

REVISION BLOCK DATE 1/30/21 DRAWN BY DESCRIPTION DATE CHECKED BY ES DK REVISED PLAN 4/30/21 APPROVED BY 5/20/21 REVISED WINDOW WELLS SHEET REVISED PLAN 6/17/21 PLAN NO. 1 OF 1 CLIENT: SHEET:

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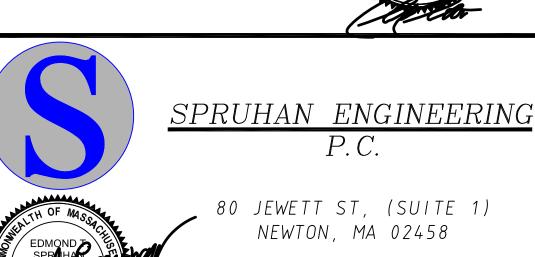
dimensions on these drawings shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on this project, and Spruhan Engineering, P.C., must be notified of any variation from the dimensions and conditions shown by these

drawings.

1092-1094 CHESTNUT STREET, NEWTON, MASSACHUSETTS

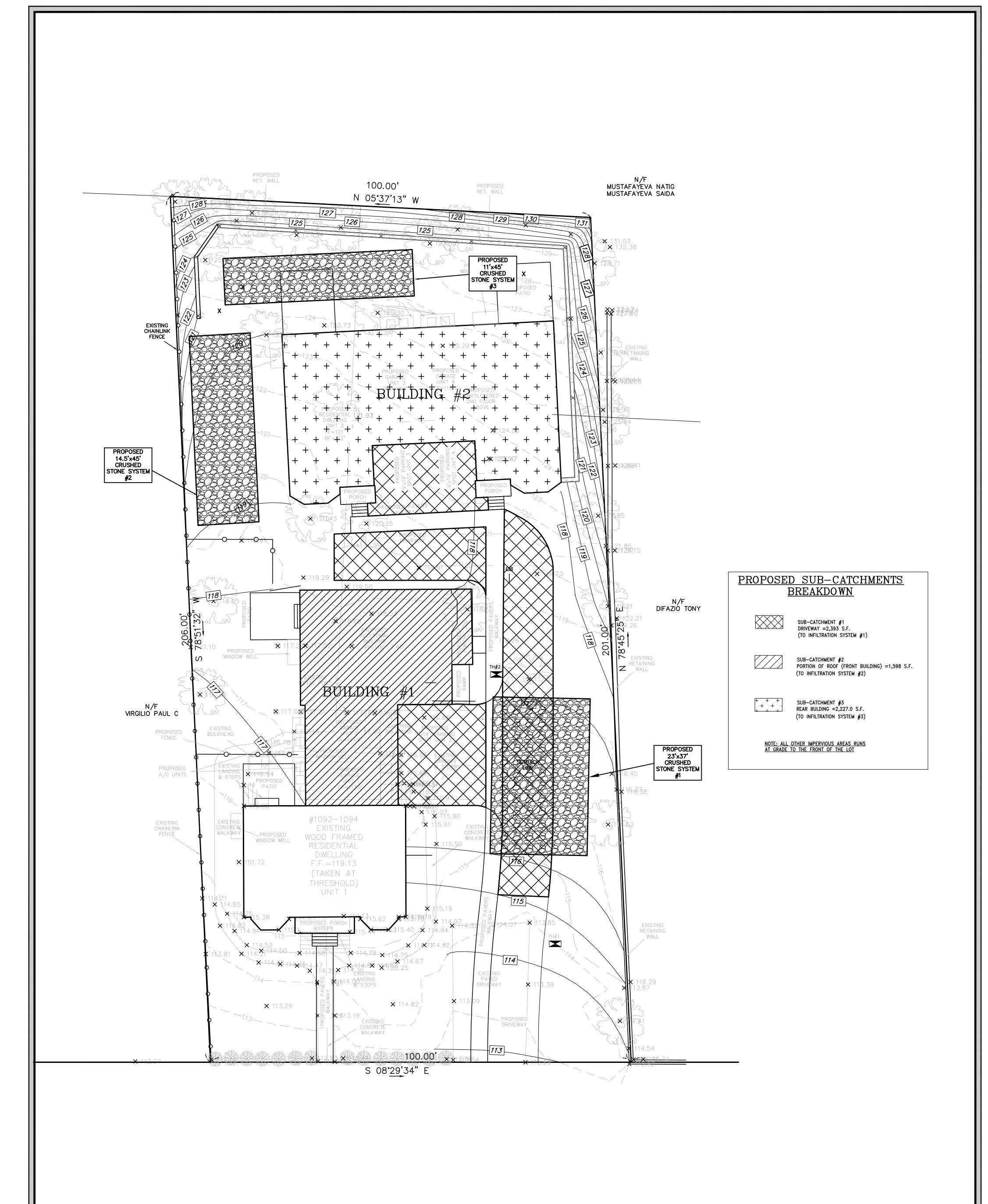
1 inch = 10 ft.

PROPOSED DRAINAGE AND UTILITIES PLAN



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Email:edmond@spruhaneng.com



REVISION BLOCK		DATE	6/17/21	
BY	DESCRIPTION	DATE	DRAWN BY	DK
			CHECKED BY	ES
			APPROVED BY	ES
			SHEET	4
			PLAN NO.	1 OF 1
			CLIENT:	
			SHEET:	1
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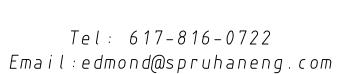
1092-1094 CHESTNUT STREET, NEWTON, MASSACHUSETTS

PROPOSED WATERSHED PLAN



SPRUHAN ENGINEERING
P. C.

