

### INVITATION TO BID

The Town of Scituate is currently accepting bids for: EXCAVATION OF FOUNDATION FOR NEW POLICE STATION 1315 CHOPMIST HILL ROAD, SCITUATE, RHODE ISLAND

Sealed bids will be received in the Office of the Town Clerk, Town of Scituate, Scituate Town Hall, 195 Danielson Pike, Scituate, Rhode Island, until 3 p.m. on Monday, May 14, 2018 at which time they will be publicly opened and read aloud in the Town Council Chambers, Town Hall, 195 Danielson Pike, Scituate, Rhode Island.

The bid envelope should be clearly marked in the lower left-hand corner "EXCAVATION OF FOUNDATION FOR NEW POLICE STATION".

The scope of work includes the following:

- A. Excavation of an 8,215 square foot commercial building foundation. The limits of the foundation including the footprint is as shown on the *Site Plans for a Proposed Municipal Police Station, Town of Scituate, Rhode Island,* prepared by Joe Casali Engineering, Inc., dated April 26, 2018 and on *Foundation Plans* and associated written specifications, prepared by Richard Cardarelli, AIA, dated April 10, 2018. *Site Plans* and *Foundation Plans* are attached. Additional copies are available at the Building Official's Office, 195 Danielson Pike, Scituate, Rhode Island for review.
- B. Spread and compact Structural Fill as shown on the *Site Plans* and the *Foundation Plans*. Bidder will be responsible for spreading and compacting Structural Fill up to the elevation of the required <sup>3</sup>/<sub>4</sub>-inch crushed stone base under the footings and the floor slab. Coordinate with the Town Engineer to perform all necessary Geotechnical Special Inspections, as required per the Rhode Island State Building Code, SBC-1.
- C. Spread ¾-inch crushed stone as shown on *Foundation Plans*. Bidder will be responsible for spreading and compacting ¾-inch crushed stone up to the elevation of the bottom of the footings and the concrete floor slab. Coordinate with the Town Engineer to perform all necessary Geotechnical Special Inspections, as required per the Rhode Island State Building Code, SBC-1.
- D. Construction dewatering is not anticipated to be required, however, bidder shall include a \$5,000 allowance for dewatering services, and include a day-rate for dewatering services should the \$5,000 allowance be exceeded.
- E. Coordinate with the Town Engineer, the Town Building/Zoning Official, the Design Engineer(s) of Record and the Architect of Record for all necessary Inspections.

Bid price per day is based on an 8-hour day (operator/equipment).

Page 1 of 2

John Mahoney: 401-757-1197
Scituate Town Council President

The Awarding Authority reserves the right to waive irregularities and to reject any or all bids, wholly or in part, to waive any informalities or defects in any or all bids and to make awards deemed in the best interest of the Town of Scituate.

Certificates of liability insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates and the insurance policies shall contain a provision that coverages afforded under these policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner.

Attention is called to the fact that not less than the prevailing wage rates shall be paid on this Project. Attention is also called to the requirements relating to Workmen's Compensation and Equal Employment Opportunities.

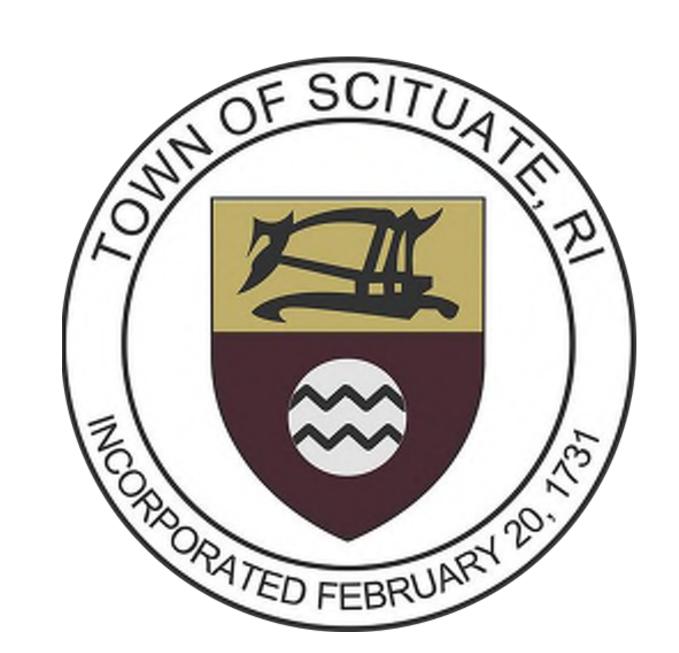
Any individuals requiring interpreter services for the hearing impaired should call the Town Clerk no less than seventy-two (72) hours in advance of the bid opening.

Page 2 of 2 John Mahoney: 401-757-1197 SITE PLANS FOR A PROPOSED MUNICIPAL

# POLICE STATION TOWN OF SCITUATE, RHODE ISLAND

1315 CHOPMIST HILL ROAD SCITUATE, RHODE ISLAND AP 35, LOT 10

ZONING DISTRICT: RURAL RESIDENTIAL (RR120)





**INDEX OF DRAWINGS** 

SHEET NO. PLAN

**REFERENCE PLAN:** 

SHEET 1 OF 1

**COVER SHEET** 

GENERAL NOTES & LEGEND

GRADING & DRAINAGE PLAN

SURVEY PLAN, PREPARED BY

FOSTER SURVEY, DATED FEBRUARY 26, 2018

SITE PREPARATION PLAN

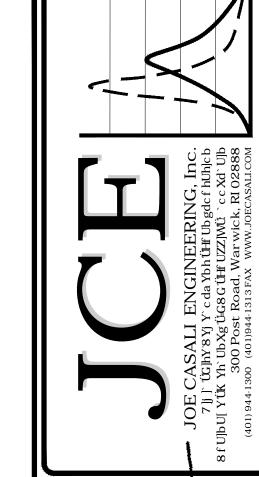
SITE & UTILITY PLAN

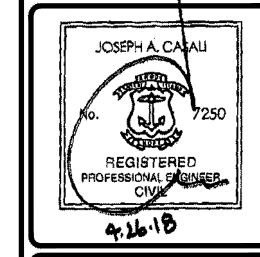
RI STANDARD DETAILS

RIDOT PAP PLAN

DETAILS I

**DETAILS II** 





DRAWN BY: SD/SEP CHECKED BY: DRD APRIL 2018

PROJECT NO: 07-109c PRELIMINARY, NOT FOR CONSTRUCTION

> COVER SHEET

SHEET 1 OF 9

## FILINGS:

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES - PRELIMINARY DETERMINATION TOWN OF SCITUATE FIRE DEPARTMENT

## APPROVALS:

OWNER/

APPLICANT:

ENGINEER:

**ENGINEER:** 

SURVEYOR:

PO BOX 328

PHONE: (401) 461-0030

300 POST ROAD

WARWICK, RI 02888

PHONE: 401-944-1300

FAX: 401-944-1313

JOECASALI.COM

FOSTER SURVEY

PHONE: 401-647-9240

8 NORTH ROAD FOSTER, RI 02825

JOE CASALI ENGINEERING, INC.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION - PHYSICAL ALTERATION PERMIT (PERMIT NO. 180322)

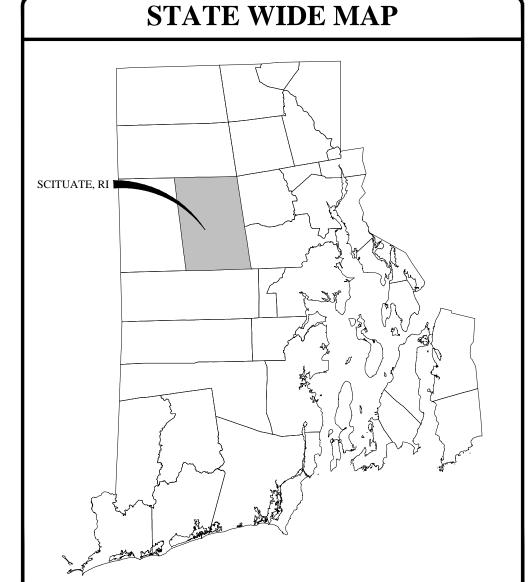
#### TOWN OF SCITUATE WETLAND NATURAL RESOURCE SERVICES 195 DANIELSON PIKE **BIOLOGIST:** 180 TINKHAM LANE PO BOX 311 SCITUATE, RI 02857 HARRISVILLE, RI 02830 PHONE: 401-647-2822 PHONE: (401) 568-7490 RICHARD CARDARELLI, AIA MCCLANAGHAN ASSOCIATES, INC. 51 SOCKANOSSET CROSS ROAD **ENGINEER:** 178 TREASURE ROAD CRANSTON, RI 02920 NARRAGANSETT, RI 02882

PHONE: 401-524-3457

**PROJECT TEAM** 



LOCUS MAP (1"=2,000")



- . CLASS I LIMITED CONTENT BOUNDARY SURVEY AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY FOSTER SURVEY, 8 NORTH ROAD, FOSTER RI IN FEBRUARY
- 2. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR CITY WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
- 3. THIS SITE LIES IN ZONE X (AREAS OUTSIDE THE 500-YEAR FLOOD PLAIN), AS SHOWN ON THE FIRM MAP FOR THE TOWN OF SCITUATE, RI, MAP NUMBER 44007C0260G, EFFECTIVE DATE MARCH 2, 2009.
- 4. SOILS EXISTING ON THE SITE ARE WOODBRIDGE FINE SANDY LOAM (WoB), RIDGEBURY, LEICESTER, AND WHITMAN SOILS (Rf), AND PAXTON FINE SANDY LOAM
- 5. SOIL EVALUATIONS PERFORMED BY JOE CASALI ENGINEERING, INC. ON AUGUST 21, 2017.
- 6. FRESHWATER WETLANDS CLASSIFICATION PERFORMED BY NATURAL RESOURCE SERVICES, INC. IN FEBRUARY 2018.

CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.

3. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.

2. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.

- 4. 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 OR A RHODE ISLAND REGISTERED PROFESSIONAL
- 5. 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
- 6. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ACTUAL SIZE OF THE PROPOSED BUILDING.
- 7. WHERE NECESSARY TO REMOVE CURBS, CATCH BASINS OR DRAINS TO COMPLETE WORK, THE CONTRACTOR SHALL REPLACE SUCH ITEMS TO THE SATISFACTION OF THE TOWN AT NO ADDITIONAL COST TO THE OWNER.
- 8. ANY EXISTING PIPE OR UTILITY DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE
- 9. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION OR REPLACE TREES, SHRUBS, FENCES, SIGNS, GUARDRAILS, DRIVEWAYS, SIDEWALKS AND ANY
- OTHER OBJECT AFFECTED BY THIS OPERATION. 10. THE TOPS OF ALL VALVE BOXES AND CURB BOXES SHALL BE FLUSH WITH GROUND OR PAVEMENT SURFACE LEVEL AND PLUMB, UNLESS OTHERWISE DIRECTED.
- 11. ROADWAYS SHALL BE LEFT PASSABLE AT ALL TIMES. CLOSURE OF ROADWAY IS NOT PERMITTED
- 12. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL DRIVEWAYS AT COMPLETION OF EACH DAYS WORK.
- 13. WATER SERVICE SHALL BE MAINTAINED AT ALL TIMES.
- 14. ALL LEDGE TO BE REMOVED BY MECHANICAL MEANS.
- 15. 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
- 16. REFER TO PLUMBING PLANS FOR CONTINUATION OF ALL UTILITIES WITHIN 5' (FIVE) FEET OF THE BUILDING.
- 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, 2004 EDITION (WITH LATEST ADDENDA) AND THE RIDOT STANDARD DETAILS, 1998 EDITION (WITH

- 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. 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.
- 3. 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 OR CITY.
- 4. 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.

## LAYOUT NOTE:

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.

- 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 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- 2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DIVIDES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN
- 3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR TOWN RIGHT-OF-WAY.
- 4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC, SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 1988 EDITION. INCLUDING REVISION 3, SEPTEMBER 3, 1993 AND SUBSEQUENT ADDENDA.
- 5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE RIDOT SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

1. THE PROPOSED DRAINAGE LINES SHALL BE ADS N-12 HPDE PIPE OR AN APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED HERE WITHIN.

## SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 1. THE SILT FENCE / HAY BALE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS.
- 2. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION
- 3. ALL CATCH BASINS AND CULVERTS SHALL BE PROTECTED WITH STAKED HAYBALES (R.I. STD. 9.8.0) DURING CONSTRUCTION ACTIVITIES. ALL PROPOSED STORM WATER DISCHARGE AREAS SHALL BE LINED WITH A RIPRAP SPLASH PAD AND PROTECTED WITH STAKED HAYBALE OUTLET PROTECTION (R.I. STD. 9.1.0), OR STAKED HAYBALE WITH SILT FENCE (R.I. STD. 9.3.0) OUTLET PROTECTION (STAKED HAYBALE OR STAKED HAYBALE WITH SILT FENCE) SHALL ALSO BE INSTALLED AT ALL EXISTING STORMWATER DISCHARGE LOCATIONS WHERE DISTRIBUTING PIPES, CATCH BASINS, AND MANHOLES ARE TO BE
- 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
- 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.

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:

- 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.
- 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),
- 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.
- APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.

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.

## BMP MAINTENANCE SCHEDULE

- ALL MAINTENANCE (INCLUDING CLEANING) REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE
- A. MEASURES NEEDED TO ENSURE THE PROPER OPERATION OF THE STORMWATER RUNOFF (DRAINAGE) AND WATER QUALITY CONTROL SYSTEMS TO INCLUDE INSPECTION, CLEANING AND REPAIRS ALL PIPES, INTAKE AND DISCHARGE STRUCTURES, CATCH BASIN SUMPS, AND MANHOLES.
- B. INSPECTION OF ALL SLOPES, BERMS, AND OTHER CONTROL STRUCTURES FOR STRUCTURAL INTEGRITY/STABILITY AND EVIDENCE OF SOIL EROSION PROCESSES, AND MAINTENANCE OF THESE STRUCTURES IF NECESSARY. INSPECTIONS SHALL BE PERFORMED FOLLOWING ALL RAIN EVENTS OF 1/2
- 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.
- 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).
- AFTER CONSTRUCTION, STORMWATER BMPS SHALL BE INSPECTED AND MAINTAINED BY THE OWNER AS FOLLOWS

ANNUAL BASIS AND AFTER STORM EVENTS OF GREATER THAN OR EQUAL TO 2 INCHES.

INCH RAINFALL OR MORE IN A 24-HOUR PERIOD, OR BI-MONTHLY IF NO RAINFALL EVENT OCCURS.

## ROOF DRAIN LEADERS

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

- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, THE SAND FILTER SHALL BE INSPECTED AFTER THE FIRST TWO RAINFALL EVENTS OF AT LEAST 1.0 INCH TO ENSURE THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER INSPECTIONS SHALL BE CONDUCTED ON AN
- SILT AND SEDIMENT SHALL BE REMOVED FROM THE FILTER BED WHEN THE ACCUMULATION EXCEEDS ONE INCH. WHEN THE FILTERING CAPACITY OF THE SAND FILTER DIMINISHES SUBSTANTIALLY (I.E. WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 48 HOURS), THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH MATERIAL. THE REMOVED SEDIMENTS SHALL BE DISPOSED IN AN ACCEPTANCE MANNER AT AN APPROVED AND PERMITTED LOCATION.

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

## SEQUENCE & STAGING OF PROPOSED CONSTRUCTION ACTIVITIES:

THIS IS A GENERAL SEQUENCE AND STAGING OF CONSTRUCTION ACTIVITIES. A DETAILED SEQUENCE WITH TIME LINES SHALL BE ESTABLISHED BY THE CONTRACTOR IN COORDINATION WITH THE OWNER, ENGINEER AND SITE CONTRACTORS PRIOR TO THE START OF CONSTRUCTION.

