







**CROSSMAN ENGINEERING**

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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:

**EXISTING CONDITIONS PLAN**

DATE: FEBRUARY 2024

SCALE: 1"=20'

DWC NAME: 2366.60-03-EXCN-SWALE.dwg

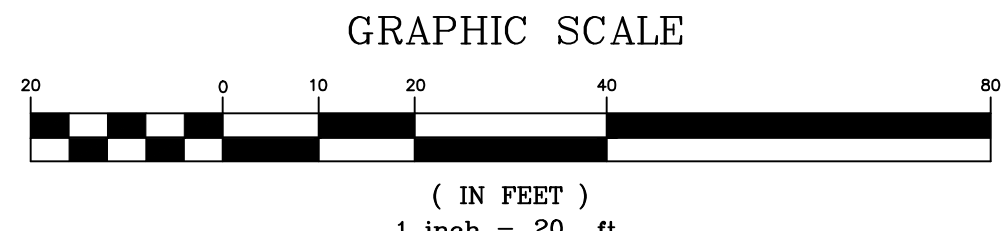
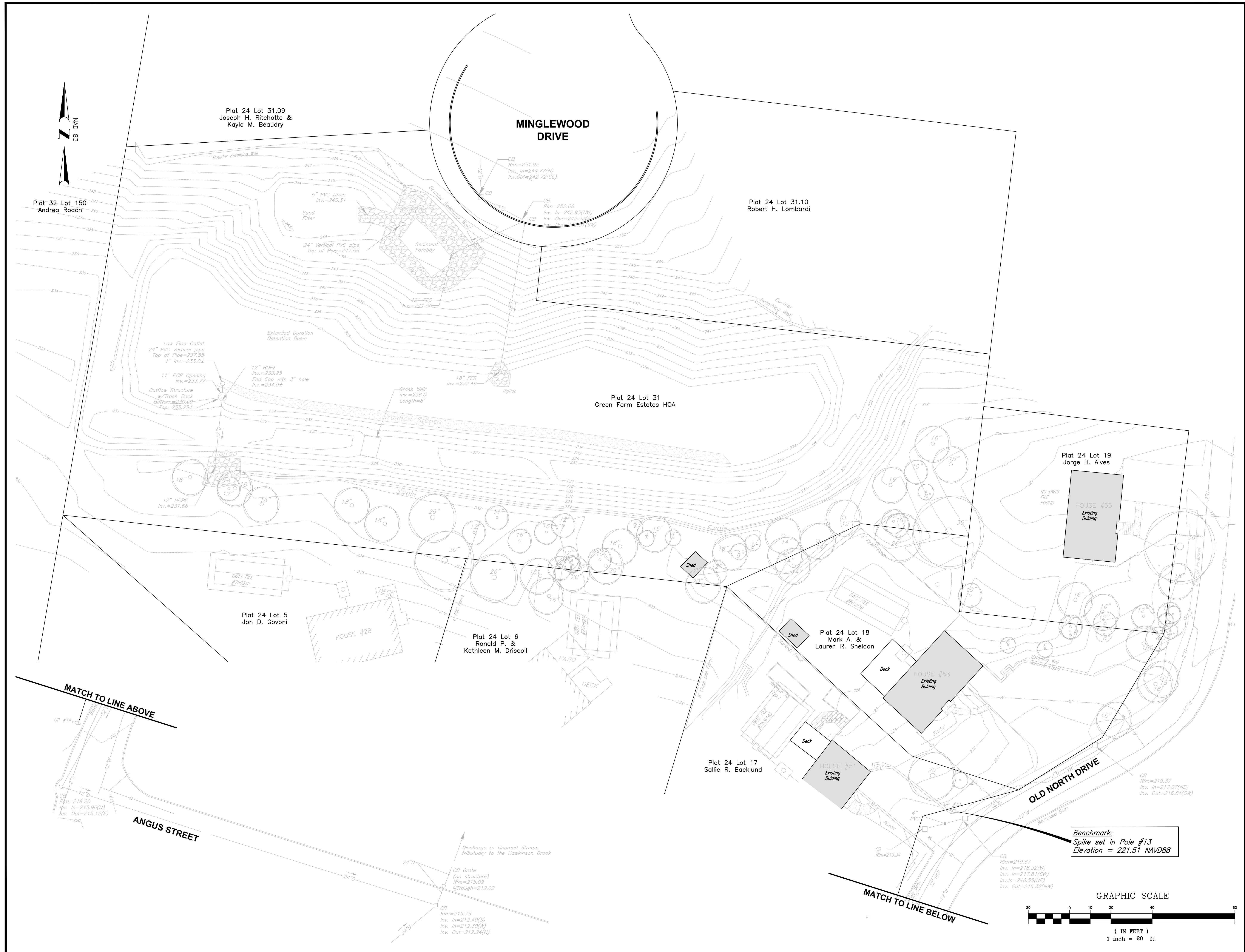
REVISIONS

| NUMBER | REMARKS       | DATE    |
|--------|---------------|---------|
| 1      | TOWN COMMENTS | 7/30/24 |
|        |               |         |
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|        |               |         |
|        |               |         |
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|        |               |         |
|        |               |         |