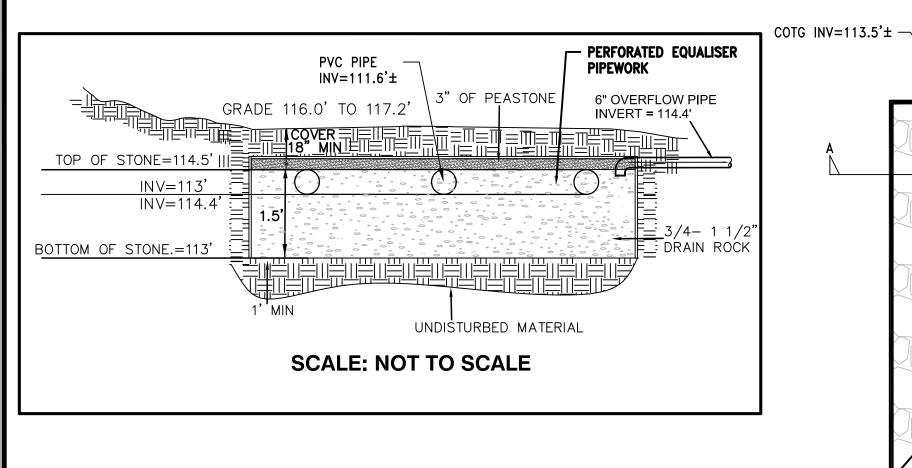
80 JEWETT ST, (SUITE 1) NEWTON, MA 02458



DRAINAGE SYSTEM-1

CONTRACTOR TO REMOVE PEAT LAYER FROM BELOW DRAINAGE SYSTEM & REPLACE WITH DRAINAGE STONE

DRAINAGE SYSTEM DETAIL N.T.S.



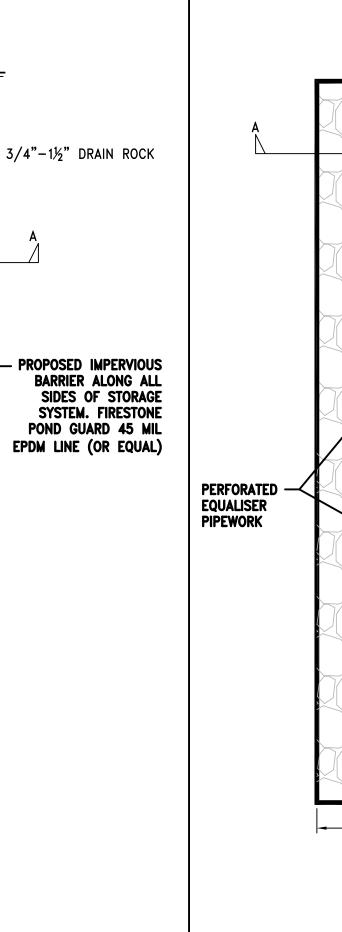
DRAINAGE SYSTEM NOTES:

- 1. TOP OF SYSTEM SHALL BE ENCASED IN FILTER FABRIC.
- 2. LOCATION OF SYSTEM PER PLANS.
- 3. DESIGN ENGINEER WILL INSPECT AND CERTIFY IN WRITING THAT ALL DRAINAGE WORK WAS INSTALLED IN ACCORDANCE WITH APPROVED PLANS. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 72 HOURS IN ADVANCE FOR DRAINAGE SYSTEM INSPECTION PRIOR TO BACKFILLING.

PLAN VIEW

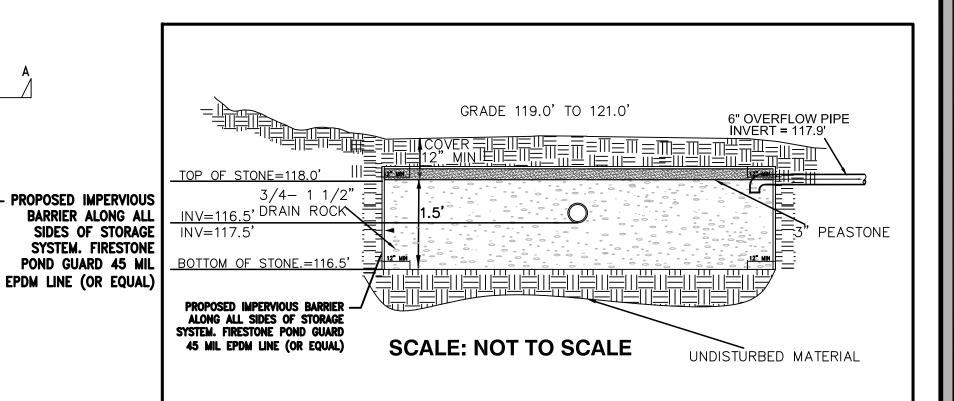
— COTG INV=113.5'±

- COTG INV=113'±



DRAINAGE SYSTEM-2

CONTRACTOR TO REMOVEPEAT LAYER FROM BELOW DRAINAGE SYSTEM & REPLACE WITH DRAINAGE STONE



DRAINAGE SYSTEM NOTES:

- 1. TOP OF SYSTEM SHALL BE ENCASED IN FILTER FABRIC.
- 2. LOCATION OF SYSTEM PER PLANS.
- 3. DESIGN ENGINEER WILL INSPECT AND CERTIFY IN WRITING THAT ALL DRAINAGE WORK WAS INSTALLED IN ACCORDANCE WITH APPROVED PLANS. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 72 HOURS IN ADVANCE FOR DRAINAGE SYSTEM INSPECTION PRIOR TO BACKFILLING.

