

DETENTION POND VOLUME SCHEDULE:

POND 1			
ELEV.	AREA	INC. VOL.	TOTAL VOL.
98	1,249 SF	0 CF	0 CF
99	1,713 SF	1,475 CF	1,475 CF
100	3,979 SF	2,687 CF	4,162 CF
101	6,124 SF	4,914 CF	9,076 CF (OR 336 C.YD)

POND 2			
ELEV.	AREA	INC. VOL.	TOTAL VOL.
98	2,656 SF	0 CF	0 CF
99	6,316 SF	4,356 CF	4,356 CF
100	9,321 SF	7,770 CF	12,126 CF
101	13,392 SF	11,295 CF	23,421 CF (OR 876 C.YD)

RESERVED FOR REGISTRY USE

SPECIAL PERMIT APPROVAL IN ACCORDANCE WITH THE TOWN OF BOLTON ZONING BYLAW § 250.17.B – COMMON DRIVEWAYS

_____)
_____)
_____)
_____) BEING A MAJORITY OF THE BOLTON PLANNING BOARD
_____)
_____)
_____)


DATE ENDORSED: _____

SPECIAL PERMIT ISSUED BY BOLTON PLANNING BOARD FILED WITH THE TOWN CLERK ON _____

I, _____, CLERK OF THE TOWN OF BOLTON HEREBY CERTIFY THAT THE NOTICE OF THE APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED BY THIS OFFICE AND NO APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT AFTER RECEIPT AND RECORDING OF SAID NOTICE.

BOLTON TOWN CLERK _____ DATE _____

PREPARED BY:

**DUCHARME & DILLIS**
Civil Design Group, Inc.
CIVIL ENGINEERS • LAND SURVEYORS • WETLAND CONSULTANTS
1092 MAIN STREET, P.O. BOX 428
BOLTON, MASSACHUSETTS 01740

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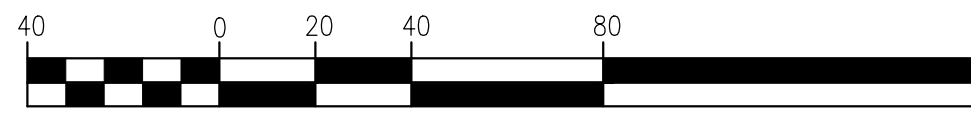
OWNER:

PAUL & JENNIFER LANDERS
649 MAIN STREET
BOLTON, MASSACHUSETTS

APPLICANT:

PAUL & JENNIFER LANDERS
649 MAIN STREET
BOLTON, MASSACHUSETTS

SCALE:


1 in. = 40 ft.

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DATE: 6/8/17

DESIGN BY: JPL

DRAWN BY: JPL

CHECKED BY: GSR

GRADING & DRAINAGE PLAN

649 MAIN STREET

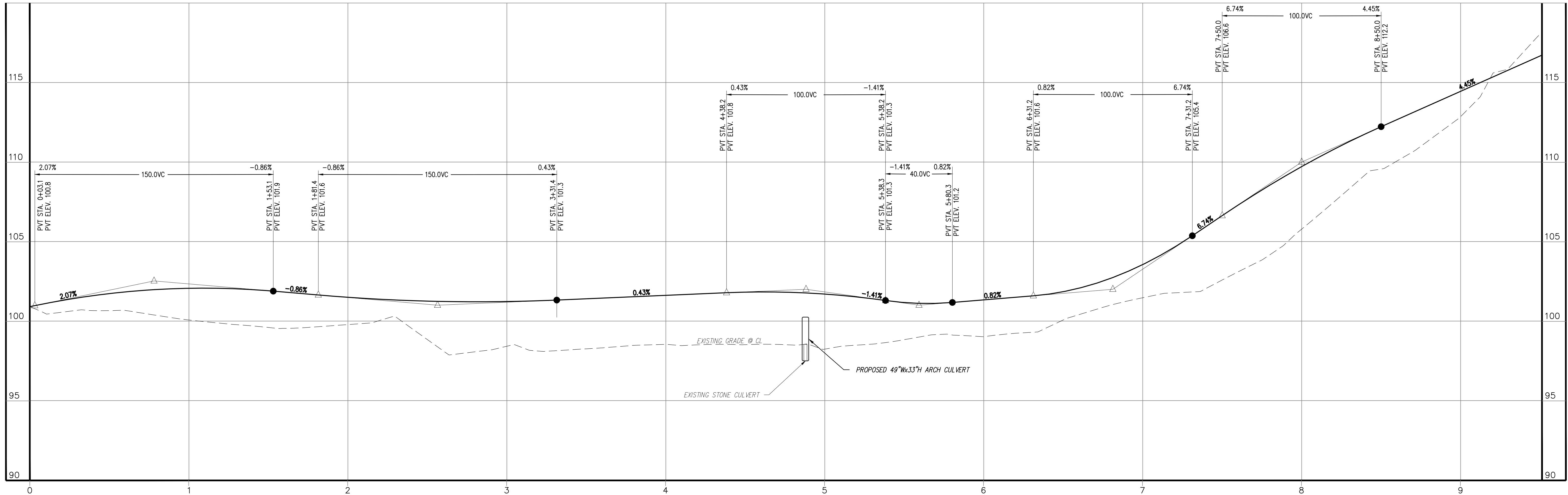
BOLTON, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY

JOB NO. 5244

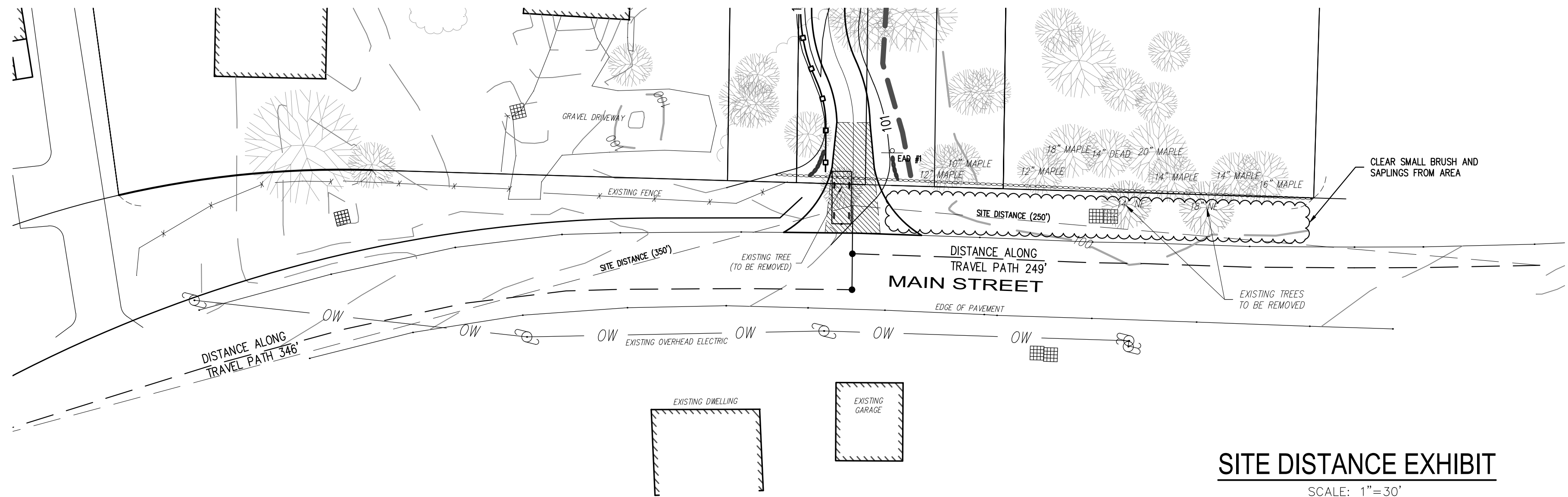
DRAWING NO. 5244-COMMON DRIVEWAY

SHEET NO. 2 OF 5



DRIVEWAY PROFILE

SCALE: 1" = 30' (HOR.)
1" = 3' (VERT.)



SITE DISTANCE EXHIBIT

SCALE: 1"=30'

SPECIAL PERMIT APPROVAL IN ACCORDANCE WITH THE TOWN OF BOLTON ZONING BYLAW § 250.17.B – COMMON DRIVEWAYS

BEING A MAJORITY OF THE BOLTON PLANNING BOARD

DATE ENDORSED: _____

SPECIAL PERMIT ISSUED BY BOLTON PLANNING BOARD FILED WITH THE TOWN CLERK ON _____

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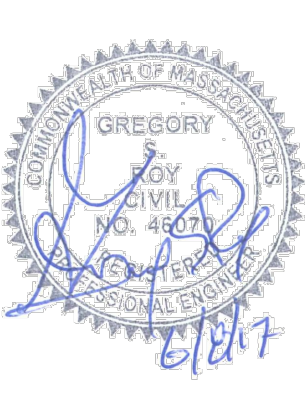
BOLTON TOWN CLERK

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BOLTON, MASSACHUSETTS
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649 MAIN STREET
BOLTON, MASSACHUSETTS

SCALE:
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DATE: 6/8/17
DESIGN BY: JPL
DRAWN BY: JPL
CHECKED BY: GSR

PROFILE SHEET 649 MAIN STREET BOLTON, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY

JOB NO. 5244
DRAWING NO. 5244-COMMON DRIVEWAY
SHEET NO. 3 OF 5

NOTES/SPECIFICATIONS:

ALL CONSTRUCTION SHALL CONFORM TO THE BOLTON PLANNING BOARD RULES & REGULATIONS FOR COMMON DRIVEWAYS AND THE BOLTON ZONING BYLAW SECTION 2.4.1.2 UNLESS OTHERWISE NOTED. IN THE EVENT OF A CONFLICT BETWEEN THE REGULATIONS AND THESE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CLARIFICATION PRIOR TO CONSTRUCTION.

HOUSE – STREET DISTANCE:
THE MAXIMUM DISTANCE FROM THE TRAVELED WAY TO EACH HOUSE MEASURED ALONG THE CENTERLINE OF THE PROPOSED COMMON AND INDIVIDUAL DRIVEWAY SHALL BE 1,800 FEET.

