



**TOWN OF SCITUATE
195 DANIELSON PIKE
P.O. BOX 328
N. SCITUATE, RI 02857**

INVITATION TO BID

The Town of Scituate is currently accepting bids for:
**FOUNDATION CONSTRUCTION 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 "FOUNDATION CONSTRUCTION FOR NEW POLICE STATION".

The scope of work includes the following:

- A. The limits of the proposed foundation including elevations and sewer/water penetration locations are 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. Form footings and foundations and install rebar as shown on the *Foundation Plans*. Upon achieving design strength, strip concrete forms. Bidder will be responsible for coordination and all costs associated with engaging a Rhode Island Licensed and Qualified materials testing firm to perform all necessary Structural Special Inspections per the Rhode Island State Building Code, SBC-1. Coordinate with the Town Engineer, the Town Building/Zoning Official and the Design Engineer(s) of Record for all necessary Inspections.
- C. Pour concrete footings and foundation walls as shown on the *Foundation Plans*. 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.
- D. All Foundation Construction shall be performed in accordance with the Rhode Island State Building Code, SBC-1, with all latest references, amendments and revisions.

This bid shall include all materials and labor as needed to complete this Work.

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.

Simultaneously, with execution of a contract, the Contractor shall furnish a performance bond for faithful performance of the contract and a payment bond for the payment of all persons performing labor and materials under this contract. The surety on such bonds shall be a surety company qualified to do business under the laws of the State of Rhode Island and satisfactory to the Owner. The performance bond shall remain in force for one (1) year after final acceptance of the work by 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.

SITE PLANS FOR A PROPOSED MUNICIPAL

POLICE STATION

TOWN OF SCITUATE, RHODE ISLAND

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

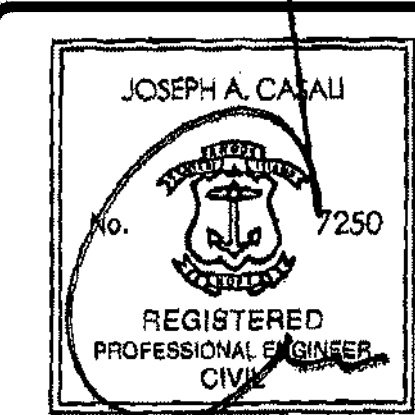
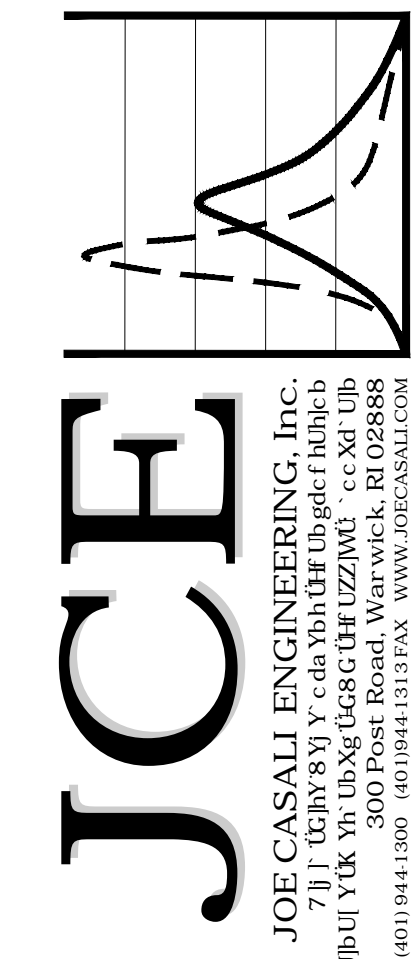
ZONING DISTRICT: RURAL RESIDENTIAL (RR120)

FILINGS:

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

APPROVALS:

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



**PROPOSED SCITUATE
POLICE STATION**
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10



REVISIONS:	
NO.	DATE DESCRIPTION

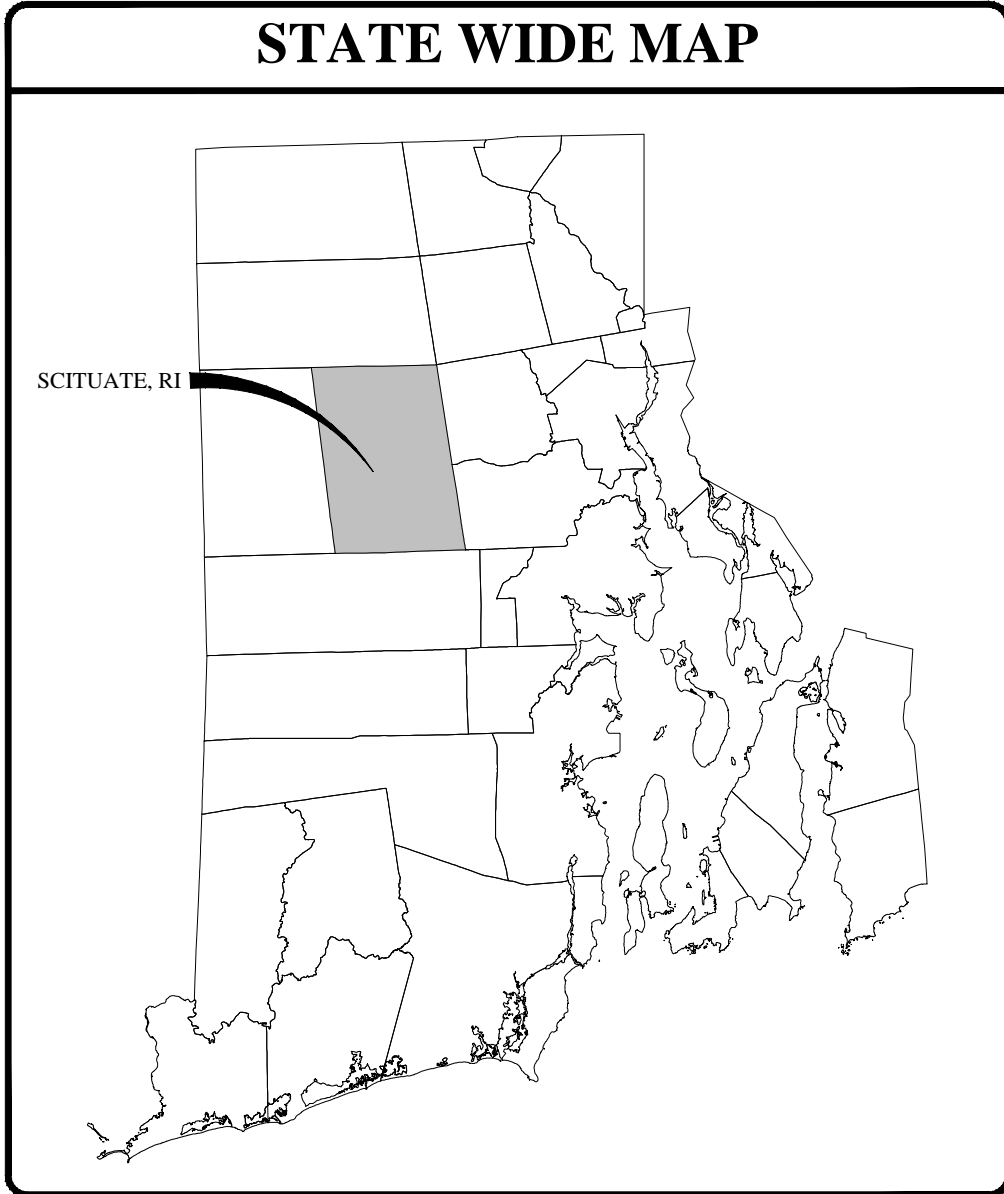
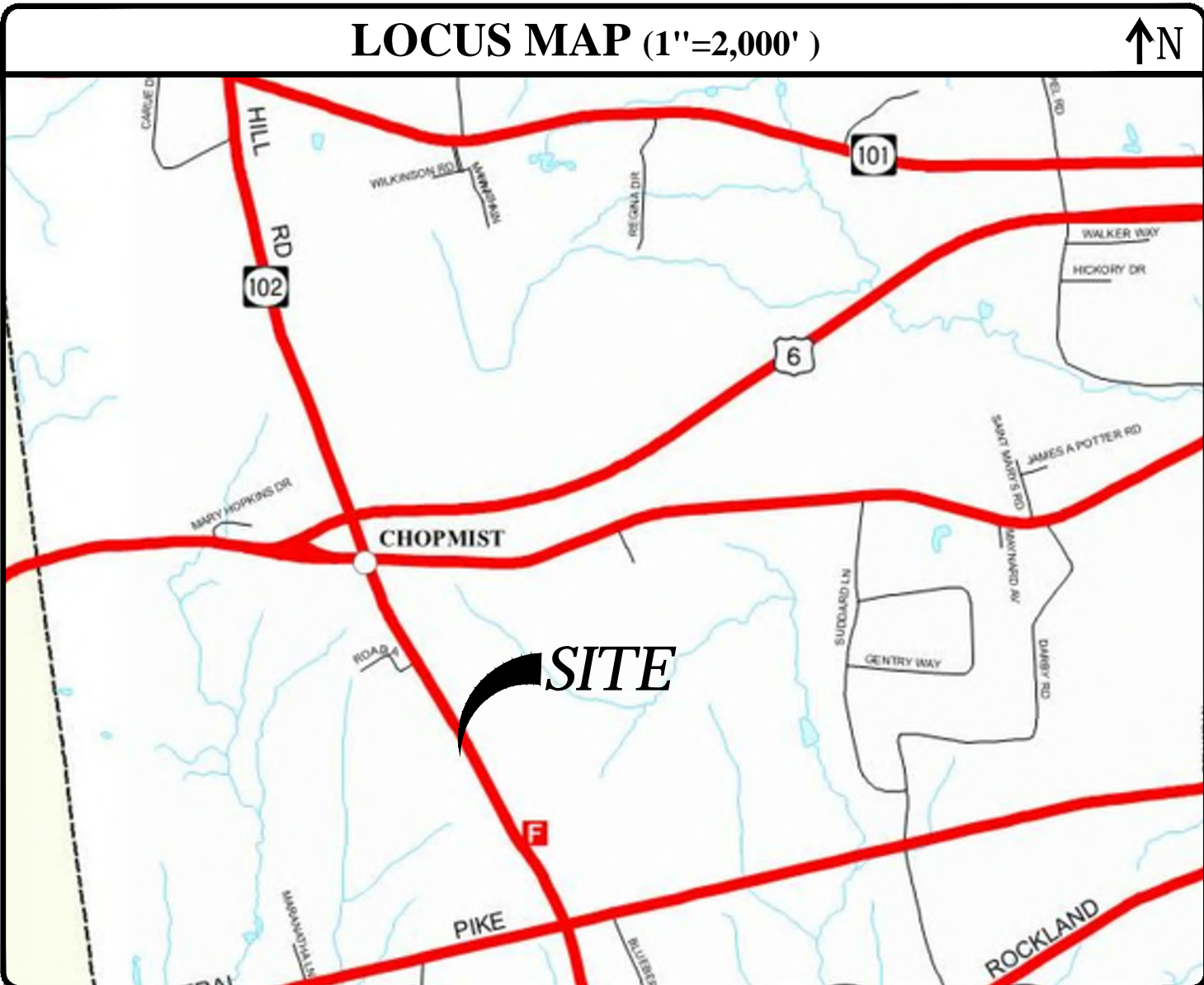
DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	DRD
DATE:	APRIL 2018
PROJECT NO:	07-109c

