

PROPOSED SITE DEVELOPMENT PLAN

AT

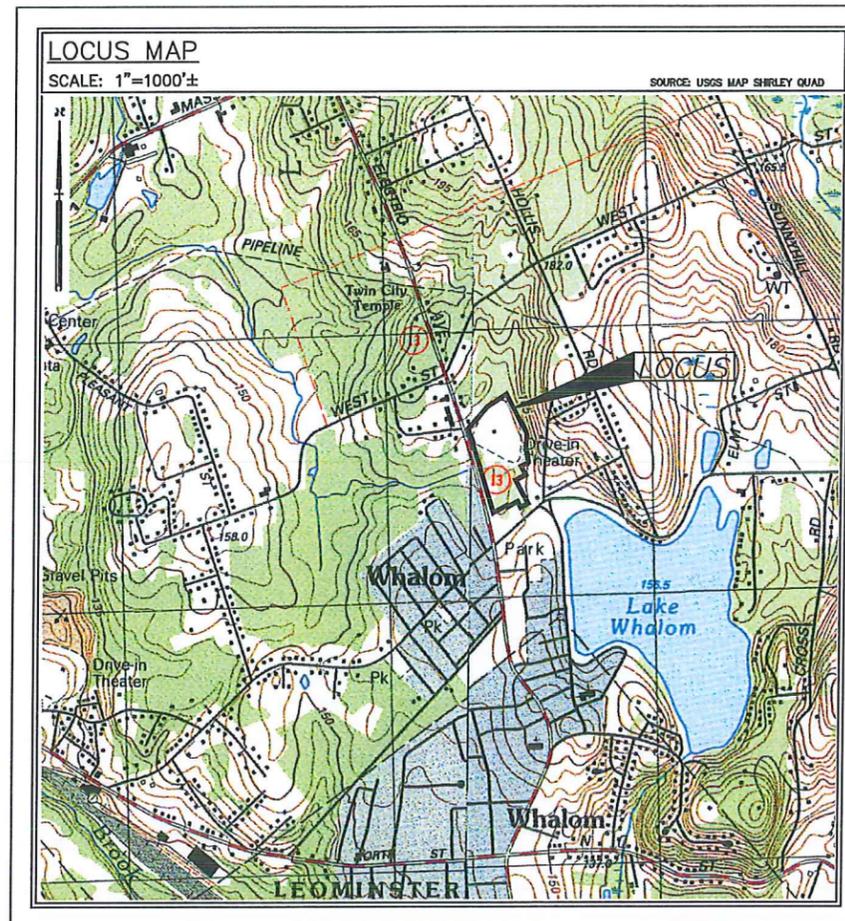
357 ELECTRIC AVENUE LUNENBURG, MASSACHUSETTS

NOVEMBER 20, 2015

APPLICANT
UNITIL
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842
TEL. (603) 772-0775

ENGINEER & SURVEYOR
WHITMAN & BINGHAM ASSOCIATES, LLC.
510 MECHANIC STREET
LEOMINSTER, MA 01453
TEL. (978) 537-5296

CONSTRUCTION MANAGER
NADEAU CORPORATION
CONSTRUCTION DEVELOPMENT & ENGINEERING
727 WASHINGTON STREET
SOUTH ATTLEBORO, MA 02703
TEL. (508) 399-6776



ARCHITECT
KITE ARCHITECTS, INC.
3 CENTRAL STREET
PROVIDENCE, RI 02907
TEL. (401) 272-0240

CONSULTING ENGINEERS
CREATIVE ENVIRONMENT CORPORATION
195 FRANCES AVENUE, BUILDING 2
CRANSTON, RI 02910
TEL. (401) 438-7733

SECURITY CONSULTANT
GOOD HARBOR TECHMARK, LLC
17 ACCORD PARK DRIVE, SUITE 201
NORWELL, MA 02061
TEL. (781) 871-6555

INTERIOR DESIGNER
STIBLER ASSOCIATES, LLC.
306 HIGHLANDER WAY
MANCHESTER, NH 03103
TEL. (603) 623-8952

ASSESSOR'S MAP # 93 PARCEL # 56

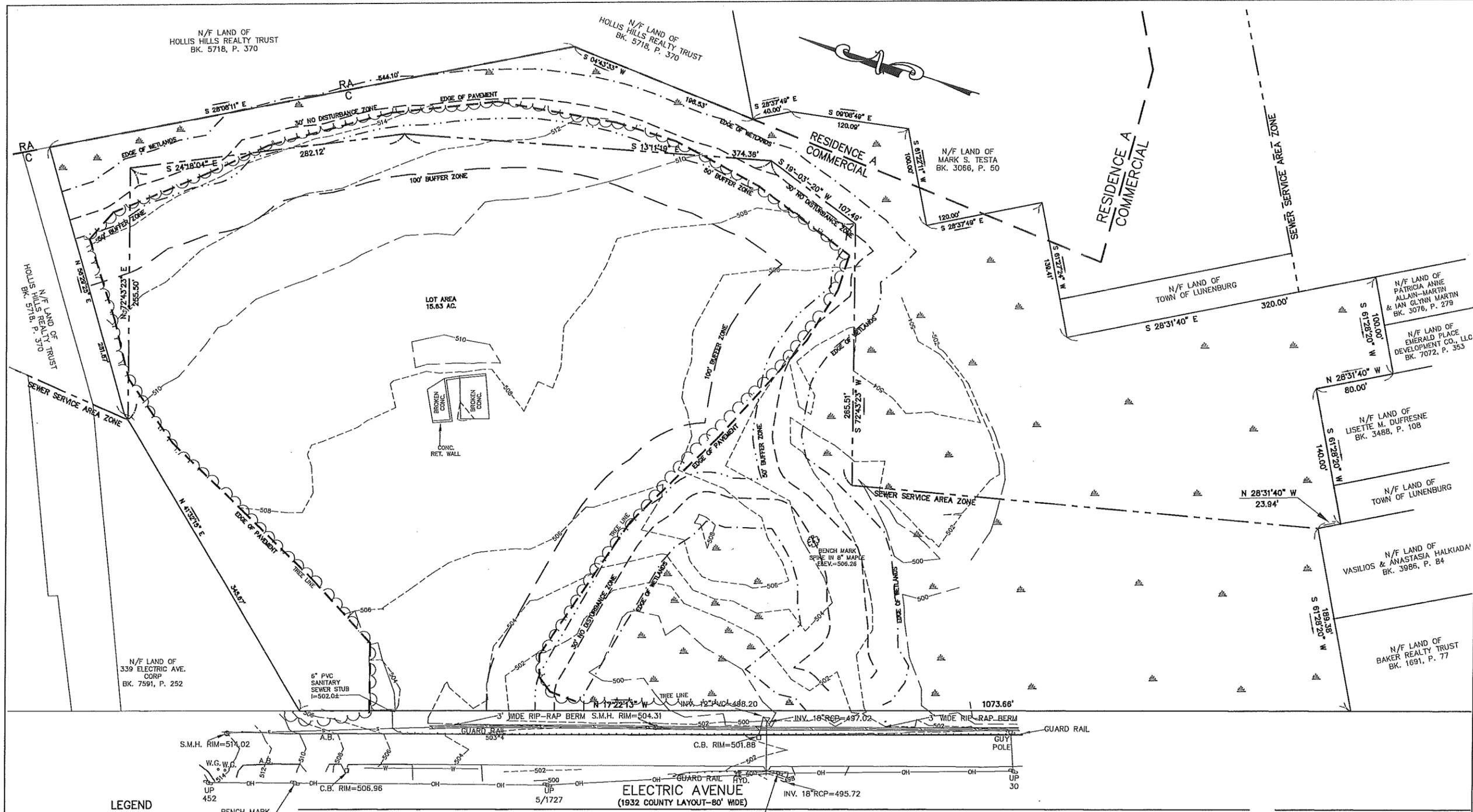
PLAN INDEX	
EXISTING CONDITIONS PLAN	1
GRADING AND UTILITIES PLAN	2
LAYOUT AND MATERIALS PLAN	3
LANDSCAPE PLAN	4
EROSION CONTROL PLAN	5
CONSTRUCTION NOTES	6
CONSTRUCTION DETAILS	7 - 9
LIGHTING PLAN	L1
ARCHITECTURAL RENDERING	A1

