

LEGEND

	VCC (VERTICAL CONCRETE CURB)
	DRAIN LINE
	DRAINAGE MANHOLE
	CATCH BASIN
	SEWER LINE
	SEWER MANHOLE
	WATER LINE
	HYDRANT
	WATER GATE
	WATER SHUT OFF
	GAS LINE
	GAS GATE
	UTILITY POLE
	OHW (OVERHEAD WIRES)
	TEST PIT
	WOODS LINE
	SPOT ELEVATION (EXISTING)
	SPOT ELEVATION (PROPOSED)
	CONTOUR (EXISTING)
	CONTOUR (PROPOSED)

ZONING TABLE:

ZONE: SINGLE RESIDENCE 2 (SR-2)

	REQUIRED	EXISTING	PROPOSED
LOT AREA	15,000 S.F. (MIN)	14,320 S.F.	14,320 S.F.
FRONTAGE	100' (MIN)	84.00'	84.00'
FRONT SETBACK	30' (MIN)	27.8'	32.6'
SIDE SETBACK	15' (MIN)	7.2'	7.9'
REAR SETBACK	15' (MIN)	121.2'	93.0'
BUILDING HEIGHT	36' (MAX)	-	32'
AVERAGE GRADE	-	-	141.25
LOT COVERAGE	20% (MAX)	11.8%	19.8%
OPEN SPACE	65% (MIN)	83.5%	65.5%

MITIGATION PLANTING SCHEDULE (2,075 S.F.)

PERENNIALS/GROUND COVER	QUANTITY	HEIGHT
HAY SCENTED FERN (<i>Dennstaedtia punctilobula</i>)	12	2 QT
CANADA MAYFLOWER (<i>Maianthemum canadense</i>)	12	3 IN
RUNNING FOAMFLOWER (<i>Tiarella cordifolia</i>)	4	1 QT
MARGINAL FERN (<i>Dryopteris marginalis</i>)	4	2 QT
VIRGINIA CREEPER (<i>Parthenocissus quinquefolia</i>)	4	2 GAL
WOOD ASTER (<i>Eurybia divaricata</i>)	5	2 QT
BEE BALM (<i>Morada punctata</i>)	3	2 QT
WOODLAND SUNFLOWER (<i>Helianthus divaricatus</i>)	3	1 GAL
PRAIRIE DROPSEED (<i>Sporobolus heterolepis</i>)	4	1 GAL
SHRUBS		
STEEPLEBUSH (<i>Spiraea tomentosa</i>)	3	2 GAL
HOLLY (<i>Ilex opaca</i>)	4	2 GAL
INKBERRY (<i>Ilex glabra</i>)	4	2 GAL
RHODODENDRON (<i>Rhododendron maximum</i>)	3	2 GAL
RHODODENDRON (<i>Rhododendron prinophyllum</i>)	3	2 GAL
MEADOWSWEET (<i>Spiraea alba</i>)	6	2 GAL
SWEET PEPPERBUSH (<i>Clethra alnifolia</i> 'Hummingbird')	6	2 GAL
SHRUBBY CIQUEFOIL (<i>Potentilla fruticosa</i>)	6	2 GAL
TREES		
SUGAR MAPLE (<i>Acer saccharum</i>)	3	2.5 - 3 IN

RIPIARIAN AREA:
 TOTAL RIPIARIAN AREA ON LOT = 8,350 S.F.
 TOTAL RIPIARIAN AREA TEMPORARILY DISTURBED = 7,450 S.F.
 0'-100' = 240 S.F.
 100'-200' = 7,210 S.F.

EXISTING IMPERVIOUS AREA = 2,361 S.F.
 PROPOSED IMPERVIOUS AREA = 4,430 S.F.
 INCREASE IN IMPERVIOUS AREA = 2,069 S.F.