1.0 MATERIALS

- 1.1 BITUMINOUS PAVEMENT
- 1.1.1 ASPHALT FOR COMMON DRIVEWAY SHALL BE 1 1/2" WEARING COURSE, COMPACTED, CONFORMING TO SSHB M03.11.03 TYPE A TOP COURSE OVER 2" BINDER COURSE, COMPACTED, CONFORMING TO SSHB M03.11.03 TYPE A BINDER COURSE.
- 1.1.2 ASPHALT FOR SINGLE FAMILY DRIVEWAYS SHALL BE 1 1/2" WEARING COURSE, COMPACTED, CONFORMING TO SSHB M03.11.03 TYPE A TOP COURSE OVER 1 1/2" BINDER COURSE, COMPACTED, CONFORMING TO SSHB M03.11.03 TYPE A BINDER COURSE.
- 1.1.3 NO FINISH PAVING SHALL OCCUR BETWEEN NOVEMBER 15TH-APRIL 1ST. BASE PAVING BETWEEN NOVEMBER 15TH AND APRIL 1ST SHALL BE AT THE DISCRETION OF THE PLANNING BOARD OR ITS AGENT.
- 1.2 SOIL MATERIALS
- 1.2.1 ROAD GRAVEL SHALL BE PLACED AS SHOWN ON THE ROAD CROSS SECTIONS HEREON. PLACE 8" OF GRAVEL, COMPACTED, CONFORMING TO SSHB M.1.03.0 TYPE C.
- 1.2.2 STRUCTURAL FILL SHALL CONFORM TO SSHB M1.03.0 GRAVEL BORROW.
- 1.2.3 COMMON FILL SHALL CONFORM TO SSHB M1.01.0 ORDINARY BORROW.
- 1.2.4 TOPSOIL SHALL CONFORM TO SSHB M1.07.0 TOPSOIL AND PLANTABLE SOIL BORROW.
- 1.2.5 TOPSOIL USED TO RESTORE THE BOTTOMS OF SWALES SHALL BE A 50%/50% MIX OF M1.07.0 AND M1.04.1 (SAND FOR SUBDRAINS).
- 1.2.6 CULVERT SUBSTRATE – FILL THE BOTTOM 1' OF THE PROPOSED CULVERT WITH NATURAL ROCK SUBSTRATE TO BE AN EVEN GRADATION OF 4" MINUS DOWN TO 3/4".
- 1.3 STONE RIP RAP
- 1.3.1 STONE RIP RAP SHALL BE ANGULAR AND SHALL CONFORM TO SSHB M2.02.3 STONE FOR PIPE ENDS.
- 1.3.2 STONE RIP RAP SHALL BE UNDERLAIN WITH 6" (MIN.) GRAVEL.
- 1.3.3 GRAVEL BASE FOR RIP RAP SHALL BE UNDERLAIN WITH FILTER FABRIC SIMILAR TO TENCATE MIRAFI N140.
- 1.3.4 STONE RIP RAP SHALL BE PLACED IN THE LOCATIONS AND QUANTITIES SHOWN ON THIS PLAN.
- 1.3.5 RIP RAP SHALL BE PLACED SUCH THAT THE TOPS OF THE ROCKS ARE AT FINAL FINISHED GRADE. CONTRACTOR TO EXCAVATE SUBGRADE TO 1.5- FEET (MIN.) BELOW FINAL FINISHED GRADES TO ACCOMMODATE GRAVEL AND STONE RIP RAP.
- 1.4 HEADWALLS
- 1.4.1 REFER TO THE DETAIL HEREON FOR ADDITIONAL INFORMATION.
- 1.4.2 SHALL BE CONSTRUCTED OF FIELDSTONE GROUTED IN PLACE, UNLESS OTHERWISE NOTED.
- 1.4.3 ADJUST MINORAL ANGLES AND ELEVATIONS TO CONFORM TO THE ADJACENT FILL. SET TOP OF WINGWALLS AND HEADWALL 3" ABOVE FINAL FINISHED GRADES MEASURED FROM THE BACK OF THE HEADWALL.
- 1.5 GUARDRAIL
- 1.5.1 GUARDRAIL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED MASS HIGHWAY DETAILS AND PRACTICES.
- 1.5.2 GUARDRAIL SHALL BE WOODEN WITH STEEL REINFORCEMENT CONFORMING TO THE REQUIREMENTS OF MASS HIGHWAY STANDARDS.
- 1.5.3 CONTRACTOR TO SUBMIT DRAWINGS FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION OF THE GUARDRAIL.

2.0 DRAINAGE SPECIFICATIONS

- 2.1 SWALE CONSTRUCTION
- 2.1.1 SWALES SHALL BE CONSTRUCTED AS SHOWN ON THE DRIVEWAY CROSS-SECTION DETAIL HEREON.
- 2.1.2 RIPRAP SHALL BE INSTALLED IN THE SWALE WHEN GRADES ARE 5% OR STEEPER.

3.0 DRIVEWAY AND CULVERT CONSTRUCTION

- 3.1 SINGLE FAMILY DRIVEWAYS SHALL BE 1 1/2" WEARING COURSE, OVER 1 1/2" BINDER COURSE, OVER 8" OF GRAVEL.
- 3.2 SINGLE FAMILY DRIVEWAYS SHALL BE A MINIMUM OF 10- FEET IN WIDTH (MINIMUM).
- 3.3 COMMON DRIVEWAY SHALL BE 1 1/2" WEARING COURSE OVER, 2" BINDER COURSE, OVER 8" GRAVEL.
- 3.4 COMMON DRIVEWAY SHALL BE 12- FEET IN WIDTH (MINIMUM).
- 3.5 REFER TO SECTION 1.0 OF THESE NOTES FOR MATERIAL SPECIFICATIONS.
- 3.6 CULVERT INLETS AND OUTLETS SHALL BE EQUIPPED WITH FLARED END SECTIONS OR HEADWALLS AS SHOWN ON THE PLAN.

4.0 MISCELLANEOUS ITEMS

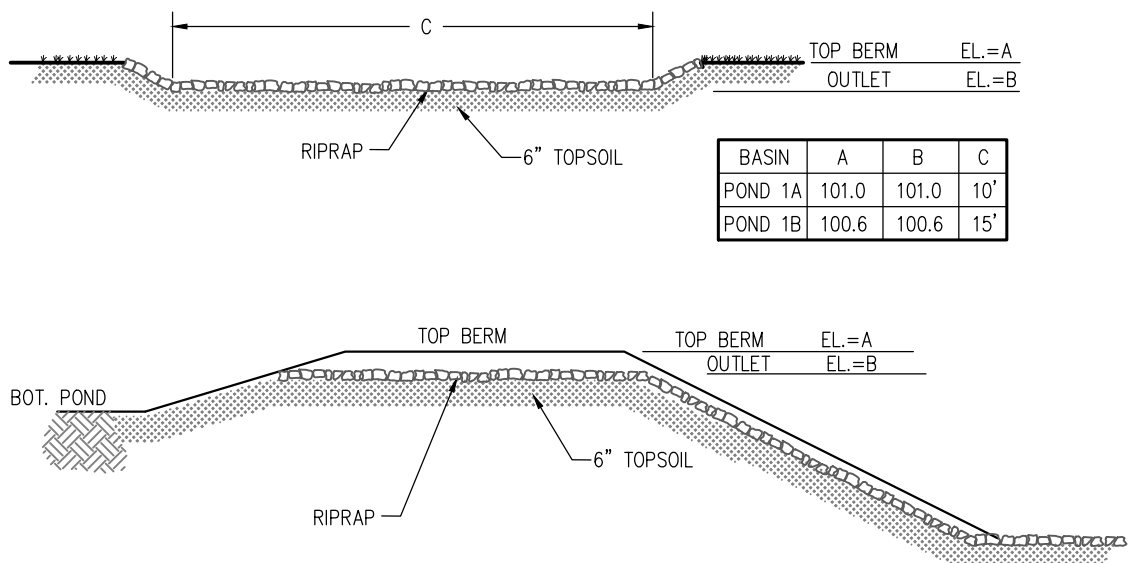
- 4.1 PLACE EMERGENCY ACCESS DIRECTION SIGNS REQUIRED BY THE BOLTON REGULATIONS AT THE LOCATIONS SHOWN ON THE PLAN.

