

# SITE CONSTRUCTION PLAN

## 470 MAIN STREET BOLTON, MA

### TITLE SHEET

#### LEGEND

| EXIST. FEATURE | DESCRIPTION                     | EXIST. SYM. | DESCRIPTION            |
|----------------|---------------------------------|-------------|------------------------|
|                | STREAMS/RIVERS                  |             | LIGHT POLE             |
|                | WETLANDS                        |             | TELEPHONE POLE         |
|                | LIMIT OF BUFFER ZONE            |             | GUY WIRE               |
|                | LEDGE                           |             | HYDRANT                |
|                | 100' WELL OFFSET                |             | SEWER MANHOLE          |
|                | WIRE FENCE                      |             | STORM WATER MANHOLE    |
|                | WOOD FENCE                      |             | WELL                   |
|                | GUARD RAIL                      |             | MISCELLANEOUS MANHOLE  |
|                | CHAIN LINK FENCE                |             | WETLAND FLAG           |
|                | STONE RETAINING WALL            |             | CATCH BASIN            |
|                | STONE WALL                      |             | WATER GATE VALVE       |
|                | WATER LINE                      |             | ELECTRICAL METER       |
|                | ELECTRICAL LINE                 |             | TRAFFIC SIGNAL SWITCH  |
|                | STORM DRAIN                     |             | SIGN                   |
|                | EXISTING OVER-HEAD WIRES        |             | ELECTRICAL TRANSFORMER |
|                | EXISTING CONTOUR (INDEX)        |             | FLAG POLE              |
|                | EXISTING CONTOUR (INTERMEDIATE) |             | SHRUB                  |
|                | EXISTING BUILDING/HOUSE         |             |                        |
|                | TREE LINE                       |             |                        |

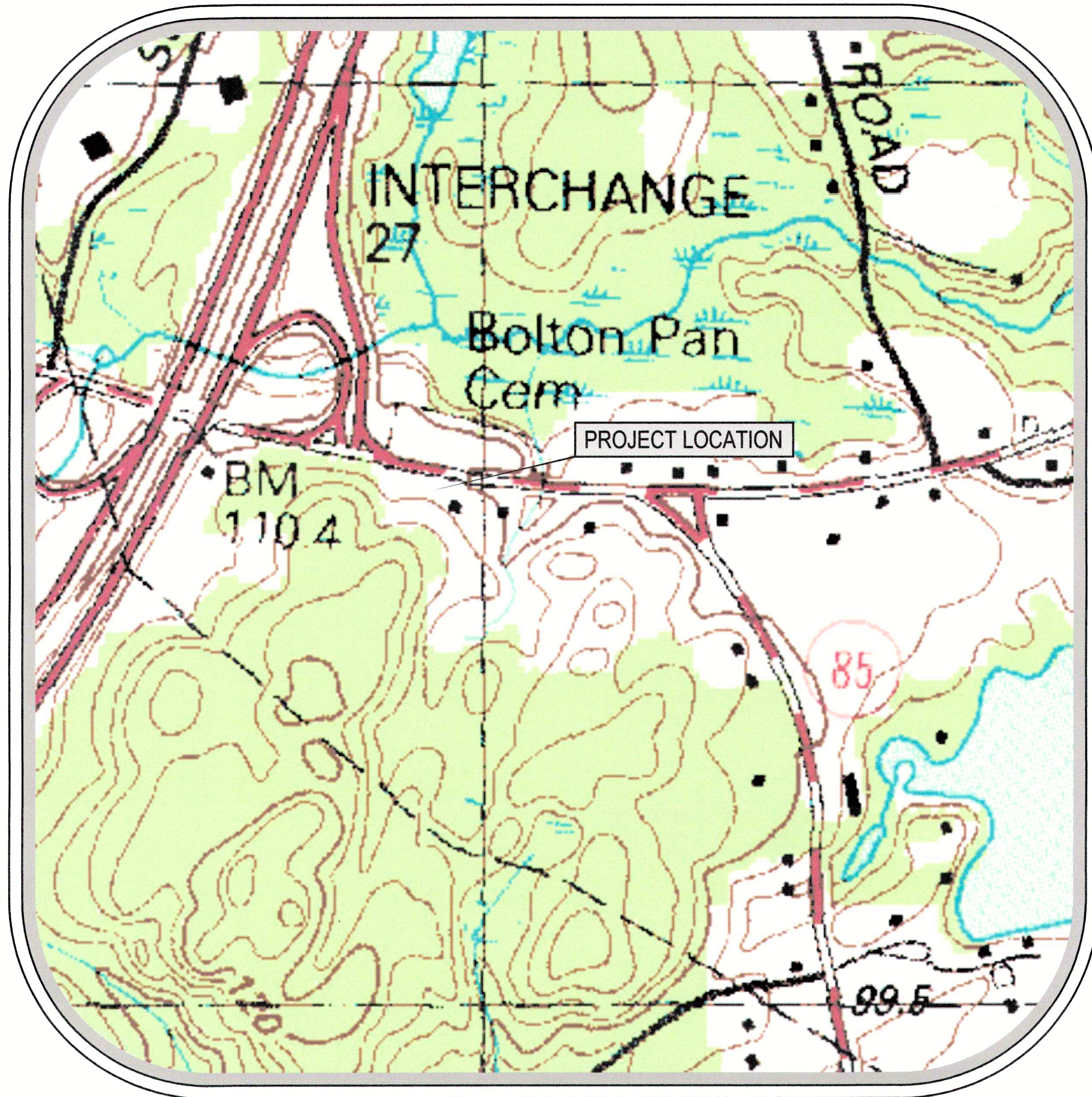
#### ABBREVIATIONS

| ABB.    | DESCRIPTION              |
|---------|--------------------------|
| ATM     | ATMOSPHERIC TANK         |
| UD      | UNDERDRAIN               |
| FD      | FOUNDATION DRAIN         |
| F.S.    | FIRE SERVICE             |
| DOM     | DOMESTIC WATER SERVICE   |
| B.O.    | WATER BLOW OFF           |
| DMH     | DRAIN MANHOLE            |
| SMH     | SEWER MANHOLE            |
| ST      | SEPTIC TANK              |
| PC      | PUMP CHAMBER             |
| UP1     | DRAIN PIPE ID            |
| SP1     | SEWER PIPE ID            |
| DB      | DISTRIBUTION BOX         |
| SC      | STORMCEPTOR CATCH BASIN  |
| GAL     | GALLON                   |
| TOF     | TOP OF FOUNDATION        |
| EL.     | ELEVATION                |
| INV.    | INVERT                   |
| WFO     | WATER SHUTOFF            |
| BCCB    | BITUMINOUS CAPE COD BERM |
| RET.    | RETAINING WALL           |
| C.O.    | CLEAN OUT                |
| INSP.T. | INSPECTION PORT          |

| PROP. FEATURE | DESCRIPTION                     | PROP. SYM. | DESCRIPTION                      |
|---------------|---------------------------------|------------|----------------------------------|
|               | REPLICATED WETLANDS             |            | PROPOSED LIGHT POLE              |
|               | PROPERTY LINE                   |            | PROPOSED TELEPHONE POLE          |
|               | EASEMENT LINE                   |            | PROPOSED HYDRANT                 |
|               | HAYBALES                        |            | PROPOSED SANITARY MANHOLE        |
|               | WIRE FENCE                      |            | PROPOSED STORM WATER MANHOLE     |
|               | WOOD FENCE                      |            | PROPOSED TELEPHONE MANHOLE       |
|               | CHAIN LINK FENCE                |            | PROPOSED ELECTRICAL MANHOLE      |
|               | POURED CONCRETE RETAINING WALL  |            | PROPOSED CATCH BASIN             |
|               | CONC. BLOCK RETAINING WALL      |            | PROPOSED DOUBLE CATCH BASIN      |
|               | STONE RETAINING WALL            |            | PROPOSED WATER GATE VALVE        |
|               | PROPOSED WATER LINE             |            | PROPOSED ELECTRICAL TRANSFORMER  |
|               | PROPOSED ELECTRICAL LINE        |            | PROPOSED ELECTRICAL JUNCTION BOX |
|               | PROPOSED SANITARY SEWER         |            | PROPOSED TRAFFIC SIGNAL SWITCH   |
|               | PROPOSED STORM DRAIN            |            | PROPOSED SIGN                    |
|               | PROPOSED ROOF DRAIN             |            | BORING                           |
|               | PROPOSED UNDER DRAIN            |            | HANDICAPPED SPACE                |
|               | PROPOSED BACK CAPE COD BERM     |            | PROPOSED FLARED END SECTION      |
|               | PROPOSED EDGE OF PAVEMENT       |            | PROPOSED RIPRAP                  |
|               | PROPOSED UNPAVED ROAD           |            | STANDARD TREE                    |
|               | PROPOSED CONTOUR (INDEX)        |            | PINE TREE                        |
|               | PROPOSED CONTOUR (INTERMEDIATE) |            | SHRUB                            |
|               | PROPOSED SPOT ELEVATION         |            |                                  |
|               | PROPOSED BUILDING/HOUSE         |            |                                  |
|               | TREE LINE                       |            |                                  |

#### SHEET INDEX

| SHEET NUMBER | SHEET TITLE              | LATEST REVISION |
|--------------|--------------------------|-----------------|
| C1.0         | TITLE SHEET              | 1/19/16         |
| C1.1         | EXISTING CONDITIONS PLAN | 1/19/16         |
| C2.0         | LAYOUT & UTILITIES PLAN  | 1/19/16         |
| C3.0         | GRADING & DRAINAGE PLAN  | 1/19/16         |
| C4.0         | EROSION CONTROL PLAN     | 1/19/16         |
| C5.0         | DETAIL SHEET             | 1/19/16         |
| C5.1         | DETAIL SHEET             | 1/19/16         |
| C5.2         | DETAIL SHEET             | 1/19/16         |
| C6.1         | SEPTIC SYSTEM DESIGN     | (NOT INCLUDED)  |
| C6.2         | SEPTIC SYSTEM DESIGN     | (NOT INCLUDED)  |
| LA-1.0       | LANDSCAPE DETAIL         | 12/3/15         |



#### LOCUS MAP

SCALE: 1" = 500'

#### GENERAL NOTES/REFERENCES:

- TOPOGRAPHIC & PROPERTY LINE INFORMATION SHOWN ON THIS PLAN WAS PREPARED BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC.
- ELEVATIONS REFER TO ASSUMED DATUM.
- RESOURCE AREAS AS DEFINED BY THE MASSACHUSETTS WETLANDS PROTECTION ACT AND THE TOWN OF BOLTON WETLANDS PROTECTION BYLAW WERE DELINEATED BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC. AND CONFIRMED BY THE BOLTON CONSERVATION COMMISSION. AN ORDER OF RESOURCE AREA DELINEATION HAS BEEN ISSUED BY THE COMMISSION.
- A PORTION OF THE PROPOSED WORK SITE CONTAINS AN INTERIM WELLHEAD PROTECTION AREA (WPA).
- THE PROPOSED WORK DOES FALL WITH IN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE OR PRIORITY HABITAT OF RARE SPECIES.
- THE PROJECT IS NOT LOCATED WITHIN ANY "AREA OF CRITICAL ENVIRONMENTAL CONCERN" (ACEC).
- THE CONTRACTOR SHALL CALL DIG SAFE 1-888-DIG-SAFE PRIOR TO CONSTRUCTION IN ACCORDANCE WITH STATE LAWS.
- CONTRACTOR SHALL REFER TO THE ORDER OF CONDITIONS FROM THE BOLTON CONSERVATION COMMISSION PRIOR TO CONSTRUCTION.
- CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING FEATURES PRIOR TO COMMENCEMENT OF WORK.

#### ZONING INFORMATION

|                              |                                    |                  |
|------------------------------|------------------------------------|------------------|
| ZONING DISTRICT:             | BUSINESS                           |                  |
| OVERLAY DISTRICTS:           | MIXED USE VILLAGE OVERLAY DISTRICT |                  |
| DESCRIPTION                  | REQUIRED(LB)                       | PROVIDED         |
| MIN. LAND AREA               | 1.5 AC.                            | 1.5 AC.          |
| MIN. FRONTAGE                | 200'                               | 200'             |
| MIN. WIDTH                   | 150'                               | ~155'            |
| MIN. FRONT YARD              | 150'                               | 52.9' (VARIANCE) |
| MIN. SIDE/REAR YARD          | 50'                                | 25.0' (VARIANCE) |
| MAX. BLDG. HEIGHT            | 32'                                | <32'             |
| MAX. BLDG./LOT COVERAGE      | 8%                                 | 5.2%             |
| MAX. IMPERVIOUS/LOT COVERAGE | 50%                                | 18.8%            |

#### PARKING SCHEDULE

|  |                      |                              |
|--|----------------------|------------------------------|
| 2,568 SF RETAIL BUILDING<br>(8 250-17 - 3 SF PARKING AREA / 1 SF BUILDING AREA ) | REQUIRED<br>7,704 SF | PROVIDED<br>7,913 SF (+3.08) |
| PARKING SPACES<br>TOTAL SPACES<br>HP ACCESSIBLE SPACES (521 OMR 23.2)            | —<br>2 SPACE         | 23 SPACES<br>2 SPACES        |

PREPARED BY:

**DUCHARME & DILLIS**  
Civil Design Group, Inc.  
CIVIL ENGINEERS • LAND SURVEYORS • WETLAND CONSULTANTS

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PHONE: (978) 779-6091 FAX: (978) 779-0260  
www.DucharmeandDillis.com

OWNER:

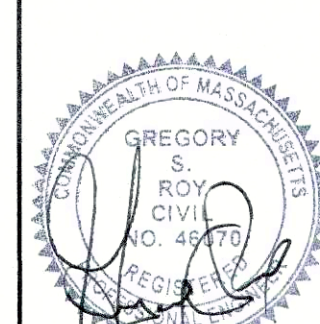
HOUDE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

APPLICANT:

HOUDE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

SCALE:

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DATE:

9/2/2015

DESIGN BY:

BJD

DRAWN BY:

PJW

CHECKED BY:

GSR

**TITLE SHEET**  
470 MAIN STREET – ROUTE 117  
BOLTON, MASSACHUSETTS

| NO. | DATE     | DESCRIPTION                      | BY  |
|-----|----------|----------------------------------|-----|
| 1.  | 9/17/15  | REV. FOR P.B. SUBMITTAL          | GSR |
| 2.  | 11/18/15 | REV. PER REVIEW COMMENTS         | GSR |
| 3.  | 12/4/15  | REV. PER REVIEW COMMENTS         | GSR |
| 4.  | 1/19/16  | REV. PER PLANNING BOARD COMMENTS | GSR |
| 5.  | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO.