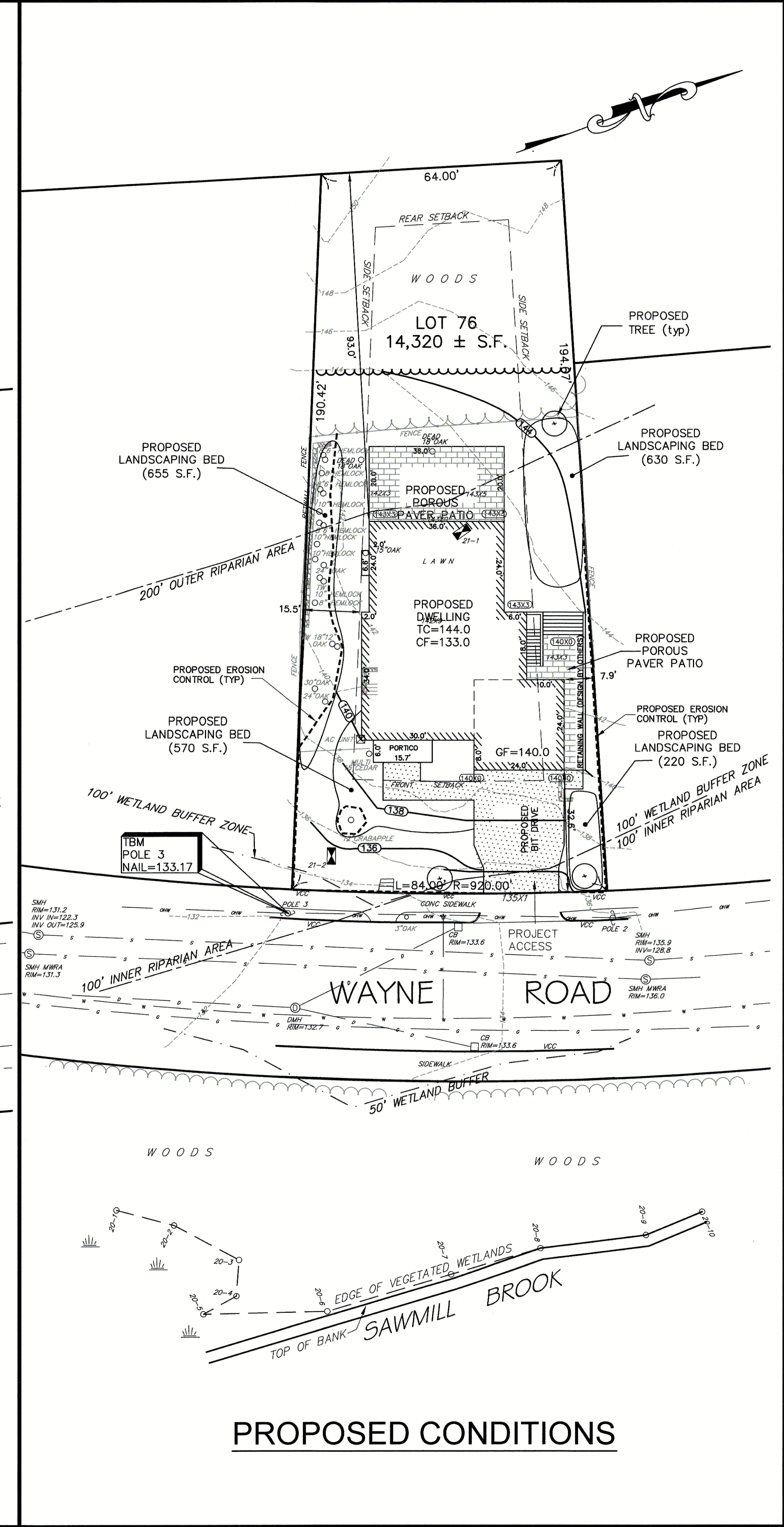
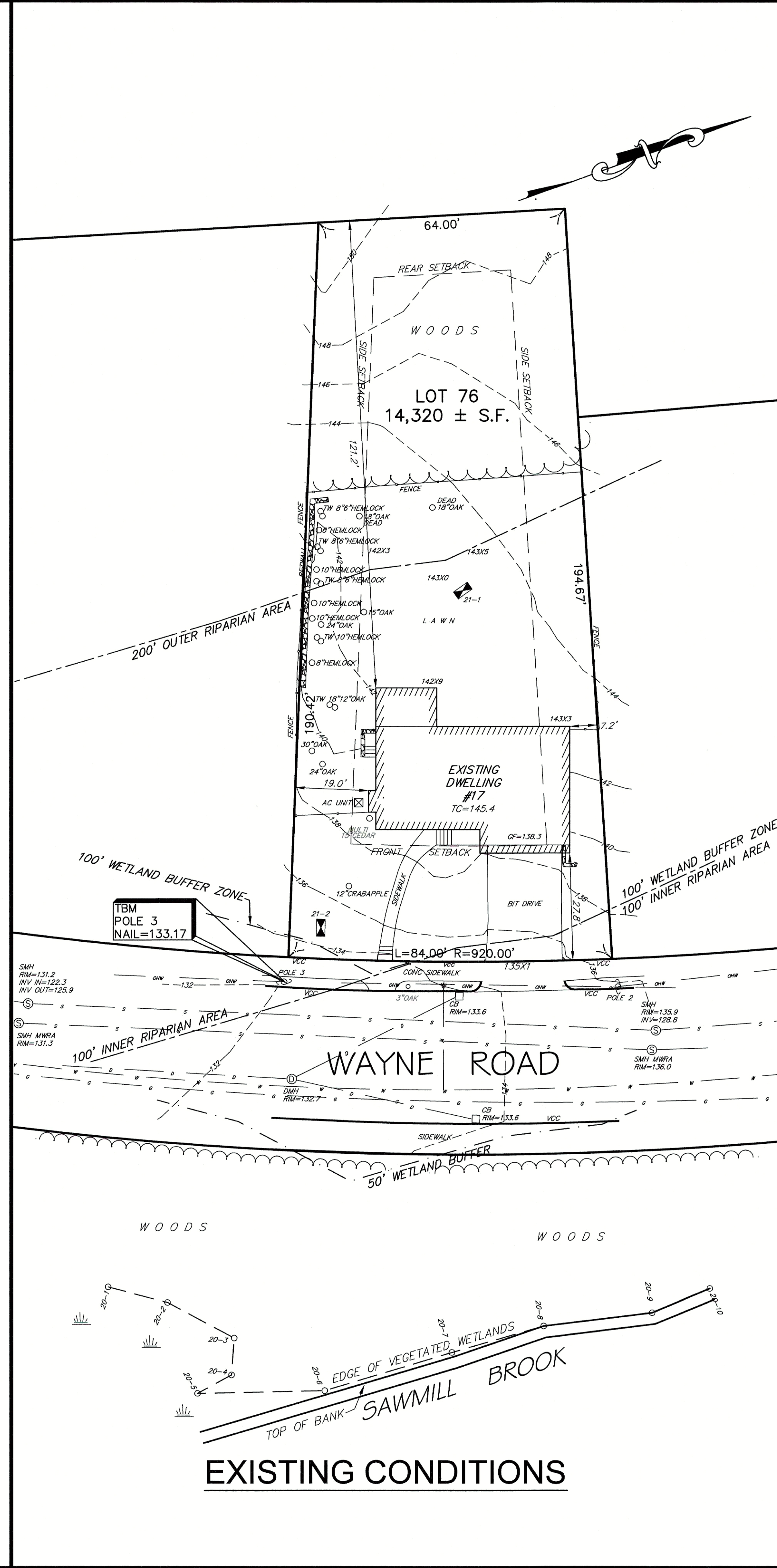
RIPIARIAN AREA CALCULATIONS:

	HOUSE	DRIVE/WALK	PATIO	LAWN	TOTAL	(IMPERVIOUS)
EXISTING CONDITIONS	1,695 S.F.	666 S.F.	0	5,089 S.F.	7,450 S.F.	(2,361 S.F.)
PROPOSED CONDITIONS	3,257 S.F.	958 S.F.	215 S.F.	3,020 S.F.	7,450 S.F.	(4,430 S.F.)

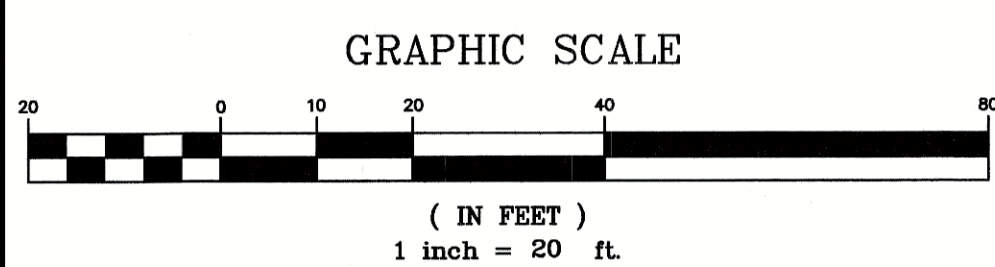
TEST PIT LOGS

DEEP HOLE - 21-1			DEEP HOLE - 21-2		
HORIZ. DEPTH	DATE: 4/2/21	ELEV.	HORIZ. DEPTH	DATE: 4/2/21	ELEV.
0"	A SANDY LOAM 10PR2/2	143.0	0"	A SANDY LOAM 10PR3/2	134.9
6"	FILL	142.5	6"	FILL	134.4
16"	FILL	141.7	45"	FILL	131.1
31"	Bw SANDY LOAM 10PR4/4	140.4		C1 LS 2.9Y6/3	
53"	REFUSAL @ 53"	138.6	65"		129.5

CERTIFIED SOIL EVALUATOR : CHRISTOPHER N. GABORIAULT



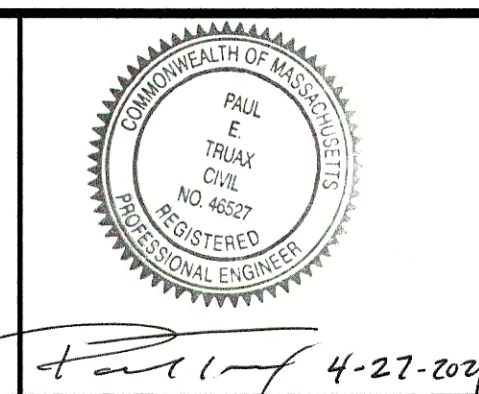
NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION. DIGSAFE 1-888-344-7233



