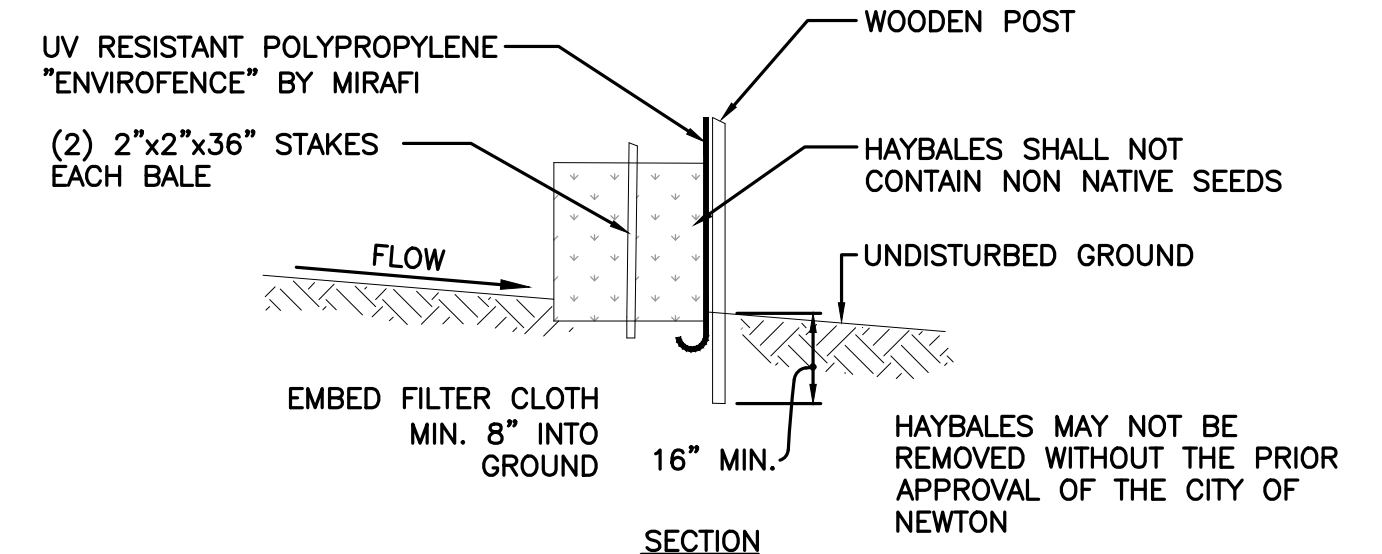
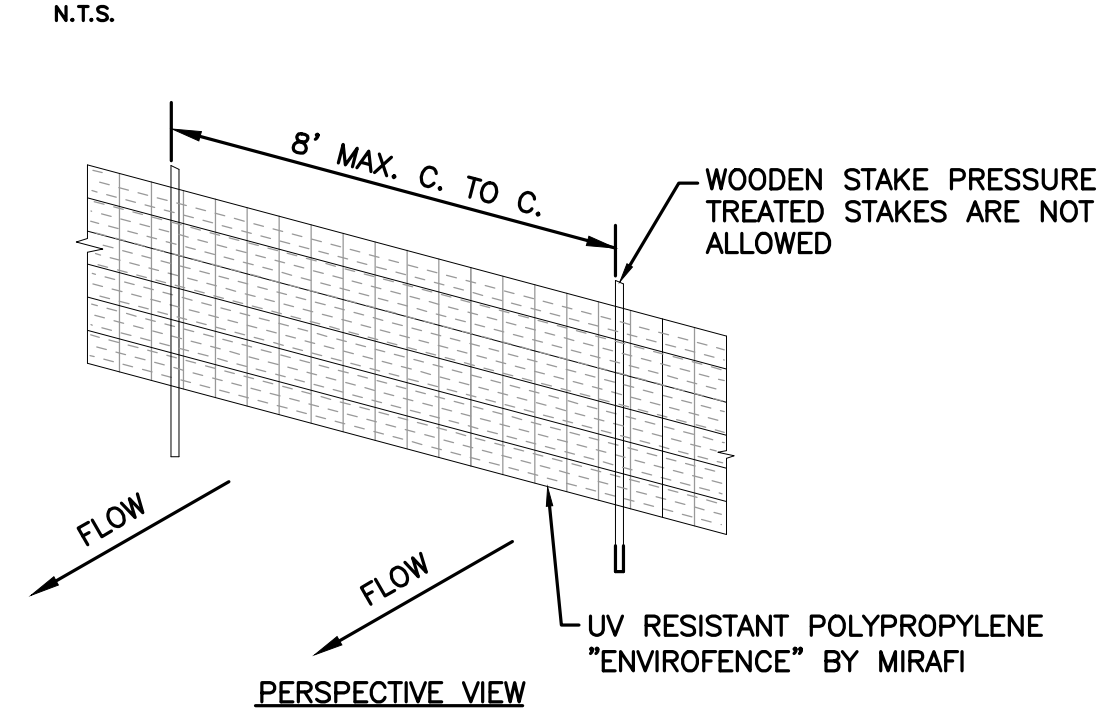


- NOTES:**
1. STONE SIZE - USE 3/4"-2" CLEAN WASHED STONE.
 2. LENGTH - NOT LESS THAN 40 FEET.
 3. THICKNESS - NOT LESS THAN (8) INCHES.
 4. WIDTH - TWELVE (12) MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS, TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
 6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

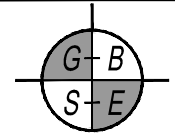


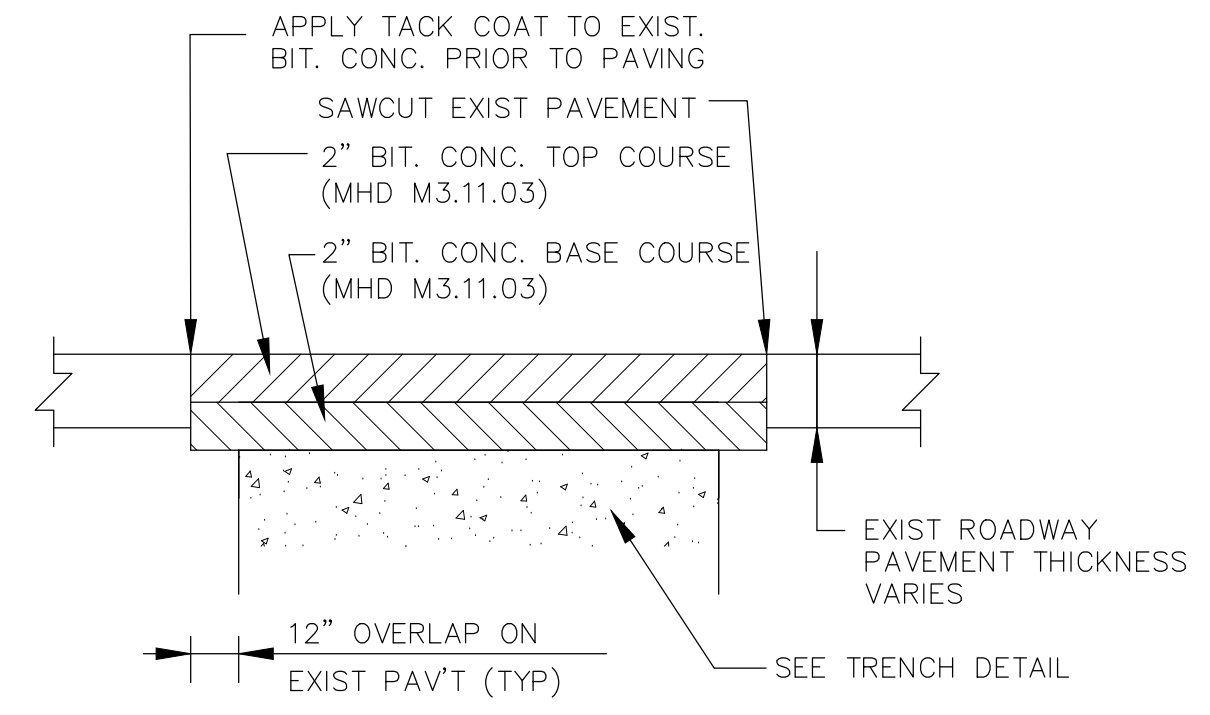
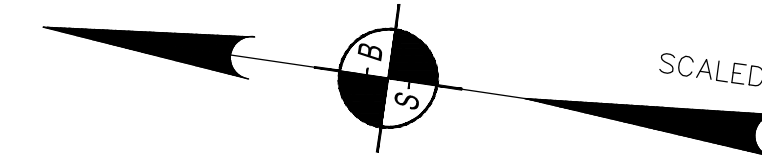
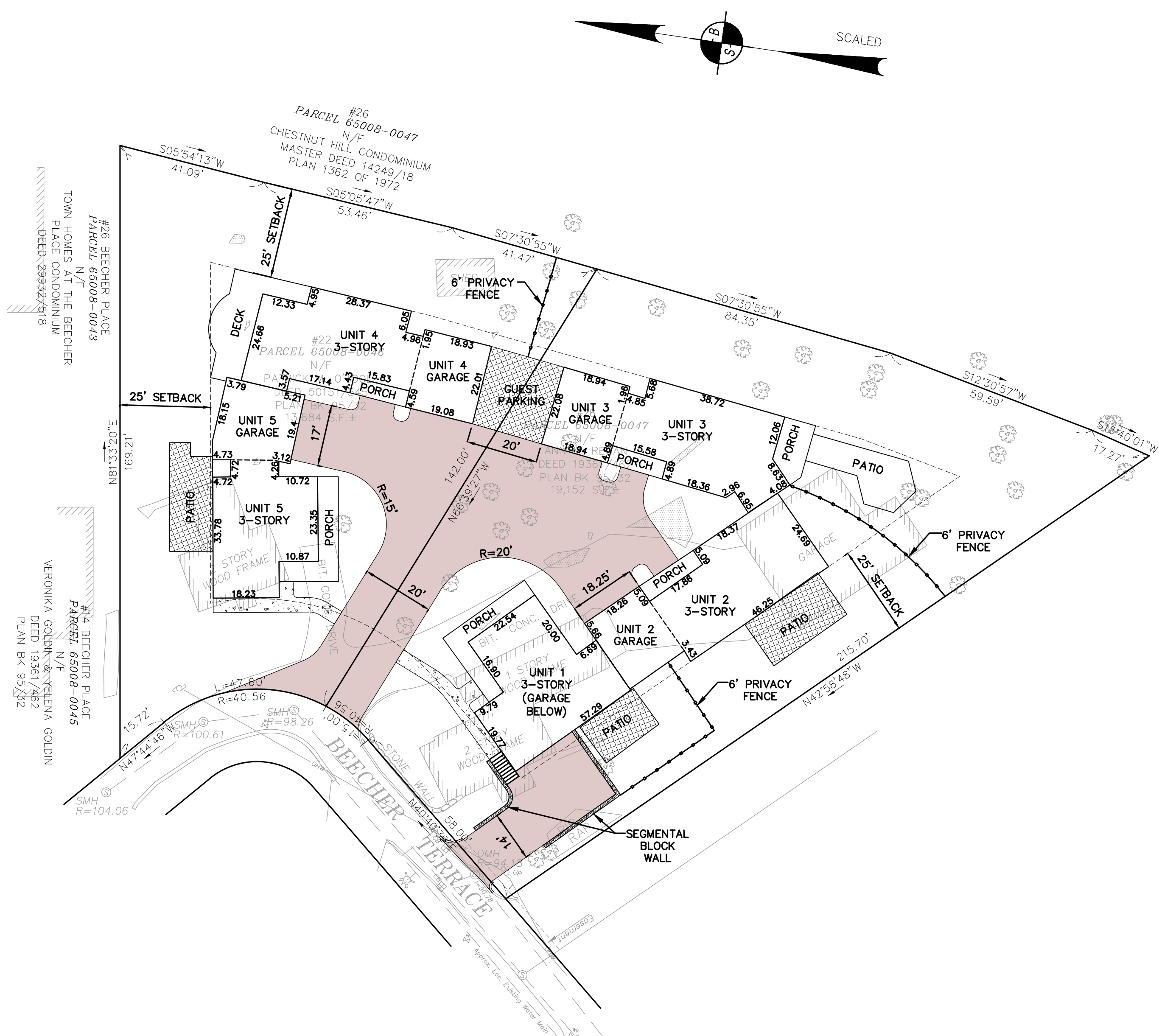
SILT FENCE WITH HAYBALE DETAIL

N.T.S.

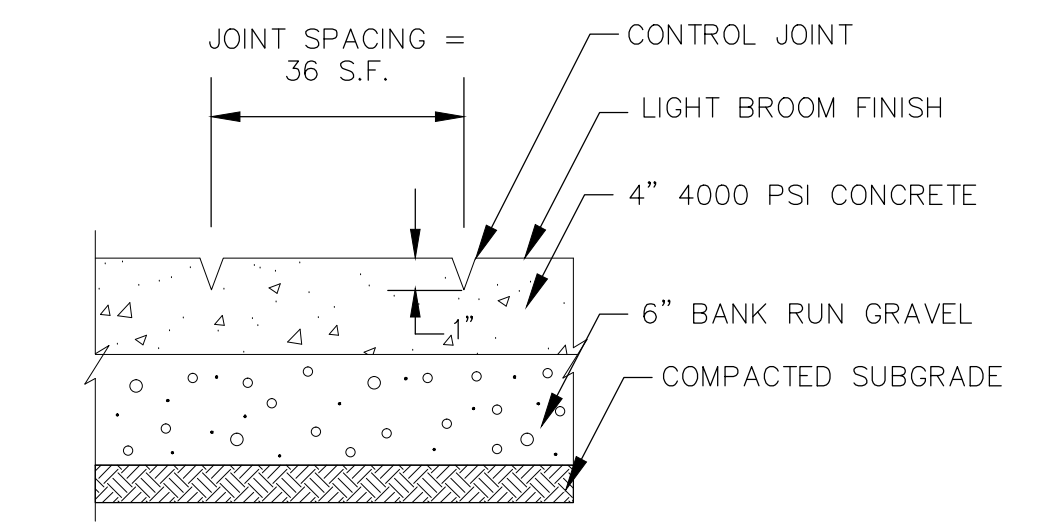
- NOTES:**
1. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-800-DIG-SAFE) A MINIMUM OF 72-HOURS PRIOR TO START OF ANY SITE WORK.
 2. FINAL LOCATION OF CONSTRUCTION ENTRANCE TO BE DETERMINED IN THE FIELD.
 3. ALL EXISTING UTILITIES LOCATIONS ARE BASED ON ON-GROUND-SURVEY AND/OR RECORD INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 4. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AND HAVE THEM INSPECTED AND APPROVED BY THE BUILDING INSPECTOR PRIOR TO THE START OF ANY SITEWORK.
 5. ALL MATERIALS TO BE REMOVED AND DISPOSED SHALL BE LEGALLY DISPOSED AT AN OFF-SITE LOCATION.
 6. CONTRACTOR SHALL STRIP, SCREEN AND AMEND EXISTING TOPSOIL FOR USE IN LANDSCAPED AREAS. ALL EXCESS TOPSOIL SHALL BE REMOVED AND DISPOSED.
 7. CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS MUST INSPECT ALL UTILITY DISCONNECTIONS. CONTRACTOR TO COORDINATE AND SCHEDULE ACCORDINGLY.
 8. CONTRACTOR SHALL CUT AND CAP ALL EXISTING UTILITY SERVICES TO THE EXISTING BUILDINGS TO BE DEMOLISHED.