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1092-1094 CHESTNUT STREET NEWTONMASSACHUSETTS

DETAILS

REVISION BLOCK

DESCRIPTION	DATE
REVISED PLAN	4/30/21
REVISED PLAN	6/17/21

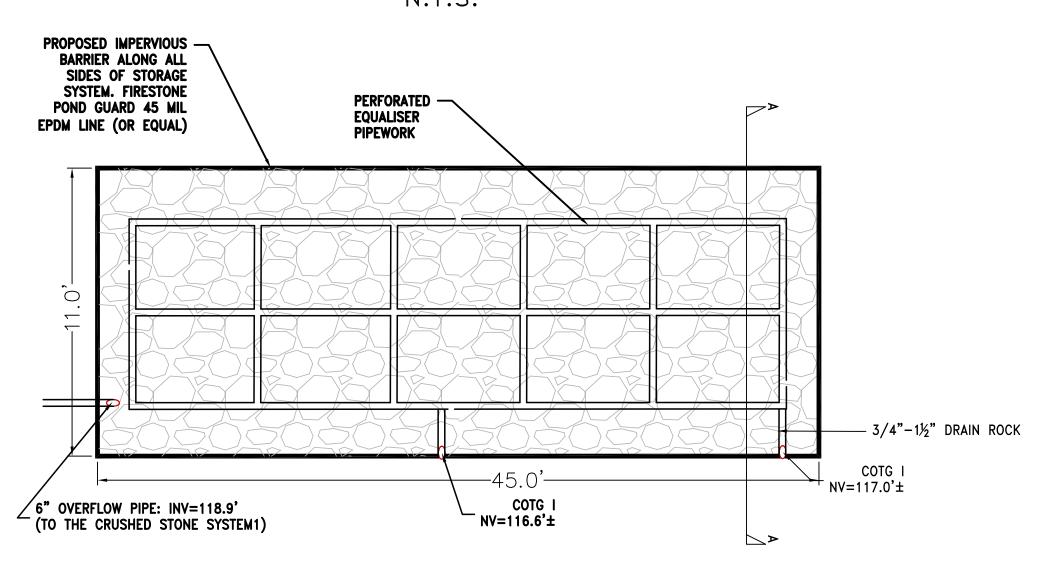
DRAINAGE SYSTEM-3

PLAN VIEW DRAINAGE SYSTEM DETAIL

PERFORATED -EQUALISER PIPEWORK

6" OVERFLOW PIPE: INV=114.4'

(TO THE CRUSHED STONE SYSTEM1)



CONTRACTOR TO REMOVEPEAT LAYER FROM BELOW DRAINAGE SYSTEM & REPLACE WITH DRAINAGE STONE

NV=116.5'±

PLAN VIEW

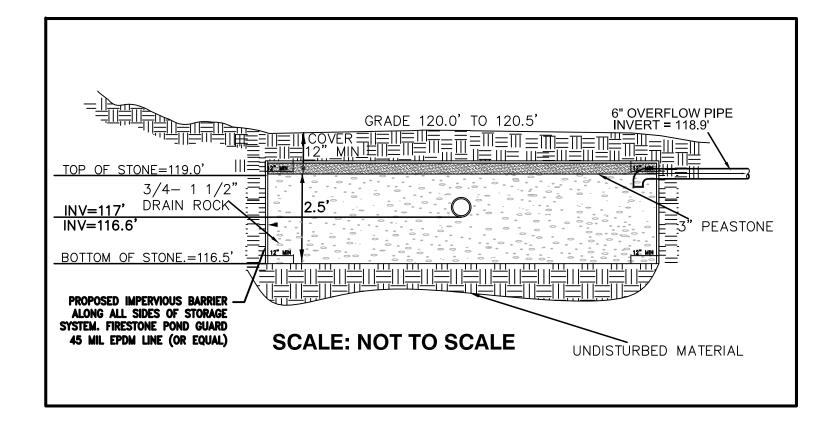
DRAINAGE SYSTEM DETAIL

- COTG INV=117.5'±

- 3/4"-1½" DRAIN ROCK

6" OVERFLOW PIPE: INV=117.9'

(TO THE CRUSHED STONE SYSTEM1)



DRAINAGE SYSTEM NOTES:

- 1. TOP OF SYSTEM SHALL BE ENCASED IN FILTER FABRIC.
- 2. LOCATION OF SYSTEM PER PLANS.
- 3. DESIGN ENGINEER WILL INSPECT AND CERTIFY IN WRITING THAT ALL DRAINAGE WORK WAS INSTALLED IN ACCORDANCE WITH APPROVED PLANS. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 72 HOURS IN ADVANCE FOR DRAINAGE SYSTEM INSPECTION PRIOR TO BACKFILLING.

