# SITE PLANS

FOR



# TOWN OF COVENTRY

# GREEN FARM ESTATES DRAINAGE IMPROVEMENTS MINGLEWOOD DRIVE AND OLD NORTH ROAD COVENTRY, RHODE ISLAND



OWNER / APPLICANT:

TOWN OF COVENTRY
1670 FLAT RIVER ROAD (ROUTE 3)
COVENTRY, RHODE ISLAND 02816
Tel: 401-822-6400

AERIAL MAP

NOT TO SCALE

FEBRUARY 2024 SHEET 1 of 7

## **ENGINEER AND SURVEYOR:**



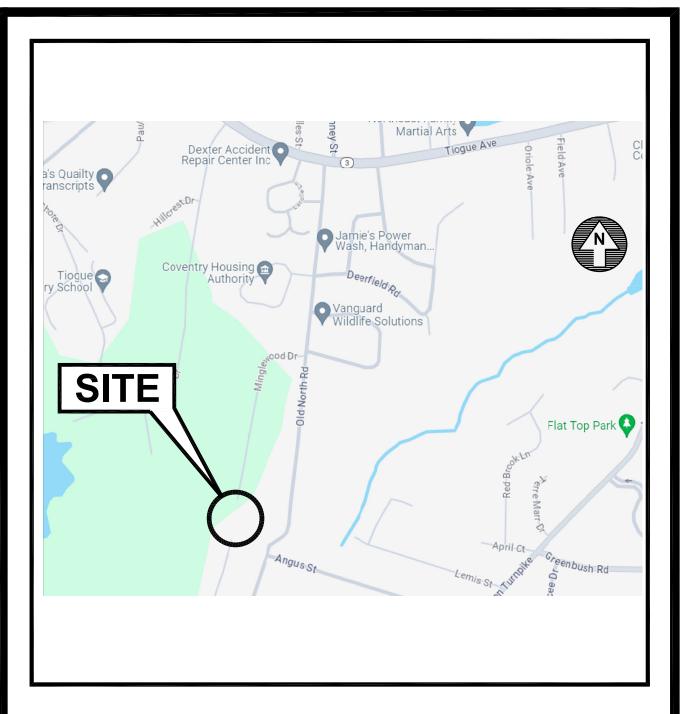
- CivilTransportationEnvironmentalSite Planning
- Landscape Architectur

## Crossman Engineering

Rhode Island 151 Centerville Roa Warwick, RI 02886 Phone (401) 738-56

e Road 1 George Leven Drive, Suite
D2886 North Attleboro, MA 0276
R8-5660 Phone (508) 695-1700

Email: cei@crossmaneng.cor



#### **LOCATION MAP**

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ATTACHED: BOUNDARY SURVEY PLAN

## **REVISIONS:**

No.:	DATE:	DESCRIPTION:	
1	7/30/24	TOWN COMMENTS	

#### **GENERAL NOTES**

- 1. THE PLANS DO NOT DEPICT ALL UNDERGROUND UTILITY SYSTEMS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE R.I. LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY CITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE IDENTIFIED WITHIN THE PROJECT MANUAL. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2023 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" WITHIN THE R.I.D.O.T. SPECIFICATIONS ARE NOT APPLICABLE. THESE SPECIFICATIONS CAN BE OBTAINED ON-LINE AT:

#### HTTP://www.dot.ri.gov/business/contractorsandconsultants.php

- 3. FOR ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
- 4. RHODE ISLAND STANDARDS REFERENCED ARE ACCORDING TO THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS "RHODE ISLAND STANDARD DETAILS" DATED OCTOBER 21, 2022 WITH ALL REVISIONS AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION.
- 5. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS. SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
- 6. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE. THE BID PRICE SHALL INCLUDE ALL LABOR, INCIDENTALS, TOOLS EQUIPMENT, TESTING, SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER AND OWNER.
- 7. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE INITIATION OF WORK. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
- 9. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.
- 10. FINE GRADING IS TO ENSURE THAT NO PUDDLING OR PONDING OF STORMWATER OCCURS IN NEW PAVEMENT AREAS.

#### **FLOOD ZONE NOTE**

SUBJECT PARCEL LIES WITHIN ZONE X-AREAS OF MINIMAL FLOODING - AS DELINEATED ON FIRM FLOOD INSURANCE RATE MAP-PROVIDENCE COUNTY, RHODE ISLAND (ALL JURISDICTIONS) COMMUNITY. MAP NO. 44003C0116H, MAP REVISED DATE OCTOBER 2, 2015.

#### 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 CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) 2009 EDITION, WITH REVISIONS 1 AND 2.
- 2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- 3. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PARKED IN ANY ROADWAY RIGHT-OF-WAY.
- 4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009 EDITION, WITH REVISIONS 1 AND 2.
- 5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.
- 6. ALL LANE AND/OR SHOULDER CLOSURES ON STATE ROADWAYS MUST OCCUR OUTSIDE OF PEAK TRAFFIC FLOW HOURS.

#### **EROSION CONTROL AND SOIL STABILIZATION PROGRAM**

- 1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE ROADWAY DRAINAGE SYSTEM, WETLAND AREAS, ADJACENT PROPERTY AND OUTSIDE THE LIMIT OF WORK.
- 2. ALL PERIMETER EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. PERIMETER EROSION CONTROLS CAN BE STRAW WATTLES. SILT FENCE CONFORMING TO R.I. STD. 9.2.0. CAN BE SUBSTITUTED FOR THE STRAW WATTLES.
- 3.DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME.
- 4. ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE.
- 5. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS. SUCH AS A MAT OR FIBER LINING (BURLAP. JUTE. FIBERGLASS) NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERÉD BY THE OWNER.
- 6.NO STOCKPILES ARE ALLOWED ON SITE.
- 7. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
- 8. ALL STRAW WATTLES SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED. ONCE THE AREAS HAVE AN ACCEPTABLE STAND OF GRASS OF APPROVED GROUND COVER, AND AFTER APPROVAL OF THE OWNER, THE CONTRACTOR SHALL REMOVE ALL STRAW WATTLES.
- 9. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
- 10. ADDITIONAL STRAW WATTLES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER OR TOWN REPRESENTATIVES.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL
- 12. CATCH BASINS SHALL BE PROTECTED USING SILT SACKS WHERE NOTED ON THE PLANS.
- 13. TEMPORARY DEWATERING BASINS SHALL BE UTILIZED AS REQUIRED. THE NUMBER AND SIZE OF DEWATERING BASINS REQUIRED WILL VARY DEPENDING ON SITE CONDITIONS
- 14. THE CONTRACTOR SHALL REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE RHODE ISLAND STATE CONSERVATION COMMITTEE. 1989. REVISED 2014. AS A GUIDE.

#### DRAINAGE NOTES

- 1. CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING.
- 2. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
- 3. ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- 4. ALL DRAINAGE PIPE SHALL BE ADS N-12 HDPE PIPE (CPP SMOOTH INTERIOR) OR APPROVED EQUAL, UNLESS NOTED OTHERWISE ON THE PLANS. ALL PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S REQUIREMENTS.
- 5. ALL JOINTS TO BE WATERTIGHT.
- 6. PROJECT WIDE, CONTRACTOR IS RESPONSIBLE FOR FINE GRADING AND INSTALLING NEW PAVEMENT SURFACE ELEVATIONS IN A MANNER WHICH ALLOWS FOR SURFACE RUNOFF TO DRAIN FREELY AND PREVENTS PONDING OR PUDDLING ON THE NEW PAVEMENT SURFACES.
- 7. CATCH BASINS, MANHOLES AND DRAIN LINES WITHIN THE WORK LIMITS ARE TO BE CLEANED AND FLUSHED. THE ENGINEER AND OWNER SHALL BE NOTIFIED THREE (3) DAYS PRIOR TO WORK. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK TO THE OWNER PRIOR TO ACCEPTANCE.
- 8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE EXISTING FLOW FOR THE DURATION OF THE CONSTRUCTION OPERATIONS, INCLUDING PUMPS, DIKES, BY-PASS HOSES AND ANY OTHER INCIDENTAL EQUIPMENT NECESSARY.
- 9. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING OPERATIONS DURING CONSTRUCTION.
- 10.CONTRACTOR SHALL CLEAN AND SWEEP THE ENTIRE BITUMINOUS PROJECT LIMITS AT THE END OF THE PROJECT. CLEAN AND SWEEPING SHALL BE DONE BEFORE CLEAN AND FLUSHING PIPES IN ORDER TO PREVENT SEDIMENT FROM ENTERING THE CATCH BASINS OR PIPES.
- 11. ALL FRAME AND GRATES THAT ARE ADJUSTED TO GRADE WILL HAVE BITUMINOUS PAVEMENT INSTALLED AFTER FINAL ADJUSTMENT. THE FINISHED GRADE OF THE BITUMINOUS PAVEMENT SHALL DIRECT ALL SURFACE RUNOFF INTO THE CATCH BASIN.