- 1. SURVEY AND STAKE THE PROPOSED DRAINAGE BMP'S (SEDIMENT FOREBAY, INFILTRATION BASIN, TREE FILTERS, AND GRASS SWALES), ROADWAY CENTERLINE, WATER LINE, OWTS LOCATIONS AND LIMIT OF DISTURBANCE. THE CONTRACTOR SHALL NOT COMPACT THE AREAS OF THE DRAINAGE BMPS DURING CONSTRUCTION OPERATIONS. CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE TO PROTECT BMPS.
- 2. PLACE SEDIMENTATION BARRIERS (HAY BALES OR SILT FENCE) AS SHOWN ON THE PLANS AND AS STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
- 3. BEGIN SITE WORK (CLEARING AND GRUBBING, EXCAVATING AND GRADING ETC.) TOPSOIL IS TO STRIPPED AND STOCKPILED WITHIN DISTURBANCE LIMITS. THE STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS. STOCKPILES TO BE COVERED OR TEMPORARILY SEEDED.
- 4. EXCAVATE AND CONSTRUCT STORMWATER MANAGEMENT AREAS AS SHOWN ON PLAN. DIVERT ALL THE RUNOFF FROM DISTURBED AREAS TO THE PROPOSED STORMWATER STORAGE AREA. DIVERT ALL THE RUNOFF FROM DISTURBED AREAS TO THE PROPOSED STORMWATER STORAGE AREA.
- 5. INSTALL UTILITIES AND DRAINAGE INCLUDING DRAINAGE PIPE. IMMEDIATELY PLACE THE RIP-RAP AT THE DISCHARGE POINTS. SEED ALL DISTURBED
- 6. BEGIN BUILDING CONSTRUCTION.
- 7. BEGIN PAVEMENT AND PROPOSED GRADING. BRING ROADWAY TO SUBBASE GRADE WITH GRAVEL. SEED ALL DISTURBED AREAS.
- 8. FINISH PAVEMENT CONSTRUCTION.
- 9. MAINTAIN SEDIMENT AND EROSIONS CONTROLS WHILE BUILDING ARE CONSTRUCTED.
- 10. FINISH LANDSCAPING AND PERMANENT STABILIZATION.
- 11. INSPECT AND REPAIR ALL DRAINAGE STRUCTURES INCLUDING DISCHARGE POINTS. REMOVE ANY DEBRIS (LEAVES, TREE LIMBS, BOULDERS, ETC.) FROM DRAINAGE INLETS AND OUTLETS. FLUSH ALL SEDIMENTS FROM DRAINAGE PIPES AND APPLY TOPSOIL TO PONDS.

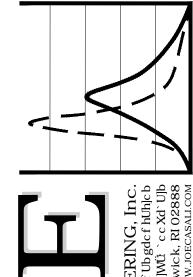
**—** EXISTING PROPERTY LINE

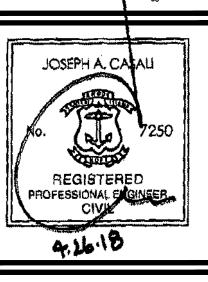
12. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED TO ALL DISTURBED

## **LEGEND**

	- ABUTTING PROPERTY LINE
	BUILDING SETBACK LINE
<u> </u>	WETLAND EDGE
ŴWF	WETLAND FLAG
	· 50' PERIMETER WETLAND
100 — — —	EXISTING CONTOUR
100	PROPOSED CONTOUR
00000	EXISTING STONE WALL
<b>©</b>	- IRON PIN
•	- DRILL HOLE
o	CONCRETE BOUND
	GUARD RAIL
	- DRAIN LINE
(D)	- DRAINAGE MANHOLE
<u> </u>	- CATCH BASIN
( <u>)</u>	- UTILITY POLE
OHW——OHW—	- OVERHEAD WIRES
UGE -	- UNDERGROUND ELECTRIC
	WATER LINE
WV	WATER SHUT OFF VALVE
®	WELL
s	SEWER
(S)	SMH
N/F	NOW OR FORMERLY
	TREELINE
LOD —	LIMIT OF DISTURBANCE
<u> </u>	COIL EVALUATION
- <b>₩</b> • R-101	SOIL EVALUATION

SOIL BORING







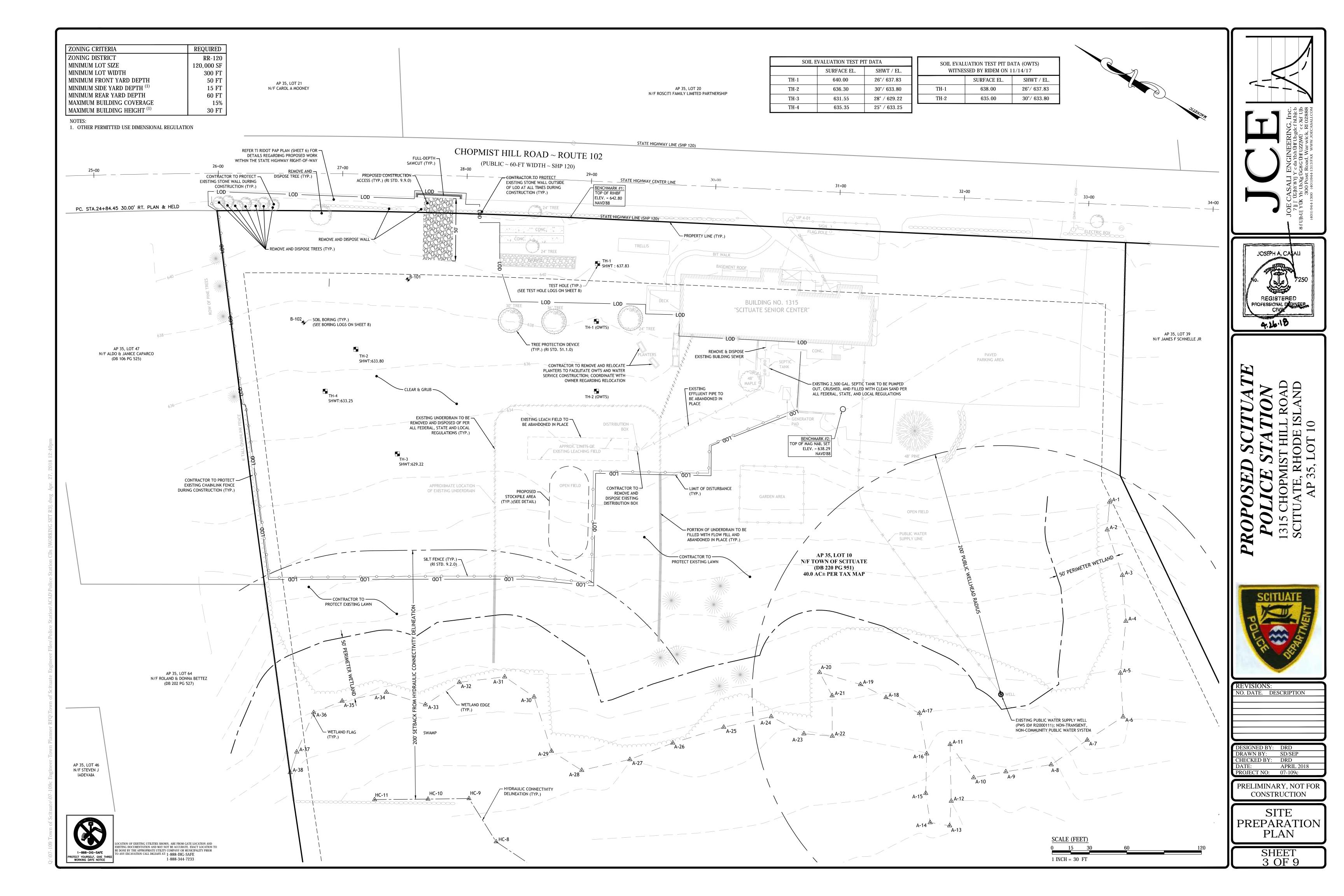
NO. DATE. DESCRIPTION

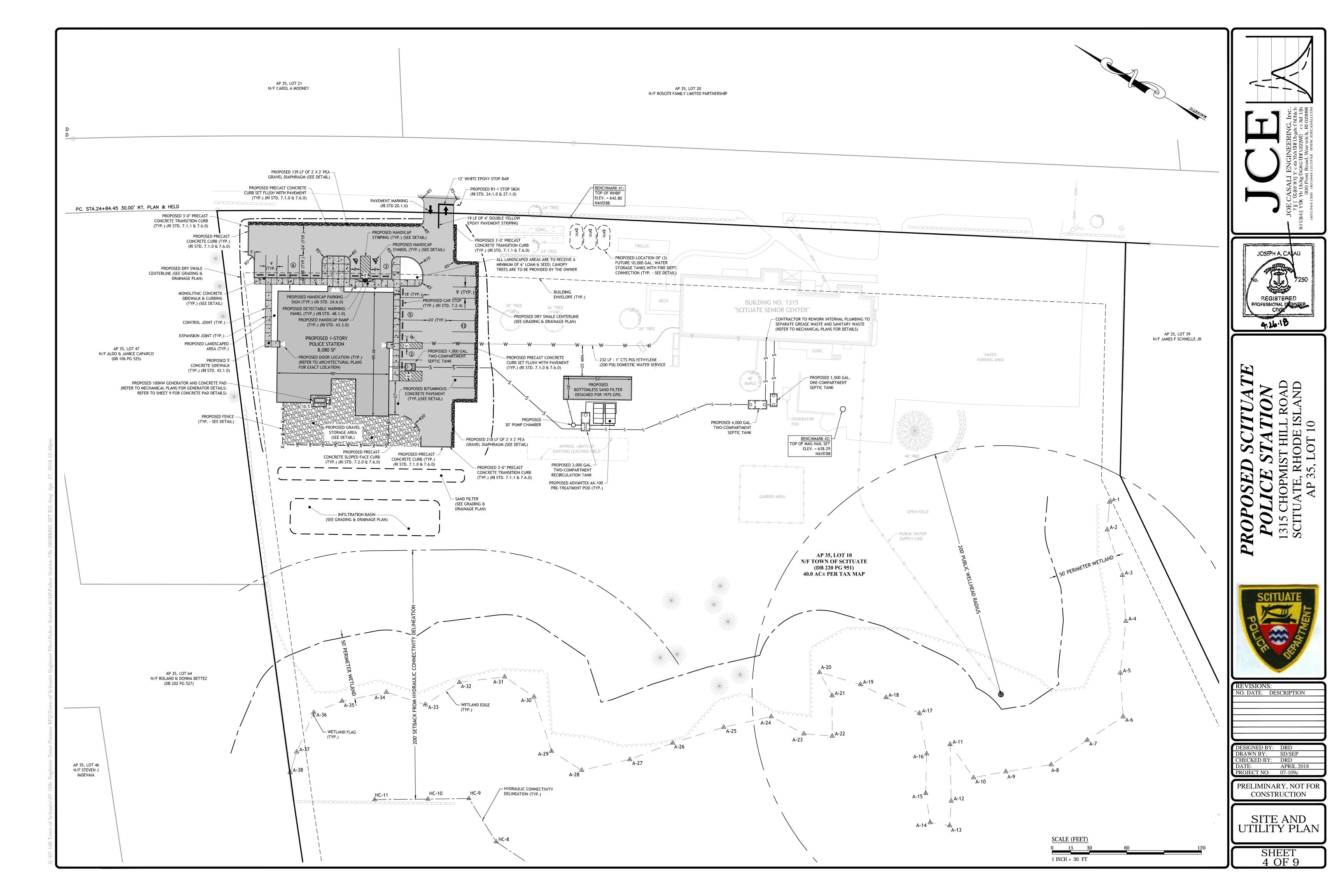
DESIGNED BY: DRD DRAWN BY: SD/SEP CHECKED BY: DRD APRIL 2018 PROJECT NO: 07-109c

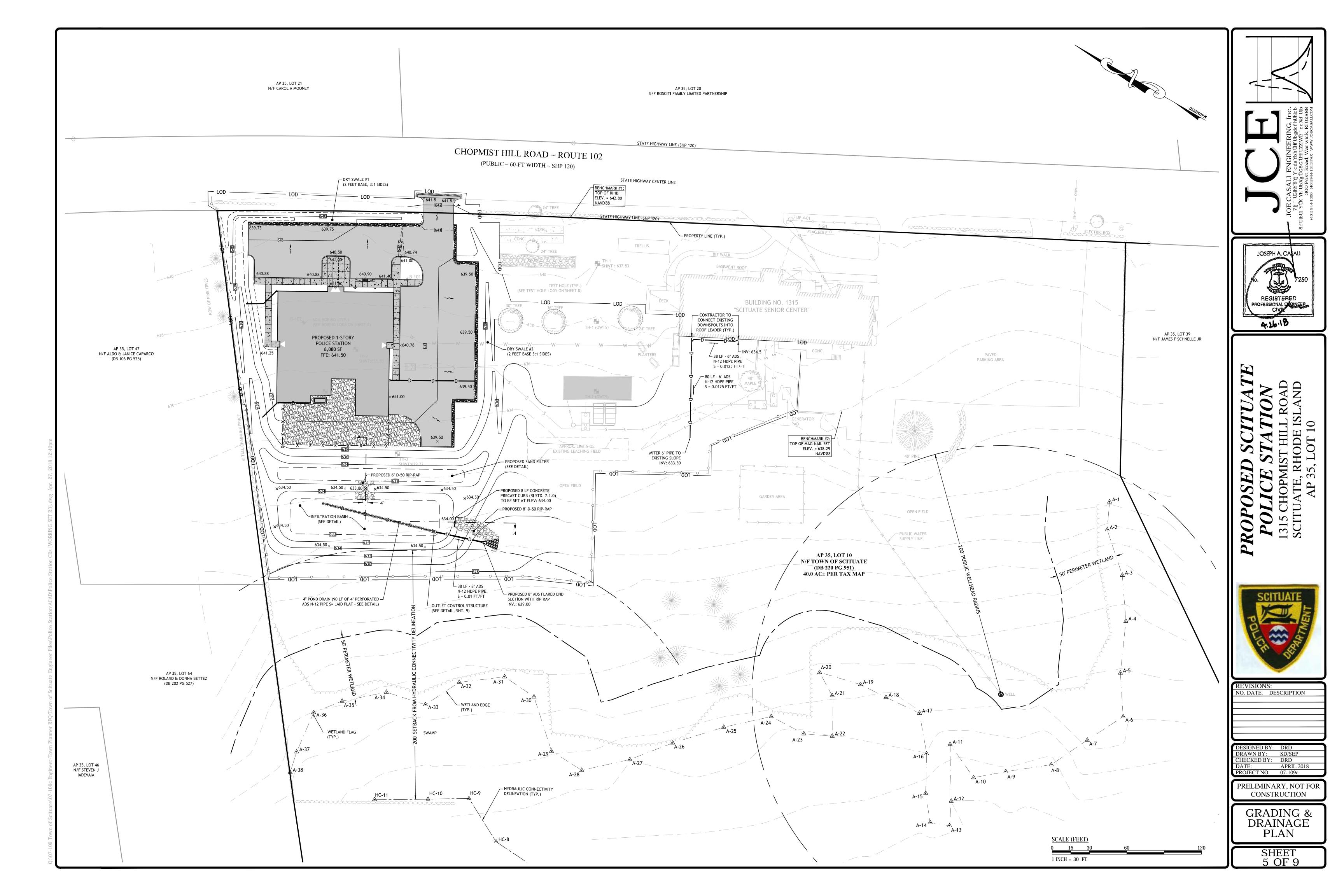
PRELIMINARY, NOT FOR CONSTRUCTION

> **GENERAL** NOTES & LEGEND

> > SHEET 2 OF 9







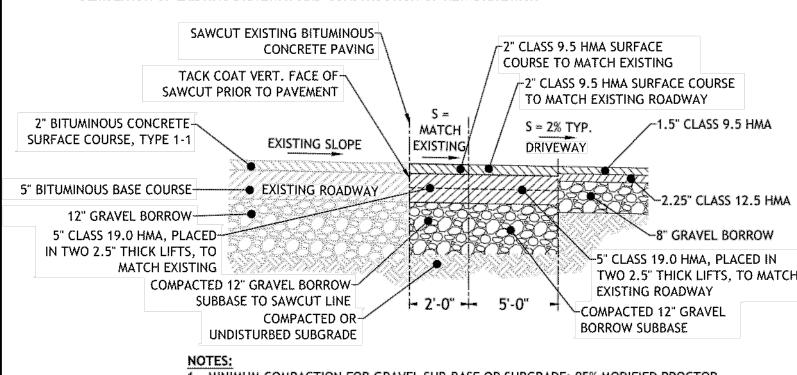
# RIDOT PHYSICAL ALTERATION PERMIT (PAP) PLAN FOR A PROPOSED

# POLICE STATION

# 1315 CHOPMIST HILL ROAD SCITUATE, RHODE ISLAND **AP 35, LOT 10**

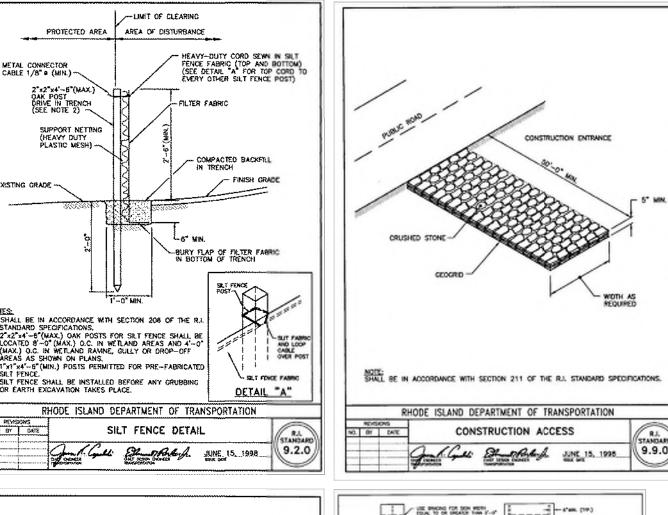
- ALL WORK WITHIN THE STATE'S RIGHT-OF-WAY (ROW) SHALL CONFORM TO RIDOT'S STANDARD SPECIFICATIONS

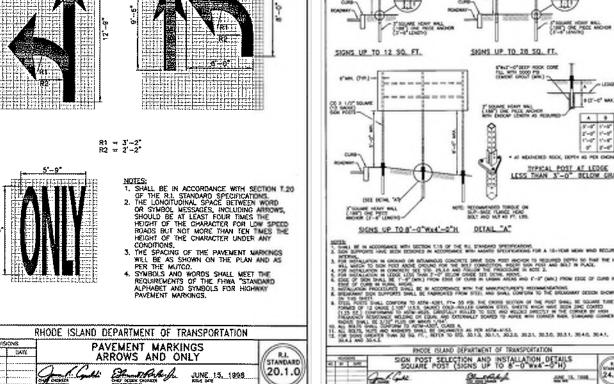
- CONTRACTOR TO PROVIDE TEMPORARY EROSION CONTROLS TO PROTECT THE STATE ROW DURING TH

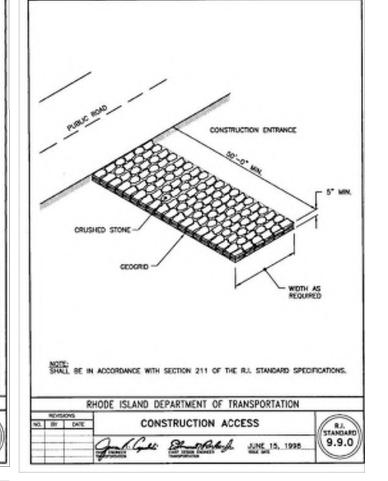


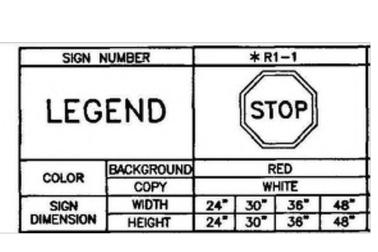
- 1. MINIMUM COMPACTION FOR GRAVEL SUB-BASE OR SUBGRADE: 95% MODIFIED PROCTOR.
- WHERE NOTED ON THE SITE PLANS. 3. WHEN MATCHING EXISTING PAVEMENT, THE LONGITUDINAL CUT AND MATCH SECTION SHOULD NOT EXCEED PAST THE SHOULDER STRIPING.