REVISIONS

No.	DATE	DESCRIPTION

FLD.: RC, ML
 DRW.: CNG
 CHKD.: JEH



GLM Engineering Consultants, Inc.
 19 EXCHANGE STREET
 HOLLISTON, MA 01746
 P: 508-429-1100 F: 508-429-7160
 www.GLMengineering.com

PROPOSED SITE PLAN
 17 WAYNE ROAD
 NEWTON, MASSACHUSETTS
 PREPARED FOR:
 JAMIE OVADIA
 17 WAYNE ROAD
 NEWTON, MA

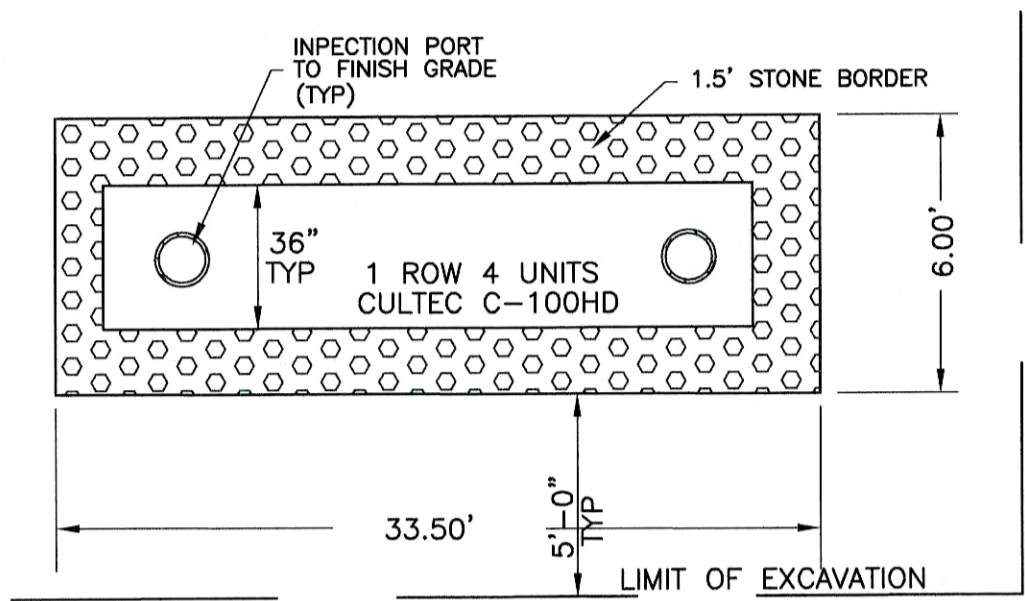
JOB No. 16853
 DATE: 4/27/21
 SCALE: 1"=20'
 SHEET: 1 of 3
 PLAN #: 27,488

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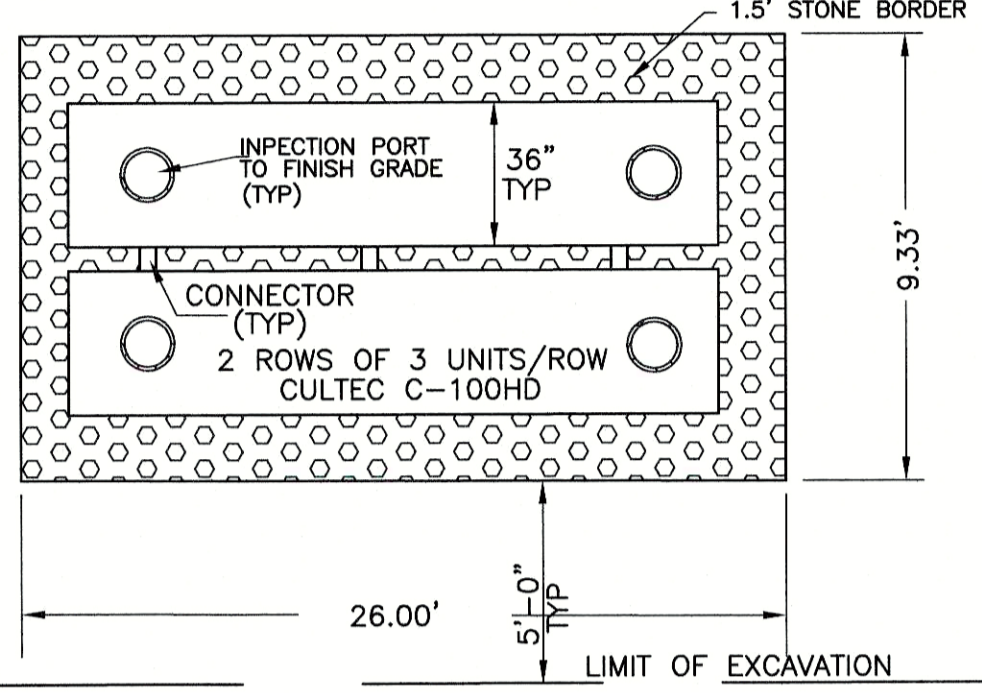
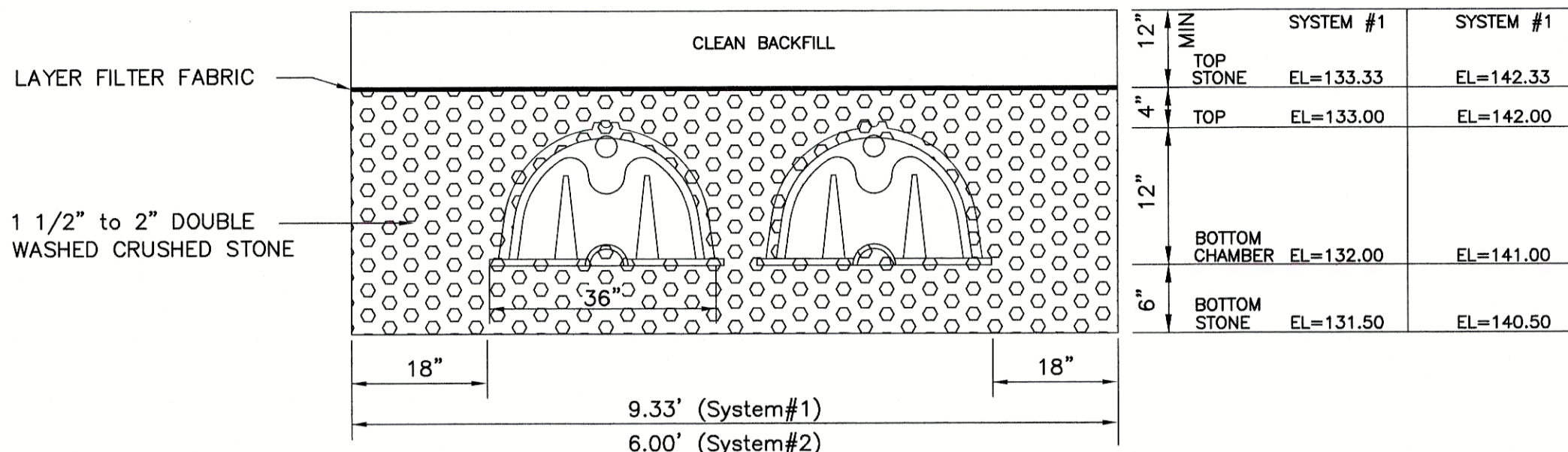
NOTE:
 LIMIT OF EXCAVATION: (To extend 5 feet beyond limits of system)
 ALL FILL, SUBSOIL ('A' & 'B' Horizons) AND ANY DELETERIOUS MATERIAL MUST BE REMOVED FROM THE AREA OF THE LEACHING SYSTEM AND OTHER DESIGNATED LIMITS AND BACKFILLED WITH APPROVED CLEAN BANK RUN GRAVEL GRADED SO NOT MORE THAN 43% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 20% OR LESS SHALL PASS A #100 SIEVE AND 5% OR LESS SHALL PASS THE #200 SIEVE. NOT MORE THAN 90% SHALL BE RETAINED ON THE #50 SIEVE. SAMPLE FOR SIEVE ANALYSIS TO BE TAKEN FROM SAMPLE IN PLACE.

