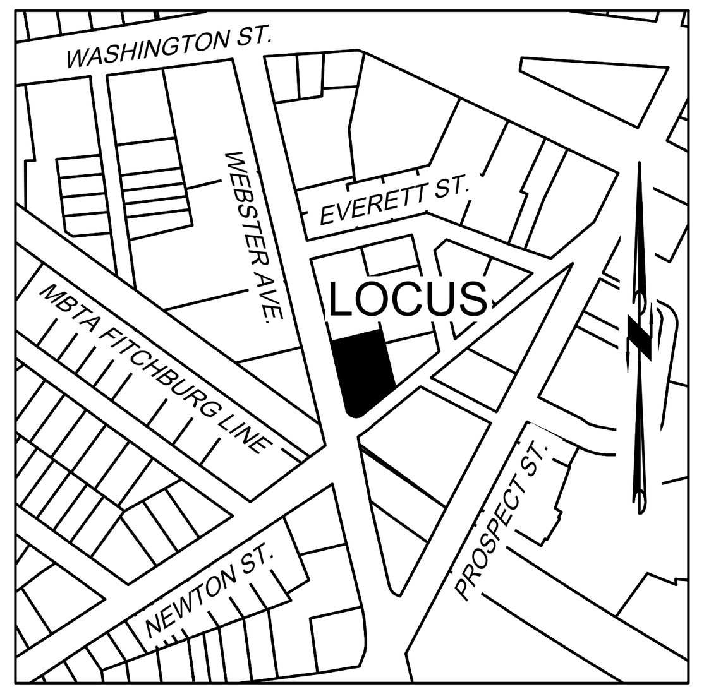
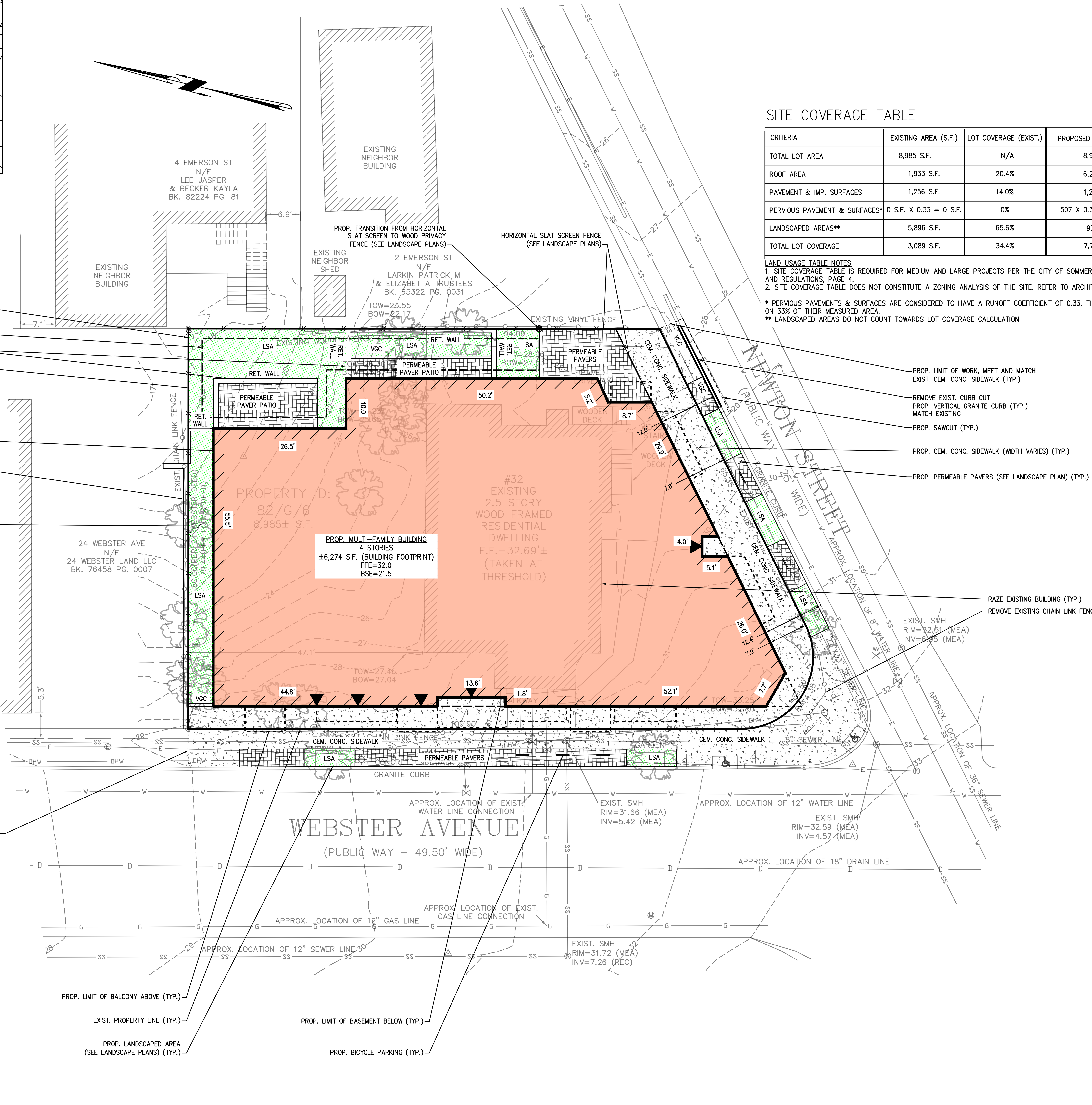


LOCUS MAP
Not to Scale


4 EMERSON ST
N/F
LEE JASPER
& BECKER KAYLA
BK. 82224 PG. 81
EXISTING NEIGHBOR BUILDING
EXISTING NEIGHBOR SHED
2 EMERSON ST
N/F
LARKIN PATRICK M
& ELIZABET A TRUSTEES
BK. 65322 PG. 0031
PROP. TRANSITION FROM HORIZONTAL SLAT SCREEN TO WOOD PRIVACY FENCE (SEE LANDSCAPE PLANS)
HORIZONTAL SLAT SCREEN FENCE (SEE LANDSCAPE PLANS)
PROP. 6 FT. HIGH WOOD PRIVACE FENCE (SEE LANDSCAPE PLANS)
APPROX. LIMIT OF SUBSURFACE STORMWATER MANAGEMENT SYSTEM (TYP.)
PROP. CEM. CONC. RETAINING WALL (TYP.)
EXIST. PROPERTY LINE (TYP.)
LIMIT OF PROP. BUILDING (TYP.)
24 WEBSTER PROPOSED RETAINING WALL & LAYERED PLANT BED, SEE LANDSCAPE PLANS BY OTHERS
PROP.LANDSCAPED AREA (SEE LANDSCAPE PLANS) (TYP.)
24 WEBSTER AVE
N/F
24 WEBSTER LAND LLC
BK. 76458 PG. 0007
PROPERTY ID: 82/G/6
8,985± S.F.
PROP. MULTI-FAMILY BUILDING
4 STORIES
±6,274 S.F. (BUILDING FOOTPRINT)
FFE=32.0
BSE=21.5
#32 EXISTING 2.5 STORY WOOD FRAMED RESIDENTIAL DWELLING F.F.=32.69'± (TAKEN AT THRESHOLD)
PERMEABLE PAVER PATIO
PERMEABLE PAVERS
RET. WALL
EXISTING VINYL FENCE
NEWTON STREET
(PUBLIC WAY – 25' WIDE)
PROP. LIMIT OF WORK, MEET AND MATCH EXIST. CEM. CONC. SIDEWALK (TYP.)
REMOVE EXIST. CURB CUT
PROP. VERTICAL GRANITE CURB (TYP.)
MATCH EXISTING
PROP. SAWCUT (TYP.)
PROP. CEM. CONC. SIDEWALK (WIDTH VARIES) (TYP.)
PROP. PERMEABLE PAVERS (SEE LANDSCAPE PLAN) (TYP.)
RAZE EXISTING BUILDING (TYP.)
REMOVE EXISTING CHAIN LINK FENCE (TYP.)
EXIST. SMH
RIM=32.51 (MEA)
INV=6.85 (MEA)
APPROX. LOCATION OF 8" WATER LINE
APPROX. LOCATION OF 36" SEWER LINE
CEM. CONC. SIDEWALK
GRANITE CURB
WEBSTER AVENUE
(PUBLIC WAY – 49.50' WIDE)
APPROX. LOCATION OF EXIST. WATER LINE CONNECTION
EXIST. SMH
RIM=31.66 (MEA)
INV=5.42 (MEA)
APPROX. LOCATION OF 12" WATER LINE
EXIST. SMH
RIM=32.59 (MEA)
INV=4.57 (MEA)
APPROX. LOCATION OF 18" DRAIN LINE
APPROX. LOCATION OF EXIST. GAS LINE CONNECTION
APPROX. LOCATION OF 12" GAS LINE
APPROX. LOCATION OF 12" SEWER LINE
EXIST. SMH
RIM=31.72 (MEA)
INV=7.26 (REC)
PROP. LIMIT OF WORK, MEET AND MATCH EXIST. CEM. CONC. SIDEWALK (TYP.)
PROP. LIMIT OF BALCONY ABOVE (TYP.)
EXIST. PROPERTY LINE (TYP.)
PROP. LANDSCAPED AREA (SEE LANDSCAPE PLANS) (TYP.)
PROP. LIMIT OF BASEMENT BELOW (TYP.)
PROP. BICYCLE PARKING (TYP.)
0 10 20 30

ABBREVIATIONS

FFE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
(AM)	AS MEASURED
RET WALL	RETAINING WALL
CONC.	CONCRETE
RCP	REINFORCED CONCRETE PIPE
VGC	VERTICAL GRANITE CURB
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CMP	CORRUGATED METAL PIPE
LSA	LANDSCAPED AREA
TC	TOP OF CURB
BC	BOTTOM OF CURB