ROW SAWCUT AND MATCH DETAIL NOT TO SCALE









EXISTING DRIVEWAY

# OVERALL LOCUS MAP AND SITE DISTANCE PLAN

HE PROPOSED DRAINAGE PATTERNS WILL MIMIC THOSE OF THE EXISTING CONDITIONS WITH ALL STORMWATER SHEET FLOWING SOUTHWEST THROUGH THE SITE TOWARD EXISTING FRESHWATER WETLANDS. THERE WILL BE NO INCREASE IN STORMWATER RUNOFF RATES OR VOLUMES TO

CLEAR SIGHT PATH

POSTED SPEED LIMIT ON CHOPMIST HILL ROAD: 35 MPH

AP 35 LOT 10

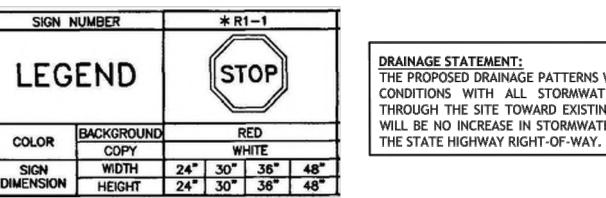
N/F TOWN OF SCITUATE (DB 220 PG 951) 40 AC±

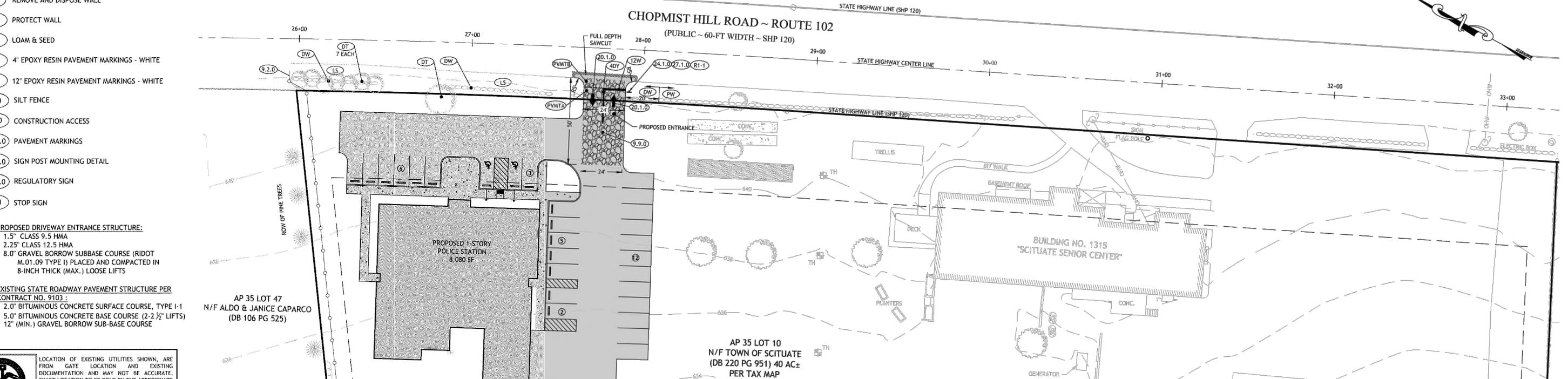
AASHTO STOPPING SIGHT DISTANCE (SSD) REQUIREMENTS

250 FT. ----495 FT.

NOTE: SITE MEETS REQUIREMENTS FOR THE POSTED SPEED LIMIT ON CHOPMIST HILL ROAD BASED ON AASHTO REQUIREMENTS. THE AVAILABLE SIGHT DISTANCES AT THE PROPOSED DRIVEWAY LOCATION ON CHOPMIST HILL ROAD ARE IN EXCESS OF 250 FEET TO THE NORTH AND SOUTH. THESE VALUES ARE GREATER THAN AASHTO'S RECOMMENDED MINIMUM SIGHT DISTANCE OF 250 FEET BASED ON THE POSTED SPEED LIMIT OF 35 MPH AND THE 30 TO 45 MPH SPEEDS OBSERVED ALONG THIS SECTION OF CHOPMIST HILL ROAD.

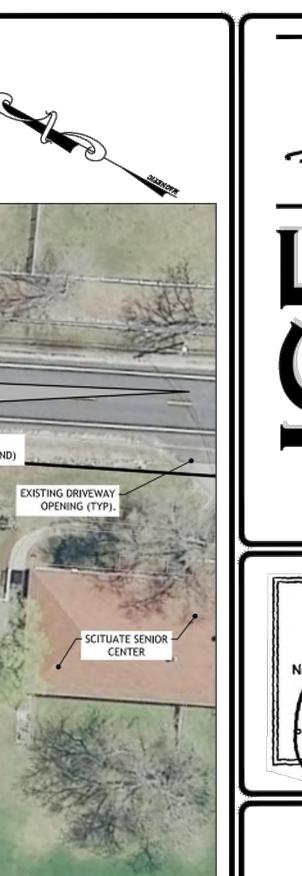
CLEAR SIGHT PATH





CHOPMIST HILL ROAD STATE RIGHT-OF-WAY PLAN

SCALE: 1'' = 30'





NO. DATE. DESCRIPTION 1 3.28.2018 RIDOT COMMENTS

CHECKED BY: DRD MARCH 2018 PROJECT NO: 07-109c

PRELIMINARY, NOT FOR CONSTRUCTION

RIDOT PAP PLAN

> SHEET 6 OF 9



LOCATION OF EXISTING UTILITIES SHOWN, AF 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

RHODE ISLAND STANDARDS

( 4DY ) 4" EPOXY RESIN PAVEMENT MARKINGS - WHITE

(12W) 12" EPOXY RESIN PAVEMENT MARKINGS - WHITE

( DT ) REMOVE AND DISPOSE TREE

DW REMOVE AND DISPOSE WALL

PW PROTECT WALL

( LS ) LOAM & SEED

9.2.0 SILT FENCE

(9.9.0) CONSTRUCTION ACCESS

(20.1.0) PAVEMENT MARKINGS

(27.1.0) REGULATORY SIGN

(R1-1) STOP SIGN

(24.1.0) SIGN POST MOUNTING DETAIL

(PVMT A) PROPOSED DRIVEWAY ENTRANCE STRUCTURE:

8.0" GRAVEL BORROW SUBBASE COURSE (RIDOT

12" (MIN.) GRAVEL BORROW SUB-BASE COURSE

8-INCH THICK (MAX.) LOOSE LIFTS

(PVMT B) EXISTING STATE ROADWAY PAVEMENT STRUCTURE PER

M.01.09 TYPE I) PLACED AND COMPACTED IN

1.5" CLASS 9.5 HMA

2.25" CLASS 12.5 HMA

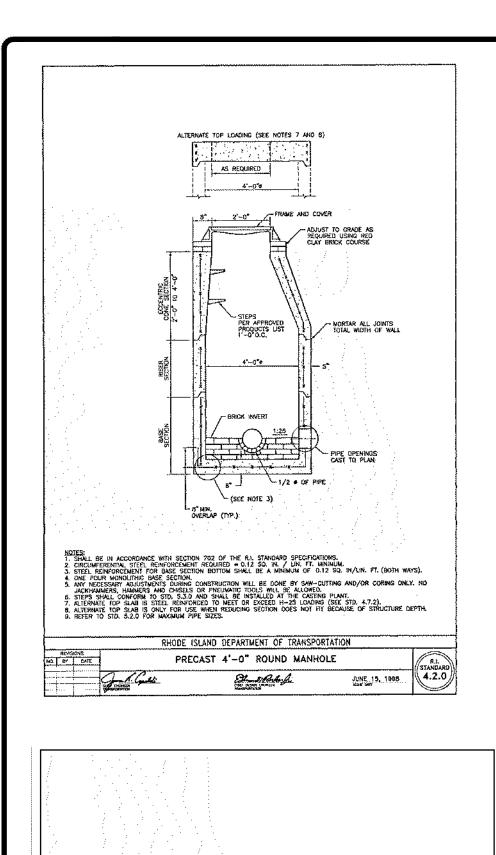
CONTRACT NO. 9103:

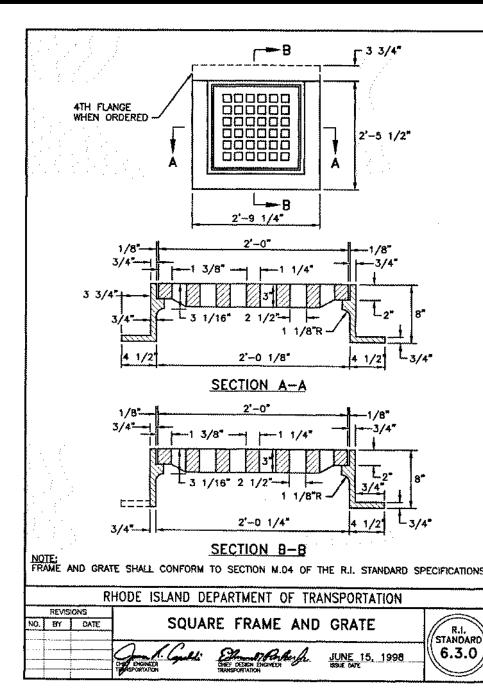
DUNCT SHALL BE IN ACCORDING WITH THE MANUFACTURER'S INCOMMENSATIONS.

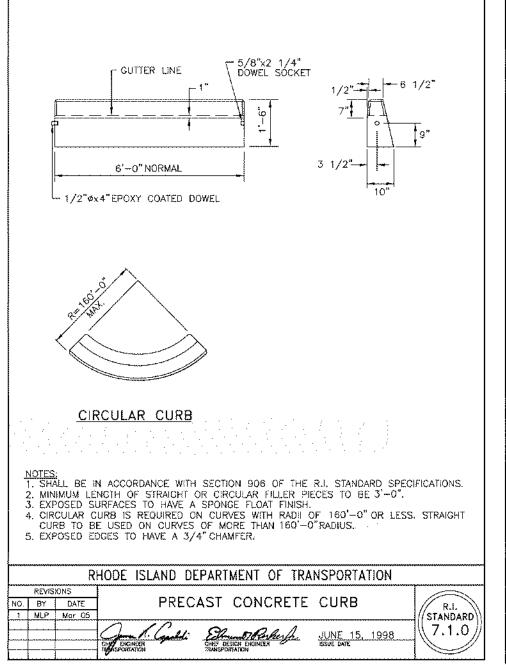
LIFTCHES SHALL BE IN ACCORDING WITH THE MANUFACTURER'S INCOMMENSATIONS.

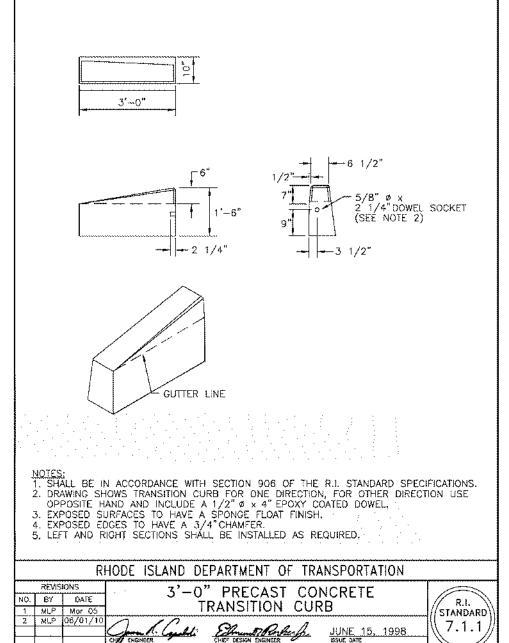
LIFTCHES SHALL BE RANGERS FROM STEEL AND SHALL CONTORN TO THE DISCHOOLS DESIGN SHOWN.

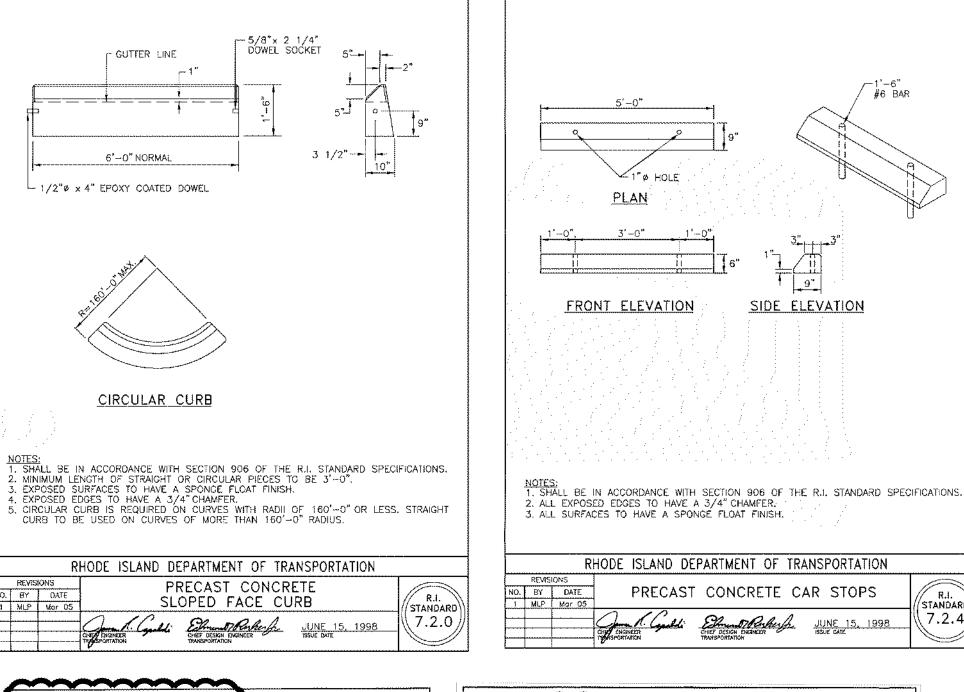
E. Maj det in accombance with excelle t.15 of the RL Standard Specifications. On supposes have seen estadies in accombance with admits specifications fire a 10-1608 work who recurren ander