GENERAL NOTES
 ALL RECHARGER MODEL V8 CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. REFER TO CULTREC INC'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.

- Notes:**
- 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.
 - 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.
 - The contractor needs to notify the Engineering Department 48 hours in advance and schedule an appointment to have the drainage system, 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.
 - The applicant must apply for a Street Opening and Utilities Connection Permit as well as a sidewalk crossing permit with the DPW.
 - The utilities shown were compiled from field locations and available plans of utility companies and may not be correct. The contractor is to contact dig safe and all utility companies as required prior to any excavation.
 - All 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.
 - 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. The Contractor is to coordinate with Police and Fire Department to ensure public safety.
 - An erosion control barrier shall be in place prior to any construction and must be contained on site.
 - The existing water and sewer services shall be cut and capped at the mains and 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.
 - 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.
 - 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.
 - The contractor shall be responsible for all proposed grading as shown on the plan. Any variations to proposed grading shown and/or any changes to the proposed structure may result in non-compliance with zoning regulations.
 - Contractor to field verify all utilities prior to construction.
 - All utility 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 Specifications.
 - The proposed sewer service line will need to be pressure tested prior to use.
 - All roof drains are to be connected to proposed drywells.
 - Contractor must match existing curbing and sidewalk materials when abandoning the existing driveway entrance.
 - All construction activities within the City of Newton right-of-way must comply with all City of Newton Construction Specifications as well as 521 CMR 21.00 and 22.00.



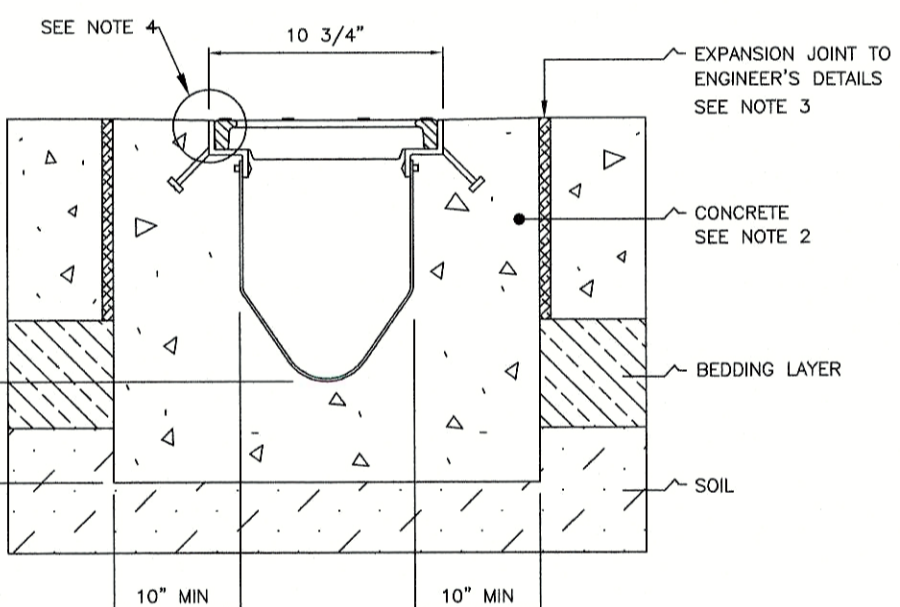
RECHARGE SYSTEM #2



RECHARGE SYSTEM #1

**STORMWATER RECHARGE SYSTEM
 CULTREC C-100HD MODEL**

N.T.S.



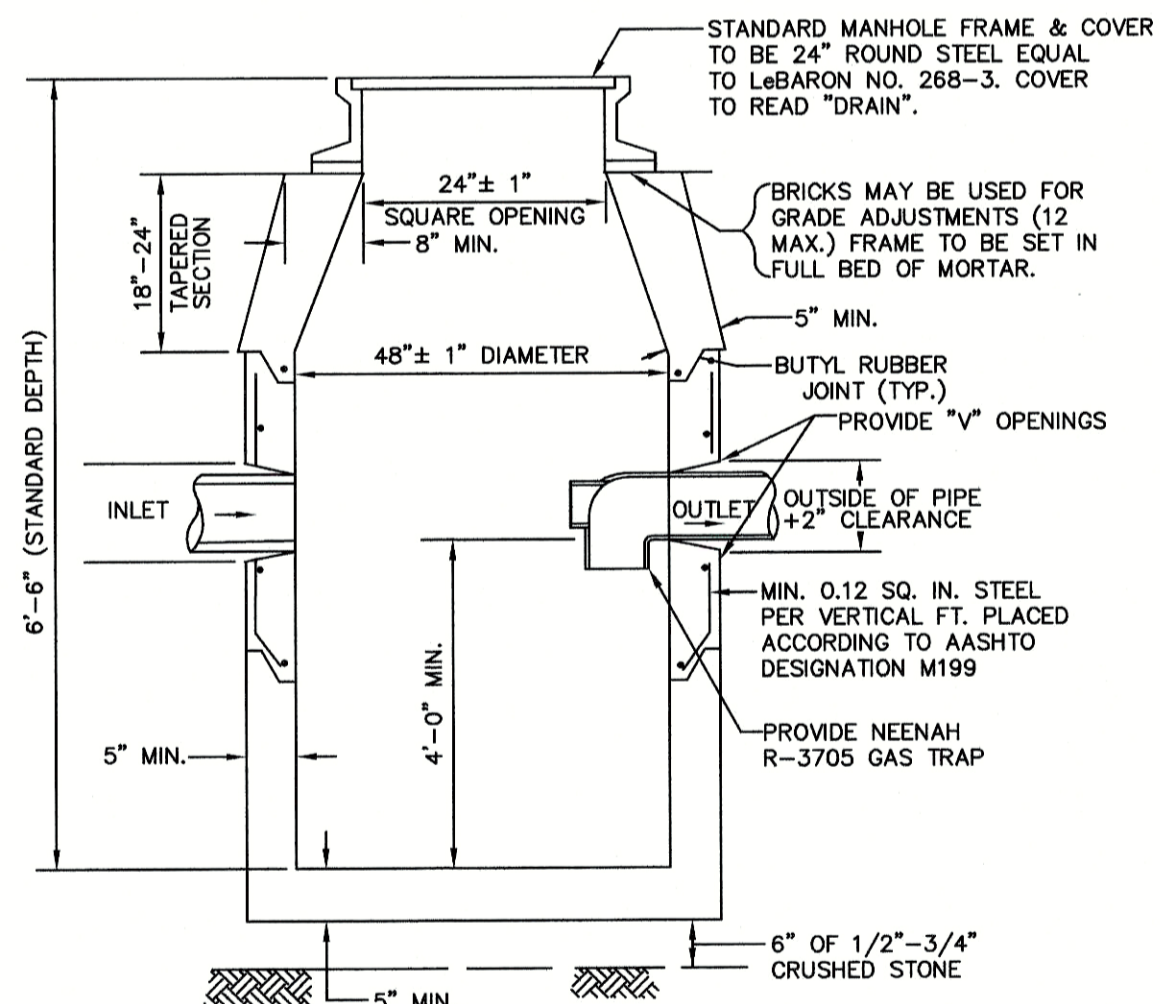
**SPECIFICATION CLAUSE
 FG200 Trench Drain System**