PRELIMINARY, NOT FOR
CONSTRUCTION

COVER
SHEET

SHEET
1 OF 9

PROJECT TEAM			
OWNER/ APPLICANT:	TOWN OF SCITUATE 195 DANIELSON PIKE PO BOX 328 SCITUATE, RI 02857 PHONE: 401-647-2822	WETLAND BIOLOGIST:	NATURAL RESOURCE SERVICES 180 TINKHAM LANE PO BOX 311 HARRISVILLE, RI 02830 PHONE: (401) 568-7490
ARCHITECT/ STRUCTURAL ENGINEER:	RICHARD CARDARELLI, AIA 51 SOCKANOSSET CROSS ROAD CRANSTON, RI 02920 PHONE: (401) 461-0030	ELECTRICAL ENGINEER:	MCCLANAGHAN ASSOCIATES, INC. 178 TREASURE ROAD NARRAGANSETT, RI 02882 PHONE: 401-524-3457
CIVIL ENGINEER:	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313 JOECASALI.COM		
LAND SURVEYOR:	FOSTER SURVEY 8 NORTH ROAD FOSTER, RI 02825 PHONE: 401-647-9240		



INDEX OF DRAWINGS	
SHEET NO.	PLAN
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	SITE PREPARATION PLAN
4	SITE & UTILITY PLAN
5	GRADING & DRAINAGE PLAN
6	RIDOT PAP PLAN
7	RI STANDARD DETAILS
8	DETAILS I
9	DETAILS II
REFERENCE PLAN:	
SHEET 1 OF 1	SURVEY PLAN, PREPARED BY FOSTER SURVEY, DATED FEBRUARY 26, 2018

GENERAL NOTES:

1. CLASS I LIMITED CONTENT BOUNDARY SURVEY AND CLASS III TOPOGRAPHIC SURVEY COMPLETED BY FOSTER SURVEY, 8 NORTH ROAD, FOSTER RI IN FEBRUARY 2018.
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 44007C0280G, EFFECTIVE DATE MARCH 2, 2009.
4. SOILS EXISTING ON THE SITE ARE WOODBRIDGE FINE SANDY LOAM (WoB), RIDGEBURY, LEICESTER, AND WHITMAN SOILS (Rd), AND PAXTON FINE SANDY LOAM (PdB).
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.

SITE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) OF ALL MATERIALS INDICATED ON THE PLANS.
2. STOCKPILES OF EARTH MATERIALS SHALL NOT BE LOCATED ADJACENT TO DRAINAGE STRUCTURES.
3. ALL DISTURBED AREAS OUTSIDE OF THE PAVED AREAS WILL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED.
4. THE 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 ENGINEER.
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 CONDITIONS.
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 OWNER OR TOWN.
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 PERFORMANCE OF THE WORK.
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 LATEST ADDENDA).

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. 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.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY AND VEHICULAR SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF 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 TO TRAFFIC.
3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED IN THE STATE OR TOWN RIGHT-OF-WAY.
4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE 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.

DRAINAGE SYSTEM NOTES:

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 CLEANED AND FLUSHED.
4. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STAND IS MAINTAINED.
5. ALL SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
6. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
7. THE SILT FENCE/HAYBALES SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY SILT FENCE/HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
9. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993 AMENDED 2014.

LOAMING & SEEDING

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

1. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS AND AREAS LABELED AS 'LOAM AND SEED' ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. SCARIFY THE SUBGRADE TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.
2. THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA).
3. PRIOR TO SEEDING OR SODDING, FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 1-2" OF THE PLANTING SOIL. APPLY AT A RATE OF 8 LBS. PER 1000 SQUARE FEET.
4. APPLY LIME AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATE INTO THE TOP 1-2" OF TOPSOIL.
5. SEEDING
AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL. SEED SHALL BE APPROVED URI #2 OR APPROVED EQUAL. APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET OR AS OTHERWISE DIRECTED BY THE MANUFACTURER.

URI #2 IMPROVED SEED MIX, % BY WEIGHT:

40% CREEPING RED FESCUE
20% IMPROVED PERENNIAL RYEGRASS
20% IMPROVED KENTUCKY BLUEGRASS
20% KENTUCKY BLUEGRASS

RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.

BMP MAINTENANCE SCHEDULE:

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

ROOF DRAIN LEADERS

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

SAND FILTER SYSTEM

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

INFILTRATION BASIN

- 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.

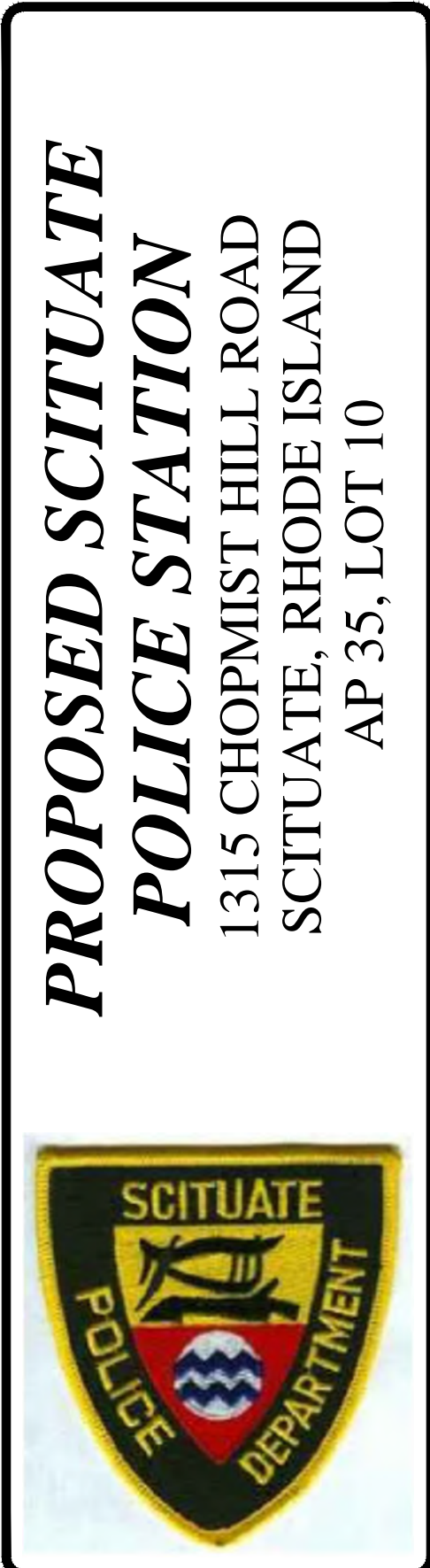
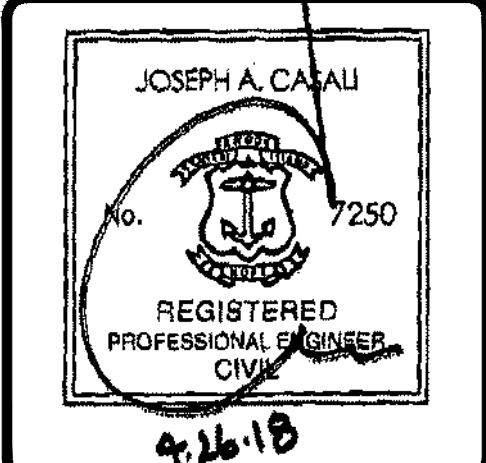
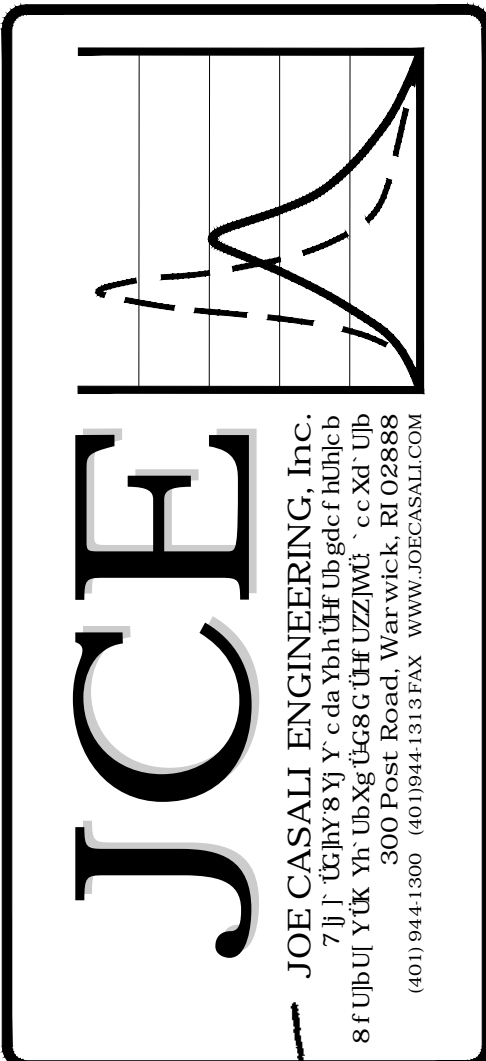
SEQUENCE & STAGING OF PROPOSED CONSTRUCTION ACTIVITIES:

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

LEGEND

- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- - - - - BUILDING SETBACK LINE
- WETLAND EDGE
- △ WF WETLAND FLAG
- - - - - 50' PERIMETER WETLAND
- 100 ——— EXISTING CONTOUR
- 100 ——— PROPOSED CONTOUR
- ○ ○ ○ EXISTING STONE WALL
- ——— IRON PIN
- ——— DRILL HOLE
- ——— CONCRETE BOUND
- ——— GUARD RAIL
- +— DRAIN LINE
- ⊙ ——— DRAINAGE MANHOLE
- ⊞ ——— CATCH BASIN
- ——— UTILITY POLE
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC
- WATER LINE
- ⊙ ——— WATER SHUT OFF VALVE
- ⊙ ——— WELL
- SEWER
- ⊙ ——— SMH
- N/F ——— NOW OR FORMERLY
- ~~~~~ TREELINE
- 100 ——— LIMIT OF DISTURBANCE
- TH-1 SOIL EVALUATION
- ⬮-101 SOIL BORING



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

GENERAL NOTES & LEGEND

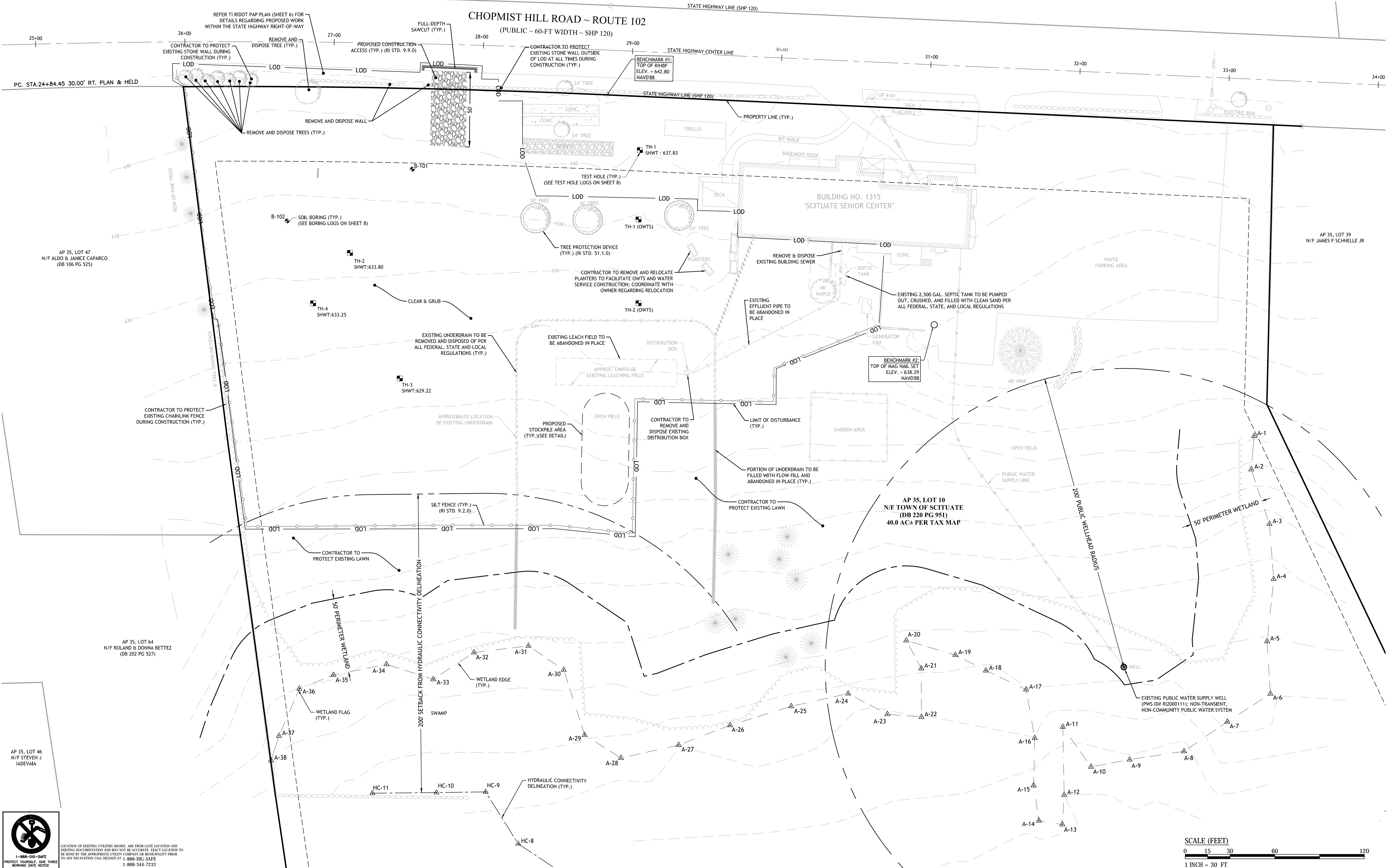
SHEET 2 OF 9


ZONING CRITERIA	REQUIRED
ZONING DISTRICT	RR-120
MINIMUM LOT SIZE	120,000 SF
MINIMUM LOT WIDTH	300 FT
MINIMUM FRONT YARD DEPTH	50 FT
MINIMUM SIDE YARD DEPTH ⁽¹⁾	15 FT
MINIMUM REAR YARD DEPTH	60 FT
MAXIMUM BUILDING COVERAGE	15%
MAXIMUM BUILDING HEIGHT ⁽¹⁾	30 FT

NOTES:
1. OTHER PERMITTED USE DIMENSIONAL REGULATION

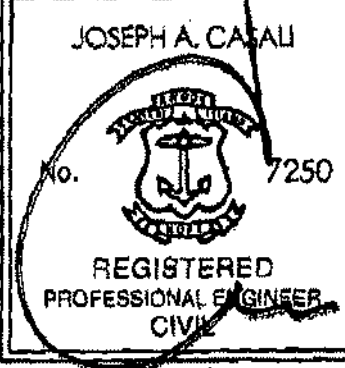
SOIL EVALUATION TEST PIT DATA		
	SURFACE EL.	SHWT / EL.
TH-1	640.00	26' / 637.83
TH-2	636.30	30' / 633.80
TH-3	631.55	28' / 629.22
TH-4	635.35	25' / 633.25

SOIL EVALUATION TEST PIT DATA (OWTS) WITNESSED BY RIDEM ON 11/14/17		
	SURFACE EL.	SHWT / EL.
TH-1	638.00	26' / 637.83
TH-2	635.00	30' / 633.80





JCE
JOE CASALI ENGINEERING, Inc.
Professional Engineer - RI
8 CUBA YK RD, SUITE 100, SCITUATE, RI 02883
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