DRAWING NUMBER

**C3**

SHEET: 3 OF 7



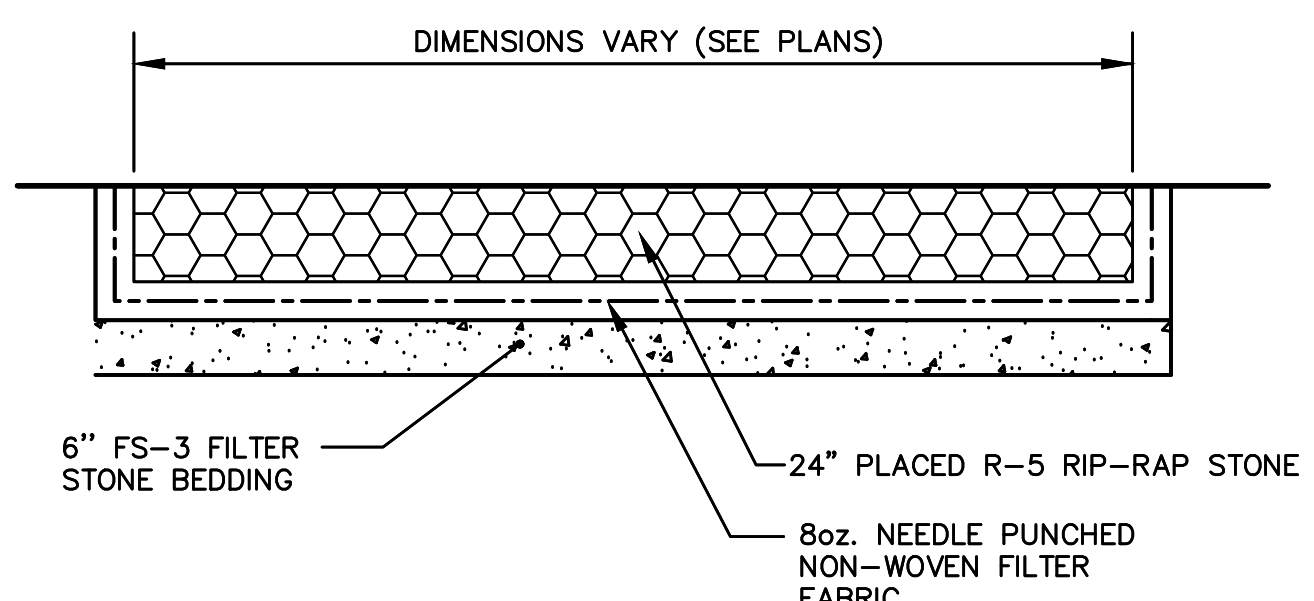




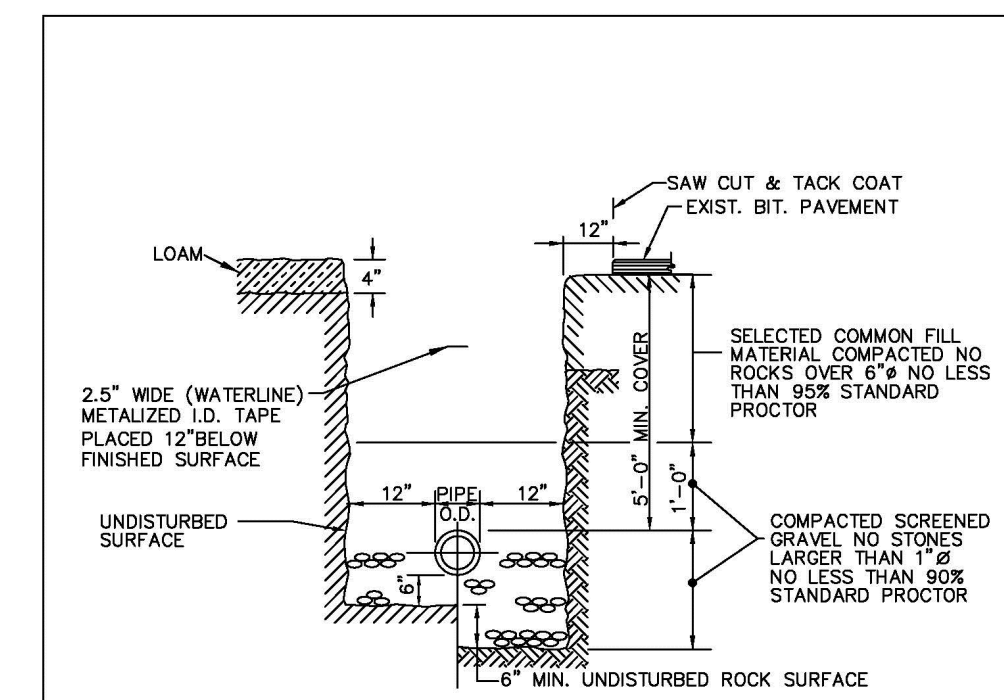


**WATER NOTES**

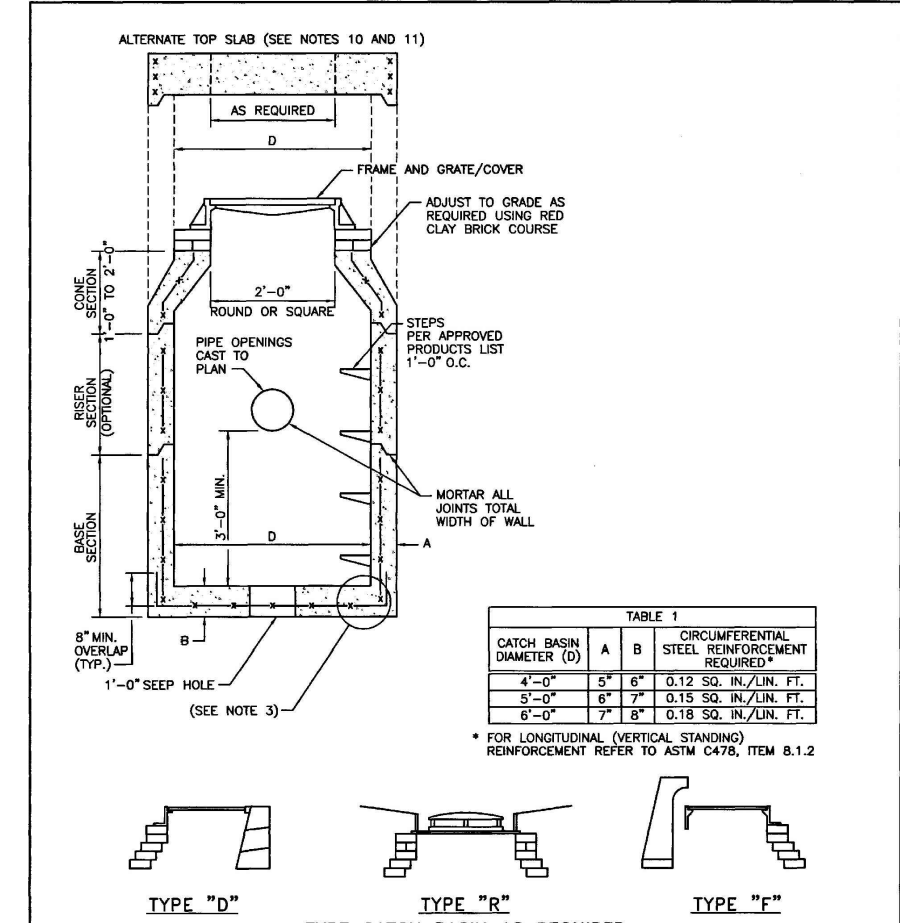
1. ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO KENT COUNTY WATER AUTHORITY REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
2. PROPOSED PIPE TYPE AND SIZE SHALL MATCH THE EXISTING SERVICE PIPE (TYPE-K COPPER TUBING OR HDPE TUBING) AS APPROVED BY KENT COUNTY WATER AUTHORITY (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE KCWA REQUIREMENTS.
3. CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, JOINTS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
4. 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.
5. ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI.
6. 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 APPROVAL.
7. 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.
8. 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.
9. 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.
10. WHEN THIS PROJECT IS COMPLETE, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE WATER DEPARTMENT AND ENGINEER TWO SETS OF AS BUILT PLANS.
11. A SOLID STAINLESS STEEL INSERT SHALL BE INSTALLED AT EACH HDPE PIPE CONNECTION.
12. 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)