SITE COVERAGE TABLE

CRITERIA	EXISTING AREA (S.F.)	LOT COVERAGE (EXIST.)	PROPOSED AREA (S.F.)	LOT COVERAGE (PROP.)
TOTAL LOT AREA	8,985 S.F.	N/A	8,985 S.F.	N/A
ROOF AREA	1,833 S.F.	20.4%	6,274 S.F.	69.8%
PAVEMENT & IMP. SURFACES	1,256 S.F.	14.0%	1,272 S.F.	14.1%
PERVIOUS PAVEMENT & SURFACES*	0 S.F. X 0.33 = 0 S.F.	0%	507 X 0.33 = 167 S.F.	1.8%
LANDSCAPED AREAS**	5,896 S.F.	65.6%	932 S.F.	10.4%
TOTAL LOT COVERAGE	3,089 S.F.	34.4%	7,713 S.F.	85.7%

LAND USAGE TABLE NOTES
1. SITE COVERAGE TABLE IS REQUIRED FOR MEDIUM AND LARGE PROJECTS PER THE CITY OF SOMMERVILLE ENGINEERING SITE PERMIT RULES AND REGULATIONS, PAGE 4.
2. SITE COVERAGE TABLE DOES NOT CONSTITUTE A ZONING ANALYSIS OF THE SITE. REFER TO ARCHITECTURAL PLANS FOR ZONING ANALYSIS.

* PERVIOUS PAVEMENTS & SURFACES ARE CONSIDERED TO HAVE A RUNOFF COEFFICIENT OF 0.33, THUS THE LOT COVERAGE IS CALCULATED ON 33% OF THEIR MEASURED AREA.
** LANDSCAPED AREAS DO NOT COUNT TOWARDS LOT COVERAGE CALCULATION

LEGEND

SURVEY SYMBOLS
- REBAR
- ANGLE IRON
- CB/DH CONCRETE BOUND WITH DRILL HOLE
- SB STONE BOUND
- SB/DH STONE BOUND

UTILITY SYMBOLS
- CHIMNEY
- ELECTRIC HAND HOLE
- GUY POLE
- GW GUY WIRE
- HVAC UNIT
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- BUILDING LIGHT
- TRANSFORMER
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- AIR VENT
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- SIGN
- FA FIRE ALARM
- DECIDUOUS TREE
- CONIFEROUS TREE

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- W WATER MAIN
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- JERSEY BARRIER
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- OHW OVERHEAD WIRES
- G GAS LINE
- WS WATER SERVICE
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- D STORM DRAIN LINE
- S SANITARY SEWER LINE
- DRAINAGE SWALE
- X CHAIN LINK FENCE

PROPOSED SURFACE TREATMENTS TABLE	
[hatch]	PERMEABLE PAVERS
[hatch]	LANDSCAPED AREA
[hatch]	BUILDING
[hatch]	CEMENT CONCRETE

C:\USERS\ESCHOUMAKER.MCKENG\MCKENZIE ENGINEERING GROUP, INC\MCK FILE SHARE – DOCUMENTS\FILE SHARE\MEG\2025 PROJECTS\225-137 KINVARRA CAPITAL – 32 WEBSTER ST., SOMERVILLE\DWGS\225-137 MAIN3.DWG

REV	DATE	DESCRIPTION	BY	APP
1	3/13/26	SITE COVERAGE TBL	ESS	BCM

MCKENZIE ENGINEERING GROUP
Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
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www.mckeng.com

SITE DEVELOPMENT PLAN
(ASSESSOR'S PARCEL NUMBER 82-G-6)
32 WEBSTER AVENUE
SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

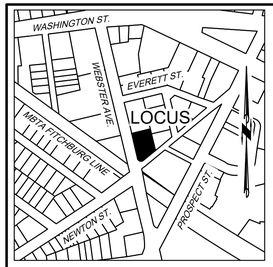
PERMIT PLAN SET

APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	1"=10'
PROJECT NO.:	225-137

DWG. TITLE:
LAYOUT AND MATERIALS PLAN

DWG. NO:
C-1



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- DRAINAGE SWALE
- X — CHAIN LINK FENCE

GRADING AND DRAINAGE NOTES:

1. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY EARTH MOVING ACTIVITIES.
2. THE CONTRACTOR SHALL KEEP ON-SITE AT ALL TIMES, ADDITIONAL SILTATION FENCING AND FILTER FABRIC FOR INSTALLATION AS DIRECTED BY THE TOWN TO MITIGATE EMERGENCY CONDITIONS.
3. UPON COMPLETION OF ALL SITE WORK THE CONTRACTOR SHALL INSPECT ALL ON-SITE AND OFF-SITE CATCH BASINS (THAT RECEIVE CATCH BASIN INLET PROTECTION) AND DRAINAGE MANHOLES AND REMOVE ALL SEDIMENT AND DEBRIS THAT HAVE ACCUMULATED DURING THE COURSE OF CONSTRUCTION.
4. UNSUITABLE SOILS LOCATED WITHIN THE LIMITS OF THE SUBSURFACE INFILTRATION SYSTEM SHALL BE REMOVED PRIOR TO INSTALLATION OF THE SYSTEM. THE BOTTOM OF EXCAVATION SHALL BE INSPECTED BY THE PROJECT ENGINEER PRIOR TO THE PLACEMENT OF THE SUBSURFACE CHAMBERS.
5. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88) OF 1988.

REV	DATE	DESCRIPTION	BY
1	3/13/26	SITE COVERAGE	TBL
			ESS
			BCM

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SITE DEVELOPMENT PLAN

(ASSESSOR'S PARCEL NUMBER 82-G-6)
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SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

PERMIT PLAN SET

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	1"=10'
PROJECT NO.:	225-137

DWG. TITLE:
GRADING AND DRAINAGE PLAN

DWG. NO:
C-2

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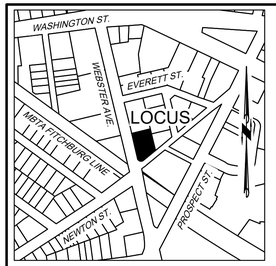
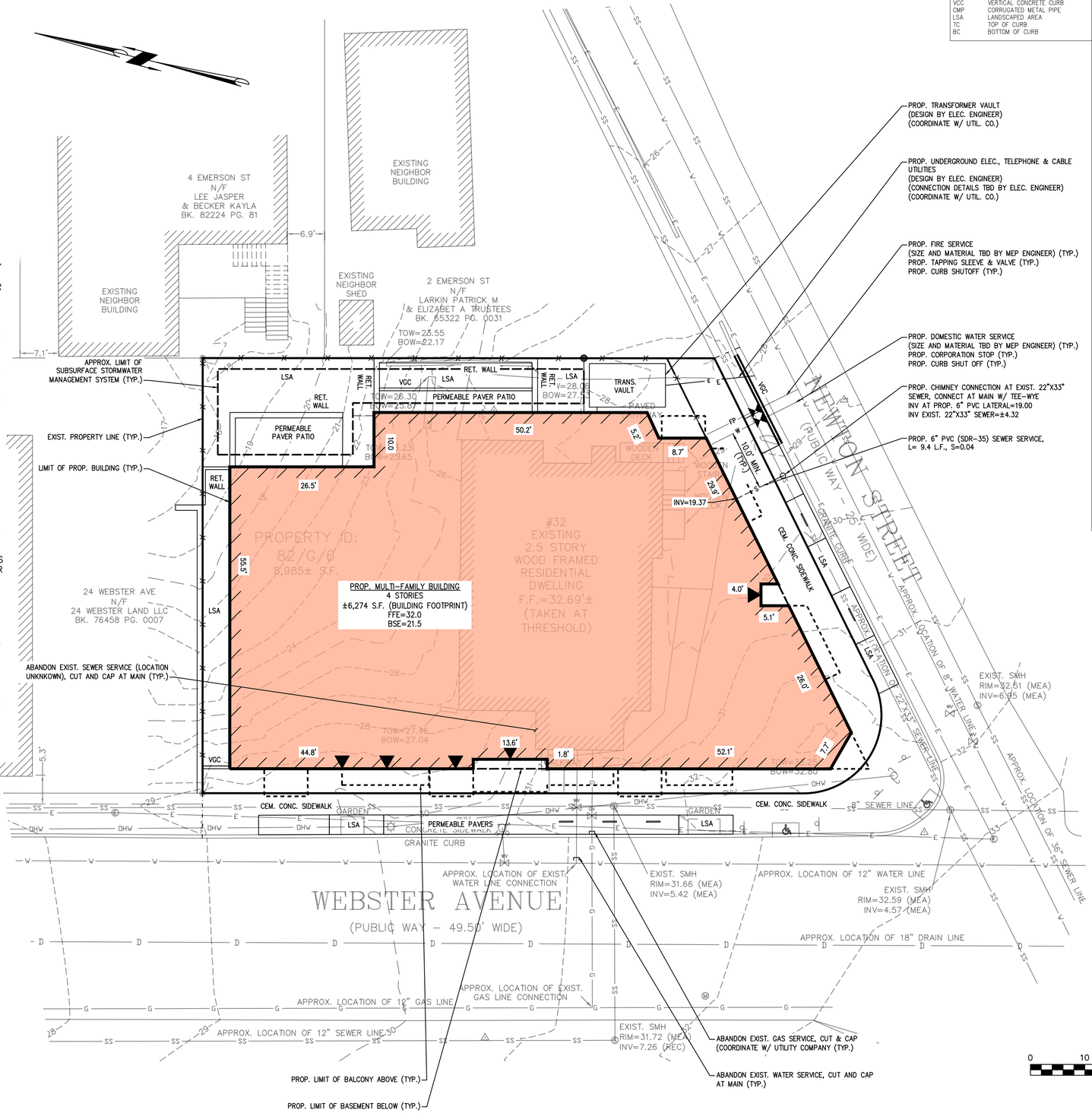


