





<b>CLIENT</b>	
CPI SCC LLC	(774) 255-0157
<b>STRUCTURAL</b>	
L A Fuess Partners, Inc.	(617) 948-5700
<b>CIVIL ENGINEER</b>	
Design Consultants, Inc.	(617) 776-3350
<b>MEPP</b>	
R W Sullivan Engineering	(617) 523-8227
<b>LANDSCAPE</b>	
terrainsk	(617) 650-7398

## Design Consultants, Inc.

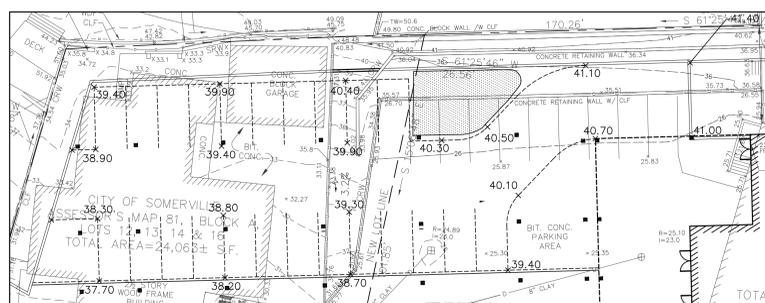
Consulting Engineers and Surveyors

120 MIDDLESEX AVENUE  
SOMERVILLE, MA 02145  
617-776-3350

68 PLEASANT STREET  
NEWBURYPORT, MA 01950  
978-356-7173

### PIPE MATERIALS:

- DOMESTIC WATER SERVICE: 1 INCH COPPER TUBING TYPE K
- WATER MAIN: 8 INCH DUCTILE IRON CEMENT LINED (DCL) CLASS 52
- ALL WATER LINES SHALL HAVE A MINIMUM OF FIVE (5) FEET OF COVER
- SEWER: 4 INCH POLYVINYL CHLORIDE PIPE (PVC) (LOW PRESSURE)
- 8 INCH PVC MAIN (MINIMUM SLOPE= 0.007)
- 6 INCH PVC SERVICE TO BLDG (MINIMUM SLOPE= 0.020)
- ALL ASTM D3034-SDR 35
- STORM DRAIN: 8 INCH PVC ASTM D3034-SDR 35
- 12 INCH PERFORATED PVC ASTM D3034-SDR 35 (UNLESS OTHERWISE NOTED)
- MINIMUM SLOPE= 0.010
- ROOF DRAIN: 6 INCH PVC ASTM D3034-SDR 35 (UNLESS OTHERWISE NOTED)
- MINIMUM SLOPE= 0.020
- MINIMUM COVER= 2'