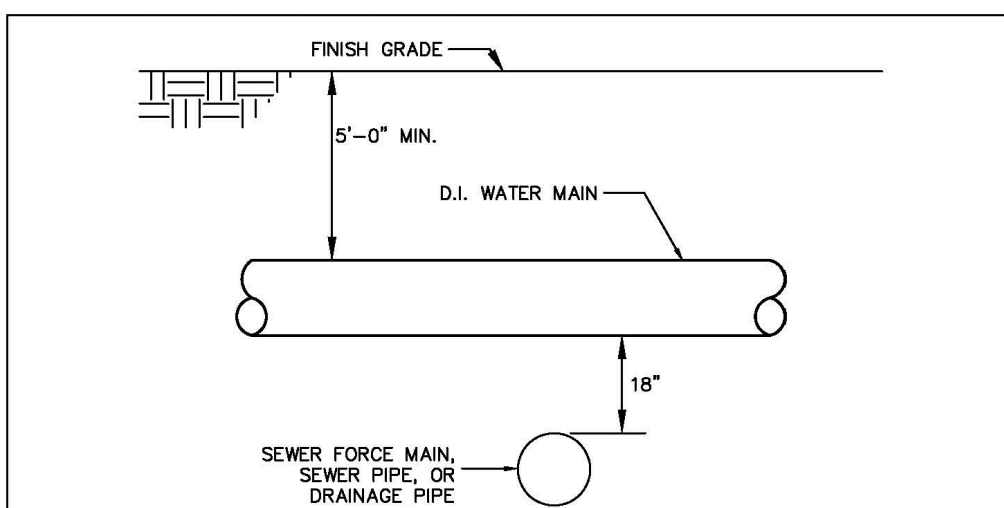
**RIP-RAP ANTI-SCOUR PROTECTION TYPICAL SECTION**  
NOT TO SCALE



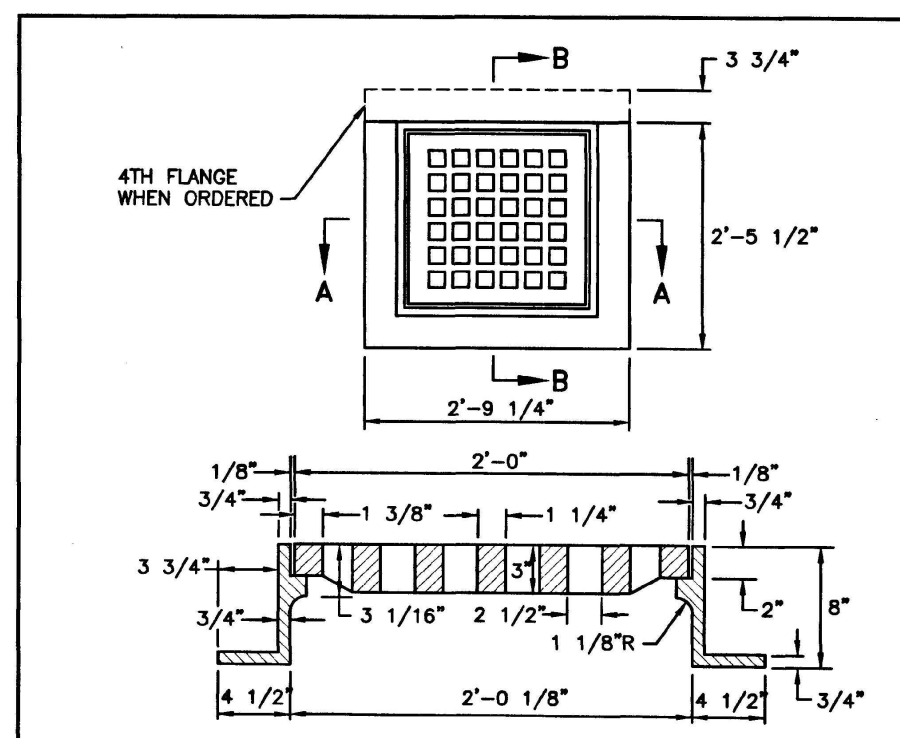
**KCWA TRENCH INSTALLATION IN ROCK AND SOIL**  
NOT TO SCALE DATE: 09/2006



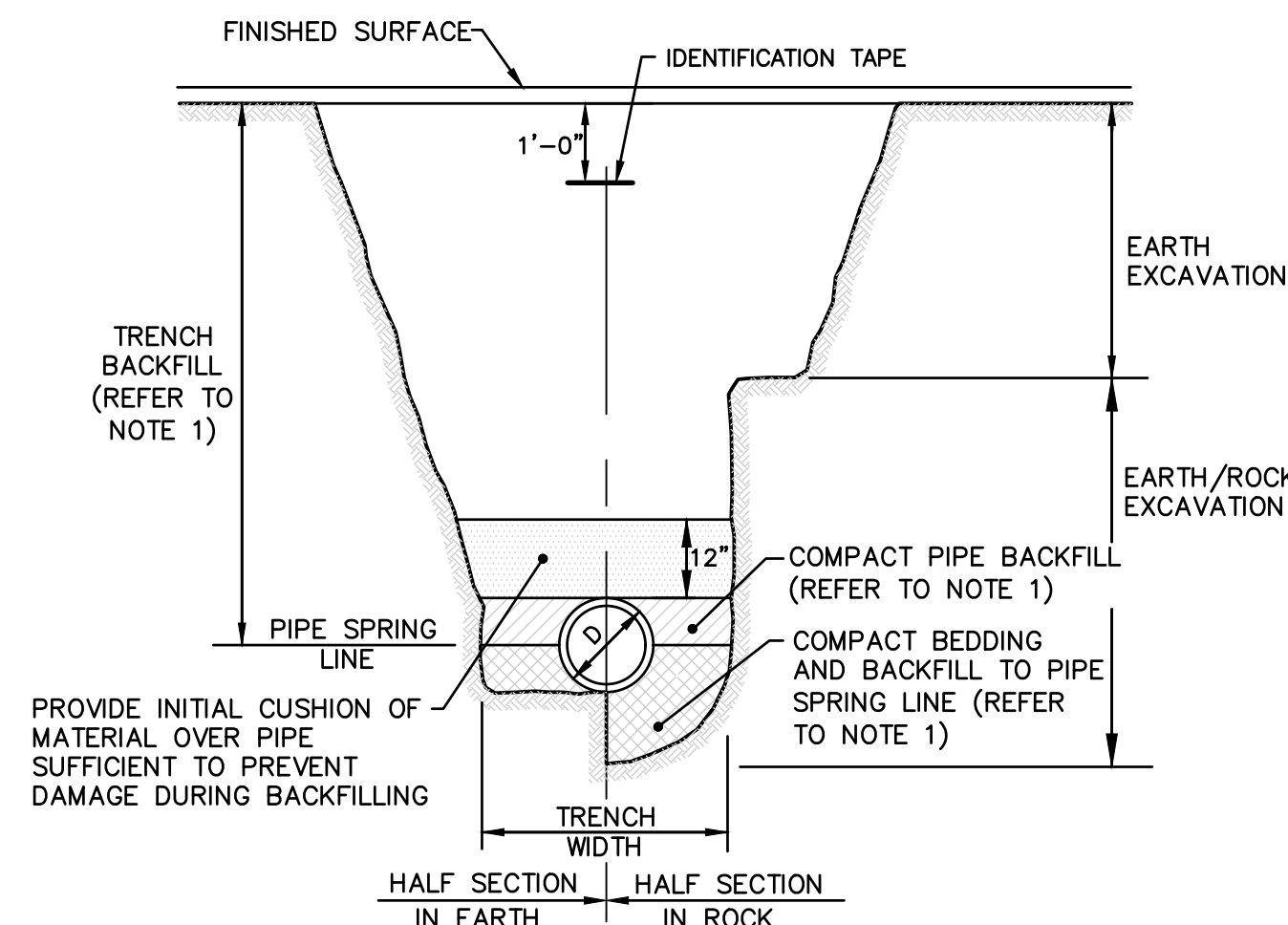
**RHODE ISLAND DEPARTMENT OF TRANSPORTATION PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN**  
DATE: JUNE 15, 1998