LOCUS MAP
Not to Scale

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
3. THE CONTRACTOR SHALL COORDINATE ALL STREET WORK WITH THE SOMERVILLE DEPARTMENTS OF PUBLIC WORKS.
4. THE CONTRACTOR SHALL EXCAVATE THE TEST PITS PRIOR TO INSTALLING THE DOMESTIC AND FIRE PROTECTION WATER SERVICES TO VERIFY THE ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE RESULTS PRIOR TO COMMENCING ANY WORK.
5. ALL WATER AND FIRE SERVICES SHALL BE INSTALLED WITH 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
6. THE SIZE OF THE DOMESTIC WATER AND FIRE SERVICES SHALL BE DETERMINED BY THE PROJECT MEP ENGINEER, AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED TAPPING SLEEVE, GATE VALVE AND BOX.
7. ALL WATER SERVICE APPURTENANCES, MATERIALS, METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
8. THE DOMESTIC WATER SERVICE SHALL BE ADEQUATELY PROTECTED AGAINST BACKFLOW (BACKFLOW PREVENTION) AT THE BUILDING.
9. AFTER PRESSURE TESTING AND CHLORINATION IS COMPLETED, SAMPLES SHALL BE TAKEN FROM THE DOMESTIC WATER SERVICE AND SHALL BE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS. THE CONTRACTOR IS REQUIRED TO NOTIFY THE SOMERVILLE WATER DEPARTMENT AT LEAST 24 HOURS PRIOR TO THE TESTING.
10. THE DOMESTIC WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. A MINIMUM OF 2 SEPARATE WATER SAMPLES SHALL BE TESTED AT A STATE CERTIFIED LABORATORY.
11. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER SERVICES AND WATER SERVICE. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER SERVICE THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER SERVICE. ALL OTHER UTILITIES REQUIRE MINIMUM 5' SEPARATION FROM OTHER UTILITIES.
12. ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 UNLESS OTHERWISE NOTED.
13. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
14. THE LOCATIONS OF PROPOSED ELECTRIC, TELEPHONE AND COMMUNICATION (E.T.C.) SERVICES ARE APPROXIMATE. THE PROJECT ELECTRICAL ENGINEER SHALL VERIFY THESE LOCATIONS PRIOR TO THE START OF CONSTRUCTION. COORDINATE ALL E.T.C. WORK WITH THE APPROPRIATE UTILITY COMPANIES.
15. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH SOMERVILLE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
16. ALL EXISTING UTILITIES WITHIN THE SITE ARE TO BE REMOVED UNLESS OTHERWISE STATED TO REMAIN.
17. IF DURING THE CONSTRUCTION PROCESS THE NEED FOR EXCAVATION DEWATERING ARISES, A DEWATERING FILTER PIT SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROPRIATE STORMWATER MANAGEMENT AND ENGINEERING PRACTICES.
18. ABANDON EXISTING SEWER SERVICE, CUT AND CAP AT MAIN.



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PERMIT PLAN SET

APPLICANT:
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DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	JULY 14,2025
SCALE:	1"=10'
PROJECT NO.:	225-137

DWG. TITLE:
UTILITY PLAN

DWG. NO:
C-3

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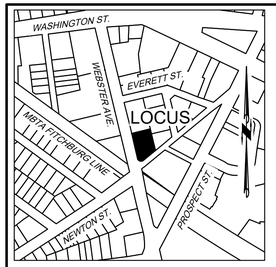

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TRAFFIC MANAGEMENT NOTES (DURING DEMOLITION)

1. ALL WORK SHALL BE COMPLETED DURING THE HOURS OF 8:00AM AND 4:00PM ON MONDAY THROUGH FRIDAY, UNLESS PRIOR APPROVAL IS OBTAINED FROM THE CITY.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CITY OF SOMERVILLE STANDARDS AND REQUIREMENTS.
3. ALL SIGNAGE AND TRAFFIC MANAGEMENT DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD AND NCHRP 350.
4. THE CONTRACTOR SHALL COORDINATE POLICE DETAILS AS NEEDED FOR ANY WORK ASSOCIATED WITH DEMOLITION ACTIVITIES, DELIVERIES, THE REMOVAL OF DEBRIS, AND FOR ALL STREET WORK.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROVIDE A SAFE PEDESTRIAN TRAVEL WAY AROUND THE CONSTRUCTION SITE AND WITHIN THE CITY SIDEWALKS AND BICYCLE LANES.
6. THERE ARE NO STREET OR SIDEWALK CLOSURES ANTICIPATED DURING DEMOLITION.
7. CONSTRUCTION VEHICLES WILL ENTER VIA THE NEWTON ST. CURB CUT/GATE AND ALL LOADING WILL OCCUR ON-SITE.
8. IF DUMPSTERS ARE REQUIRED THEY WILL BE LOCATED ON-SITE.
9. A SIX FOOT HIGH CONSTRUCTION FENCE WILL BE INSTALLED AROUND THE PERIMETER OF THE PROPERTY WITH A 24 FT. WIDE GATE AT EACH EXISTING CURB CUT.
10. THE CONTRACTOR SHALL SWEEP AND ENSURE THAT NEWTON ST. AND WEBSTER AVE. ARE FREE OF DEBRIS FROM THE CONSTRUCTION SITE AT ALL TIMES.

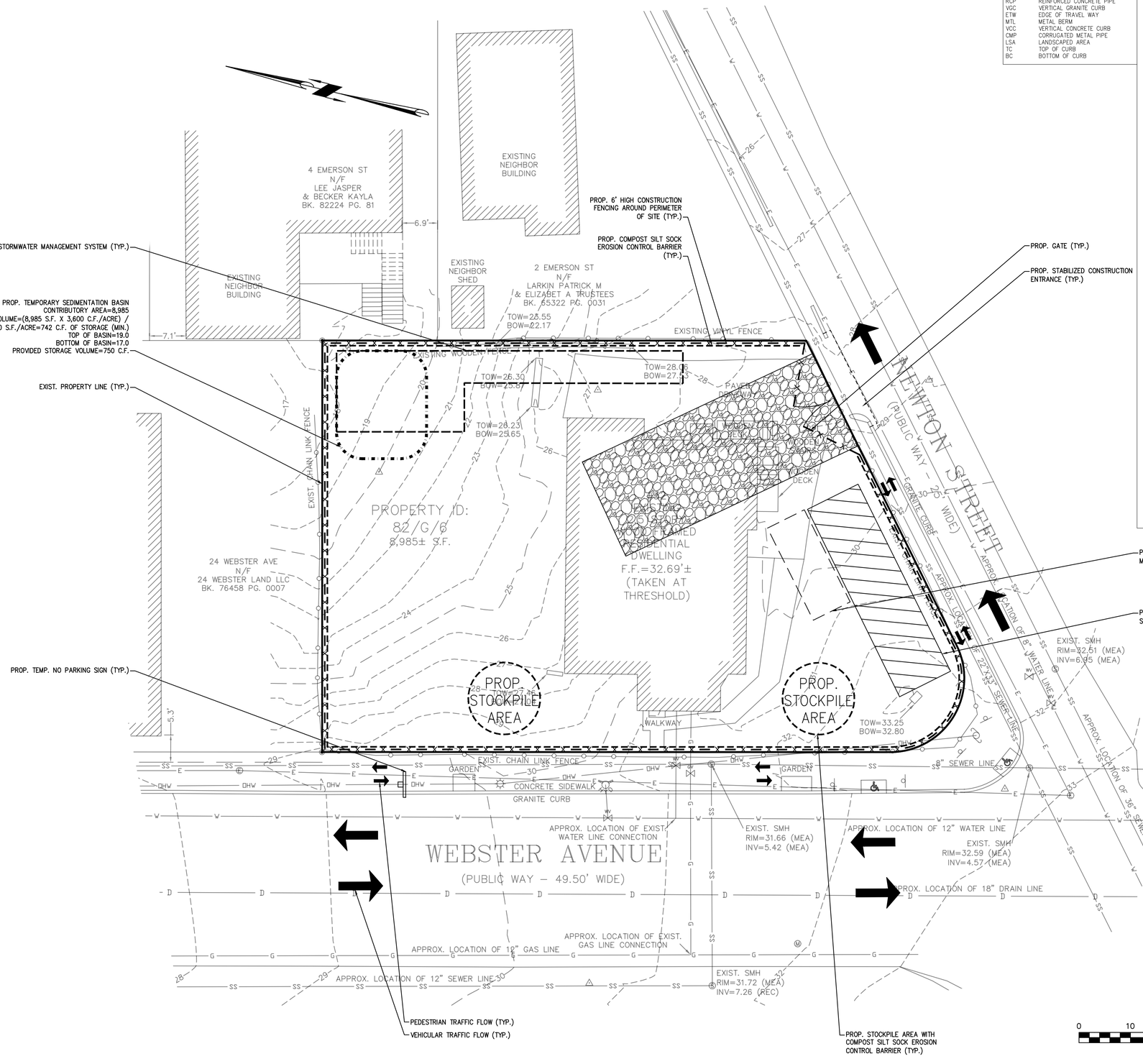
CONSTRUCTION SEQUENCE

TO PREVENT EXCESSIVE EROSION AND SILTING, THE FOLLOWING CONSTRUCTION SEQUENCE COUPLED WITH OTHER WIDELY ACCEPTED PRINCIPALS FOR REDUCING EROSION AND SEDIMENTATION SHALL BE IMPLEMENTED IN THE DEVELOPMENT OF THE SITE.