5.0 RESTORATION

- 5.1 RESTORE ALL DISTURBED AREAS WITH A MINIMUM OF 6" TOPSOIL, SEED, FERTILIZER AND MULCH.
- 5.2 THE CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF VEGETATION PRIOR FINAL SIGN-OFF OR REMOVAL OF EROSION CONTROL BARRIERS.
- 5.3 GRASS SEED SHALL BE SELECTED BASED ON THE SHADE/SUN CONDITIONS WHICH WILL EXIST.

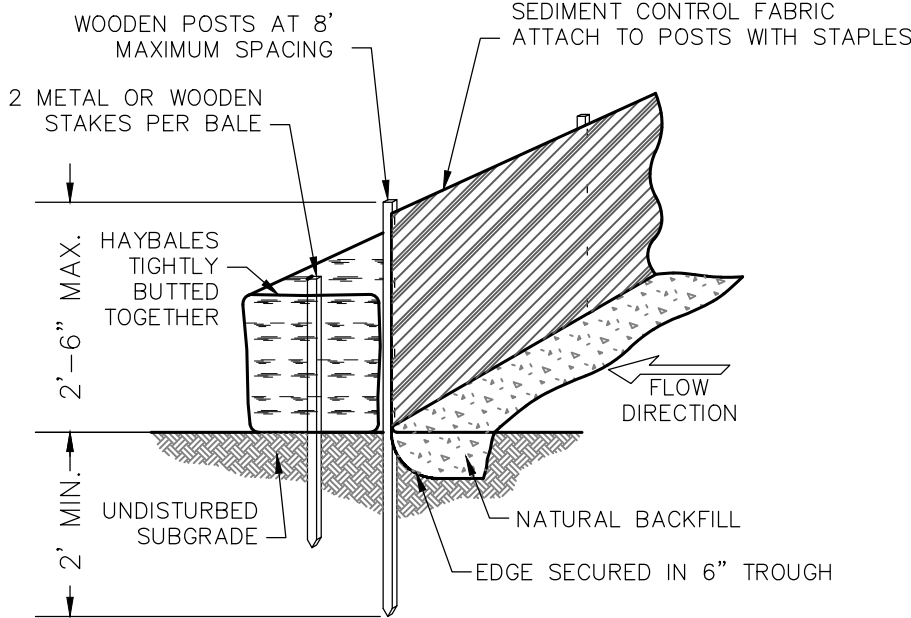
6.0 CONSTRUCTION SEQUENCE

- 6.1 DURING THIS SEQUENCE ALL EROSION CONTROLS SHALL BE INSPECTED AND MAINTAINED. ALL DISTURBED AREAS SHALL BE STABILIZED BY SEEDING OR SOODING AS SOON AS POSSIBLE AFTER GRADING IS COMPLETE. EROSION BARRIERS SHALL BE REMOVED AFTER SLOPE STABILIZATION IS COMPLETE.
- 6.2 INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- 6.3 TREE CLEARING, GRUBBING AND STUMP REMOVAL.
- 6.4 PREPARE WETLAND REPLICATION AREA TO RECEIVE TRANSLOCATED SOIL.
- 6.5 EXCAVATE AND TRANSLOCATE WETLAND SOIL TO THE PROPOSED WETLAND REPLICATION AREA.
- 6.6 EXCAVATE TO SUB-GRADE IN CUT SECTIONS; BRING FILL SECTIONS TO SUB-GRADE USING EXCAVATED SOIL.
- 6.7 INSTALL CULVERT AND PROPOSED RETAINING WALL AT WETLAND CROSSING.
- 6.8 INSTALL ROAD GRAVEL AND ROUGH GRADE SWALES.
- 6.9 CONSTRUCTION STORMWATER MANAGEMENT AREAS.
- 6.10 INSTALL UTILITIES INCLUDING THE DRAINAGE SYSTEM AND SEWER LINE SLEEVES.
- 6.11 FINISH GRADE SWALES.
- 6.12 PLACE RIP RAP IN THE LOCATIONS SPECIFIED ON PLANS.
- 6.13 LOAM, SEED AND MULCH DISTURBED AREAS.
- 6.14 PLACE BINDER COURSE FOR ROADWAY.
- 6.15 REMOVE EROSION CONTROL AFTER SITE HAS BEEN STABILIZED AND AFTER APPROVAL HAS BEEN GIVEN BY THE BOLTON CONSERVATION COMMISSION.