JOSEPH A. CASALI
REGISTERED PROFESSIONAL ENGINEER
CIVIL
4-16-18

**PROPOSED SCITUATE
POLICE STATION**
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10



SCITUATE
POLICE
DEPARTMENT

REVISIONS:		
NO.	DATE	DESCRIPTION

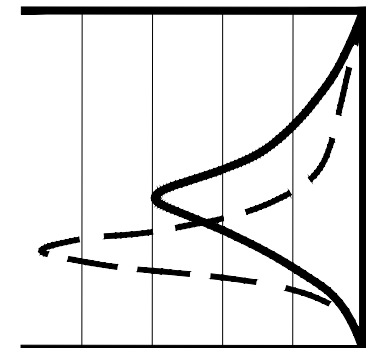
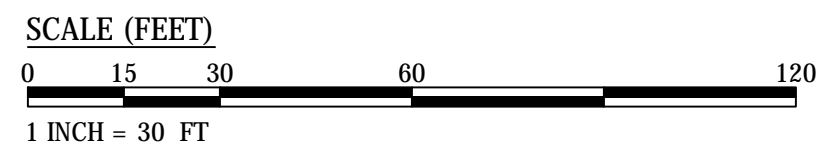
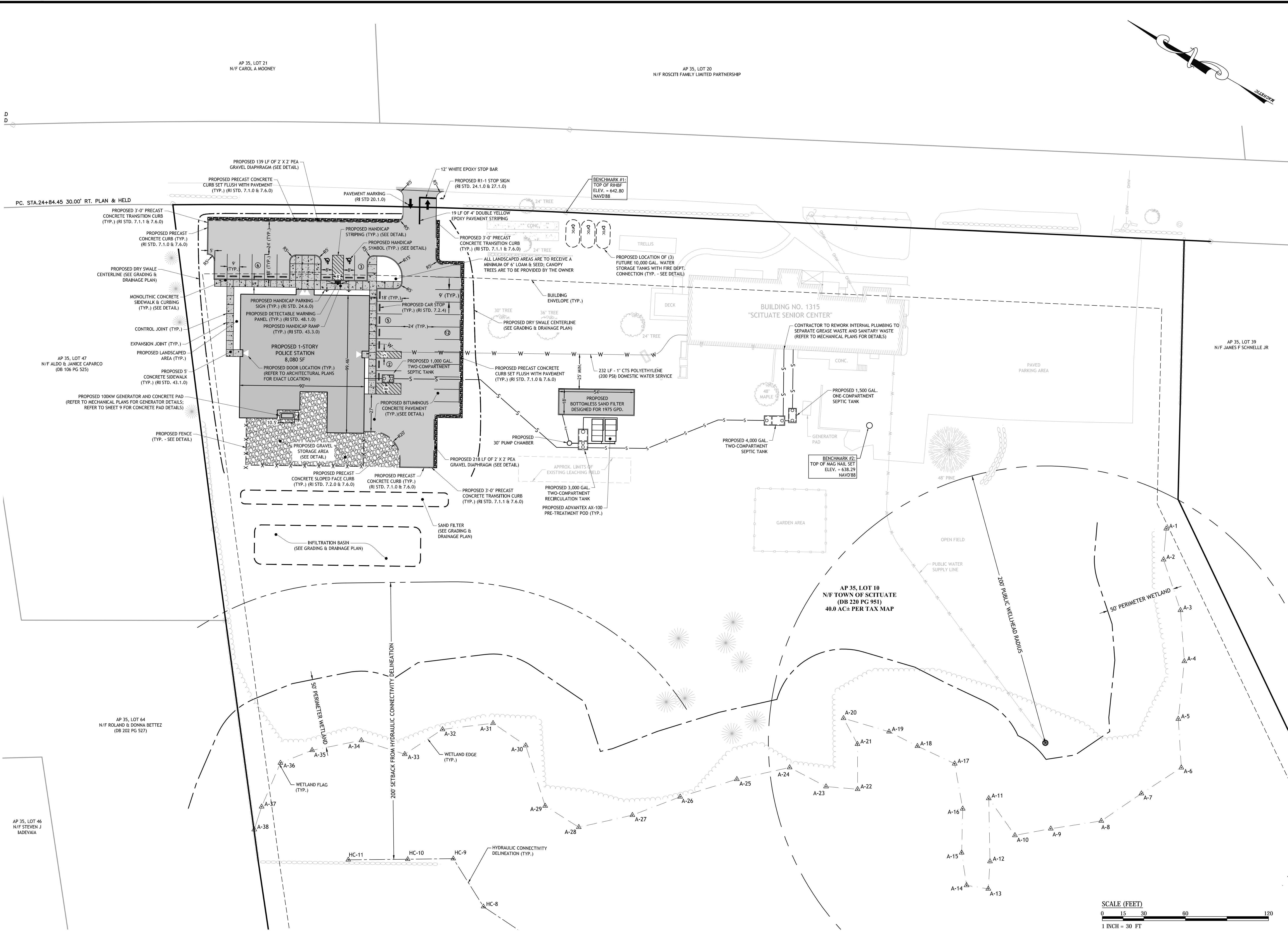
DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	DRD
DATE:	APRIL 2018
PROJECT NO:	07-109c

PRELIMINARY, NOT FOR CONSTRUCTION

**SITE
PREPARATION
PLAN**

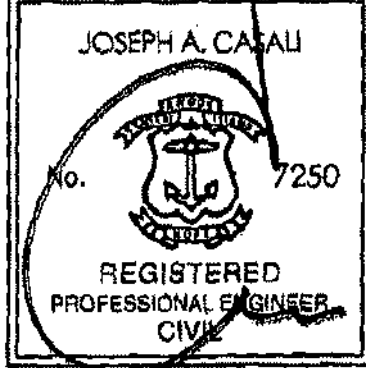
**SHEET
3 OF 9**

Q:\07-108 Town of Scituate\07-108 Engineer\Town Planner\RTQ Town of Scituate Engineer Files\Police Station\ACAD\Police Station CIBs (WORKING SET)3.dwg Apr-27-2018 12:40pm



JCE

JOE CASALI ENGINEERING, Inc.
Professional Engineer - Civil
8 CUBAU YK 300 Post Road, Warwick, RI 02888
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM



**PROPOSED SCITUATE
POLICE STATION**
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10



REVISIONS:		
NO.	DATE	DESCRIPTION

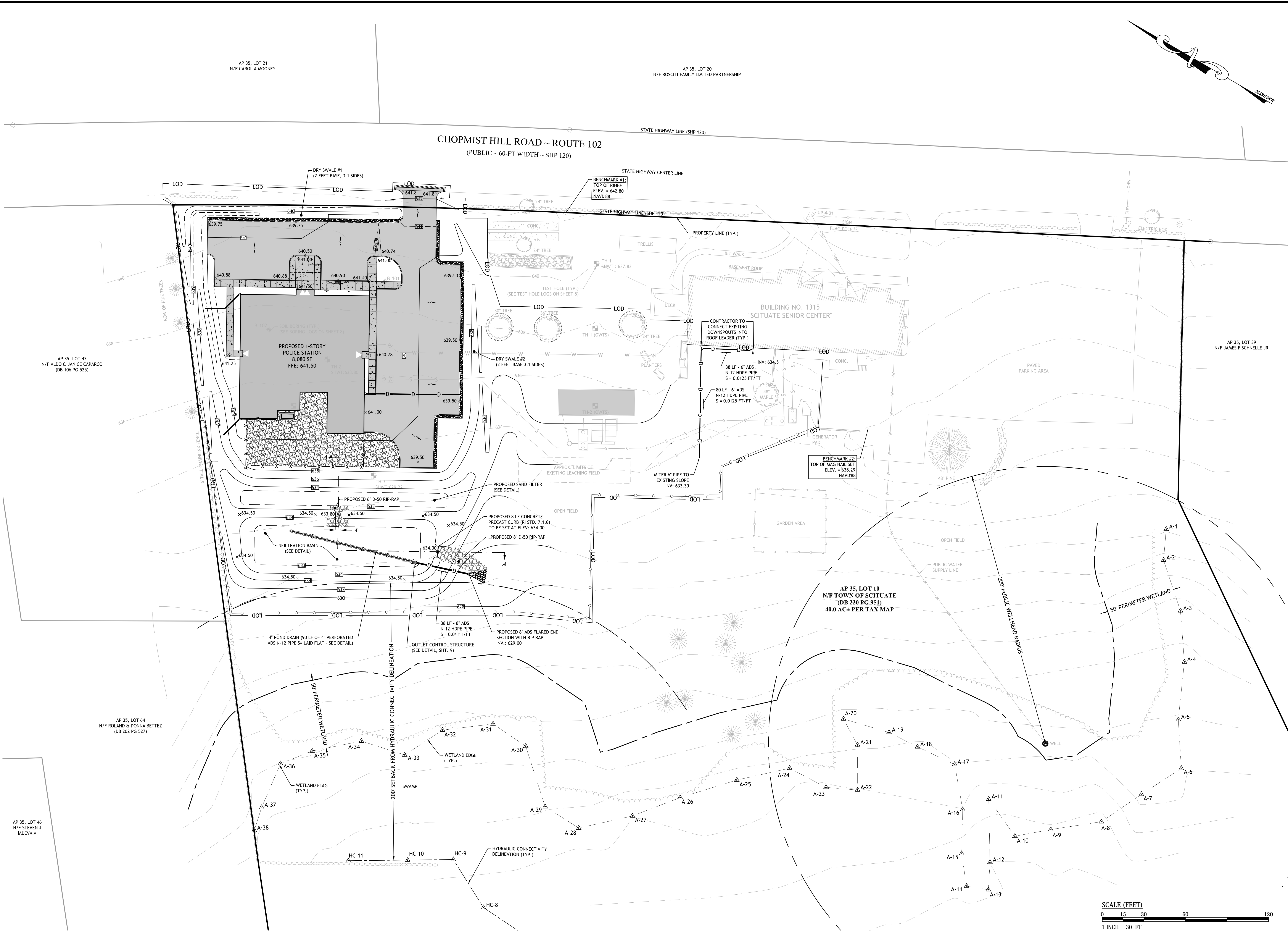
DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	DRD
DATE:	APRIL 2018
PROJECT NO:	07-109c

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CONSTRUCTION

**SITE AND
UTILITY PLAN**

**SHEET
4 OF 9**

Q:\07-108 Town of Scituate\07-108 Engineer\Town Planner\RTQ\Town of Scituate Engineer Files\Police Station\ACAD\Police Station CIBs\WORKING SET\03.dwg Apr-27-2018 12:40pm



JCE
JOE CASALI ENGINEERING, Inc.
Professional Engineer
8 CUBULYK RD. SUITE 100
SCITUATE, MA 01903
(508) 885-1300 FAX (508) 885-1301 WWW.JOECASALI.COM