- NOTES:**
- It is necessary to ensure the minimum dimensions shown are suitable for the existing ground conditions. Engineering advice may be required.
 - A minimum concrete strength of 3000 PSI is recommended. The concrete should be vibrated to eliminate air pockets.
 - Expansion and crack control joints are recommended to protect the channel and the concrete surround. Engineering advice may be required.
 - The finished level of the concrete surround must be approx. 1/8" above the top of the channel edge.
 - Refer to ACO'S latest installation instructions for complete details.
 - Concrete base thickness should match slab thickness.

The surface drainage system shall be Fiberglass FG200 channel system with steel frame as manufactured by ACO Polymer Products, Inc., Chardon, Oh.
 Channels will be manufactured from polyester resin fiberglass with either painted steel or galvanized steel frame. Frame shall be made of angle steel with welded steel concrete anchors and installation brackets. Frame shall have welded cross members threaded for grate lockdown.
 The system shall be 8 inches (203mm) nominal inside width with a 10.75 in. (273mm) overall width and a built-in slope of 1.04%. All channels shall be interlocking with a male/female lap joint.
 The complete drainage system shall be by ACO Polymer Products, Inc. Any deviation or partial system design and/or improper installation will void any and all warranties provided by ACO Polymer Products, Inc.
 Channel shall withstand loading to Load Class ____ (*DIN 19 580). Grate type shall be appropriate to meet the system load class specified and intended application. Grates shall be secured to frame utilizing two bolts. Channel and grate shall be independently certified to meet the specified DIN 19580 load class.
 The fiberglass shall have a compressive strength of 16,000 psi, tensile strength of 16,400 psi, flexural strength of 24,000 psi and the water absorption rate of nil. The fiberglass shall be resistant to prolonged salt exposure, repetitive frost cycles and chemically resistant to dilute acids and alkalis.
 The system shall be installed in accordance with the manufacturer's instructions and recommendations.
 *Fill in as required.

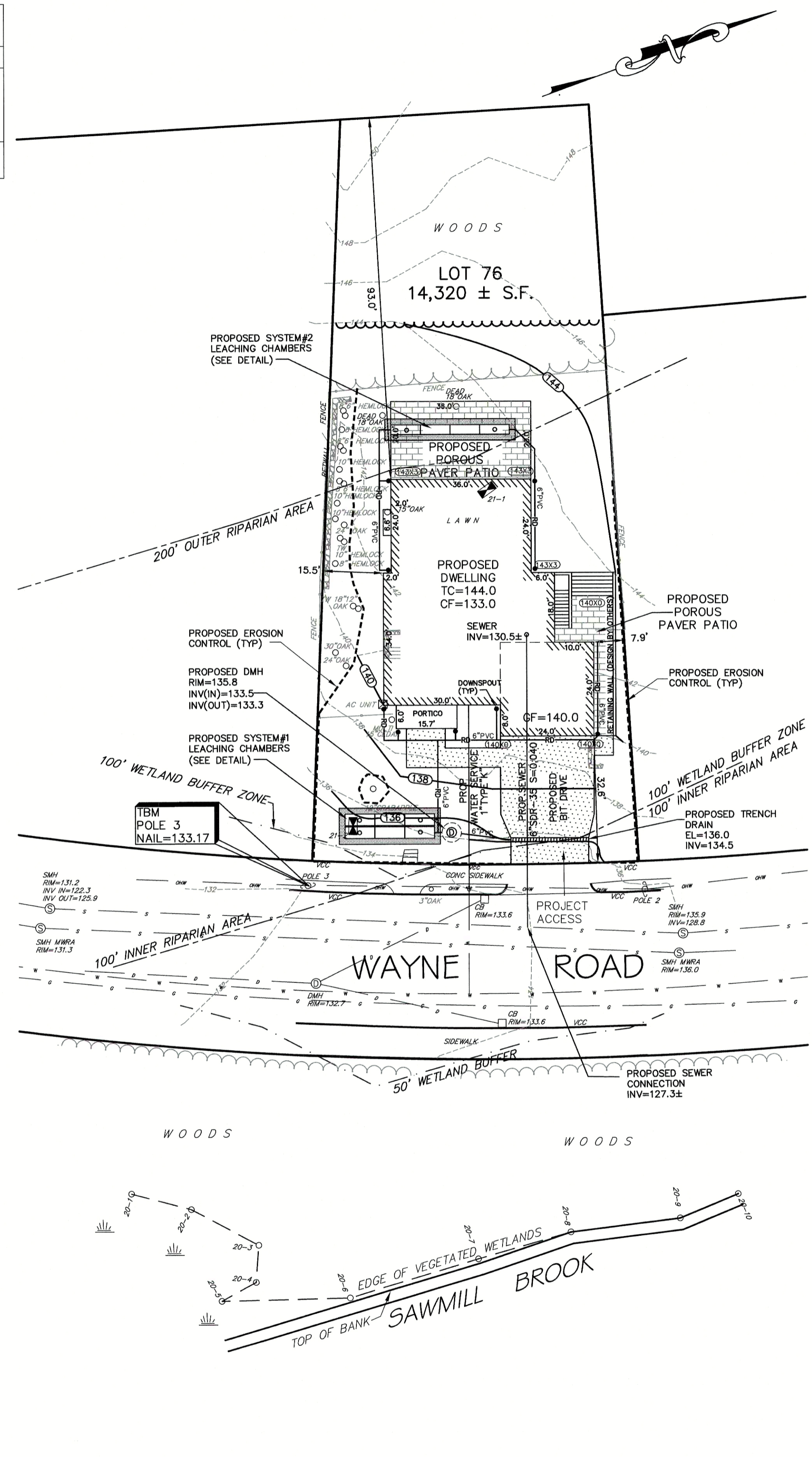
TRENCH DRAIN DETAIL

N.T.S.
 ACO DRAIN FG200 TRENCH DRAIN SYSTEM OR APPROVED EQUAL



- NOTES:**
- NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED WITH MORTAR.
 - CATCH BASINS SHALL BE EQUIPPED OIL ABSORBENT PILLOWS.