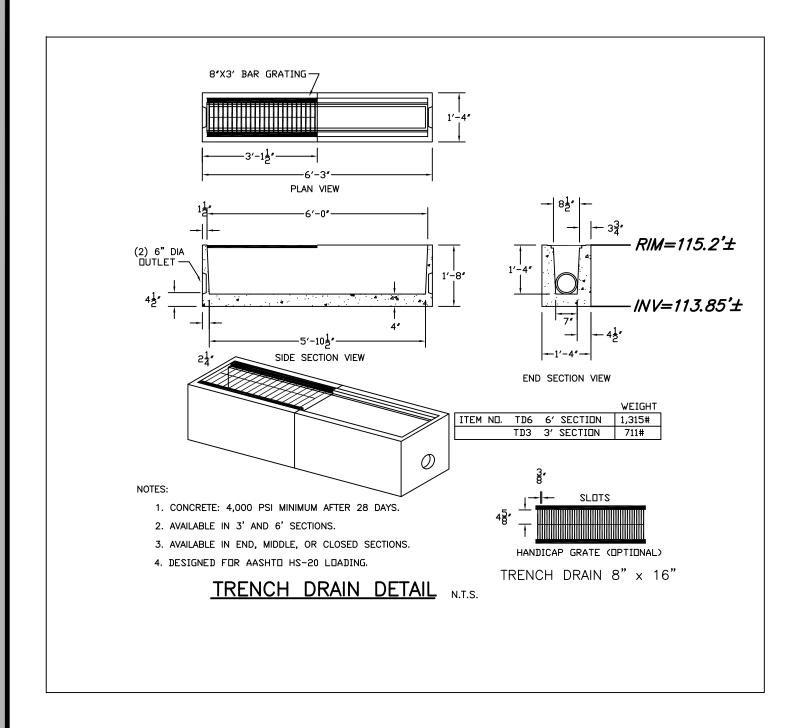
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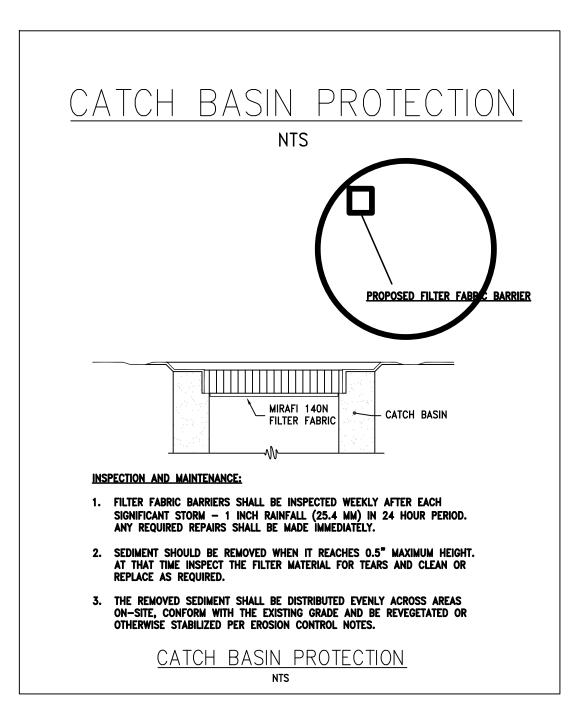


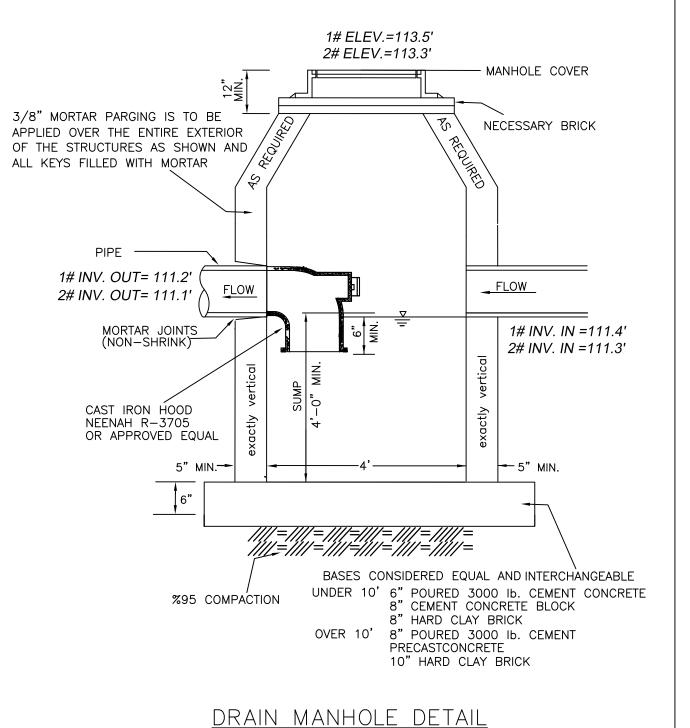
01/30/2021 DRAWN BY: CHECKED BY: E.S APPROVED BY:

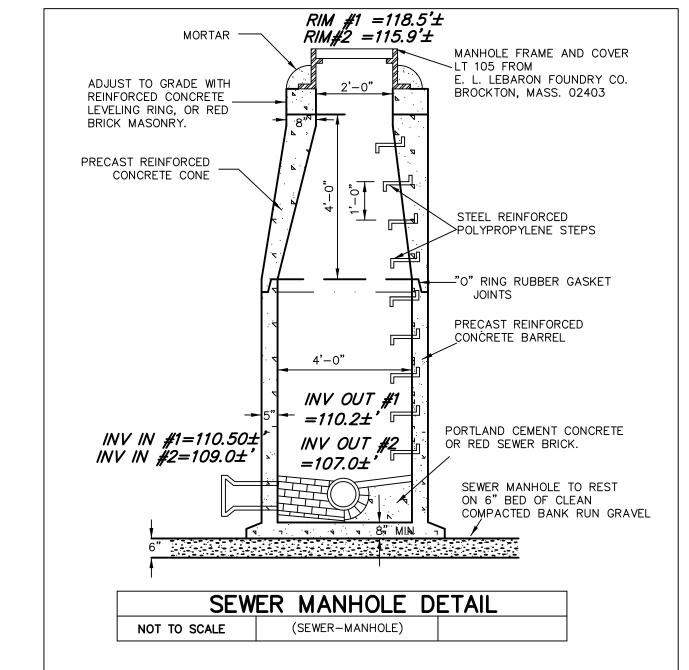
DETAILS

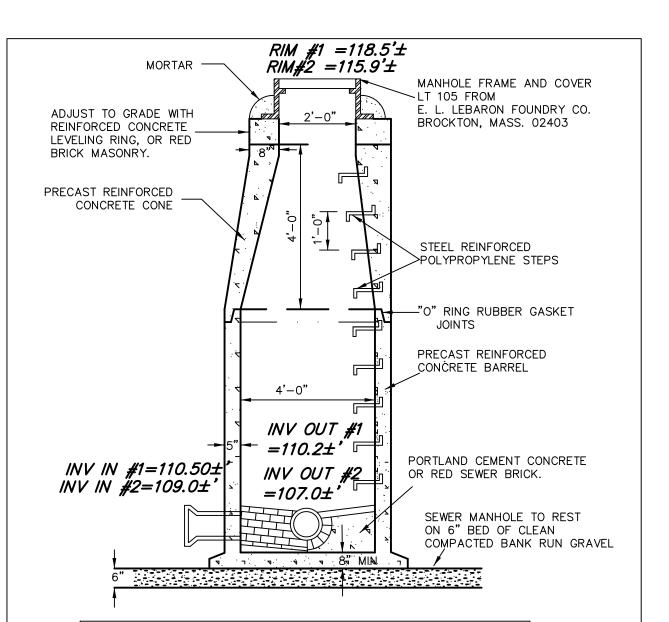
SHEET 5 OF 7

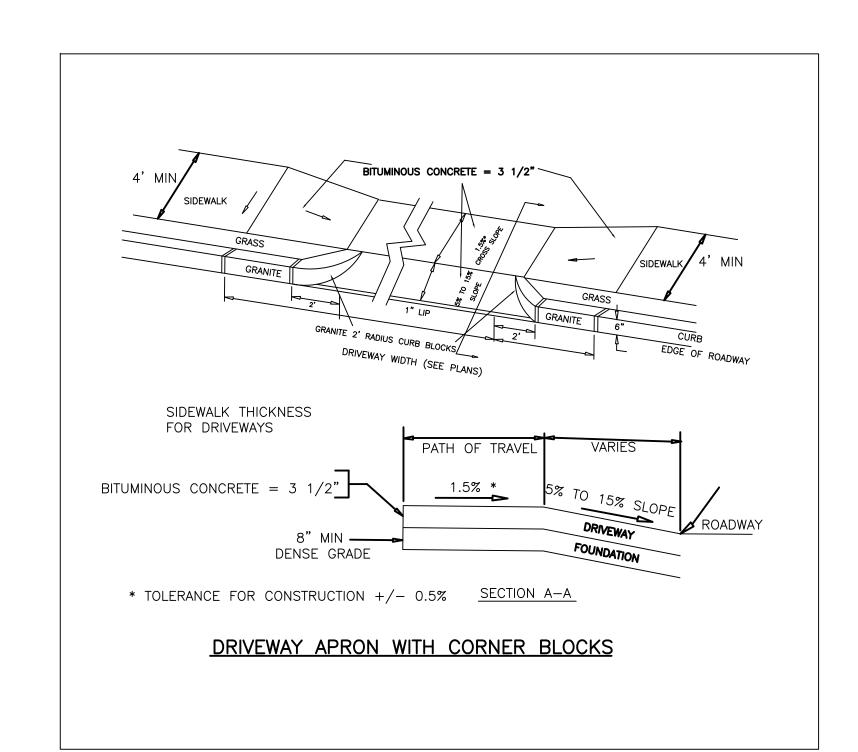


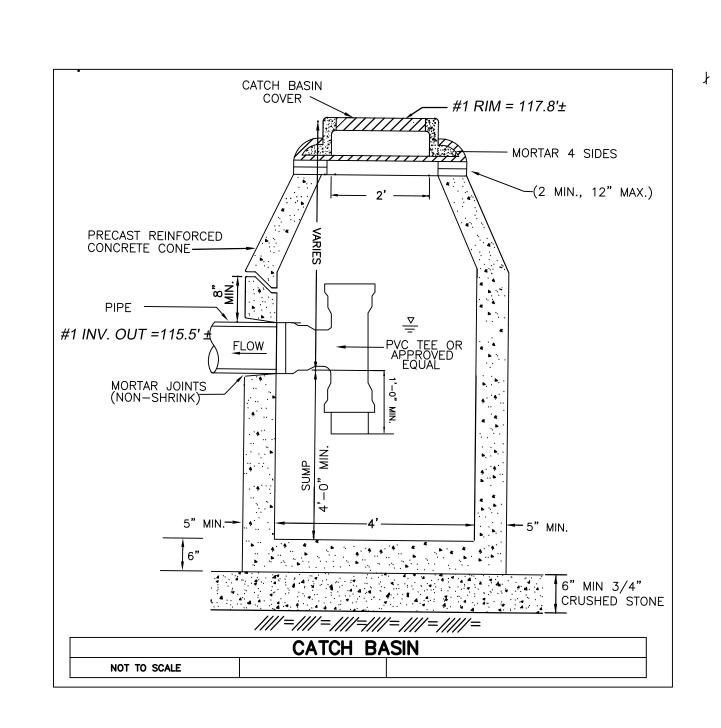


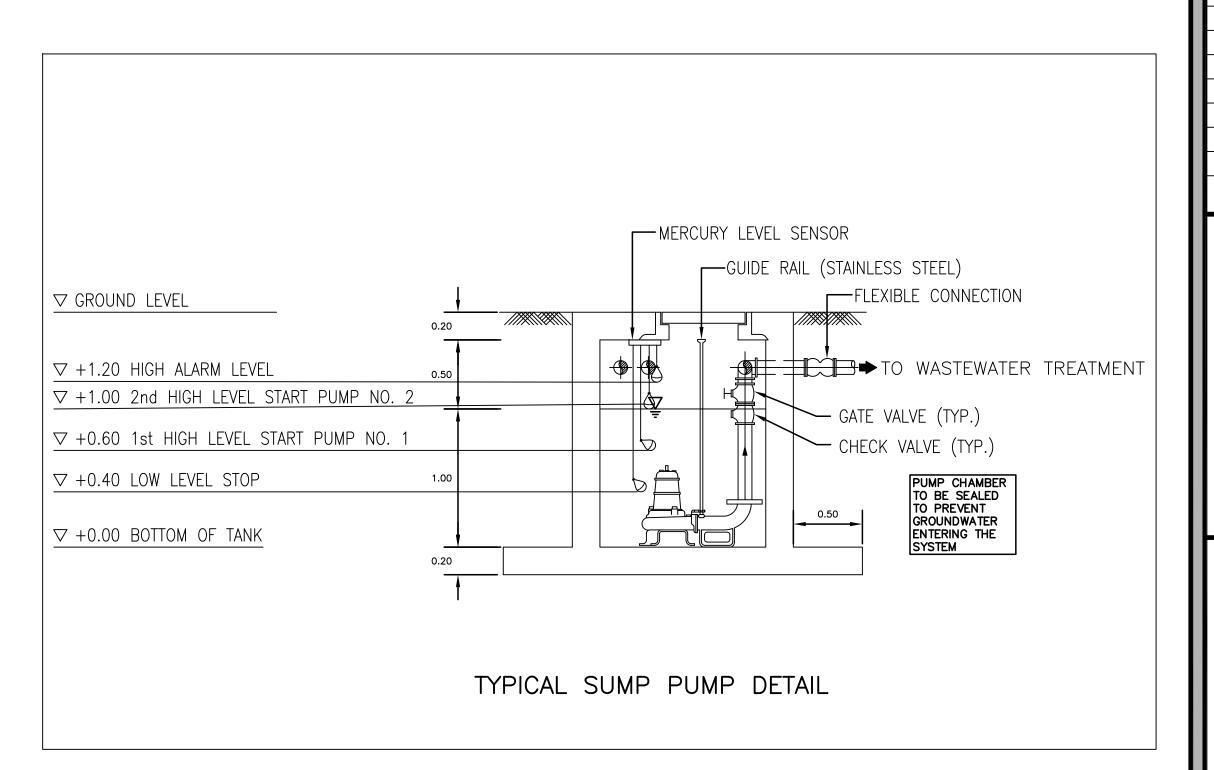


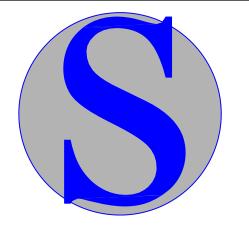