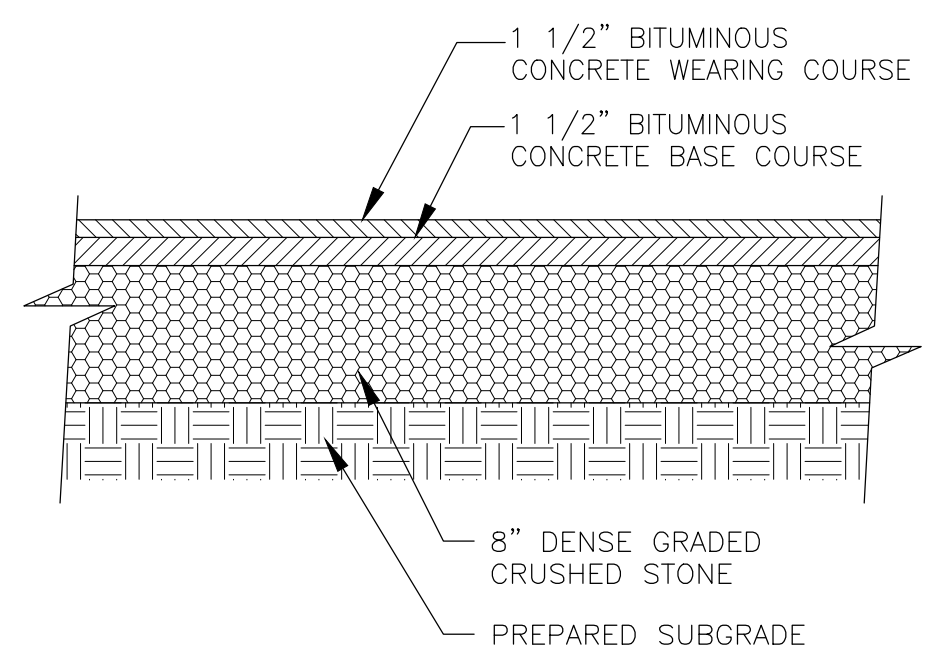
REVISION	DATE	COMMENTS
PROPOSED 5-UNIT DEVELOPMENT 22 & 26 BEECHER TERRACE NEWTON, MASSACHUSETTS (MIDDLESEX-SOUTH REGISTRY)		
PREPARED FOR ARA BARSOUMIAN 152 BELLEVUE ROAD WATERTOWN, MA 02472 (617) 251-3110		
 GREATER BOSTON SURVEYING AND ENGINEERING 19 FREDITH ROAD WEYMOUTH, MA 02189		
DES BY: NAC	CHECK BY: PJT	DATE: MARCH 25, 2013
DRAWING TITLE:		SCALE: 1"=20'
DEMO & EROSION CONTROL PLAN		DWG. NO. C-1



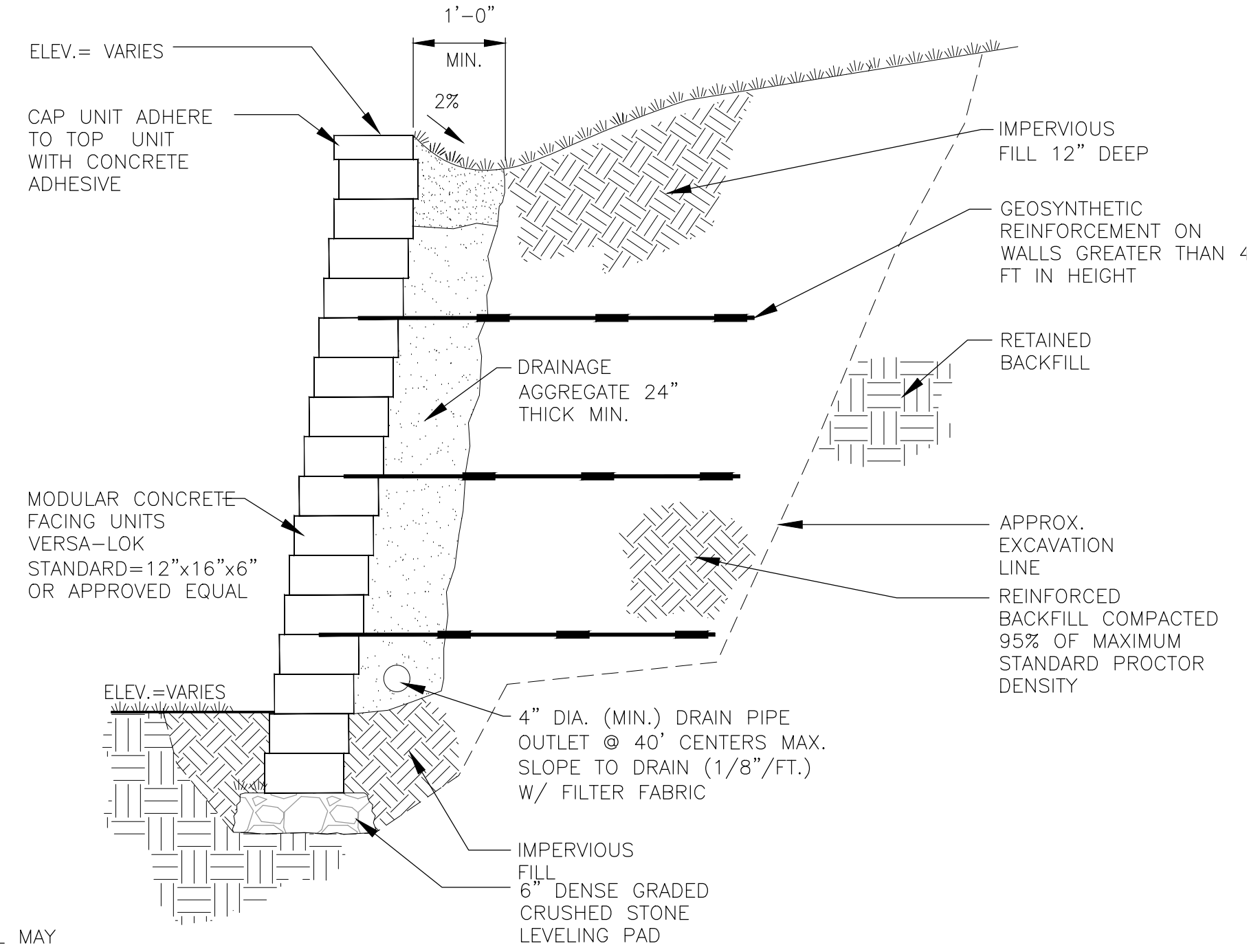
PAVEMENT PATCH DETAIL
NOT TO SCALE



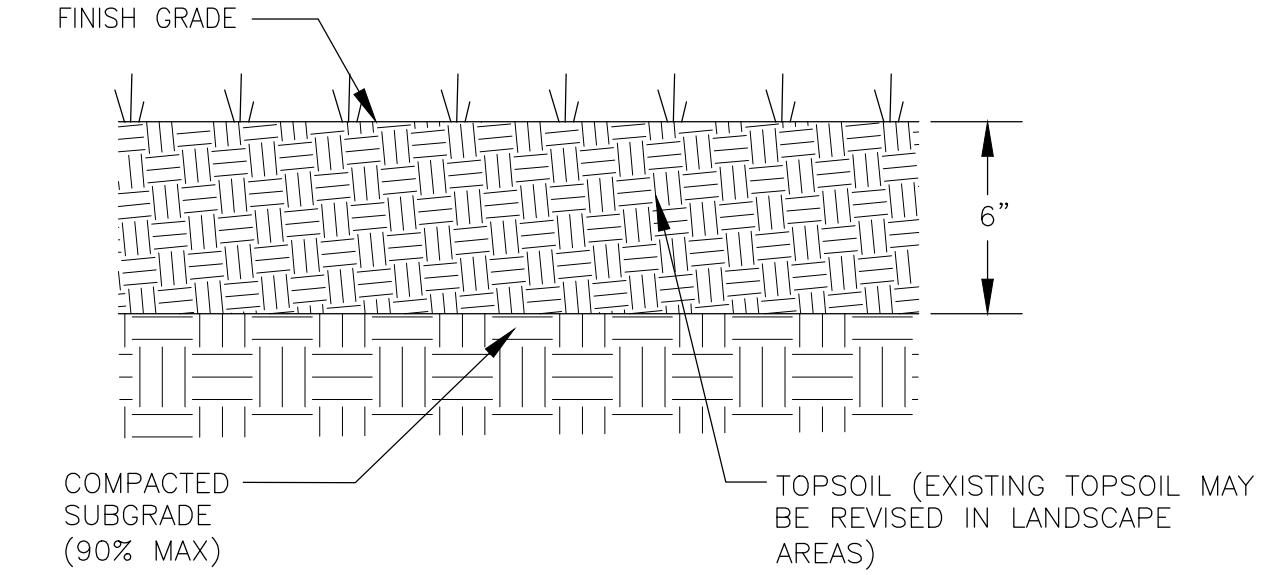
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



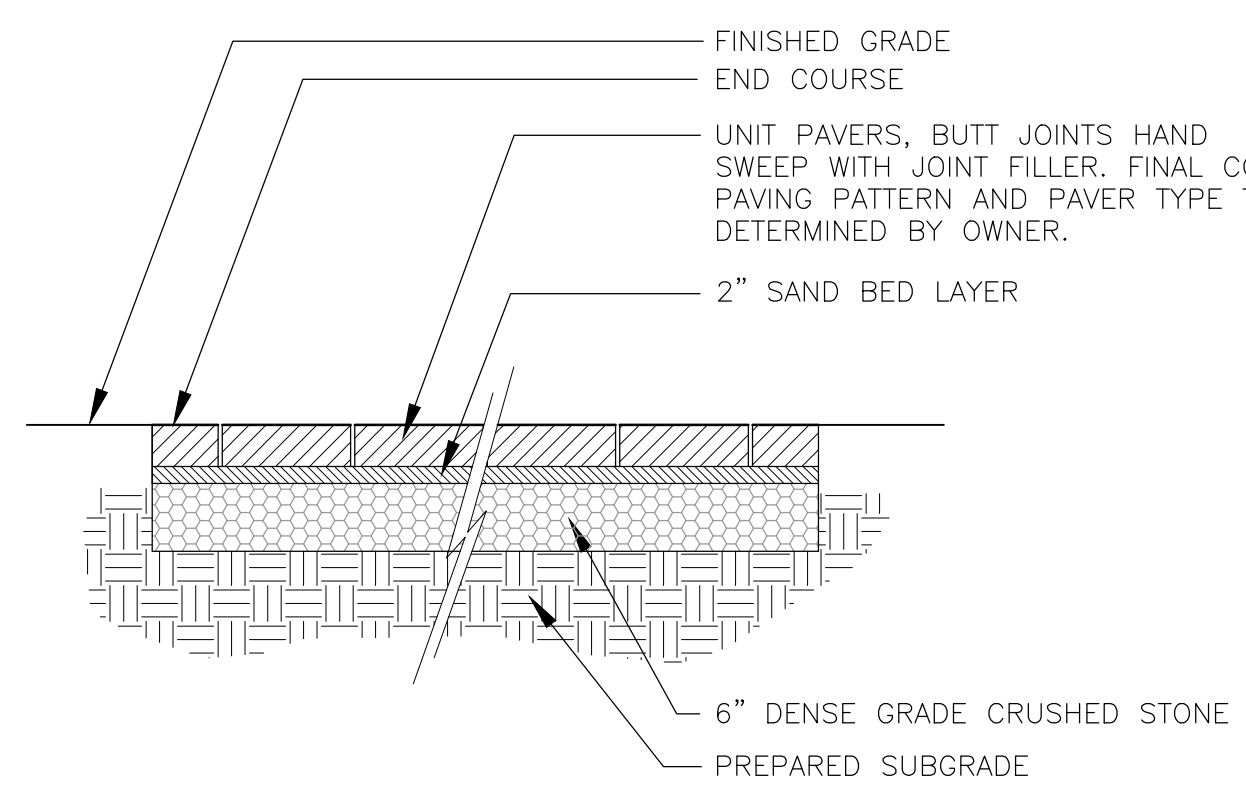
BITUMINOUS CONCRETE PAVEMENT DETAIL
NOT TO SCALE



SEGMENTAL BLOCK WALL DETAIL
NOT TO SCALE



LOAM AND SEED DETAIL
NOT TO SCALE



TYPICAL PAVER DETAIL
NOT TO SCALE



NO TREES TO BE REMOVED WITHOUT COMPLIANCE WITH THE CITY OF NEWTON TREE ORDINANCE

PROPOSED COVERAGES:
OPEN SPACE = 54%
STRUCTURE = 46%

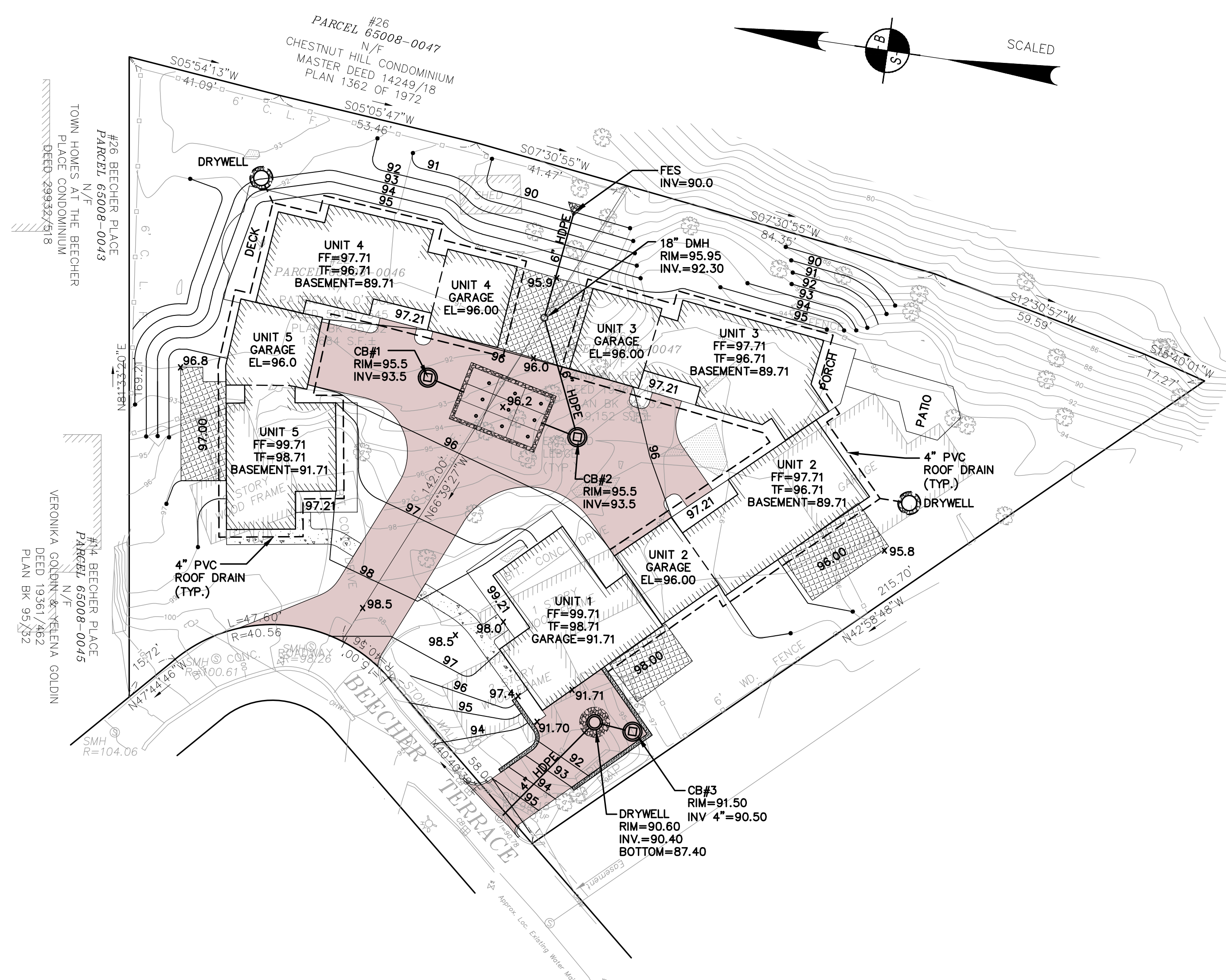
PROPOSED F.A.R.
BASEMENT = 0 sf
1ST FLOOR = 6,983 sf
2ND FLOOR = 5,048 sf
3RD FLOOR = 1,067 sf
TOTAL PROPOSED F.A.R. = 13,098 sf/
32,836 sf = 0.40

PROPOSED F.A.R. = 0.40
ALLOWED F.A.R. = 0.40 (*with allowable .02)

LAYOUT & MATERIALS LEGEND

- APPROXIMATE LIMITS OF BITUMINOUS CONCRETE PAVEMENT
- APPROXIMATE LIMITS OF CONCRETE PAVEMENT/WALKWAYS
- APPROXIMATE LIMITS OF BRICK/CONCRETE PAVERS

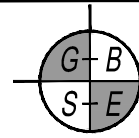
REVISION	DATE	COMMENTS
PROPOSED 5-UNIT DEVELOPMENT 22 - 26 BEECHER TERRACE NEWTON, MASSACHUSETTS (MIDDLESEX-SOUTH REGISTRY)		
PREPARED FOR ARA BARSOUMIAN 152 BELLEVUE ROAD WATERTOWN, MA 02472 (617) 251-3110		
GREATER BOSTON SURVEYING AND ENGINEERING 19 FREDITH ROAD WEYMOUTH, MA 02189		
DES BY: NAC	CHECK BY: PJT	DATE: MARCH 25, 2013
DRAWING TITLE: LAYOUT & MATERIALS PLAN		SCALE: 1"=20' DWG. NO.: C-2