### UTILITY & DRAINAGE NOTES

- THE LOCATION OF AND SIZE OF BURIED UTILITIES ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY BY DESIGN CONSULTANTS INC., PLANS OF RECORD & PLANS FROM RESPECTIVE UTILITY COMPANIES.
- THIS PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATION AND SIZE OF ALL UTILITIES WHICH MAY EXIST AT THIS TIME INSIDE OR OUTSIDE OF EXISTING OR PROPOSED BUILDINGS, ON THE SUBJECT PROPERTY, WITHIN THE STREET ROW, OR ON ABUTTING LOTS.
- CITY OF SOMERVILLE MUNICIPAL UTILITIES (WATER, SEWER & DRAIN) ARE NOT PART OF DIG-SAFE. REQUEST FOR MARKINGS CAN BE MADE BY CALLING DIG-SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO EXCAVATION. STREET OPENING PERMITS SHOULD ALSO BE FILED AT THAT TIME.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- ALL EXISTING UTILITY SERVICE CONNECTIONS SHALL BE ABANDONED UNLESS NOTED OTHERWISE. THE WATER AND SEWER SERVICES SHALL BE CUT AND CAPPED AT THE MAIN IN THE STREET BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF SOMERVILLE STANDARDS. THE PROPOSED GAS, ELECTRIC AND/OR CATV INSTALLATION AND ABANDONMENT OF EXISTING CONNECTIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE COMPANIES.
- FINAL DEMARCATION POINTS FOR GAS, ELECTRIC, TELEPHONE, AND COMMUNICATION SERVICE ENTRANCES ARE SUBJECT TO APPROVALS OF EACH PROVIDER.
- ALL UTILITIES SHOWN ON THIS SITE ARE TO THE EXTERIOR OF THE BUILDING FOUNDATION ONLY. UTILITIES THROUGH THE FOUNDATION AND INSIDE THE BUILDING ARE THE RESPONSIBILITY OF THE MECHANICAL ENGINEER. SEE MECHANICAL ENGINEERING PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND RECORDING THE EXACT LOCATION OF ALL PROPOSED UTILITY CONNECTIONS.
- NEW WATER SERVICES MUST BE LEFT SHUT OFF AT THE MAIN ON THE STREET UNTIL ACTIVATED BY CITY OF SOMERVILLE.
- A DYE TEST SHALL BE PERFORMED PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
- PERCOLATION TESTS SHALL BE PERFORMED AND GROUNDWATER ELEVATION SHALL BE DETERMINED PRIOR TO ORDERING AND INSTALLATION OF STORMWATER MANAGEMENT SYSTEM COMPONENTS. ADJUSTMENTS TO SYSTEM MAY BE REQUIRED PER TEST PIT RESULTS.
- THE CONTRACTOR SHALL SUPPLY ALL PIPING FOR THE UTILITY SERVICES AND SHALL SUPPLY ALL ASSOCIATED APPURTENANCES, FITTING AND VALVES UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL PERFORM ALL WET AND DRY TAPS AS PART OF HIS/HER CONTRACT.
- CITY OF SOMERVILLE RESERVES THE RIGHT TO INSPECT ALL FACILITIES DISCHARGING TO THE TOWN OF NEEDHAM DRAIN AND SEWER SYSTEMS.
- PRIOR TO CONSTRUCTION OF NEW SANITARY SEWER, STORM DRAIN LINES AND MANHOLES, CONTRACTOR TO PERFORM TEST PITS AT LOCATIONS OF EXISTING LATERAL CONNECTIONS FOR SANITARY SEWER AND STORM DRAINS TO CONFIRM INVERTS OF LATERALS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION SHALL FURNISH TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- TRENCH AREAS FOR THE CONSTRUCTION OF THE UNDERGROUND UTILITIES ARE TO BE REPATCHED WITH SAME MATERIAL AT THE SAME DEPTH AS THE EXISTING MATERIAL. THE AREAS OF TRENCHING SHALL BE NEATLY SAW-CUT AND THE NEW REPATCHING MATERIAL SHALL BE PROPERLY SEALED IN ACCORDANCE WITH THE CITY OF SOMERVILLE MUNICIPAL STANDARDS.
- DURING EXCAVATION AND CONSTRUCTION OF PIPES AND STRUCTURES, TRENCHES MUST BE ADEQUATELY BRACED AND PROTECTED AGAINST CAVE-IN.
- NO TRENCHES ARE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF THE WORK DAY OR COVERED WITH STEEL PLATES PER 520 CMR 14.00 EXCAVATION AND TRENCH SAFETY. IF STEEL PLATES ARE USED, THE TOTAL LENGTH OF PLATES IN THE TRAVELED WAY SHALL LIMITED TO 50'

### PERMITTING SUBMISSION

PERMITTING SUBMISSION APRIL 15, 2013  
Issue Description Date

Scale:  
1" = 20'-0"