RECEIVED

DEC 15 2015

Planning Department

NO.	DATE	DESCRIPTION
1	12/14/15	SHEETS 1, 2, 3, 4, 5, 6, 8 & 9



LEGEND

EXISTING	DESCRIPTION	NEW	DESCRIPTION
○ SMH	SEWER MANHOLE	○ NSMH	NEW SEWER MANHOLE
□ CB	CATCH BASIN	■ NCB	NEW CATCH BASIN
○ GG	GAS GATE	○ NGG	NEW GAS GATE
○ WG	WATER GATE	○ NWG	NEW WATER GATE
⊕ HYD	HYDRANT	⊕ NHYD	NEW HYDRANT
* LTS	LIGHT	* NLTS	NEW LIGHT
⊕ UP	UTILITY POLE	⊕ NUP	NEW UTILITY POLE
△ FE	FLARED END	△ NFE	NEW FLARED END
○ IR	IRON ROD		
□ SB	STONE BOUND		
□ WCH	WORCESTER COUNTY HIGHWAY BOUND		
BIT. CONC.	BITUMINOUS CONCRETE	BIT. CONC.	BITUMINOUS CONCRETE
433x6	SPOT GRADE	433.6	NEW SPOT GRADE
— 433 —	CONTOUR	— 433 —	NEW CONTOUR
— D —	DRAIN	— ND —	NEW DRAIN
— E —	ELECTRIC	— NE —	NEW ELECTRIC
— G —	GAS	— NG —	NEW GAS
— S —	SEWER	— NS —	NEW SEWER
— W —	WATER	— NW —	NEW WATER
— OH —	OVERHEAD UTILITY	— NOH —	NEW OVERHEAD UTILITY
— X —	FENCE	— NX —	NEW FENCE
— T —	TREE LINE		
PVC	POLYVINYL CHLORIDE	PVC	POLYVINYL CHLORIDE
HDPE	HIGH DENSITY POLYETHYLENE	HDPE	HIGH DENSITY POLYETHYLENE
CLDI	CEMENT LINED DUCTILE IRON TO BE REMOVED	CLDI	CEMENT LINED DUCTILE IRON TO BE REMOVED
	RADIUS R'	R5'	NEW RADIUS R'
	PARKING SPACES	⊕	NEW PARKING SPACES
	HANDICAP SPACE	⊕	NEW HANDICAP SPACE
	PAINTED ISLAND	⊕	NEW PAINTED ISLAND



APPROVAL UNDER
SITE PLAN
IS REQUIRED

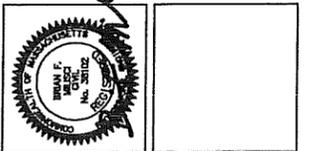
DATE
TOWN OF LUNENBURG
PLANNING BOARD

CHECKED BY: BFW	SCALE: 1"=50'	JOB NUMBER: 13480	PLAN NUMBER: 31-D-31	FIELD BOOK REF(S):
DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 1 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS

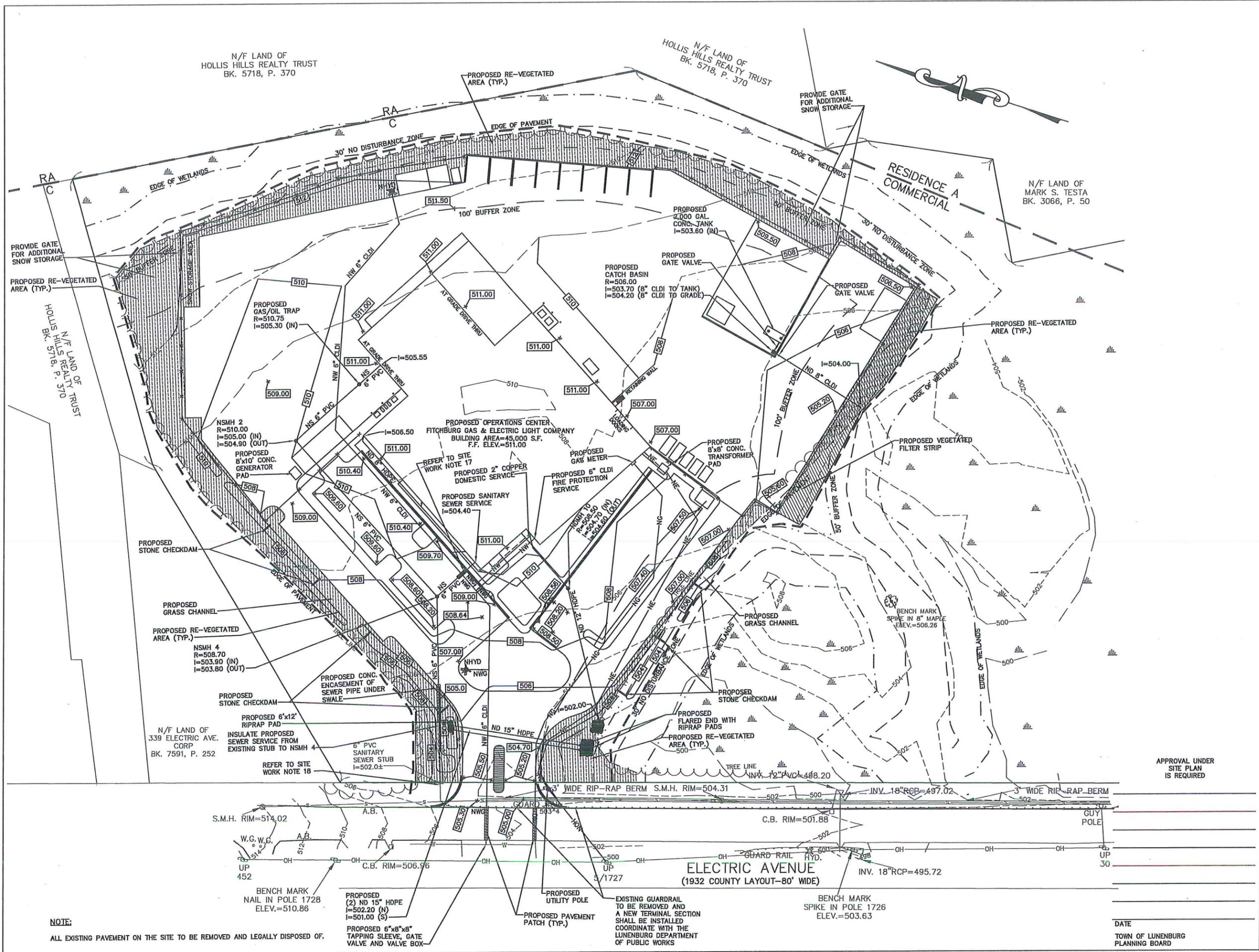
NO.	DATE	BY
1	12/14/15	MFP

EXISTING CONDITIONS PLAN
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNITIL
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842



WHITMAN & BINGHAM
A S S O C I A T E S
REGISTERED ENGINEERS & LAND SURVEYORS
510 BEECH STREET
LUNENBURG, MASSACHUSETTS 01461
TEL: (978) 551-1423
FAX: (978) 551-1423



N/F LAND OF
HOLLIS HILLS REALTY TRUST
BK. 5718, P. 370

N/F LAND OF
HOLLIS HILLS REALTY TRUST
BK. 5718, P. 370

N/F LAND OF
MARK S. TESTA
BK. 3066, P. 50

RA
C

N/F LAND OF TRUST
HOLLIS HILLS REALTY TRUST
BK. 5718, P. 370

N/F LAND OF
339 ELECTRIC AVE.
CORP.
BK. 7591, P. 252

ELECTRIC AVENUE
(1932 COUNTY LAYOUT-80' WIDE)

NOTE:
ALL EXISTING PAVEMENT ON THE SITE TO BE REMOVED AND LEGALLY DISPOSED OF.

PROPOSED (2) ND 15" HDPE
I=502.20 (N)
I=501.00 (S)

PROPOSED 6"x8"x8"
TAPPING SLEEVE, GATE
VALVE AND VALVE BOX

PROPOSED UTILITY POLE

EXISTING GUARDRAIL
TO BE REMOVED AND
A NEW TERMINAL SECTION
SHALL BE INSTALLED
COORDINATE WITH THE
LUNENBURG DEPARTMENT
OF PUBLIC WORKS

APPROVAL UNDER
SITE PLAN
IS REQUIRED

DATE
TOWN OF LUNENBURG
PLANNING BOARD

CHECKED BY: BFM	SCALE: 1"=40'	JOB NUMBER: 13480	PLAN NUMBER: 31-D-31	FIELD BOOK REF(S):
DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 2 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS

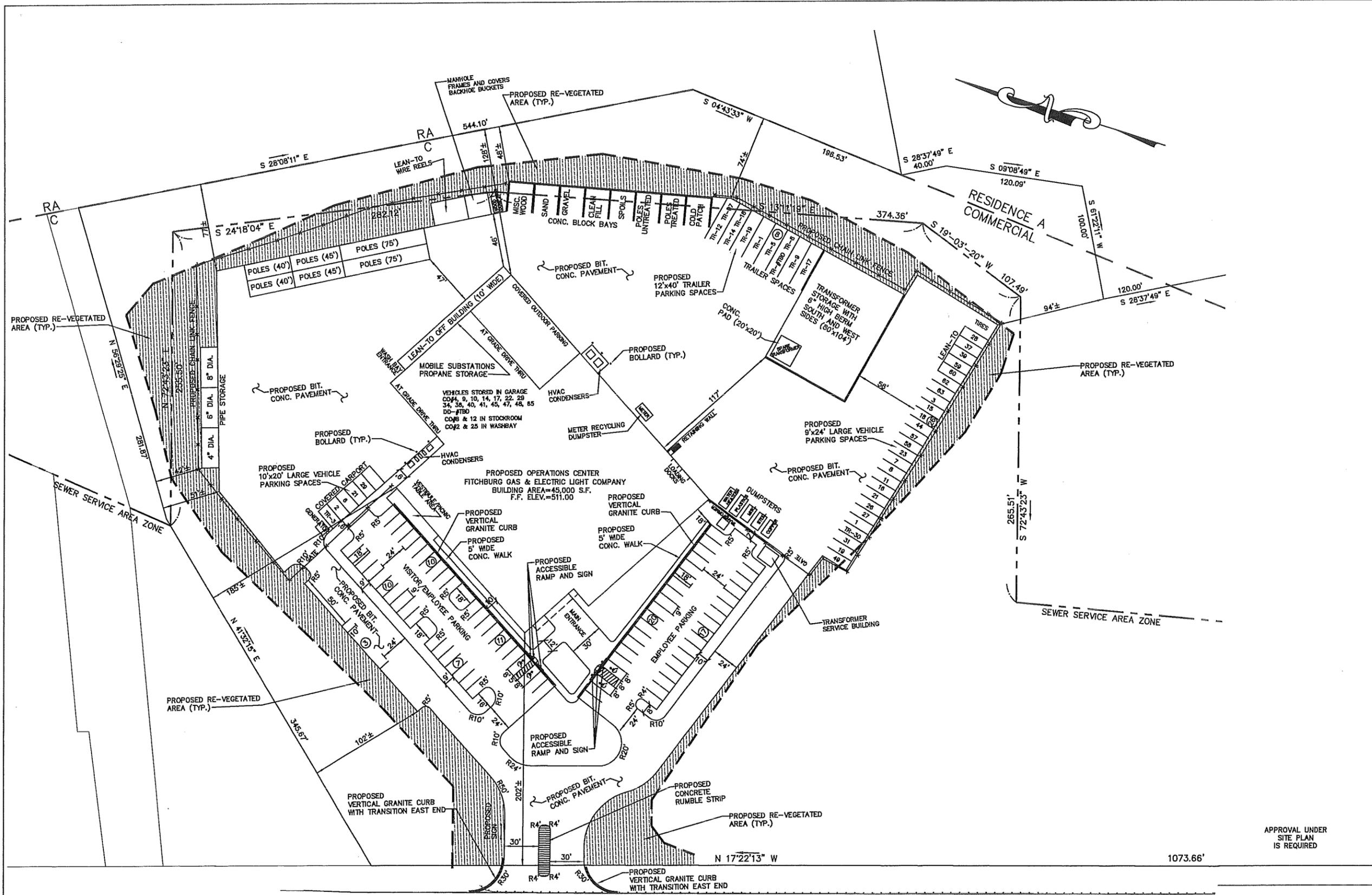
REVISIONS	NO.	DESCRIPTION	DATE	BY
	1	PER ENGINEERING COMMENTS	12/14/15	MFP

GRADING AND UTILITIES PLAN
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNITLE
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842