#### **LEGEND**

<b>EXISTING</b>		PROPOSED
<del></del>	PROPERTY LINE	
	BITUMINOUS BERM	
	CONCRETE/GRANITE CURB	
CQ2	UTILITY POLE	
↓ LP	LIGHT POLE	
(SIZE) D	DRAIN LINE	——(SIZE) D——
———(SIZE) S———	SANITARY SEWER	, ,
	GAS LINE	
———(SIZE) W———	WATER SERVICE	
OHW	OVERHEAD WIRES	
	DRAINAGE MANHOLE	
	CATCH BASIN	
<u>S</u>	SEWER MANHOLE	
₩	HYDRANT	
° WG	WATER GATE	
GM	GAS METER	
o <sup>CO</sup>	CLEAN-OUT TO GRADE	
XXX	CONTOURS	ELEV.
× Elev.	SPOT GRADES	00x0
HEIGHT × × × × ×	CHAIN LINK FENCE	
HEIGHT	FENCE	
	RETAINING WALL	
000000000000000000000000000000000000000	STONE WALL	
	GRADE TO DRAIN	<del>X</del>
	GUARDRAIL	
	EDGE OF WOODS	
Size)	TREE	
o Bollard	BOLLARDS	
	BUILDING/STRUCTURE	
#1 #2	WETLAND EDGE	
●TP-#	SOIL EVALUATION TEST PIT	
	SOIL BORING	
	PERIMETER EROSION CONTROL	-000
	LIMIT OF DISTURBANCE	



**Crossman Engineering** 

1 George Leven Drive, Suite 20 Warwick, RI 02886 North Attleboro, MA 02760 Phone (401) 738-5660 Phone (508) 695-1700

Email: cei@crossmaneng.com

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PROJECT TITLE:

#### **GREEN FARM ESTATES DRAINAGE IMPROVEMENTS**

MINGLEWOOD DRIVE AND OLD NORTH ROAD **COVENTRY, RHODE ISLAND** 

PREPARED FOR:

TOWN OF COVENTRY **1670 FLAT RIVER ROAD** COVENTRY, RI 02819

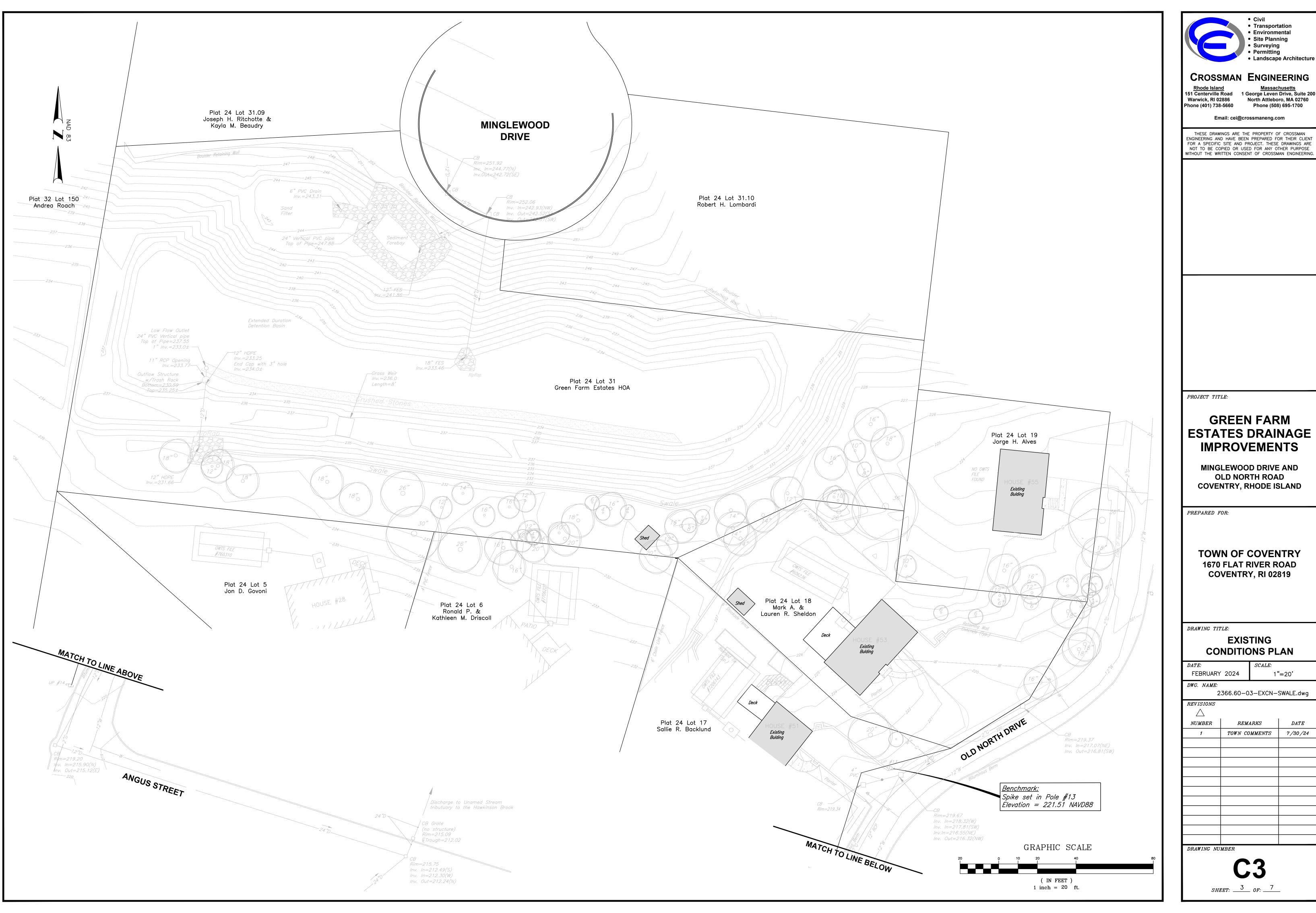
DRAWING TITLE:

**GENERAL NOTES** and LEGEND

DATE:		SCALE:	
FEBRUARY 2024		NO	SCALE
DWG. NAME:			
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REVISIONS			
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NUMBER	REM	4RKS	DATI