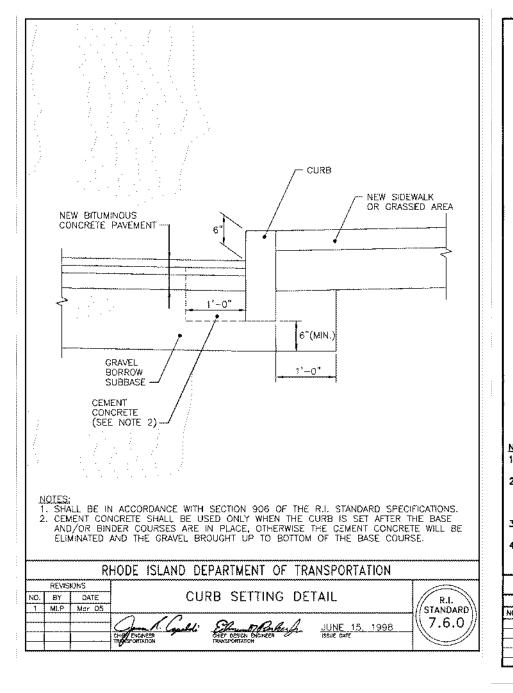


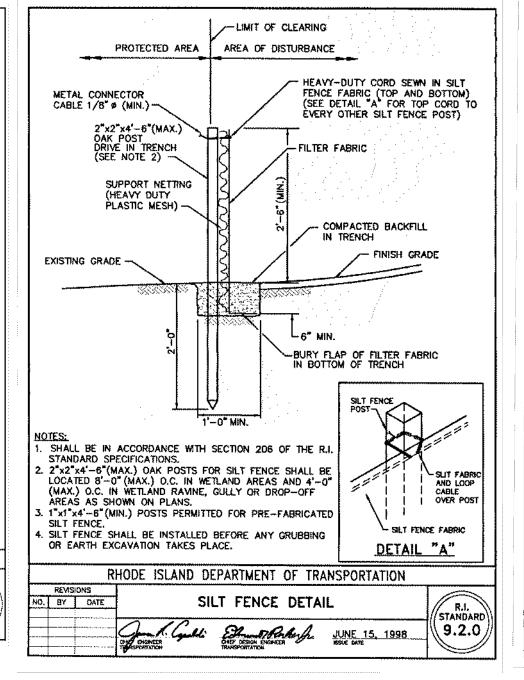


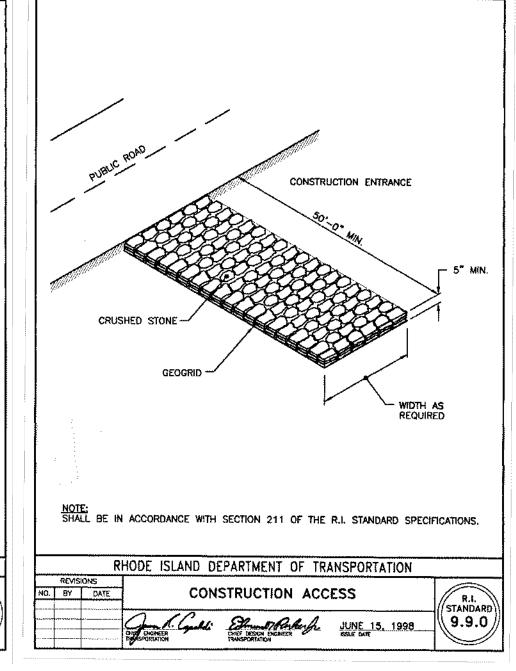


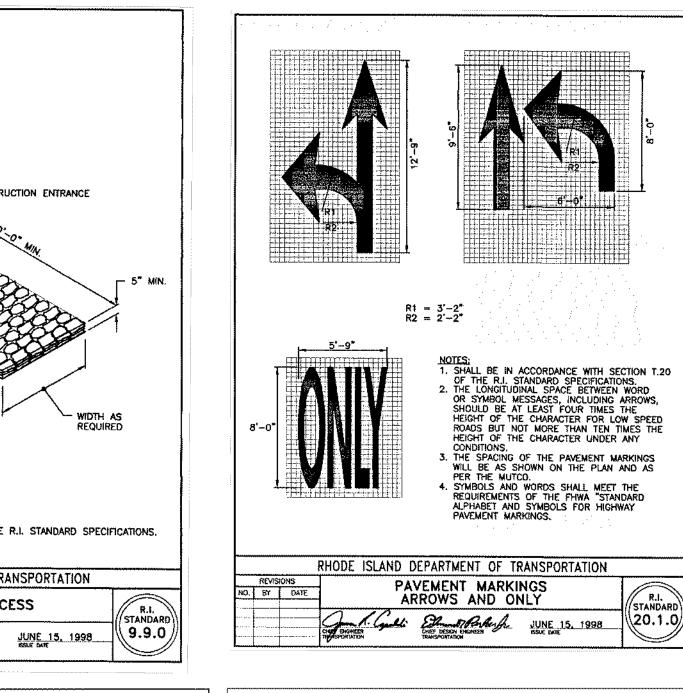


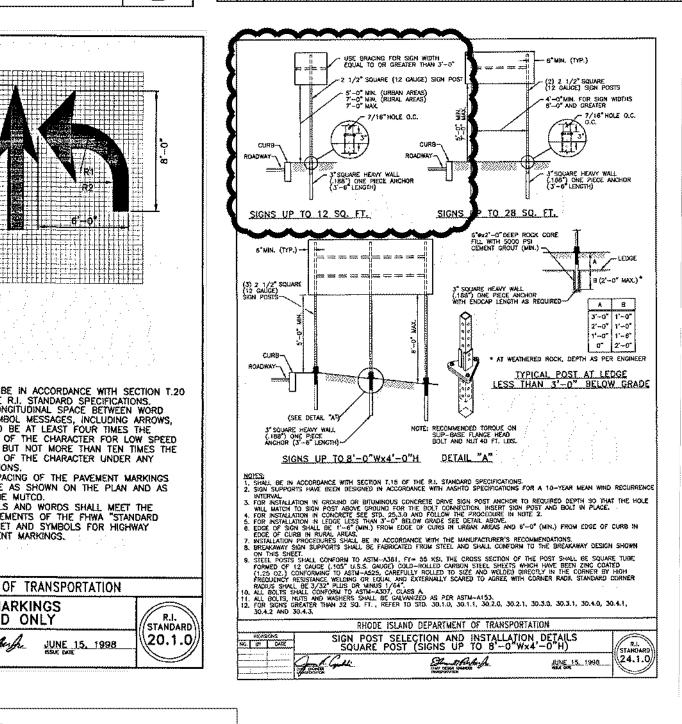


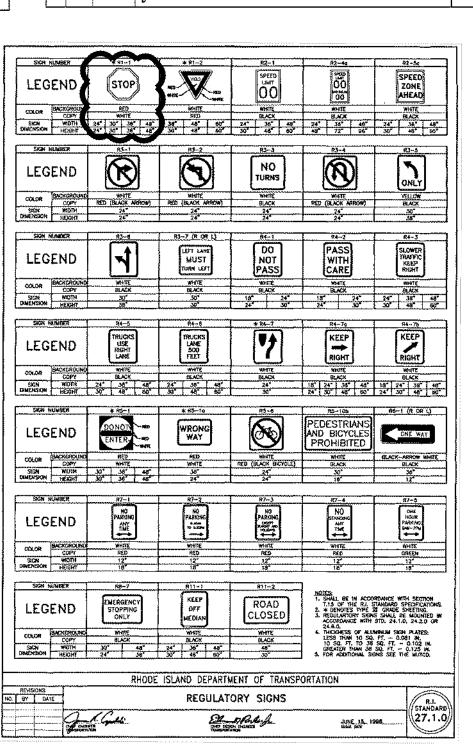


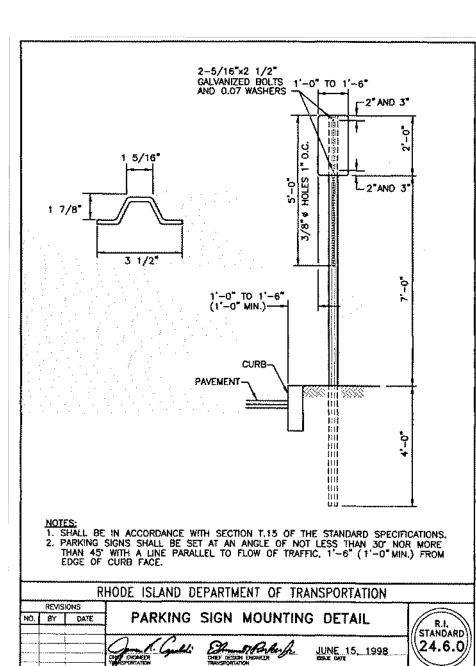


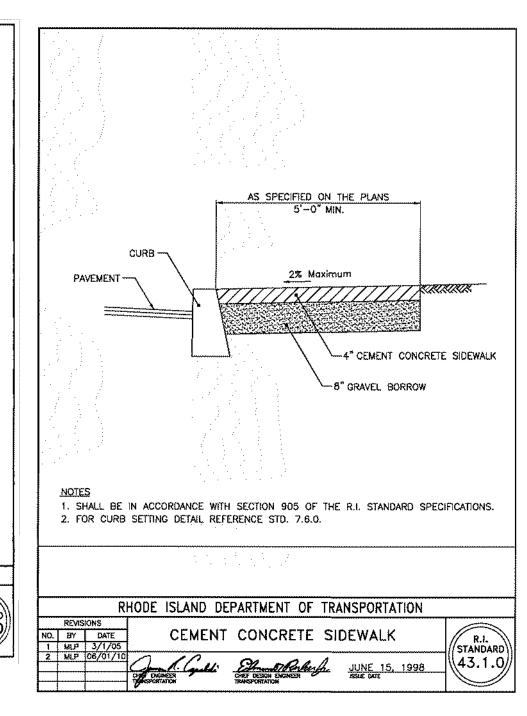


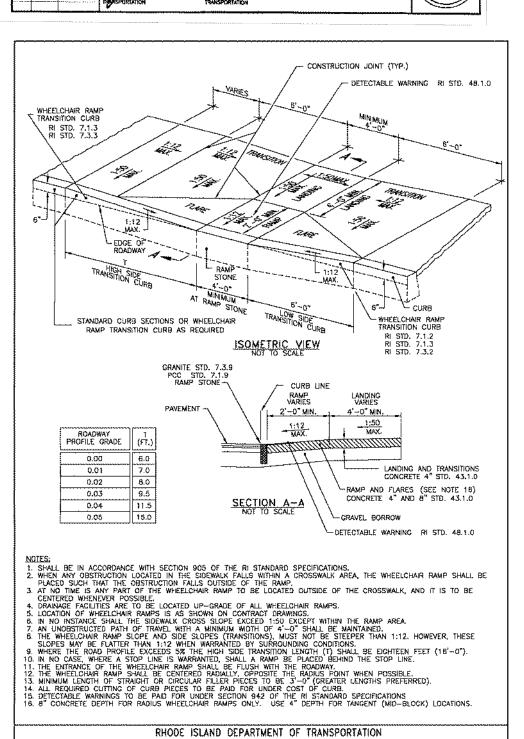






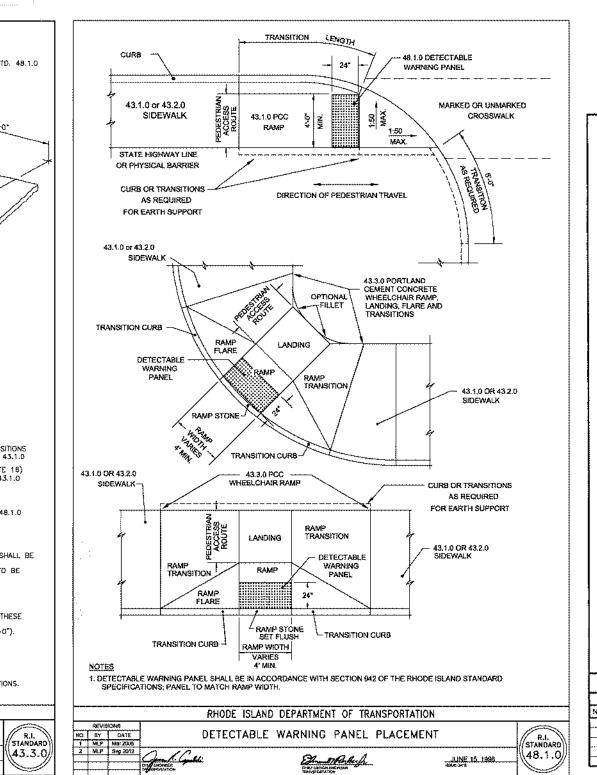






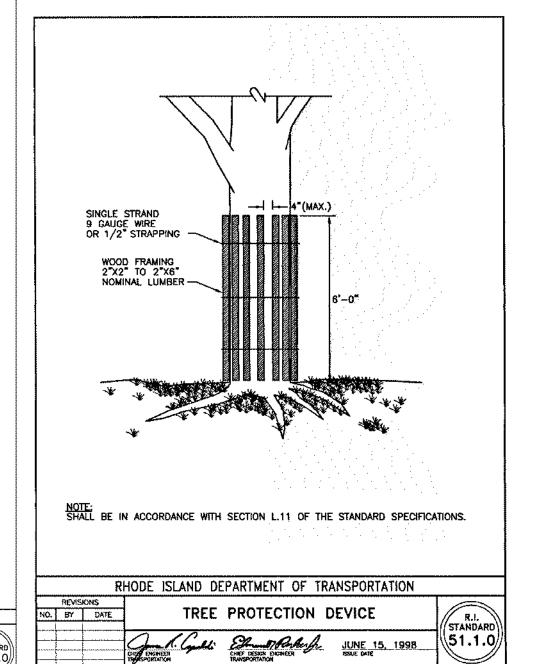
WHEELCHAIR RAMP

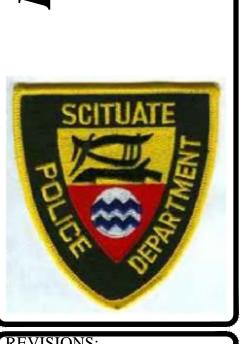
JUNE 15, 1998 SSUE DATE



Show 87 Parker for transportation

JUNE 15, 1998





CHOPMIST HILLI JATE, RHODE I AP 35, LOT 10

S

ROPOSEI

JOSEPH A CALAL

REGISTERED PROFESSIONAL ELGINEER

, di	
REVISIONS:	
NO. DATE. DESCRIPTION	

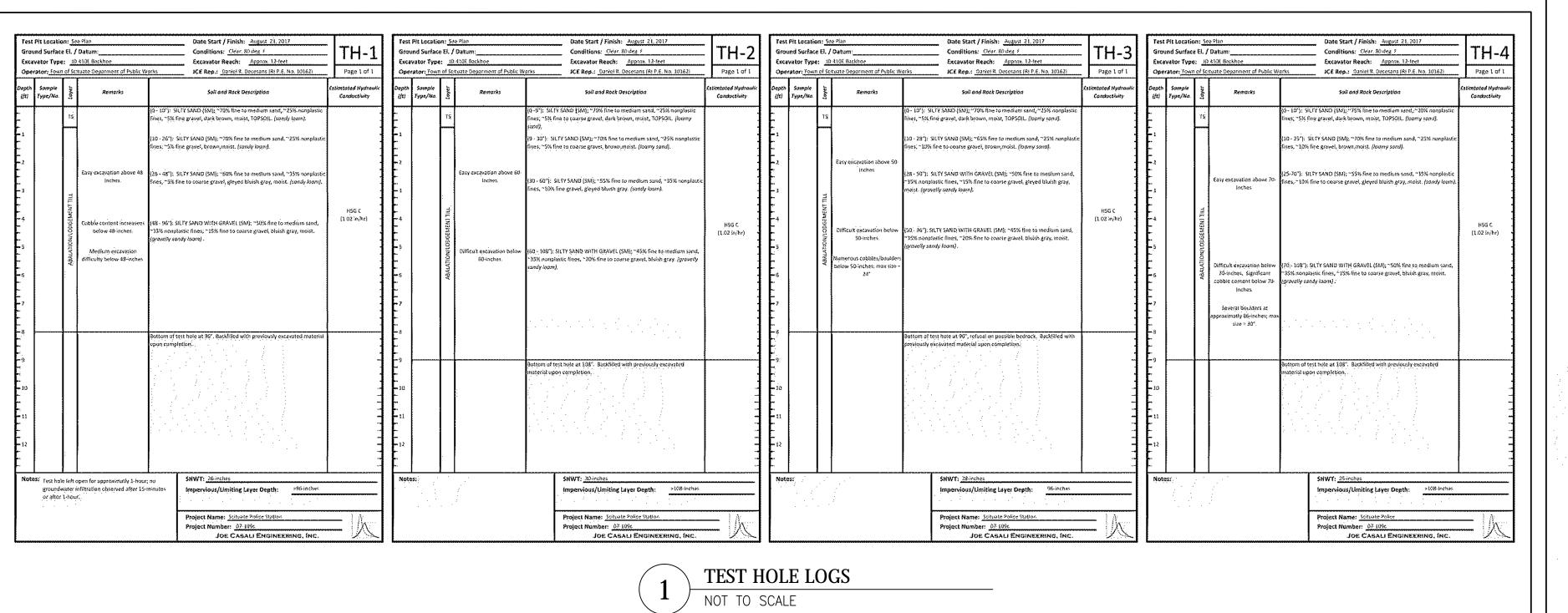
DESIGNED BY: DRD DRAWN BY: SD/SEP CHECKED BY: DRD APRIL 2018