1. THE CONTRACTOR SHALL COORDINATE A PRE-CONSTRUCTION MEETING PRIOR TO ANY CONSTRUCTION ACTIVITY.
2. STABILIZATION PRACTICES FOR EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. REFER TO "EROSION AND SEDIMENTATION CONTROL" SECTION OF THIS PLAN & PLACE SILTATION FENCE ON THE SITE PLANS.
3. CLEAR AND GRUB UP AS REQUIRED.
4. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
5. EXCAVATE TOPSOIL AND SUBSOIL FROM CUT AND FILL AREAS AND STOCKPILE ON SITE IN LOCATIONS SHOWN ON THE PLAN. CONSIDERATION SHOULD BE GIVEN TO LOCATING STOCKPILES ON THE UPHILL SIDE OF DISTURBED AREAS, WHERE POSSIBLE, TO ACT AS TEMPORARY DIVERSIONS.
6. CONSTRUCT CUT AND FILL AREAS, INSTALLING HAYBALE CHECK DAMS AT TOES OF ALL 3:1 OR GREATER SLOPES, AND AT ENDS OF ALL CUT AREAS. ALL FILL WILL BE INSTALLED USING 12" MAXIMUM COMPACTION LIFTS. PLACE ALL SLOPE PROTECTION WHERE INDICATED ON THE PLAN. THE STORMWATER MANAGEMENT SYSTEM SHALL BE CONSTRUCTED IMMEDIATELY AFTER ROUGH GRADING IS COMPLETED AND THE AREA HAS BEEN CLEARED OF VEGETATION.
7. INSTALL CLOSED DRAINAGE SYSTEM AND OTHER UTILITIES. ALL CATCH BASINS SHALL BE COVERED WITH SILTSACK OR EQUIVALENT INLET PROTECTION.
8. GRADE SIDEWALK AREAS TO SUBGRADE ELEVATION AND CONSTRUCT SIDE SLOPES. APPLY TEMPORARY STABILIZATION MEASURES WHERE WARRANTED. REFER TO "EROSION AND SEDIMENTATION CONTROL" SECTION OF THIS PLAN.
9. EXCAVATE AND CONSTRUCT BUILDINGS.
10. PLACE GRAVEL SUBBASE.
11. PLACE THE BITUMINOUS CONCRETE BINDER COURSE ON PARKING AREAS (IF REQUIRED)
12. CONSTRUCT BUILDING STRUCTURE AND ASSOCIATED UTILITY CONNECTIONS.
13. GRADE SLOPES AND STABILIZE CUT AREAS AT TOE OF SLOPES. BLEND ALL SLOPES INTO EXISTING TOPOGRAPHY AND LOAM AND SEED ALL DISTURBED AREAS. SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH JUTE MESH.
14. PLACE THE FINAL WEARING COURSE OF PAVEMENT (IF REQUIRED).
15. COMPLETE FINE GRADING OF SHOULDERS AND PLACE PAVEMENT IN MISCELLANEOUS AREAS.
16. REMOVE TEMPORARY EROSION CONTROL DEVICES ONCE ADEQUATE GROWTH IS ESTABLISHED. ADEQUATE GROWTH IS DEFINED AS VEGETATION COVERING 75% OR MORE OF THE GROUND SURFACE.

CONSTRUCTION PHASE BMP OPERATION AND MAINTENANCE NOTES:

1. STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, CONCRETE WASH STATIONS, STOCKPILE AREAS, AND INLET PROTECTION.
2. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
3. OPERATOR PERSONNEL AND/OR ITS CONSULTANTS MUST INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 7 CALENDAR DAYS OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT ½ INCH OR GREATER. THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT TO THE FOLLOWING:
   A. WHETHER OR NOT THE BMP WAS INSTALLED/PERFORMED CORRECTLY.
   B. WHETHER OR NOT THERE HAS BEEN DAMAGE TO THE BMP SINCE IT WAS INSTALLED OR PERFORMED.
   C. WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE BMP.
4. THE INSPECTOR SHALL COMPLETE THE INSPECTION SCHEDULE AND EVALUATION CHECKLIST FOR FINDINGS AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR.
5. ALL SLOPES EXCEEDING 15% RESULTING FROM SITE GRADING SHALL BE BOTH COVERED WITH FOUR INCHES OF TOPSOIL AND PLANTED WITH A VEGETATED COVER SUFFICIENT TO PREVENT EROSION.



REV	DATE	DESCRIPTION	BY
1	3/13/26	SITE COVERAGE TBL	ESS BCM

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www.mckeng.com

SITE DEVELOPMENT PLAN
(ASSESSOR'S PARCEL NUMBER 82-G-6)
32 WEBSTER AVENUE
SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

PERMIT PLAN SET

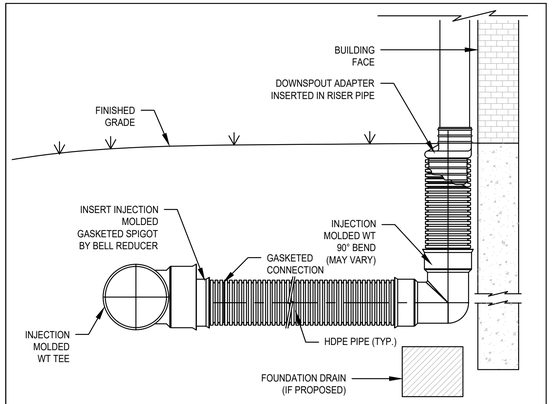
APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	1"=10'
PROJECT NO.:	225-137

DWG. TITLE:
EROSION AND SEDIMENT CONTROL PLAN

DWG. NO:
ESC-1

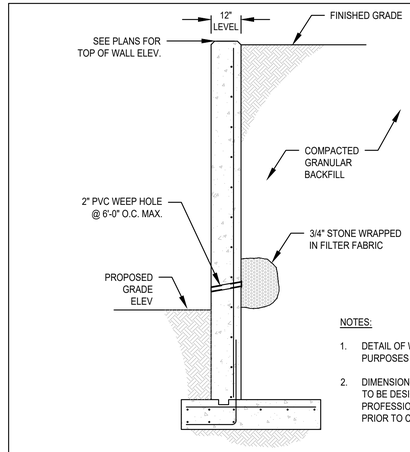
C:\USERS\ESCHOUMAKER.MCKENG\MCKENZIE ENGINEERING GROUP, INC\MCK FILE SHARE – DOCUMENTS\FILE SHARE\MEG\2025 PROJECTS\225-137 KINVARRA CAPITAL – 32 WEBSTER ST., SOMERVILLE\DWGS\225-137 MAIN3.DWG



NOTES:

1. INJECTION MOLDED FITTING ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.
2. WATERTIGHT (WT) JOINTS SHOWN. SOIL-TIGHT (ST) FITTINGS ARE ALSO AVAILABLE.

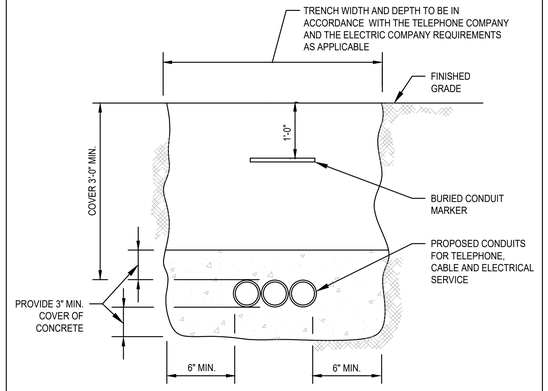
ROOF LEADER CONNECTION DETAIL
SCALE: N.T.S.



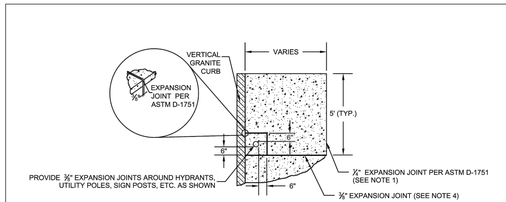
NOTES:

1. DETAIL OF WALL FOR INFORMATIONAL PURPOSES ONLY.
2. DIMENSIONS OF WALL AND REINFORCING TO BE DESIGNED BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

CAST-IN-PLACE CONCRETE CANTILEVER RETAINING WALL
SCALE: N.T.S.



TYPICAL ELECTRIC/TELEPHONE/CABLE CONDUIT (US-UTILITY SERVICE)
SCALE: N.T.S.



NOTES:

1. EXPANSION JOINTS SHALL BE INSTALLED AT BACK OF SIDEWALK STEPS, WALLS, BUILDINGS, AND OTHER STRUCTURES.
2. EXPANSION JOINTS AT BUILDINGS SHALL BE CAULKED.
3. EXPANSION JOINTS SHALL BE USED AT TRANSITIONS BETWEEN NEW AND EXISTING SIDEWALK JOINTS.
4. EXPANSION JOINTS OF ¾-IN THICK FOAM SHALL BE PLACED EVERY 30 FEET PERPENDICULAR TO CURB ALIGNMENT EXTENDING THROUGH THE SIDEWALK DEPTH.