WHITMAN & BINGHAM
A S O C I A T E S
REGISTERED ENGINEERS & LAND SURVEYORS
410 HIGHLAND STREET
LEOMINGTON, MASSACHUSETTS 01460
TEL: 678-537-5266
FAX: 678-537-4425



CHECKED BY: BPM	SCALE: 1"=40'	JOB NUMBER: 13480	PLAN NUMBER: 31-D-31	FIELD BOOK REF(S):
DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 3 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS

REVISIONS	NO.	DESCRIPTION	DATE	BY
	1	PER ENGINEERING COMMENTS	12/14/15	MFP

LAYOUT AND MATERIALS PLAN
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNIL
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842

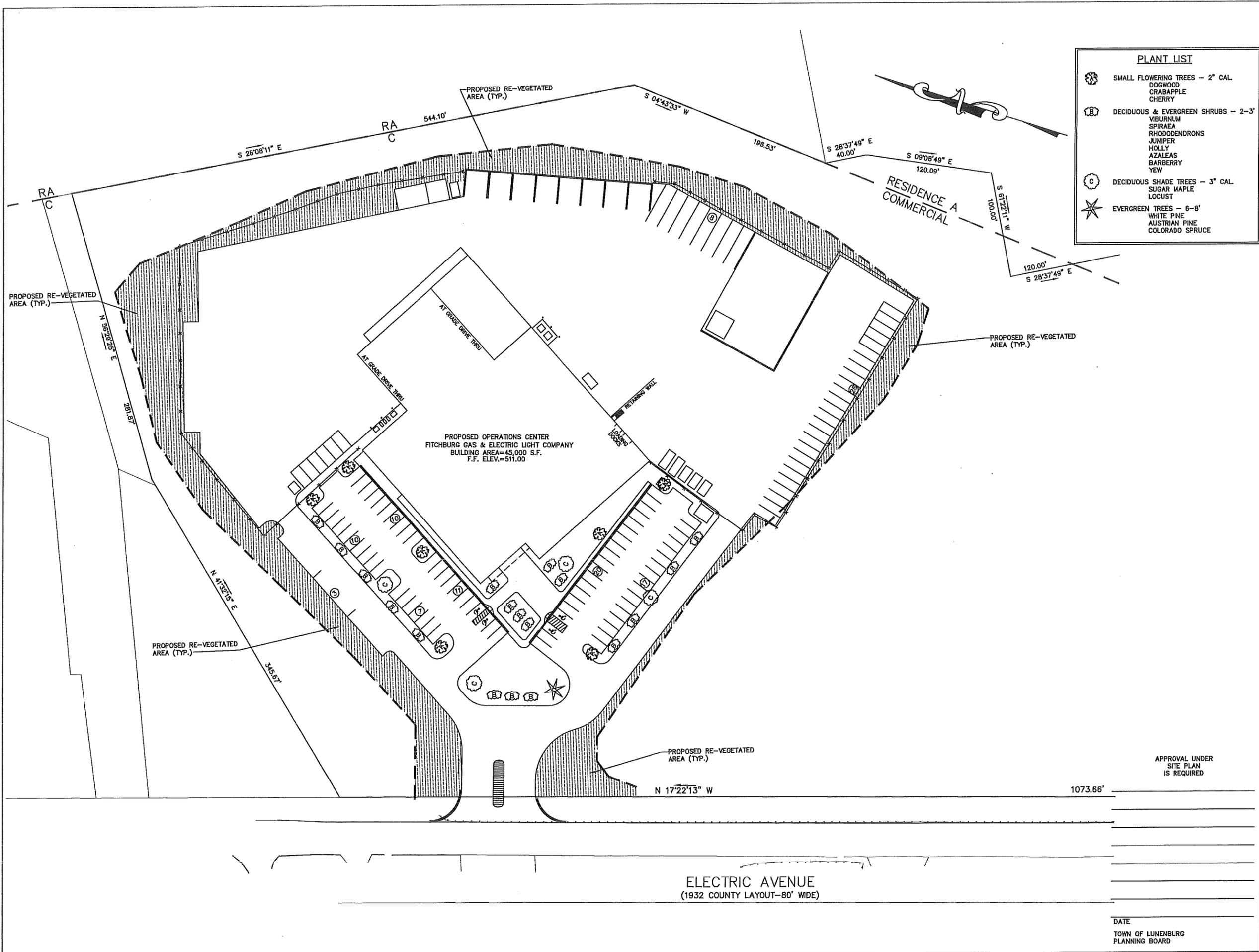


WHITMAN & BINGHAM
ASSOCIATES
REGISTERED ENGINEERS & LAND SURVEYORS
410 WASHINGTON STREET
LUNENBURG, MA 01450
TEL: 678-531-5282
FAX: 678-531-4425

ELECTRIC AVENUE
(1932 COUNTY LAYOUT-80' WIDE)

APPROVAL UNDER
SITE PLAN
IS REQUIRED

DATE
TOWN OF LUNENBURG
PLANNING BOARD



PLANT LIST

- SMALL FLOWERING TREES - 2" CAL.
DOGWOOD
CRABAPPLE
CHERRY
- DECIDUOUS & EVERGREEN SHRUBS - 2-3'
VIBURNUM
SPIRAEA
RHODODENDRONS
JUNIPER
HOLLY
AZALEAS
BARBERRY
YEW
- DECIDUOUS SHADE TREES - 3" CAL.
SUGAR MAPLE
LOCUST
- EVERGREEN TREES - 6-8'
WHITE PINE
AUSTRIAN PINE
COLORADO SPRUCE

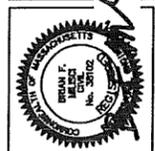
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DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 4 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS
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NO.	DESCRIPTION	DATE	BY
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LANDSCAPE PLAN
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNITIL
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
5 LIBERTY LANE WEST
HAMPTON, NH 03842



WHITMAN & BINGHAM
A S S O C I A T E S
REGISTERED ENGINEERS & LAND SURVEYORS
450 BEECHMAN STREET
LECOMBVILLE, MA 01463
TEL: 678-537-5266
FAX: 678-537-1415

APPROVAL UNDER
SITE PLAN
IS REQUIRED

1073.66'

ELECTRIC AVENUE
(1932 COUNTY LAYOUT-80' WIDE)