Drawn By: SSW  
Checked By: SBS  
Reviewed By: SBS

Project No. 2011-081

## UNION SQUARE HOUSING

181 + 197 Washington Street  
Somerville, MA 02145

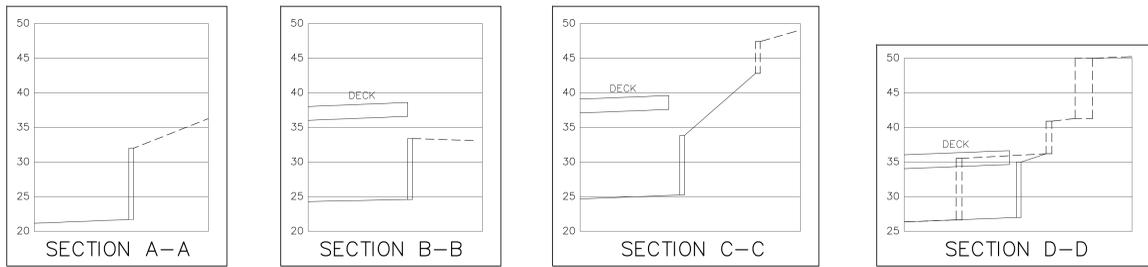
### SITE GRADING AND UTILITIES PLAN



# C4.00

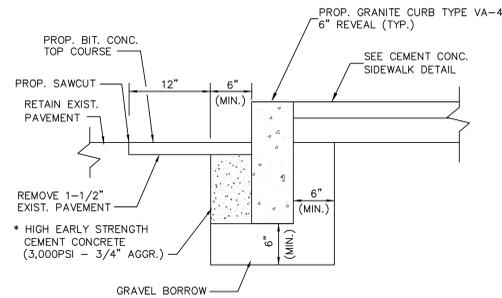
NOT FOR CONSTRUCTION  
THESE PLANS WERE PREPARED FOR THE PURPOSE OF OBTAINING CLIENT APPROVAL, PRICING AND/OR SUBMITTAL TO STATE AND LOCAL AGENCIES FOR PERMITTING PURPOSES. THESE PLANS ARE NOT INTENDED TO BE USED AS CONSTRUCTION DOCUMENTS.





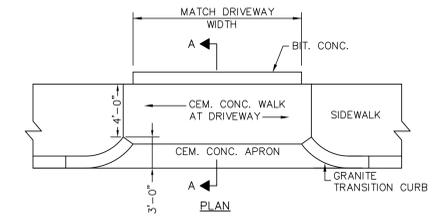
SCALE:  
HORIZ: 1"=10'  
VERT: 1"=10'

SEE SITE GRADING AND UTILITIES PLAN FOR WALL PLAN VIEWS



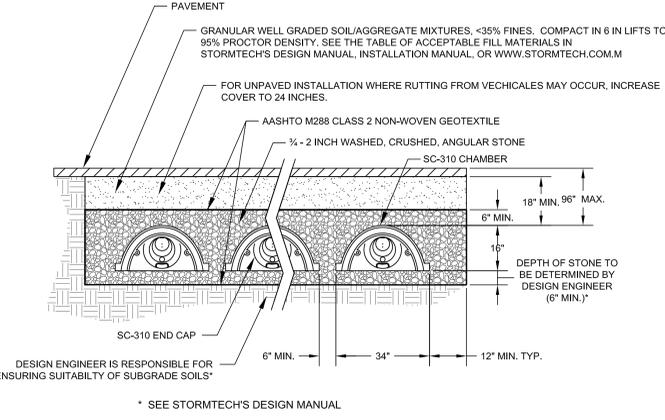
NOTES:  
\* HIGH EARLY STRENGTH CONCRETE BASE COURSE SHALL BE INCLUDED IN THE LINEAR FOOT PRICE OF GRANITE CURB.

GRANITE CURB IN EXISTING PAVEMENT  
NOT TO SCALE



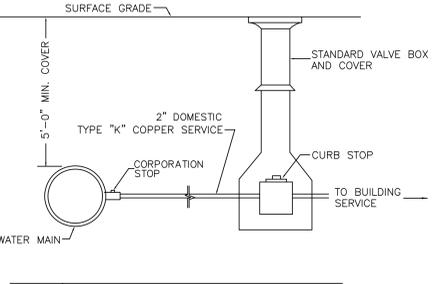
NOTES:  
\* HIGH EARLY STRENGTH CONCRETE BASE COURSE SHALL BE INCLUDED IN THE LINEAR FOOT PRICE OF GRANITE CURB.