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1092-1094 CHESTNUT STREET NEWTON*MASSACHUSETTS*

DETAILS

REVISION BLOCK

DESCRIPTION	DATE
REVISED PLAN	4/30/21
REVISED PLAN	6/17/21

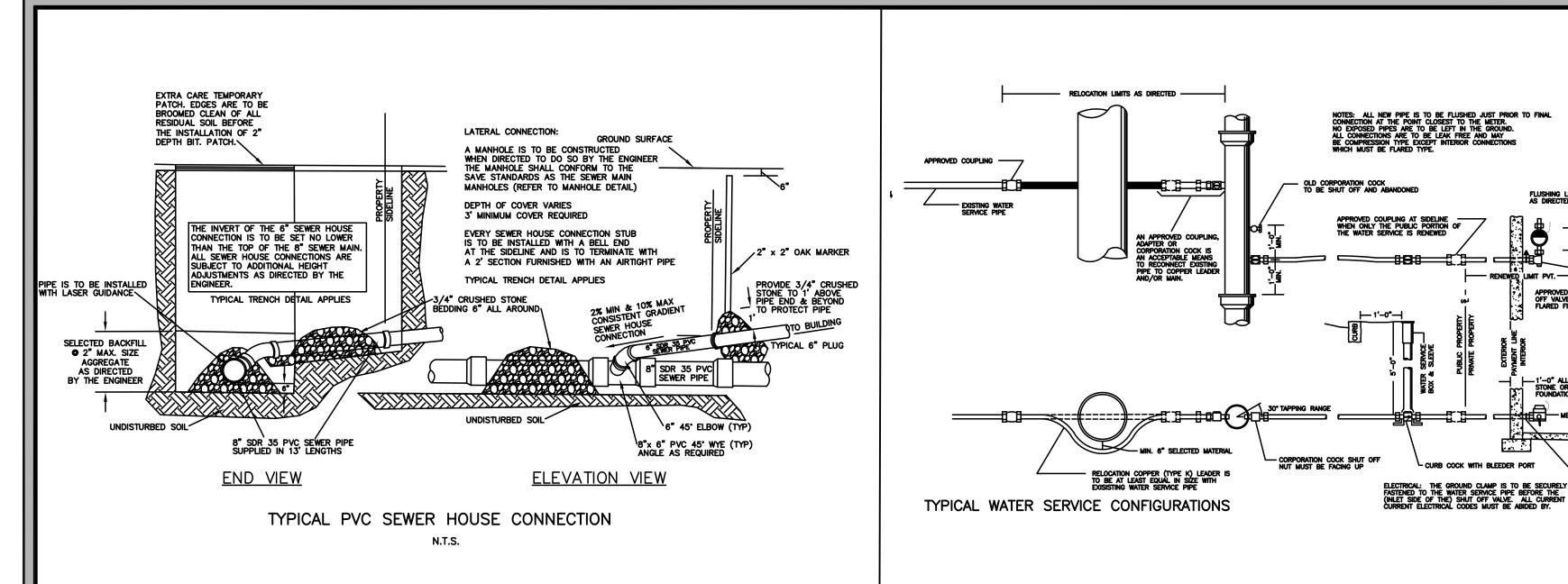
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DETAILS