TOWN COMMENTS 7/30/24

DRAWING NUMBER

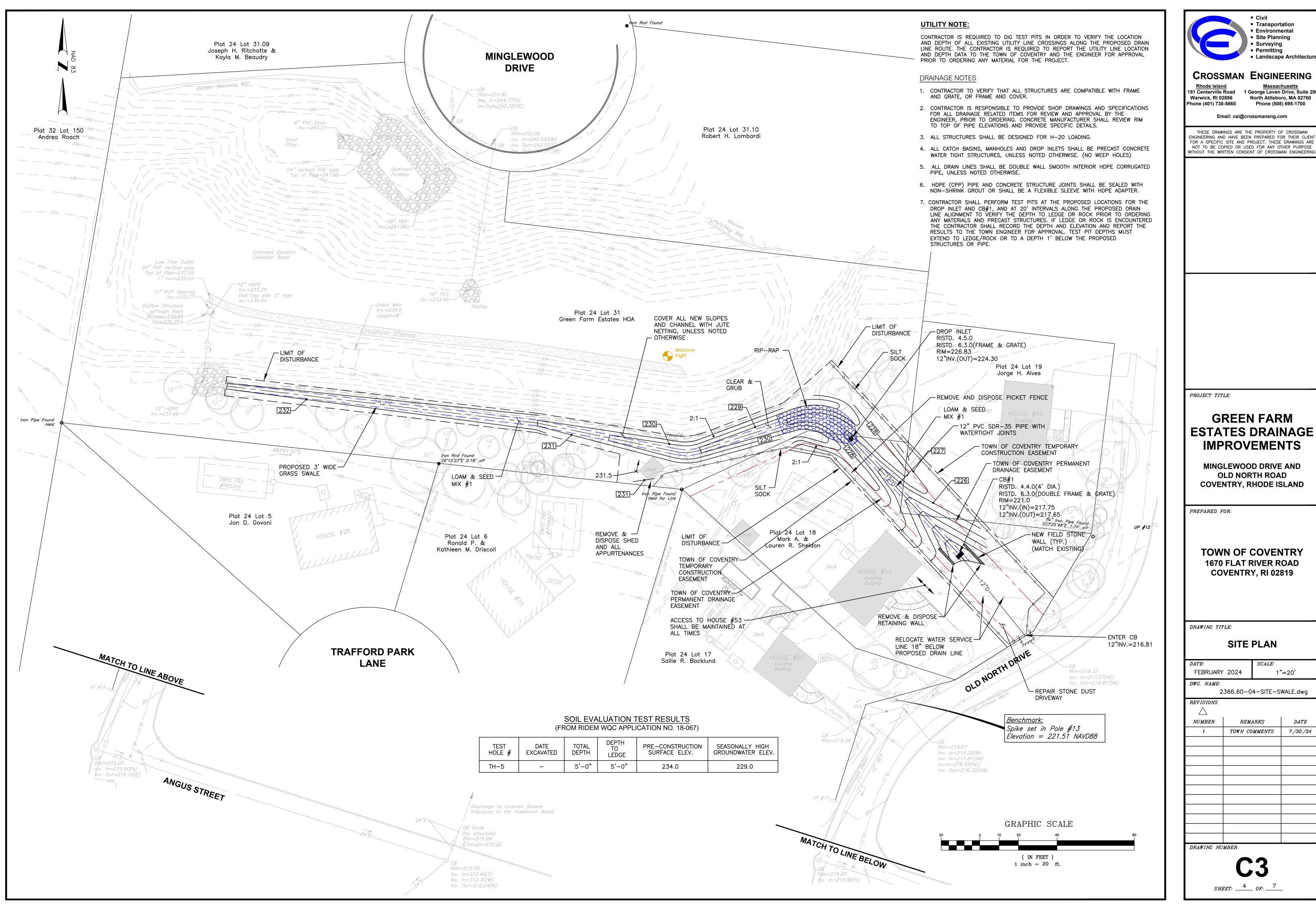


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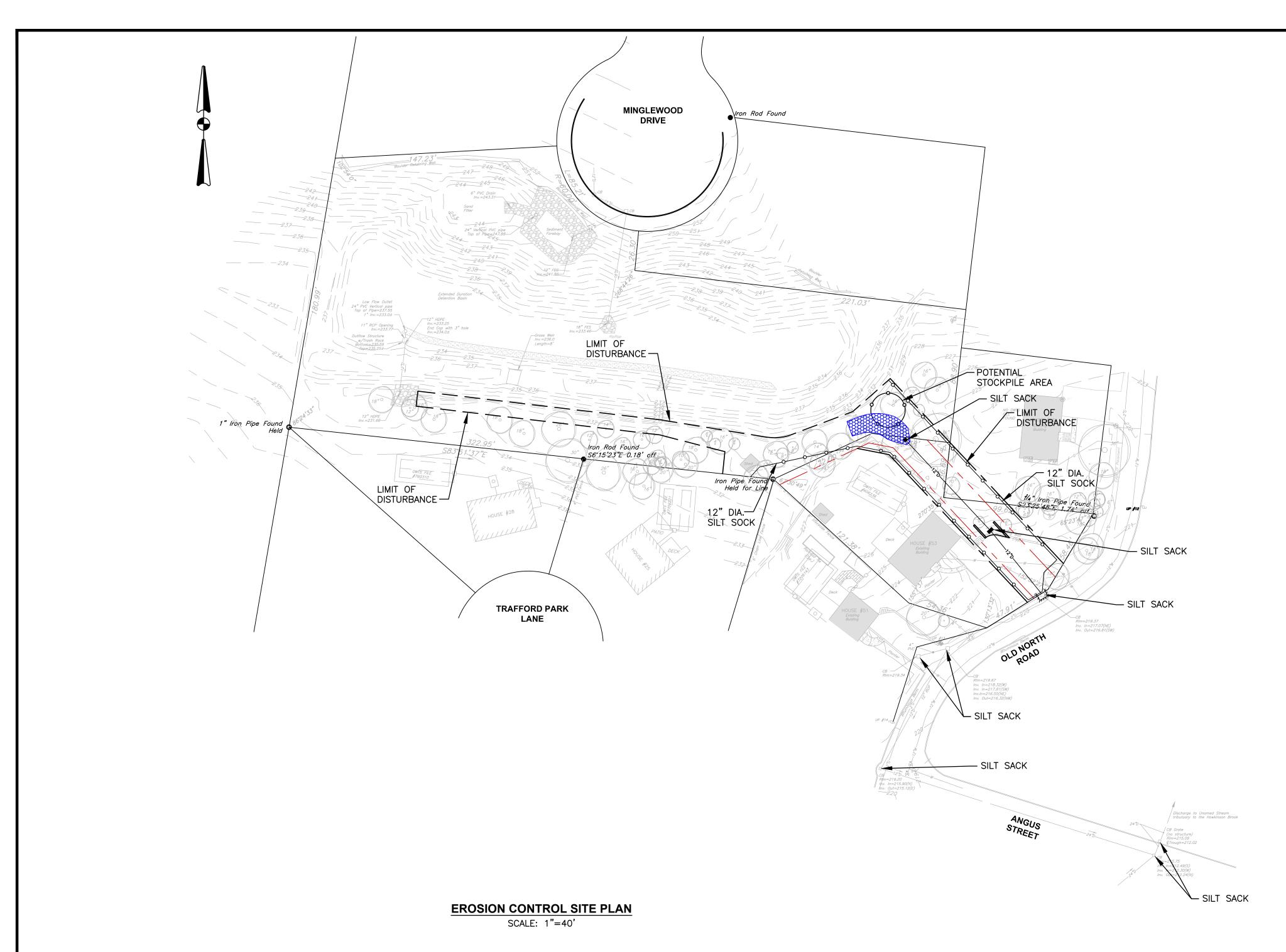
# **ESTATES DRAINAGE**

**TOWN OF COVENTRY 1670 FLAT RIVER ROAD** 

NUMBER	REMARKS	DATE
1	TOWN COMMENTS	7/30/24
·		



DATE7/30/24



#### ADDITIONAL CONTROLS:

- 1. ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- 2. THE CONTRACTOR IS REQUIRED TO NOTIFY LOCAL AUTHORITIES AND THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF WASTE MANAGEMENT, OF ANY HAZARDOUS MATERIAL SPILL.
- 3. THE CONTRACTOR IS REQUIRED TO MAINTAIN THE SITE IN AN ORDERLY AND CLEAN STATE. ALL CONSTRUCTION WASTE SHALL BE STORED IN APPROPRIATE CONTAINERS PRIOR TO REMOVAL AND CONTACT WITH PRECIPITATION SHALL BE KEPT TO A MINIMUM.
- 4. GENERAL MAINTENANCE PROCEDURES ARE OUTLINED IN THE ACCOMPANYING SITE PLANS. IN ADDITION, THE OPERATOR AND CONTRACTOR ARE REQUIRED TO INSPECT ALL EROSION CONTROLS ON THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY—FOUR (24) HOURS AFTER A RAIN EVENT, WHICH GENERATES 0.25 INCHES OF RAIN IN A TWENTY—FOUR (24) HOUR PERIOD AND/OR AFTER A SIGNIFICANT AMOUNT OF RUNOFF.
- 5. CONCRETE WASHOUT SHALL BE PERFORMED USING ONE OF THE METHODS LISTED IN SECTION 3 OF THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. THE WASHOUT AREAS ARE DESIGNATED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
- 6. VEHICLE AND EQUIPMENT WASHING ON-SITE DURING CONSTRUCTION IS NOT ALLOWED.
- 7. A SPILL RESPONSE KIT SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.

#### **DUST CONTROL NOTES:**

ON AN AS-NEEDED BASIS OR AS DIRECTED BY THE ENGINEER OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:

A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

#### PROJECT DATA:

- LIMIT OF UPLAND DISTURBANCE AREA = 0.22 ACRES
- THE SITE IS LOCATED WITHIN OR ADJACENT TO A RIDEM NATURAL HERITAGE AREA. (SOURCE: RIDEM GIS)
- THE SITE IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA. (SOURCE: RIDEM GIS)

#### NOTES:

- 1. CONTRACTOR SHALL INSTALL TEMPORARY MEASURES SUCH AS; FIBER MATTING, CRUSHED STONE, HAY OR STRAW IN AREAS WHERE SLOPES OR STABILIZATION HAS FAILED
- 2. CONTRACTOR SHALL INSTALL SILT SOCK INLET PROTECTION OR APPROVED EQUAL UNDER THE EXISTING CATCH BASIN GRATE ON THE SITE IN ADJACENT STREETS DOWN GRADIENT OF THE SITE. REMOVE AFTER CONSTRUCTION.
- 3. SILT SOCK SHALL BE INSTALLED AROUND THE PERIMETER OF THE AREA TO BE DISTURBED BY CONSTRUCTION AS NOTED ON THE PLANS. ADDITIONAL APPLICATIONS OF THESE CONTROLS MEASURES MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL INSPECT THE SITE AT A MINIMUM OF ONCE PER WEEK OR WITHIN 24 HOURS AFTER A STORM EVENT.
- 4. IF EROSION OR EROSIVE TENDENCIES ARE APPARENT ON THE SITE, THE CONTRACTOR IS RESPONSIBLE TO INSTALL ADDITIONAL CONSTRUCTION BMP'S SUCH AS SAND BAGS AS DIRECTED BY THE OWNER, LOCAL MUNICIPALITY, STATE AGENCIES OR ENGINEER DURING CONSTRUCTION.
- 5. IF SEDIMENT OR DEBRIS IS TRACKED ONTO EXISTING ROADWAYS AREAS ADJACENT TO THE CONSTRUCTION AREA, THE CONTRACTOR IS REQUIRED TO SWEEP THE PAVEMENT ON A DAILY BASIS. THE AREA SHALL BE INSPECTED DAILY.
- 6. THE CONTRACTOR IS RESPONSIBLE TO KEEP THE SITE CLEAN OF TRASH. RECOMMENDED DAILY PATROL OF THE CONSTRUCTION SHOULD BE CONDUCTED TO PICK-UP TRASH. THE OPERATOR SHALL REQUIRE THE CONTRACTOR TO HAVE PORTABLE SANITARY FACILITIES ON SITE. ROUTINE CLEANING AND WASTE DISPOSAL OF THESE PORTABLE SANITARY FACILITIES IS REQUIRED.
- 7. THE CONTRACTOR MUST REFERENCE AND FOLLOW THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN (SWAPP). A COPY OF THE SWAPP SHOULD BE KEPT ON—SITE AT ALL TIMES DURING CONSTRUCTION.