4014-B

DRAWING NO.

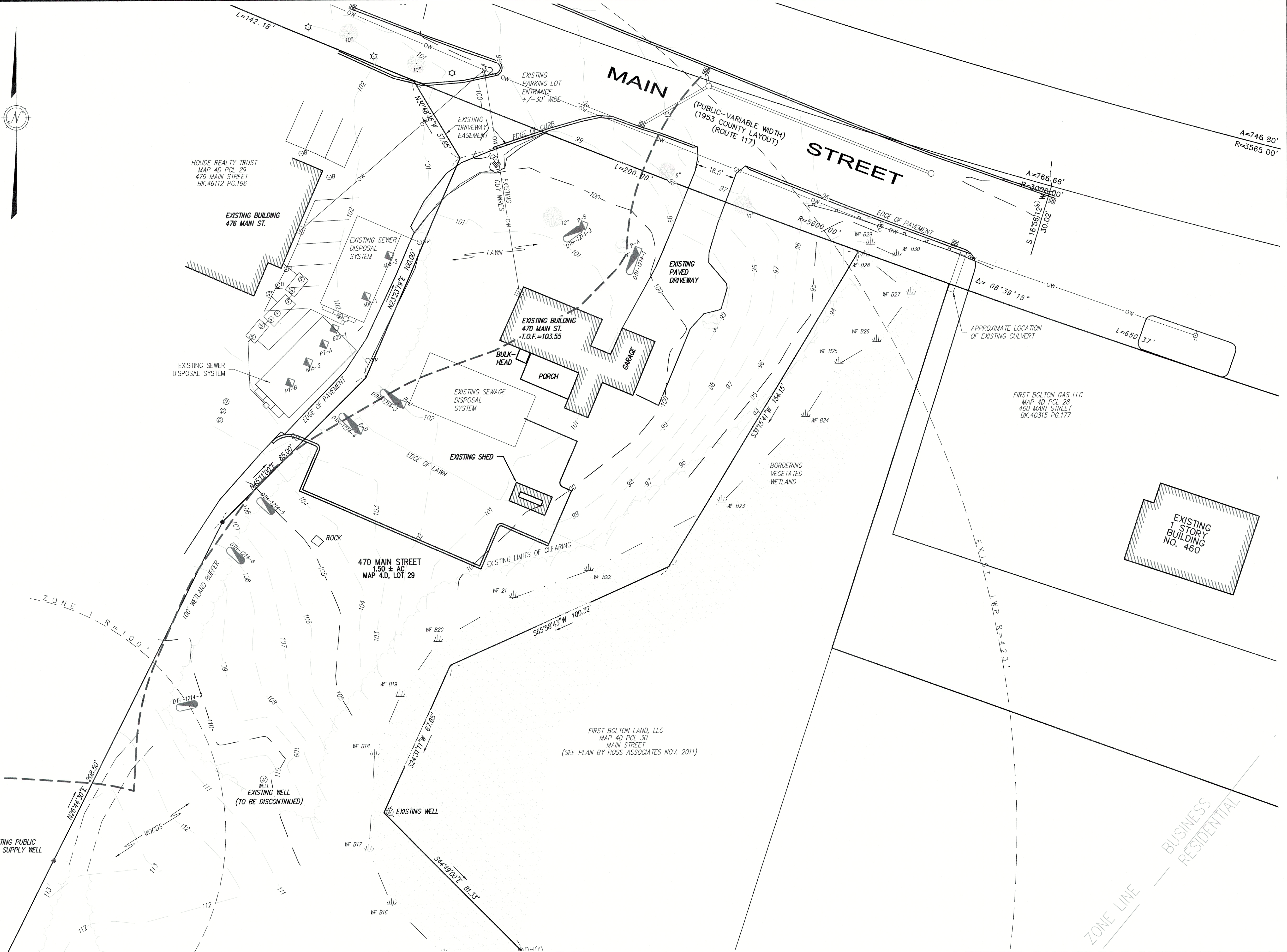
4932-TITLE

SHEET NO.

**C1.0**



|   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|------|----------------------|-------------------------------------|-------------------------|-------------------|----------|--|--|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| NAME OF APPROVING AUTHORITY:<br>BOLTON BOARD OF HEALTH<br>BILL BROOKINGS, NABOH AGENT |      |                      |                                     |                         |                   |          |  |  |                            | NAME OF SOIL EVALUATOR:<br>DUCHARME AND DILLIS CIVIL DESIGN GROUP<br>WILLIAM J. "JACK" MALONEY, JR. (SE-13704) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IN-SEASON GROUND WATER TESTING -- (IF REQ'D)  |      |                      |                                     |                         |                   |          |  |  |                            | PERCOLATION TEST DATA  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TEST<br>PT<br>NO.   | DATE | SURFACE<br>ELEVATION | DEPTH TO<br>OBSERVED<br>GROUNDWATER | G.W. WATER<br>ELEVATION | TEST<br>PT<br>NO. | DATE     | TOP OF 12" OF WATER<br>DEPTH FROM<br>SURFACE ELEVATION |  | RATE<br>INCHES<br>PER INCH |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |      |                      |                                     |                         | PA                | 12/19/14 | 63"  |  | 100.56                     | 2 MP   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |      |                      |                                     |                         | PB                | 12/19/14 | 60"  |  | 100.56                     | 2 MP   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |      |                      |                                     |                         | PC                | 12/19/14 | 66"  |  | 102.06                     | 2 MP   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |      |                      |                                     |                         | PD                | 12/19/14 | 22"  |  | 102.56                     | 2 MP   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SOIL CLASSIFICATION: MERRIMAC FINE SANDY LOAM 3-BK                                    |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEOLOGICAL MATERIAL: PROGLACIAL OUTWASH   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LAND FORM: OUTWASH PLAIN  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SOIL LIMITATIONS: DOUGHINESS  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GENERAL NOTES: X  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 1214-1   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 12/19/14  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 24-138" C SAG 2.51 5/4 NONE NONE MASSIVE, LOOSE                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 100.56)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 3138" (ELEVATION = 88.06)                     |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 1214-2   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 12/19/14  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 24-126" C SAG 2.51 5/4 NONE NONE MASSIVE, LOOSE                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 100.56)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 3128" (ELEVATION = 88.06)                     |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 1214-3   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 12/19/14  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 24-108" C C.S. 2.51 5/4 NONE NONE MASSIVE, LOOSE                            |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 102.06)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 96" (ELEVATION = 94.06)                       |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 1214-4   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 12/19/14  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 24-400" C2 C.S. 2.51 5/4 96" 102" MASSIVE, LOOSE                            |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 102.06)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 96" (ELEVATION = 94.06)                       |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 1214-5   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 12/19/14  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 24-60" C1 C.S. 2.51 5/4 64" 72" MASSIVE, LOOSE                              |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 102.56)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 64" (ELEVATION = 97.26)                       |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NAME OF APPROVING AUTHORITY:<br>BOLTON BOARD OF HEALTH<br>BILL BROOKINGS, NABOH AGENT |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  | NAME OF SOIL EVALUATOR:<br>FORESITE ENGINEERING<br>SCOTT P. HAYES, P.E. (SE# 1030) |  |  |  |  |  |  |  |  |  |
| SOIL TEST DATA  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT-A 6/24/05 55" 102.24 2 MP  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT-B 6/24/05 60" 102.74 2 MP  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT-C 4/30/08 60" 101.56 2 MP  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT-D 4/30/08 60" 101.56 2 MP  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 605-1  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 6/24/05   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 20-36" Bw L.S. 101R 5/8 NONE NONE WEAK, MASSIVE                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 102.16)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 85" (ELEVATION = 94.46)                       |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 605-2  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 6/24/05   |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 20-36" Bw L.S. 101R 5/8 NONE NONE WEAK, MASSIVE                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 100.56)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 3128" (ELEVATION = 90.06)                     |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 408-1  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 4/1/08  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 18-34" Bw L.S. 101R 5/8 NONE NONE MASSIVE, WEAK                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 100.76)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 3120" (ELEVATION = 90.76)                     |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEEP TEST PIT: 408-2  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DATE OF TEST: 4/1/08  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REFUSAL AT: NONE  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OBSERVED: 18-24" Bw L.S. 101R 5/8 NONE NONE MASSIVE, WEAK                             |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (SURFACE ELEV. = 100.56)  |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTIMATED SEASONAL HIGH GROUND WATER AT 3120" (ELEVATION = 90.56)                     |      |                      |                                     |                         |                   |          |  |  |                            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



PREPARED BY:

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www.DucharmeandDillis.com

OWNER:

HOUDE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

APPLICANT:

HOUDE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

SCALE:

1 in. = 20 ft.

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DATE:

9/2/2015

DESIGN BY:

BJD

DRAWN BY:

PJW

CHECKED BY:

GSR

EXISTING CONDITIONS PLAN

470 MAIN STREET - ROUTE 117

BOLTON, MASSACHUSETTS

| NO. | DATE     | DESCRIPTION                      | BY  |
|-----|----------|----------------------------------|-----|
| 1.  | 9/17/15  | REV. FOR P.B. SUBMITTAL          | GSR |
| 2.  | 11/18/15 | REV. PER REVIEW COMMENTS         | GSR |
| 3.  | 12/4/15  | REV. PER REVIEW COMMENTS         | GSR |
| 4.  | 1/19/16  | REV. PER PLANNING BOARD COMMENTS | GSR |
| 5.  | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO.

4932

DRAWING NO.

4932-EXIST

SHEET NO.

C1.1



LIGHTING SCHEDULE:

| ID   | TYPE         | POLE      | MOUNTING | BULB   | WATTAGE | LUMENS | MANUFACTURER       | MODEL                          | MOUNT. HEIGHT |
|------|--------------|-----------|----------|--------|---------|--------|--------------------|--------------------------------|---------------|
| LP-1 | LIGHT POLE   | APR4-LBC3 | LM       | LED    | 110W    | 9,170  | PHILIPS LUMEC      | DMS50-110W64LED4K-R-LE5F       | 20'           |
| LP-2 | LIGHT POLE   | APR4-LBC3 | LM       | LED    | 135W    | 11,600 | PHILIPS LUMEC      | DMS50-135W80LED4K-R-LE4F       | 20'           |
| LP-2 | LIGHT POLE   | APR4-LBC3 | LM       | LED    | 135W    | 11,600 | PHILIPS LUMEC      | DMS50-135W80LED4K-R-LE4F-HS    | 20'           |
| RC-1 | RECESSED CAN | NA        | NA       | LED    | 16.7    | 1535   | PHILIPS LIGHTOILER | P4RD15NZ10UVB-P4RD835VB-P4RDCL | 10'           |
| WP-1 | WALL PACK    | NA        | NA       | INCAND | 45W     | 46     | PHILIPS STONCO     | X2A042H-XPRESSIVES             | 10'           |

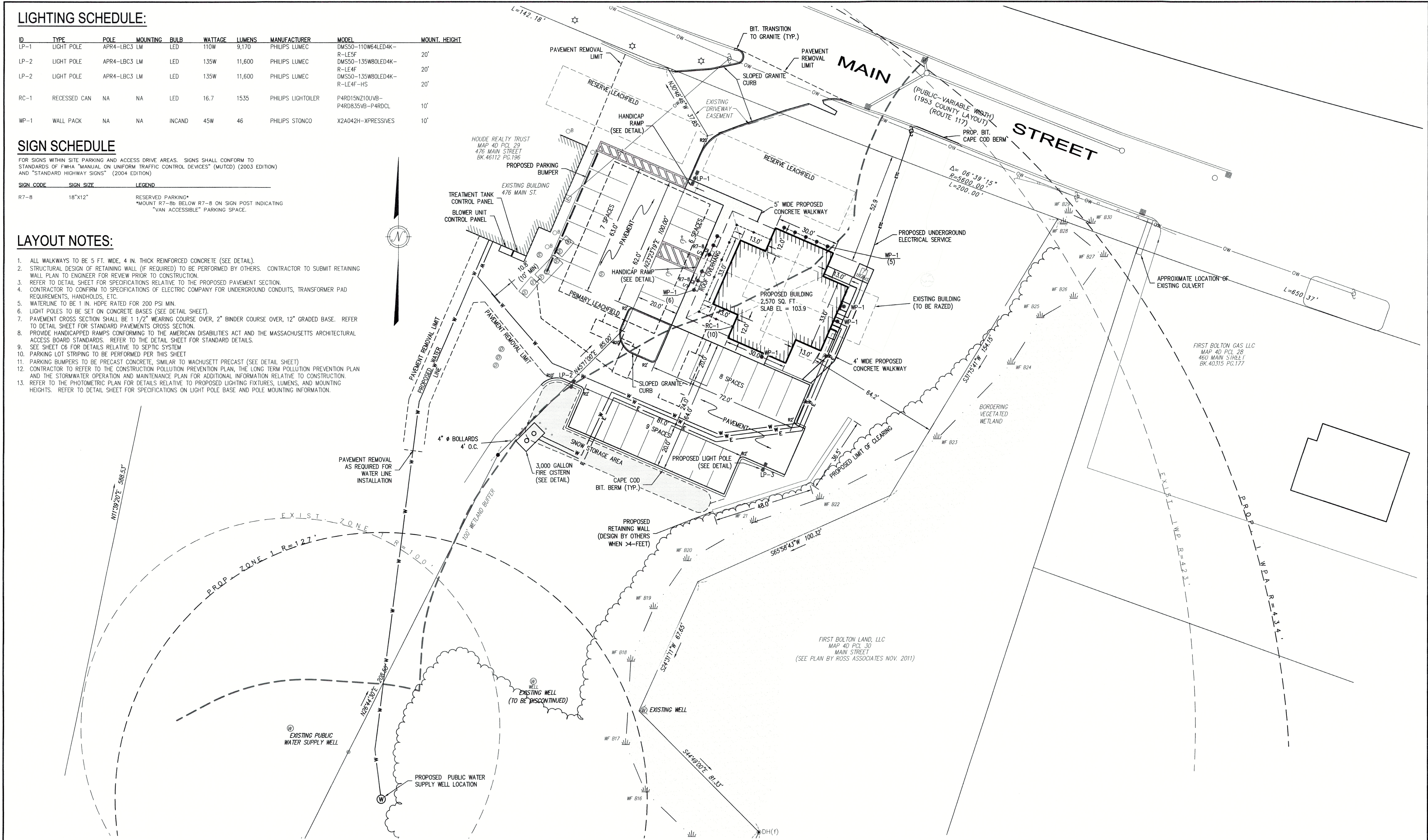
SIGN SCHEDULE

FOR SIGNS WITHIN SITE PARKING AND ACCESS DRIVE AREAS. SIGNS SHALL CONFORM TO STANDARDS OF FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) (2003 EDITION) AND "STANDARD HIGHWAY SIGNS" (2004 EDITION)

| SIGN CODE | SIGN SIZE | LEGEND   |
|-----------|-----------|--|
| R7-8      | 18"x12"   | RESERVED PARKING*<br>*MOUNT R7-8b BELOW R7-8 ON SIGN POST INDICATING "VAN ACCESSIBLE" PARKING SPACE. |