JOSEPH A. CASALI
7250
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
4.16.18

**PROPOSED SCITUATE
POLICE STATION**
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10



REVISIONS:		
NO.	DATE	DESCRIPTION

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

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CONSTRUCTION

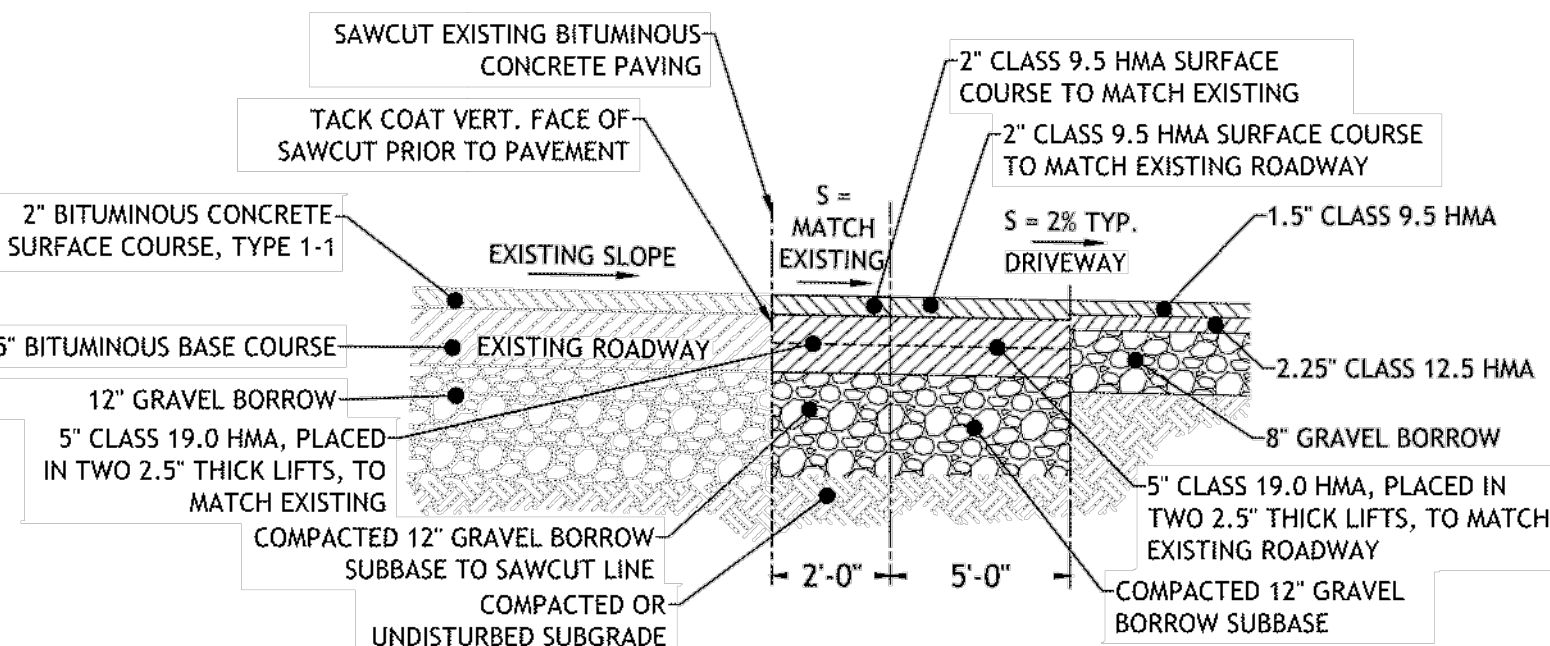
**GRADING &
DRAINAGE
PLAN**

**SHEET
5 OF 9**

RIDOT PHYSICAL ALTERATION PERMIT (PAP) PLAN FOR A PROPOSED
POLICE STATION

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

- NOTES:**
- ALL WORK WITHIN THE STATE'S RIGHT-OF-WAY (ROW) SHALL CONFORM TO RIDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013 AND STANDARD DETAILS, JUNE 15, 1988, AS AMENDED BY REVISION.
 - UTILITY WORK SHOWN AS REFERENCE. THIS WORK NEEDS TO BE PERMITTED THROUGH A UTILITY PHYSICAL ALTERATION PERMIT (PUP) WITH RIDOT'S DIVISION OF MAINTENANCE.
 - 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).
 - CONTRACTOR TO PROVIDE TEMPORARY EROSION CONTROLS TO PROTECT THE STATE ROW DURING THE DEMOLITION OF EXISTING DRIVEWAY AND CONSTRUCTION OF NEW DRIVEWAY.



- NOTES:**
- MINIMUM COMPACTION FOR GRAVEL SUB-BASE OR SUBGRADE: 95% MODIFIED PROCTOR.
 - NO WORK SHOULD BE DONE OUTSIDE OF THE PROJECT SITE. PAVEMENT SHOULD MATCH WHERE NOTED ON THE SITE PLANS.
 - 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

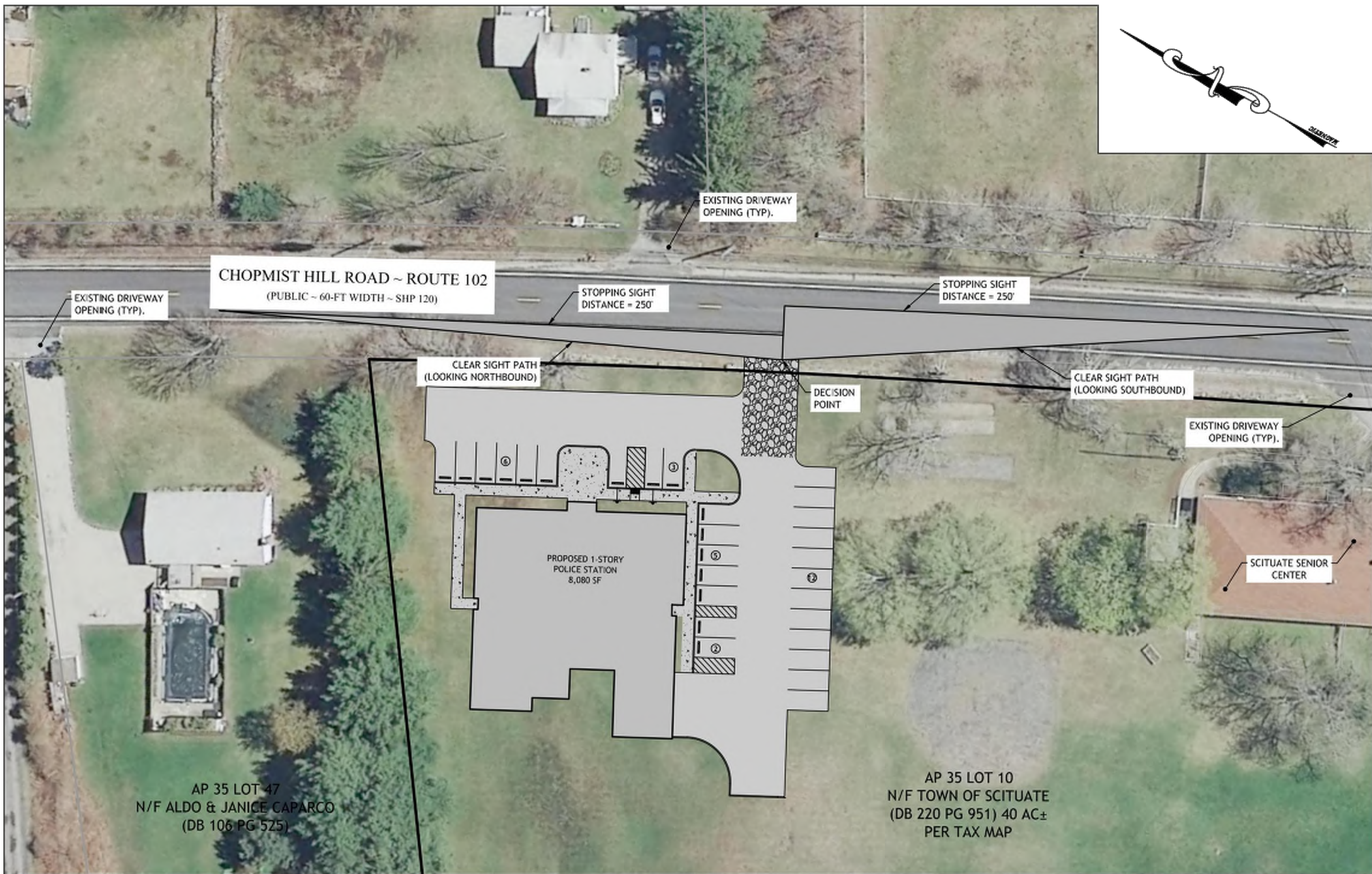
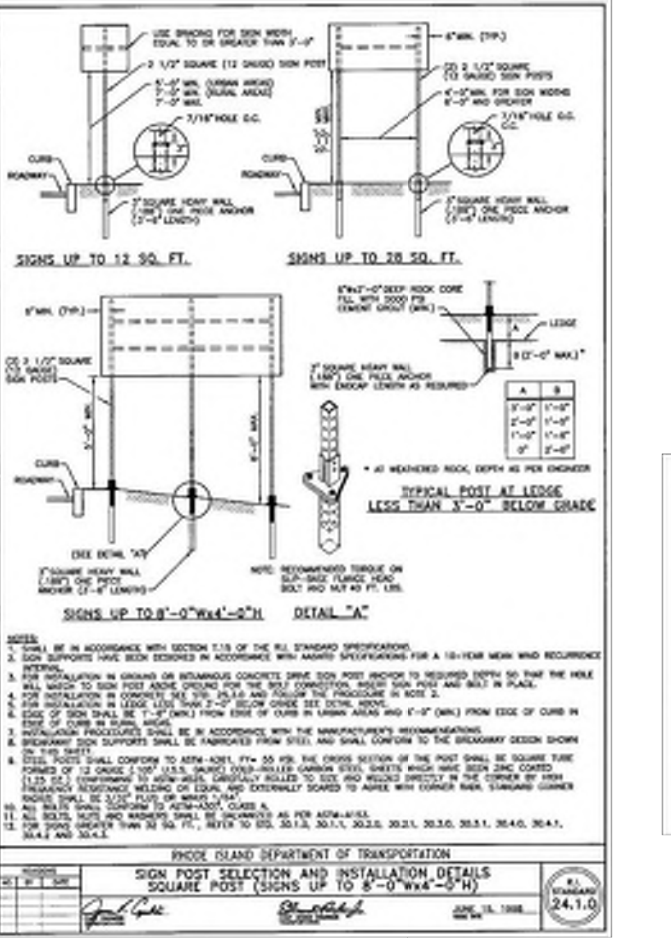
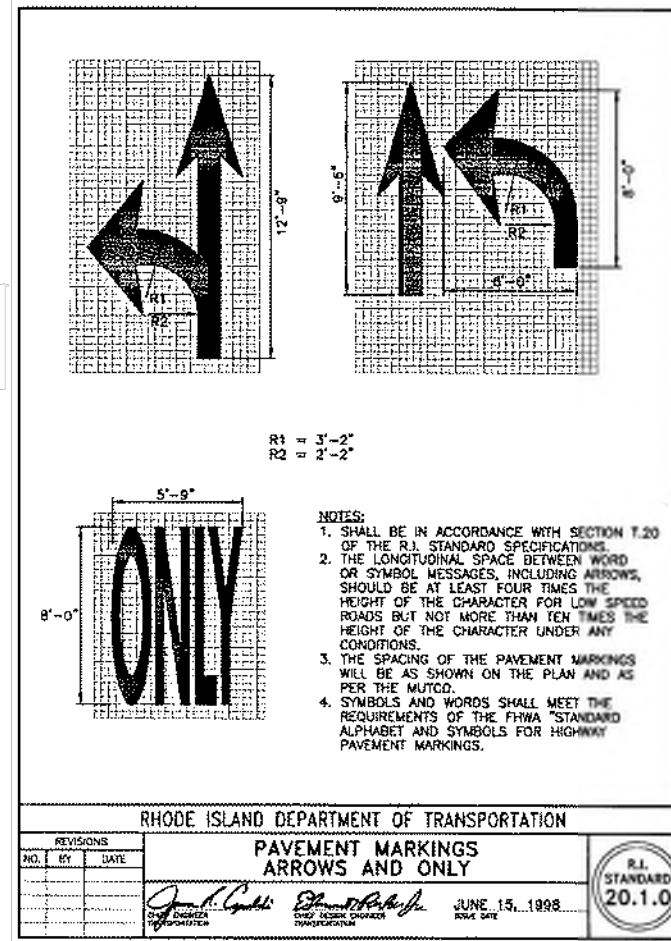
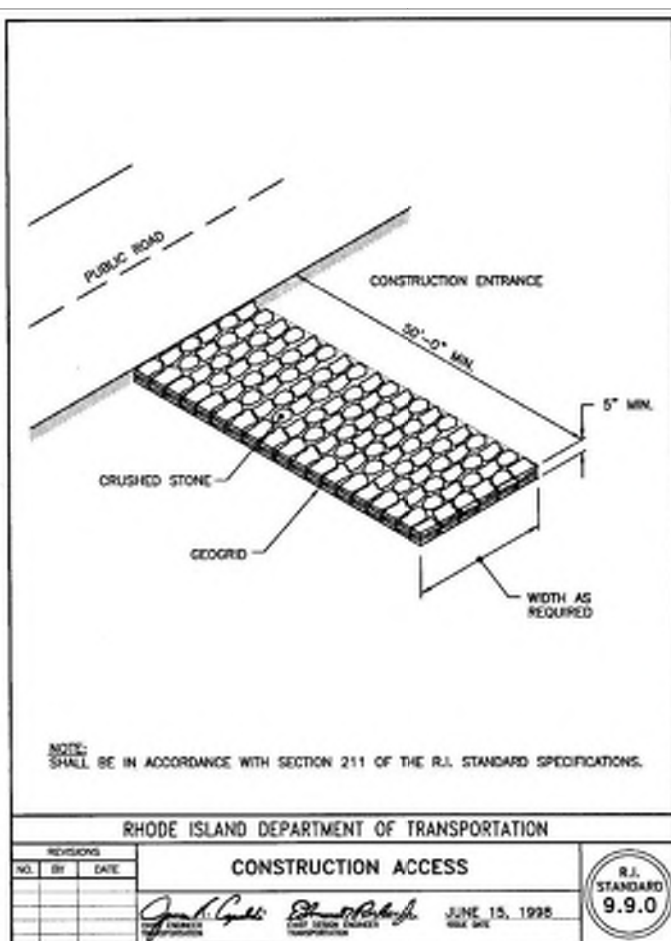
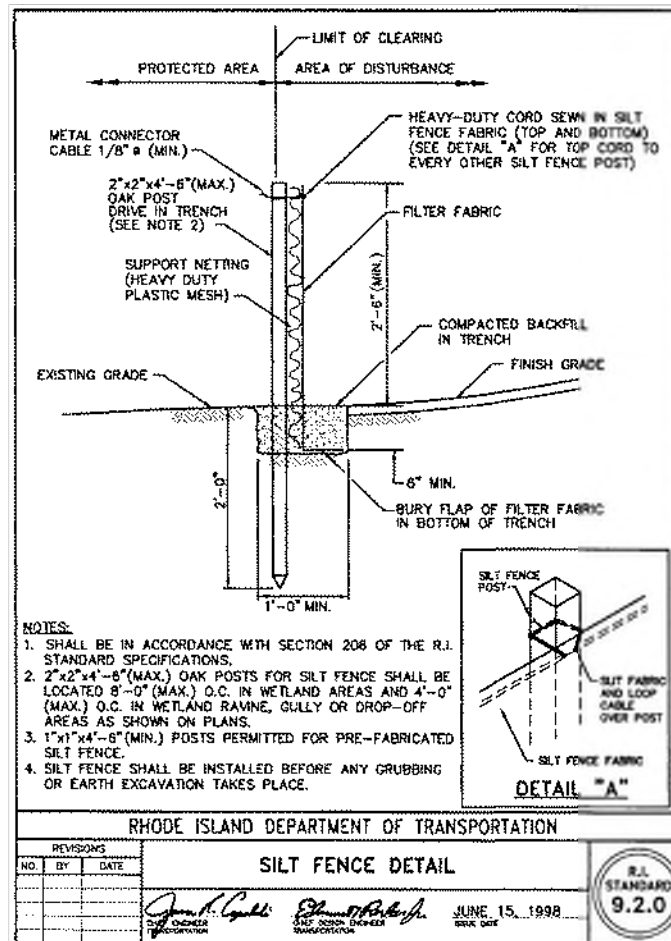
RHODE ISLAND STANDARDS

- DT REMOVE AND DISPOSE TREE