#### SITE CONSTRUCTION SEQUENCE AND SCHEDULE:

- INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE.
- 2. PRIOR TO CONSTRUCTION CLEARLY MARK AREAS TO BE LEFT UNDISTURBED.
- 3. CLEARING OF TREES AND VEGETATION AS SHOWN ON THE SITE PLANS.
- 4. TOP SOIL TO BE STRIPPED AND STOCKPILED.
- 5. ESTABLISH EROSION CONTROLS AROUND STOCKPILES (SILT SOCK). COVER STOCKPILES THAT WILL REMAIN FOR LONGER THAN ONE MONTH.
- 6. SITE PREPARATION, ROUGH GRADING, AND DRAINAGE CONSTRUCTION.
- 7. FINAL GRADING.
- 8. FINAL PAVING AND LANDSCAPING.
- 9. ESTIMATED DURATION OF SOIL EXPOSURE 3 MONTHS. THE PROJECT WILL BE CONSTRUCTED IN A SINGLE CONTRACT.

#### RECEIVING WATER DATA:

WATERSHED BODY NAME: TRIBUTARY TO PAWTUXET RIVER (SOURCE: R.I.D.E.M.)
WATERBODY ID: RI0006014R-01
TMDL: NONE
FISHERY: COLD
IMPAIRMENT CATEGORY: 5
WATER QUALITY STANDARD: B
IMPAIRMENTS: ENTEROCOCCUS

GROUNDWATER CLASSIFICATION - GA

#### STABILIZATION NOTES:

- 1. FINISHED SLOPES ARE NOT TO EXCEED 3:1, UNLESS OTHERWISE NOTED
- 2. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED.
- 3. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS).
- 4. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT. OF 3,000-4,000 LBS/ACRE.
- 5. THE FINISHED SLOPES SHALL RECEIVE 4" OF LOAM AND SEED.
- 6. TEMPORARY STABILIZATION SEED MIXTURE SHALL BE:

FINE RYE 66 K-31 FESCUE 34

- OR AN ALTERNATIVE APPROVED BY THE SCS DISTRICT OFFICE.
- 7. ALL FINISHED SLOPES 3:1 OR GREATER ARE TO BE LINED WITH CURLEX EXCELSIOR EROSION CONTROL BLANKET (AMERICAN EXCELSIOR COMPANY OR EQUAL), OR AS NOTED ON THE PLANS.

#### **INSPECTION/MAINTENANCE NOTES:**

- 1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING DRAINAGE SYSTEMS, WETLANDS AND WATERWAYS.
- 2. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION SUCH AS RIP—RAP.
- 3. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
- 4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPAIR / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
- 5. ADDITIONAL EROSION CONTROLS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER, MUNICIPAL REPRESENTATIVES, STATE AGENCIES OR
- 6. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, REVISED 2014 (LATEST REVISION), MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT—DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE THE SITE IS STABLE.

#### **GENERAL PROJECT WIDE NOTES:**

ADDITIONAL EXPENSE TO THE OWNER.

POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.

OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.

- 1. SILT SOCK OR SILT SACK IN CATCH BASINS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY, ROADWAYS, WETLANDS AND WATERWAYS.
- 2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO
- 3. ALL SILT SOCK OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND
- 4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DRIPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
- 5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR
- 6. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED SILT SOCK OR COVERED.
- 7. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING, COVERED WITH TARPS, OR APPROVED EQUAL.

#### EROSION CONTROL AND SOIL STABILIZATION PROGRAM:

- 1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, EXISTING RACEWAY, ADJACENT PROPERTY, AND ROADWAYS.
- 2. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, RIPRAP OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
- 3. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
- 4. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED SILT SOCKS OR COVERED.
- 5. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR COVERED WITH TARPS.
- 6. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
- 7. ADDITIONAL EROSION CONTROLS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR STATE AGENCIES.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
- 9. THE CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED USING SILT SACKS OR SILT SOCK INLET PROTECTION, AS NOTED.
- 10. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY SILT SOCKS OR SILT SACKS.
- 11. SILT SOCK MAY BE INSTALLED ON THE EXISTING PAVEMENT/IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL

INCLUDED IN THE PROJECT SCOPE.

12. POLYMERS, FLOCCULANTS, OR OTHER TREATMENT CHEMICALS MUST NOT BE USED ON THIS PROJECT FOR DUST, SEDIMENTATION AND EROSION CONTROL. WATER WILL BE USED FOR DUST CONTROL AND EROSION WILL BE CONTROLLED USING THE PROPOSED EROSION CONTROLS, AND TEMPORARY STABILIZATION TECHNIQUES.

ADDITIONAL FILTREXX FILTER SOXX IN LOCATIONS THAT CAN BE STAKED. THIS WORK IS



Civil
Transportation
Environmental
Site Planning
Surveying
Permitting

Landscape Architectu

#### **Crossman Engineering**

Rhode Island Massachusetts
151 Centerville Road 1 George Leven Drive, Suite 20
Warwick, RI 02886 North Attleboro, MA 02760
Phone (401) 738-5660 Phone (508) 695-1700

Email: cei@crossmaneng.com

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PROJECT TITLE:

# GREEN FARM ESTATES DRAINAGE IMPROVEMENTS

MINGLEWOOD DRIVE AND OLD NORTH ROAD COVENTRY, RHODE ISLAND

PREPARED FOR:

TOWN OF COVENTRY 1670 FLAT RIVER ROAD COVENTRY, RI 02819

SOIL EROSION and SEDIMENT CONTROL PLAN

DATE:	SCALE:
FEBRUARY 2024	AS NOTED

DWG. NAME: 2366.40-04-SOIL.dwg

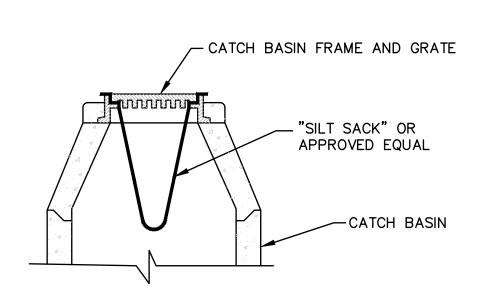
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NUMBER REMARKS DATE

1 TOWN COMMENTS 7/30/24

DRAWING NUMBER

**C4** 



- 1. TO BE INSTALLED IN ALL CATCH BASINS UNTIL COMPLETION OF CONSTRUCTION.
- 2. BOOT ADAPTER MAY BE TRIMMED TO SIZE

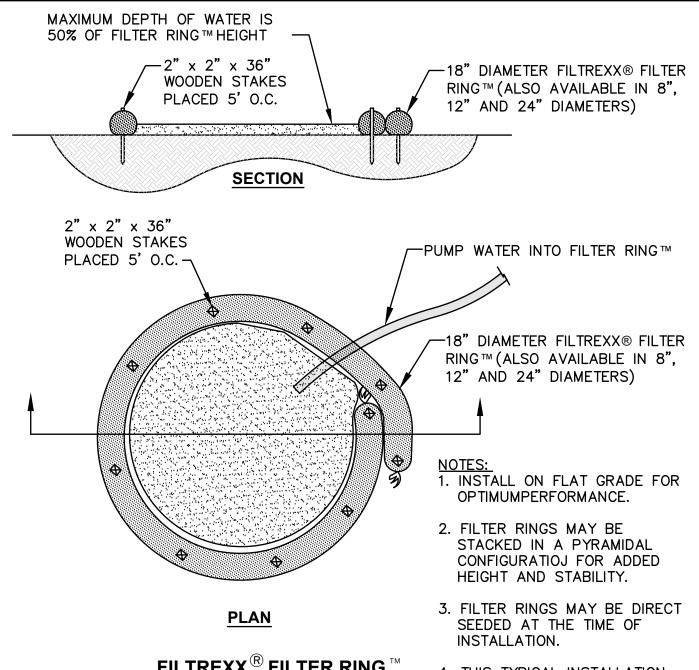
#### FILTER BAG INLET SEDIMENT CONTROL DEVICE (SILT SACK) DETAIL

NOT TO SCALE

HOLD IN PLACE WITH SAND-BAGS OR EQUAL <sup>—</sup>8"DIA. FILTREXX®FILTER SOXX™ EXISTING PAVEMENT FILTREXX ® FILTER SOXX ™ PAVEMENT OPTION 8" DIA. FILTREXX®FILTER SOXX™ 2-2" X 2" X 48" WOODEN ANCHOR STAKES PLACED 7 2" X 2" X 36" WOODEN 30' O.C. AND AT ENDS. SUPPORT STAKES PLACED -10' O.C. FLOW

- 1. CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.
- 2. ALL MATERIAL SHALL MEET FILTREXX SPECIFICATIONS.
- 3. COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY OWNER.
- 4. STRAW WATTLES CAN BE UTILITIZED IN LIEU OF COMPOST FILLED SILT SOCK IF APPROVED BY THE ENGINEER.