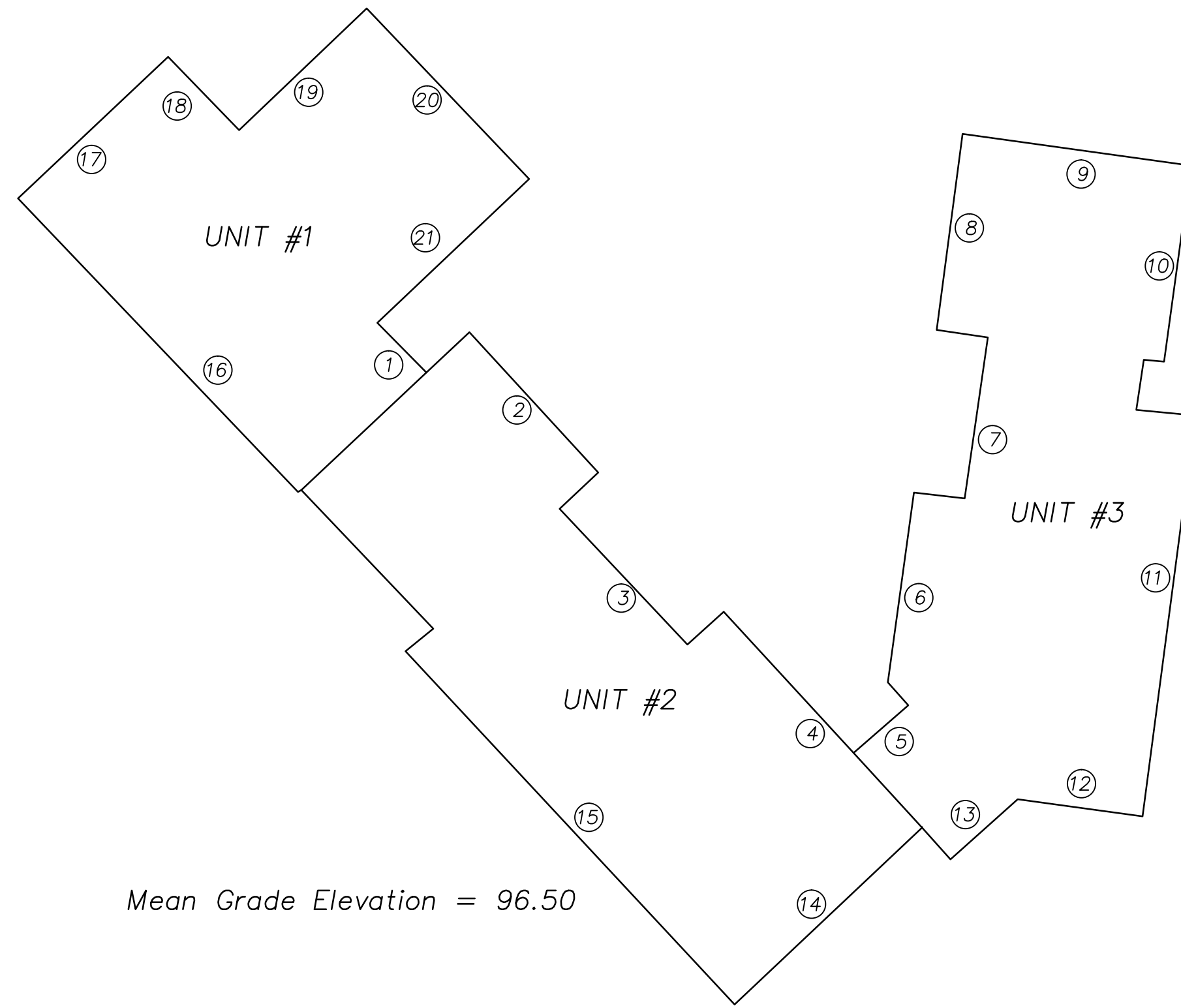
NOTES:

1. PRIOR TO AN OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN SHOULD BE SUBMITTED TO THE ENGINEERING DEPARTMENT IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND INVERTS, ANY EASEMENTS AND FINAL GRADES.
2. IF A CERTIFICATE OF OCCUPANCY IS REQUESTED PRIOR TO ALL SITE WORK BEING COMPLETED, THE APPLICANT WILL BE REQUIRED TO POST A CERTIFIED BANK CHECK IN THE AMOUNT TO COVER THE REMAINING WORK. THE CITY ENGINEER SHALL DETERMINE THE VALUE OF THE UNCOMPLETED WORK.
3. THE CONTRACTOR AND ENGINEER SHALL COMPLETE TEST PITS IN AREAS OF PROPOSED LEACHING STRUCTURES TO CONFIRM DEPTH TO GROUNDWATER AND INFILTRATION RATES OF THE SOIL. MODIFICATIONS TO THE PLANS SHALL BE APPROVED BY THE CITY OF NEWTON ENGINEERING DEPARTMENT.
4. THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DEPARTMENT 48 HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE DRAINAGE SYSTEM, INSPECTED. THE SYSTEM MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM MAY BE BACK FILLED.
5. THE UTILITIES SHOWN WERE COMPILED FROM FIELD LOCATIONS AND AVAILABLE PLANS OF UTILITY COMPANIES AND MAY OR MAY NOT BE CORRECT. CONTRACTOR IS TO CONTACT DIG SAFE AND ALL LOCAL UTILITY COMPANIES AS REQUIRED PRIOR TO ANY EXCAVATION.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH "CITY OF NEWTON STANDARD SPECIFICATIONS" AND "CITY OF NEWTON CONSTRUCTION DETAILS", COPIES OF WHICH MAY BE OBTAINED AT THE ENGINEERING OFFICE. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF NEWTON ENGINEERING DEPARTMENT.
7. THE CONTRACTOR SHALL PROVIDE POLICE DETAILS FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER. ALL ROADS EFFECTED BY CONSTRUCTION SHALL REMAIN OPEN TO EMERGENCY VEHICLES AT ALL TIMES. CONTRACTOR IS TO COORDINATE WITH POLICE AND FIRE DEPARTMENT TO ENSURE PUBLIC SAFETY.
8. AN EROSION CONTROL BARRIER SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION AND MUST BE CONTAINED ON SITE.
9. AS OF JANUARY 1, 2009, ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES ON PUBLIC AND PRIVATE PROPERTY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROPOSED GRADING AS SHOWN ON PLAN. ANY VARIATIONS TO PROPOSED GRADING SHOWN AND/OR ANY CHANGES TO PROPOSED STRUCTURE MAY RESULT IN NON-COMPLIANCE WITH ZONING REGULATIONS.
11. CONTRACTOR TO FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
12. ALL UTILITIES TRENCHES WITH THE EXCEPTION OF GAS, WITHIN THE CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING I.
13. ALL ROOF DRAINS ARE TO BE CONNECTED TO PROPOSED STRUCTURES WITH A MINIMUM OF 4" SCHEDULE 20 PVC PIPES AT A MINIMUM OF S=0.005.
14. CONTRACTOR MUST MATCH EXISTING CURBING AND SIDEWALK MATERIALS WHEN ABANDONING THE EXISTING DRIVEWAY ENTRANCE.
15. ALL CONSTRUCTION ACTIVITIES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY MUST FULLY COMPLY WITH ALL CITY OF NEWTON CONSTRUCTION SPECIFICATIONS AS WELL AS 521 CMR 21.00 AND 22.00.
16. APPROVAL OF THIS PLAN BY THE CITY OF NEWTON ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF NEWTON. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTION ABILITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S). THE CITY OF NEWTON ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTION, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.

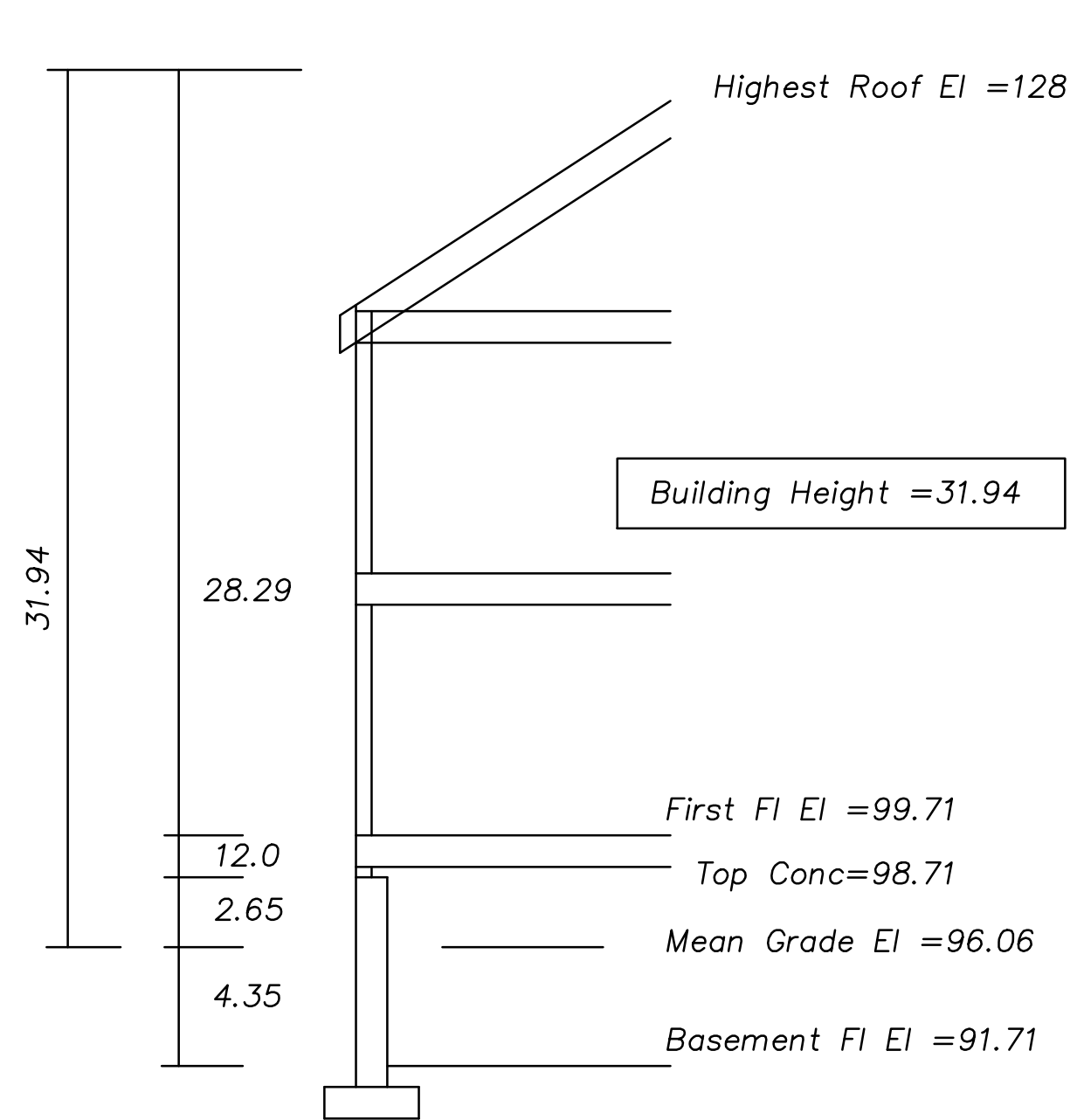
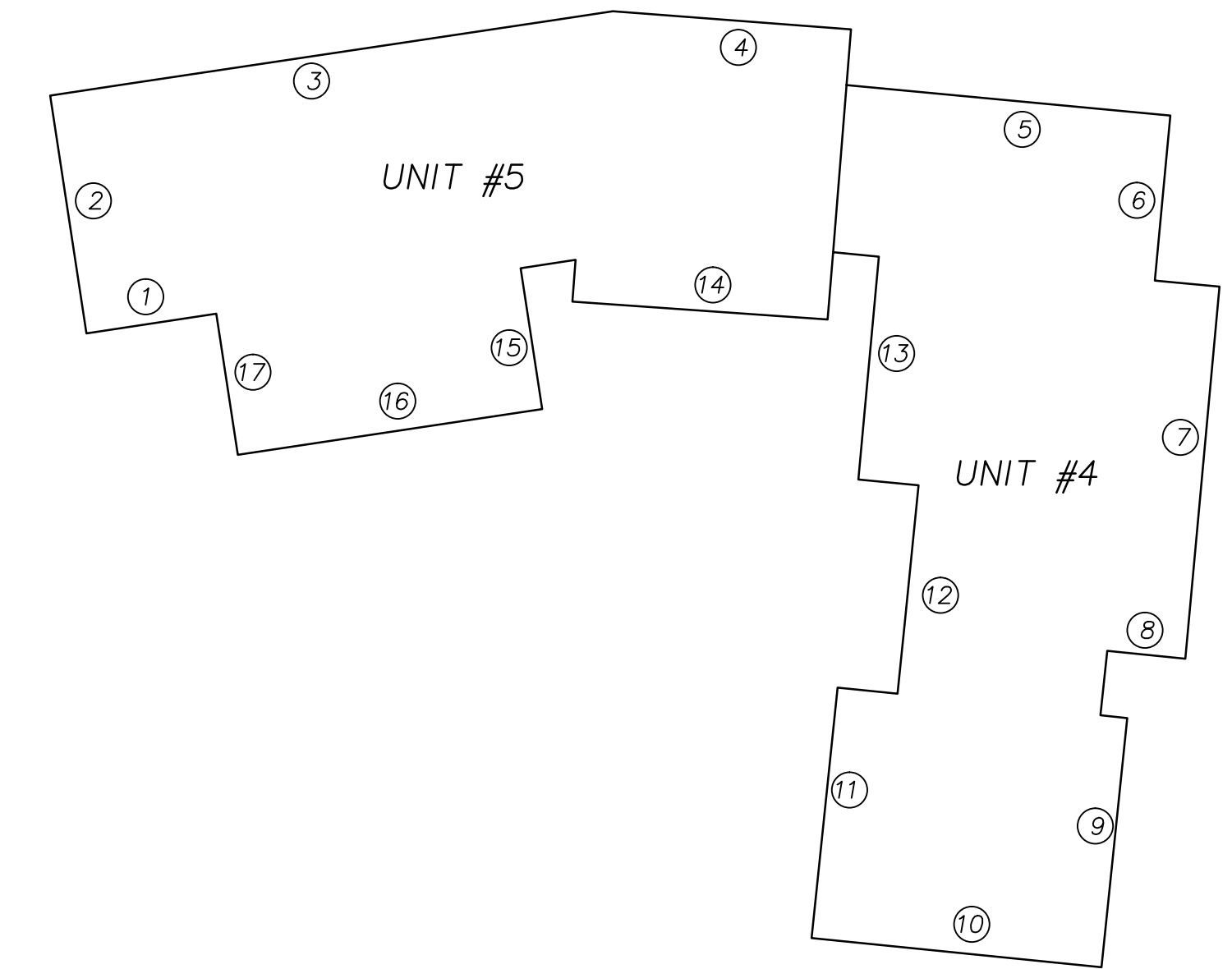


REVISION	DATE	COMMENTS
PROPOSED 5-UNIT DEVELOPMENT 22 - 26 BEECHER TERRACE NEWTON, MASSACHUSETTS (MIDDLESEX-SOUTH REGISTRY)		
PREPARED FOR ARA BARSOUMIAN 152 BELLEVUE ROAD WATERTOWN, MA 02472 (617) 251-3110		
 GREATER BOSTON SURVEYING AND ENGINEERING 19 FREDRITH ROAD WEYMOUTH, MA 02189		
DES BY: NAC	CHECK BY: PJT	DATE: MARCH 25, 2013
DRAWING TITLE: GRADING & DRAINAGE PLAN		SCALE: 1"=20' DWG. NO.: C-3