DRIVEWAY APRON CONSTRUCTION  
NOT TO SCALE

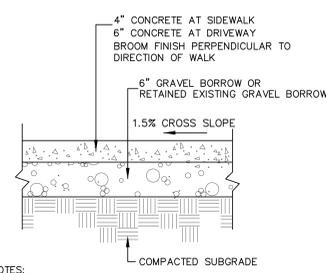


DESIGN ENGINEER IS RESPONSIBLE FOR ENSURING SUITABILITY OF SUBGRADE SOILS\*  
\* SEE STORMTECH'S DESIGN MANUAL

STORMTECH SC-310 CHAMBER SYSTEM  
NOT TO SCALE

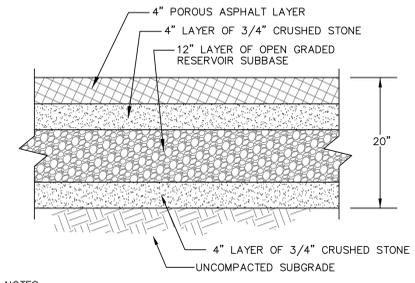


COPPER SERVICE CONNECTION  
NOT TO SCALE



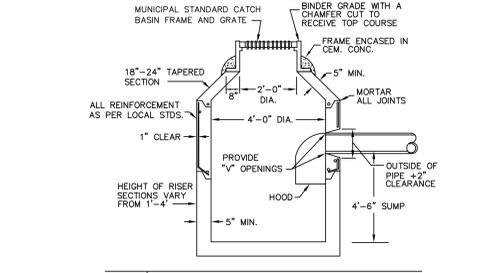
NOTES:  
1. PROVIDE 1/2\"/>

CEMENT CONCRETE SIDEWALK  
NOT TO SCALE

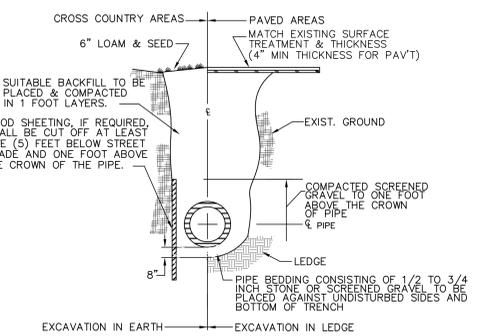


NOTES:  
1. CONTRACTOR SHALL NOT COMPACT SUBGRADE MATERIALS BELOW AREAS OF POROUS PAVEMENT.

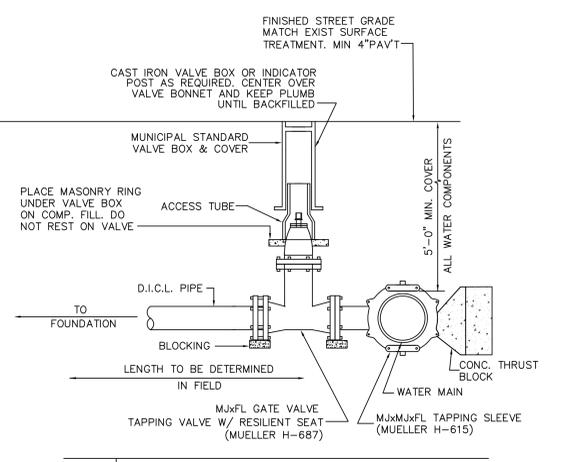
POROUS BITUMINOUS ASPHALT PAVEMENT  
NOT TO SCALE



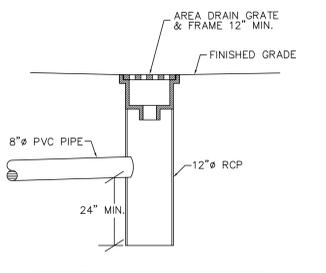
PRECAST CONCRETE CATCH BASIN  
NOT TO SCALE