#### FILTREXX ® FILTER SOXX ™ DETAIL NOT TO SCALE



### FILTREXX® FILTER RING NOT TO SCALE

4. THIS TYPICAL INSTALLATION SHALL BEUSED FOR DEWATERING OPERATIONS.

STORMWATER BASIN SEED MIX (SEED MIX NO. 3) APPLICATION RATE = 15-25 LBS. / ACRE (SEASONALLY FLOODED MIX) (BASIN BOTTOM AREA)

CREEPING RED FESCUE ASTORIA BENTGRASS BIRDSFOOT TREFOIL PERENNIAL RYE GRASS

NASSAU KENT BLUE

JAMESTOWN CHEWINGS FESCUE

PALMER PERENNIAL RYE GRASS

SEEDED GRASS -

THE CONTRACTOR WILL

BE RESPONSIBLE FOR

THE COURSE OF THE GROWING SEASON FOR A

PERIOD OF ONE (1)

WATERING LAWN DURING

REFER TO NOTES AND/OR

SPECS FOR SEED MIX TYPE

20% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE) 16% VIRGINIA WILD RYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE) 15% RIVERBANK WILD RYE, PA ECOTYPE (ELYMUS RIPARIUS, PA ECOTYPE) 15% JAPANESE MILLET (ECHINOCHLOA CRUSGALLI VAR. FRUMENTACEA) 15% DEER TONGUE, 'TIOGA' (PANICUM CLANDESTINUM (DICHANTHELIUM C.), 'TIOGA') 9% BLUNT BROOM SEDGE, PA ECOTYPE (CAREX SCOPARIA, PA ECOTYPE) 5% SWITCHGRASS, 'CAVE-IN-ROCK' (PANICUM VIRGATUM, 'CAVE-IN-ROCK') 2% GREEN BULRUSH, PA ECOTPE (SCIRPUS ATROVIRENS, PA ECOTYPE) 2% AWL SEDGE, PA ECOTYPE (CAREX STIPATA, PA ECOTYPE)

**SEED MIX No. 1** 

(SLOPES)

APPLICATION RATE = 200 lbs. / ACRE

**SEED MIX No. 2** 

(MOWED/LAWN AREAS)

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 3

(REFER TO STORMWATER BASIN SEED MIX)

## TOPSOIL MIX FOR STORMWATER BASINS

PLANTING SOIL SHALL MEET THE BELOW COMPOSITION:

1% AUTUMN BENTGRASS, APB (AGROSTIS PERENNANS, APB)

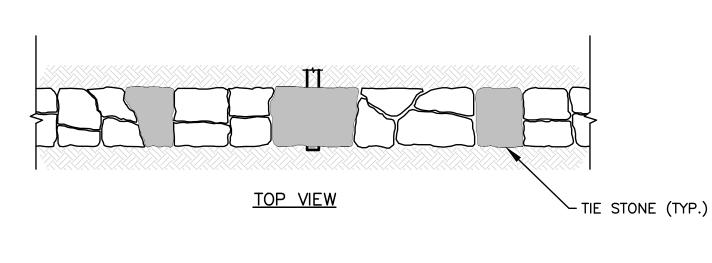
SAND: 85-88% SOIL FINES: 8-12% (NO MORE THAN 2% CLAY) ORGANIC MATTER: 3-5%

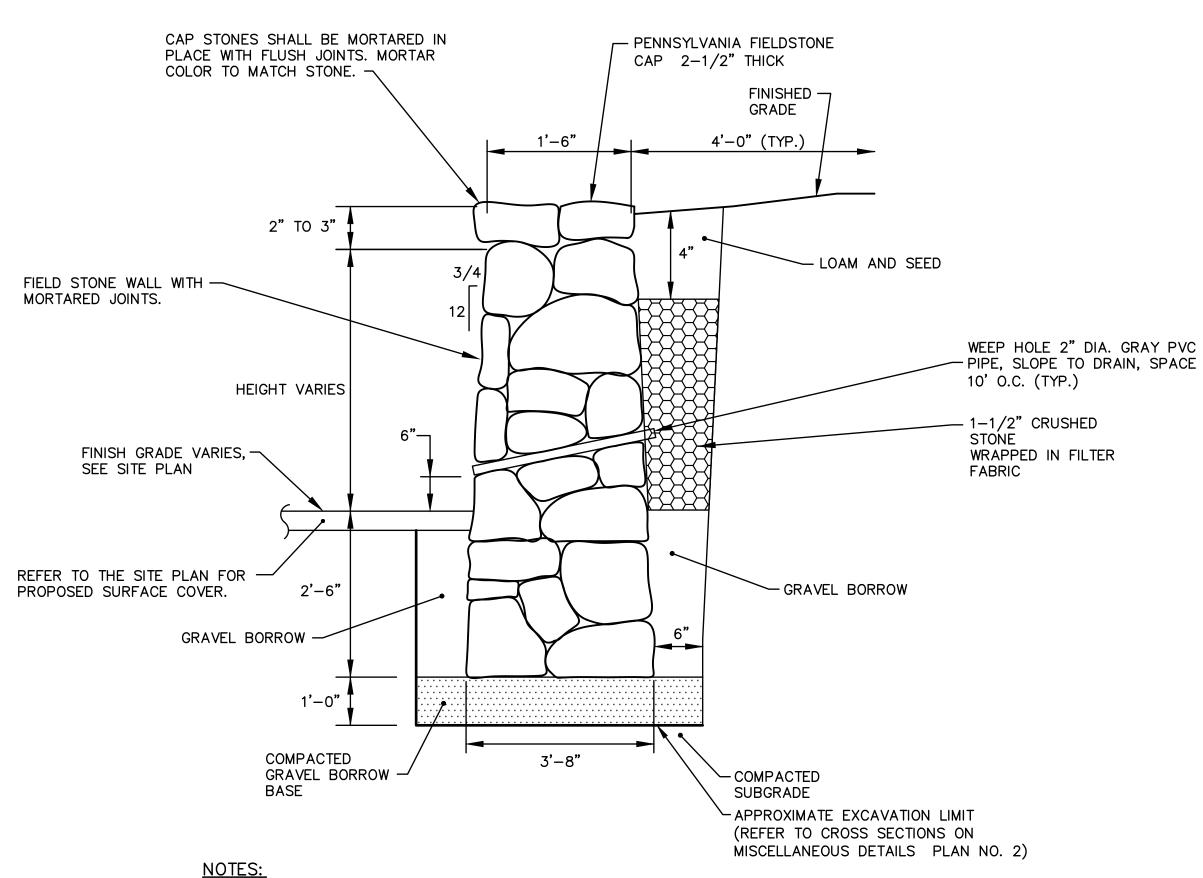
#### **SEEDING NOTES**

- 1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 4" OVER ALL AREAS DESIGNATED ON PLANS.
- 2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
- 3. FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
- 4. LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.

#### 5. APPLICATION OF SEED:

- A. RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
- B. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES: SPRING SEEDING: MARCH 15 TO MAY 31 FALL SEEDING: AUGUST 15 TO OCTOBER 15
- C. THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
- D. DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.
- E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
- F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
- a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

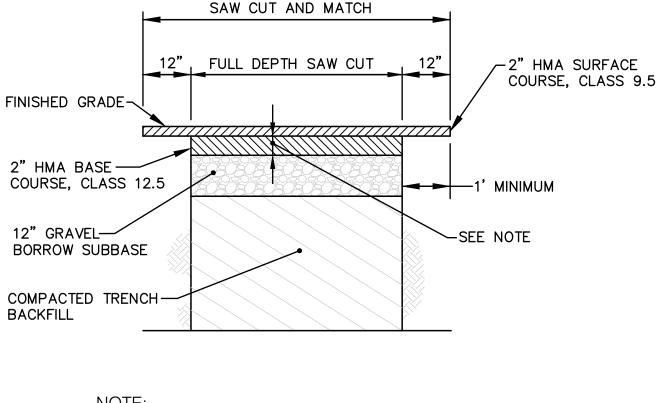




- 1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 911 OF THE R.I. STANDARD SPECIFICATIONS.
- 2. JOINTS SHALL NOT EXCEED 1" IN WIDTH. 3. JOINTS ON THE FACE OF WALL SHALL BE POINTED TO THE FACE LINE OF THE WALL UNLESS RECESSED JOINTS ARE CALLED FOR ABOVE GRADE.
- 4. POINTING OF JOINTS ON TOP OF WALL SHALL BE FLUSH AND PITCHED TO DEFLECT WATER OFF OF THE WALL.
- 5. DRESS 6" BELOW GRADE FOR FRONT FACE OF WALL. 6. WEEP HOLES SHALL BE CONSTRUCTED OF 2" GRAY SCHEDULE 80 PVC PIPE.
- 7. TIE STONES SHALL BE PLACED A MAXIMUM OF 4'-0" O.C. 8. THE CONTRACTOR SHALL SUBMIT SAMPLES OF THE FIELD STONE AND MORTAR TO THE TOWN AND PROPERTY OWNER