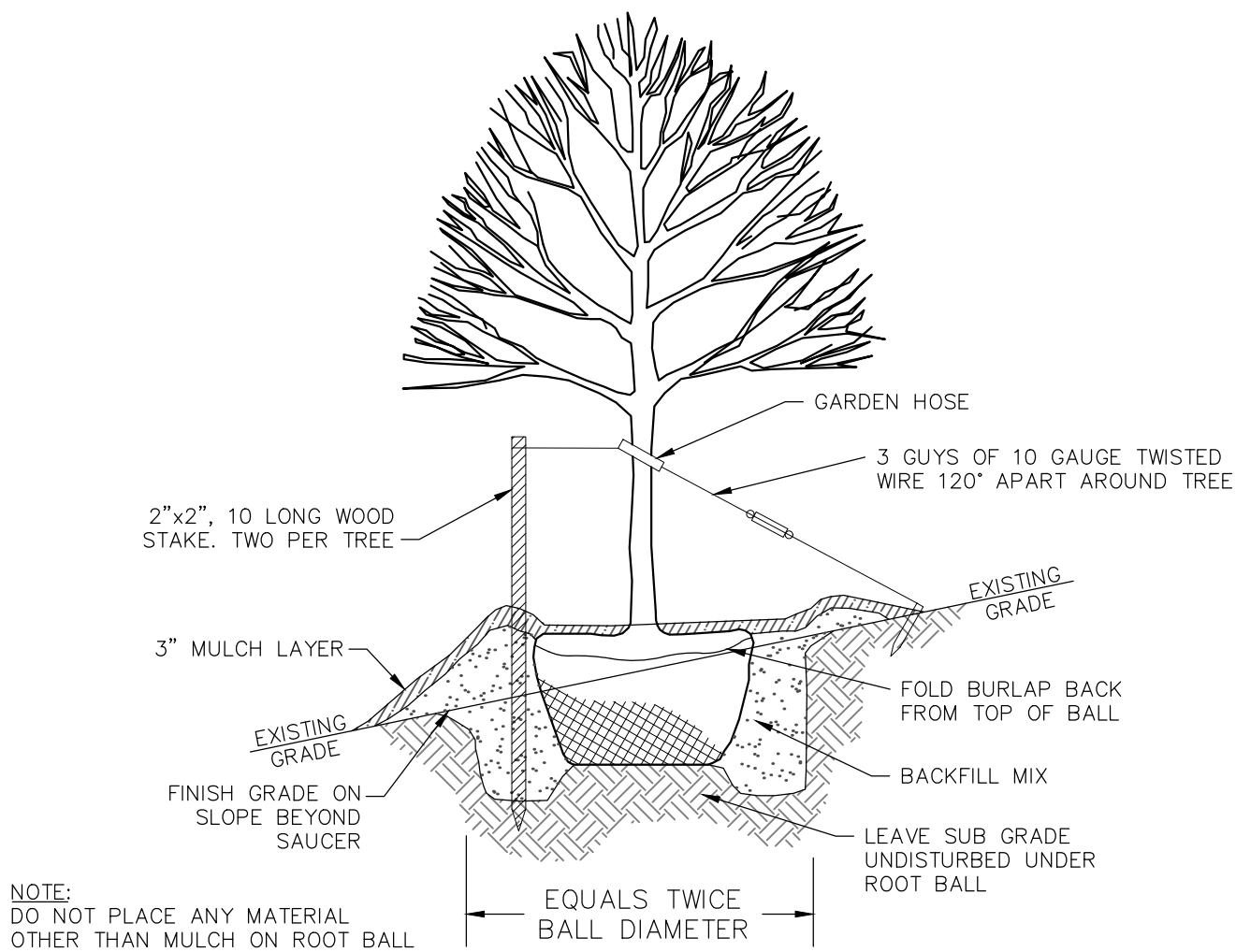
EMERGENCY SPILLWAY

NOT TO SCALE



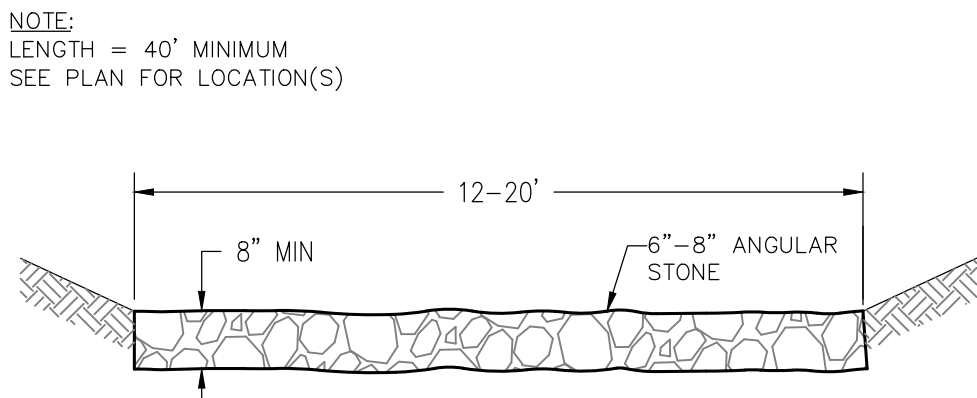
SILTATION BARRIER

NOT TO SCALE



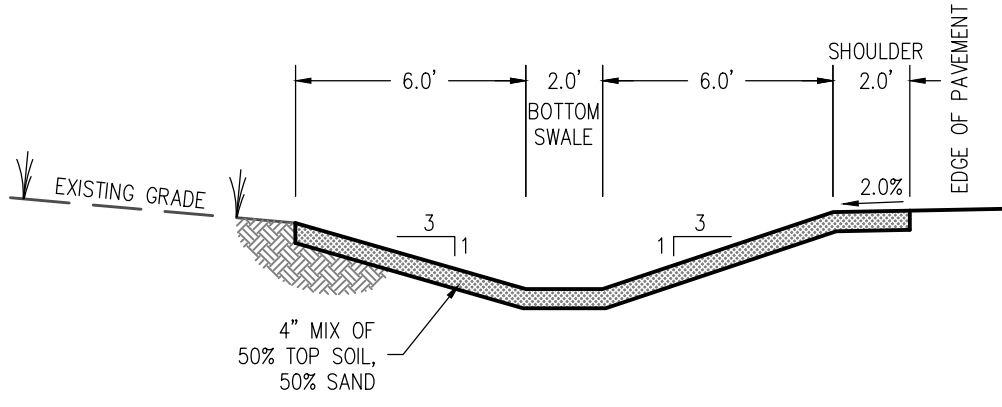
TREE PLANTING DETAIL