SEGMENT	L	E1	E2	E1+E2/2	xL
1	6.69	96.0	96.0	96.0	642.24
2	18.26	96.0	96.0	96.0	1752.96
3	17.86	96.0	96.0	96.0	1714.56
4	18.37	96.0	96.4	96.2	1767.19
5	6.95	96.4	96.4	96.4	669.98
6	18.36	96.4	96.2	96.3	1768.07
7	15.58	96.2	96.2	96.2	1498.80
8	18.94	96.0	96.0	96.0	1818.24
9	22.08	96.0	96.0	96.0	2119.68
10	18.94	96.0	96.0	96.0	1818.24
11	38.72	96.0	96.0	96.0	3717.12
12	12.06	96.0	96.0	96.0	1157.76
13	8.63	96.0	96.0	96.0	828.48
14	24.69	96.0	96.0	96.0	2370.24
15	46.25	96.0	97.0	96.5	4463.13
16	57.29	97.0	91.71	94.35	5405.60
17	19.77	91.71	97.0	94.35	1865.30
18	9.79	97.0	98.0	97.5	954.53
19	16.90	98.0	98.0	98.0	1656.20
20	22.54	98.0	98.0	98.0	2208.92
21	20.00	98.0	96.0	97.0	1940.00
Total	438.67				42137.24
$42137.24/438.67=96.06$					
Proposed Mean Average Grade El.=96.06					



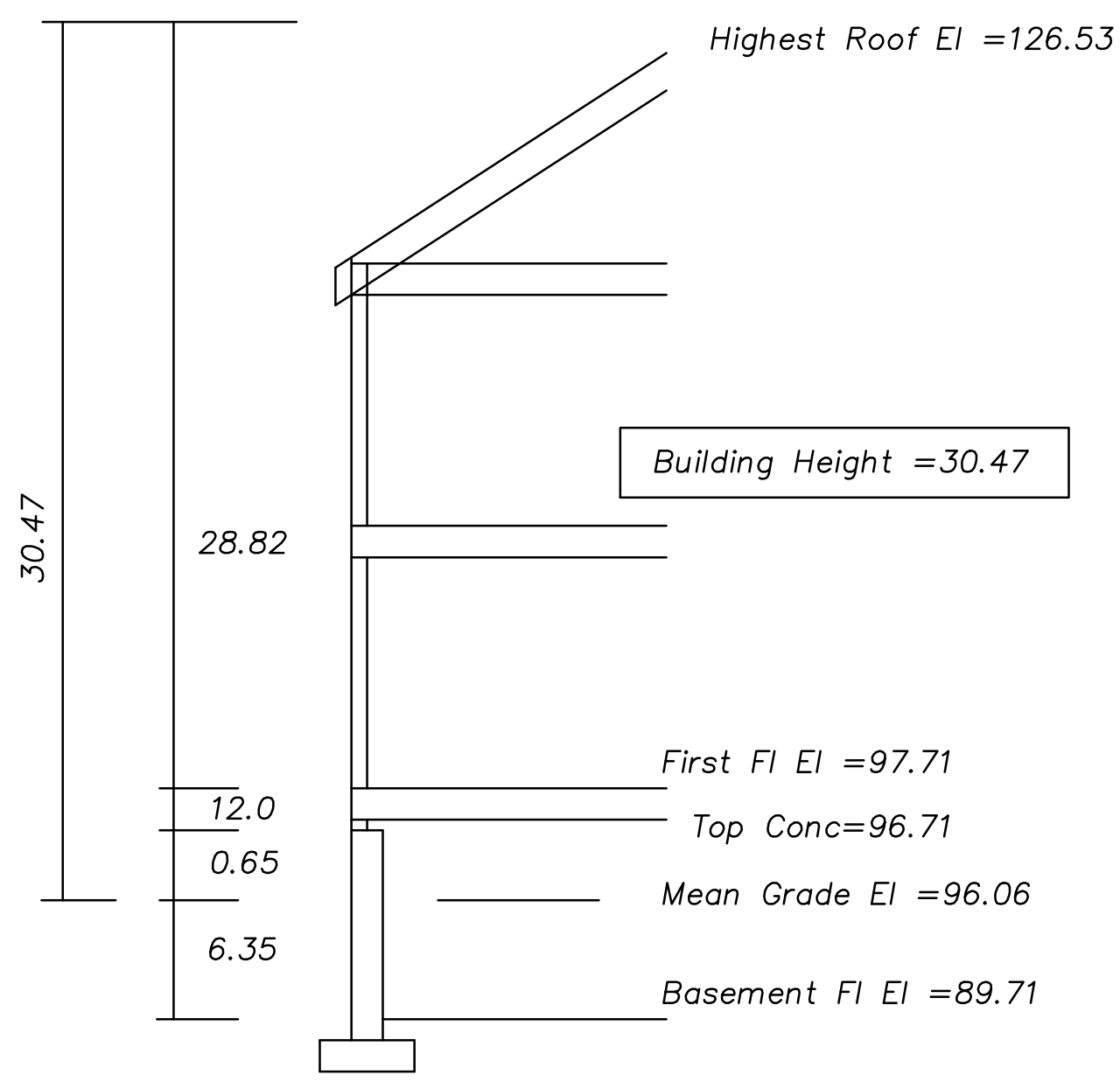
SEGMENT	L	E1	E2	E1+E2/2	xL
1	10.0	98.0	98.0	98.0	980.0
2	18.23	98.0	98.0	98.0	1786.54
3	33.38	98.0	98.0	98.0	3271.24
4	18.15	96.0	96.0	96.0	1742.40
5	24.66	96.0	96.0	96.0	2367.36
6	12.53	96.0	96.0	96.0	1202.88
7	28.37	96.0	96.0	96.0	2723.52
8	6.05	96.0	96.0	96.0	580.80
9	18.93	96.0	96.0	96.0	1817.28
10	22.01	96.0	96.0	96.0	2112.96
11	19.08	96.0	96.0	96.0	1831.68
12	15.83	96.0	96.0	96.0	1519.68
13	17.14	96.0	96.0	96.0	1645.44
14	19.40	96.0	96.0	96.0	1862.40
15	10.72	97.0	97.0	97.0	1039.84
16	23.35	97.0	98.0	97.5	2276.64
17	10.87	98.0	98.0	98.0	1065.26
Total	308.70				29825.92
$29825.92/308.70=96.61$					
Proposed Mean Average Grade El.=96.61					



$\frac{7.0}{2} = 3.50$ Minimum Average Required Below Grade = 3.50
Basement Floor to Average Mean Grade = 4.35

Basement Does Not Count as a Story

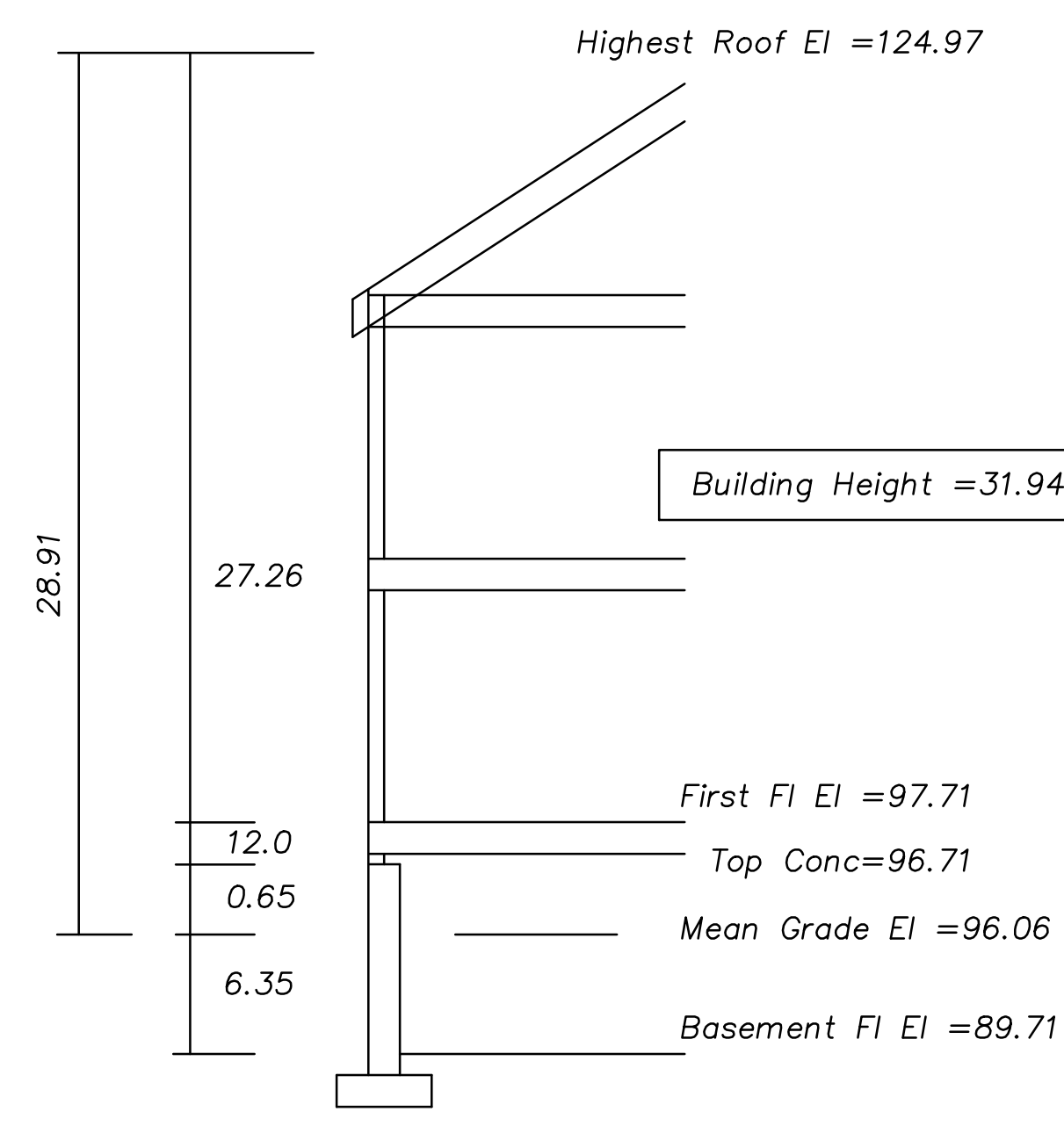
UNIT #1



$\frac{7.0}{2} = 3.50$ Minimum Average Required Below Grade = 3.50
Basement Floor to Average Mean Grade = 6.35

Basement Does Not Count as a Story

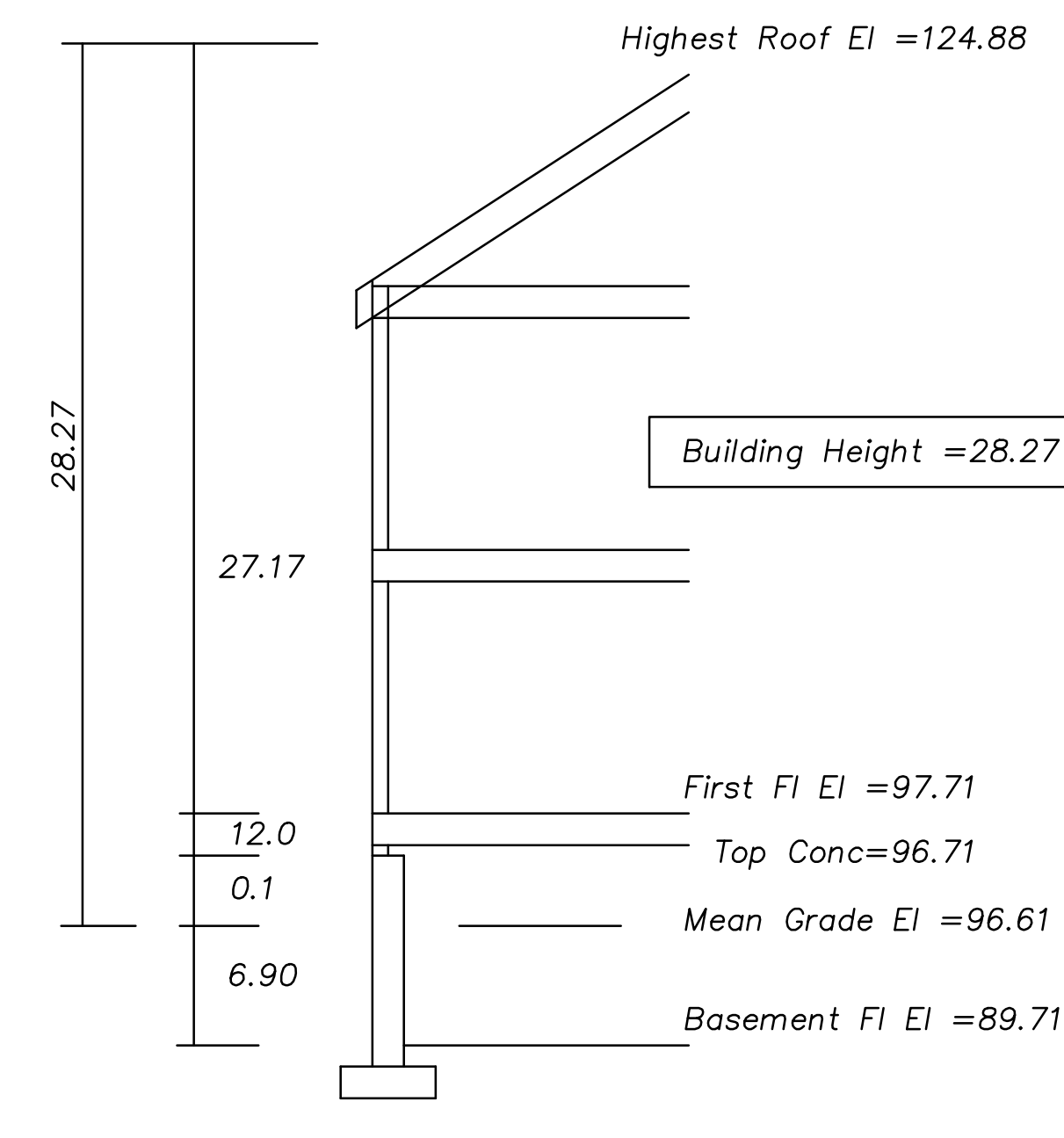
UNIT #2



$\frac{7.0}{2} = 3.50$ Minimum Average Required Below Grade = 3.50
Basement Floor to Average Mean Grade = 6.35

Basement Does Not Count as a Story

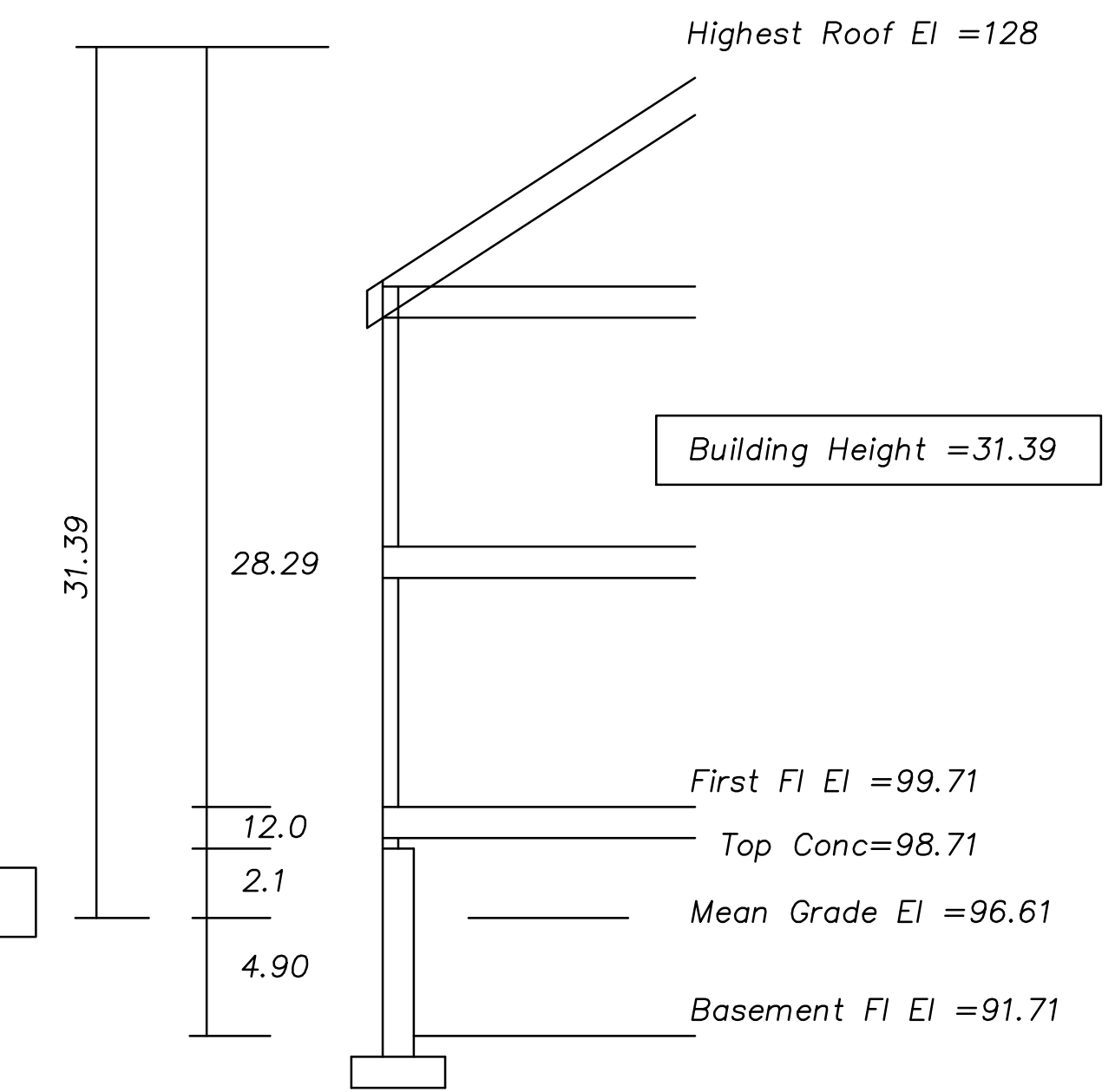
UNIT #2



$\frac{7.0}{2} = 3.50$ Minimum Average Required Below Grade = 3.50
Basement Floor to Average Mean Grade = 6.90