DATE
TOWN OF LUNENBURG
PLANNING BOARD

CONSTRUCTION NOTES

GENERAL

- 1.) PROPERTY LINES SHOWN HEREON ARE COMPILED FROM VARIOUS SOURCES WHICH INCLUDE PLANS OF RECORD AND AN ON-THE-GROUND SURVEY BY WHITMAN AND BINGHAM ASSOCIATES, LLC.
- 2.) TOPOGRAPHY SHOWN ON THESE PLANS IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY PERFORMED BY WHITMAN & BINGHAM ASSOCIATES, LLC. DURING JULY 2015. ANY ALTERATIONS TO THE TOPOGRAPHY AFTER THIS DATE MAY NOT BE REFLECTED ON THIS PLAN. ALL ELEVATIONS REFER TO NGVD OF 1929.
- 3.) UNLESS SPECIFIED OTHERWISE, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS D.P.W. SPECIFICATIONS OF HIGHWAYS AND BRIDGES AS LAST REVISED, THE TOWN OF LUNENBURG PUBLIC WORKS DEPT. AND/OR THE APPROPRIATE LOCAL AUTHORITIES.
- 4.) *****DIG SAFE NOTE***** IN ACCORDANCE WITH MGLCH 82, SEC. 40 INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING, OF THE INTENT TO EXCAVATE NO LESS THAN 72 HOURS PRIOR TO SUCH EXCAVATION (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND HOLIDAYS.) OR CALL "DIG SAFE" AT 811.
- 5.) EXISTING UTILITY ELEVATIONS AND LOCATIONS SHOWN SHALL BE CONSIDERED APPROXIMATE ONLY. ALL UTILITY ELEVATIONS AND LOCATIONS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT, SHALL BE REPAIRED/REPLACED AS NECESSARY IF DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER AS SOON AS POSSIBLE.
- 6.) RELOCATION OF ANY UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY, AT NO ADDITIONAL COST TO THE OWNER.
- 7.) ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOAMED AND SEEDED AS SOON AS POSSIBLE FOR STABILIZATION AND TO PREVENT EROSION. SLOPES OF 2:1 AND STEEPER SHALL BE STABILIZED WITH AN EROSION CONTROL BLANKET.
- 8.) TEST PITS SHALL BE PERFORMED IN THE AREAS WHERE CROSSING EXISTING UTILITIES IS TO BE PERFORMED PRIOR TO CONSTRUCTION TO VERIFY UTILITY DEPTHS. ADDITIONAL TEST PITS IN OTHER AREAS MAY BE REQUIRED AS DIRECTED BY ENGINEER OR LOCAL APPROVING AUTHORITY. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER AT TIME OF TEST PITS.
- 9.) ADDITIONAL BENCHMARKS TO BE SET BY CONTRACTOR PRIOR TO CONSTRUCTION TO ENSURE QUALITY WORKMANSHIP.
- 10.) ANY DEVIATIONS I.E. "FIELD CHANGES" FROM THE DESIGN PLANS MUST BE APPROVED BY THE DESIGN ENGINEER IN WRITING. CONTRACTOR SHOULD BE AWARE THAT THE TOWN OF LUNENBURG PLANNING BOARD AND STATE AUTHORITIES HAVE JURISDICTION AND APPROVALS MUST BE OBTAINED THROUGH THEIR RESPECTIVE OFFICE(S) PRIOR TO CONSTRUCTION. WHITMAN & BINGHAM ASSOCIATES, LLC. ASSUMES NO LIABILITY OR RESPONSIBILITY WHATSOEVER FOR WORK COMPLETED WITHOUT REGARD TO THE ABOVE REQUIRED "FIELD CHANGE" PROCEDURE.
- 11.) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSURANCES THAT MAY BE REQUIRED ON THIS PROJECT. ALL ORDERS OF CONDITIONS, STREET OPENING REQUIREMENTS, AND OTHER REQUIREMENTS UNDER PERMITTING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 12.) THESE PLANS CONTAINED HEREIN SHALL SUPERSEDE ANY AND ALL PREVIOUS DESIGNS PREVIOUSLY PREPARED FOR THE SUBJECT SITE.
- 13.) DAILY AND PROPER MAINTENANCE OF ALL DITCHES AND EXCAVATIONS ARE REQUIRED. TEMPORARY AND PERMANENT PATCH PER SPECIFICATIONS AND THESE PLANS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. UNDER NO CIRCUMSTANCES, ANY EXCAVATION OR DITCH SHALL BE LEFT UNCOVERED, NOT PROPERLY PATCHED, LEFT NOT MAINTAINED OR IN IMPROPER SURFACE CONDITION.
- 14.) DURING SITE CONSTRUCTION BASINS SHALL BE USED AS SEDIMENTATION BASINS, DURING CONSTRUCTION THE SEDIMENTATION BASINS SHALL RECEIVE PERIODIC MAINTENANCE TO REMOVE DEPOSITED SILTS AND DEBRIS TO INSURE PROPER DRAINAGE AND SETTLING OF PARTICULATE MATTER. ONCE ROAD CONSTRUCTION IS COMPLETED THE BASIN BOTTOMS SHALL BE EXCAVATED TO FINISH BOTTOM ELEVATIONS.
- 15.) ALL EXCESS MATERIALS I.E., SOIL, LEDGE, WATER, AND GENERAL DEBRIS, WILL BE REMOVED AND DISPOSED BY THE CONTRACTOR OFF SITE AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
- 16.) BORINGS HAVE NOT BEEN DONE TO DETERMINE THE PRESENCE OF LEDGE.
- 17.) PRIOR TO CONSTRUCTION COORDINATE THE NEW GAS SERVICE CONNECTION WITH NATIONAL GRID.
- 18.) ALL EXISTING PAVEMENT TO BE REMOVED AND LEGALLY DISPOSED OF.
- 19.) THE EXISTING SITE HAS BEEN DESIGNED TO BALANCE THE CUTS AND FILLS TO THE MAXIMUM EXTENT PRACTICABLE.

PARKING REQUIREMENTS:

PARKING REQUIREMENT FOR OFFICE AND ALL OTHER NON-RESIDENTIAL STRUCTURES: USE:
1 SPACE PER 1,000 S.F.

PARKING REQUIRED: 45,000 S.F. / 1,000 S.F. = 45 SPACES

PARKING SPACES PROVIDED = 71 STANDARD SPACES (9'x18')
4 ACCESSIBLE SPACES (13'x18')
5 LEAN-TO VEHICLE SPACES (9'x24')
6 CARPORT/LEAN-TO VEHICLE SPACES (10'x20')
21 LARGE VEHICLE SPACES (9'x24')
3 LARGE VEHICLE SPACES (10'x50')
8 TRAILER SPACES