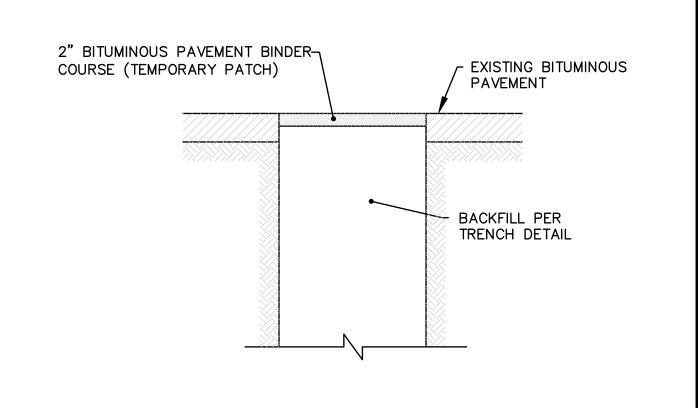
FOR APPROVAL PRIOR TO ORDERING THE MATERIAL.

FIELD STONE RETAINING WALL TYPICAL DETAIL NOT TO SCALE



THE PAVEMENT DEPTH IN TRENCH AREAS FOR PROPOSED DRAINAGE NS WITHIN ROADWAY SHALL BE REPLACED AT NOTED DEPTHS OR MATCH EXISTING DEPTHS IF GREATER.

#### TYPICAL PAVEMENT REPAIR (WITHIN ROAD) NOT TO SCALE



**NOTE** 

TEMPORARY PATCH SHALL MEET ALL RIDOT AND LOCAL SPECIFICATIONS.

> TYPICAL TEMPORARY TRENCH PATCH DETAIL NOT TO SCALE

LOAM-SEED DETAIL AND NOTES



PROVIDE 4" GOOD QUALITY

FERTILE LOAM OR REUSE

ADDITIONAL LOAM AS REQUIRED

COMMON BORROW AS

REQUIRED TO RAISE GRADE OR EXISTING

SUBSOIL COMPACTED

EXISTING AND PROVIDE

% BY WEIGHT

60

20

#### Permitting Landscape Architectur **Crossman Engineering**

51 Centerville Road 1 George Leven Drive, Suite 20 Warwick, RI 02886 North Attleboro, MA 02760 Phone (401) 738-5660 Phone (508) 695-1700

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PROJECT TITLE:

#### **GREEN FARM ESTATES DRAINAGE IMPROVEMENTS**

MINGLEWOOD DRIVE AND OLD NORTH ROAD COVENTRY, RHODE ISLAND

PREPARED FOR:

**TOWN OF COVENTRY 1670 FLAT RIVER ROAD COVENTRY, RI 02819** 

DRAWING TITLE:

**MISCELLANEOUS DETAILS** PLAN No. 1

SCALE: FEBRUARY 2024 AS NOTED

DWG. NAME: 2366.60-06-DET1-SWALE.dwg

REVISIONS

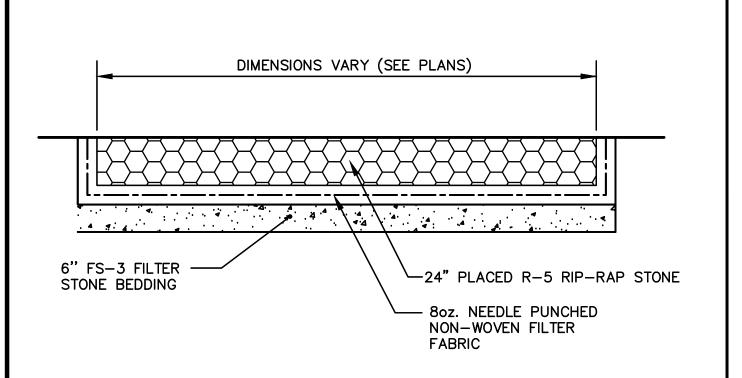
NUMBER REMARKS DATETOWN COMMENTS 7/30/24

SHEET: 6 OF: 7

DRAWING NUMBER

#### WATER NOTES

- ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO KENT COUNTY WATER AUTHORITY REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
- PROPOSED PIPE TYPE AND SIZE SHALL MATCH THE EXISTING SERVICE PIPE (TYPE-K COPPER TUBING OR HDPE TUBING) AS APPROVED BY KENT COUNTY WATER AUTHORITY (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE KCWA REQUIREMENTS
- CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, JOINTS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE
- PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, KENT COUNTY WATER AUTHORITY REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI.
- WATER PIPE SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPE, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5'. WHERE A NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER MAIN PASSES BENEATH A SEWER. ENCASE THE SEWER IN 6" OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN. THE USE OF DUCTILE IRON TIGHT JOINT SEWER PIPE IN LIEU OF CONCRETE ENCASEMENT WILL BE CONSIDERED UPON CONTRACTORS SUBMITTAL OF SPECIFICATIONS TO ENGINEERS FOR
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS PIPE, JOINTS, FITTINGS, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- WATER LINE TRENCH TO BE AWWA TYPE 5. A METALIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE KENT COUNTY WATER AUTHORITY AND ENGINEER.
- WHEN THIS PROJECT IS COMPLETE, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE WATER DEPARTMENT AND ENGINEER TWO SETS OF AS BUILT PLANS.
- 9. A SOLID STAINLESS STEEL INSERT SHALL BE INSTALLED AT EACH HDPE PIPE
- 10. HDPE PIPE SHALL CONFORM TO ASTM D1248 TYPE III, GRADE P34, CLASS A, CATEGORY 5, COLOR BLUE WITH VIRGIN CLEAR NATURAL CENTER. AWWA C901, 200 PSI (CTS)



RIP-RAP ANTI-SCOUR PROTECTION TYPICAL SECTION

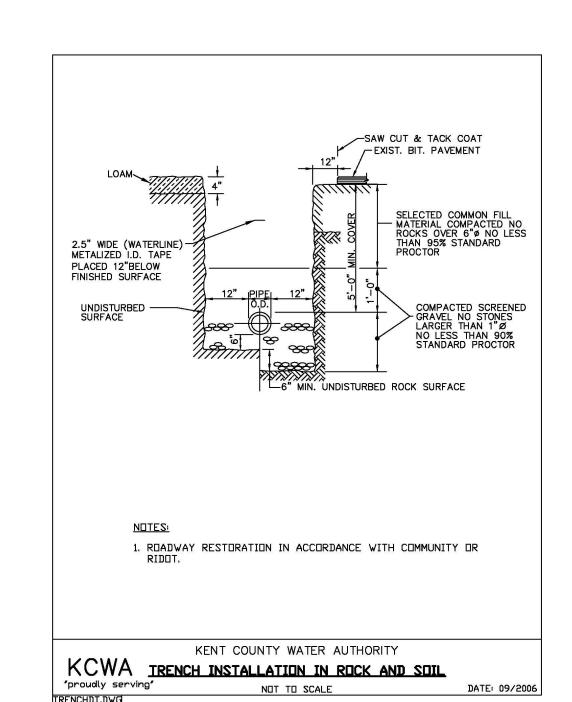
NOT TO SCALE

#### 8' (MIN... -STORMWATER OR AS NOTED BASIN OUTER BERM 3:1 TYP. WITH JUTE -4" LOAM AND SEED **NETTING-**←3:1 TYP. WITH JUTE NETTING (2:1 MAX. SEE GRASS SLOPE DETAIL) BASIN COMPACTED COMMON BORROW (REFER TO EMBANKMENT NOTES) REMOVE TOPSOIL, SUBSOIL AND ORGANIC SOILS AND INSTALL EMBANKMENT FILL (COMMON BORROW OR APPROVED EQUAL)

1. USE ANTI-SEEP COLLAR AROUND ALL OUTLET PIPES.

**EMBANKMENT CONSTRUCTION DETAIL - SCHEMATIC** 

NOT TO SCALE



FINISH GRADE -

SEWER PIPE, OR DRAINAGE PIPE

TOP OF WATER MAIN.
5. CONCRETE ENCASEMENT IS NOT ALLOWED.

PROPOSED SEWER PIPE OR DRAINAGE PIPE

BY THE KCWA

**KCWA** 

"proudly serving"

STORMWATER BASIN EMBANKMENT NOTES:

DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

UTILSEPD.DWG

D.I. WATER MAIN -

NOTES:

1. THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE

PROPOSED UTILITY SHALL BE A MINIMUM OF 10 FEET.