Basement Does Not Count as a Story

UNIT #4



$\frac{7.0}{2} = 3.50$ Minimum Average Required Below Grade = 3.50
Basement Floor to Average Mean Grade = 4.90

Basement Does Not Count as a Story

UNIT #5

REVISION	DATE	COMMENTS

PROPOSED 5-UNIT DEVELOPMENT
22 - 26 BEECHER TERRACE
NEWTON, MASSACHUSETTS
(MIDDLESEX-SOUTH REGISTRY)

PREPARED FOR
ARA BARSOUMIAN
152 BELLEVUE ROAD
WATERTOWN, MA 02472
(617) 251-3110

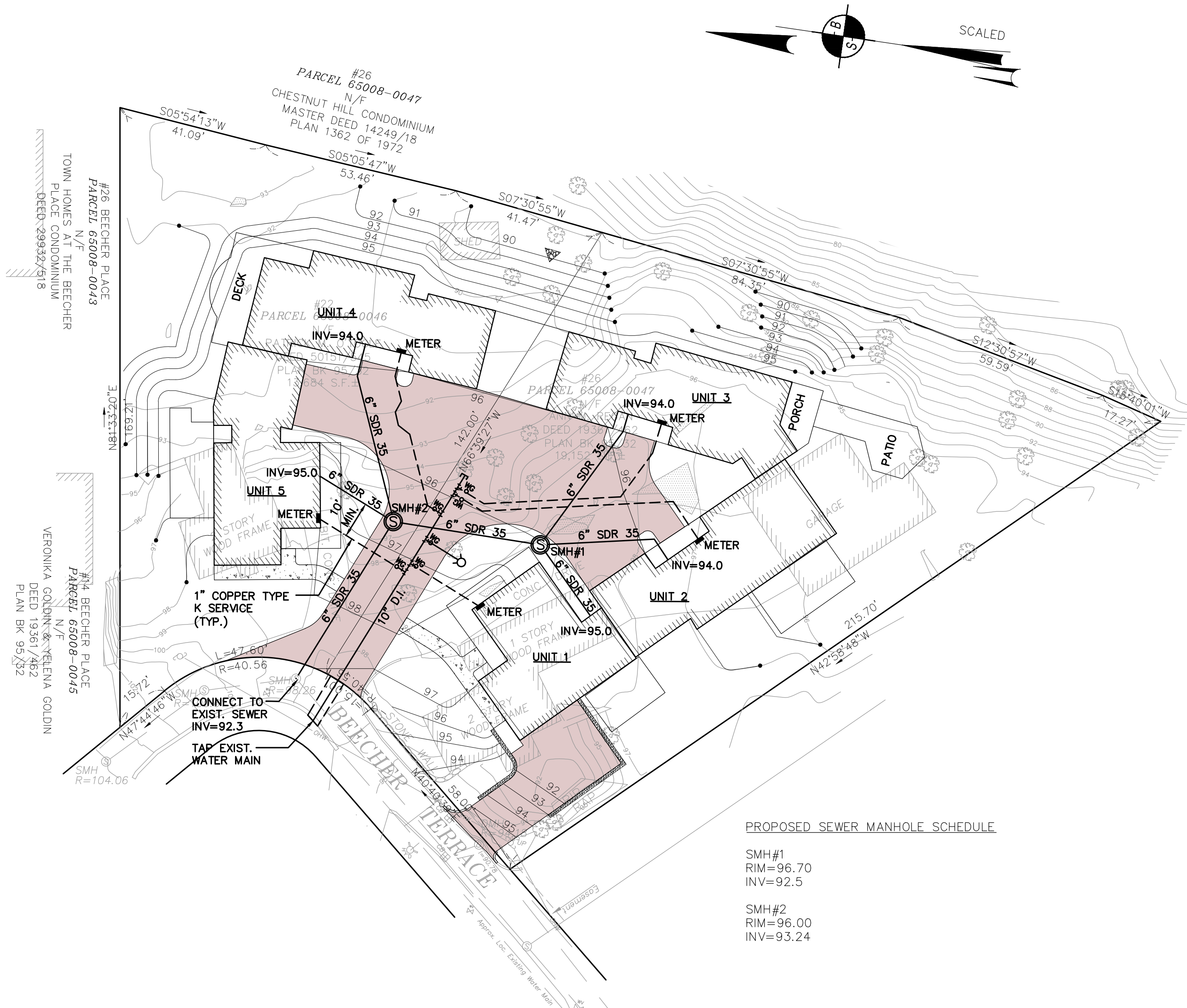
GREATER BOSTON SURVEYING AND ENGINEERING
19 FREDITH ROAD
WEYMOUTH, MA 02189

DES BY: NAC CHECK BY: PJT DATE: MARCH 25, 2013 SCALE: N.T.S.

DRAWING TITLE: **AVERAGE GRADE PLAN** DWG. NO. **C-4**

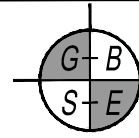
NOTES:

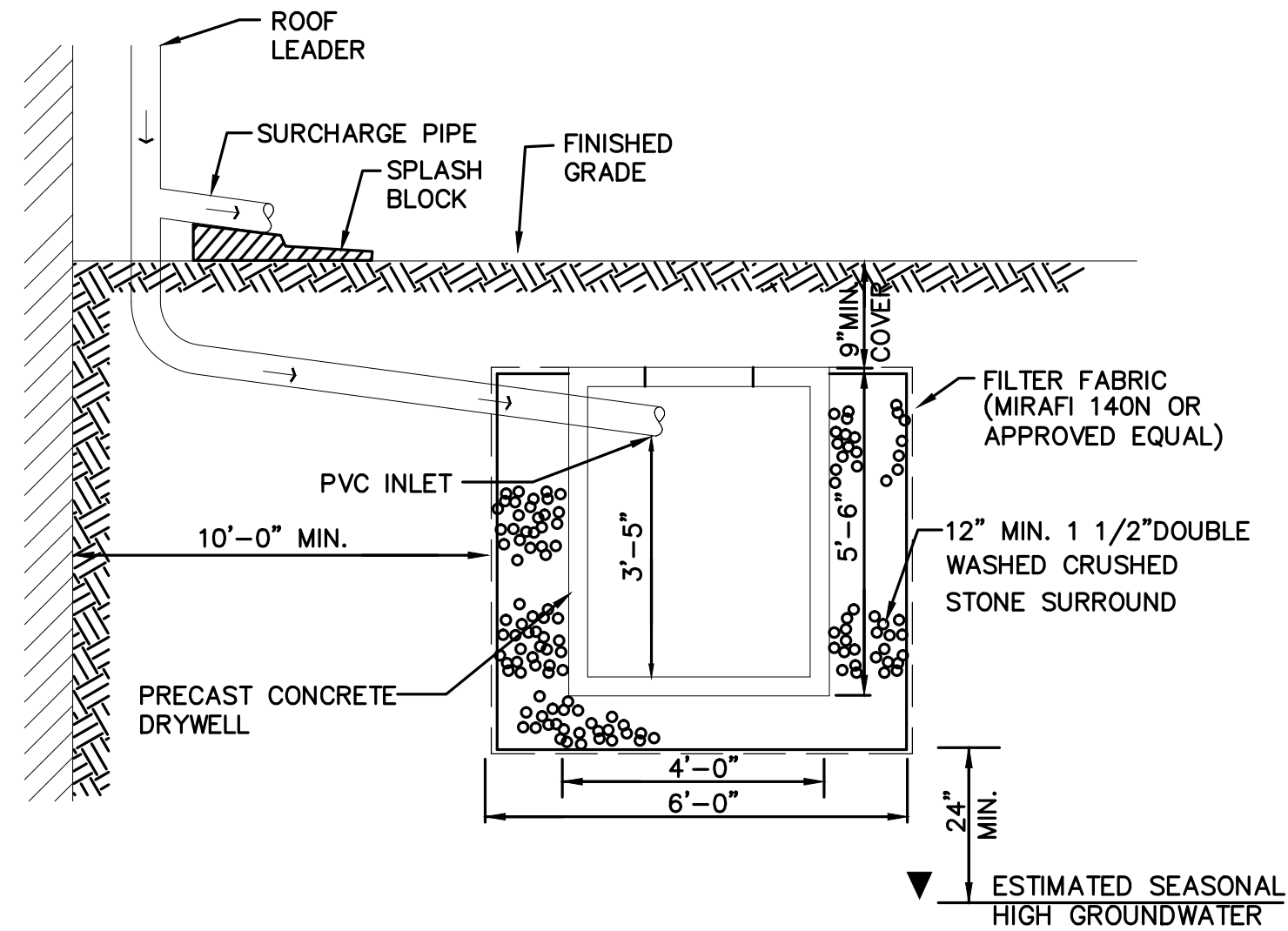
1. PRIOR TO AN OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN SHOULD BE SUBMITTED TO THE ENGINEERING DEPARTMENT IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND INVERTS, ANY EASEMENTS AND FINAL GRADES.
2. IF A CERTIFICATE OF OCCUPANCY IS REQUESTED PRIOR TO ALL SITE WORK BEING COMPLETED, THE APPLICANT WILL BE REQUIRED TO POST A CERTIFIED BANK CHECK IN THE AMOUNT TO COVER THE REMAINING WORK. THE CITY ENGINEER SHALL DETERMINE THE VALUE OF THE UNCOMPLETED WORK.
3. THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DEPARTMENT 48 HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE WATER AND SEWER SERVICES INSPECTED. THE SYSTEM AND UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM AND UTILITIES MAY BE BACK FILLED.
4. THE APPLICANT MUST APPLY FOR A STREET OPENING AND UTILITIES CONNECTION PERMIT AS WELL AS A SIDEWALK CROSSING PERMIT WITH DPW.
5. THE UTILITIES SHOWN WERE COMPILED FROM FIELD LOCATIONS AND AVAILABLE PLANS OF UTILITY COMPANIES AND MAY OR MAY NOT BE CORRECT. CONTRACTOR IS TO CONTACT DIG SAFE AND ALL LOCAL UTILITY COMPANIES AS REQUIRED PRIOR TO ANY EXCAVATION.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH "CITY OF NEWTON STANDARD SPECIFICATIONS" AND "CITY OF NEWTON CONSTRUCTION DETAILS", COPIES OF WHICH MAY BE OBTAINED AT THE ENGINEERING OFFICE. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF NEWTON ENGINEERING DEPARTMENT.
7. THE CONTRACTOR SHALL PROVIDE POLICE DETAILS FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER. ALL ROADS EFFECTED BY CONSTRUCTION SHALL REMAIN OPEN TO EMERGENCY VEHICLES AT ALL TIMES. CONTRACTOR IS TO COORDINATE WITH POLICE AND FIRE DEPARTMENT TO ENSURE PUBLIC SAFETY.
8. AN EROSION CONTROL BARRIER SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION AND MUST BE CONTAINED ON SITE.
9. THE EXISTING WATER & SEWER SERVICES SHALL BE CUT AND CAPPED AT THE MAINS AND BE COMPLETELY REMOVED FROM THE SITE AND PROPERLY BACK FILLED. THE ENGINEERING DIVISION MUST INSPECT THIS WORK, FAILURE TO HAVING THIS WORK INSPECTED MAY RESULT IN THE DELAY OF ISSUANCE OF THE UTILITY CONNECTION PERMIT.
10. THE NEW SEWER SERVICES AND STRUCTURES WILL NEED TO BE PRESSURE TESTED AS FEASIBLE PRIOR TO ACCEPTANCE. THE PROPOSED SEWER LINE THAT CAN NOT BE TESTED SHALL BE VIDEO TAPED AND SUBMITTED TO THE INSPECTOR.
11. AS OF JANUARY 1, 2009, ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES ON PUBLIC AND PRIVATE PROPERTY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROPOSED GRADING AS SHOWN ON PLAN. ANY VARIATIONS TO PROPOSED GRADING SHOWN AND/OR ANY CHANGES TO PROPOSED STRUCTURE MAY RESULT IN NON-COMPLIANCE WITH ZONING REGULATIONS
13. CONTRACTOR TO FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
14. ALL UTILITIES TRENCHES WITH THE EXCEPTION OF GAS, WITHIN THE CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING I.
15. THE PROPOSED SEWER SERVICE LINE WILL NEED TO BE PRESSURE TESTED PRIOR TO USE.
16. CONTRACTOR MUST MATCH EXISTING CURBING AND SIDEWALK MATERIALS WHEN ABANDONING THE EXISTING DRIVEWAY ENTRANCE.
17. ALL CONSTRUCTION ACTIVITIES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY MUST FULLY COMPLY WITH ALL CITY OF NEWTON CONSTRUCTION SPECIFICATIONS AS WELL AS 521 CMR 21.00 AND 22.00.
18. APPROVAL OF THIS PLAN BY THE CITY OF NEWTON ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF NEWTON. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTION ABILITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S). THE CITY OF NEWTON ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTION, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.



PROPOSED SEWER MANHOLE SCHEDULE

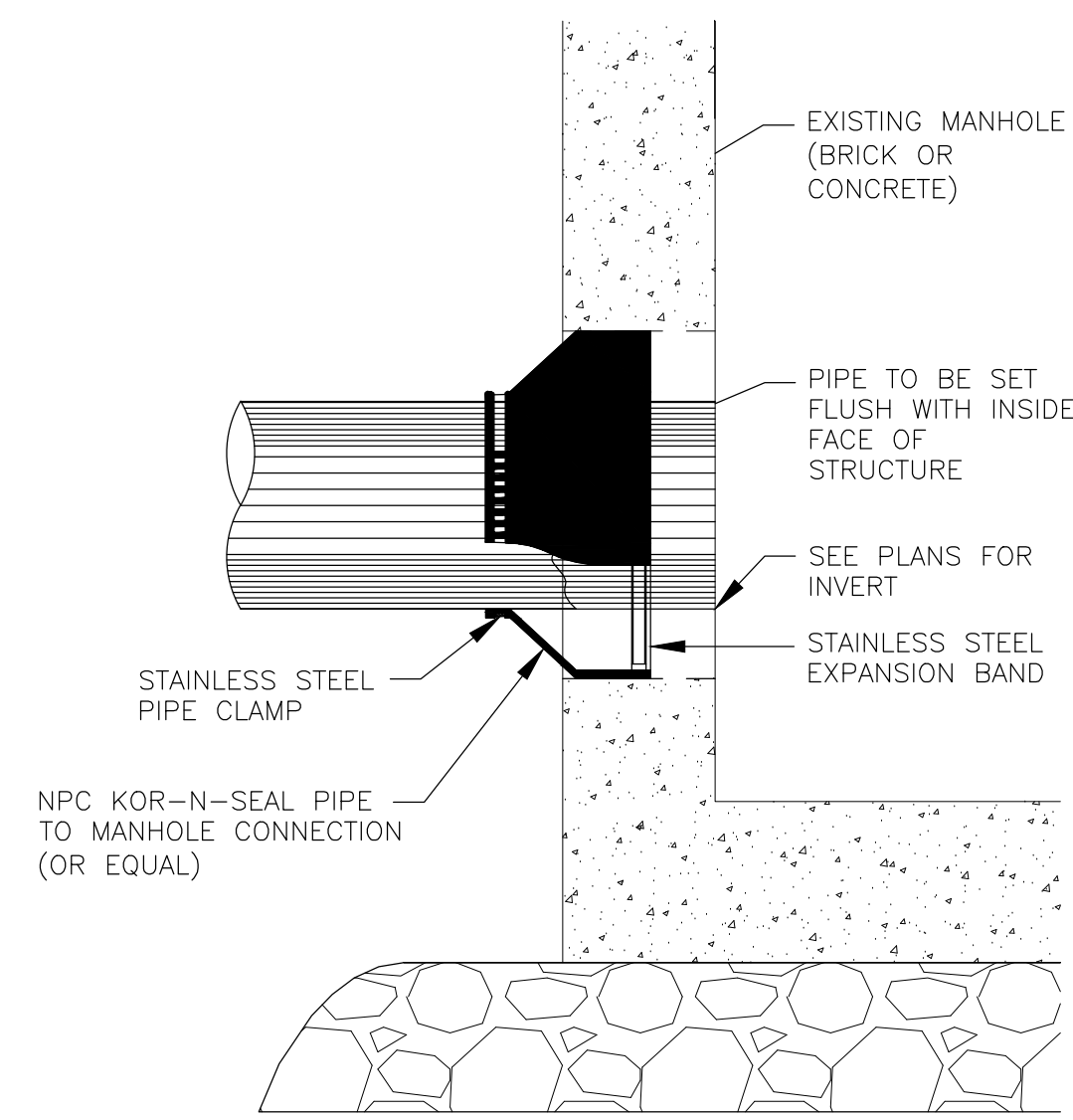
SMH#1	RIM=96.70	INV=92.5
SMH#2	RIM=96.00	INV=93.24