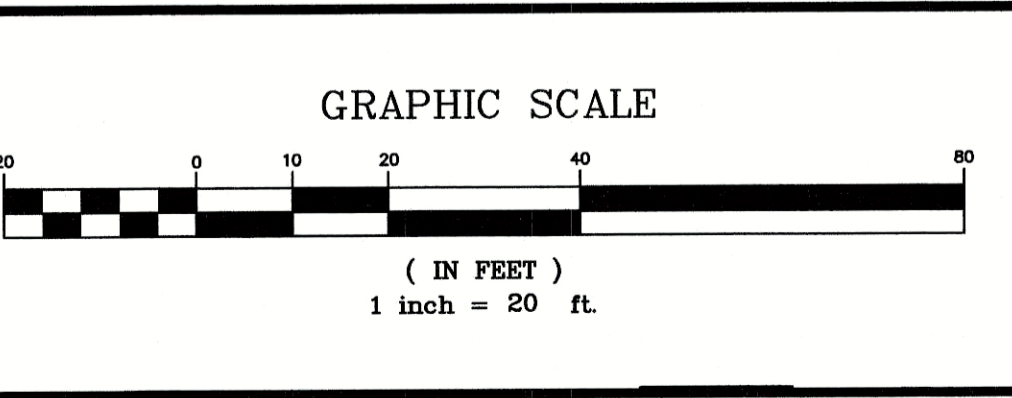
PRECAST DEEP SUMP MANHOLE DETAILS



PROPOSED UTILITY PLAN

DIG SAFE
 1-888-344-7233

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No.	DATE	DESCRIPTION

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Professional Engineer Seal: PAUL E. TRUAX, CIVIL ENGINEER, No. 46207, State of Massachusetts.

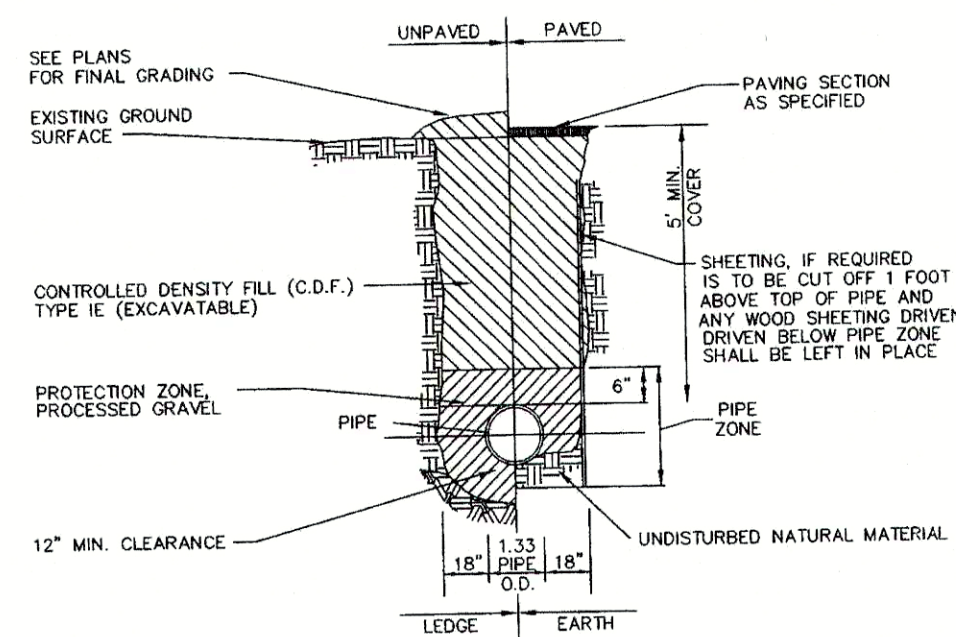
Professional Engineer Seal: JOYCE HASTINGS, CIVIL ENGINEER, No. 39393, State of Massachusetts.