LAYOUT NOTES:

- ALL WALKWAYS TO BE 5 FT. WIDE, 4 IN. THICK REINFORCED CONCRETE (SEE DETAIL).
- STRUCTURAL DESIGN OF RETAINING WALL (IF REQUIRED) TO BE PERFORMED BY OTHERS. CONTRACTOR TO SUBMIT RETAINING WALL PLAN TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
- REFER TO DETAIL SHEET FOR SPECIFICATIONS RELATIVE TO THE PROPOSED PAVEMENT SECTION.
- CONTRACTOR TO CONFIRM TO SPECIFICATIONS OF ELECTRIC COMPANY FOR UNDERGROUND CONDUITS, TRANSFORMER PAD REQUIREMENTS, HANDHOLDS, ETC.
- WATERLINE TO BE 1 IN. HDPE RATED FOR 200 PSI MIN.
- LIGHT POLES TO BE SET ON CONCRETE BASES (SEE DETAIL SHEET).
- PAVEMENT CROSS SECTION SHALL BE 1 1/2" WEARING COURSE OVER, 2" BINDER COURSE OVER, 12" GRADED BASE. REFER TO DETAIL SHEET FOR STANDARD PAVEMENTS CROSS SECTION.
- PROVIDE HANDICAPPED RAMPS CONFORMING TO THE AMERICAN DISABILITIES ACT AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD STANDARDS. REFER TO THE DETAIL SHEET FOR STANDARD DETAILS.
- SEE SHEET C6 FOR DETAILS RELATIVE TO SEPTIC SYSTEM
- PARKING LOT STRIPING TO BE PERFORMED PER THIS SHEET
- PARKING BUMPERS TO BE PRECAST CONCRETE, SIMILAR TO WACHUSETT PRECAST (SEE DETAIL SHEET)
- CONTRACTOR TO REFER TO THE CONSTRUCTION POLLUTION PREVENTION PLAN, THE LONG TERM POLLUTION PREVENTION PLAN AND THE STORMWATER OPERATION AND MAINTENANCE PLAN FOR ADDITIONAL INFORMATION RELATIVE TO CONSTRUCTION.
- REFER TO THE PHOTOMETRIC PLAN FOR DETAILS RELATIVE TO PROPOSED LIGHTING FIXTURES, LUMENS, AND MOUNTING HEIGHTS. REFER TO DETAIL SHEET FOR SPECIFICATIONS ON LIGHT POLE BASE AND POLE MOUNTING INFORMATION.



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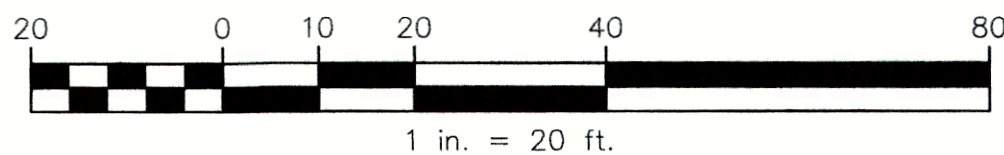
OWNER:

HOUE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

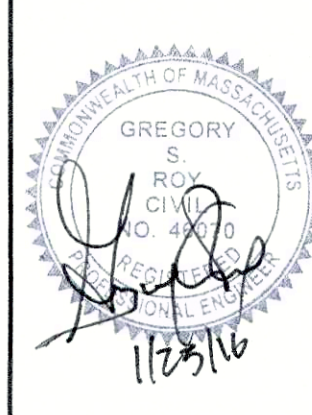
APPLICANT:

HOUE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

SCALE:



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DATE:

9/2/2015

DESIGN BY:

BJD

DRAWN BY:

PJW

CHECKED BY:

GSR

LAYOUT & UTILITIES PLAN  
470 MAIN STREET - ROUTE 117  
BOLTON, MASSACHUSETTS 01740

| NO. | DATE     | DESCRIPTION                      | BY  |
|-----|----------|----------------------------------|-----|
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| 4.  | 1/19/16  | REV. PER PLANNING BOARD COMMENTS | GSR |
| 5.  | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO.

4932

DRAWING NO.

4932-LAYOUT

SHEET NO.

C2.0



NOTES AND SPECIFICATIONS:

A. GRADING NOTES

- 1. ALL SPOT GRADES REFER TO FINAL FINISHED GRADES.
- 2. CONTRACTOR TO PROVIDE DETENTION BASIN VOLUME (MIN.) AS SHOWN.
- 3. GRADE ALL SIDEWALLS AND WALKWAYS WITH 2% CROSS SLOPE.

B. DRAINAGE NOTES

- 1. RIPRAP TO BE 4-8" ANGULAR STONE PLACED OVER NON-WOVEN FILTER FABRIC.
- 2. ASPHALT CHUTE SHALL HAVE A MIN. CURB OPENING OF 5-FEET, WITH A WIDTH AT THE OUTLET OF 2-FEET MIN.
- 3. REFER TO THE DETAIL SHEET FOR SPECIFICATIONS AND ELEVATION PERTAINING TO THE PROPOSED OUTLET CONTROL STRUCTURE.
- 4. FILTER FABRIC TO BE AS MANUFACTURED BY CONTECH, PRODUCT C-60NW, OR APPROVED EQUAL.
- 5. UNDERGROUND INFILTRATION AREA TO BE CUL-TEC R280HD UNITS. SEE DETAIL SHEET.
- 6. ALL SLOPES TO BE 3:1 UNLESS OTHERWISE NOTED.
- 7. PERIMETER DRAIN TO BE 2-FOOT WIDE STONE TRENCH WITH 6" SDR-35 PERFORATED PVC PIPE. STONE TO BE 1 1/2" DOUBLE WASHED CRUSHED STONE WITH FILTER FABRIC SURROUNDING ALL SIDES AND BOTTOM. SEE DETAIL SHEET.
- 8. REFER TO LANDSCAPING PLANS FOR BIO-RETENTION AREA PLANTING.
- 9. EXISTING LEACHING CATCH BASIN TO BE FILLED WITH CLEAN SAND AND THE TOP AND RIM REMOVED.

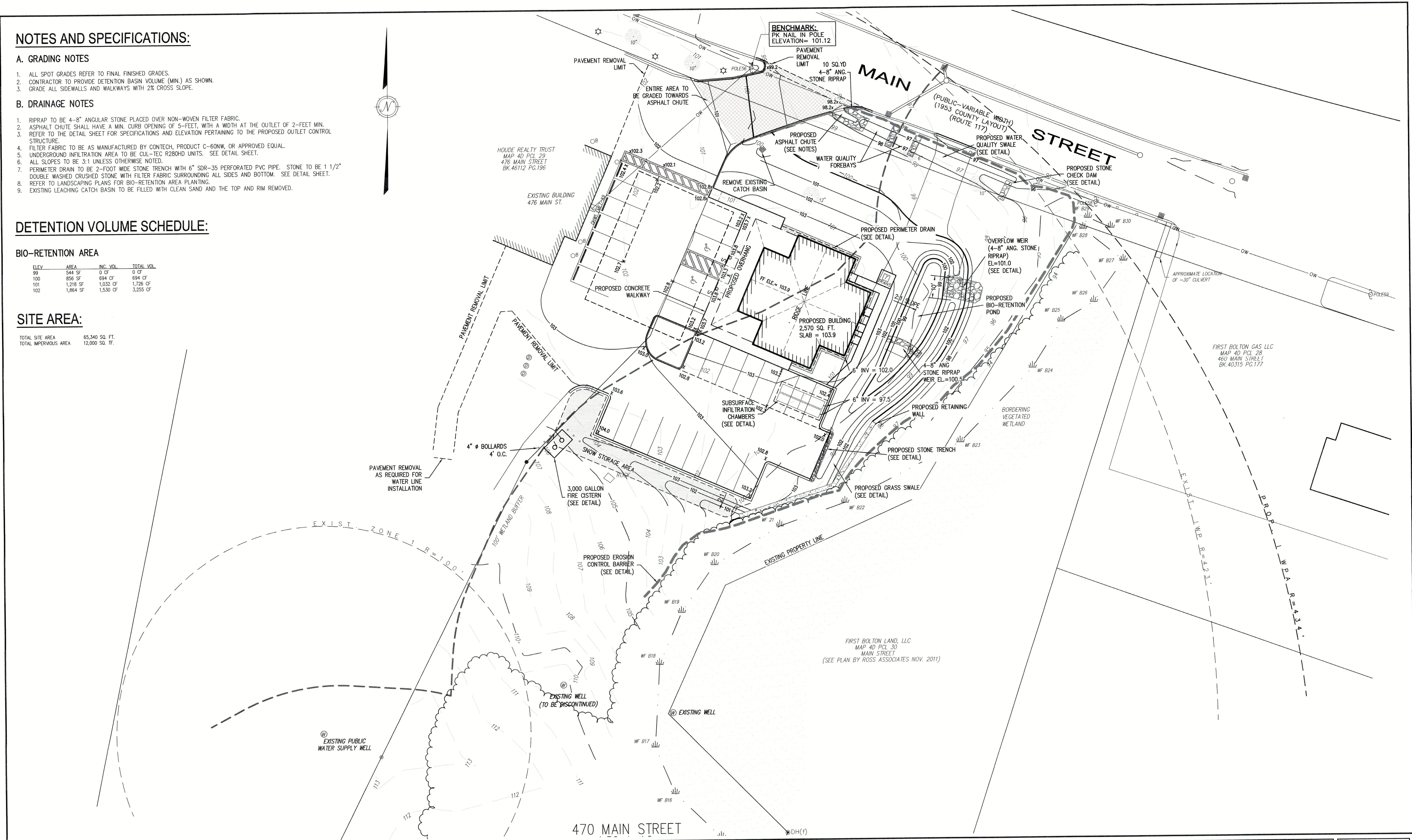
DETENTION VOLUME SCHEDULE:

BIO-RETENTION AREA

| ELEV | AREA     | INC. VOL | TOTAL VOL |
|------|----------|----------|-----------|
| 99   | 544 SF   | 0 CF     | 0 CF      |
| 100  | 856 SF   | 694 CF   | 694 CF    |
| 101  | 1,218 SF | 1,032 CF | 1,726 CF  |
| 102  | 1,864 SF | 1,530 CF | 3,255 CF  |

SITE AREA:

|                       |                |
|-----------------------|----------------|
| TOTAL SITE AREA       | 65,340 SQ. FT. |
| TOTAL IMPERVIOUS AREA | 12,000 SQ. FT. |



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APPLICANT:

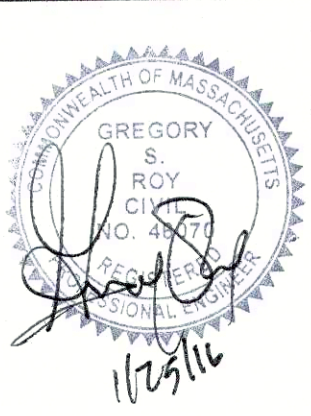
HOUE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS 01740

SCALE:

20 0 10 20 40 80

1 in. = 20 ft.