REVISION	DATE	COMMENTS
PROPOSED 51-UNIT DEVELOPMENT 22 - 26 BEECHER TERRACE NEWTON, MASSACHUSETTS (MIDDLESEX-SOUTH REGISTRY)		
PREPARED FOR ARA BARSOUMIAN 152 BELLEVUE ROAD WATERTOWN, MA 02472 (617) 251-3110		
 GREATER BOSTON SURVEYING AND ENGINEERING 19 FREDRITH ROAD WEYMOUTH, MA 02189		
DES BY: NAC	CHECK BY: PUT	DATE: MARCH 25, 2013
DRAWING TITLE: UTILITY PLAN		SCALE: 1"=20' DWG. NO. C-5



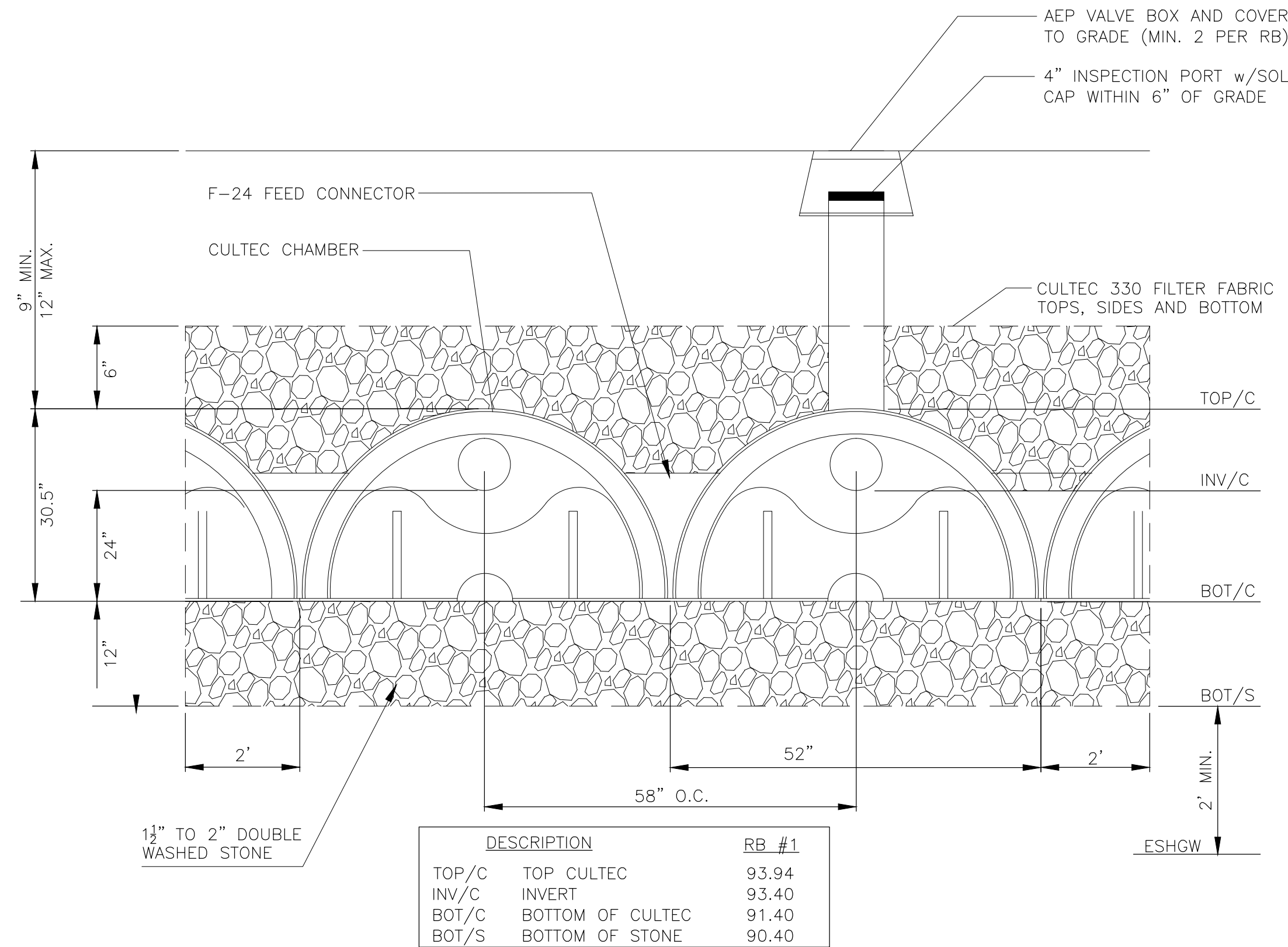
NOTE:
 1. EXCAVATE 3 FEET BELOW BOTTOM OF CRUSHED STONE BASE AND BACKFILL WITH CLEAN GRAVEL BORROW (MASS. HIGHWAY M1.03.0 TYPE B).
 2. ALL ROOF LEADERS SHALL BE EQUIPPED WITH DOWNSPOUT STRAINERS.
 3. NO CONSTRUCTION ACTIVITY (TRAFFIC) SHALL BE ALLOWED OVER THE LEACHING DRY WELL AREAS.
 4. NO CONSTRUCTION SURFACE WATER OR DEWATERING DISCHARGES SHALL BE DISCHARGED INTO THE DRYWELL STRUCTURES OR DRYWELL SITE LOCATIONS.

ROOF LEADER DRYWELL DETAIL
 NOT TO SCALE



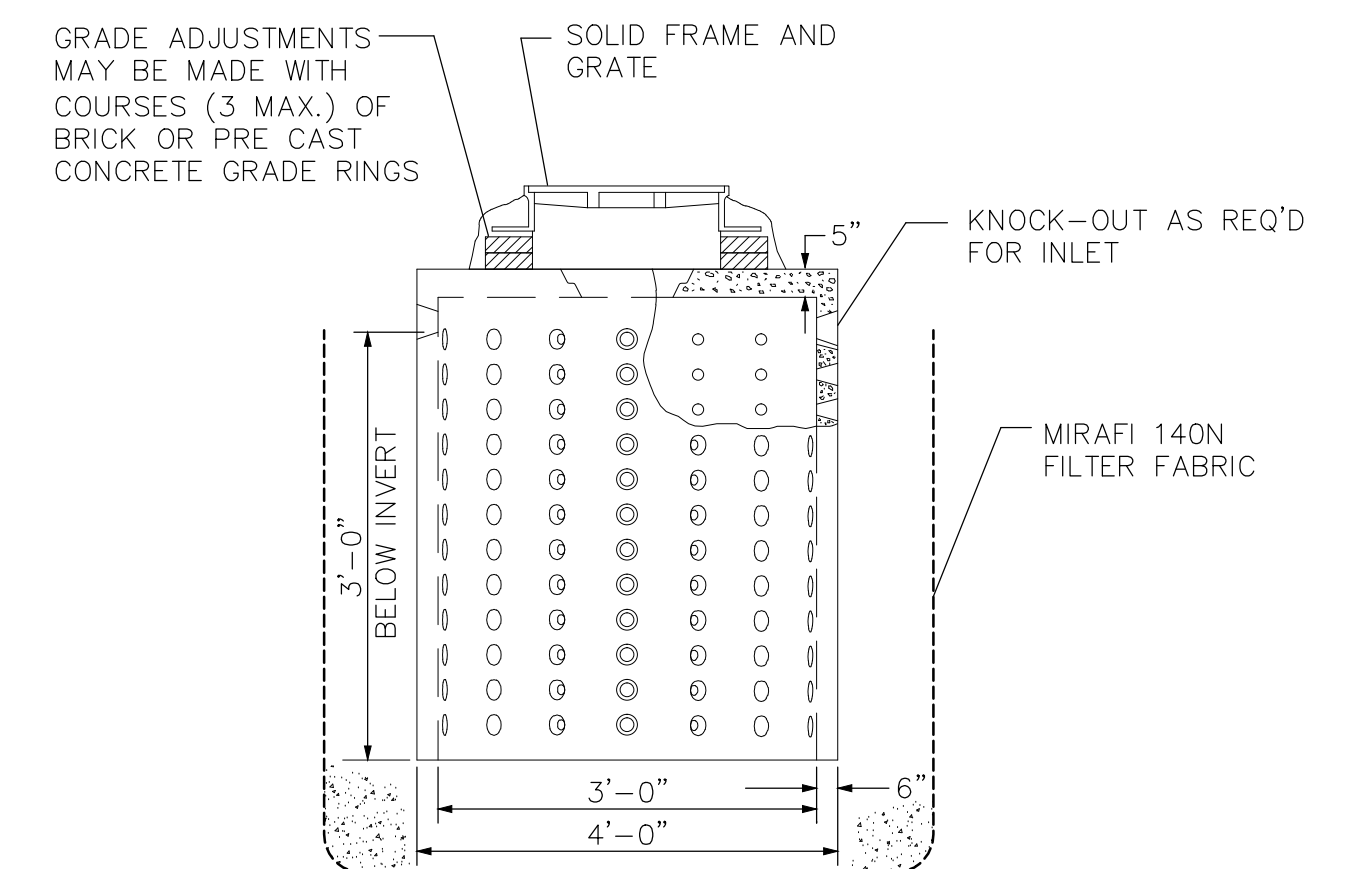
NOTES:
 ALL METAL FIXTURES SHALL BE STAINLESS STEEL.
 1. SERVICE LINE SHALL BE FLUSH WITH THE INSIDE OF THE MANHOLE.
 2. FOR PROPOSED MANHOLE INSTALLATION AT EXISTING PIPE, CONTRACTOR SHALL EXTEND PIPE INTO NEW MANHOLE USING A SPOOL PIECE (OF SAME PIPE MATERIAL) WITH FERNCO COUPLES.

CONNECTION TO MANHOLE DETAIL
 NOT TO SCALE



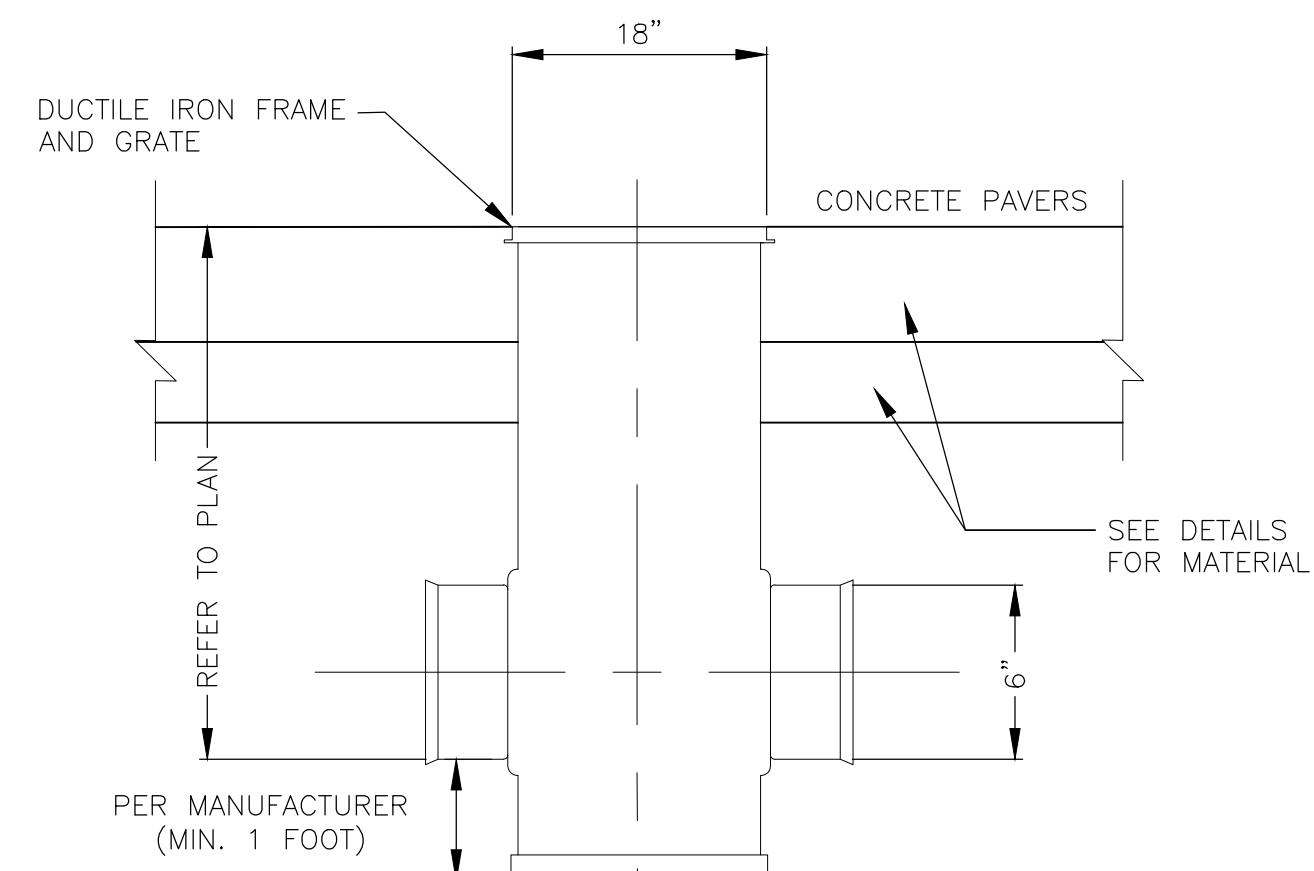
CULTEC (RB) NOTES:
 1. THE 330-XL CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT (203-775-4416).
 2. CONTACT CULTEC, INC. FOR SUBMITTAL PACKAGES AND TO PURCHASE PRODUCT.
 3. REFER TO MANUFACTURER FOR RECOMMENDED INSTALLATION GUIDELINES.
 4. THE STANDARD DUTY VERSION OF THE CHAMBER COMES STANDARD WITH A 4.75 INCH INLET/OUTLET OPENING. THE HEAVY DUTY VERSION DOES NOT COME WITH A PRE-DRILLED INLET/OUTLET.
 5. HEAVY DUTY CHAMBERS ARE DESIGNED TO WITHSTAND ASHTO H20 LOAD RATING (32,000 LBS/AXLE) WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. HEAVY DUTY TO UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
 6. POLYETHYLENE CHAMBERS MUST HAVE THE ABILITY TO ACCEPT AND CARRY PIPE THROUGH ITS INTEGRALLY FORMED VERTICAL SUPPORT WALL WITHOUT THE USE OF SEPARATE PIPE HANGERS.
 7. UNITS WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
 8. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
 9. REPEATING SUPPORT PANELS AND END WALLS OF THE ELONGATED CHAMBER SHALL BE SPACED PER MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES.
 10. ALL RECHARGE BASINS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
 11. ALL STONE AGGREGATE USED IN CONSTRUCTION OF THE RECHARGE BASIN SHALL BE 1 1/2" TO 2" NOMINAL DIAMETER AND DOUBLE WASHED. USING CRUSHED STONE IS NOT PERMITTED.
 12. THE DESIGN ENGINEER SHALL VERIFY THE GROUNDWATER ELEVATION ON-SITE WITH THE CONTRACTOR PRIOR TO CONSTRUCTION.
 13. THE DRAINAGE SYSTEMS SHALL BE INSTALLED IN WELL DRAINING SOIL MATERIALS. ANY DELETERIOUS MATERIAL BELOW OR AROUND THE DRAINAGE STRUCTURES SHALL BE REMOVED. IF DELETERIOUS MATERIAL IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER.