20'

CARRIER PIPE DETAIL

KENT COUNTY WATER AUTHORITY

UTILITY SEPERATION

NOT TO SCALE

1. THE DETENTION AND INFILTRATION BASIN EMBANKMENTS ARE TO BE CONSTRUCTED

WITH APPROVED COMMON BORROW. NO SOIL/ROCK GRATER THAN 3" SHALL BE

PLACED ON FROZEN SURFACES. COMMON BORROW SHALL MEET RHODE ISLAND

2. UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, THE EMBANKMENT

EXCAVATION AREA. THE DEPTH OF EXCAVATION WILL BE DETERMINED BY THE

ENGINEER BASED UPON THE LOCAL CONDITIONS. NO FILL MATERIAL SHALL BE

3. THE FILL MATERIAL MUST BE SPREAD IN UNIFORM LAYERS AND FALL WITHIN THE

AREAS ARE TO BE EXCAVATED. IF ANY ORGANIC OR UNSUITABLE MATERIAL IS

ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR REVIEW OF

PLACED UNTIL THE FOUNDATION PREPARATION HAS BEEN COMPLETED. ALL WATER

SHALL BE REMOVED FROM THE FOUNDATION PRIOR TO PLACING THE EMBANKMENT.

SPECIFIED OPTIMUM WATER CONTENT RANGE IN ORDER TO ACHIEVE THE REQUIRED

COMPACTION. EACH LAYER IS TO BE COMPACTED PRIOR TO LAYING AN ADDITIONAL

LAYER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS SELECTED METHOD

4. BACKFILL MATERIAL AROUND STRUCTURES AND PIPE IS TO BE PLACED TO PREVENT

THE SAME RANGE AS IN THE EMBANKMENT. THE BACKFILL MUST BE PLACED IN

THE MOVEMENT OF WATER. THE OPTIMUM WATER CONTENT MUST BE MAINTAINED IN

LAYERS LESS THAN 4 INCHES IN THICKNESS AND DISTRIBUTED UNIFORMLY AROUND

THE STRUCTURE/PIPE. ALL COMPACTION WILL BE TO 95% MAXIMUM DENSITY AND

CONDUIT AND STRUCTURAL BACKFILL WITHIN THE EMBANKMENT BECAUSE SEEPAGE

WILL OCCUR WITH IMPROPER BACKFILL AND COMPACTION. THEREFORE, STRUCTURES AND PIPES ARE TO BE CONSTRUCTED AS THE EMBANKMENT CONSTRUCTION RISES TO THE RESPECTIVE PIPE OR STRUCTURE. THIS WILL PREVENT THE DISTURBANCE OF

CONSTRUCTED EMBANKMENT MATERIAL. PIPES FROM THE OUTLET STRUCTURE TO THE

5. EMBANKMENT DAMAGE COMMONLY RESULTS FROM IMPROPER CONSTRUCTION OF

COMPACTION SHALL BE IN THE RANGE BETWEEN ONE PERCENTAGE POINT BELOW AND TWO PERCENTAGE POINTS ABOVE STANDARD AASHTO OPTIMUM WATER CONTENT. THE MATERIAL SHALL BE PROCESSED TO A UNIFORM WATER CONTENT BY ADDING WATER

OF COMPACTION, COMPACTION EQUIPMENT AND THE SEQUENCE OF OPERATIONS

NECESSARY TO OBTAIN THE REQUIRED DENSITY. THE WATER CONTENT AT

TO THE MATERIAL IN ADVANCE OF THE FILL PLACEMENT.

MAY REQUIRE HAND TAMPERS OR SMALL POWER EQUIPMENT.

OUTFALL SHALL HAVE AN ANTI-SEEP COLLAR.

UTILIZED. COMMON BORROW SHALL MEET OR EXCEED AN IN-PLACE DENSITY OF 100

Ib./cf. ALL MATERIAL SHALL BE PLACED IN 8 TO 12 INCH LIFTS AND COMPACTED TO

95% MAXIMUM DENSITY. FILL MATERIAL WILL NOT CONTAIN FROZEN MATERIALS OR BE

RUBBER SEAL

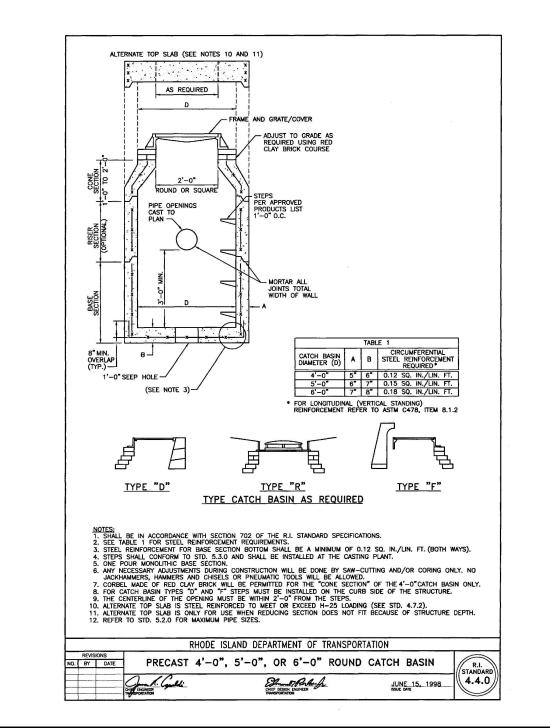
DATE: 09/2006

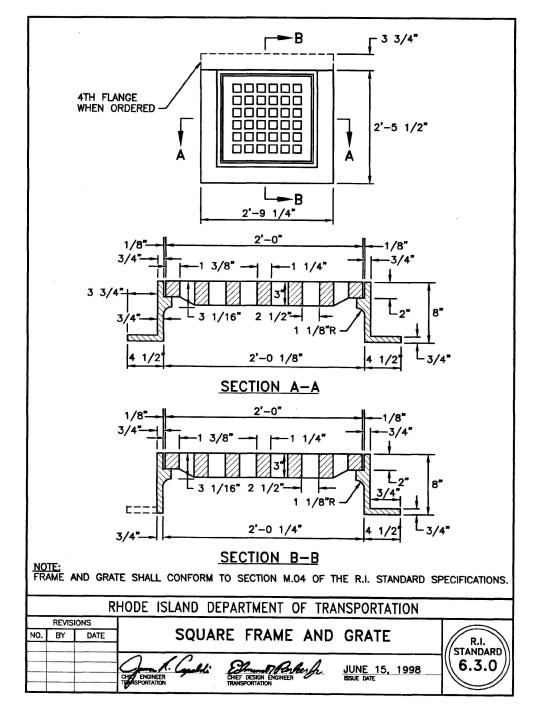
PROPOSED UTILITY SHALL BE A MINIMUM OF 18 INCHES.

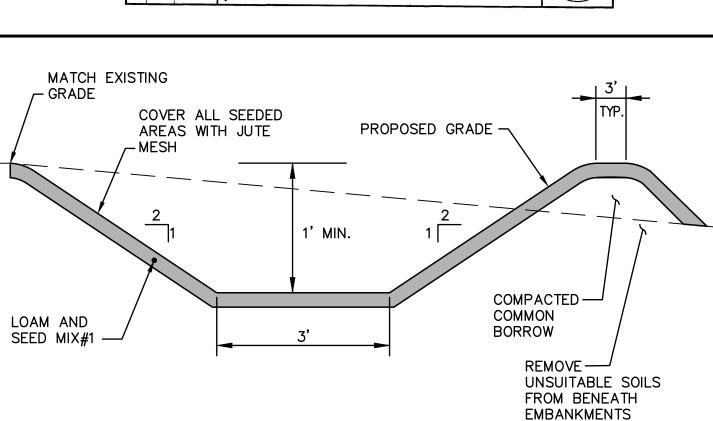
2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE

BE INSTALLED WITHIN A CARRIER PIPE UPON WRITTEN APPROVAL

4. SEWER MAIN AND SERVICES ARE NOT ALLOWED TO CROSS OVER THE

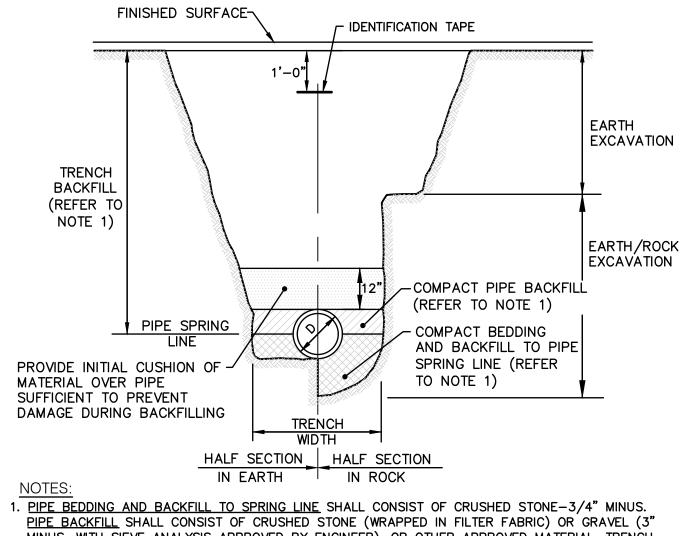






- 1. THE CONTRACTOR SHALL EXCAVATE THE NEW DRAINAGE SWALE PER THE DETAIL PRIOR TO THE INSTALLATION OF THE NEW BITUMINOUS PAVEMENT SURFACE COURSE.
- 2. ALL SILT OR DEBRIS FROM THE CONSTRUCTION OPERATIONS SHALL BE REMOVED AND DISPOSED FROM THE NEW SWALE OFF-SITE AT THE CONTRACTOR'S EXPENSE.
- 3. CONTRACTOR SHALL HAND ROLL LOAM MATERIAL AFTER INSTALLATION AND PRIOR TO SEEDING.
- 4. INSTALL JUTE MESH EROSION CONTROL FABRIC OVER ALL AREAS OF THE NEWLY SEEDED DRAINAGE/GRASS SWALE. REFER TO THE EROSION MATTING INSTALLATION DETAIL.