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DATE: 9/2/2015

DESIGN BY: BJD

DRAWN BY: PJW

CHECKED BY: GSR

**GRADING & DRAINAGE PLAN**  
470 MAIN STREET - ROUTE 117  
BOLTON, MASSACHUSETTS

| NO. | DATE     | DESCRIPTION                      | BY  |
|-----|----------|----------------------------------|-----|
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| 5.  | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO. 4932

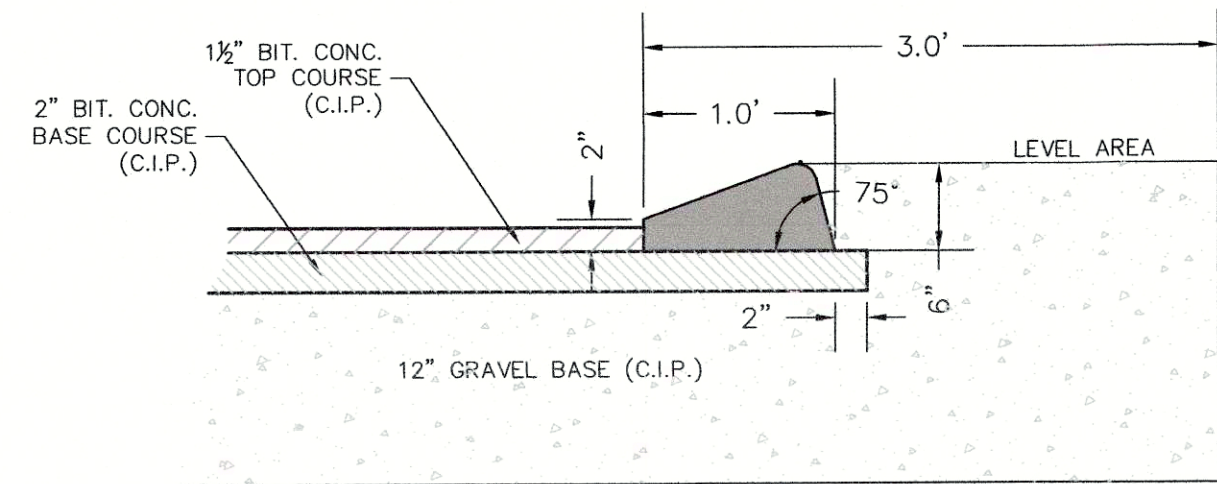
DRAWING NO. 4932-GRD

SHEET NO. C3.0

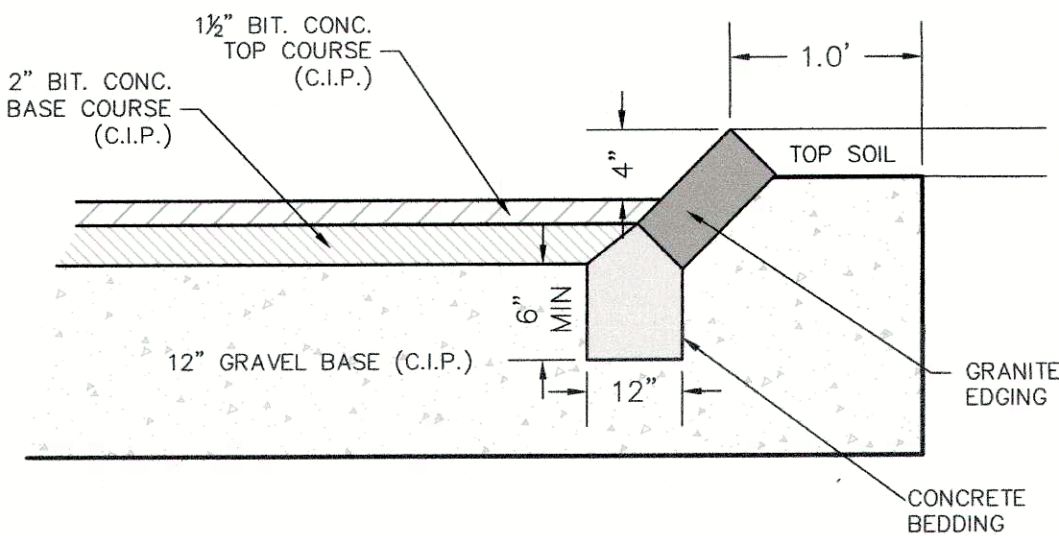




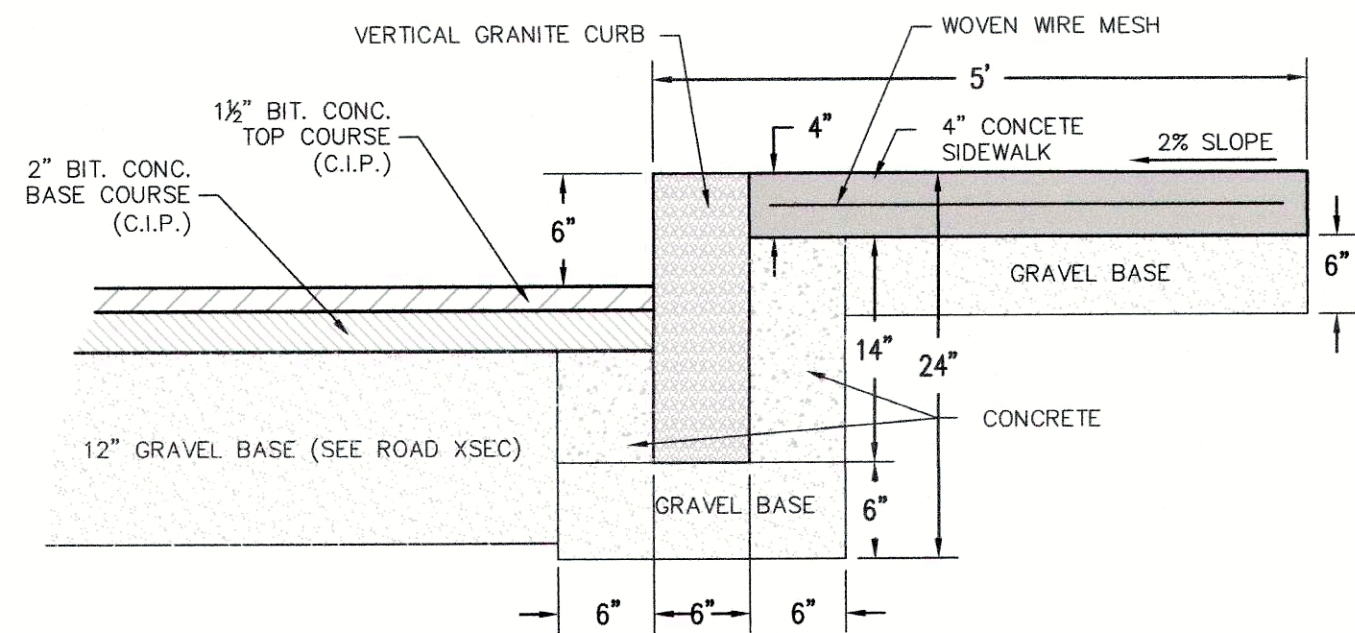




**BITUMINOUS CONCRETE CURB DETAIL**  
NOT TO SCALE

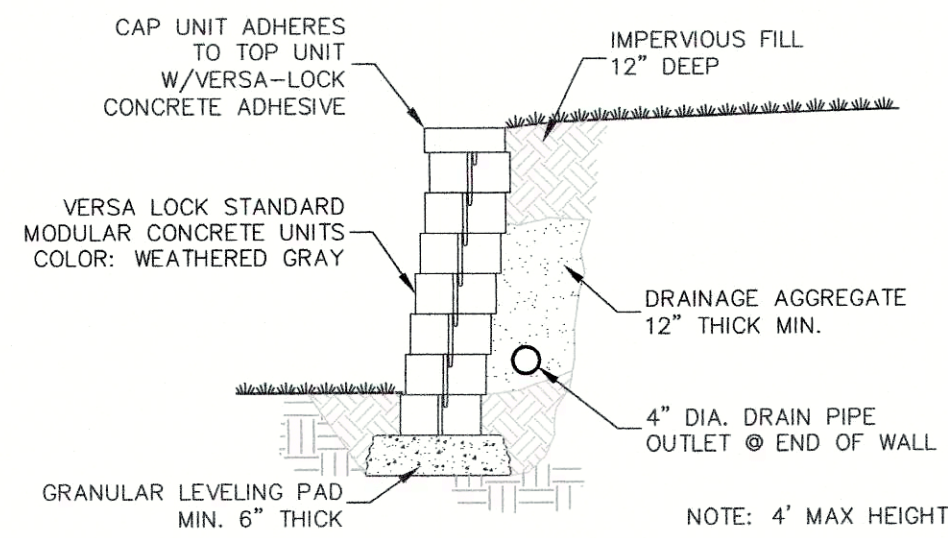


**SLOPED GRANITE CURB DETAIL**  
NOT TO SCALE

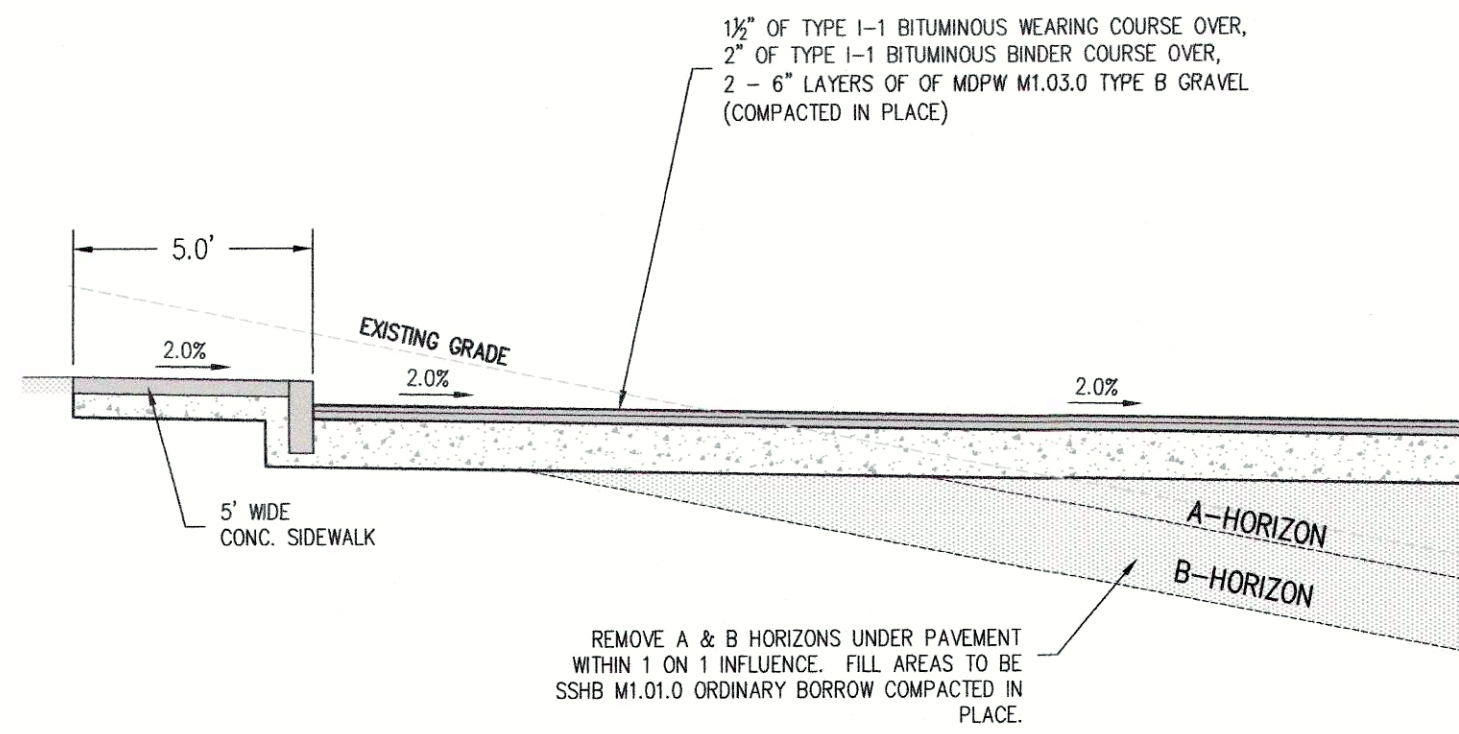


- NOTES:
1. PLACE JOINTS AT 20 FOOT INTERVALS. ALIGN CURB, GUTTER AND SIDEWALK JOINTS.
  2. PLACE JOINT FILLER BETWEEN PAVING COMPONENTS AND BUILDING OR OTHER APPURTENANCES WITH A SIKAFLEX-1C SL SEALANT OR SIMILAR
  3. PROVIDE SCORED JOINTS AT 5 FOOT INTERVALS

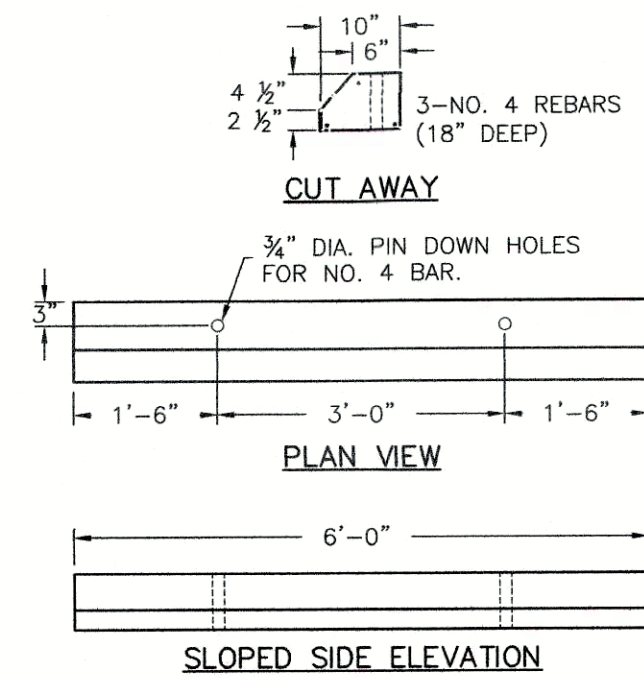
**CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE



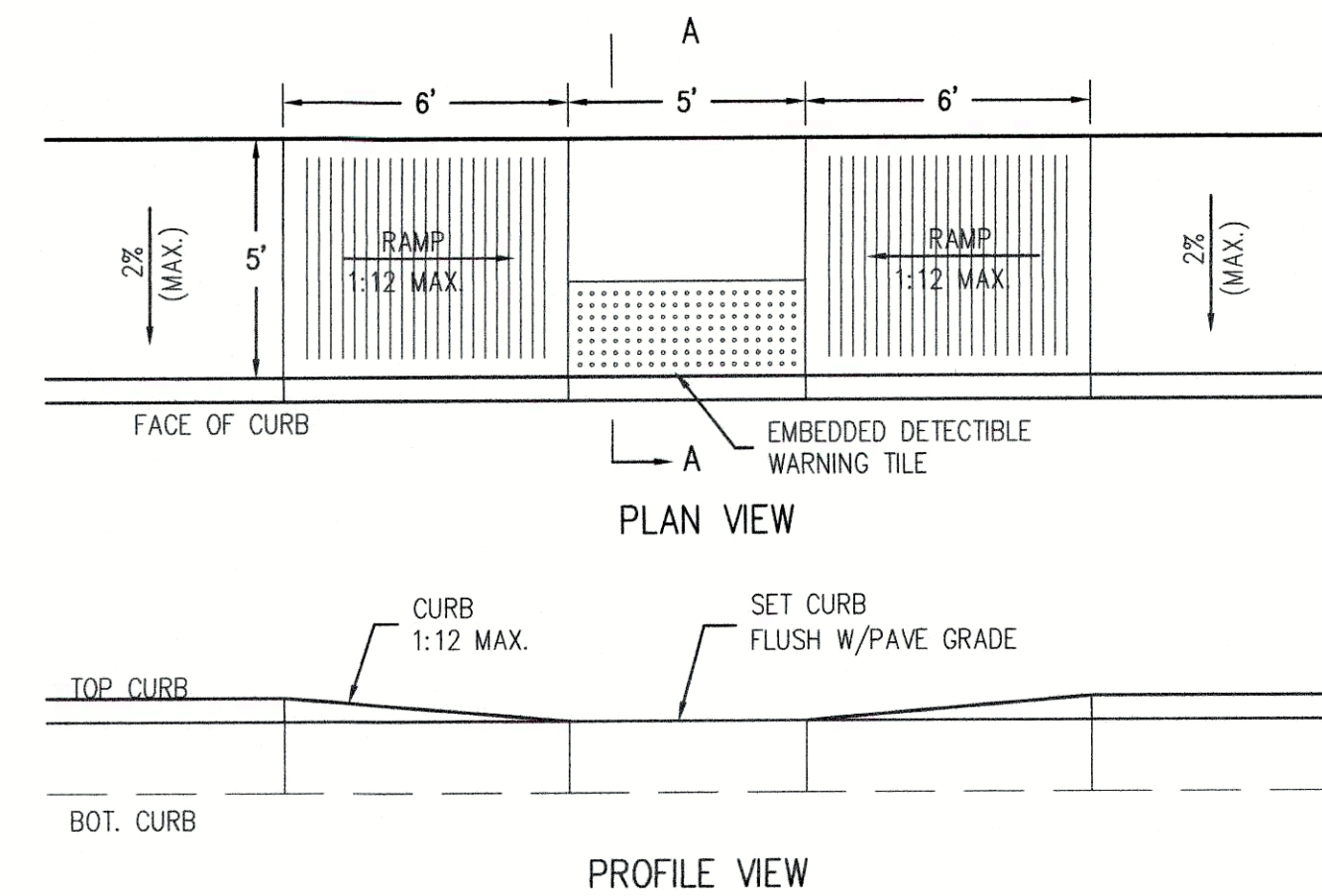
**UNREINFORCED RETAINING WALL (<4 FEET)**  
TYPICAL SECTION  
NOT TO SCALE



**TYPICAL PAVEMENT SECTION**  
NOT TO SCALE

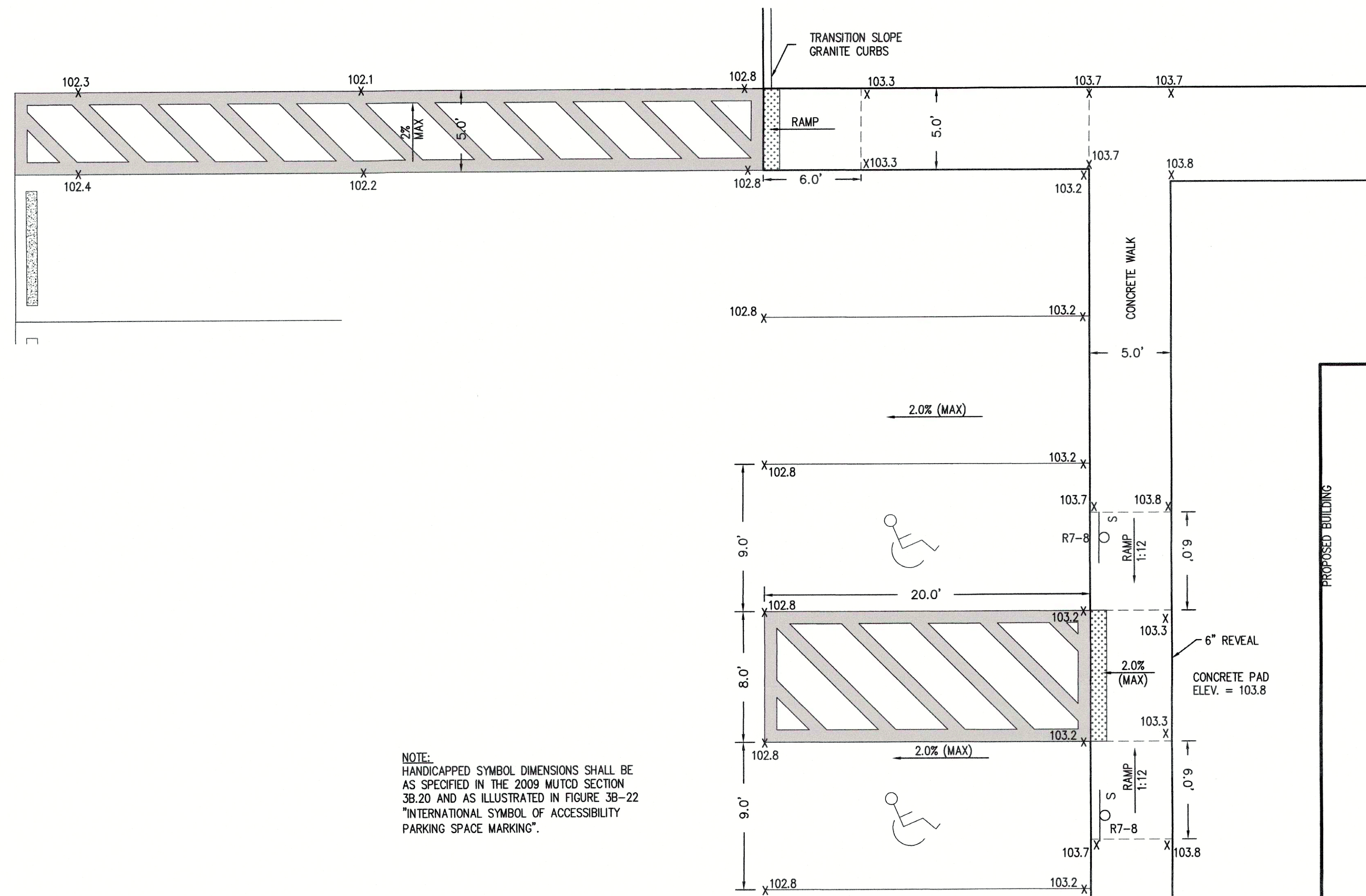


**SINGLE SIDE PARKING BUMPER DETAIL**  
NOT TO SCALE



- NOTES:
1. REFER TO CURB DETAIL FOR SPECIFICATIONS PERTAINING TO INSTALLATION OF CURBING.
  2. RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND MAAB STANDARDS.
  3. DETECTIBLE WARNING TILES TO BE AS MANUFACTURED BY ADA SOLUTIONS, INC.

**TYP. HANDICAPPED RAMP**  
SCALE: 1"=4'



NOTE:  
HANDICAPPED SYMBOL DIMENSIONS SHALL BE AS SPECIFIED IN THE 2009 MUTCD SECTION 3B.20 AND AS ILLUSTRATED IN FIGURE 3B-22 "INTERNATIONAL SYMBOL OF ACCESSIBILITY PARKING SPACE MARKING".

**ACCESSIBLE ROUTE DETAIL**  
1"=5'

PREPARED BY:

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APPLICANT:

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BOLTON, MASSACHUSETTS

SCALE:

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SEAL OF THE COMMONWEALTH OF MASSACHUSETTS  
GREGORY S. ROY  
NOTARY PUBLIC  
11/25/16

DATE: 9/2/2015

DESIGN BY: BJD

DRAWN BY: PJW

CHECKED BY: GSR

**DETAIL SHEET**  
470 MAIN STREET - ROUTE 117  
BOLTON, MASSACHUSETTS

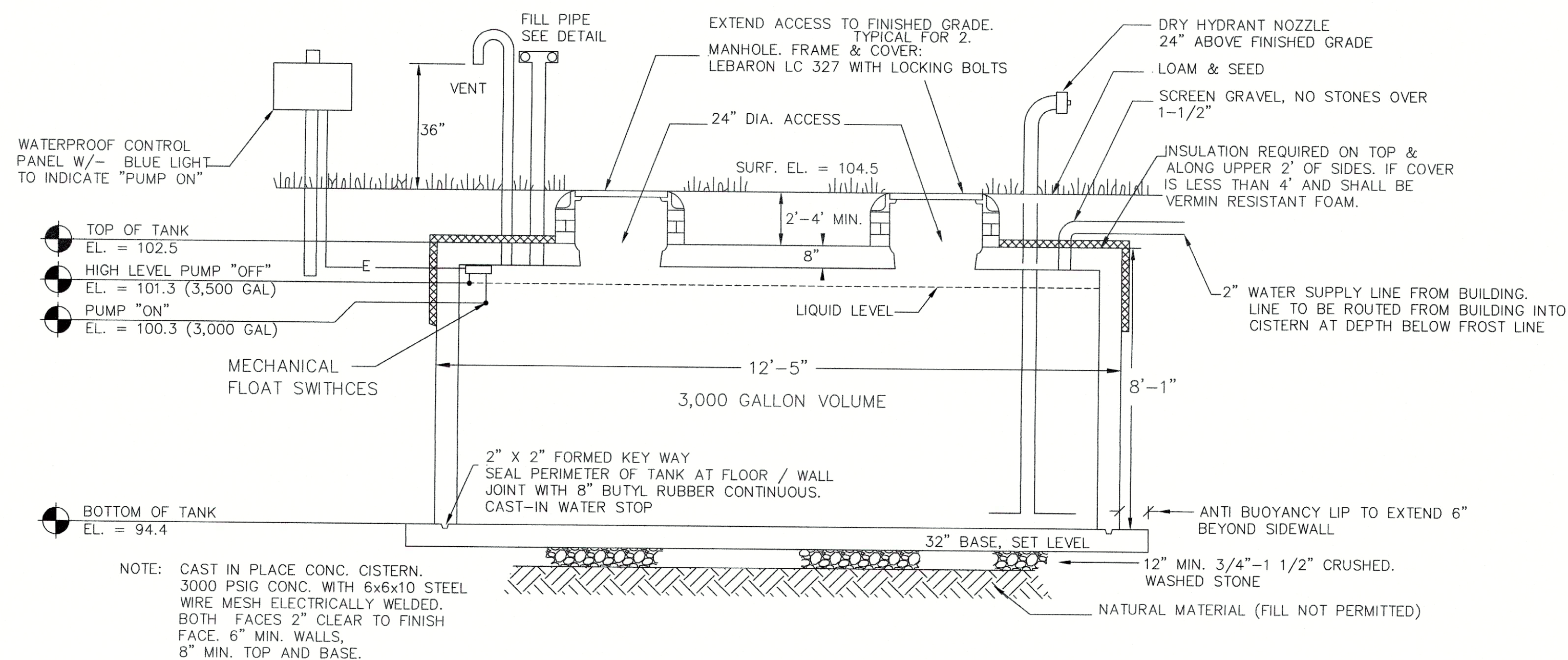
| NO. | DATE     | DESCRIPTION                      | BY  |
|-----|----------|----------------------------------|-----|
| 1.  | 9/17/15  | REV. FOR P.B. SUBMITTAL          | GSR |
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| 5.  | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO. 4932