- DW REMOVE AND DISPOSE WALL
- PW PROTECT WALL
- LS LOAM & SEED
- 4DY 4" EPOXY RESIN PAVEMENT MARKINGS - WHITE
- 12W 12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
- 9.2.0 SILT FENCE
- 9.9.0 CONSTRUCTION ACCESS
- 20.1.0 PAVEMENT MARKINGS
- 24.1.0 SIGN POST MOUNTING DETAIL
- 27.1.0 REGULATORY SIGN
- R1-1 STOP SIGN

- PVMT A PROPOSED DRIVEWAY ENTRANCE STRUCTURE:**
- 1.5" CLASS 9.5 HMA
 - 2.25" CLASS 12.5 HMA
 - 8.0" GRAVEL BORROW SUBBASE COURSE (RIDOT M.01.09 TYPE 1) PLACED AND COMPACTED IN 8-INCH THICK (MAX.) LOOSE LIFTS
- PVMT B EXISTING STATE ROADWAY PAVEMENT STRUCTURE PER CONTRACT NO. 9103:**
- 2.0" BITUMINOUS CONCRETE SURFACE COURSE, TYPE 1-1
 - 5.0" BITUMINOUS CONCRETE BASE COURSE (2-2 1/2" LIFTS)
 - 12" (MIN.) GRAVEL BORROW SUB-BASE COURSE

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

1-888-DIG-SAFE
1-888-344-7233



OVERALL LOCUS MAP AND SITE DISTANCE PLAN
SCALE: 1" = 40'

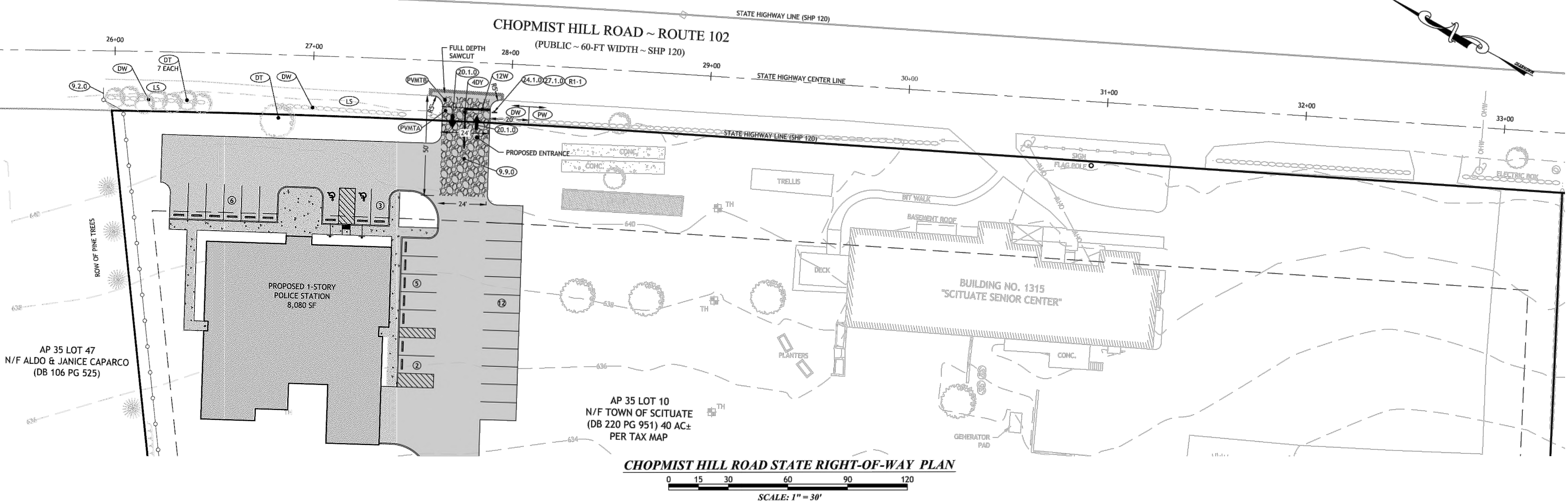
SIGN NUMBER		* R1-1	
LEGEND		STOP	
COLOR	BACKGROUND	RED	
SIGN DIMENSION	COPY	WHITE	
	WIDTH	24"	30"
	HEIGHT	24"	30"

DRAINAGE STATEMENT:
THE 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 THE STATE HIGHWAY RIGHT-OF-WAY.

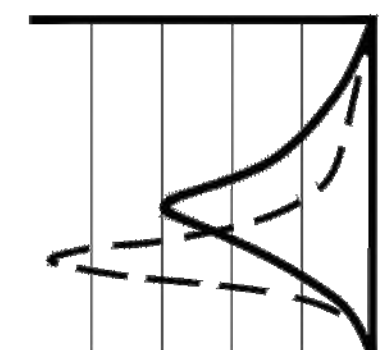
POSTED SPEED LIMIT ON CHOPMIST HILL ROAD: 35 MPH
AASHTO STOPPING SIGHT DISTANCE (SSD) REQUIREMENTS:

SPEED	DISTANCE
25	155 FT.
30	200 FT.
35	250 FT.
55	495 FT.

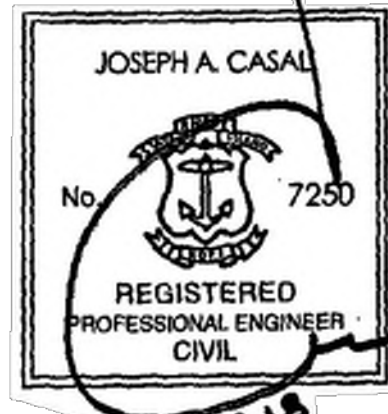
NOTE: SITE MEETS REQUIREMENTS FOR THE POSTED SPEED LIMIT ON CHOPMIST HILL ROAD BASED ON AASHTO REQUIREMENTS. THE AVAILABLE SIGHT DISTANCES AT THE PROPOSED DRIVEWAY LOCATION ON CHOPMIST HILL ROAD ARE IN EXCESS OF 250 FEET TO THE NORTH AND SOUTH. THESE VALUES ARE GREATER THAN AASHTO'S RECOMMENDED MINIMUM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