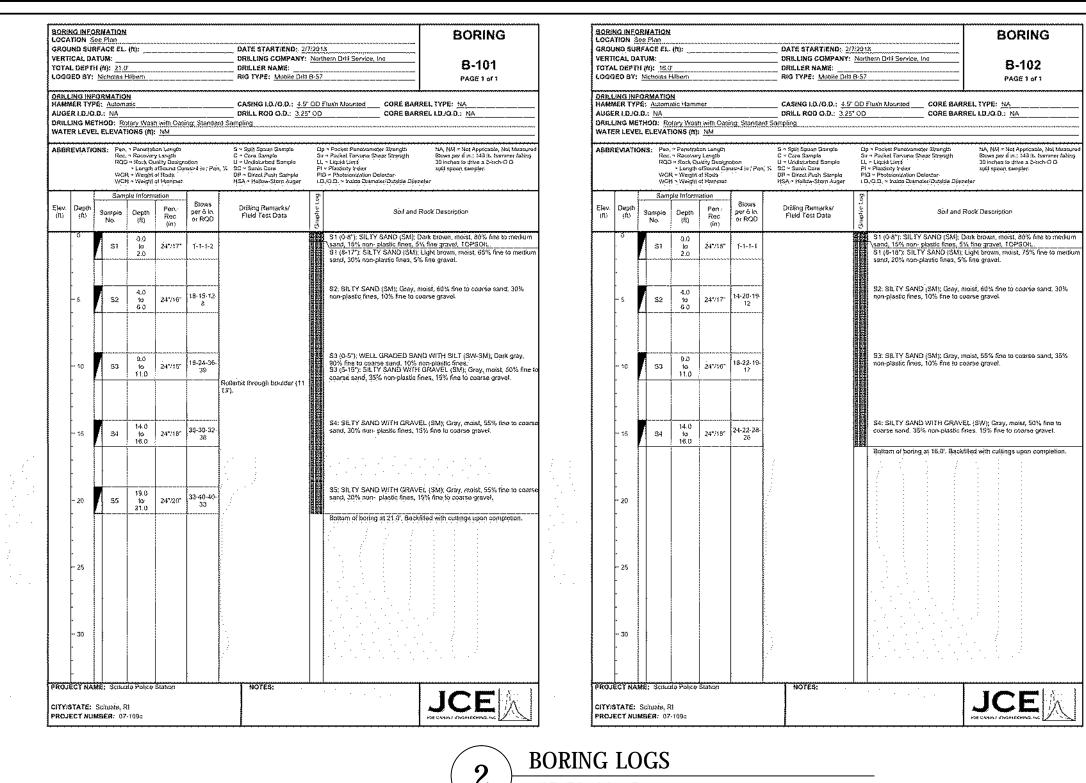
PROJECT NO: 07-109c

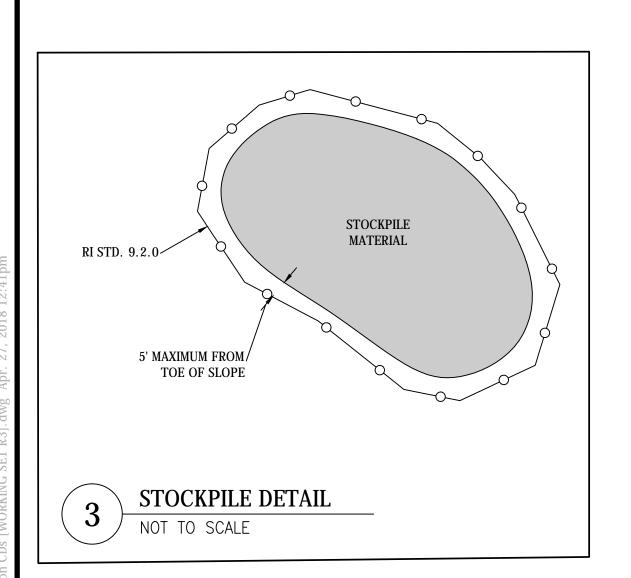
PRELIMINARY, NOT FOR CONSTRUCTION

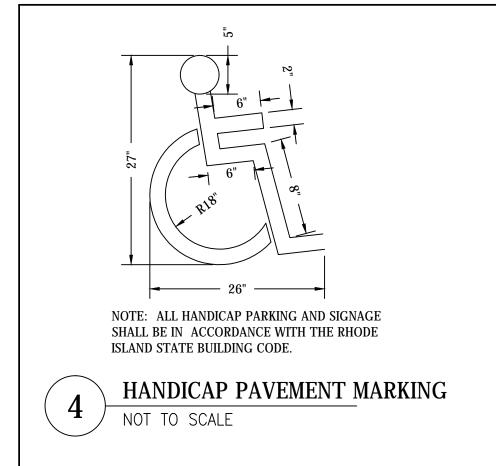
RI STANDARD **DETAILS** 

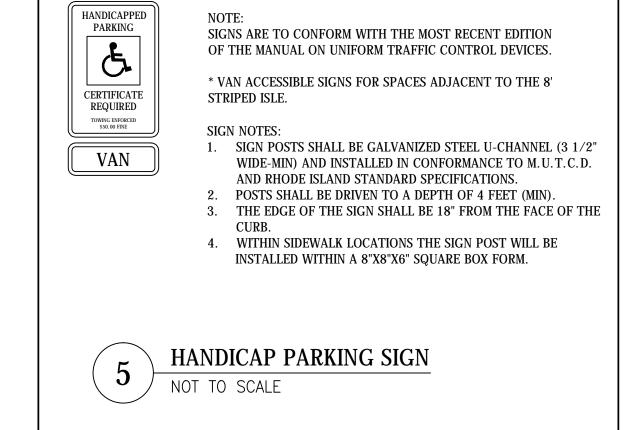
> SHEET 7 OF 9

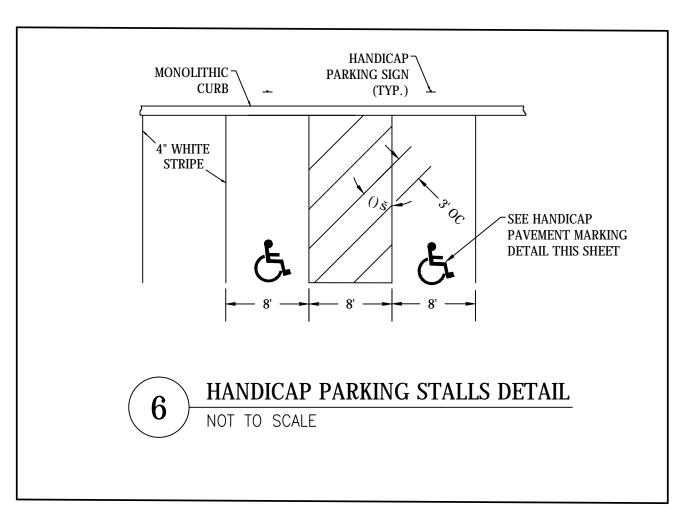


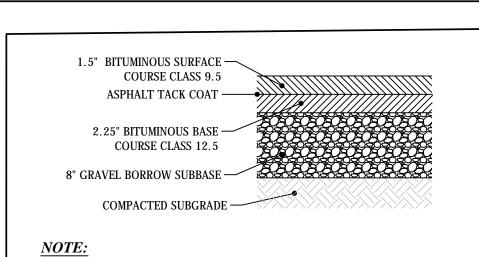








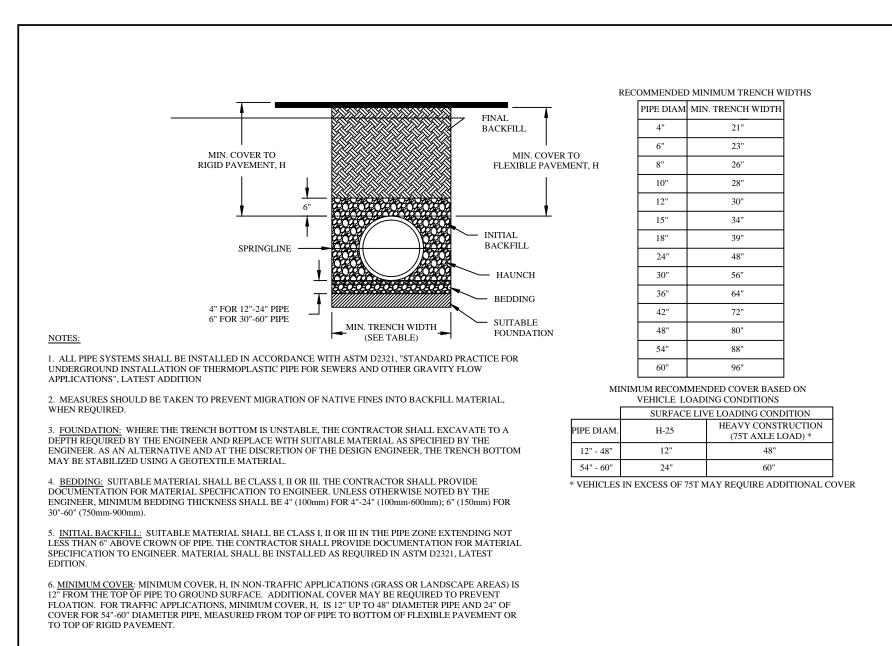




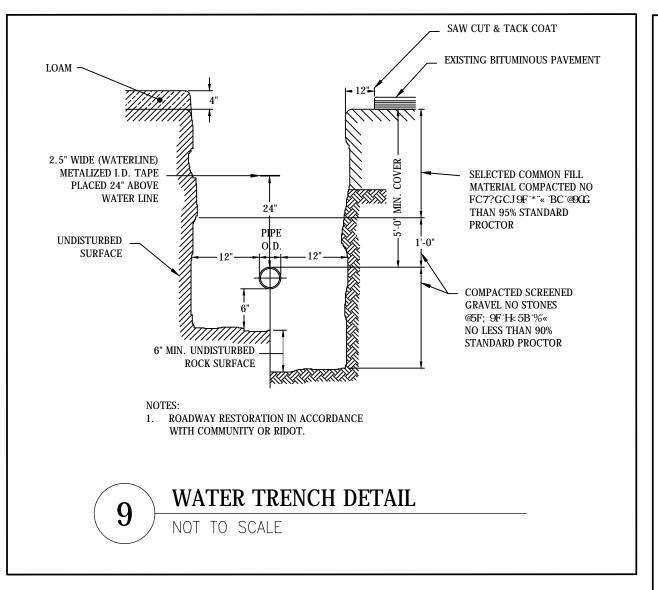
1. IN AREAS OF EARTH EXCAVATION FOR BITUMINOUS CONCRETE PAVEMENT, THE CONTRACTOR SHALL REMOVE 12 INCHES OF EXISTING MATERIAL. IF UNSUITABLE MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. THE DEPTH OF UNSUITABLE MATERIAL TO BE REMOVED WILL BE DETERMINED IN THE FIELD. THE CONTRACTOR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

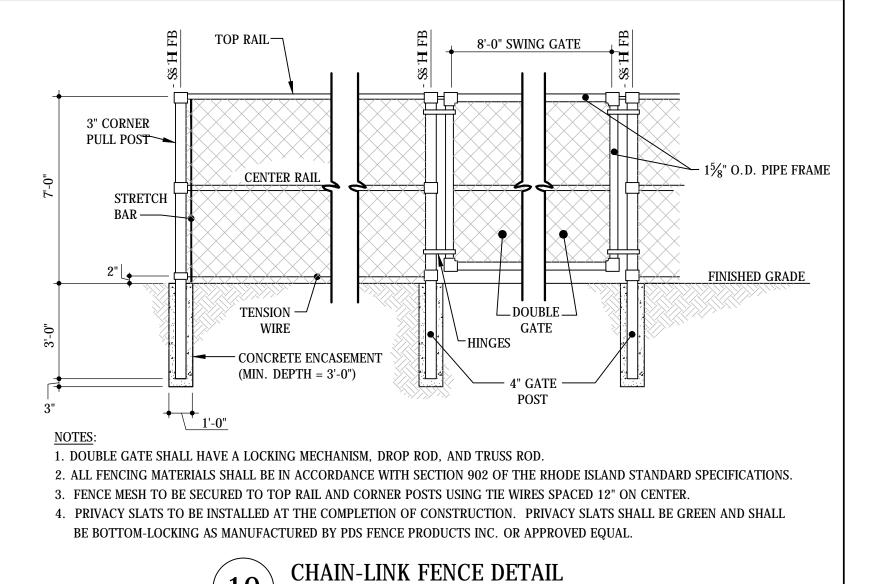
2. PAVEMENT DETAIL IS FOR THE DRIVEWAY AND PRIVATE ROADWAYS ONLY.