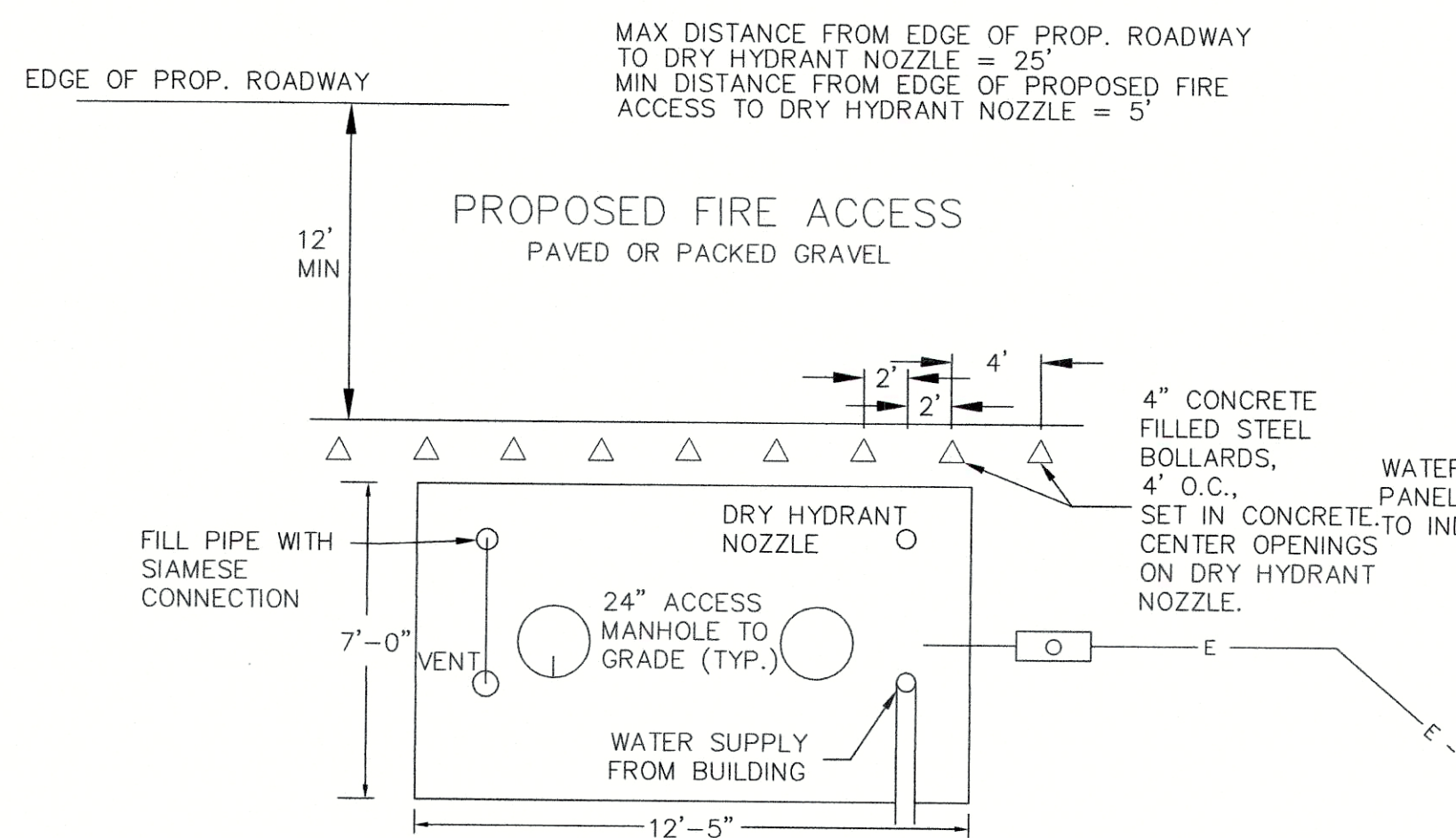
DRAWING NO. 4932-DETAIL

SHEET NO. C5.0

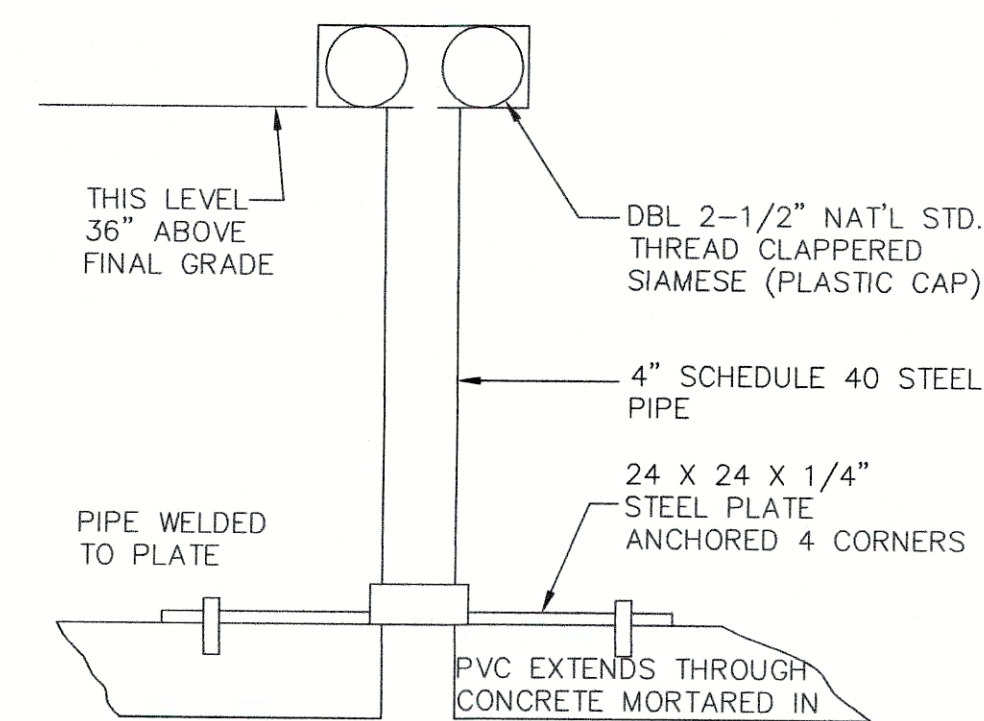




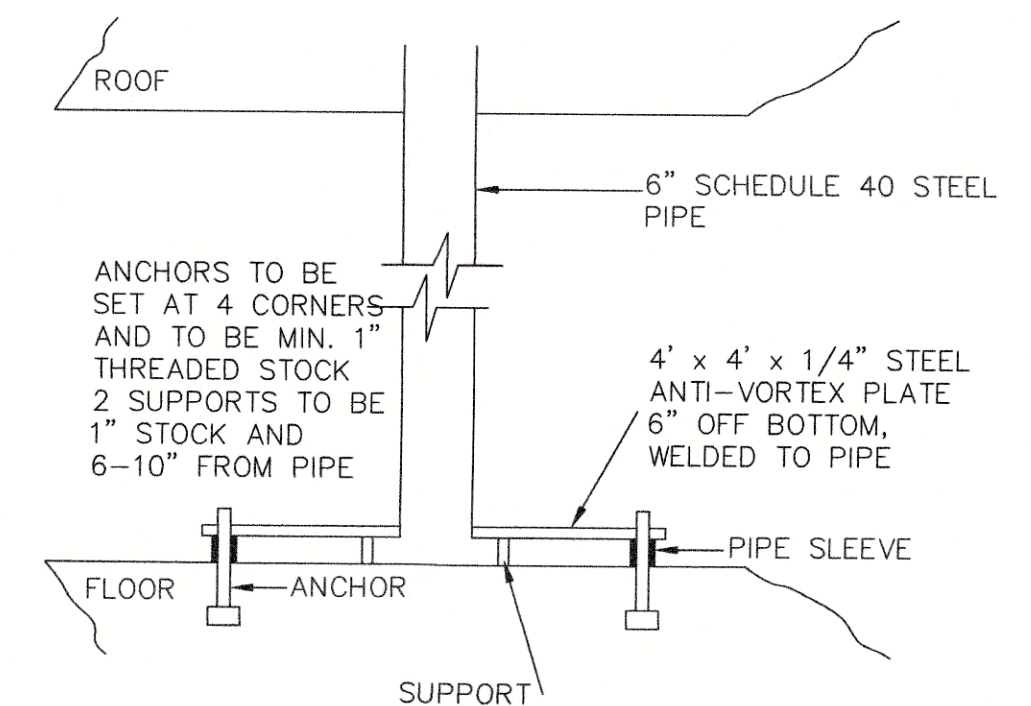
**3,000 GALLON FIRE CISTERN PROFILE**  
NOT TO SCALE



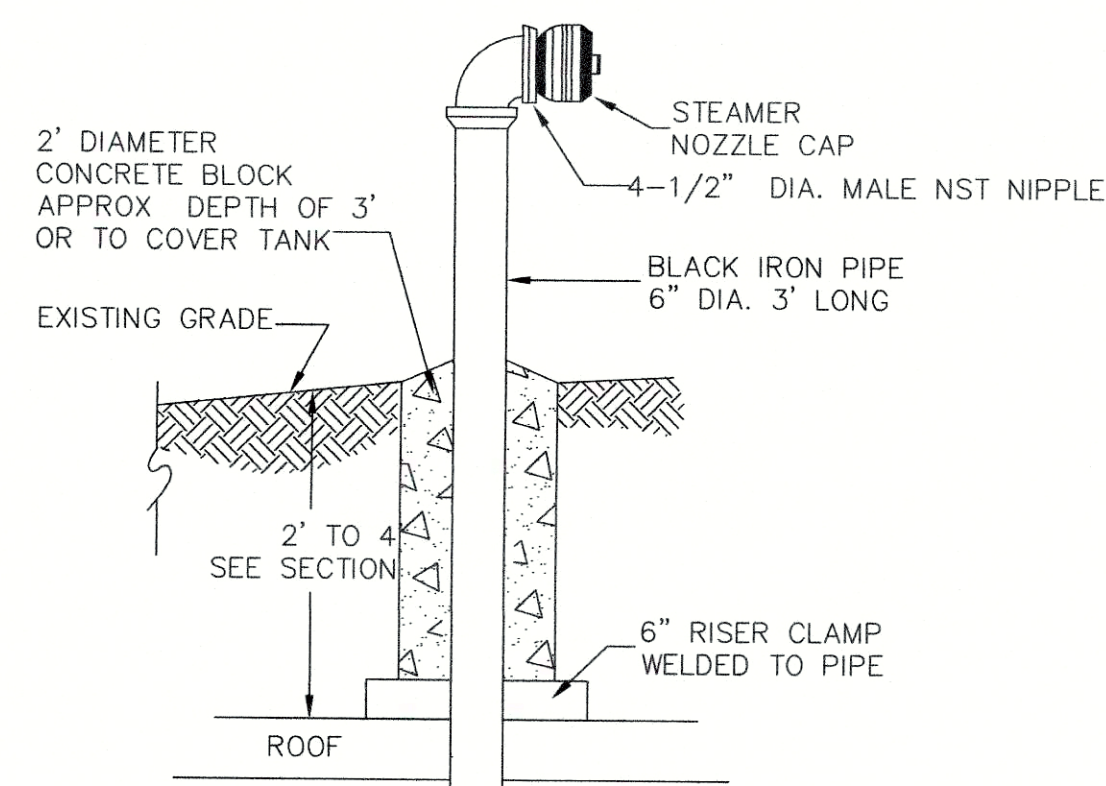
**FIRE CISTERN PLAN VIEW**  
NOT TO SCALE



**CISTERN FILL PIPE**  
NOT TO SCALE



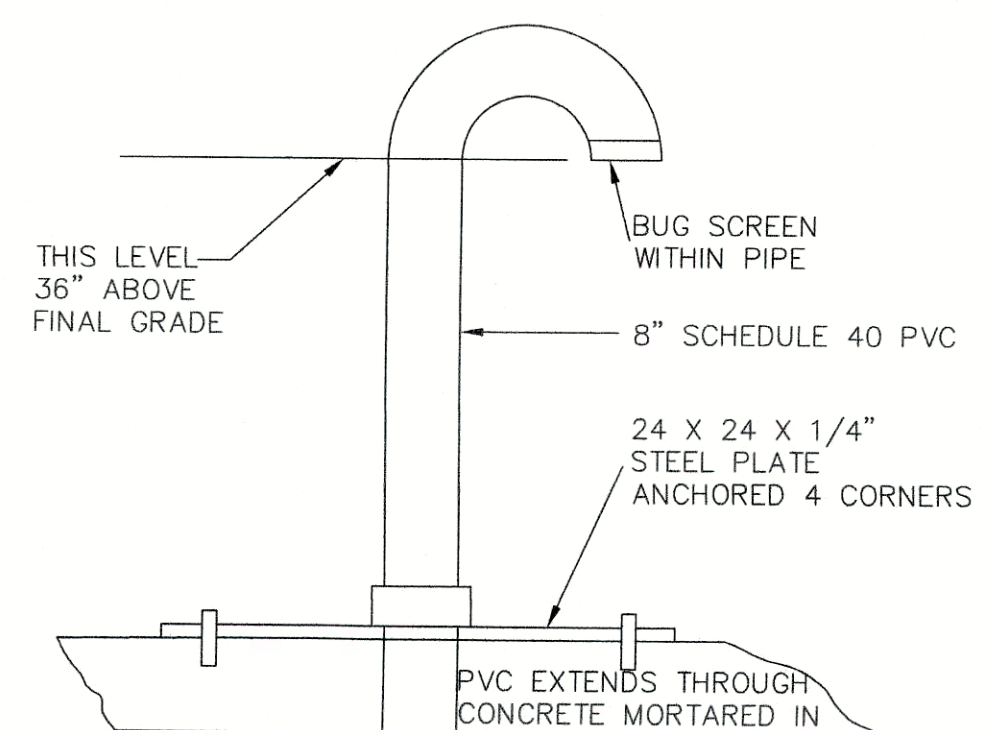
**CISTERN LOWER SUCTION PIPE**  
NOT TO SCALE



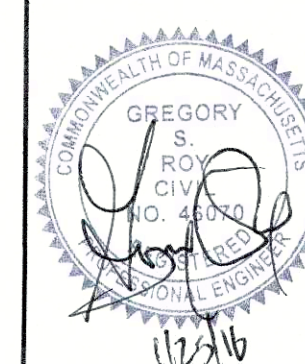
GENERAL NOTES: FOR ALT. PRECAST STRUCTURES  
INSTALL CAST-IN HIGH DENSITY POLYURETHANE STEPS 18" O.C., MIN. 4 (OUTLET SIDE ONLY)  
PRECAST STEEL REINFORCED CHAMBER CAPABLE OF DIRECT AASHTO HS-20-44 LOADING EQUAL TO ROTONDO LWT 8x10-23 W/ BAFFLE WITH INTERIOR BAFFLES, SUBMIT SHOP DRAWING OF TANK AND ALL CONNECTIONS  
MORTAR ALL JOINTS & CONNECTIONS WATERTIGHT PROVIDE FLEXIBLE PIPE JOINT WITHIN 4'.  
ALL JOINTS, CHAMBER AND MATERIALS TO BE WATERTIGHT ONCE CONSTRUCTED & IN PLACE. FOR APPROVAL

GENERAL NOTES: CAST IN PLACE STRUCTURE  
BOTTOM SUCTION LINE TO PUMPER CONNECTION SHALL NOT EXCEED 14' MAXIMUM.  
A PRECAST STRUCTURE(S) MAY BE SUBSTITUTED SUBJECT TO THE APPROVAL OF THE DESIGN ENGINEER AND FIRE CHIEF. STRUCTURE(S) SHALL BE GUARANTEED WATERTIGHT.