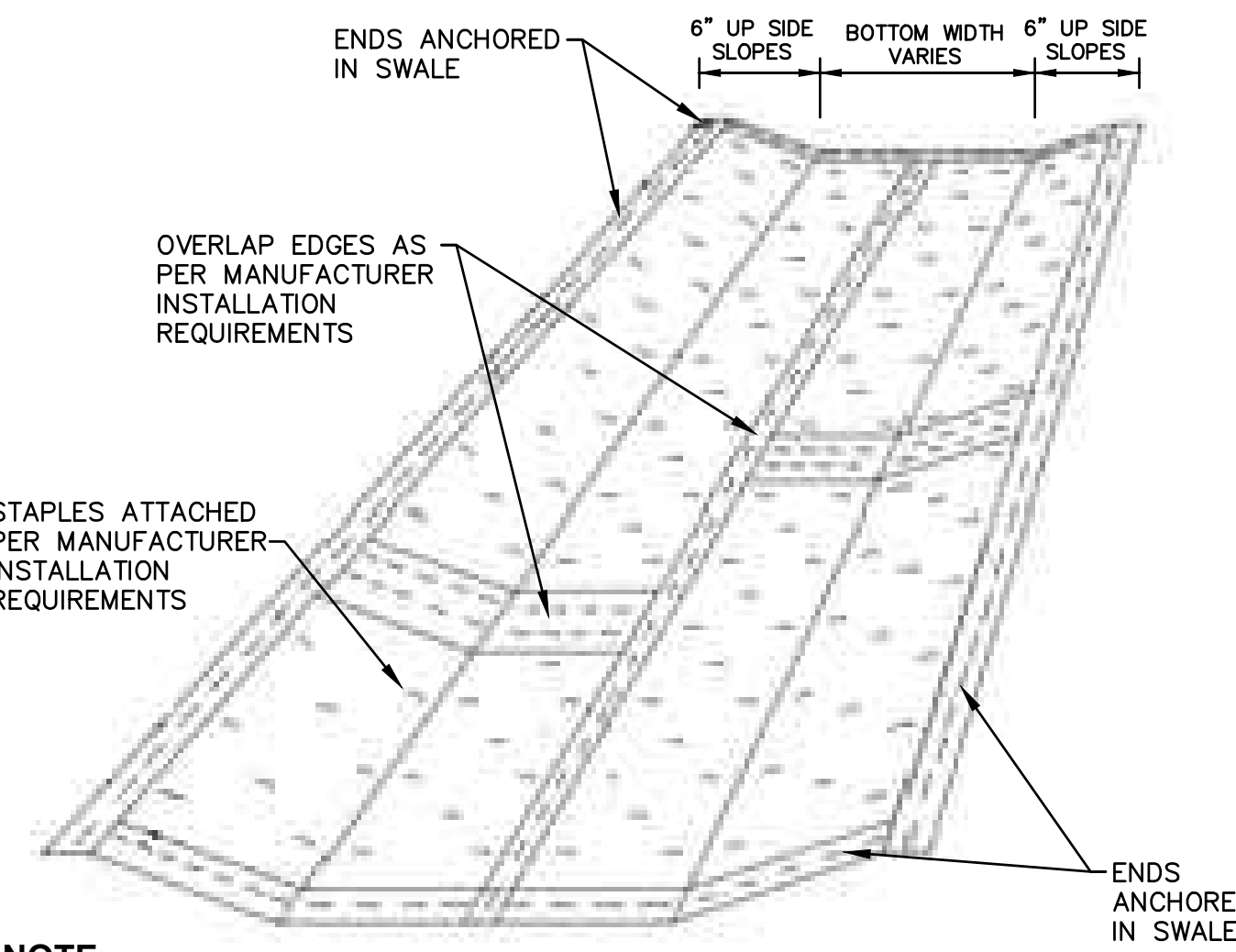
**KCWA UTILITY SEPARATION**  
NOT TO SCALE DATE: 09/2006



**RHODE ISLAND DEPARTMENT OF TRANSPORTATION SQUARE FRAME AND GRATE**  
DATE: JUNE 15, 1998



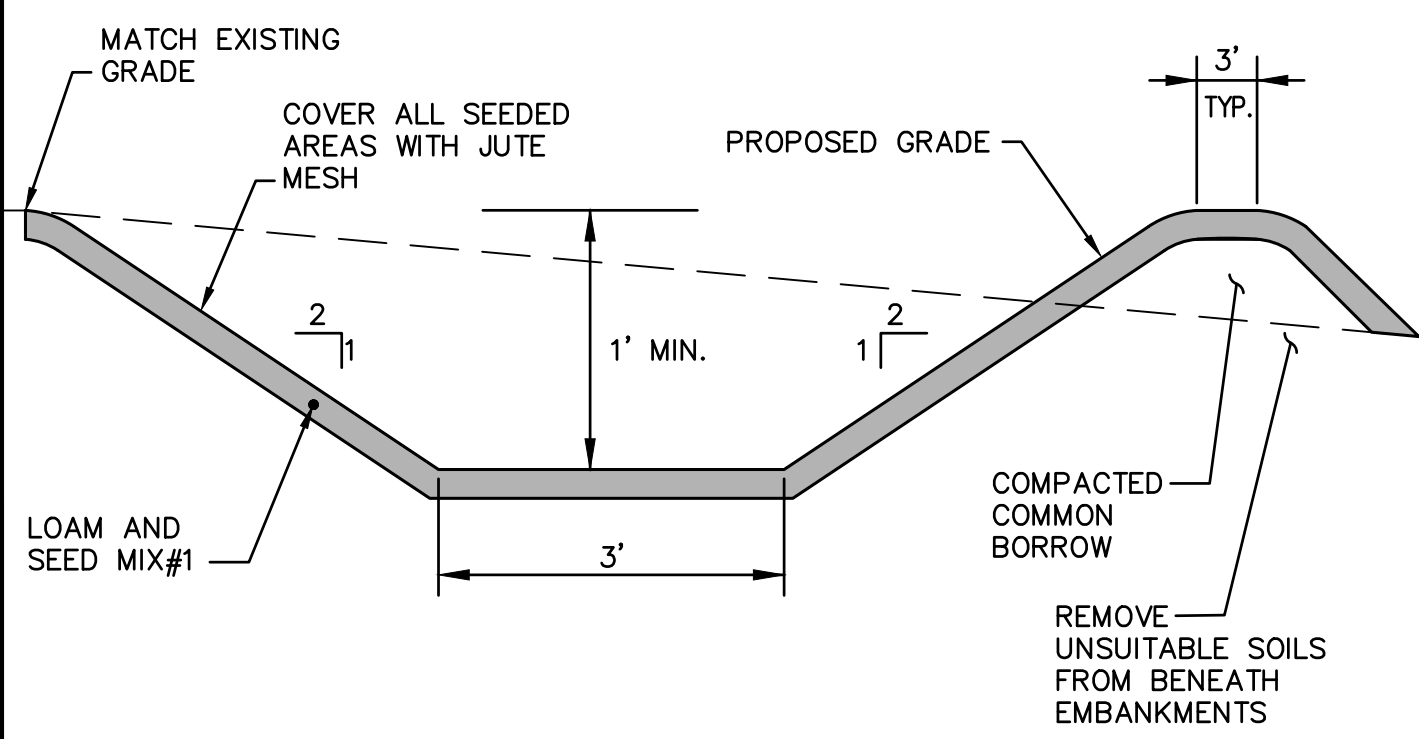
**STORM DRAIN LINE TRENCH DETAIL**  
NOT TO SCALE