SHEET 6 OF 7



SEE PLANS FOR FINAL GRADING

CONTROLLED DENSITY FILL (C.D.F.)

1 1/2" BITUMINOUS FINISH

CONTROLLED DENSITY FILL (C.D.F.) TYPICAL TRENCH DETAIL

OF THE LARGEST CONSTRUCTION VEHICLE TIRE,

WHICHEVER IS GREATER

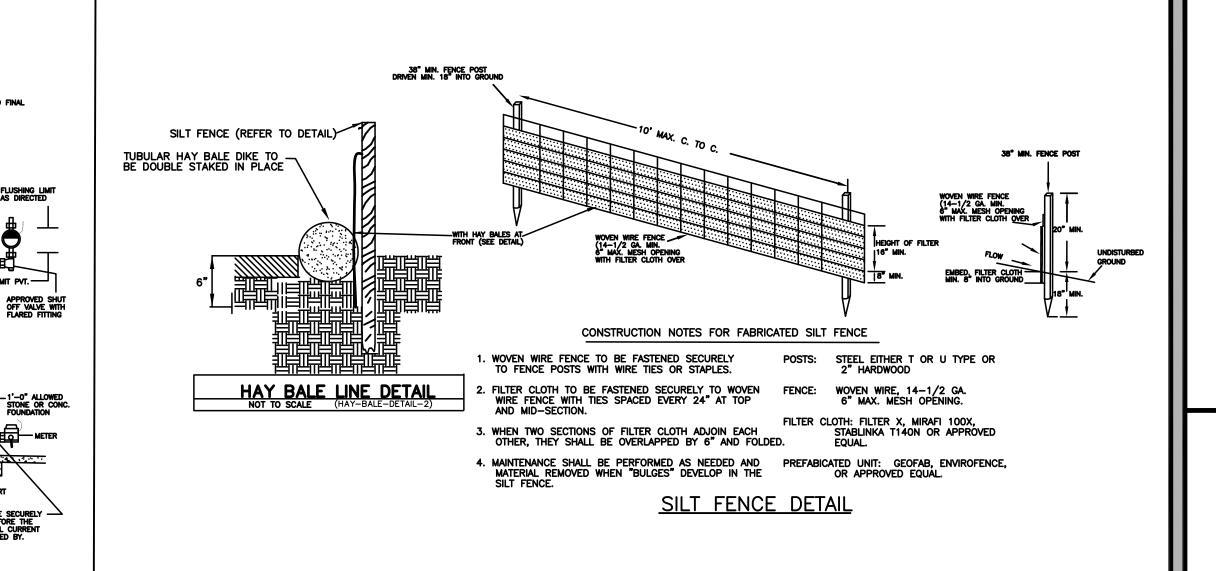
MATCH

EXISTING

GRADE

BEDDING & PROTECTION ZONE PER SPECIFIC UTILITY TRENCH DETAIL

TYPE IE (EXCAVATABLE)





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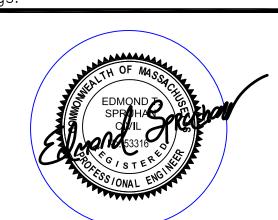
1092-1094 CHESTNUT STREET NEWTON **MASSACHUSETTS**