RECHARGE AREA DETAIL
 NOT TO SCALE

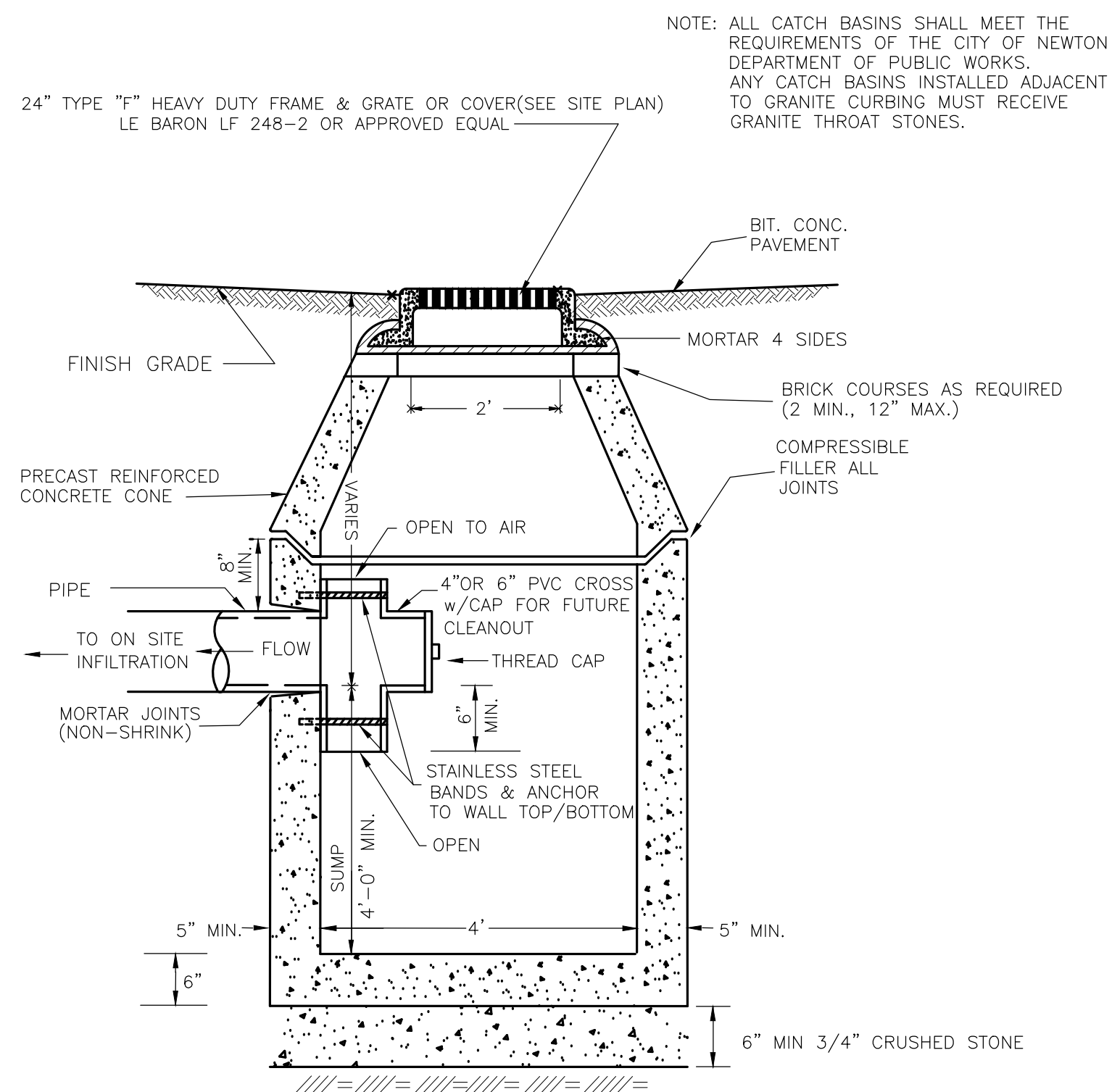


NOTES:
 1. DRYWELL TO BE DESIGNED FOR H-20 LOADING.
 2. PLACE 2.0' OF CRUSHED STONE ALL AROUND STRUCTURE.