TOTAL PARKING SPACES PROVIDED = 118 SPACES

SITE WORK

- 1.) CONSTRUCTION ACTIVITY MAY TAKE PLACE ONLY DURING HOURS AS SPECIFIED BY THE APPROPRIATE OFFICIAL OF THE TOWN OF LUNENBURG.
- 2.) CAUTION - NOTICE TO CONTRACTOR THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS OR NOT AT NO ADDITIONAL EXPENSE TO OWNER.
- 3.) FILL MATERIAL
 - A.) ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, AND DEBRIS PRIOR TO FILL PLACEMENT.
 - B.) PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING EIGHT INCHES (8") IN LOOSE DEPTH AND COMPACT EACH LAYER AT OPTIMUM MOISTURE CONTENT OF FILL MATERIAL TO DENSITY EQUAL TO ORIGINAL ADJACENT GROUND, UNLESS SUBSEQUENT EXCAVATION FOR NEW WORK IS REQUIRED.
 - C.) GRADE SURFACE TO MATCH ADJACENT GRADES AND TO PROVIDE FLOW TO SURFACE DRAINAGE STRUCTURES AFTER FILL PLACEMENT AND COMPACTION.
 - D.) ROADWAY FILL SHALL BE COMPACTED IN HORIZONTAL LAYERS NOT EXCEEDING 6" IN LOOSE DEPTH AND COMPACTED TO 88% OF THE MAXIMUM DRY DENSITY (STANDARD PROCTOR).
- 4.) FINISH GRADING
GRADE ALL AREAS WHERE FINISH GRADE ELEVATIONS ARE INDICATED ON DRAWINGS, OTHER THAN PAVED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS. GRADED AREAS SHALL BE UNIFORM AND SMOOTH, FREE OF DEBRIS, OR IRREGULAR SURFACE CHANGES. FINISHED SUB GRADE SURFACE SHALL NOT BE MORE THAN 0.10 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUB GRADE ELEVATIONS, AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. FINISH DITCHES SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL.
- 5.) THE CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEANUP OF THE PROJECT ON A DAILY BASIS AND AT THE COMPLETION OF THE PROJECT. OPEN TRENCHES, DITCHES, EXCAVATIONS, ETC. SHALL NOT BE PERMITTED TO BE LEFT OPEN OVERNIGHT. CONTRACTOR WILL BACK FILL OR UTILIZED SUITABLE STEEL PLATES FOR THE SECURING OF THE PROJECT SITE PRIOR TO CEASING WORK IN THAT PARTICULAR SECTION OF THE PROJECT.
- 6.) APPROPRIATE TRAFFIC CONTROL I.E. SIGNAGE, BARRICADES, AND OTHER MEANS WILL BE SUPPLIED BY THE CONTRACTOR AND ACCORDING TO ALL FEDERAL, STATE AND LOCAL AGENCIES AT NO ADDITIONAL COST TO OWNER.
- 7.) UNDER NO CIRCUMSTANCES WILL ANY UTILITY, STRUCTURE, OR REPAIR BE BACK FILLED UNLESS INSPECTED AND APPROVED BY THE TOWN OF LUNENBURG OR ITS DESIGNATE. THIS WILL NOT RELEASE THE CONTRACTOR FROM ANY RESPONSIBILITY OR LIABILITY AS A RESULT OF PERFORMANCE TESTS THAT ARE REQUIRED AS PART OF THIS PROJECT.
- 8.) DUE TO THE POSSIBILITY OF DEEP TRENCHES, PROPER SHORING AND/OR THE USE OF TRENCH BOXES SHALL BE UTILIZED AS DIRECTED BY LOCAL, STATE, AND/OR FEDERAL REGULATORY AGENCIES TO PROVIDE FOR A SAFE WORKING ENVIRONMENT.
- 9.) ALL UTILITIES SHOWN OR NOT SHOWN ON THE PLAN(S) WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED/REPLACED OR MOVED AS REQUIRED BY THE THE CONTRACTOR (SEE SITE WORK NOTE #2 AND GENERAL NOTE #5), AT NO ADDITIONAL COST TO THE OWNER.
- 10.) ALL DRAINAGE PIPE SHALL BE CORRUGATED EXTERIOR, SMOOTH INTERIOR, HIGH PERFORMANCE, HIGH DENSITY POLYETHYLENE (HDPE), UNLESS OTHERWISE SPECIFIED.
- 11.) USE OF EXPLOSIVES
 - A.) COMPLY WITH ALL LAWS, RULES, AND REGULATIONS OF FEDERAL, STATE, AND LOCAL AUTHORITIES AND INSURER WHICH GOVERN STORAGE, USE, MANUFACTURE, SALE, HANDLING, TRANSPORTATION, LICENSING, OR OTHER DISPOSITION OF EXPLOSIVES. TAKE SPECIAL PRECAUTIONS FOR PROPER USE OF EXPLOSIVES TO PREVENT HARM TO HUMAN LIFE AND DAMAGE TO SURFACE STRUCTURES, ALL UTILITY LINES, OR OTHER SUBSURFACE STRUCTURES. DO NOT CONDUCT BLASTING OPERATIONS UNTIL PERSONS IN VICINITY HAVE HAD AMPLE NOTICE AND HAVE REACHED POSITIONS OF SAFETY.
 - B.) BLASTING OF ANY ROCK SHALL REQUIRE APPROPRIATE APPROVALS FROM THE TOWN OF LUNENBURG FIRE DEPARTMENT, PLANNING BOARD, BUILDING INSPECTOR AND/OR OTHER AGENCIES, PRIOR TO COMMENCEMENT OF WORK. FIRE DEPARTMENT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BLASTING. AT THE DISCRETION OF THE FIRE DEPARTMENT, BLASTING MAY NEED TO BE MONITORED WITH A INDEPENDENTLY SUPERVISED SEISMOGRAPH. ALL BLASTED ROCK OR OTHER EXCESS MATERIALS WILL BE REMOVED DISPOSED OF PROPERLY EITHER OFF-SITE OR ON-SITE, AT NO ADDITIONAL COST TO THE OWNER.
- 12.) PROTECTIONS
 - A.) PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TREES OR VEGETATION.
 - B.) PROTECT IMPROVEMENTS ON ADJOINING PROPERTIES AND ON OWNER'S PROPERTY.
 - C.) RESTORE DAMAGED IMPROVEMENTS TO ORIGINAL CONDITION AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
 - D.) CONDUCT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. STREETS AND DRIVEWAYS SHALL BE THOROUGHLY CLEANED AND/OR SWEEPED ON A DAILY BASIS OR MORE FREQUENTLY AS REQUIRED BY THE GOVERNING AUTHORITY. ALSO THE DRIVEWAYS SHALL BE SWEEPED PRIOR TO ANY RAIN EVENT.
- 13.) ALL TOPSOIL SHALL BE STOCKPILED ON SITE IN THE DESIGNATED STOCKPILE AREA PRIOR TO BEING RE-USED ON THE SITE.
- 14.) THE SANITARY SEWER MANHOLES AND SANITARY SEWER MAINS SHALL BE TESTED IN ACCORDANCE WITH THE LUNENBURG SEWER DEPARTMENT REGULATIONS.
- 15.) ALL WATER MAINS AND SERVICES SHALL BE LAID SO THAT THE TOP OF THE PIPE IS A MINIMUM 5' BELOW FINISH GRADE.
- 16.) PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS (IN FIRE PROTECTION AND DOMESTIC LINES) THAT ARE 22-1/2 DEGREES AND GREATER.
- 17.) NEW WATER MAINS SHALL BE INSTALLED A MINIMUM OF 10' HORIZONTALLY OR 18" VERTICALLY BELOW OR ABOVE EXISTING OR NEW SEWERS. INSTALL THE WATER LINE A MINIMUM OF 18" BELOW THE NEW SEWER AND WHEN THE WATER LINE IS BELOW THE SEWER LINE OR THE HORIZONTAL SEPARATION IS LESS THAN STATED ABOVE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF CLASS 150, OR GREATER, MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATERTIGHTNESS.
- 18.) TEST PIT TO BE PERFORMED PRIOR TO CONSTRUCTION TO VERIFY DEPTH AND LOCATION OF EXISTING SEWER STUB. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION IN ORDER TO RE-DESIGN SANITARY SEWER SERVICE IF NECESSARY.