DETAILS

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DESCRIPTION	DATE
REVISED PLAN	4/30/21
REVISED PLAN	6/17/21

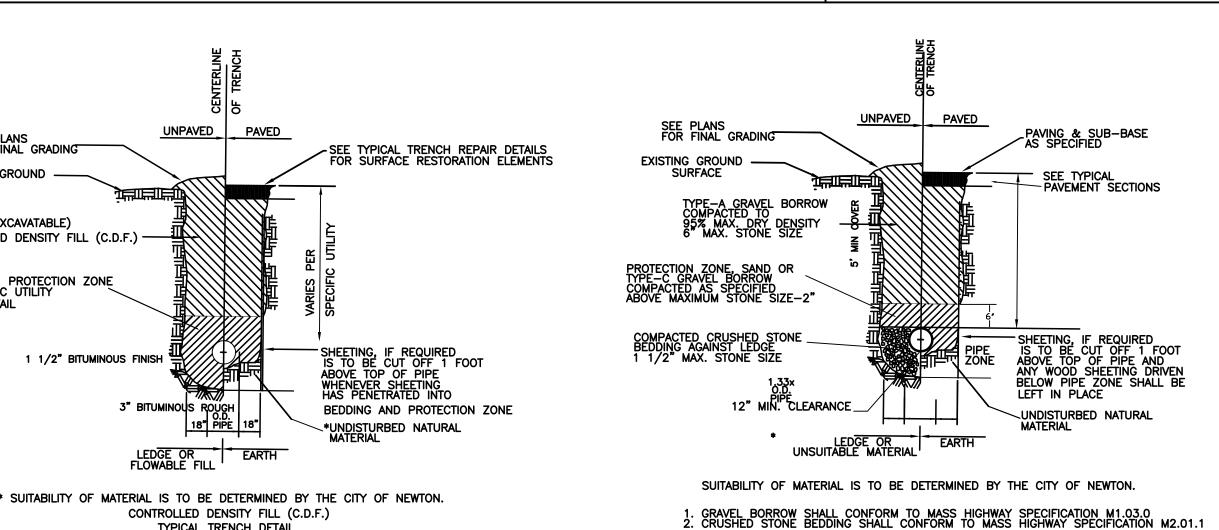
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DETAILS

SHEET 7 OF 7



TYPICAL TRENCH DETAIL

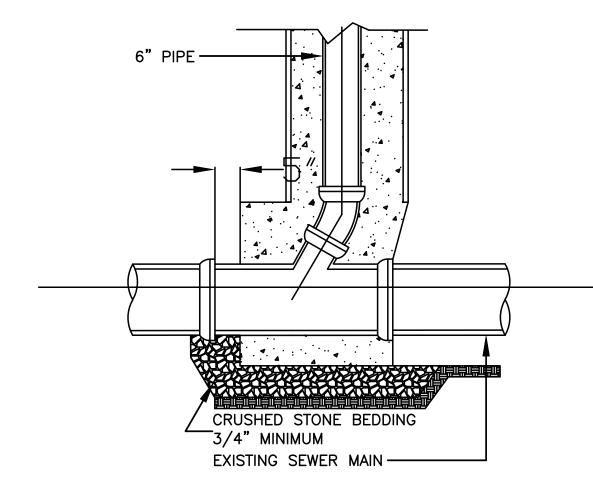
N.T.S.

SEE PLANS FOR FINAL GRADING & CAPPING REQUIREMENTS 3/4" CRUSHED STONE BEDDING_ (SEE NOTE 2)

1'-0" ALLOWED
STONE OR CON
FOUNDATION

* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON. 1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

GRAVITY SEWER TRENCH DETAIL



TYPICAL SEWER CONFIGURATION

CONSTRUCTION SPECIFICATIONS: CRUSHED AGGREGATE GREATER THAN 3" THE ENTRANCE SHALL BE MAINTAINED IN A 1. THE AGGREGATE SIZE FOR CONSTRUCTION OF THE PAD SHALL BE 2-3 INCH (50-75 MM) BUT SMALLER THAN 6" CONDITION THAT WILL PREVENT TRACKING OR STONE. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 6 INCHES (152 MM). USE DRESSING, REPAIR AND/OR CLEANOUT OF - FILTER FABRIC GEOTEXTILE FABRICS, IF NECESSARY, TO IMPROVE STABILITY OF THE FOUNDATION IN ANY MEASURES USED TO TRAP SEDIMENT. LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE. - ORIGINAL GRADE 3. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF 2. WHEN NECESSARY, WHEELS SHALL BE INGRESS OR EGRESS AND IN ANY CASE SHALL NOT BE LESS THAN 12 FEET (3.6 M) WIDE. CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. 4. THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 50 FEET (15.2 M). 5. LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT LEAVING THE SITE AND TO $\stackrel{\textstyle \sim}{}$ 12" MIN, UNLESS OTHERWISE 3. WHEN WASHING IS REQUIRED, IT SHALL BE PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID ENTRANCES WHICH DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN SPECIFIED BY A SOIL ENGINEER HAVE STEEP GRADES AND ENTRANCES AT CURVES IN PUBLIC ROADS. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR APPROVED SEDIMENT TRAP OR SEDIMENT SECTION B-B FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR MAINTENANCE OF ANY MEASURES USED TO TRAP SEDIMENT. RUMBLE STRIPS MAY BE USED ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL AS AN ALTERNATIVE SUBJECT BE REMOVED IMMEDIATELY. TO THE APPROVAL OF THE PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET. CONSTRUCT SEDIMENT BARRIER CITY PRIOR TO INSTALLATION WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE AND CHANNEL RUNOFF TO ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN SEDIMENT TRAPPING DEVICE AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. SEE SEDIMENT BASIN BMP. 10. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, STRAW BALES, OR OTHER APPROVED WIDTH AS METHODS. REQUIRED TO ACCOMMODATE **INSPECTION AND MAINTENANCE:** ANTICIPATED TRAFFIC 11. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. 12. REPLACE GRAVEL MATERIAL WHEN SURFACE VOIDS ARE NOT VISIBLE. TEMPORARY PIPE CULVERT ☐B 13. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT AS NEEDED 14. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS WITHIN 24 HOURS. OR FOUR TIMES THE CIRCUMFERENCE

STABILIZED CONSTRUCTION ENTRANCE DETAIL

N.T.S.

TYPICAL WATER TRENCH DETAIL