**EROSION MATTING INSTALLATION DETAIL**  
NOT TO SCALE

**STORMWATER BASIN EMBANKMENT NOTES:**

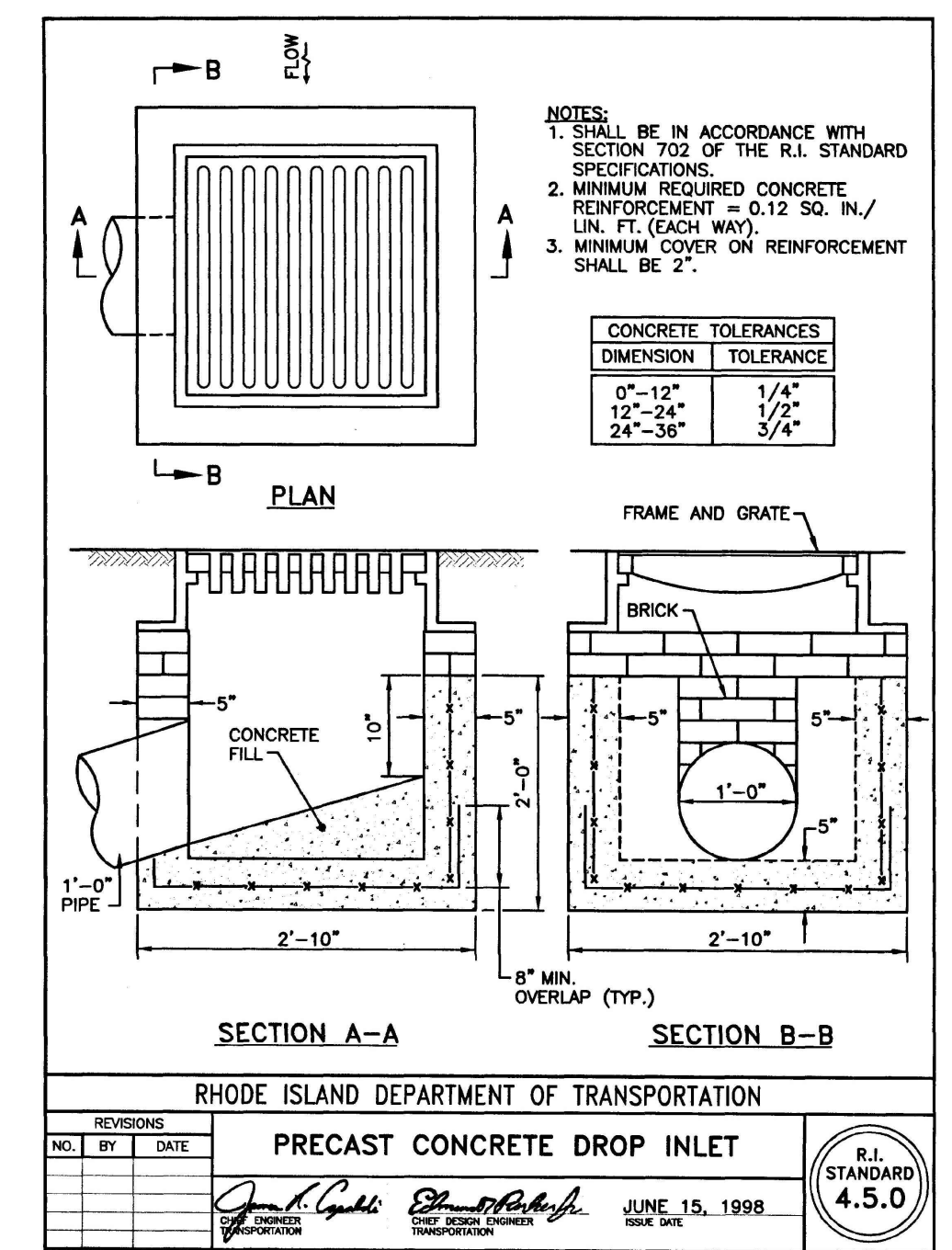
1. THE DETENTION AND INFILTRATION BASIN EMBANKMENTS ARE TO BE CONSTRUCTED WITH APPROVED COMMON BORROW. NO SOIL/ROCK GRATER THAN 3" SHALL BE UTILIZED. COMMON BORROW SHALL MEET OR EXCEED AN IN-PLACE DENSITY OF 100 LB./CF. ALL MATERIAL SHALL BE PLACED IN 8 TO 12 INCH LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. FILL MATERIAL WILL NOT CONTAIN FROZEN MATERIALS OR BE PLACED ON FROZEN SURFACES. COMMON BORROW SHALL MEET RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, THE EMBANKMENT AREAS ARE TO BE EXCAVATED. IF ANY ORGANIC OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR REVIEW OF EXCAVATION AREA. THE DEPTH OF EXCAVATION WILL BE DETERMINED BY THE ENGINEER BASED UPON THE LOCAL CONDITIONS. NO FILL MATERIAL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION HAS BEEN COMPLETED. ALL WATER SHALL BE REMOVED FROM THE FOUNDATION PRIOR TO PLACING THE EMBANKMENT.
3. THE FILL MATERIAL MUST BE SPREAD IN UNIFORM LAYERS AND FALL WITHIN THE SPECIFIED OPTIMUM WATER 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 OF COMPACTION, COMPACTION EQUIPMENT AND THE SEQUENCE OF OPERATIONS NECESSARY TO OBTAIN THE REQUIRED DENSITY. THE WATER CONTENT AT 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 TO THE MATERIAL IN ADVANCE OF THE FILL PLACEMENT.
4. BACKFILL MATERIAL AROUND STRUCTURES AND PIPE IS TO BE PLACED TO PREVENT THE MOVEMENT OF WATER. THE OPTIMUM WATER CONTENT MUST BE MAINTAINED IN THE SAME RANGE AS IN THE EMBANKMENT. THE BACKFILL MUST BE PLACED IN LAYERS LESS THAN 4 INCHES IN THICKNESS AND DISTRIBUTED UNIFORMLY AROUND THE STRUCTURE/PIPE. ALL COMPACTION WILL BE TO 95% MAXIMUM DENSITY AND MAY REQUIRE HAND TAMPERS OR SMALL POWER EQUIPMENT.
5. EMBANKMENT DAMAGE COMMONLY RESULTS FROM IMPROPER CONSTRUCTION OF 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 OUTFALL SHALL HAVE AN ANTI-SEEP COLLAR.