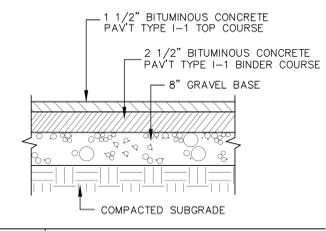
TRENCH EXCAVATION  
NOT TO SCALE



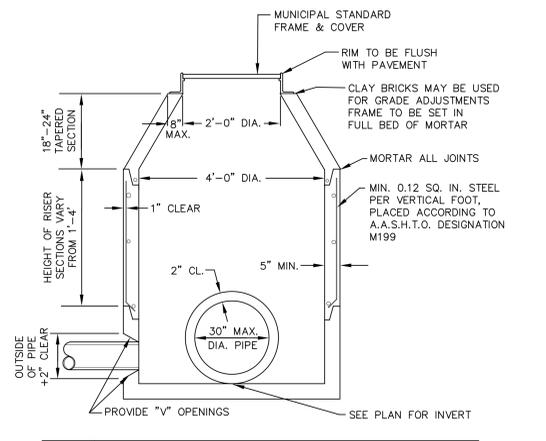
WATER SERVICE CONNECTION  
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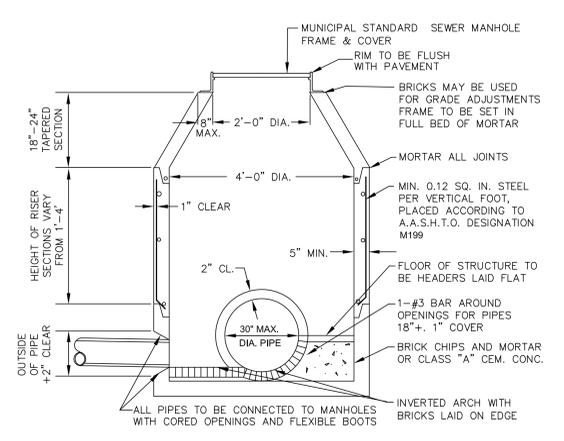
AREA DRAIN W/SUMP  
NOT TO SCALE



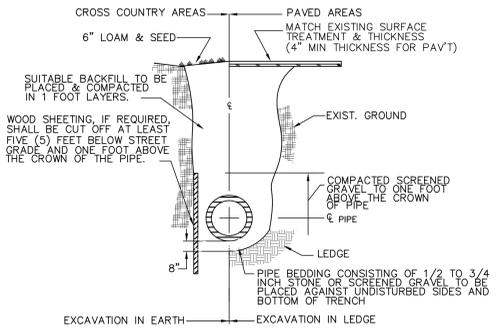
BITUMINOUS CONCRETE PAVEMENT  
NOT TO SCALE



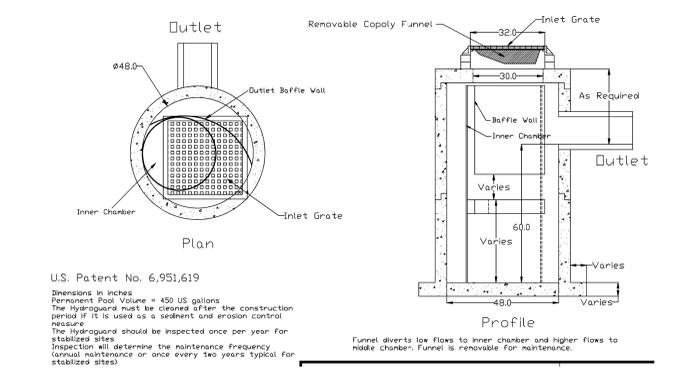
PRECAST CONCRETE DRAIN MANHOLE  
NOT TO SCALE



PRECAST CONCRETE SEWER MANHOLE  
NOT TO SCALE



TRENCH EXCAVATION  
NOT TO SCALE



HYDROGUARD DMH  
NOT TO SCALE

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**UNION SQUARE HOUSING**

181 + 197 Washington Street  
Somerville, MA 02143

**SITE SECTIONS AND CONSTRUCTION DETAILS**