DATE: 4/27/2021

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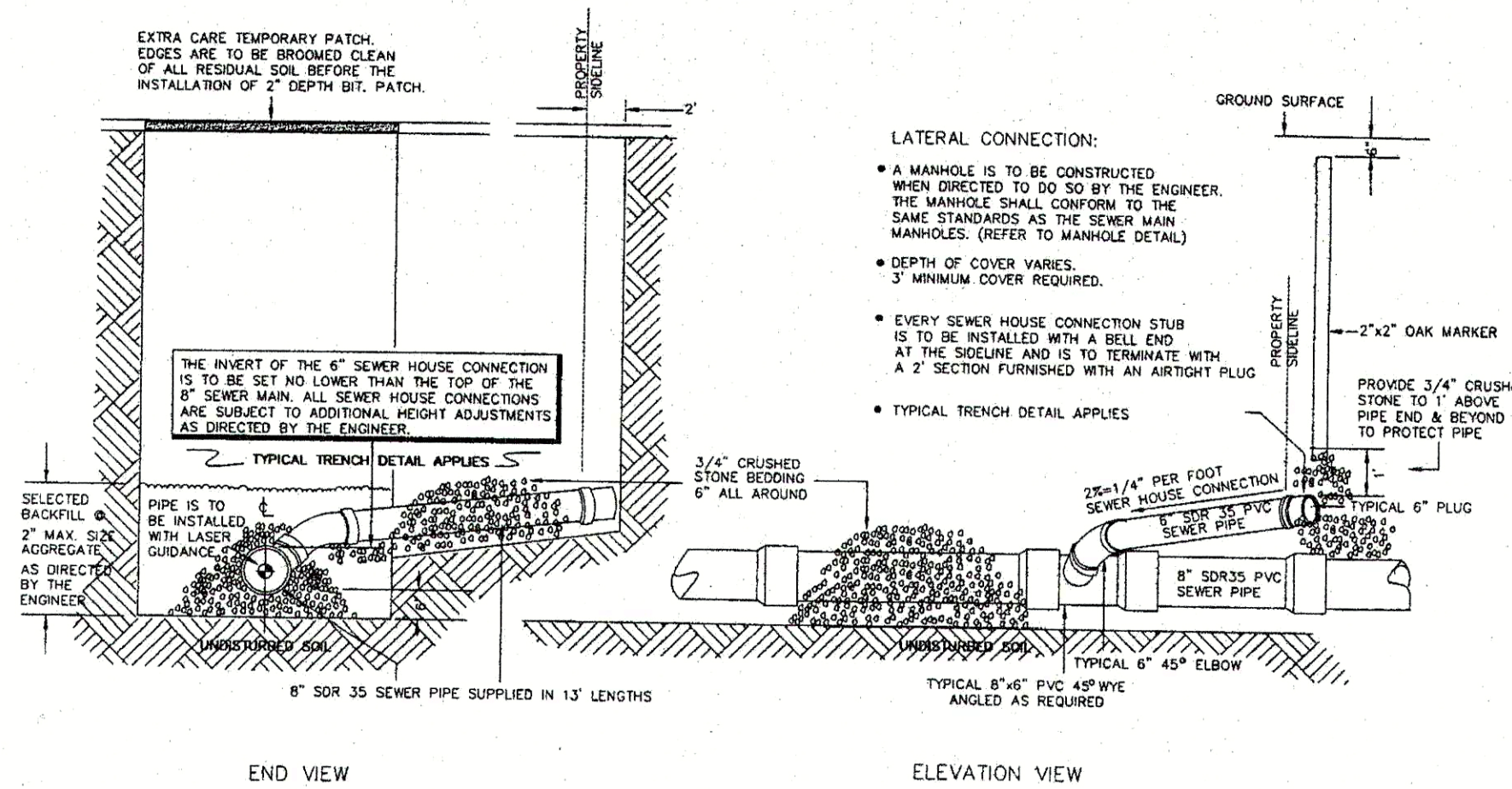
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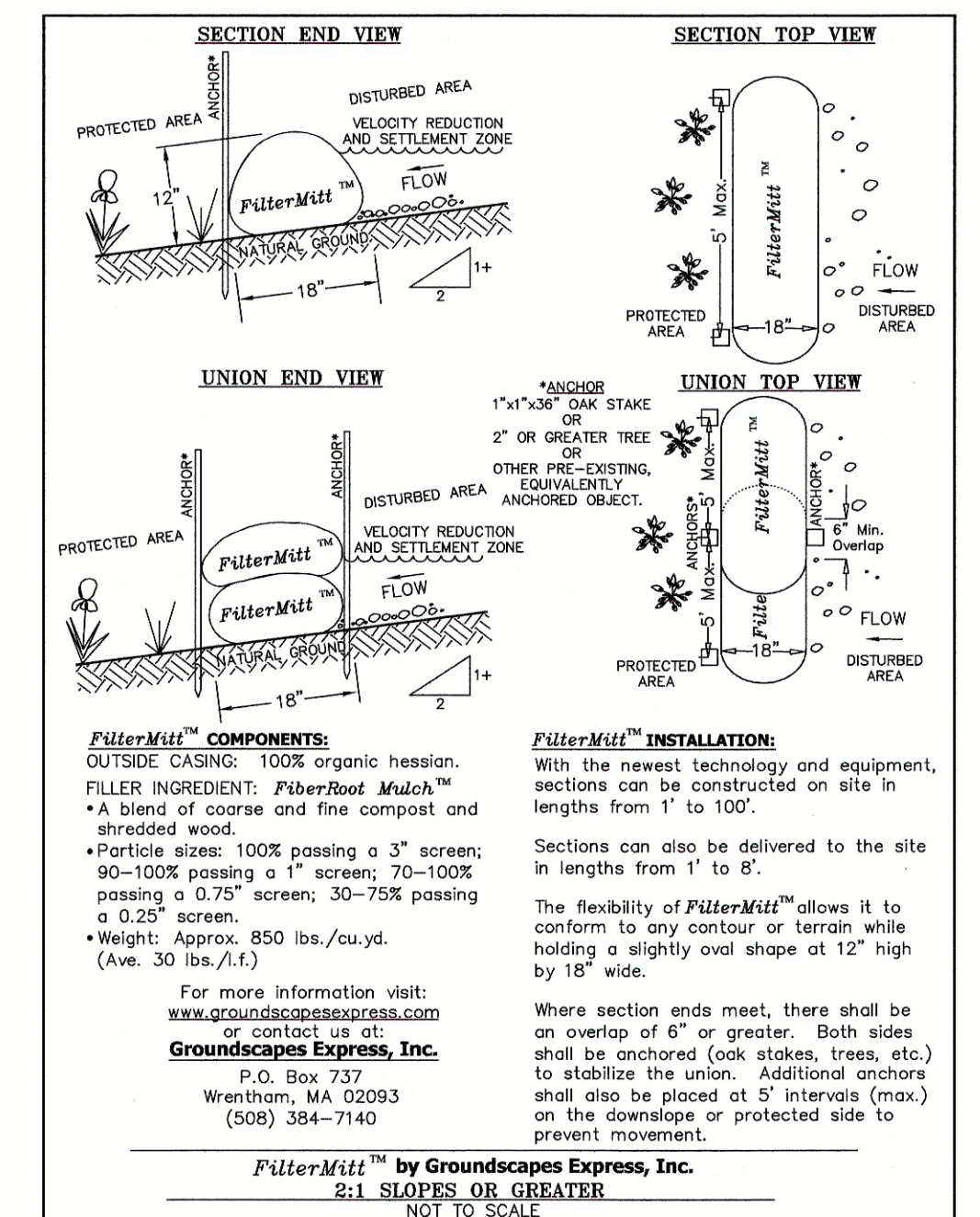
TYPICAL C.D.F. WATER TRENCH DETAIL
NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7

TYPICAL WATER TRENCH DETAIL



TYPICAL SEWER CONNECTION DETAIL

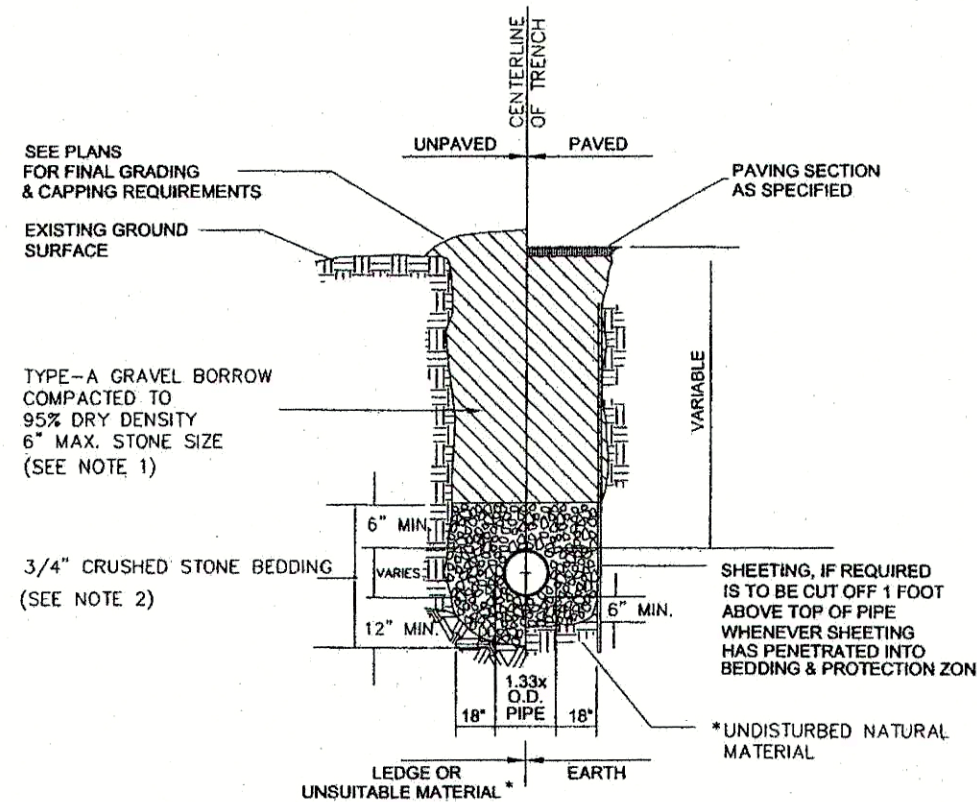


FilterMitt™ COMPONENTS:
OUTSIDE CASING: 100% organic heppion.
FILLER INGREDIENT: FiberRoot Mulch™
* A blend of coarse and fine compost and shredded wood.
* Particle sizes: 100% passing a 3" screen; 90-100% passing a 1" screen; 70-100% passing a 0.75" screen; 30-75% passing a 0.25" screen.
* Weight: Approx. 850 lbs./cu.yd. (Ave. 30 lbs./f.t.)