NOT TO SCALE



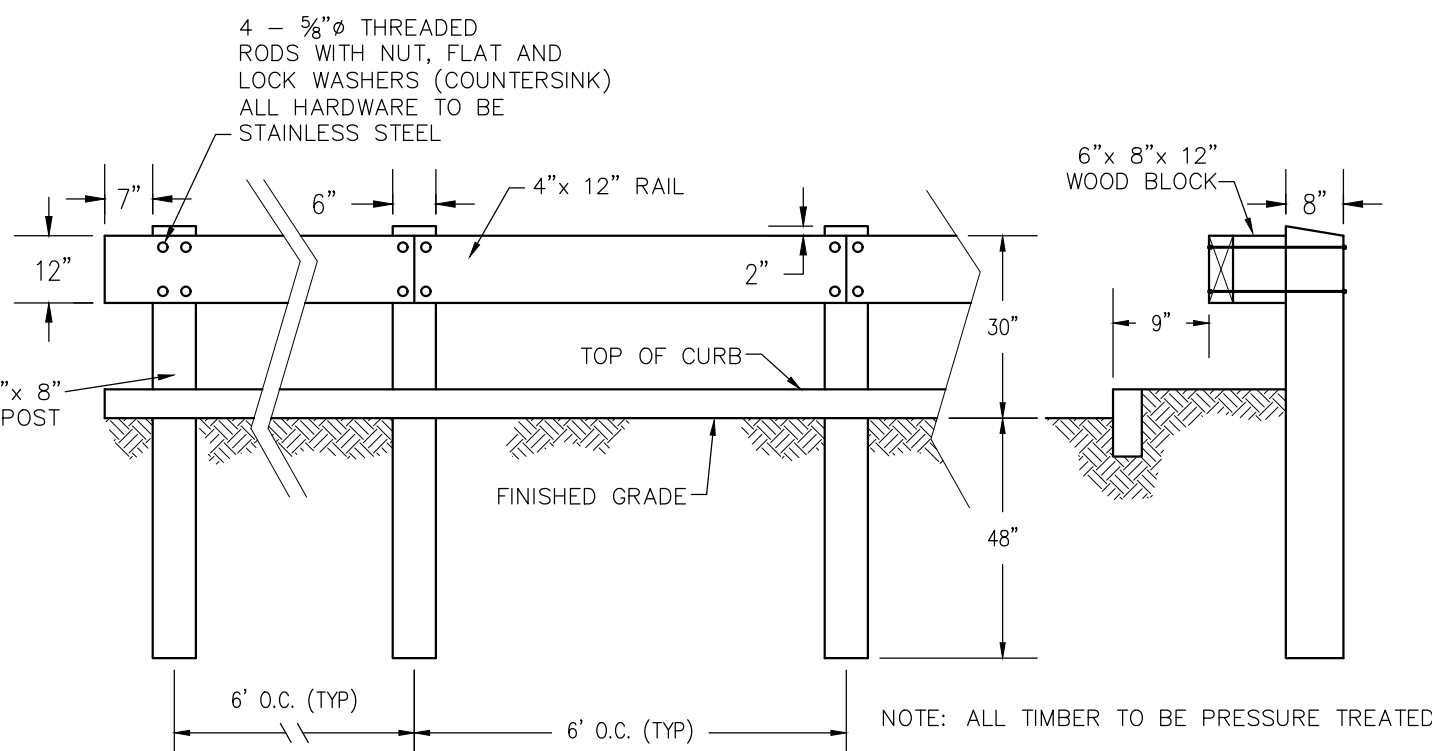
TEMP. CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



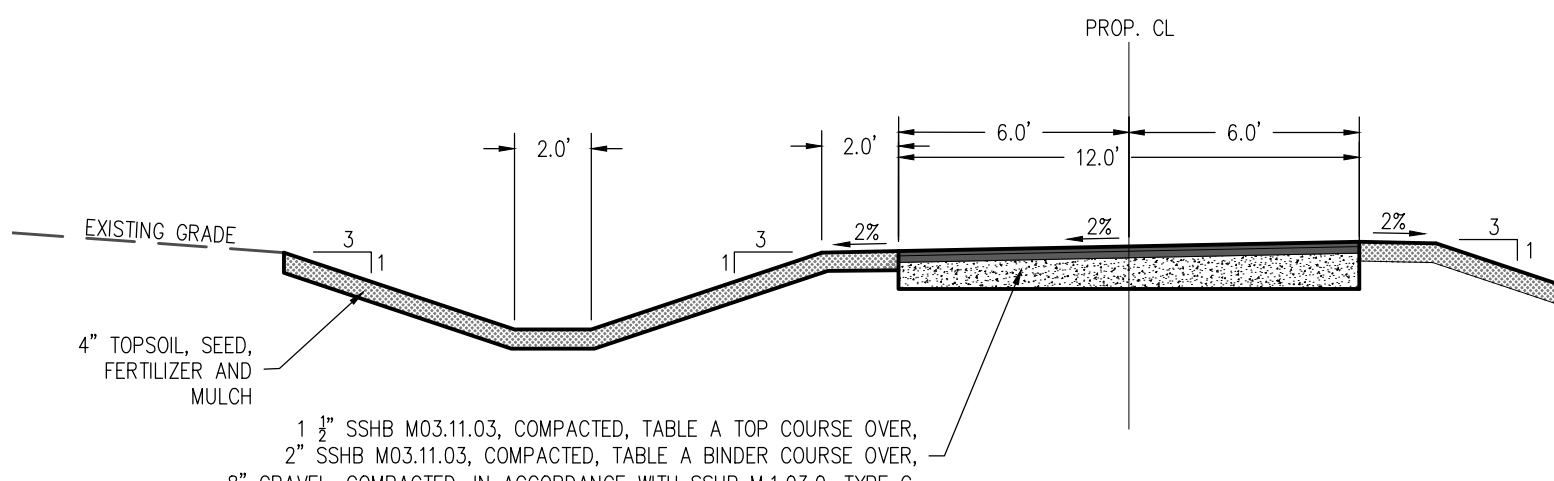
TYPICAL SWALE SECTION

SCALE: 1"=5'