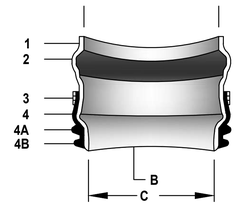
SIDEWALK EXPANSION JOINT
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02524	DETAIL NUMBER: R-1.1.0
REVISION:			

A. BELL END ACCEPTS PIPE WITH SDR 26, SDR 35 AND ASTM D3034 OR EQUIVALENT O.D. SPECIFICATION IN 4" AND 6" SIZES.

B. CURVATURE VARIES WITH MAINLINE DIAMETERS.

C. SPIGOT END SDR 26, PVC SDR 35, ASTM D3034 DIAMETERS: 4" AND 6"



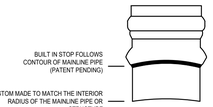
PART NAME
HUB ADAPTOR
RUBBER GASKET
SECURING CLAMP*

RUBBER SLEEVE
UPPER SEGMENT**
LOWER SEGMENT***

* OPTIONAL: #316 STAINLESS STEEL BAND, SCREW AND HOUSING
** DISTANCE BETWEEN 4A AND 4B WILL VARY BY PRODUCT TYPE
*** WILL NOT APPEAR ON RUBBER SLEEVES FOR CONCRETE OR CLAY PIPE

INSERTA TEE SIZE		HOLE DIAMETER	
4"	(100 mm)	4½"	(114 mm)
6"	(150 mm)	6½"	(165 mm)

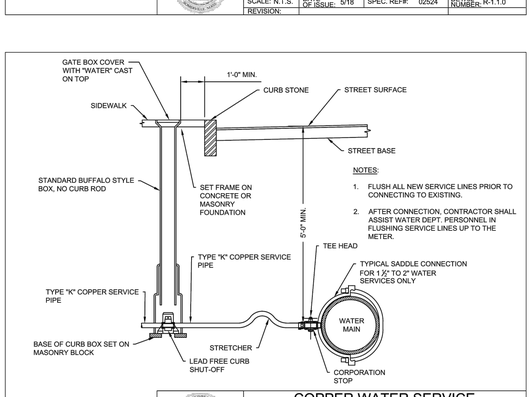
MATERIALS
PVC SDR 26 ASTM D3034
ASTM F477
BAND SS #301
SCREW SS #305
HOUSING SS #301
ASTM F477



NOTES:

1. DETAILS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. PRODUCT SPECIFICATIONS AND INSTALLATION SHALL COME FROM MANUFACTURER.
2. RECOMMENDED METHOD OF CUTTING HOLE IS WITH HOLE SAW FOR PVC AND OTHER PLASTICS, AND DIAMOND BIT FOR CONCRETES, CLAY, FRP, AND D.I. (SEE INSTALLATION INSTRUCTIONS.)

INSERTA-TEE CONNECTION
N.T.S.

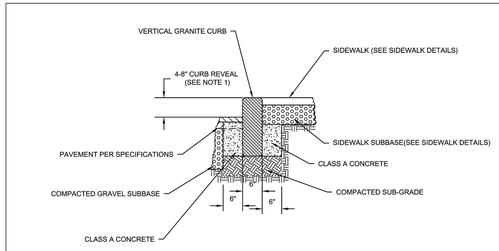


NOTES:

1. NEW SIDEWALK SHALL MATCH WIDTH OF EXISTING SIDEWALK UNLESS OTHERWISE NOTED.
2. CONCRETE SIDEWALK TO BE 6" THICK AT DRIVEWAYS AND INTERSECTIONS AND 4" THICK ELSEWHERE.
3. SIDEWALKS TO BE BUILT ACCORDING TO ADA AND MA AAB REGULATIONS, 2.0% MAX (0% TOLERANCE) CROSS SLOPE.

CONCRETE SIDEWALK
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02524	DETAIL NUMBER: R-1.1.0
REVISION:			

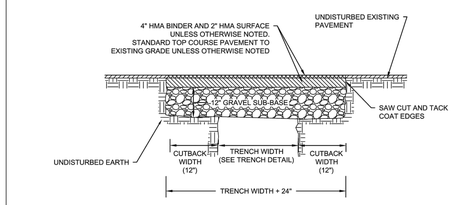


NOTES:

1. CURB REVEAL SHALL BE 7" WHERE FEASIBLE FOR NEW ROADWAYS UNDER FULL RECONSTRUCTION.

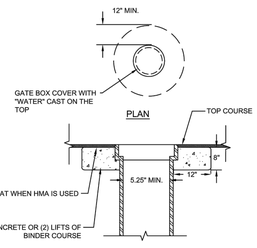
VERTICAL GRANITE CURB
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02524	DETAIL NUMBER: R-3.2.0
REVISION:			



PERMANENT TRENCH PATCH
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02500	DETAIL NUMBER: R-5.2.0
REVISION:			



GATE BOX SETTING
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

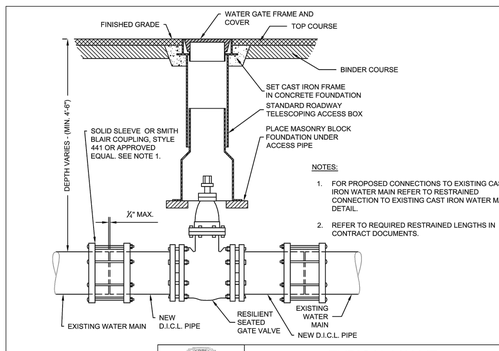
SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02640	DETAIL NUMBER: W-2.2.0
REVISION:			

NOTES:

1. FLUSH ALL NEW SERVICE LINES PRIOR TO CONNECTING TO EXISTING.
2. AFTER CONNECTION, CONTRACTOR SHALL ASSIST WATER DEPT. PERSONNEL IN FLUSHING SERVICE LINES UP TO THE METER.

COPPER WATER SERVICE CONNECTION
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02660	DETAIL NUMBER: W-1.1.0
REVISION:			

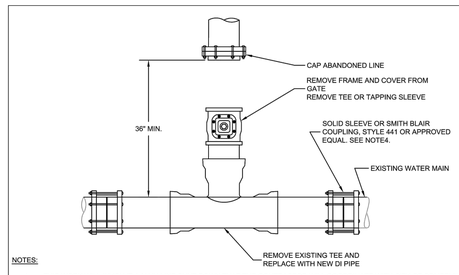


NOTES:

1. FOR PROPOSED CONNECTIONS TO EXISTING CAST IRON WATER MAIN REFER TO RESTRAINED CONNECTION TO EXISTING CAST IRON WATER MAINS DETAIL.
2. REFER TO REQUIRED RESTRAINED LENGTHS IN CONTRACT DOCUMENTS.

TYPICAL VALVE
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02640	DETAIL NUMBER: W-2.1.0
REVISION:			



NOTES:

1. THIS WORK WILL INVOLVE A MAIN LINE SHUT DOWN THAT THE CONTRACTOR WILL COORDINATE WITH CITY OF SOMERVILLE.
2. 48-HOUR PRIOR WRITTEN NOTIFICATION OF ALL AFFECTED CUSTOMERS MUST BE PERFORMED BY THE CONTRACTOR.
3. ALL WORK MUST BE PERMITTED BY CITY OF SOMERVILLE AND ALL OTHER APPROPRIATE AGENCIES.
4. FOR PROPOSED CONNECTIONS TO EXISTING CAST IRON WATER MAIN REFER TO RESTRAINED CONNECTION TO EXISTING CAST IRON WATER MAINS DETAIL.

WATER MAIN GREATER THAN 4" DIAMETER ABANDONMENT
CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: N/A	DETAIL NUMBER: W-5.1.0
REVISION:			

REV	DATE	DESCRIPTION	BY
1	3/13/26	SITE COVERAGE TBL	ESS BCM APP

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SITE DEVELOPMENT PLAN
(ASSESSOR'S PARCEL NUMBER 82-G-6)
32 WEBSTER AVENUE
SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

PERMIT PLAN SET

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	AS NOTED
PROJECT NO.:	225-137

DWG. TITLE:
CONSTRUCTION DETAILS

DWG. NO:
D-1

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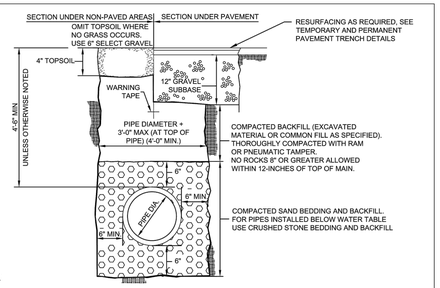


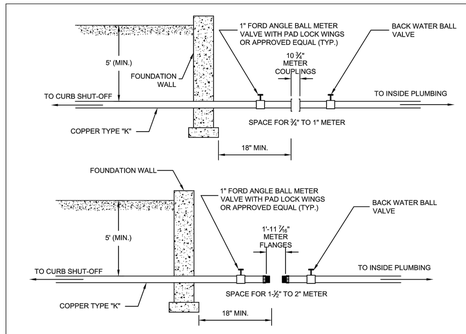
NOTES:

1. CITY OF SOMERVILLE MAY REQUIRE FLOWABLE FILL AT ITS DISCRETION.
2. FOR LOCATIONS WHERE LEDGE IS ENCOUNTERED, SAND BEDDING SHALL BE MINIMUM OF 12" THICK UNDER PIPE.
3. FILL MATERIAL SHALL BE COMPACTED TO 95% PROCTOR DENSITY.