CHOPMIST HILL ROAD STATE RIGHT-OF-WAY PLAN
SCALE: 1" = 30'



JOE CASALI ENGINEERING, INC.
CIVIL, SITE DEVELOPMENT, TRANSPORTATION
1000 WEST MAIN STREET, SUITE 100
300 POST ROAD, WARWICK, RI 02888
(401) 844-1300 (401) 844-1313 FAX WWW.JOECASALI.COM



**PROPOSED SCITUATE
POLICE STATION**
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10



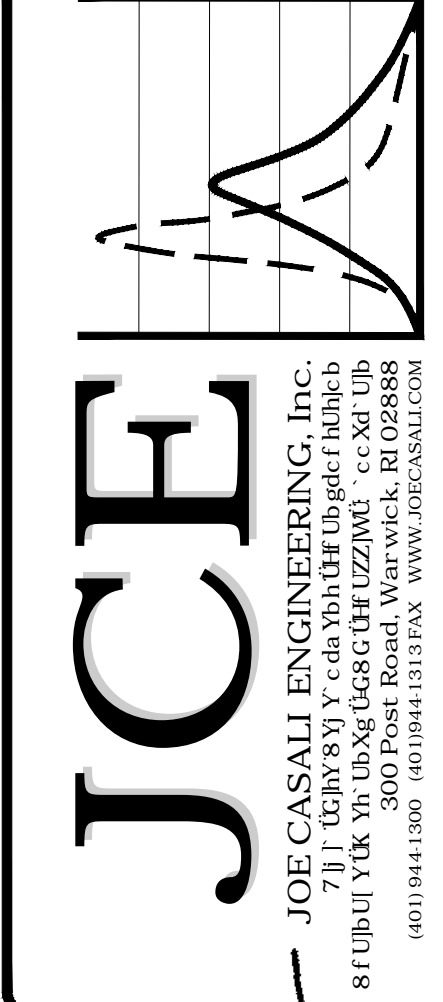
REVISIONS:
NO. DATE DESCRIPTION
1 3.28.2018 RIDOT COMMENTS

DESIGNED BY: DRD
DRAWN BY: NBH
CHECKED BY: DRD
DATE: MARCH 2018
PROJECT NO.: 07-109c

PRELIMINARY, NOT FOR CONSTRUCTION

RIDOT PAP PLAN

**SHEET
6 OF 9**





***PROPOSED SCITUATE
POLICE STATION***
1315 CHOPMIST HILL ROAD
SCITUATE, RHODE ISLAND
AP 35, LOT 10

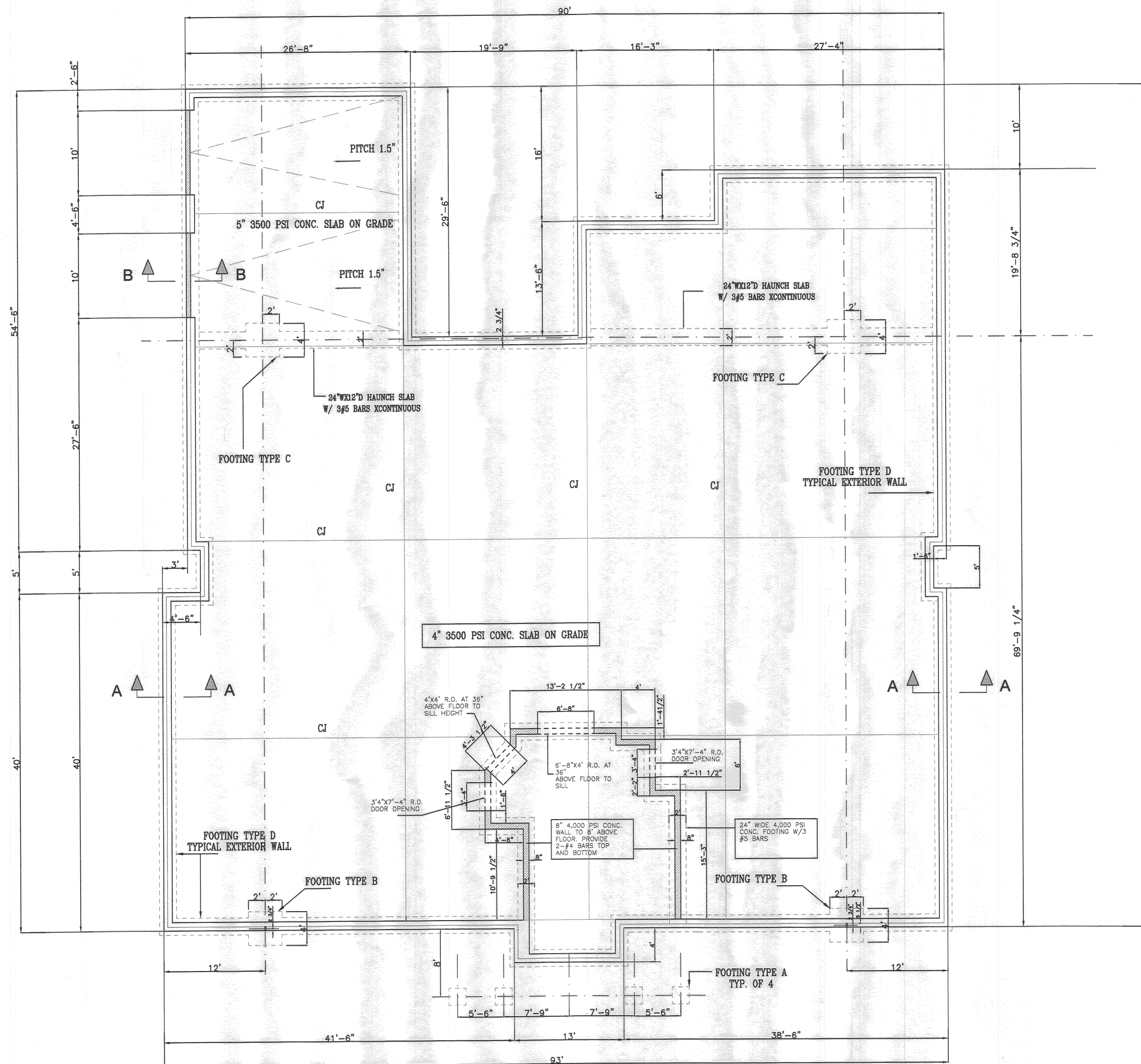


DESIGNED BY:	DRD
DRAWN BY:	SD/SEP
CHECKED BY:	DRD
DATE:	APRIL 2018
PROJECT NO:	07-109c

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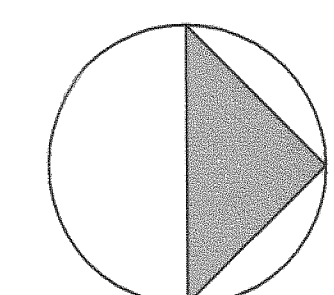
DETAILS II

SHEET
9 OF 9



FOUNDATION PLAN

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



CALLED NORTH

SHEET NO:

F-1

SHEET 1 OF

SHEET CONTENT

JOB NO. 1810

DWN BY RJC

REVISED

DATE 4/28/2018

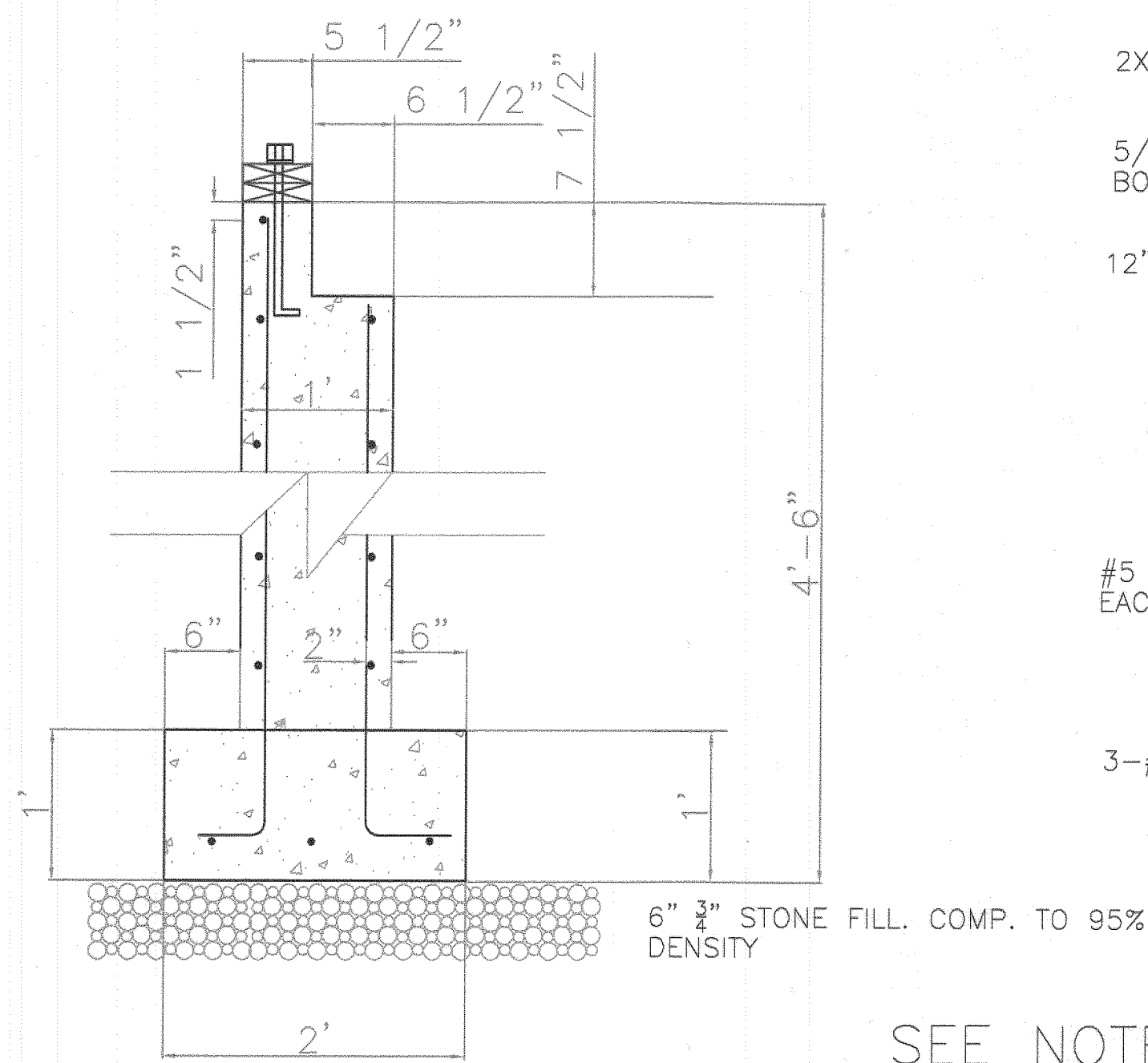
SCALE AS NOTED

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



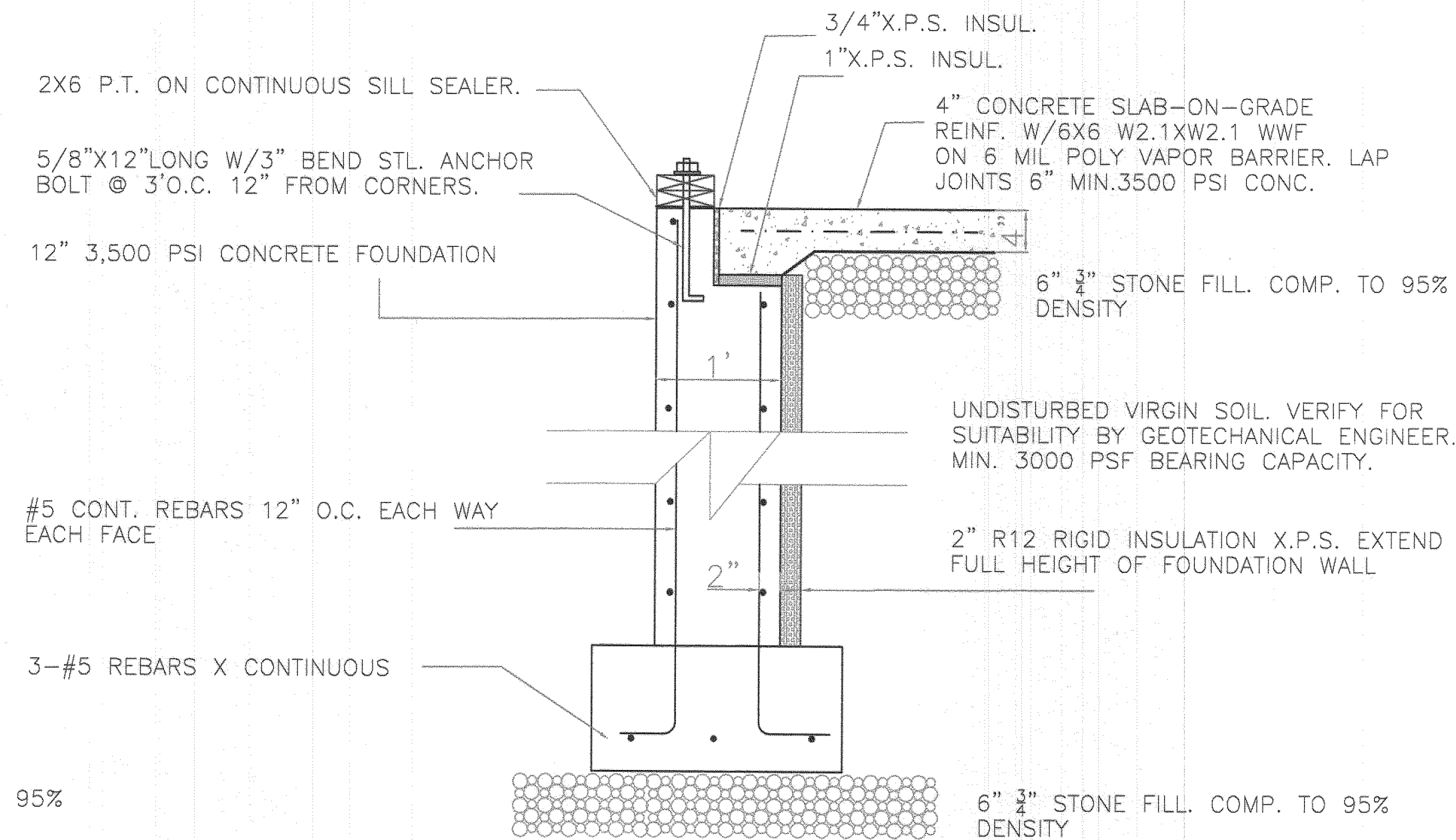
RICHARD CARDARELLI, A.I.A.
ARCHITECT
51 SOCKANOSSET CROSS ROAD
CRANSTON, R.I. 02920

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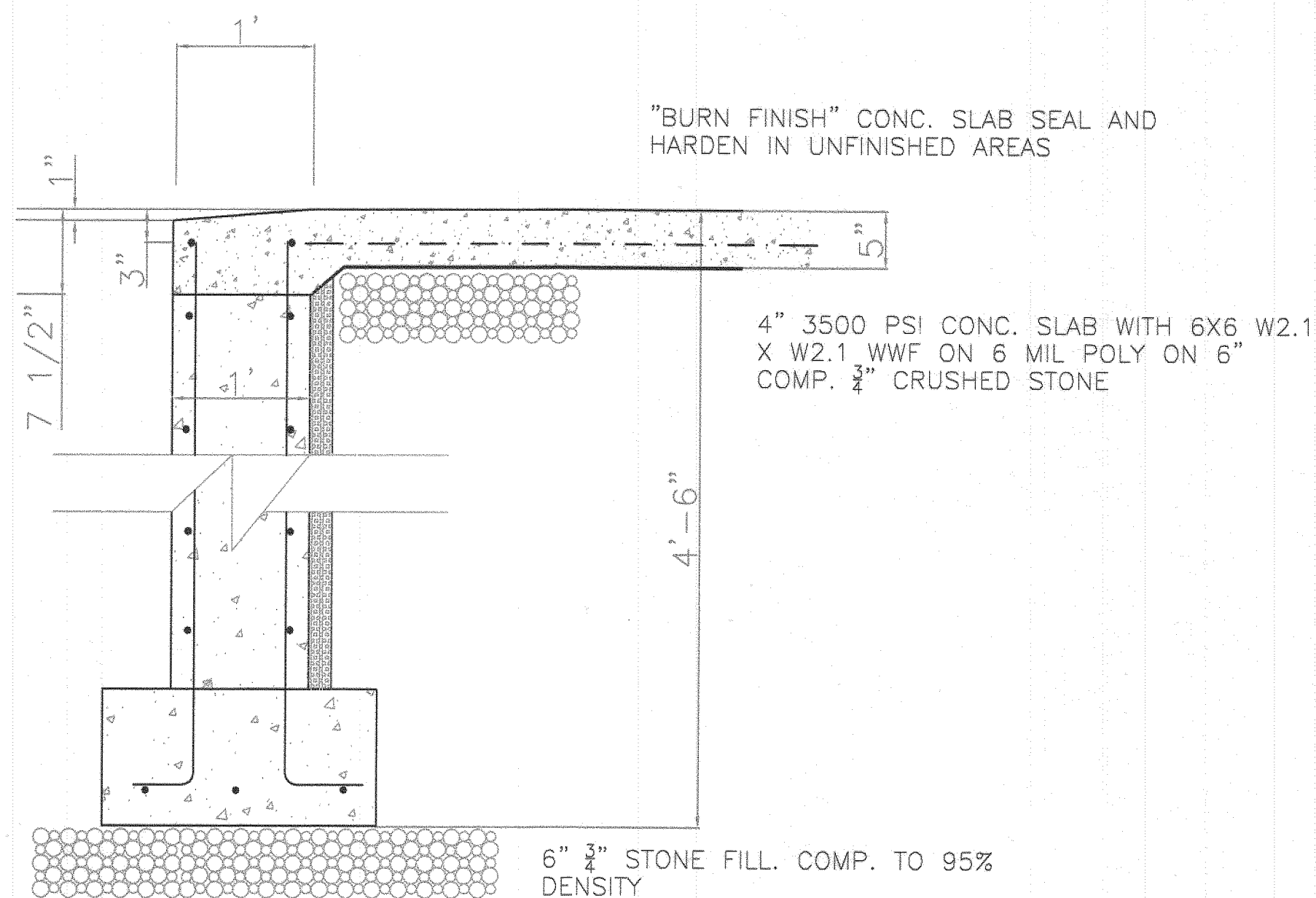


SECTION A-A TYPICAL