**CISTERN DRY HYDRANT DETAIL**  
NOT TO SCALE

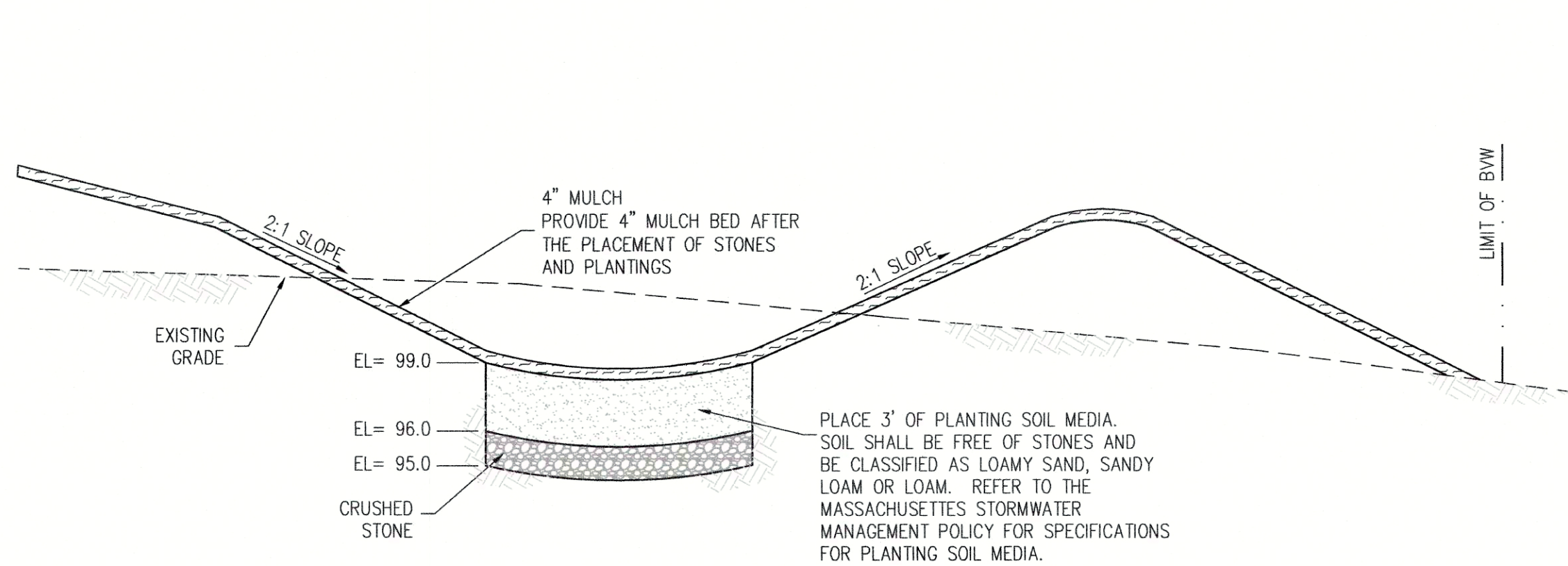


**CISTERN VENT PIPE**  
NOT TO SCALE

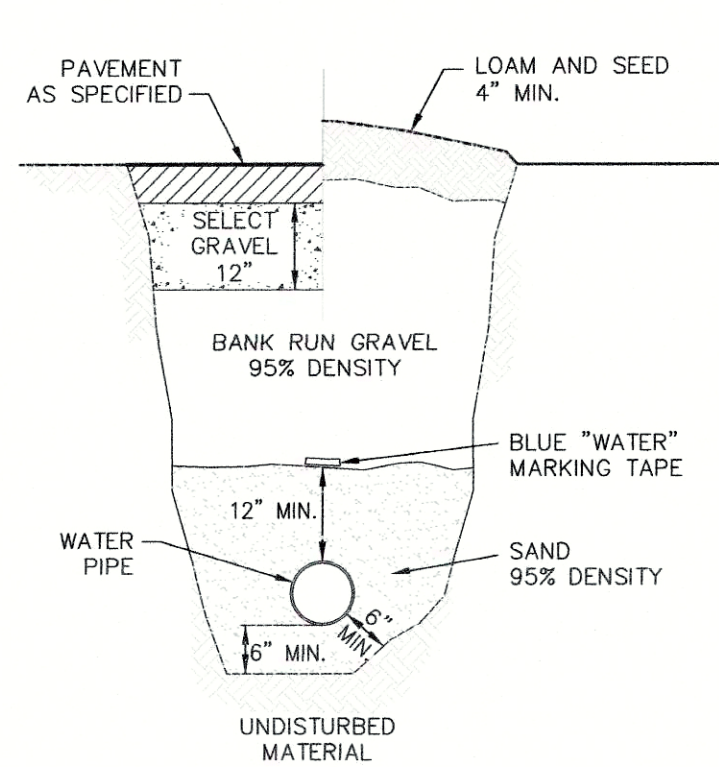


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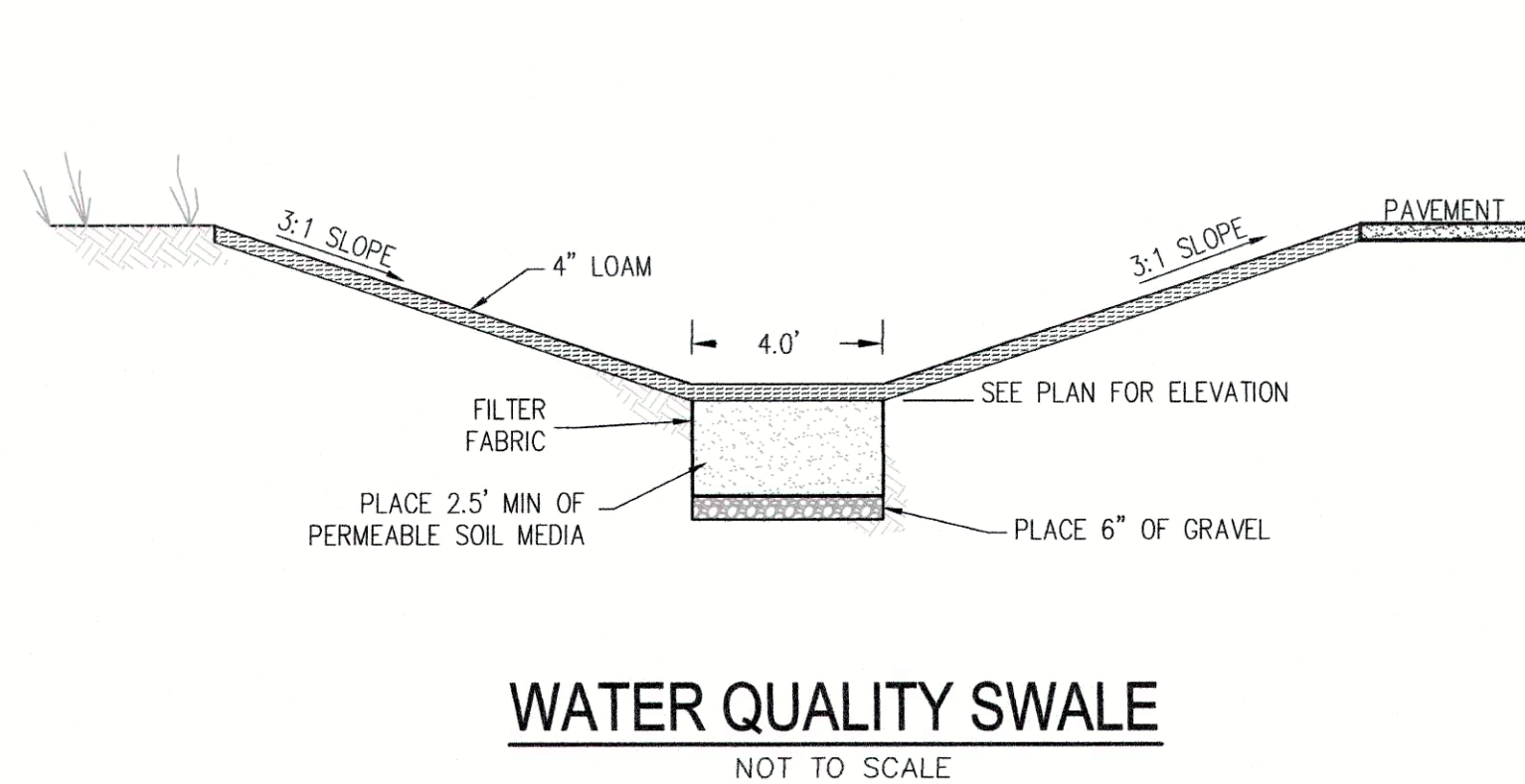




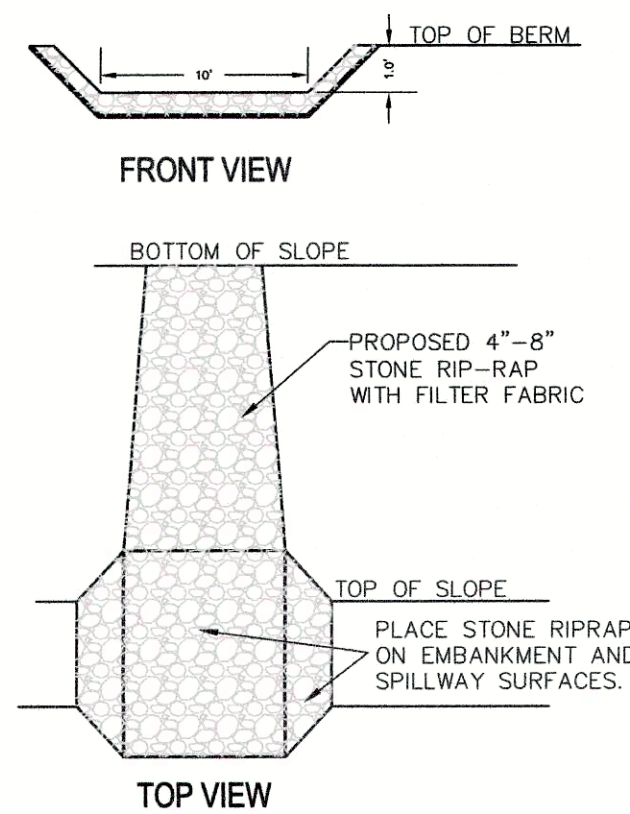
**BIO-RETENTION DETAIL**  
NOT TO SCALE



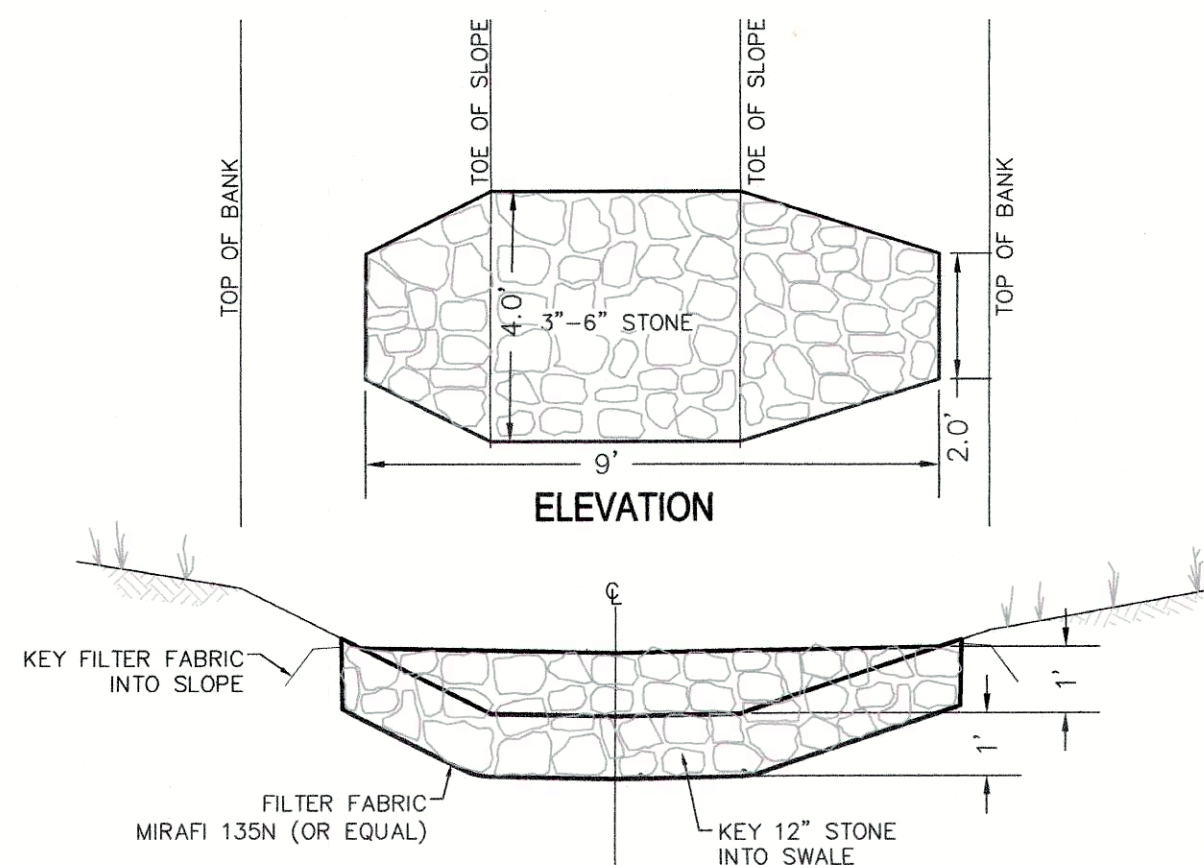
**WATER MAIN TRENCH DETAIL**  
NOT TO SCALE