TRENCH DETAIL FOR WATER MAINS

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

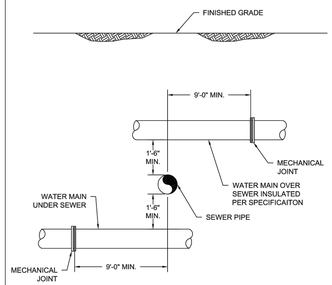
SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02210	DETAIL NUMBER: W-4.1.0
REVISION:			



METER INSTALLATION

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02660	DETAIL NUMBER: W-6.1.0
REVISION:			



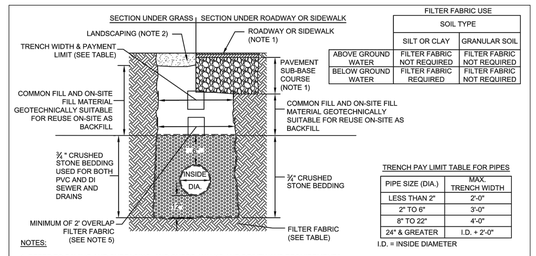
NOTES:

1. SEWERS SHALL BE KEPT REMOTE FROM WATER SUPPLY PIPING AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM HORIZONTAL DISTANCE OF 10 FEET FROM WATER MAINS. IF LOCAL CONDITIONS PREVENT THIS, THE WATER MAIN SHOULD BE LAID IN A SEPARATE TRENCH, AND THE ELEVATIONS OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
2. WHENEVER SEWERS MUST CROSS WATER MAINS, THE CROWN OF THE SEWER SHOULD BE PLACED A MINIMUM OF 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IN ADDITION, THE WATER MAIN MUST BE CONSTRUCTED WITH ONE FULL LENGTH OF PIPE CENTERED ABOUT THE SEWER CROSSING. THE WATER PIPE SHALL HAVE MECHANICAL JOINTS FOR A DISTANCE OF 9 FEET ON EACH SIDE OF THE SEWER CROSSING.
3. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER AND THE SEWER SHOULD BE ENCASED IN CONTROLLED DENSITY FILL FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING.

SEWER CROSSING

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 10/18	SPEC. REF#: 02000, 02615, 02616 & 02622	DETAIL NUMBER: S-8.3.0
REVISION:			



FILTER FABRIC USE

	SOIL TYPE	
	SILT OR CLAY	GRANULAR SOIL
ABOVE GROUND WATER	FILTER FABRIC NOT REQUIRED	FILTER FABRIC NOT REQUIRED
BELOW GROUND WATER	FILTER FABRIC REQUIRED	FILTER FABRIC NOT REQUIRED

TRENCH PAY LIMIT TABLE FOR PIPES

PIPE SIZE (DIA.)	MAX. TRENCH WIDTH
LESS THAN 2"	2'-0"
2" TO 6"	3'-0"
8" TO 22"	4'-0"
24" & GREATER	I.D. + 2'-0"

I.D. = INSIDE DIAMETER

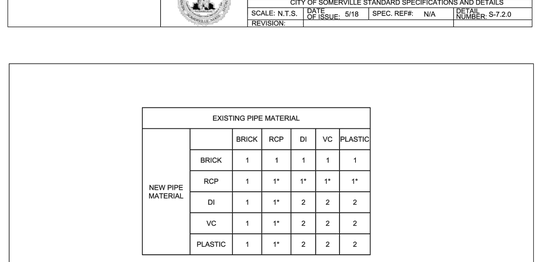
NOTES:

1. REFER TO PAVING AND SURFACING, AND CURBS, WALKS AND DRIVEWAYS REQUIREMENTS.
2. REFER TO LANDSCAPING REQUIREMENTS.
3. REFER TO "TRENCH PAY LIMIT TABLE FOR PIPES" FOR PAYMENT OF ALL ITEMS IN WHICH PAY TRENCH WIDTH IS A VARIABLE FOR CALCULATIONS OF QUANTITIES EXCEPT FOR TRENCH PAVEMENT.
4. REFER TO TRENCH PAVEMENT DETAIL FOR PAVEMENT PAYMENT WIDTHS.
5. FOR TRENCHES GREATER THAN 5' DEEP ADD MAXIMUM 3' FOR TEMPORARY SUPPORT OF EXCAVATION.

TRENCH DETAIL FOR SEWER AND DRAIN PIPES

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02210	DETAIL NUMBER: S-11.1.0
REVISION:			



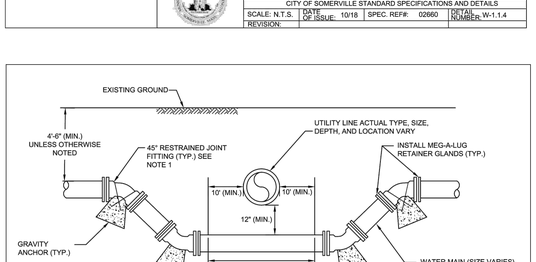
NOTES:

1. PLACE CLEANOUT WITHIN 5 FEET OF HOUSE FOUNDATION.
2. CLEANOUT SHALL BE IN A LOCATION THAT IS ACCESSIBLE AT ALL TIMES.
3. PROVIDE 6" MIN. LAYER OF ¾" CRUSHED STONE BEDDING. PROVIDE 12" WHERE BOTTOM OF TRENCH IS BEDROCK.
4. FLUSH MOUNT BOLT-DOWN BOX ACCEPTABLE UPON APPROVAL OF CITY.
5. IF THE CLEANOUT IS TO BE LOCATED IN A LAWN AREA, THE TOP OF THE CLEANOUT CAN BE BURIED 6" BELOW THE SURFACE TO OFFER PROTECTION FROM DAMAGE. MARK CLEANOUT LOCATION WITH DETECTABLE METAL.
6. IF THE CLEANOUT IS TO BE LOCATED IN A PAVED AREA, THE TOP OF THE CLEANOUT SHOULD BE PROTECTED BY A WELLHEAD COVER BOX (PREFERRED) OR A GATE BOX.

SERVICE CLEANOUT

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: N/A	DETAIL NUMBER: S-7.2.0
REVISION:			



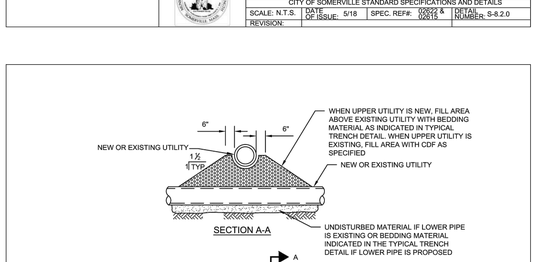
NOTES :

1. THIS ITEM IS FOR LOCATIONS WHERE EXISTING FOUNDATION WALL/SLAB SERVICE PENETRATION IS DETERMINED TO BE INACCESSIBLE FOR SERVICE REPLACEMENT BY ENGINEER.
2. FLUSH SERVICE LINE AT METER AS NECESSARY.
3. KEEP EDGE OF CORE AT LEAST 12" FROM TOP, BOTTOM OR SIDE EDGES OF WALL, AND AT LEAST 12" FROM DOORS, WINDOWS OR OTHER EXISTING PENETRATIONS.
4. FOR MOST TYPES OF CONSTRUCTION, PROVIDE CORE AND DENSE HYDRAULIC CEMENT. FOR CMU WALLS, IF BLOCK IS NOT FILLED, FILL CAVITY WITH GROUT BEFORE INSTALLING PIPE. IF BLOCK CRUMBLES DURING CORING OPERATION, CHIP OUT ENTIRE BLOCK. FILL CAVITY BELOW, AND PACK SPACE VACATED BY BLOCK WITH DENSE HYDRAULIC CEMENT. FOR FIELDSTONE WALL, PROVIDE MORTAR OR PLASTIC LEVELING SURFACE IF REQUIRED TO FACILITATE CORING.

PIPE PENETRATION THROUGH BASEMENT SLAB/WALL

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 10/18	SPEC. REF#: 02660	DETAIL NUMBER: W-1.1.4
REVISION:			



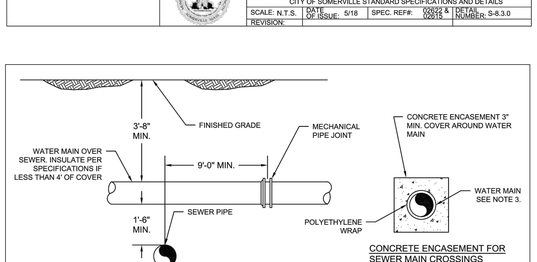
NOTES:

1. REPLACE EXISTING SEWER OR DRAIN SERVICE LATERAL TO EXTENT SHOWN IN DRAWINGS.
2. EXCAVATE AND REMOVE EXISTING LATERAL AS REQUIRED TO ALLOW RECONSTRUCTION.
3. SEWER AND DRAIN LATERALS SHALL BE SIZED TO FIT ANTICIPATED FLOWS BUT SHALL NOT BE LESS THAN 6" FOR SEWER AND 8" FOR DRAIN SERVICES.

SEWER OR DRAIN SERVICE TEE CONNECTION

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02622 & 02615	DETAIL NUMBER: S-8.2.0
REVISION:			



NOTES:

1. REPLACE EXISTING SEWER OR DRAIN SERVICE LATERAL TO EXTENT SHOWN IN DRAWINGS.
2. EXCAVATE AND REMOVE EXISTING LATERAL AS REQUIRED TO ALLOW RECONSTRUCTION.
3. FOR SEWER AND DRAIN SERVICE CONNECTIONS 18" IN DIAMETER OR GREATER A TEE INSERT OR EQUAL MAY BE USED.
4. FOR SERVICE CONNECTIONS < 12' DEEP FROM INVERT OF MAINLINE PIPE TO GRADE SEE SEWER OR DRAIN SERVICE CONNECTION DETAIL.
5. SEWER AND DRAIN LATERALS SHALL BE SIZED TO FIT ANTICIPATED FLOWS BUT SHALL NOT BE LESS THAN 6" FOR SEWER AND 8" FOR DRAIN SERVICES.