FilterMitt™ INSTALLATION:
With the newest technology and equipment, sections can be constructed on site in lengths from 1' to 100'.
Sections can also be delivered to the site in lengths from 1' to 8'.
The flexibility of FilterMitt™ allows it to conform to any contour or terrain while holding a slightly oval shape at 12" high by 18" wide.
Where section end meets, there shall be an overlap of 6" or greater. Both sides shall be anchored (oak stakes, trees, etc.) to stabilize the union. Additional anchors shall also be placed at 5' intervals (min.) on the downslope or protected side to prevent movement.

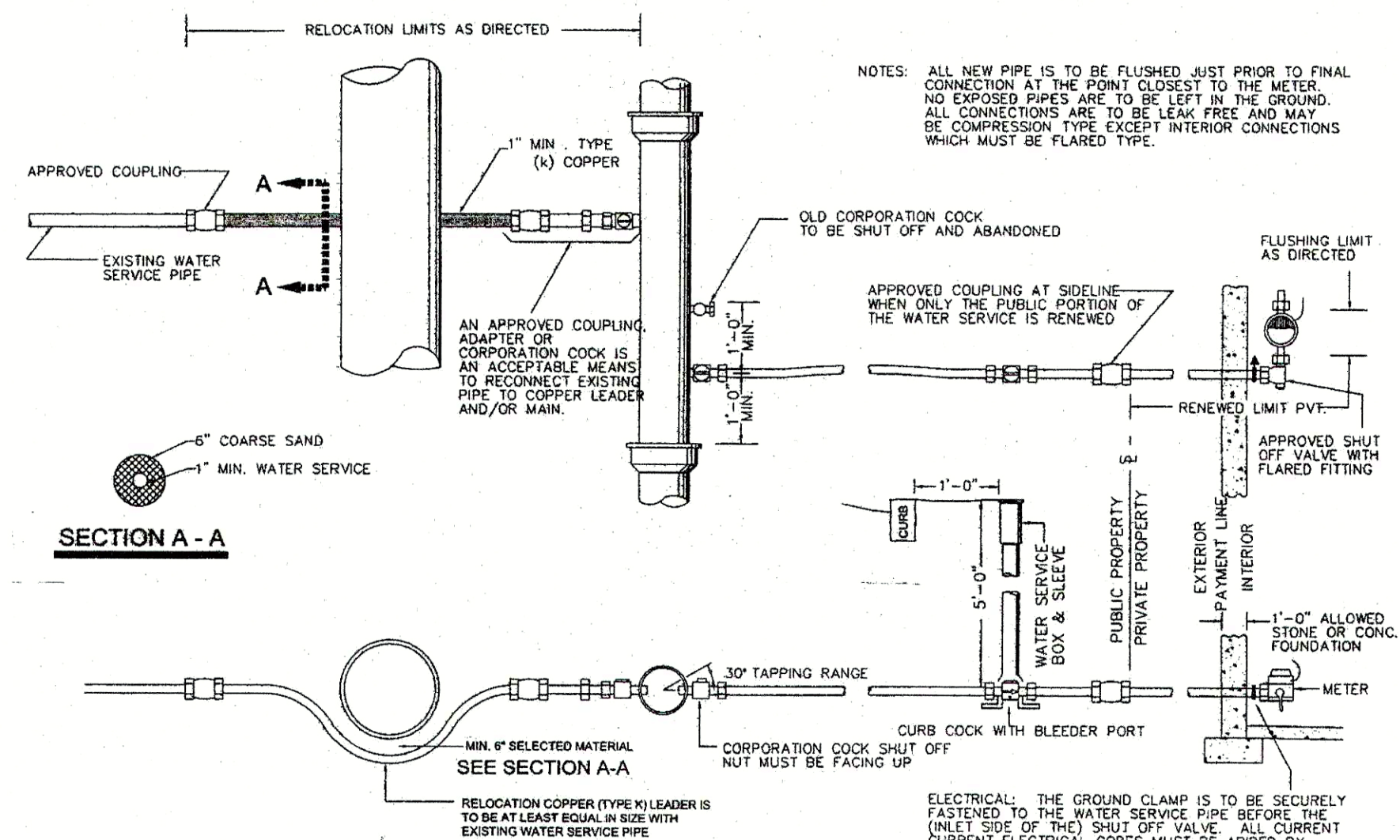
For more information visit:
www.groundscapesexpress.com
or contact us at:
Groundscapes Express, Inc.
P.O. Box 737
Wrentham, MA 02093
(508) 384-7140

FilterMitt™ by Groundscapes Express, Inc.
2:1 SLOPES OR GREATER
NOT TO SCALE



TYPICAL SEWER TRENCH DETAIL

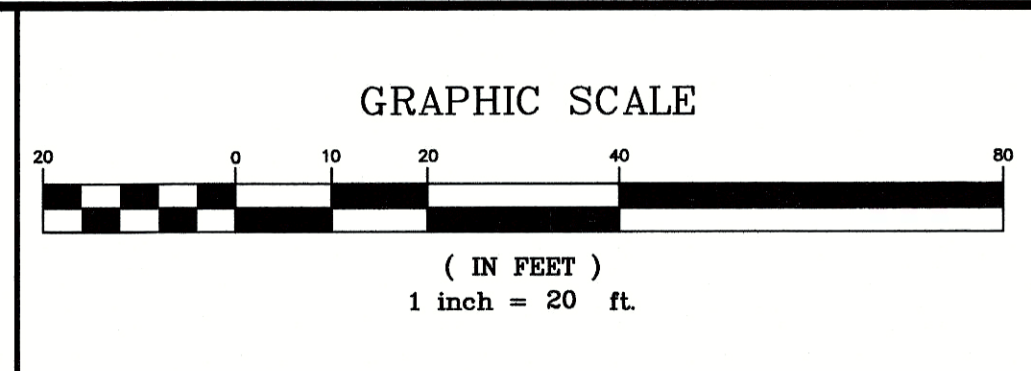
* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.
1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1



TYPICAL WATER SERVICE CONNECTION DETAIL

DETAILS

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CHKD.: JEH

PAUL E. TRUAX
CIVIL ENGINEER
NO. 46527
REGISTERED PROFESSIONAL ENGINEER

JOYCE HASTINGS
NO. 98993
REGISTERED PROFESSIONAL LAND SURVEYOR

4/27/21

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