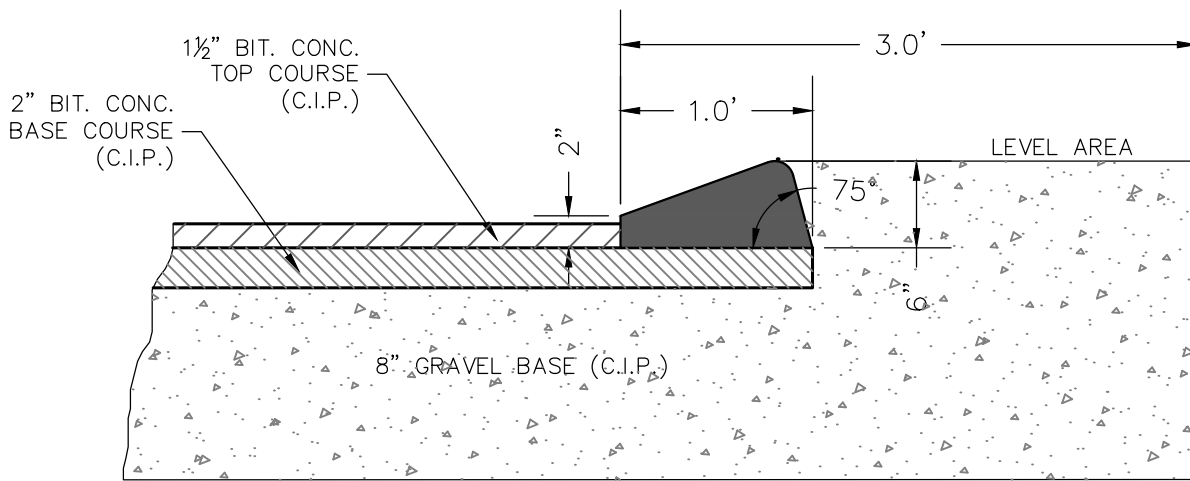
WOODEN GUARDRAIL DETAIL

NOT TO SCALE



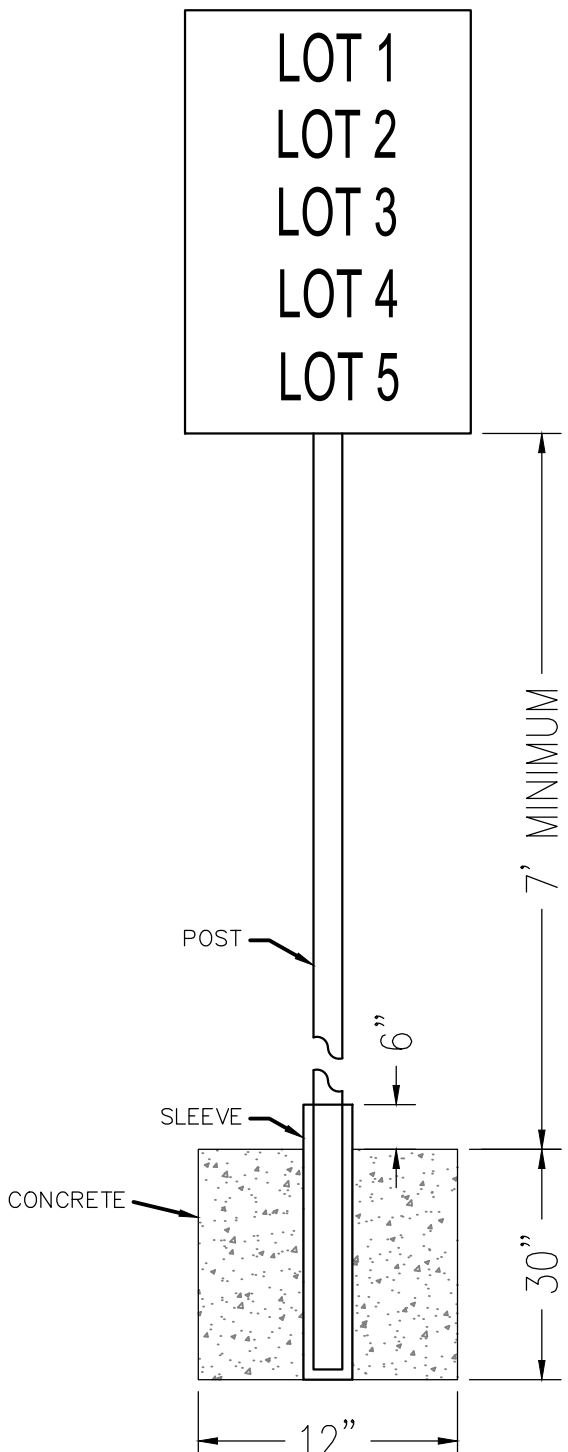
TYPICAL COMMON DRIVEWAY CROSS SECTION

SCALE: 1"=5'