SEWER OR DRAIN SERVICE CONNECTION WITH CHIMNEY >12' DEEP

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02622 & 02615	DETAIL NUMBER: S-8.3.0
REVISION:			

EXISTING PIPE MATERIAL						
NEW PIPE MATERIAL		BRICK	RCP	DI	VC	PLASTIC
	BRICK	1	1	1	1	1
	RCP	1	1*	1*	1*	1*
	DI	1	1*	2	2	2
	VC	1	1*	2	2	2
	PLASTIC	1	1*	2	2	2

TYPE 1 = PIPE FIELD CLOSURE (CAST-IN-PLACE)
TYPE 2 = SHIELDED FLEXIBLE COUPLING

* TYPE 2 IS ALLOWABLE WITH WRITTEN PERMISSION FROM ENGINEER

PIPE CONNECTION NOTES:

1. PIPE COUPLING SHALL BE INSTALLED PER THE TABLE ABOVE UNLESS OTHERWISE NOTED.

PIPE CONNECTION TABLE

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02622 & 02615	DETAIL NUMBER: S-8.6.0
REVISION:			

NOTES:

1. CONTRACTOR TO UTILIZE FITTINGS ONLY WHEN PIPE DEFLECTION CANNOT BE USED TO CLEAR OBSTRUCTION.
2. ALL CROSSINGS TO BE UNDER UTILITY UNLESS OTHERWISE NOTED.
3. FOR WATER MAIN CROSSING UNDER SEWER MAINS REFER TO SEWER CROSSING AT WATER MAIN DETAIL.
4. INSULATE ALL SMALL DIAMETER WATER MAIN HAVING LESS THAN 4'-0" COVER AND ALL LARGE DIAMETER WATER MAIN (16" OR 20") HAVING LESS THAN 3'-6" COVER.

WATER MAIN UTILITY CROSSING

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02630	DETAIL NUMBER: S-10.1.0
REVISION:			

UTILITY CROSSING

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: N/A	DETAIL NUMBER: S-10.3.0
REVISION:			

NOTES:

1. SEWERS SHALL BE KEPT REMOTE FROM WATER SUPPLY PIPING AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM HORIZONTAL DISTANCE OF 10 FEET FROM WATER MAINS. IF LOCAL CONDITIONS PREVENT THIS, THE WATER MAIN SHOULD BE LAID IN A SEPARATE TRENCH, AND THE ELEVATIONS OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
2. WHENEVER SEWERS MUST CROSS BELOW WATER MAINS, THE CROWN OF THE SEWER SHOULD BE PLACED A MINIMUM OF 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IN ADDITION, THE WATER MUST BE CONSTRUCTED WITH ONE FULL LENGTH OF PIPE CENTERED ON THE SEWER CROSSING. THE WATER PIPE SHALL HAVE RESTRAINED MECHANICAL JOINTS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER CROSSING.
3. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, THE WATER SHALL BE ENCASED IN 4 MIL. POLY AND BOTH THE WATER AND THE SEWER SHALL BE ENCASED IN CONTROL DENSITY FILL FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING AND 18 INCHES VERTICAL SEPARATION.

SEWER CROSSING WATER MAIN

CITY OF SOMERVILLE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 5/18	SPEC. REF#: 02615 & 02622	DETAIL NUMBER: S-10.4.0
REVISION:			

NO.	DATE	DESCRIPTION	BY
1	3/13/26	SITE COVERAGE	TBL
			ESS
			BCM
			APP

MCKENZIE ENGINEERING GROUP

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150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
F: 781.792.0333
www.mckeng.com

SITE DEVELOPMENT PLAN

(ASSESSOR'S PARCEL NUMBER 82-G-6)
32 WEBSTER AVENUE
SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

PERMIT PLAN SET

APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	AS NOTED
PROJECT NO.:	225-137

DWG. TITLE:

CONSTRUCTION DETAILS

DWG. NO:

D-2

C:\USERS\ESCHOUMAKER.MCKENG\MCKENZIE ENGINEERING GROUP, INC\MCK FILE SHARE - DOCUMENTS\FILE SHARE\MEG\2025 PROJECTS\225-137 KINVARRA CAPITAL - 32 WEBSTER ST, SOMERVILLE\DWGS\225-137_DETAILSREV.DWG

CULTEC RECHARGER®300HD SPECIFICATIONS

GENERAL

CULTEC RECHARGER® 300HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:
   - A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   - B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   - C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   - A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F2418
   - B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   - C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
5. THE INSTALLED CHAMBER SYSTEM SHALL BE STRUCTURALLY DESIGNED TO PROVIDE RESISTANCE TO LIVE LOADS AS DEFINED BY THE AASHTO H-20/HL-93 SPECIFICATION WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
6. THE CHAMBER SHALL BE INJECTION MOLDED OF BLUE VIRGIN IMPACT-MODIFIED POLYPROPYLENE.
7. THE CHAMBER SHALL BE ARCHED IN SHAPE.
8. THE CHAMBER SHALL BE OPEN-BOTTOMED.
9. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
10. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 300HD SHALL BE 30 INCHES (762 MM) TALL, 51 INCHES (1295 MM) WIDE AND 90.5 INCHES (2299 MM) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 300HD SHALL BE 7.08 FEET (2.159 M).
11. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 300HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE.
12. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC.
13. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 24.2 INCHES (615 MM) LONG.
14. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 300HD CHAMBER SHALL BE 6.53 FT³ / FT (.607 M³ / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 300HD SHALL BE 46.27 FT³ / UNIT (1.310 M³ / UNIT) - WITHOUT STONE.
15. THE RECHARGER 300HD CHAMBER SHALL HAVE 14 CORRUGATIONS.
16. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION CREST.
17. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
18. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 M).

END CAP PARAMETERS

1. THE CULTEC RECHARGER® 300HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
2. THE END CAP SHALL BE INJECTION MOLDED OF BLUE VIRGIN IMPACT-MODIFIED POLYETHYLENE COPOLYMERS.
3. THE END CAP SHALL BE ARCHED IN SHAPE.
4. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
5. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 29.3 INCHES (744 MM) TALL, 45.9 INCHES (1166 MM) WIDE AND 12.2 INCHES (310 MM) LONG. WHEN JOINED WITH A RECHARGER 300HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 9.6 INCHES (244 MM).THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 3.32 FT³/ FT (0.31 M³ / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 2.66 FT³ / UNIT (0.08 M³ / UNIT) - WITHOUT STONE.
6. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE.
7. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
8. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL

CULTEC HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 300HD STORMWATER CHAMBERS.

CHAMBER PARAMETERS

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
4. THE CHAMBER SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 24.2 INCHES (614 MM) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 M³ / M) - WITHOUT STONE.
7. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 2 CORRUGATIONS.
8. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC AFAB-HPF™ WOVEN GEOTEXTILE

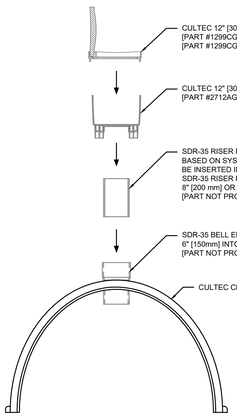
CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE AND TSS REMOVAL.

GEOTEXTILE PARAMETERS

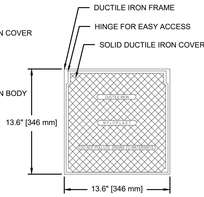
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK AND WHITE IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X 1,420 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

GENERAL NOTES

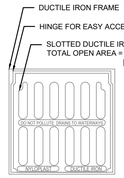
FINAL ASSEMBLY



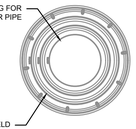
SOLID COVER OPTION



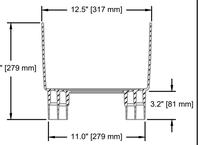
SLOTTED COVER OPTION

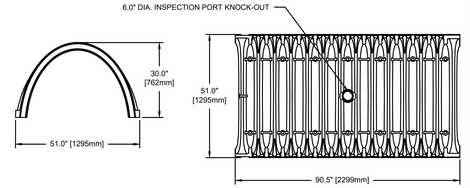


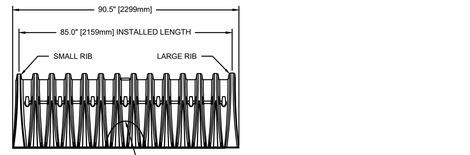
PVC BODY PLAN VIEW



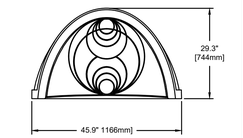
PVC BODY ELEVATION VIEW

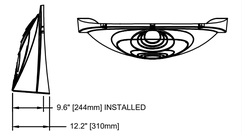






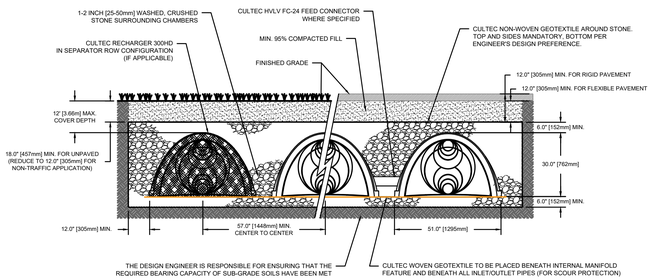
CULTEC RECHARGER 300HD CHAMBER STORAGE = 6.53 CF/FT [0.60 m³/m]
INSTALLED LENGTH ADJUSTMENT = 0.46' [.14m]





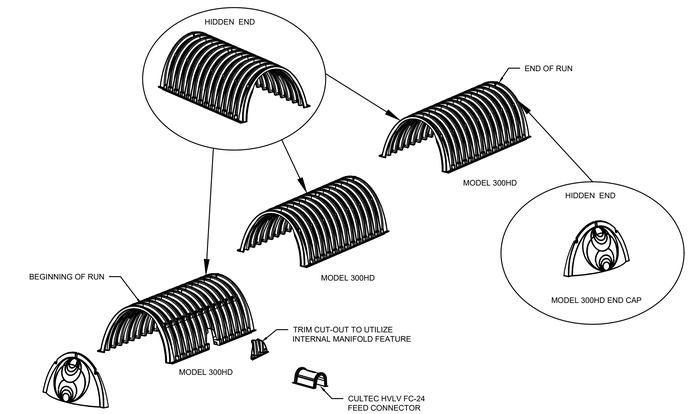
CULTEC RECHARGER 300HD
END CAP STORAGE = 2.66 CF [0.08 m³] / UNIT
END CAP STORAGE = 3.32 CF/FT [0.31 m³/m]
INSTALLED LENGTH ADJUSTMENT = 0.22' [.067m]

CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL



NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F2418
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

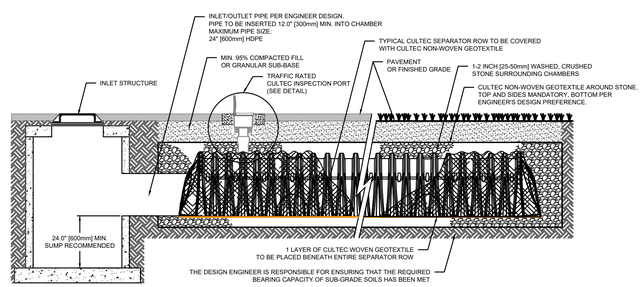
CULTEC RECHARGER 300HD HEAVY DUTY THREE VIEW



CULTEC RECHARGER 300HD HEAVY DUTY END CAP THREE VIEW

CULTEC RECHARGER 300HD HEAVY DUTY CROSS SECTION

CULTEC RECHARGER 300HD HEAVY DUTY TYPICAL INTERLOCK



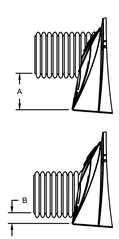
NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F2418
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

FIGURE 1

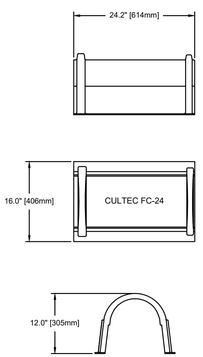
ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

PIPE	A	B
6" [150 mm]	18.50" [470 mm]	0.50" [13 mm]
8" [200 mm]	16.50" [420 mm]	0.75" [20 mm]
10" [250 mm]	14.50" [369 mm]	1.00" [26 mm]
12" [300 mm]	12.50" [318 mm]	1.25" [32 mm]
15" [375 mm]	9.00" [229 mm]	1.50" [39 mm]
18" [450 mm]	5.00" [127 mm]	1.75" [45 mm]
24" [600 mm]	N/A	2.50" [64 mm]

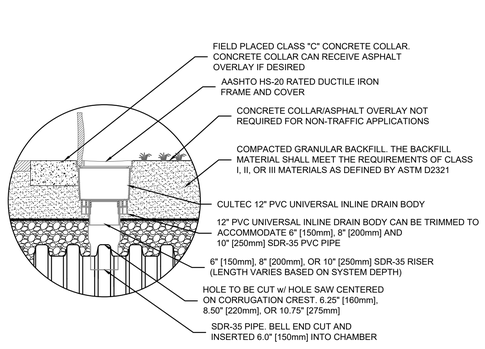
*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 6" (150mm), 8" (200mm), 10" (250mm), 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.



CULTEC RECHARGER 300HD TYPICAL PIPE INVERTS



CULTEC HVLV FC-24 FEED CONNECTOR THREE VIEW



OPTIONAL CULTEC INSPECTION PORT - ZOOM DETAIL

CULTEC SEPARATOR ROW - CULTEC INSPECTION PORT DETAIL (IF APPLICABLE)

C MCKENZIE ENGINEERING GROUP, INC.

REV	DATE	DESCRIPTION	BY	APP
1	3/13/26	SITE COVERAGE	TBL	ESS BCM

MCKENZIE ENGINEERING GROUP
Assinippi Office Park
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Norwell, MA 02061
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F: 781.792.0333
www.mckeng.com

SITE DEVELOPMENT PLAN
(ASSESSOR'S PARCEL NUMBER 82-G-6)
32 WEBSTER AVENUE
SOMERVILLE, MASSACHUSETTS

PROFESSIONAL ENGINEER:

APPLICANT:
KINVARRA CAPITAL
667 SOMERVILLE AVENUE
SOMERVILLE, MA 02143

PERMIT PLAN SET

DRAWN BY:	ESS
DESIGNED BY:	ESS
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	FEBRUARY 16, 2026
SCALE:	AS NOTED
PROJECT NO.:	225-137

DWG. TITLE:
CONSTRUCTION DETAILS

DWG. NO:
D-3

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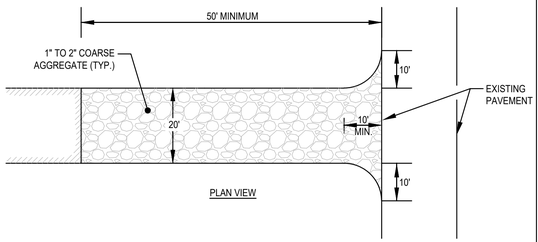
EROSION AND SEDIMENTATION CONTROL

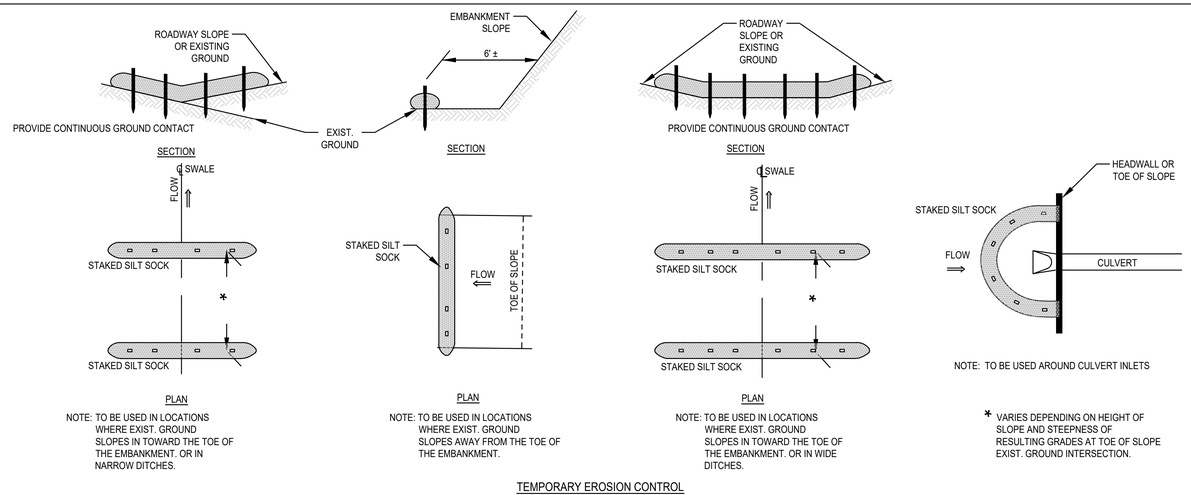
1. STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK BARRIER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, TEMPORARY DIVERSION SWALES WITH STONE CHECK DAMS, SEDIMENT BASINS, AND INLET PROTECTION.
2. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
3. IN GENERAL, THE SMALLEST POSSIBLE AREA OF LAND SHOULD BE EXPOSED AT ONE TIME. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHALL BE CONFINED TO A MAXIMUM PERIOD OF 3 MONTHS. LAND SHALL NOT BE EXPOSED DURING THE WINTER MONTHS. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY AND THAT WILL BE REGRADED AT A LATER DATE SHALL BE MACHINE HAY MULCHED AND SEEDED WITH WINTER RYE TO PREVENT EROSION.



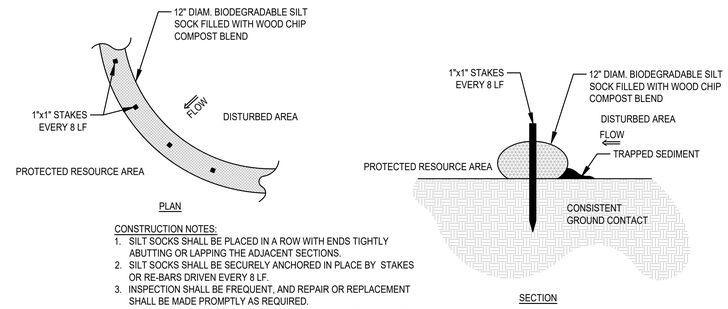
(SCE) CONSTRUCTION SPECIFICATIONS:

1. STONE FOR A STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN A FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DEVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE (SCE) DETAIL
SCALE: N.T.S.



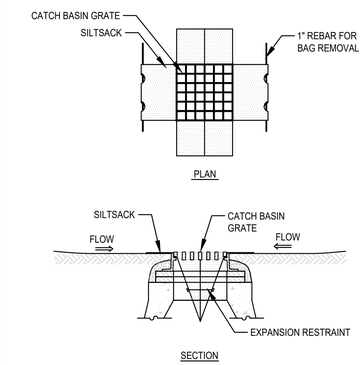
TEMPORARY EROSION CONTROL
SCALE: N.T.S.



CONSTRUCTION NOTES:

1. SILT SOCKS SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING OR LAPPING THE ADJACENT SECTIONS.
2. SILT SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN EVERY 8 LF.
3. INSPECTION SHALL BE FREQUENT, AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS REQUIRED.
4. SILT SOCKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

SILTSOCK EROSION CONTROL BARRIER DETAIL
SCALE: N.T.S.



SILTSACK SEDIMENT TRAP
SCALE: N.T.S.

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REV	DATE	DESCRIPTION	BY	APP
1	3/13/26	SITE COVERAGE TBL	ESS	BCM

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DWG. TITLE:

CONSTRUCTION DETAILS

DWG. NO:

D-4