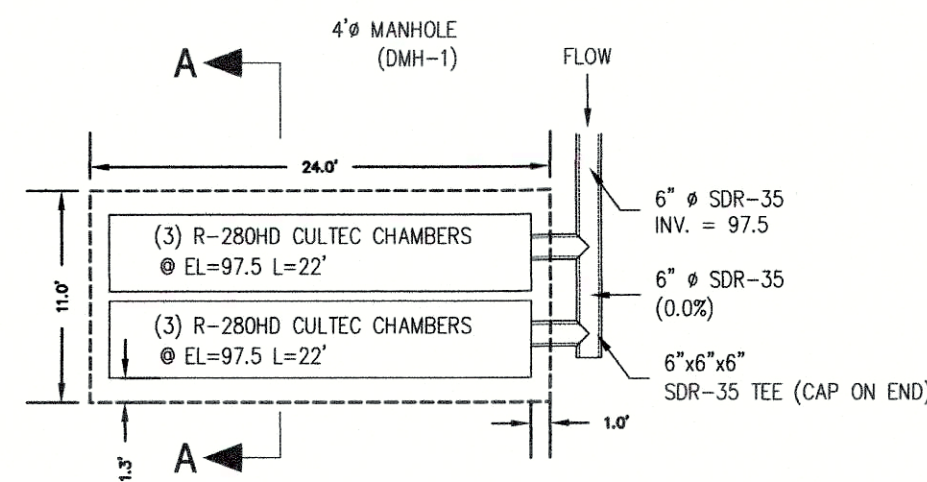
**WATER QUALITY SWALE**  
NOT TO SCALE



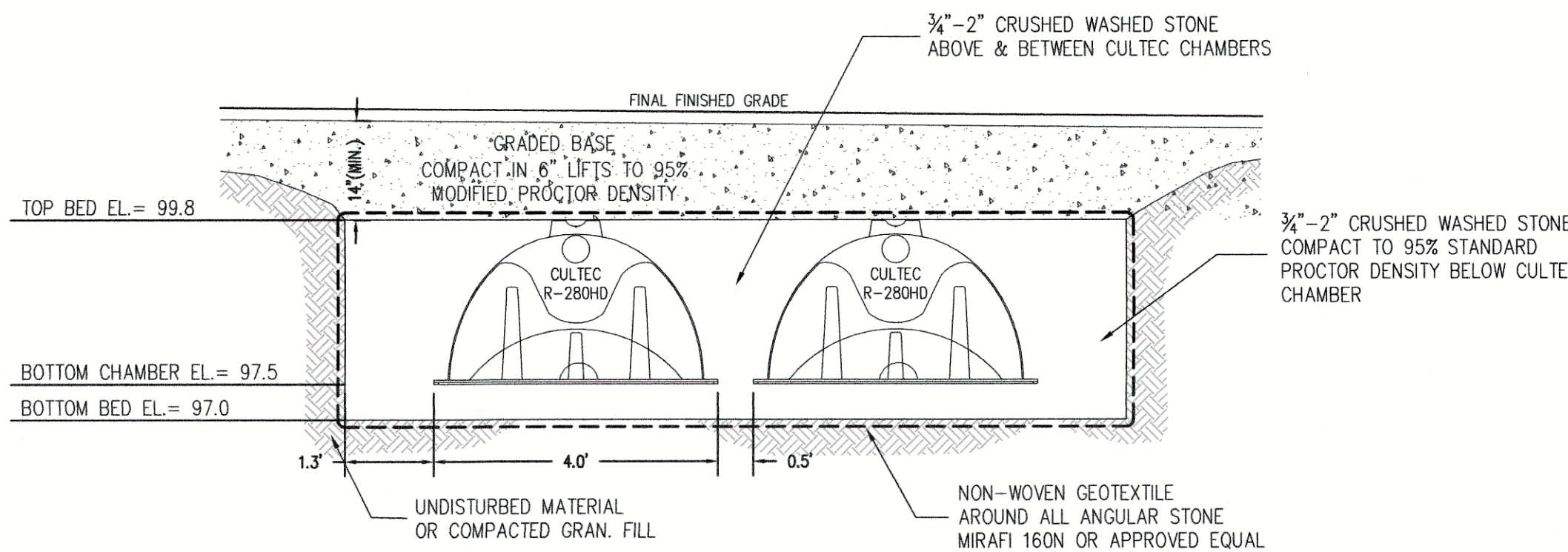
**RIP RAP WEIR DETAIL**  
NOT TO SCALE



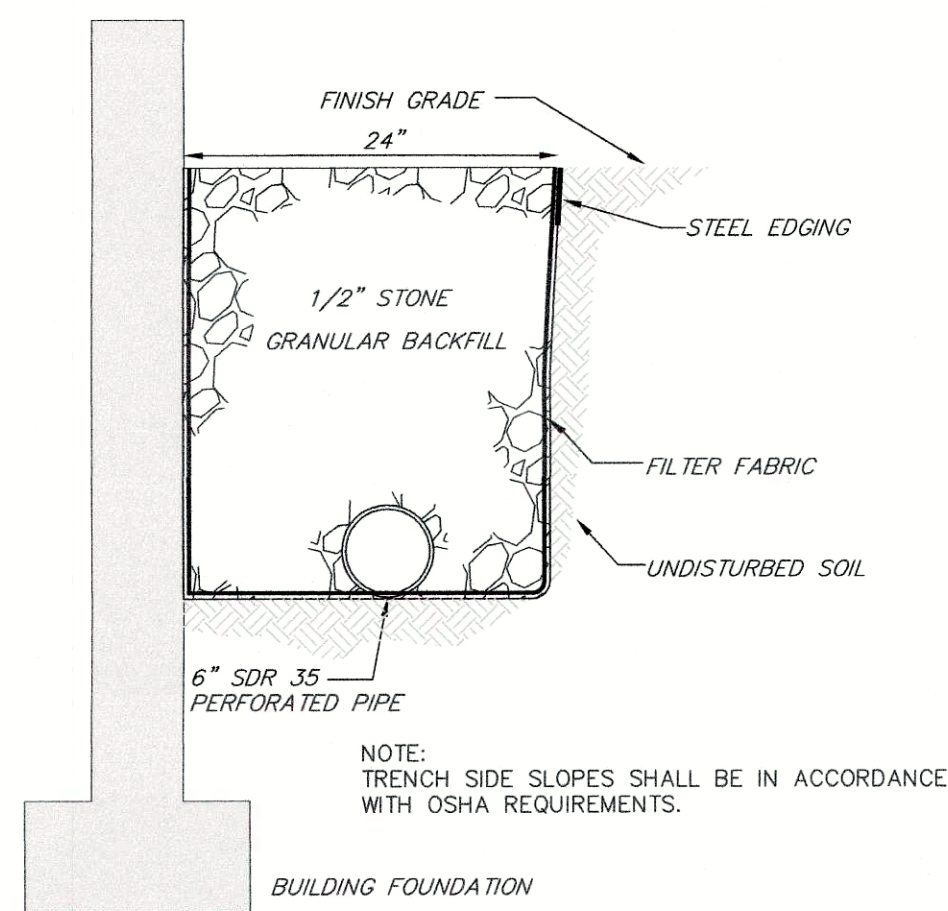
**CROSS-SECTION CHECK DAM DETAIL**  
NOT TO SCALE



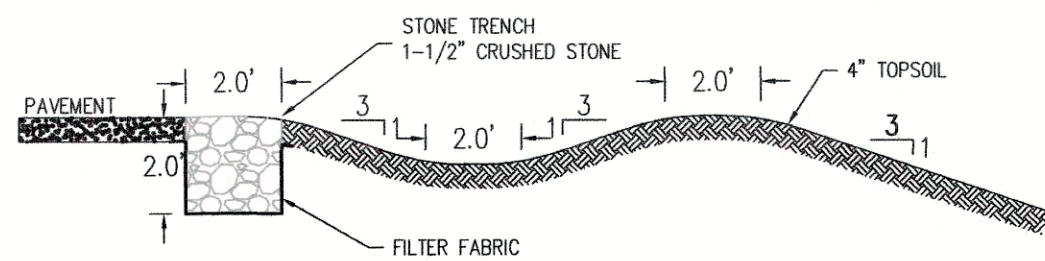
**INFILTRATION AREA**  
SCALE: 1"=10'



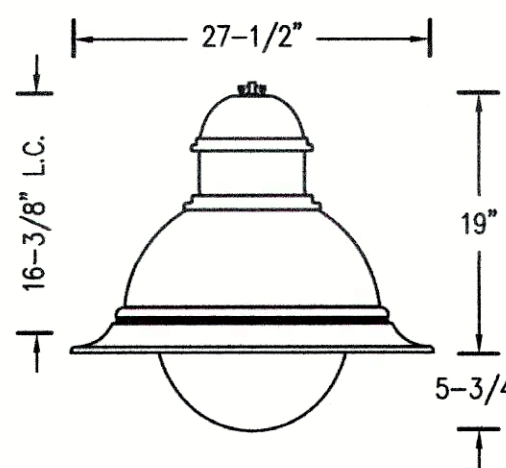
**SECTION A-A**  
SCALE: 1"=2'



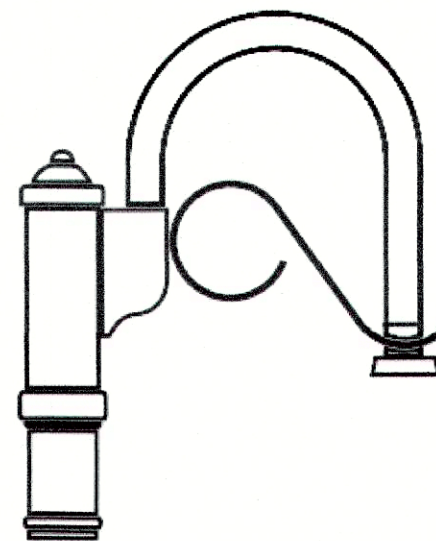
**PERIMETER DRAIN**  
NOT TO SCALE



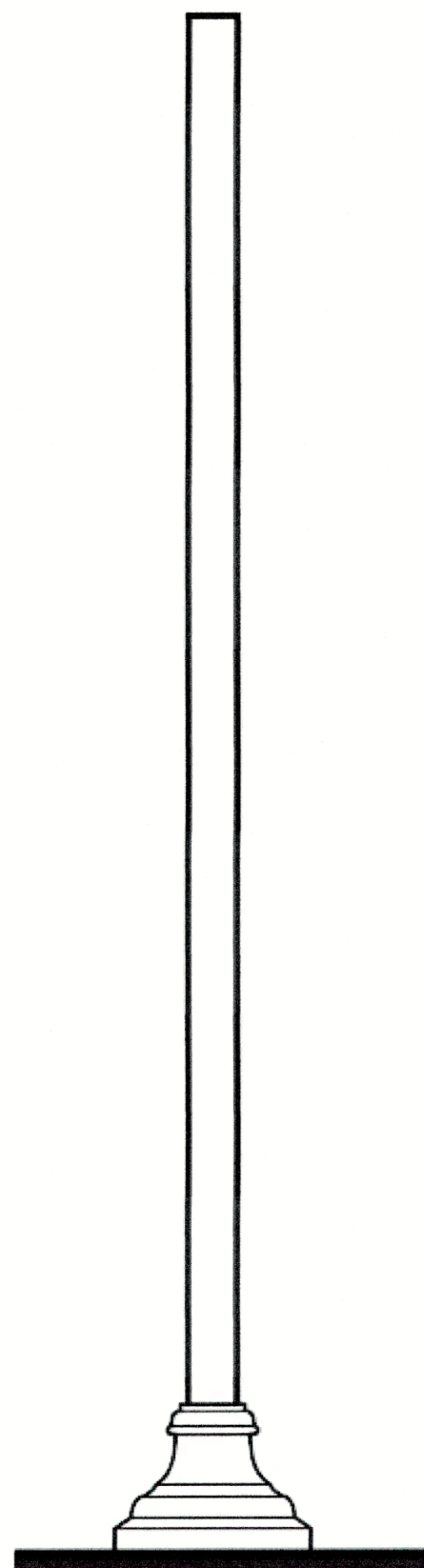
**GRASS SWALE DETAIL**  
NOT TO SCALE



**DMS50-SG-DL LUMINAIRES**



**LM MOUNTING**



**APR4-LBC3 POLE**

**LIGHT POLE DETAIL**  
NOT TO SCALE

PREPARED BY:

**DUCHARME & DILLIS**  
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OWNER:

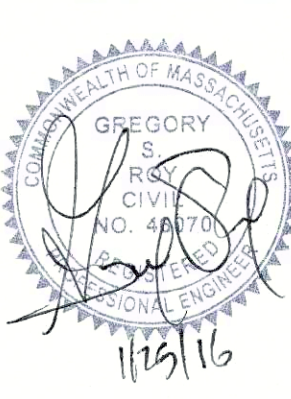
HOUE TRUST REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS

APPLICANT:

HOUE REALTY TRUST  
476 MAIN STREET  
BOLTON, MASSACHUSETTS

SCALE:

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DATE:

9/2/2015

DESIGN BY:

BJD

DRAWN BY:

PJW

CHECKED BY:

GSR

| DETAIL SHEET   |          |                                  |     |
|--|----------|----------------------------------|-----|
| 470 MAIN STREET - ROUTE 117<br>BOLTON, MASSACHUSETTS |          |                                  |     |
| NO.  | DATE     | DESCRIPTION                      | BY  |
| 1.   | 9/17/15  | REV. FOR P.B. SUBMITTAL          | GSR |
| 2.   | 11/18/15 | REV. PER REVIEW COMMENTS         | GSR |
| 3.   | 12/4/15  | REV. PER REVIEW COMMENTS         | GSR |
| 4.   | 1/19/16  | REV. PER PLANNING BOARD COMMENTS | GSR |
| 5.   | 1/25/16  | REV. PER PLANNING BOARD COMMENTS | GSR |

JOB NO.

4932

DRAWING NO.

4932-DETAIL

SHEET NO.

**C5.2**