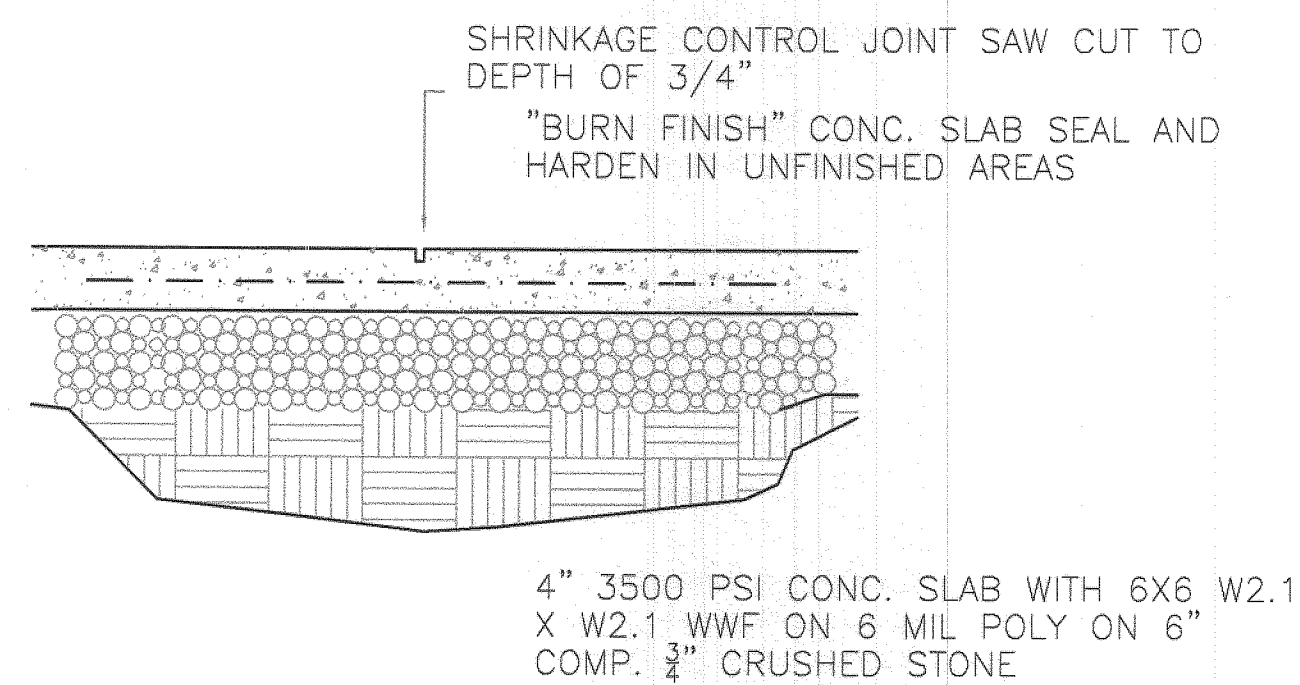
SEE NOTES AT RIGHT



SECTION A-A NOTES

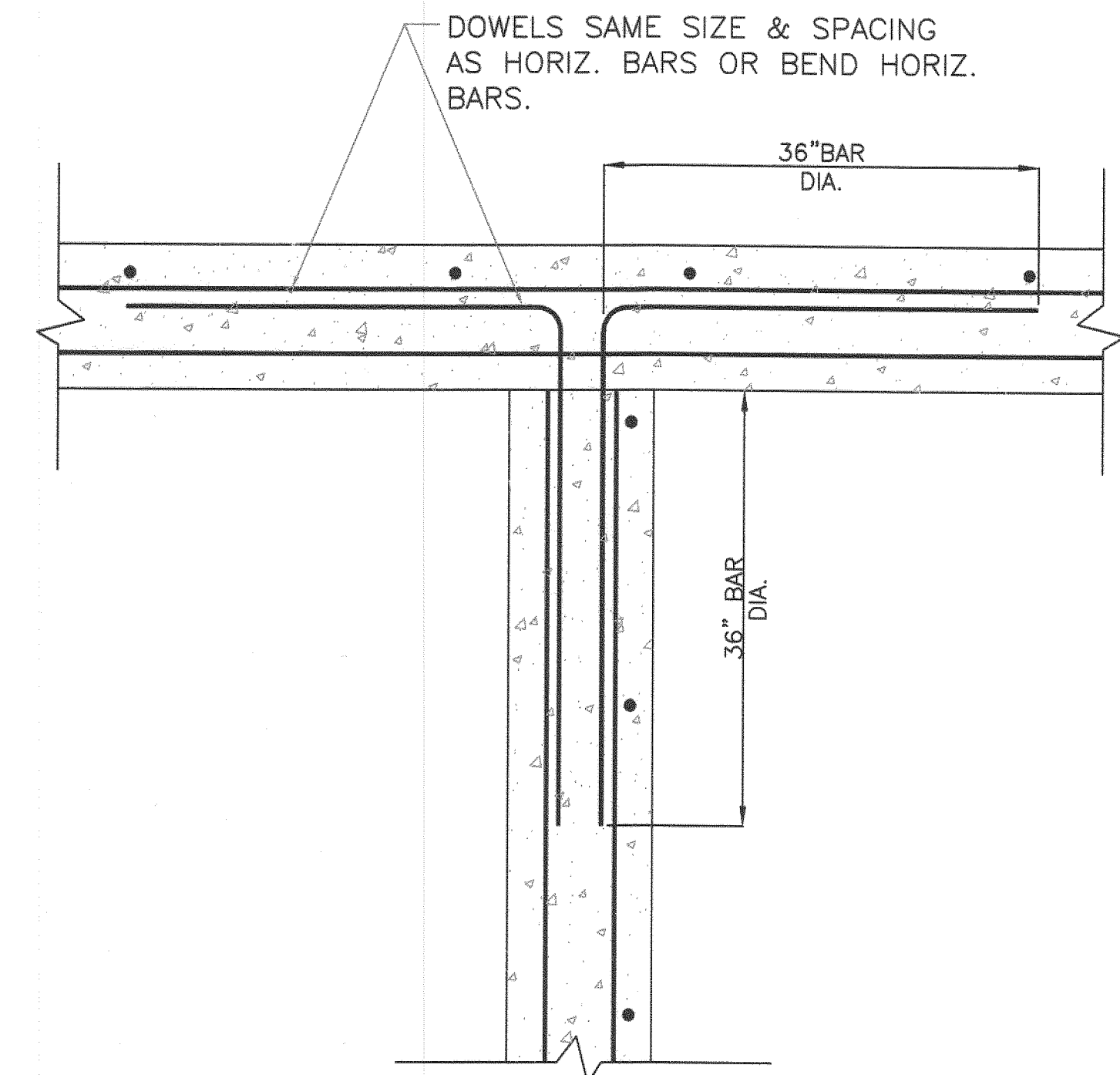


SECTION B-B AT OHD

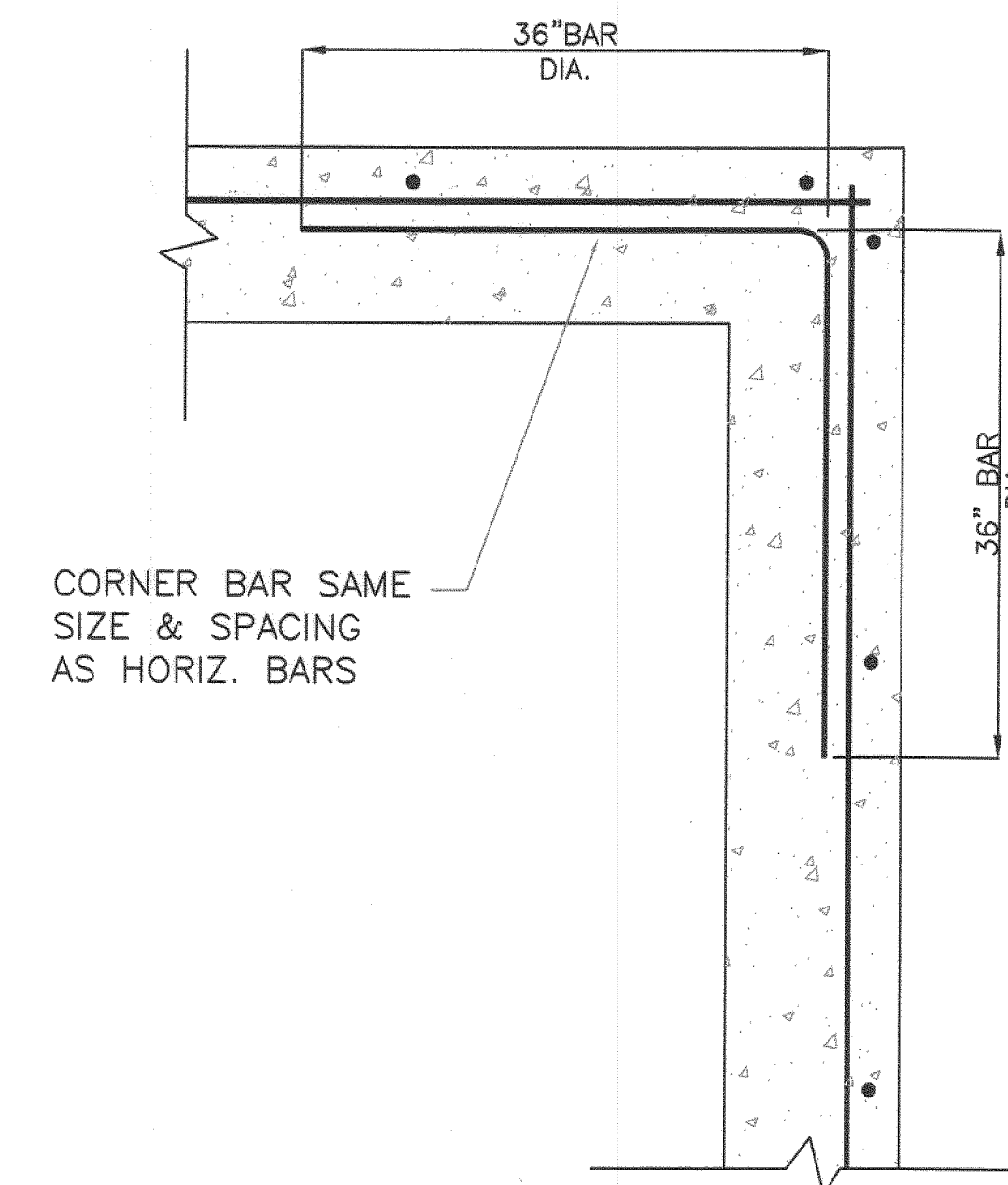


TYPICAL SLAB CONTROL JOINT DETAIL

C.J. 20' O.C. MAX AS LOCATED ON PLAN



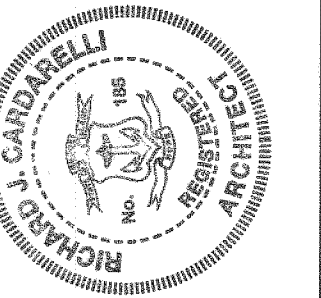
TYP. WALL INTERSECTION



TYP. WALL CORNER

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RICHARD CARDARELLI, A.I.A.
ARCHITECT
51 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

FOOTING TYPE C

DIVISION 3 CONCRETE

CONCRETE WORK

Codes and Standards: ACI 301 "Specifications for Structural Concrete"
"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 thick 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 concrete 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 from 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, patch defective areas with cement grout, and rub smooth.

Slab Trowel Finish: Apply trowel finish to monolithic slab surfaces that are 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 moist 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 project:

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:

1/2": 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 min
Increase mixing time 15 secs. for each additional cu. yd

Ready-mixed topping may be used when acceptable by Architect. When acceptable, furnish 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

Curing and Protections:

Cure and protect topping applications and finishes as specified.

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

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