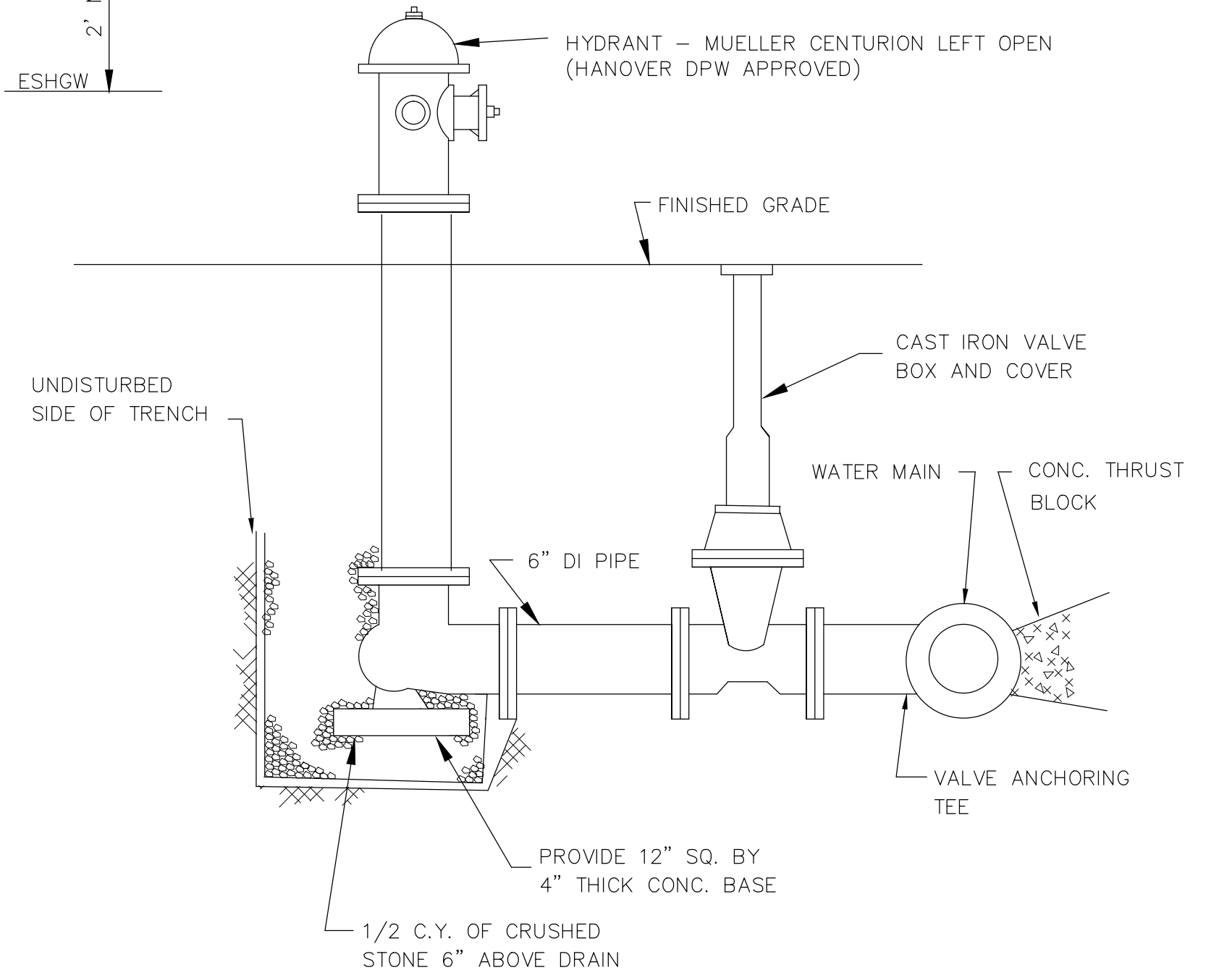
DRYWELL DETAIL
 NOT TO SCALE



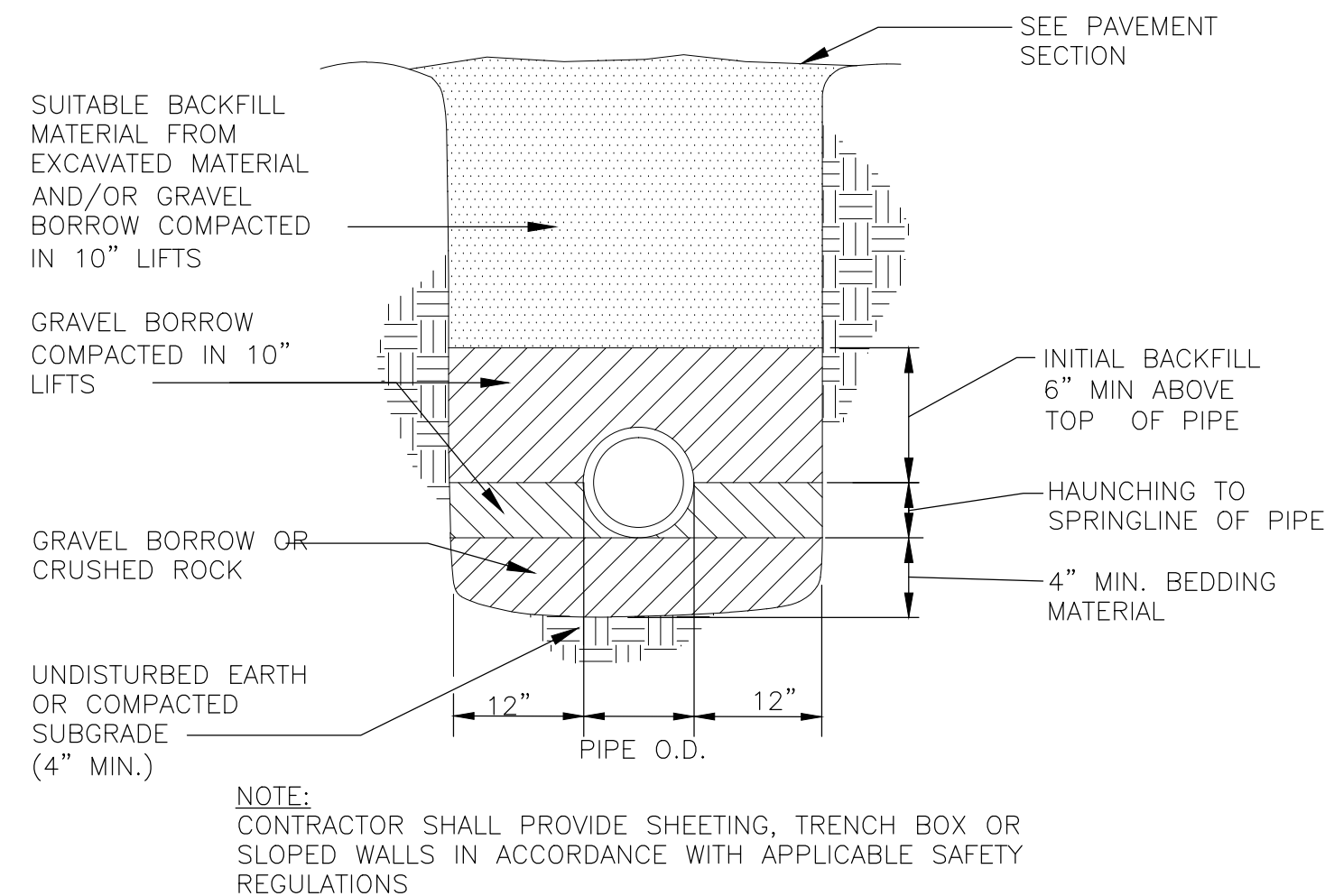
18" DMH DETAIL
 NOT TO SCALE



CATCH BASIN W/OIL TRAP DETAIL
 NOT TO SCALE

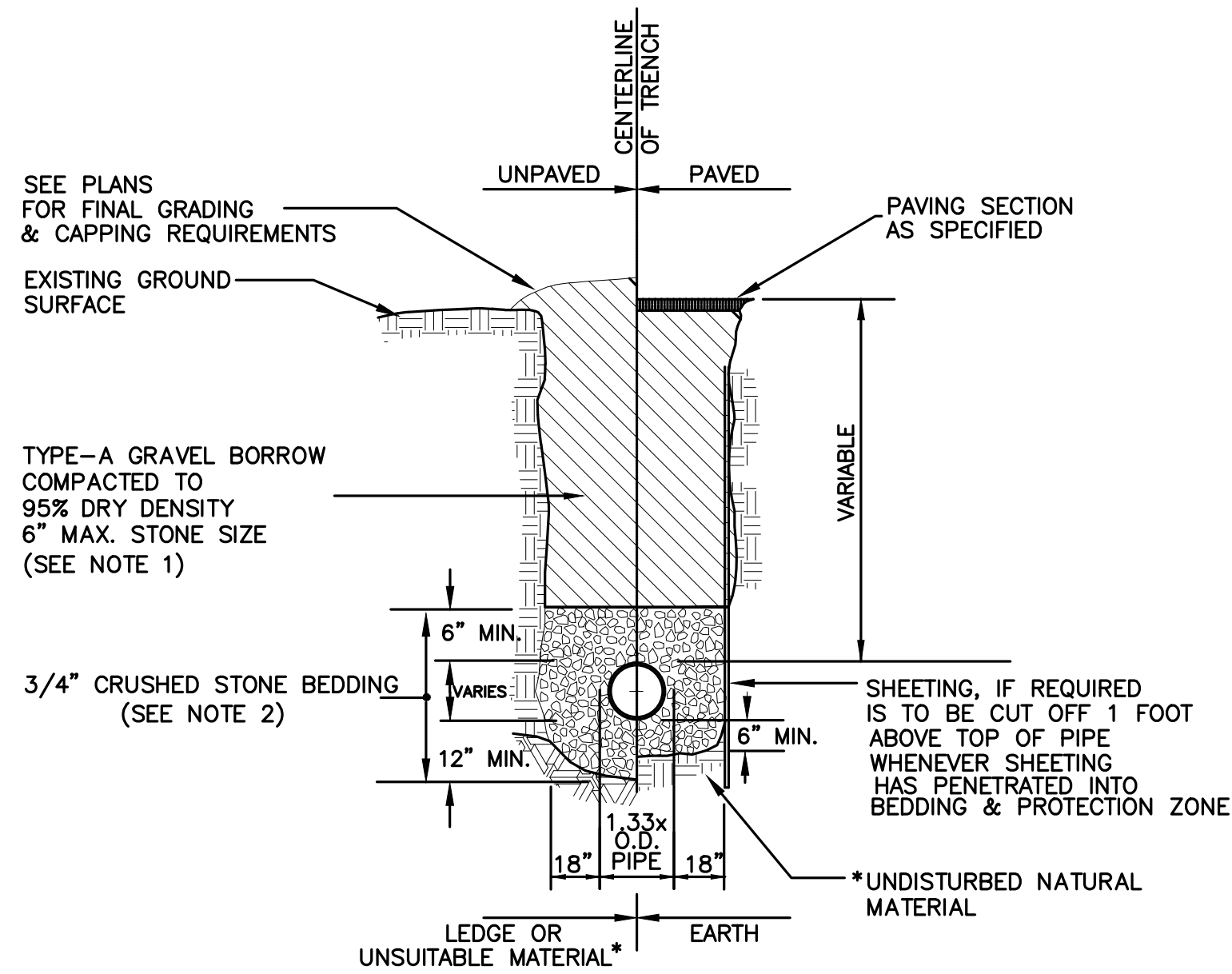


HYDRANT DETAIL
 NOT TO SCALE



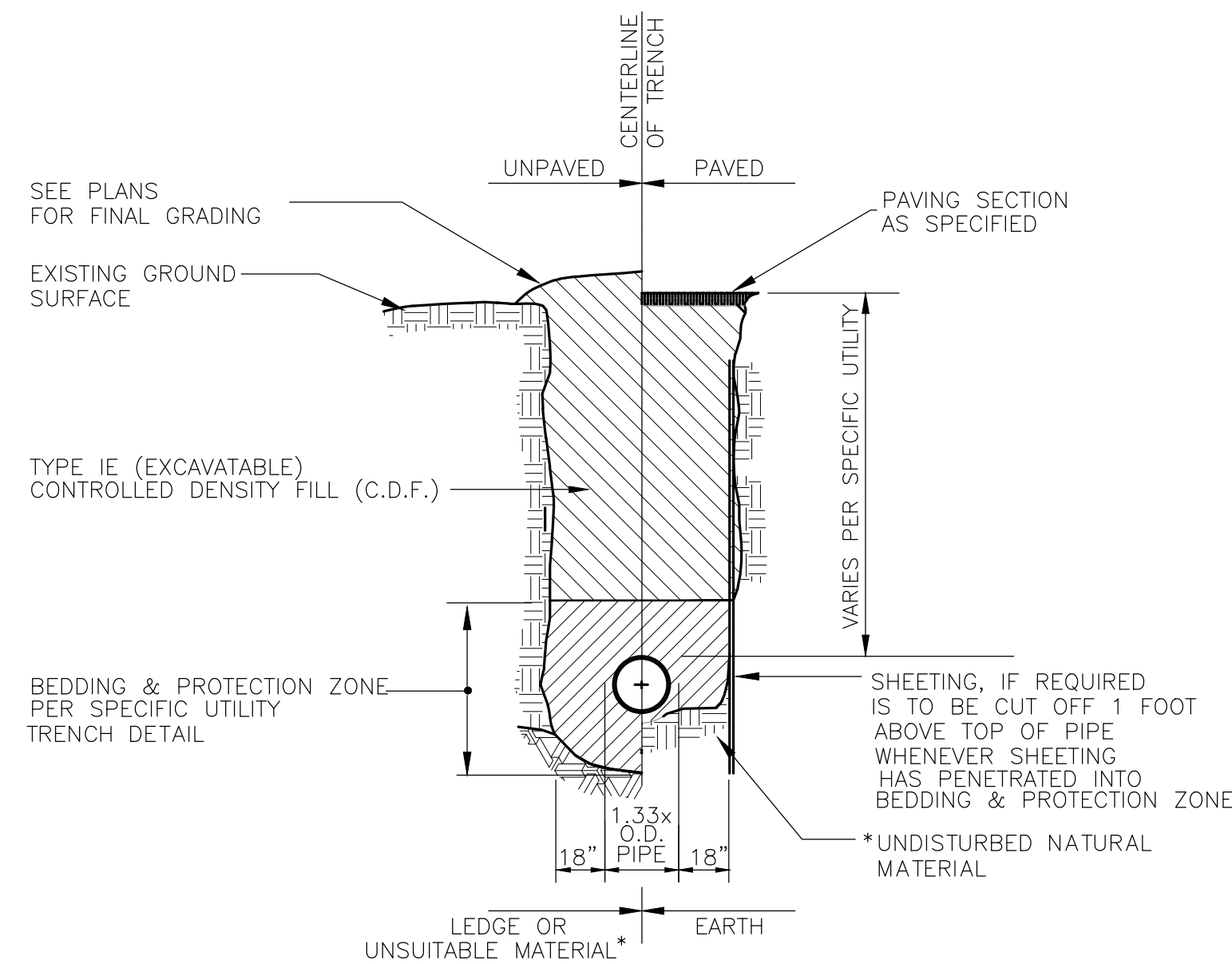
HDPE TRENCH DETAIL
 NOT TO SCALE

REVISION	DATE	COMMENTS
PROPOSED 5-UNIT DEVELOPMENT 22 - 26 BEECHER TERRACE NEWTON, MASSACHUSETTS (MIDDLESEX-SOUTH REGISTRY)		
PREPARED FOR ARA BARSOUMIAN 152 BELLEVUE ROAD WATERTOWN, MA 02472 (617) 251-3110		
GREATER BOSTON SURVEYING AND ENGINEERING 19 FREDRITH ROAD WEYMOUTH, MA 02189		
DES BY: NAC	CHECK BY: PJT	DATE: MARCH 25, 2013
DRAWING TITLE:		SCALE: 1"=20'
DETAIL PLAN 1 OF 2		DWG. NO. C-6



- * 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

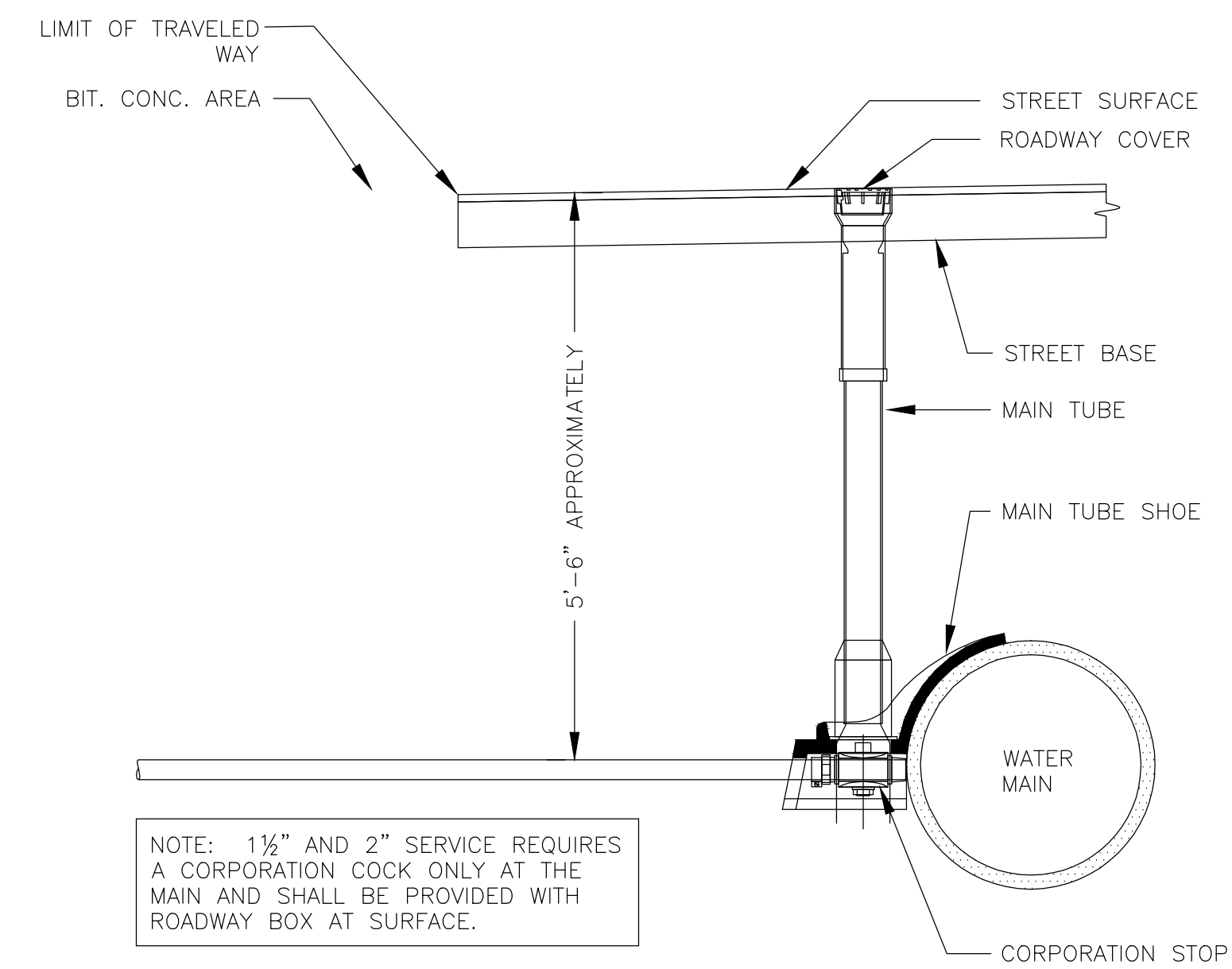
GRAVITY SEWER TRENCH DETAIL
NOT TO SCALE



SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.

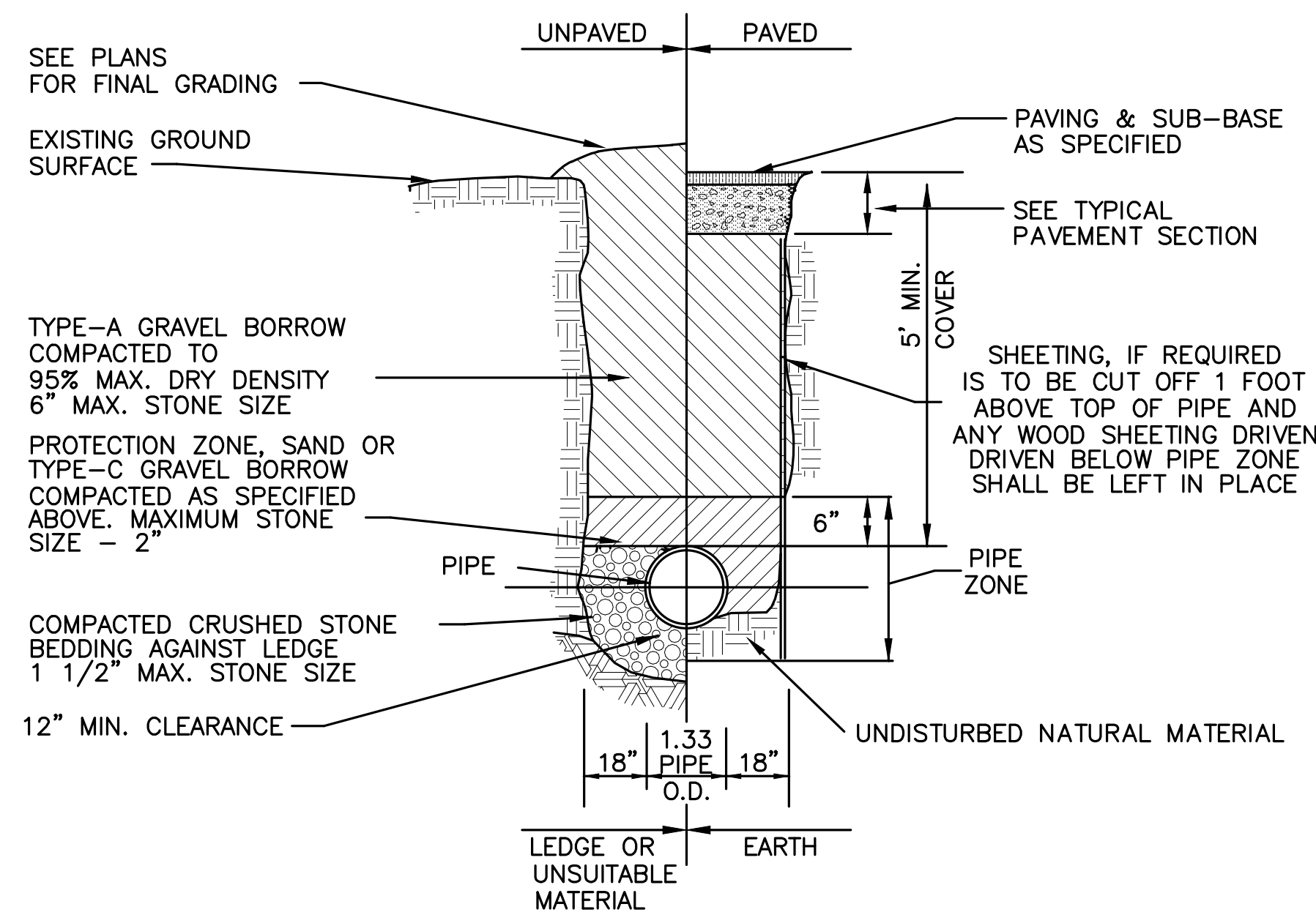
TYP. C.D.F. SEWER TRENCH DETAIL
NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7



NOTE: 1 1/2" AND 2" SERVICE REQUIRES A CORPORATION COCK ONLY AT THE MAIN AND SHALL BE PROVIDED WITH ROADWAY BOX AT SURFACE.

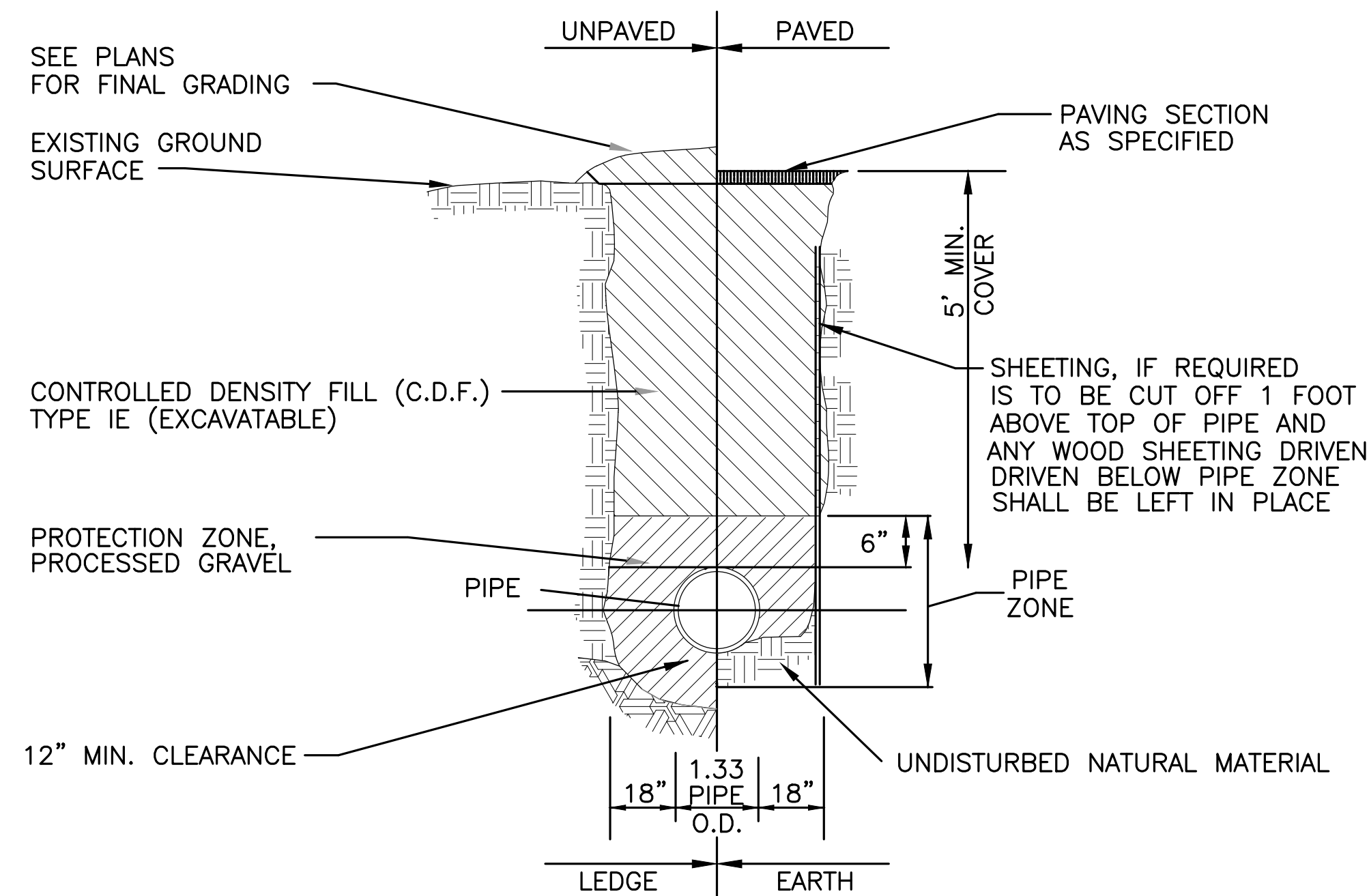
1" WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



TYP. WATER TRENCH DETAIL
NOT TO SCALE

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

* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.



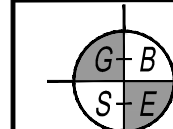
TYP. C.D.F. WATER TRENCH DETAIL
NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7

REVISION	DATE	COMMENTS

PROPOSED 5-UNIT DEVELOPMENT
22 - 26 BEECHER TERRACE
NEWTON, MASSACHUSETTS
(MIDDLESEX-SOUTH REGISTRY)

PREPARED FOR
ARA BARSOUMIAN
152 BELLEVUE ROAD
WATERTOWN, MA 02472
(617) 251-3110



GREATER BOSTON SURVEYING AND ENGINEERING
19 FREDITH ROAD
WEYMOUTH, MA 02189

DES BY: NAC	CHECK BY: PJT	DATE: MARCH 25, 2013	SCALE: 1"=20'
-------------	---------------	----------------------	---------------

DRAWING TITLE:	DWG. NO.
----------------	----------

DETAIL PLAN 2 OF 2 C-7