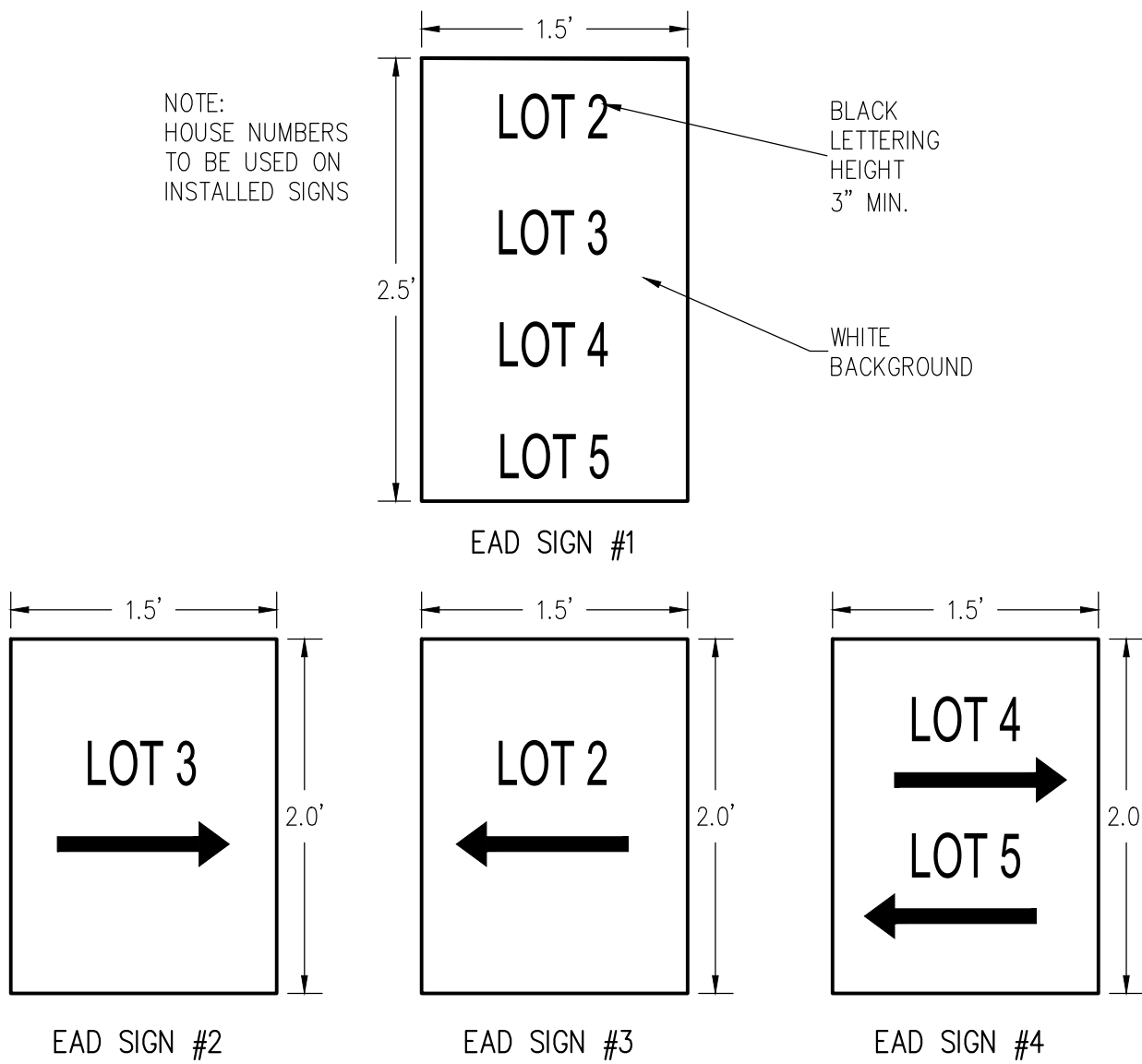
BITUMINOUS CONCRETE CURB DETAIL

NOT TO SCALE



TYPICAL E.A.D. SIGN

NOT TO SCALE



EMERGENCY ACCESS DIRECTION SIGNS

SCALE: 1"=1'

SPECIAL PERMIT APPROVAL IN ACCORDANCE WITH THE TOWN OF BOLTON ZONING BYLAW § 250.17.B – COMMON DRIVEWAYS

BEING A MAJORITY OF THE BOLTON PLANNING BOARD

DATE ENDORSED: _____

SPECIAL PERMIT ISSUED BY BOLTON PLANNING BOARD FILED WITH THE TOWN CLERK ON _____

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BOLTON TOWN CLERK _____ DATE _____

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OWNER:

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649 MAIN STREET

BOLTON, MASSACHUSETTS

APPLICANT:

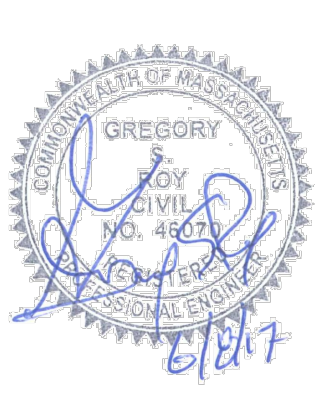
PAUL & JENNIFER LANDERS

649 MAIN STREET

BOLTON, MASSACHUSETTS

SCALE:

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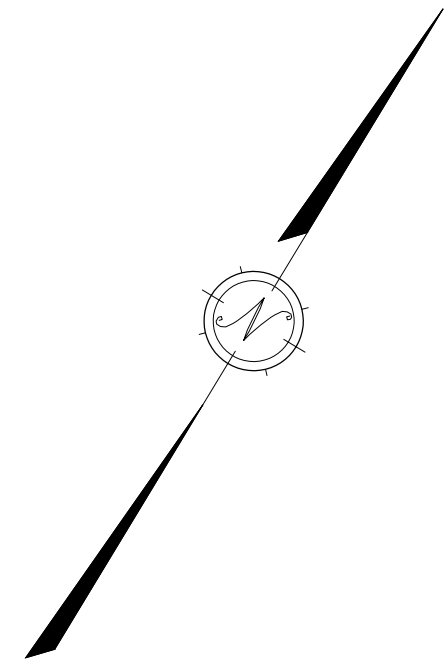
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DETAILS SHEET			
649 MAIN STREET			
BOLTON, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY

JOB NO. 5244

DRAWING NO. 5244-COMMON DRIVEWAY

SHEET NO. 4 OF 5



SCALE: 1" = 10'



SCALE: 1" = 10'

BOLTON TOWN CLERK _____ DATE _____

JOB NO.	5244
DRAWING NO.	5244—COMMON DRIVEWAY
SHEET NO.	5