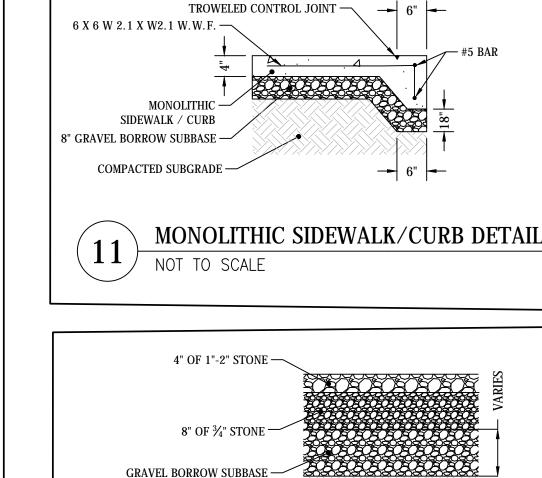




ADS PIPE TRENCH INSTALLATION DETAIL



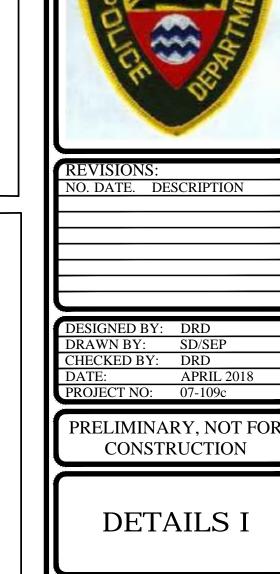




COMPACTED SUBGRADE -

1. GRAVEL GRADATION: PLACED IN 8" LIFTS, COMPACTED TO 95%.

GRAVEL STORAGE AREA DETAIL

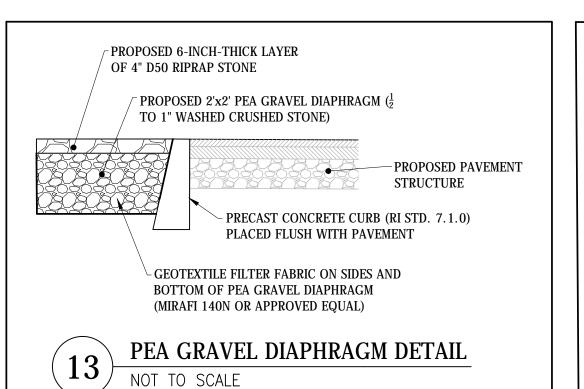


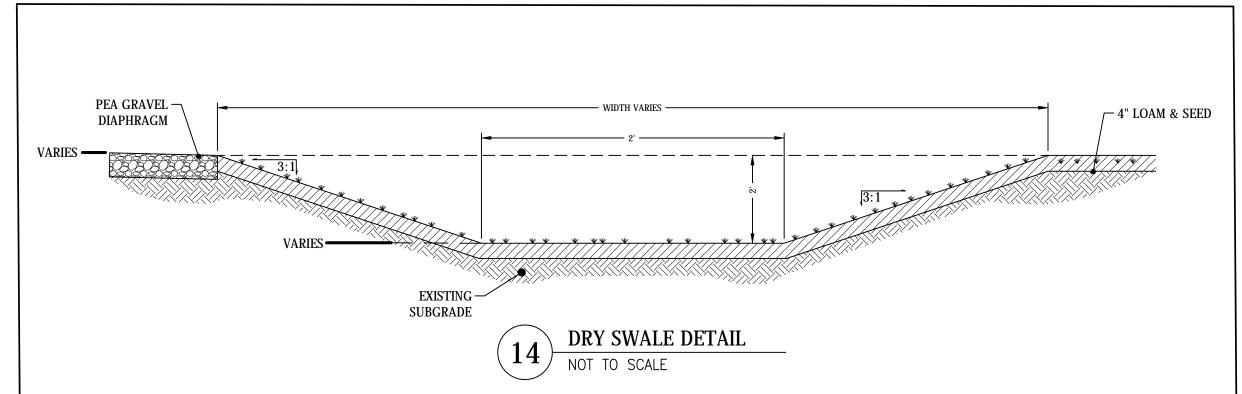
JOSEPH A. CASA

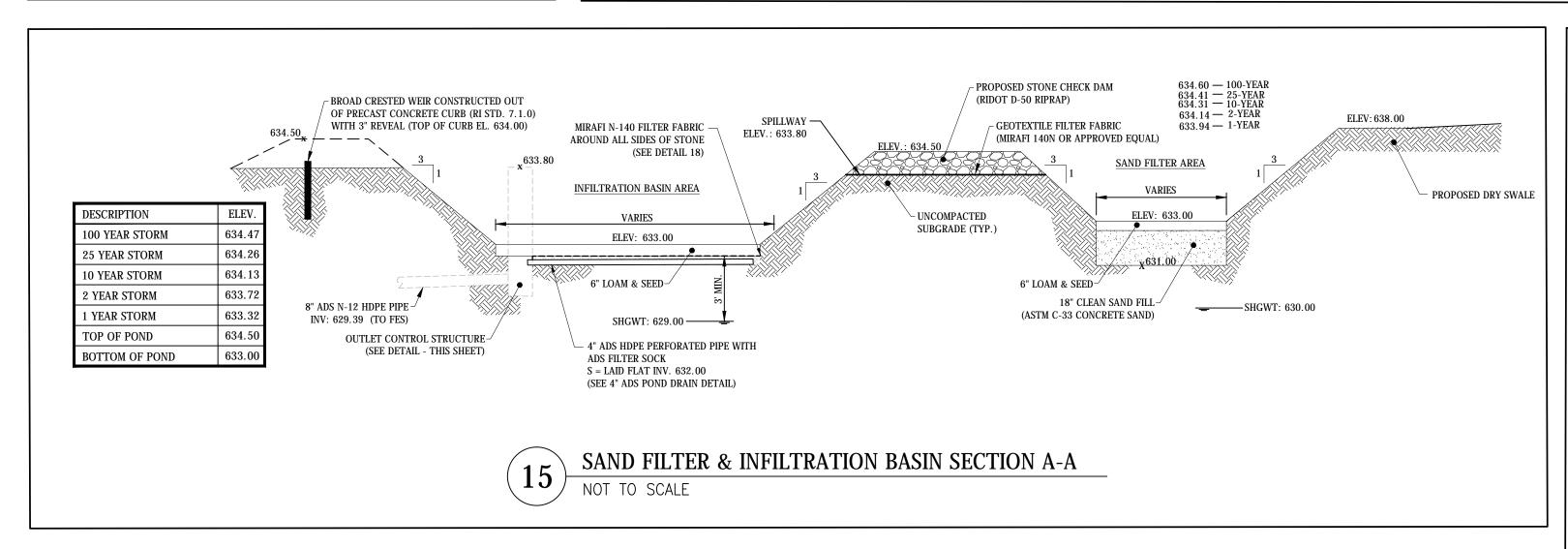
REGISTERED

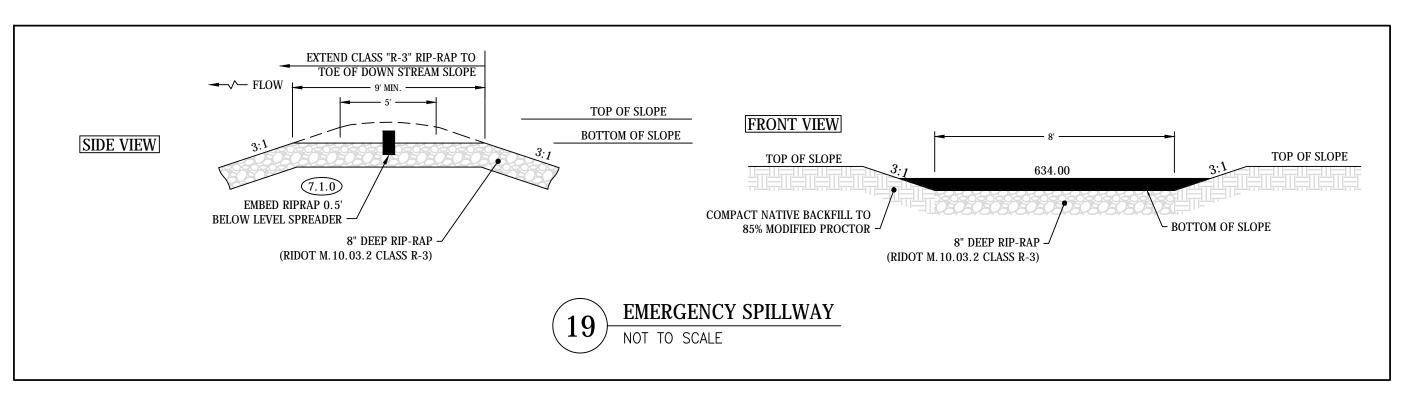
PROFESSIONAL ELGINEER

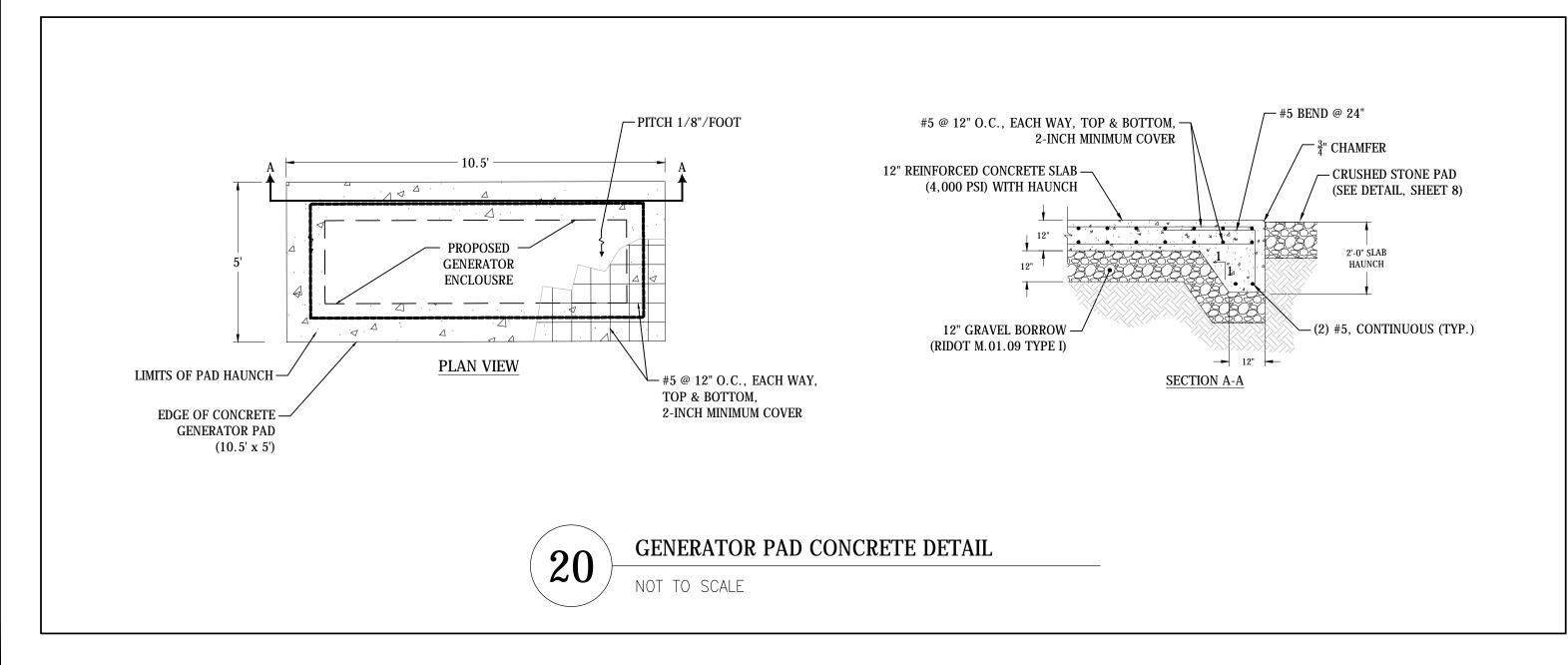
SHEET 8 OF 9

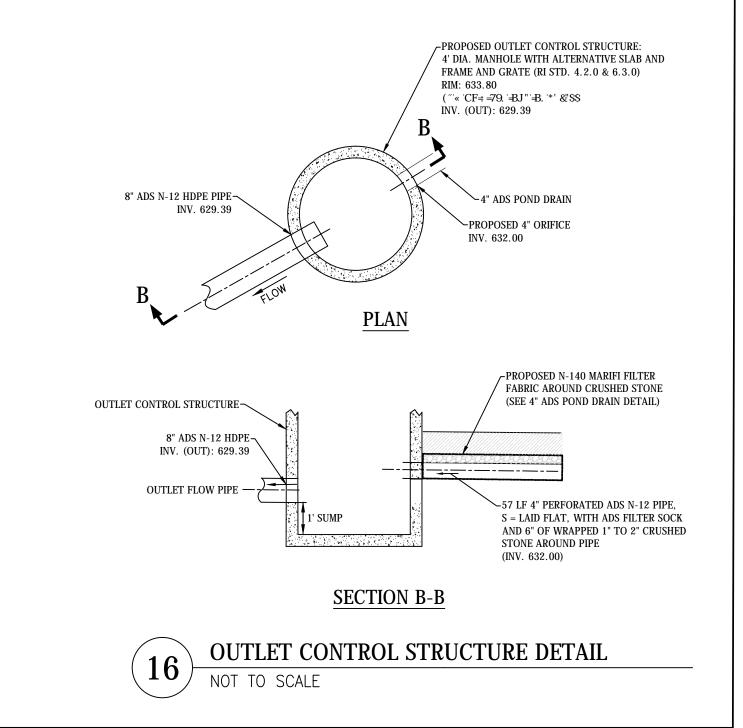


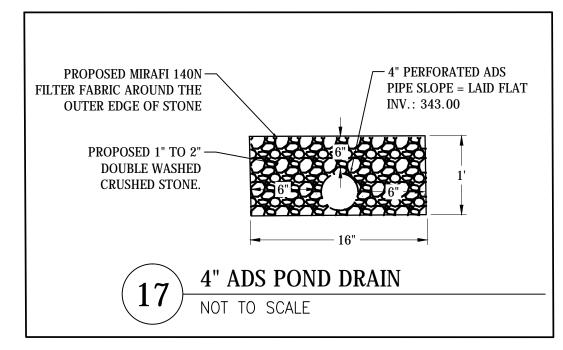


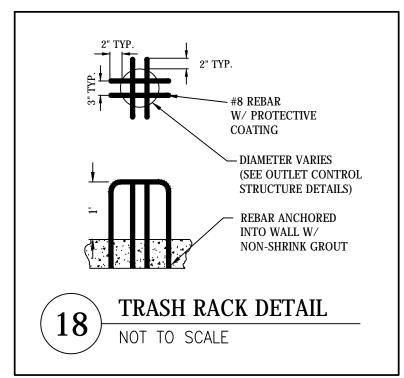


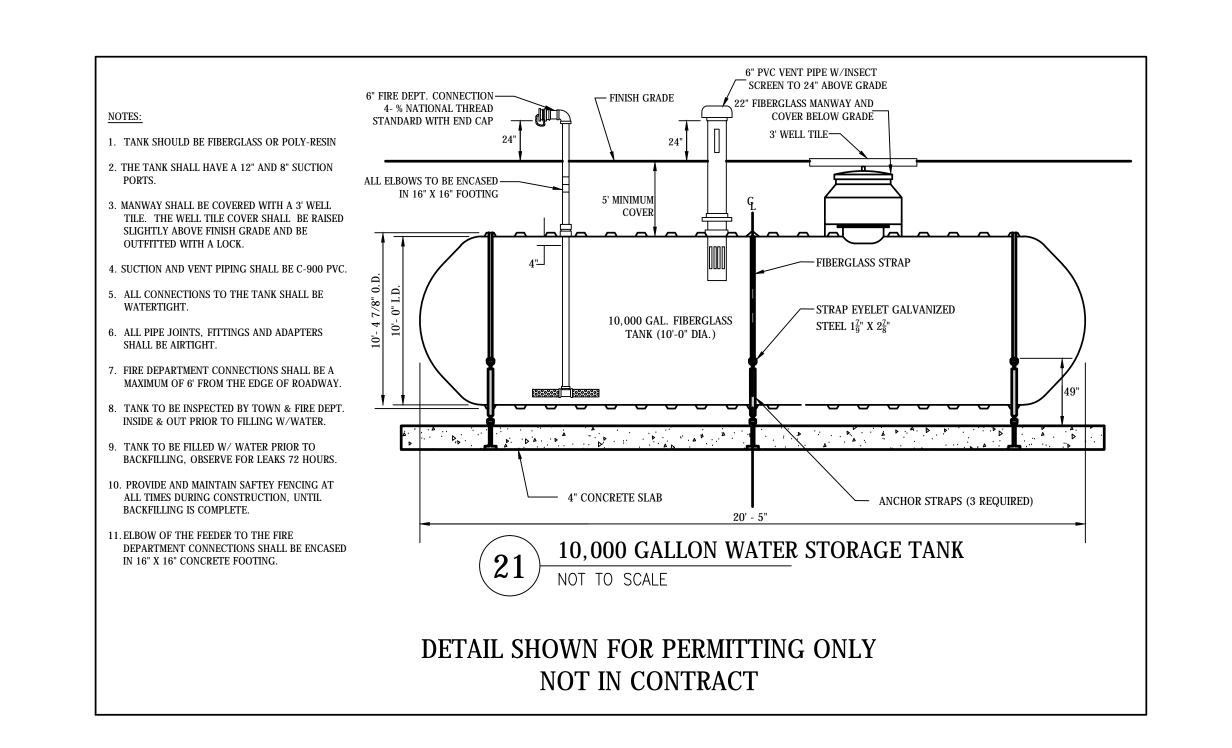


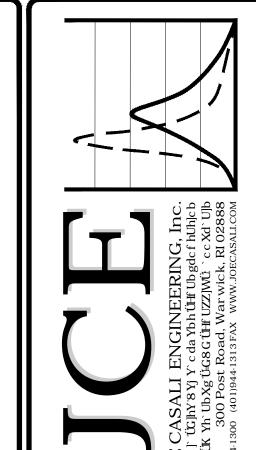


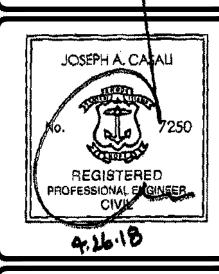












POSED SCITUATION
OLICE STATION
5 CHOPMIST HILL ROAD



REVISIONS: NO. DATE. DESCRIPTION

DESIGNED BY: DRD
DRAWN BY: SD/SEP
CHECKED BY: DRD
DATE: APRIL 2018
PROJECT NO: 07-109c

PRELIMINARY, NOT FOR CONSTRUCTION

DETAILS II

SHEET 9 OF 9

SOCKANOSSET CROSS R CRANSTON, R.I. 02920 5

SCITUATE POLICE STATION
AP 35 LOT 10
CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND