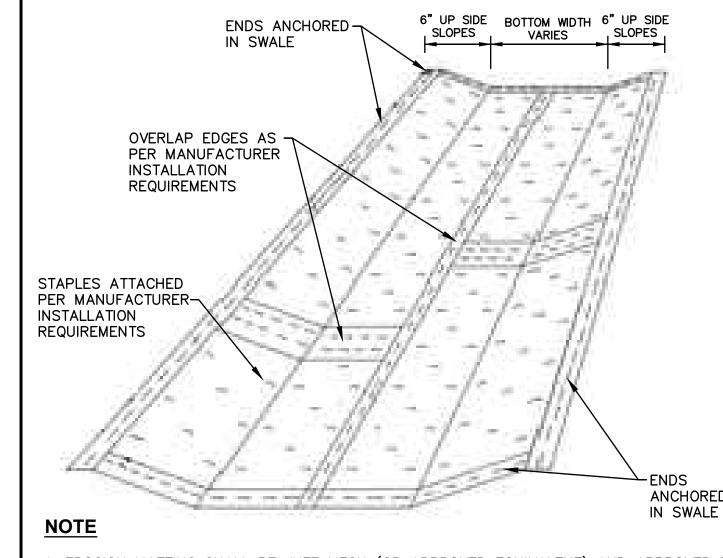
DRAINAGE SWALE TYPICAL SECTION NOT TO SCALE



- MINUS. WITH SIEVE ANALYSIS APPROVED BY ENGINEER), OR OTHER APPROVED MATERIAL. TRENCH BACKFILL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL. ALL BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
- 2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
- 3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".

#### STORM DRAIN LINE TRENCH DETAIL

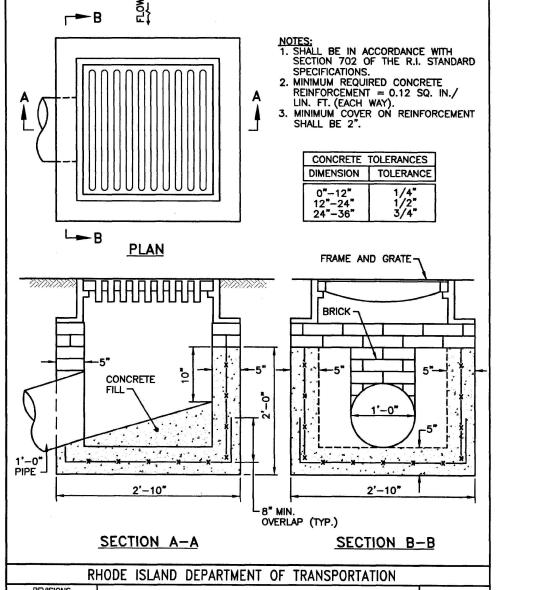
NOT TO SCALE



- 1. EROSION MATTING SHALL BE JUTE MESH (OR APPROVED EQUIVALENT) AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 2. EROSION MATTING SHALL BE PLACED ALONG THE BOTTOM AND 6-INCHES UP THE SIDE SLOPES OF ALL SWALES AND INSTALLED IN ACCORDANCE TO MANUFACTURER SPECIFICATIONS.

#### **EROSION MATTING INSTALLATION DETAIL**

NOT TO SCALE



4.5.0

JUNE 15, 1998 ISSUE DATE



#### **Crossman Engineering**

51 Centerville Road Warwick, RI 02886 Phone (401) 738-5660

1 George Leven Drive, Suite 20 North Attleboro, MA 02760 Phone (508) 695-1700

Email: cei@crossmaneng.com

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PREPARED FOR:

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DRAWING TITLE:

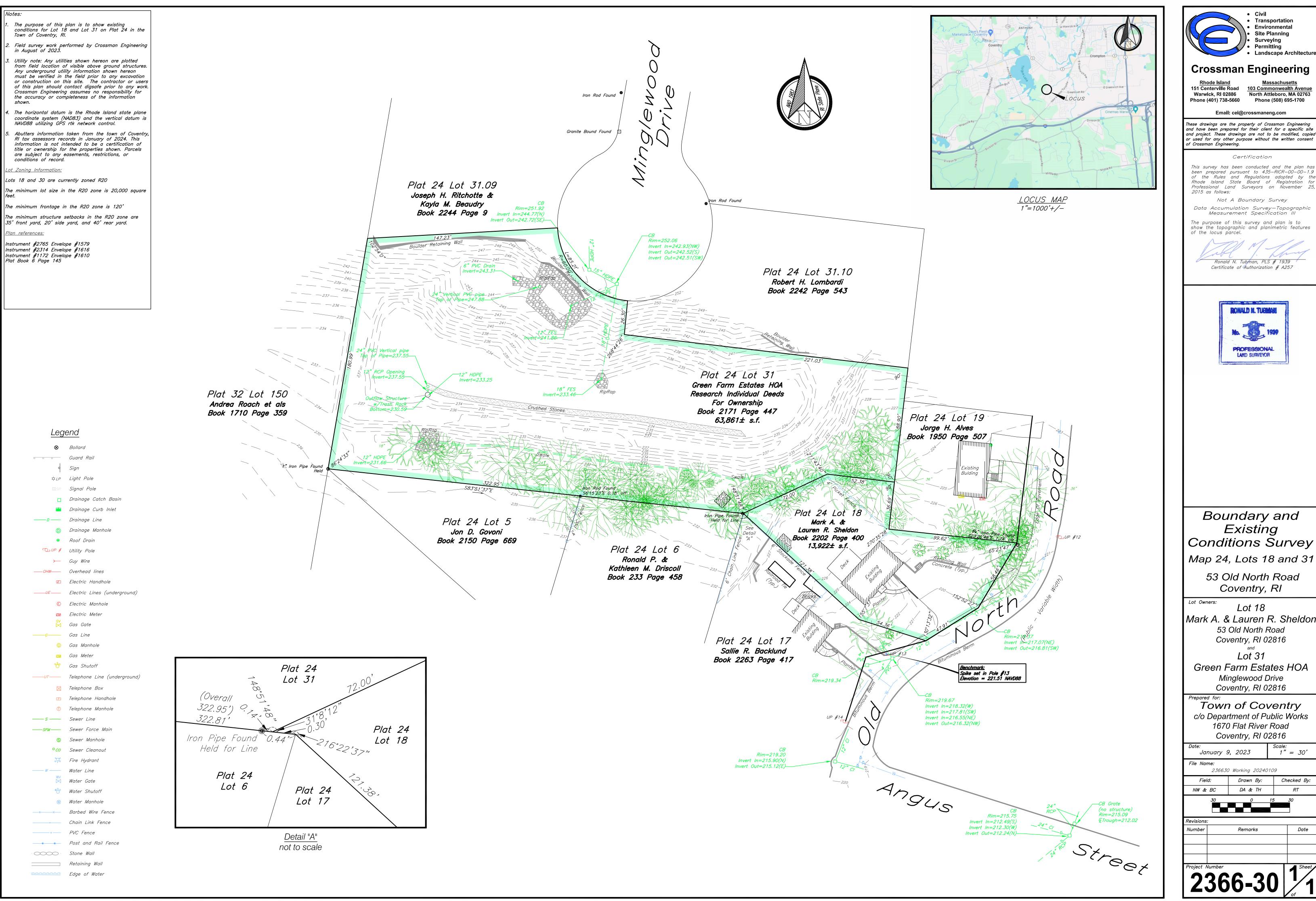
#### **MISCELLANEOUS DETAILS** PLAN No. 2

SCALE: FEBRUARY 2024 AS NOTED

2366.60-07-DET2-SWALE.dwg

REVISIONS NUMBER REMARKS DATETOWN COMMENTS 7/30/24 DRAWING NUMBER

SHEET: \_\_\_\_\_ OF: \_\_\_\_\_



The purpose of this survey and plan is to show the topographic and planimetric features

# Boundary and