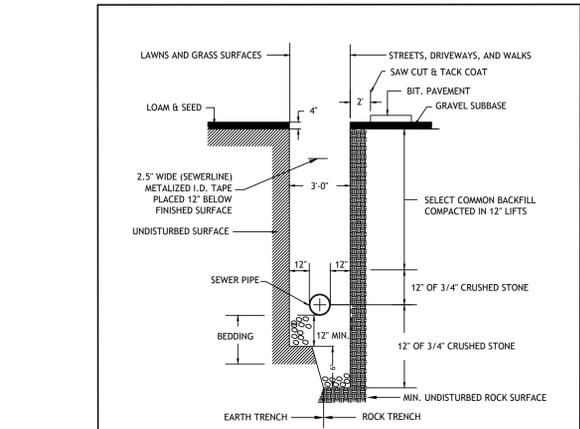
NOTE: 1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.  
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, 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. TRENCH BACKFILL WITHIN CITY RIGHT-OF-WAY SHALL BE CONTROLLED LOW-STRENGTH MATERIAL (CLSM). CLSM SHALL BE INCLUDED ON THE LATEST VERSION OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION'S APPROVED READY-MIX PORTLAND CEMENT CONCRETE MIX CLASSIFICATIONS.  
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.

**11 DRAIN PIPE TRENCH INSTALLATION DETAIL**  
NOT TO SCALE



**9 BITUMINOUS CONCRETE PAVEMENT**  
NOT TO SCALE

- 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.



**12 TYPICAL SEWER LINE TRENCH DETAIL**  
NOT TO SCALE

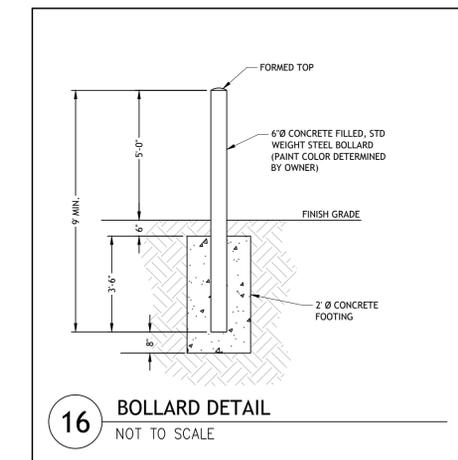
- NOTES:  
1. 3/4-INCH CRUSHED STONE FOUNDATION SHALL BE PLACED 12" UNDER THE PIPE UP TO THE PIPE GRADE. THE PIPE LAID THEREON, AND 3/4-INCH CRUSHED STONE PULLED AGAINST THE PIPE SIDE TO FIRMLY HOLD THE PIPE IN PLACE. NO BLOCKS OR STONES SHALL BE USED TO SUPPORT THE PIPE.  
2. 3/4-INCH CRUSHED STONE 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.

**Brass Plug For Extension Cover**

Countersunk plug tapped 1/4-20  
Includes a blind hole for mounting a cover plate to conform with local codes

PART NO.	DESCRIPTION	O.D.	CTN/MSTR
PS4150	1-1/2" countersunk	1-7/8"	1/200
PS4200	2" countersunk	2-3/8"	1/200
PS4250	2-1/2" countersunk	2-7/8"	1/150
PS4300	3" countersunk	3-3/8"	1/100
PS4350	3-1/2" countersunk	3-7/8"	1/100
PS4400	4" countersunk	4-1/2"	1/80
PS4500	5" countersunk	5-1/2"	1/40
PS4600	6" countersunk	6-1/2"	1/30
PS4800	8" countersunk	8-1/2"	1/12

**15 BRASS CAP DETAIL**  
NOT TO SCALE



**16 BOLLARD DETAIL**  
NOT TO SCALE

02/22/24 Lundgren, Equity Partners/CAD/Cano, Street Apartments [PERMIT - SET] dwg. May 29, 2024, 8:54am

**JCE**  
JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEER - LICENSED PROFESSIONAL ENGINEER  
DRAINAGE - WETLANDS - EROSION CONTROL  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
05/29/2024

**54-UNIT RESIDENTIAL DEVELOPMENT**  
LUNDGREN EQUITY PARTNERS LLC  
135, 141 & 149 GANO STREET  
PROVIDENCE, RHODE ISLAND  
AP 14, LOTS 324, 325, 357 & 574

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: DRD  
DRAWN BY: SEP/SD  
CHECKED BY: JAC  
DATE: MAY 2024  
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**DETAILS II**

**SHEET 7 OF 7**