DWN BY REVISED 4/28/2018 AS NOTED

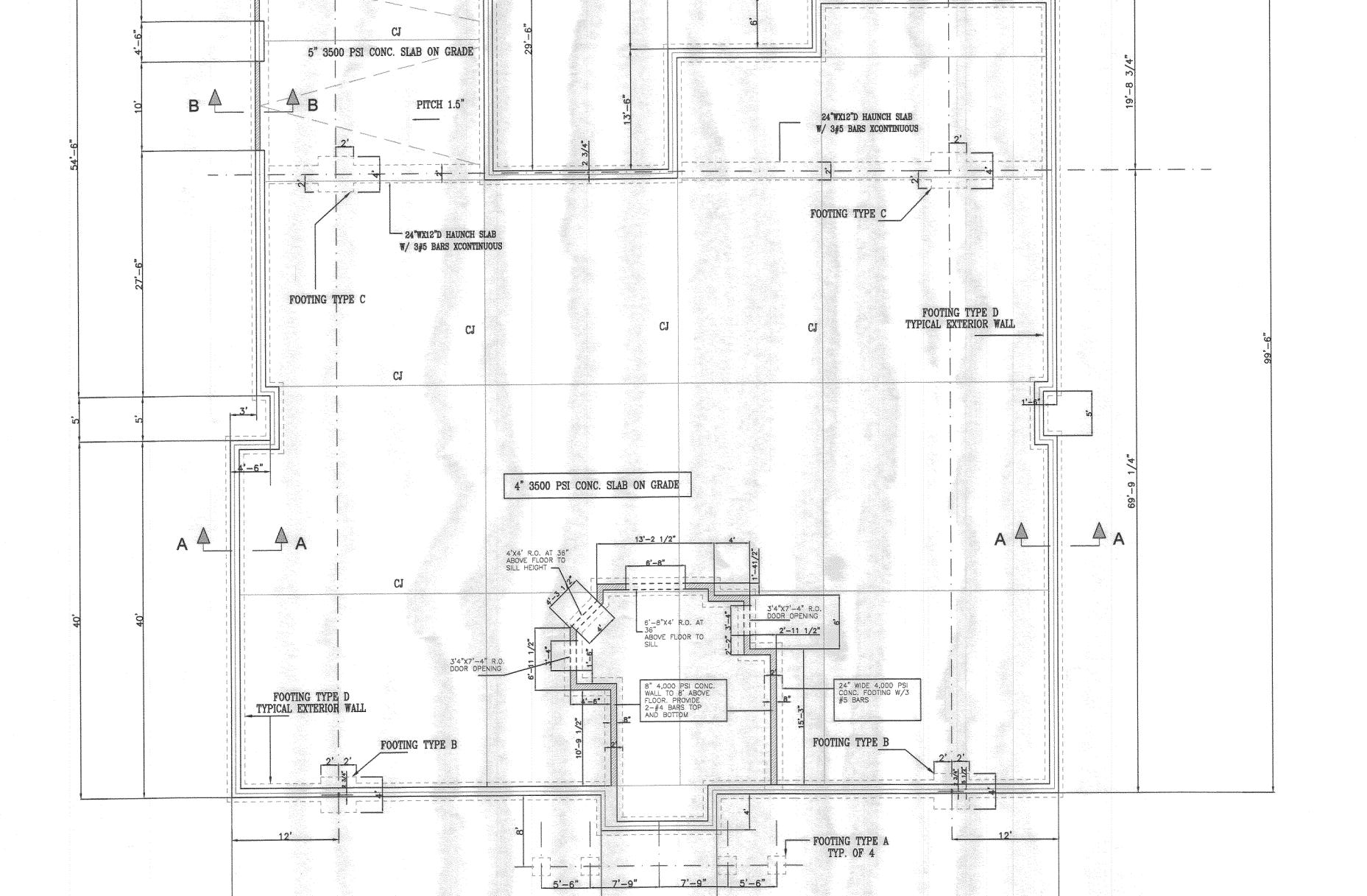
SHEET CONTENT

SHEET NO:

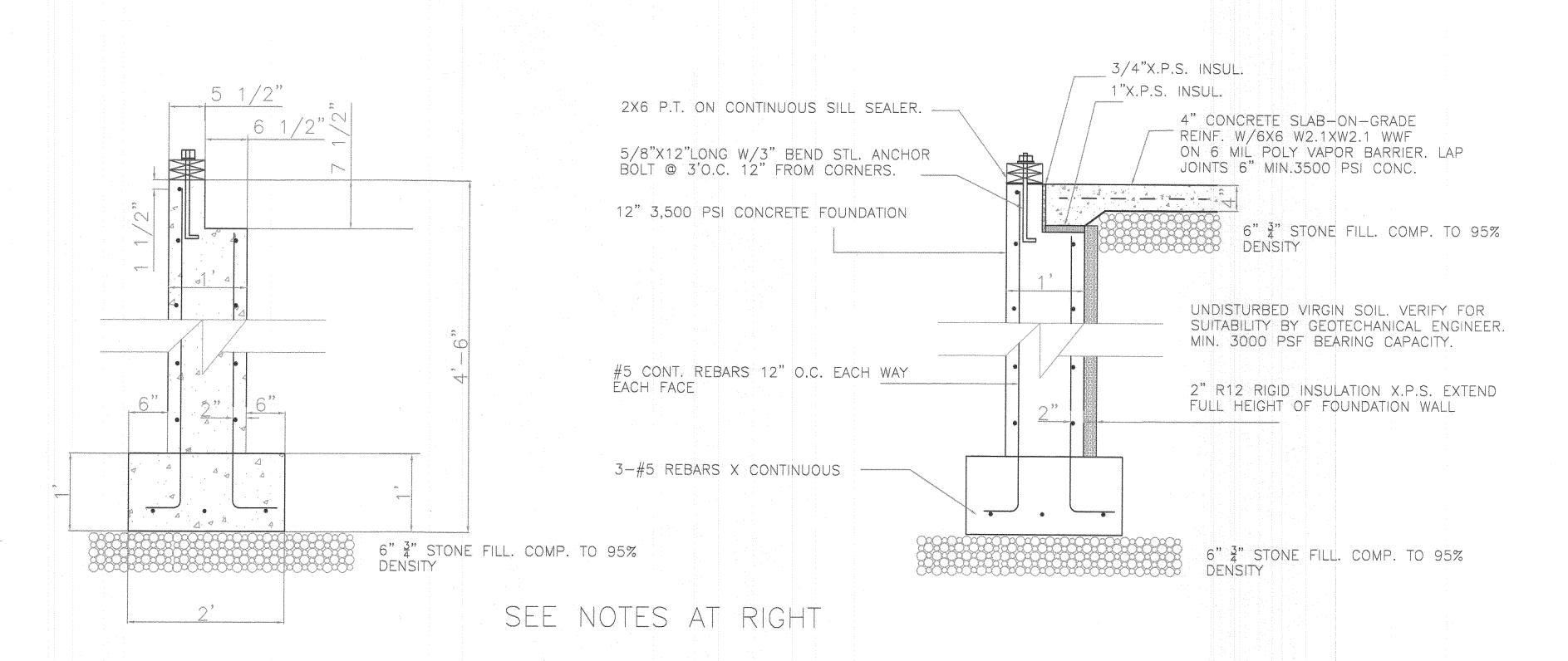
SHEET 1 OF

CALLED NORTH

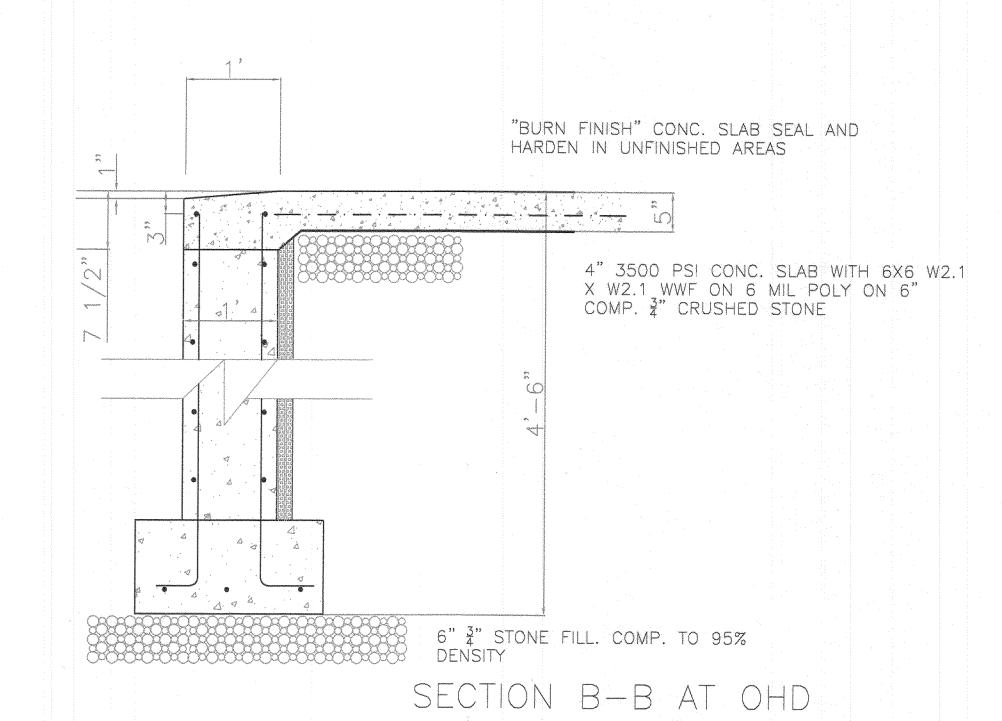
FOUNDATION PLAN SCALE: 1/8"=1'-0"



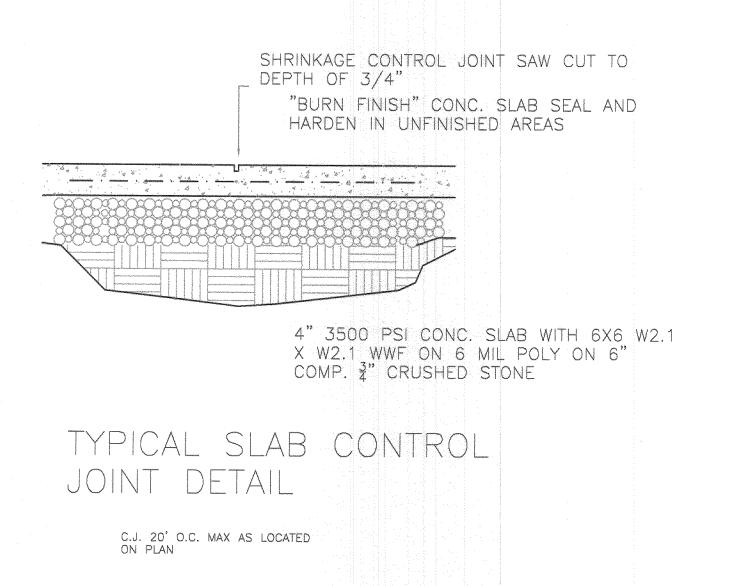
PITCH 1.5"

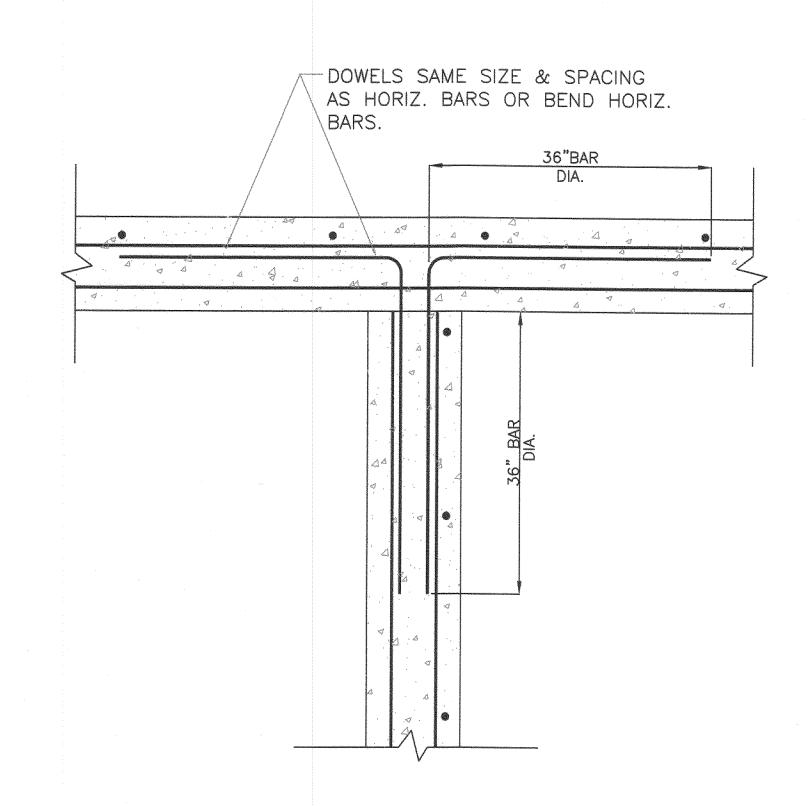


SECTION A-A NOTES

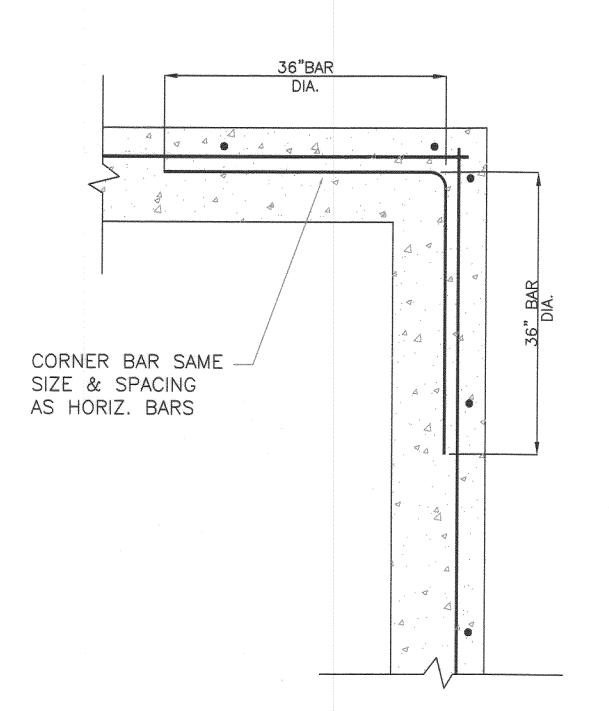


SECTION A-A TYPICAL





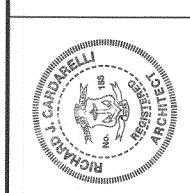
TYP. WALL INTERSECTION



TYP. WALL CORNER

PROPERTY OF RICHARD J. CARDARELLI ARCHITE TO BE REPRODUCED WITHOUT WRITTEN PERMI

SOCKANOSSET CROSS ROAD CRANSTON, R.I. 02920



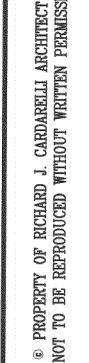
SCITUATE POLICE STATION
AP 35 LOT 10
CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND

JOB NO.	1810
DWN BY	RJC
REVISED	
DATE	4/28/2018
SCALE	AS NOTED

SHEET CONTENT

sheet no: F-2

SHEET 1 OF



RICHARD CARDARELLI, A.I.A.

ARCHITECT
51 SOCKANOSSET CROSS ROAD
CRANSTON, R.I. 02920

AP 35 LOT 10
CHOPMIST HILL ROAD
SCITUATE RHODE ISLAND

JOB NO. 1810

DWN BY RJC

REVISED

HAUNCH SLAB 2'WX12" DEEP X CONTINUOUS W/ 3#5

DATE 4/28/2018
SCALE AS NOTED

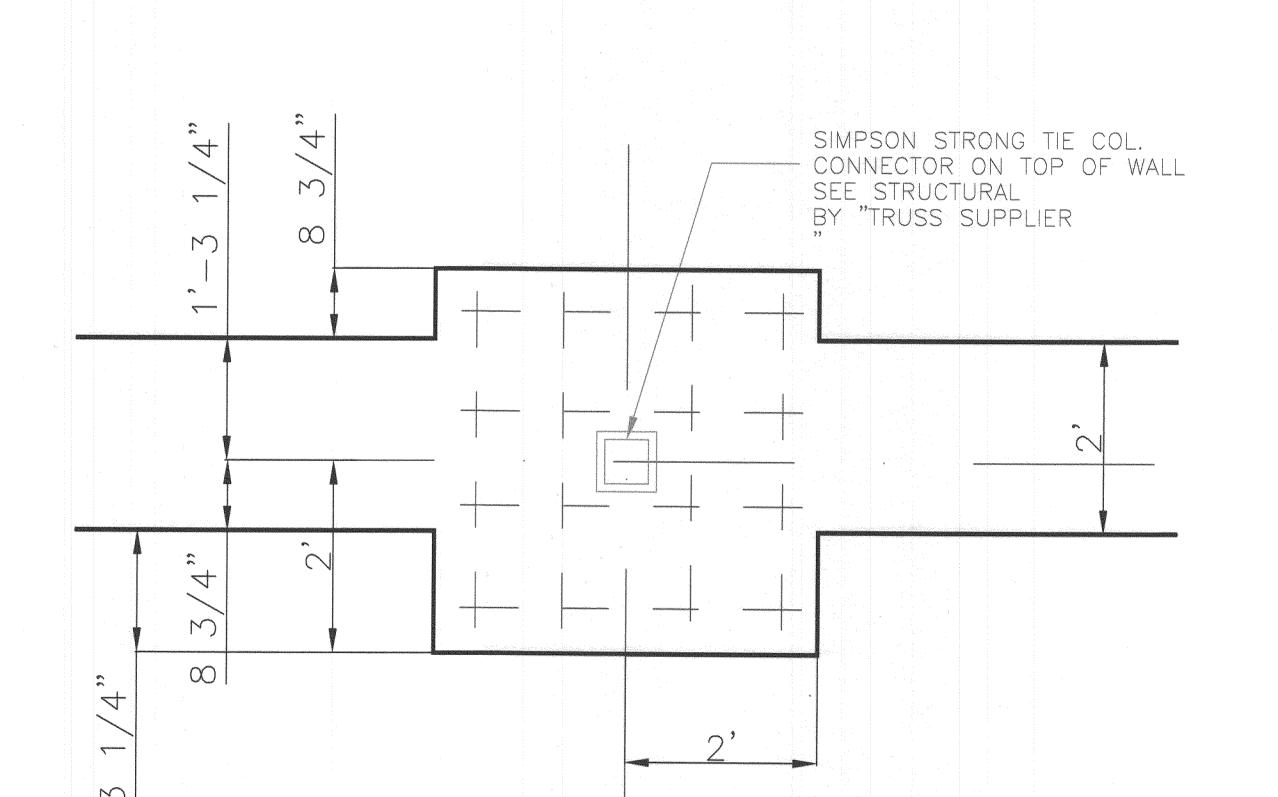
SHEET CONTENT

SHEET NO:

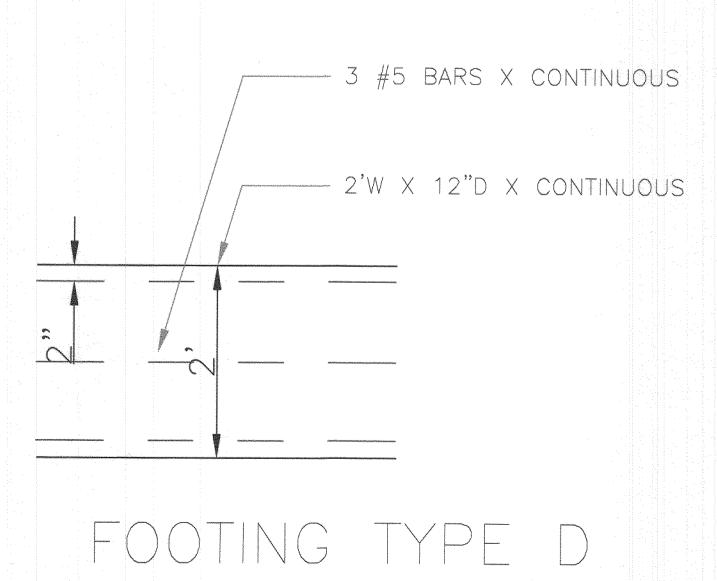
THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPER

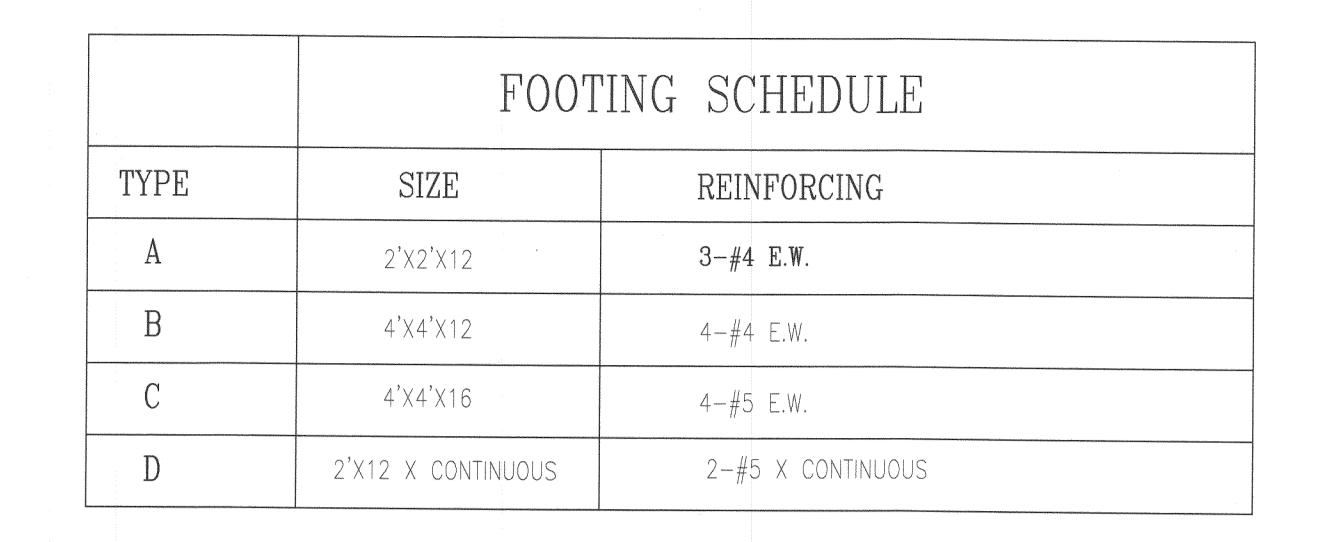
14"X14" PILASTER TO 6"
ABOVE FINISHED WALKWAY
GRADE

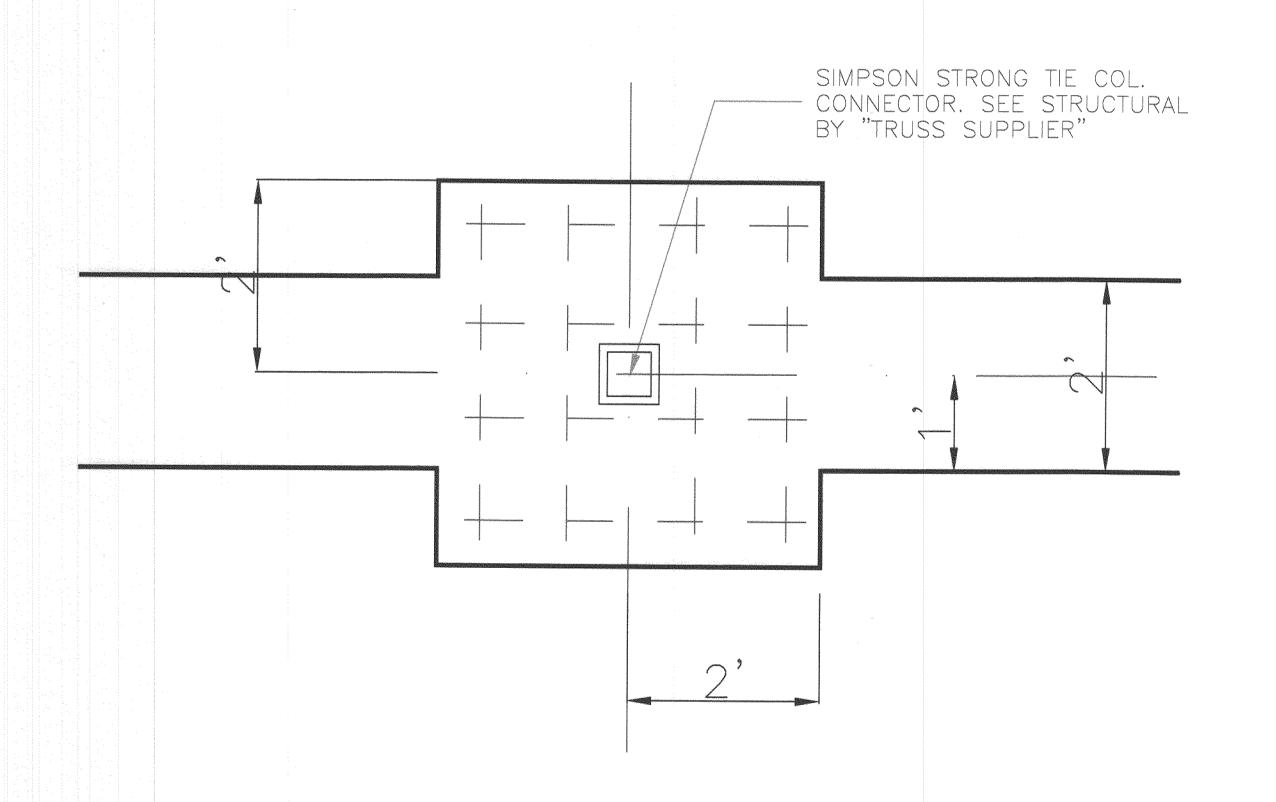
FOOTING TYPE A

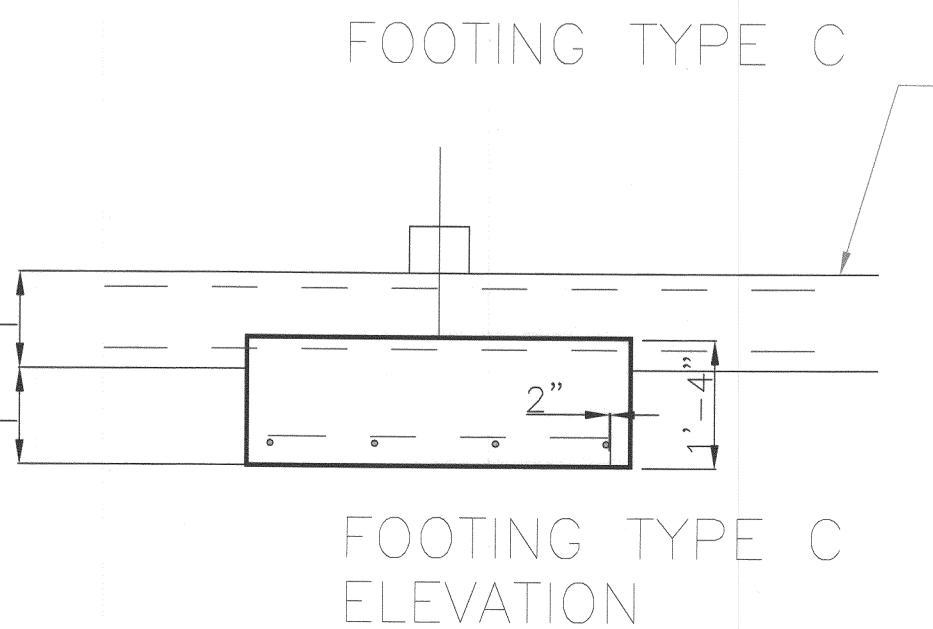


FOOTING TYPE B









## **DIVISION 3 CONCRETE**

#### CONCRETE WORK

Codes and Standards: ACI 301 "Specifications for Strue" Building Code Requirements for Reinforced Concrete" as otherwise indicated.

Concrete Testing Service: Employ acceptable testing laboratory to perform materials evaluation, testing and design of concrete mixes.

Quality Control: Perform sampling and testing during concrete placement, as follows:

Sampling: ASTM C 172.

Slump: ASTM C 143, one of test for each load at point of discharge.

Air Content: ASTM C 173, one for each set of compressive strength Specimens.

Compressive strength: 3,500 psi, ASTM C 39, one set for each 50 cu. yds. or a fraction thereof of each class of concrete; one specimen tested at 7 days, one specimen tested at 28 days and one retained for later testing if required.

Aggregates: ASTM C 33, except local aggregates of proven durability may be used when acceptable to Architect.

Water:

Drinkable

Air-Entraining Admixture: ASTM C 260.

Water-Reducing Admixture: ASTM C 494; type as required to suit project conditions. Only use admixtures which have been tested and accepted in mix designs, unless otherwise acceptable.

03310-1

Related Materials:

Moisture Barrier: Clear 6 mils tick polyethylene.

Membrane-Forming Curing Compound: ASTM C 309, Type I.

Page 3

)

Joint Fillers: See Division 7.

Form Materials:

Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.

Reinforcing Materials:

Deformed Reinforcing Bars: ASTM A 615, Grade 60, unless otherwise indicated.

Welded Wire Fabric: ASTM A 185

Forming and Placing Concrete:

Ready-mix Concrete: ASTM C 94.

Formwork: Construct so that concrete members and structures are of correct size, shape, alignment, elevation and position.

Provide openings in formwork to accommodate work of other trades. Accurately place and securely support items built into forms.

Clean and adjust forms prior to concrete placement. Apply form release agents or wet forms, as required. Retighten forms during concrete placement if required to eliminate mortar leaks.

Reinforcement: Position, support, and secure reinforcement against displacement. Locate and support with metal chairs, runners, bolsters, spacers and hangers, as required. Install welded wire fabric in as long lengths as practicable, lapping at least one mesh. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

03310-2

Joints: Provide construction, isolations, and control joints as indicated or required. Locate construction joints so as to not impair strength and appearance of structure. Place isolation and control joints in slabs-on-ground to stabilize differential settlement and random cracking.

Installation of Embedded Items: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by cast-in-place concrete. Use setting diagrams, templates and instructions provided by others for locating and setting.

Concrete Placement: Comply with ACI, placing concret joints or sections. Do not begin placement until work of completed.

Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into forms.

Protect concrete form physical damage or reduced strength due to weather extremes during mixing, placement and curing.

In cold weather comply with ACI 306. In hot weather comply with ACI 305.

#### Concrete finishes:

Exposed-to-view surfaces: Provide a smooth finish for exposed concrete surfaces and surfaces that are to be covered with a coating or covering material applied directly to concrete. Remove fins and projections, path defective areas with cement grout, and rub smooth.

Slab Trowel Finish: Apply trowel finish to monolithic slap surfaces that area exposed-to-view or are to be covered with resilient flooring, paint or other thin film coating. Consolidate concrete surfaces by finish troweling, free of trowel marks, uniform in texture and appearance.

03310-3

Curing: Begin initial curing as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously most for not less than 72 hours. Continue curing by use of moisture-retaining cover or membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protections as required to prevent damage to exposed concrete surfaces.

**END OF SECTION** 

#### **DIVISION 3 CONCRETE**

#### CONCRETE WORK

Codes and Standards: ACI 301 "Specifications for Structural Concrete Building"; ACI 318 "Building code Requirements for Reinforced Concrete:' comply with applicable provisions except as otherwise indicated.

Concrete Testing Service: Employ acceptable testing laboratory to perform materials evaluation, testing and design of concrete mixes.

Quality Control: Perform sampling and testing during concrete placement, as follows:

Samplings: ASTM C 172

Slump: ASTM C 143, on of test for each load at point of discharge.

Air Content: ASTM C 173, one for each set of compressive strength specimens.

Aggregates: ASTM C 33, except local aggregates of proven durability may be used when acceptable to Architect.

Water: Drinkable

Air-Entraining Admixture ASTM C 260 (4.5-6.5%)

Water-Reducing Admixture: ASTM C 494; type as required to suit project conditions Only use admixtures which have been tested and accepted in mix designs, unless otherwise acceptable.

03310-1

Related Materials:

Moisture Barrier: Clear 6 mils tick polyethylene.

Membrane-Forming Curing Compound: ASTM C 309, Type I

Below are fine aggregate gradations, revise to suit protect:

3/8": 100%

No. 4: 95-100%

No. 8: 80-90%

No. 16: 50-75%

No. 30: 30-50%

No. 50: 10-20%

No. 100: 2-5%

Coarse aggregate consisting of gravel or crushed stone, clean, hard, free from deleterious matter. Grade by weight to pass sieves as follows:

½": 100% 3/8": 30-50% No. 4: 0-15% No. 8: 0-5%

Reinforcement: ASTM A 185, welded steel wire fabric.

Topping Mix

Standard Topping:

Design mix to produce topping material with the following characteristics:

Compressive strength, 3500 psi at 28 days.

Slump; 3" maximum for concrete containing HRWR (super plasticizer) and 1" maximum for other concrete.

Maximum W/C ratio; 0.45.

03320-2

## Mixing:

Provide batch type mechanical mixer for mixing topping material at project site. Equip batch mixer with a suitable charging hopper, water storage tank, and a water measuring device. Use only mixers which are capable of mixing aggregates, cement and water into a uniform mix within specified time, and of discharging mix without segregation.

## Page 3

Mix each batch of 2 cu. yds. or less for at least 1-1/2 mir Increase mixing time 15 secs. for each additional cu. yd

Ready-mixed topping may be used when acceptable by Archiece. when acceptable, runnin ready-mix topping complying with requirements of ASTM C 94.

#### PART 3 - EXECUTION

#### Condition of Surfaces:

Topping Applied to Fresh Concrete: Do not begin placement of topping until water ceases to rise to surface, and water and laitance have been removed from base slab surface.

Topping Applied to Hardened Concrete: Remove dirt, loose material, oil, grease, paint or other contaminants, leaving a clean surface.

Prior to placing topping mixture, thoroughly dampen slab surface but do not leave standing water. Over dampened surface, apply specified bonding compound. Place topping mix after bonding compound has dried.

For reinforced toppings, provide necessary chairs or supports, and maintain position of reinforcing mesh as shown on drawings.

Joints: Mark location of joints in base slab so that joints in top course will be placed directly over them.

03320-3

## Placing and Compacting:

Spread topping mixture evenly over prepared base, bring to required level with straight-edge and strike-off. After placement do not work surface further until ready for floating. Begin floating when surface water has disappeared, or when concrete has stiffened sufficiently to permit operation of power driven floats. Consolidate surface with power-driven floats, or by hand-floating if area is small or inaccessible to power units.

### Trowel Finish:

After floating, begin first trowel finish operation using power driven trowels. Continue troweling until surface is ready to receive final troweling.

Page 4

)<sub>}</sub>

Curing and Protections:

Cure and protect topping applications and finishes as spi

Performances:

Failure of concrete topping to bond to substrate (as evidenced by a hollow sound when tapped), or disintegration or other failure of topping to perform as a floor finish, will be considered failure of materials and workmanship. Repair or replace toppings in areas of such failures, as directed.

**END OF SECTION** 

03320-4