**DRAINAGE SWALE TYPICAL SECTION**  
NOT TO SCALE

- NOTES:**
1. USE ANTI-SEEP COLLAR AROUND ALL OUTLET PIPES.

**EMBANKMENT CONSTRUCTION DETAIL - SCHEMATIC**  
NOT TO SCALE



**RHODE ISLAND DEPARTMENT OF TRANSPORTATION PRECAST CONCRETE DROP INLET**  
DATE: JUNE 15, 1998

**Crossman Engineering**  
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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. 2**

**DATE:** FEBRUARY 2024 **SCALE:** AS NOTED  
**DWG. NAME:** 2366.60-07-DET2-SWALE.dwg

| NUMBER | REMARKS       | DATE    |
|--------|---------------|---------|
| 1      | TOWN COMMENTS | 7/30/24 |

**DRAWING NUMBER**  
**C6**  
SHEET: 7 OF 7

**Notes:**

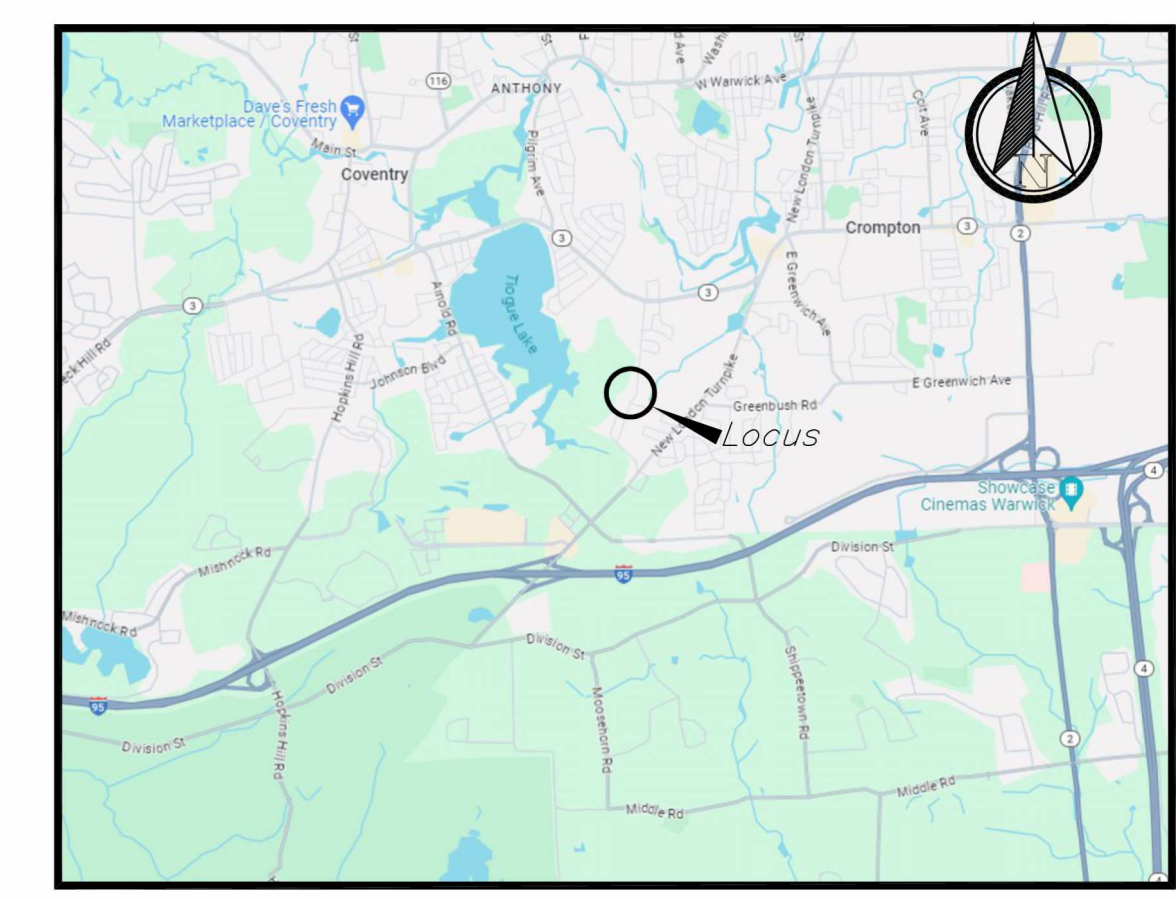
- The purpose of this plan is to show existing conditions for Lot 18 and Lot 31 on Plat 24 in the Town of Coventry, RI.
- Field survey work performed by Crossman Engineering in August of 2023.
- Utility note: Any utilities shown hereon are plotted from field location of visible above ground structures. Any underground utility information shown hereon must be verified in the field prior to any excavation or construction on this site. The contractor or users of this plan should contact digsafe prior to any work. Crossman Engineering assumes no responsibility for the accuracy or completeness of the information shown.
- The horizontal datum is the Rhode Island state plane coordinate system (NAD83) and the vertical datum is NAVD88 utilizing GRS 84 network control.
- Abutters information taken from the town of Coventry, RI tax assessors records in January of 2024. This information is not intended to be a certification of title or ownership for the properties shown. Parcels are subject to any easements, restrictions, or conditions of record.

**Lot Zoning Information:**

Lots 18 and 30 are currently zoned R20  
 The minimum lot size in the R20 zone is 20,000 square feet.  
 The minimum frontage in the R20 zone is 120'  
 The minimum structure setbacks in the R20 zone are 35' front yard, 20' side yard, and 40' rear yard.

**Plan references:**

Instrument #2765 Envelope #1579  
 Instrument #2314 Envelope #1616  
 Instrument #1172 Envelope #1610  
 Plat Book 6 Page 145



**Crossman Engineering**

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Email: cel@crossmaneng.com

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**Certification**

This survey has been conducted and the plan has been prepared pursuant to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island State Board of Registration for Professional Land Surveyors on November 25, 2015 as follows:

Not A Boundary Survey  
 Data Accumulation Survey—Topographic Measurement Specification III

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

*Ronald N. Tubman*  
 Ronald N. Tubman, PLS # 1939  
 Certificate of Authorization # A257



- Legend**
- Ballard
  - Guard Rail
  - Sign
  - Light Pole
  - Signal Pole
  - Drainage Catch Basin
  - Drainage Curb Inlet
  - Drainage Line
  - Drainage Manhole
  - Roof Drain
  - Utility Pole
  - Guy Wire
  - Overhead lines
  - Electric Handhole
  - Electric Lines (underground)
  - Electric Manhole
  - Electric Meter
  - Gas Gate
  - Gas Line
  - Gas Manhole
  - Gas Meter
  - Gas Shutoff
  - Telephone Line (underground)
  - Telephone Box
  - Telephone Handhole
  - Telephone Manhole
  - Sewer Line
  - Sewer Force Main
  - Sewer Manhole
  - Sewer Cleanout
  - Fire Hydrant
  - Water Line
  - Water Gate
  - Water Shutoff
  - Water Manhole
  - Barbed Wire Fence
  - Chain Link Fence
  - PVC Fence
  - Post and Rail Fence
  - Stone Wall
  - Retaining Wall
  - Edge of Water



**Boundary and Existing Conditions Survey**  
 Map 24, Lots 18 and 31  
 53 Old North Road  
 Coventry, RI

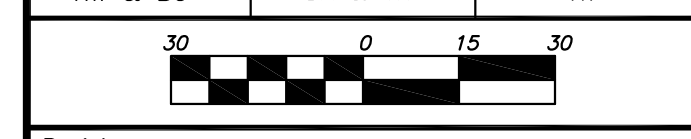
Lot Owners: Lot 18  
 Mark A. & Lauren R. Sheldon  
 53 Old North Road  
 Coventry, RI 02816  
 and  
 Lot 31  
 Green Farm Estates HOA  
 Minglewood Drive  
 Coventry, RI 02816

Prepared for:  
**Town of Coventry**  
 c/o Department of Public Works  
 1670 Flat River Road  
 Coventry, RI 02816

Date: January 9, 2023 Scale: 1" = 30'

File Name: 2366.30 Working 20240109

|         |           |             |
|---------|-----------|-------------|
| Field:  | Drawn By: | Checked By: |
| NW & BC | DA & TH   | RT          |



Revisions:

| Number | Remarks | Date |
|--------|---------|------|
|        |         |      |

Project Number: **2366-30** Sheet **1** of **1**