NOTES:

1. DEED REFERENCE: JOSEPH A. RUSSO
357 ELECTRIC AVENUE, LUNENBURG, MA
BK. 7508, P. 337
ASSESSORS MAP 93, BLOCK 56
2. PLAN REFERENCE: PLAN BOOK 41, PAGE 15
PLAN BOOK 283, PAGE 14
3. THE SUBJECT PREMISES IS GRAPHICALLY SITUATED IN THE COMMERCIAL ZONING DISTRICT WITH THE FOLLOWING MINIMUM DIMENSIONAL REQUIREMENTS:
MINIMUM LOT AREA: 40,000 S.F.
MINIMUM LOT FRONTAGE: 100 FT.
MINIMUM FRONT SETBACK: 40 FT.
MINIMUM SIDE SETBACK: 20 FT.
MINIMUM REAR SETBACK: 20 FT.
MINIMUM LOT WIDTH: 100 FT.
MINIMUM LOT WIDTH THROUGH BLDG.: 150 FT.
4. THE SUBJECT PREMISES IS NOT GRAPHICALLY SITUATED IN THE 100-YEAR FLOOD HAZARD ZONE PER FLOOD INSURANCE RATE MAP 250315 0004 B DATED JUNE 15, 1982.
5. ALL UTILITIES SHOWN HEREON SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION PRIOR TO EXCAVATION AND CONSTRUCTION.
6. ALL UTILITY SERVICES ARE NOT SHOWN ON THIS PLAN. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY FOR LOCATION AND ELEVATION.

GENERAL EROSION CONTROL NOTES

1. THE SITE PLAN DEPICTS THE REQUIRED SOIL EROSION CONTROL MEASURES THE SITE SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:
A. SOIL EROSION IS KEPT TO A MINIMUM.
B. NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPERTY.
C. ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES EVEN BEYOND THE DETAILS SHOWN ON THIS PLAN IF NECESSARY.
2. THE SITE SUBCONTRACTOR IS RESPONSIBLE FOR ALL SILTATION RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES OR WATER BODIES DURING CONSTRUCTION AS A RESULT OF THIS PROJECT.
3. LOAM AND SEED ALL DISTURBED AREAS AT THE EARLIEST TIME POSSIBLE. USE WINTER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
4. INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE BUT NO LONGER THAN 24 HOURS. CLEAN AND RESET SILT FENCES WHICH ACCUMULATE SEDIMENT AND OTHER DEBRIS.
5. PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION, PREVENTION OR STABILIZATION, BUT THAT SHOW SIGNS OF EROSION. NOTIFY ENGINEER OF ANY SIGNIFICANT EROSION PROBLEM.
6. TEMPORARILY SEED, WITHIN 7 DAYS, ANY AREA WHICH WILL BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS WITH TEMPORARY SEED MIX. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 30.
7. FOLLOW SILT FENCE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH, REFER TO STRAW WATTLE EROSION CONTROL DETAIL ON EROSION CONTROL PLAN.
- CONSTRUCTION SEQUENCE AND EROSION CONTROL
1. CONSTRUCTION FABRIC SILTATION FENCE ADJACENT TO WETLANDS AND AS DEPICTED AND INSTALL CONSTRUCTION STABILIZATION ENTRANCE.
2. CLEAR AND GRUB TO LIMITS OF CUT AND FILL.
3. CONSTRUCT AND STABILIZE PERIMETER SLOPES AND TREATMENT SWALES.
4. CONSTRUCT TEMPORARY SEDIMENT AND EROSION CONTROL FACILITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF EARTHWORK OPERATIONS. THE DETENTION AREA SHALL BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION.
5. THE SITE SUBCONTRACTOR SHALL MAINTAIN SEDIMENTATION AND EROSION CONTROL DEVICES THROUGHOUT THE PROJECT SITE FOR THE DURATION OF THE CONSTRUCTION.
6. ALL SLOPES GREATER THAN 3:1 SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF THEIR COMPLETION.
7. ALL SWALES AND DITCHES WITH SLOPES EXCEEDING 5% SHALL BE TREATED WITH JUTE MATTING.
8. CONSTRUCT PAVED AREAS & ALL SIDE SLOPES AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING. BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
9. CONSTRUCT TEMPORARY DIVERSION CHANNELS AS REQUIRED.
10. CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. REMOVE TEMPORARY CONTROL MEASURES WHEN 75% VEGETATION OR COMPLETE STABILIZATION IS ESTABLISHED AND PERMANENT EROSION AND SEDIMENT FACILITIES ARE INSTALLED AND ACCOMPLISH FINAL CLEAN UP.
14. ALL DISTURBED AREAS SHALL BE STABILIZED WITH GRASS OR MULCH.
15. THE LENGTH OF TIME AN AREA CAN BE DISTURBED AND UNSTABILIZED IS 45 DAYS.
16. ALL DITCHES AND SWALES TO STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.

APPROVAL UNDER
SITE PLAN
IS REQUIRED

DATE
TOWN OF LUNENBURG
PLANNING BOARD

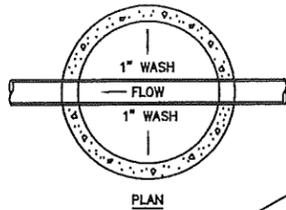
CHECKED BY: BFM	SCALE: NONE	JOB NUMBER: 13480	PLAN NUMBER: 31-D-31	FIELD BOOK REF(S):
DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 6 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS

REVISIONS	DESCRIPTION	DATE	BY
1	PER ENGINEERING COMMENTS	12/14/15	MFP

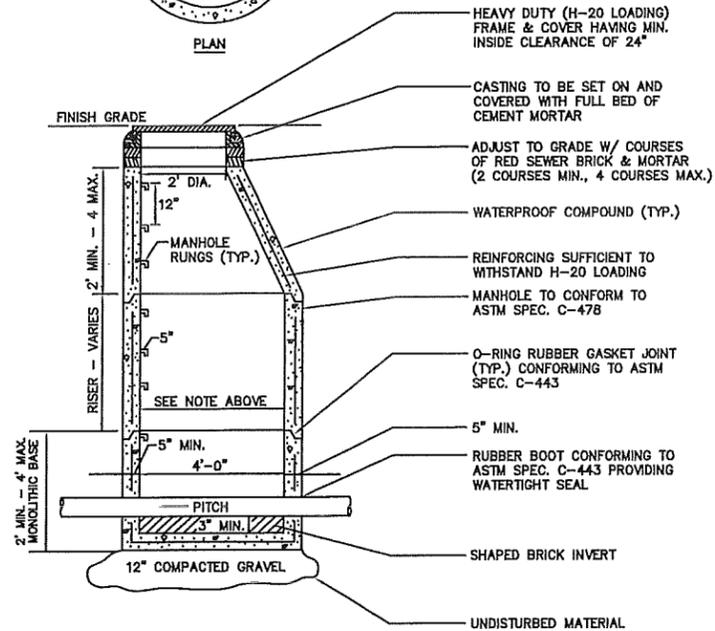
CONSTRUCTION NOTES AT 357 ELECTRIC AVENUE IN LUNENBURG, MA	PREPARED FOR: UNITIL FITCHBURG GAS AND ELECTRIC LIGHT COMPANY 6 LIBERTY LANE WEST HAMPTON, NH 03842
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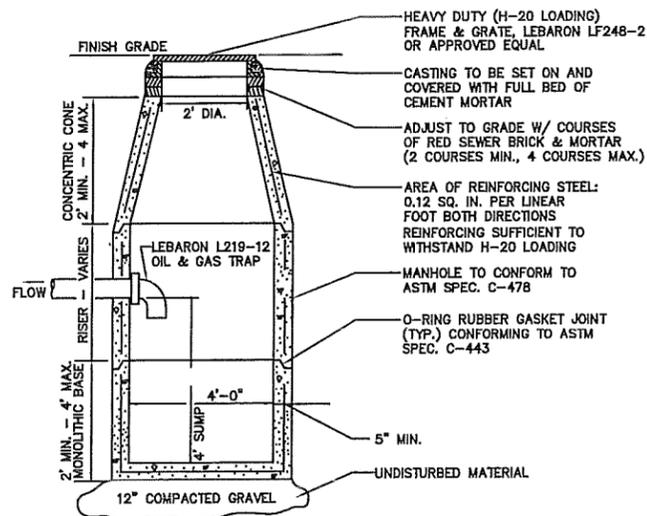
WHITMAN & BINGHAM
ASSOCIATES
REGISTERED ENGINEERS & LAND SURVEYORS
50 MECHANIC STREET
LEONMINSTER, MASSACHUSETTS 01463
PHONE: 978.537.4423
FAX: 978.537.4423



NOTE:
USE 4'-0" DIA. FOR PIPES
24" OR LESS; 5'-0" DIA. FOR
PIPES GREATER THAN 24"



PRECAST SEWER MANHOLE
NOT TO SCALE

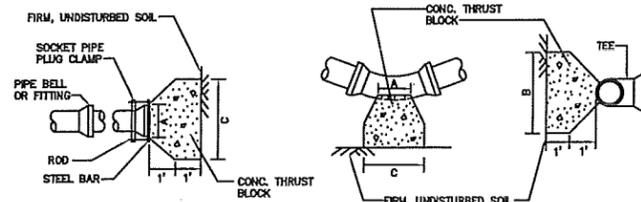


PRECAST CATCH BASIN
NOT TO SCALE

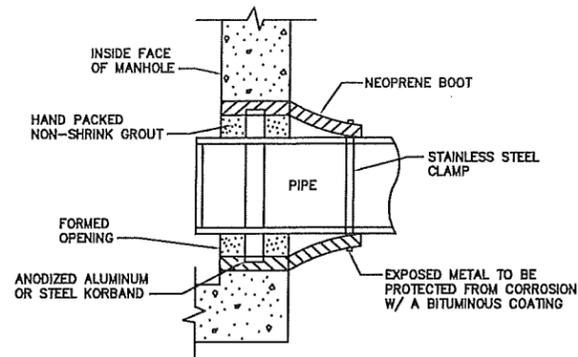
NOTES:

1. PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS, DEAD ENDS & TEES UNLESS OTHERWISE DIRECTED. CONCRETE FOR ALL THRUST BLOCKS SHALL BE PLACED AGAINST FIRM, UNDISTURBED SOIL. PROVIDE APPROVED ANCHOR HARNESS RODS & SOCKET CLAMPS AS SPECIFIED & IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS WHERE SOIL HAS BEEN DISTURBED OR THRUST BLOCKS CANNOT BE USED, AS DIRECTED BY THE ARCHITECT.
2. ALL SOCKET CLAMP METAL SHALL BE COATED WITH BLACK ASPHALTUM OR OTHER WATER DEPARTMENT APPROVED COATINGS.
3. CONCRETE THRUST BLOCKS POURED BEHIND 3-WAY TEE & HYDRANT SHOE TO BE USED WITH SOCKET CLAMPS.
4. NO CONCRETE SHALL COVER PIPE JOINTS, FITTING JOINTS, BOLTS OR HYDRANT DRAINS.

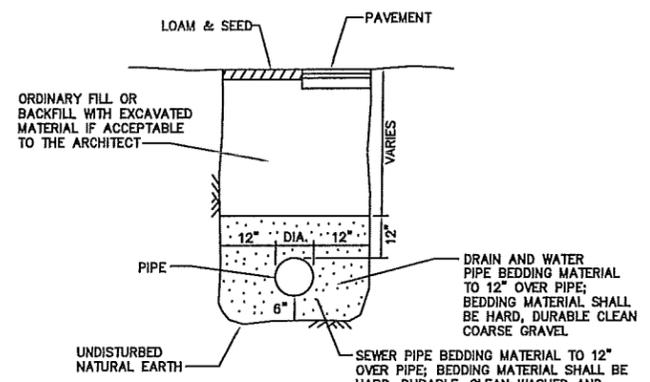
FITTING	THRUST BLOCK SCHEDULE											
	SIZE OF PIPE PRODUCING THRUST											
	12"			10"			8"			6"		
	A	B	C	A	B	C	A	B	C	A	B	C
22-1/2" BEND	1'-0"	2'-0"	2'-0"	1'-0"	2'-0"	2'-0"	1'-0"	2'-0"	2'-0"	1'-0"	2'-0"	2'-0"
45° BEND	1'-0"	3'-0"	3'-0"	1'-0"	2'-0"	2'-0"	1'-0"	2'-0"	2'-0"	1'-0"	2'-0"	2'-0"
90° BEND	1'-0"	4'-0"	4'-0"	1'-0"	4'-0"	4'-0"	1'-0"	3'-0"	3'-0"	1'-0"	3'-0"	2'-0"
12"x12"x4", 10"x10"x4", 8"x8"x4", 6"x6"x4", 4"x4"x4" TEES	1'-0"	4'-0"	4'-0"	1'-0"	3'-0"	3'-0"	1'-0"	3'-0"	3'-0"	1'-0"	2'-0"	2'-0"
12"x12"x6", 10"x10"x6", 8"x8"x6", 6"x6"x6" TEES	1'-8"	4'-0"	4'-0"	1'-8"	3'-0"	3'-0"	1'-8"	3'-0"	3'-0"	1'-8"	2'-0"	2'-0"
12"x12"x8", 10"x10"x8", 8"x8"x8" TEES	1'-8"	4'-0"	4'-0"	1'-8"	3'-0"	3'-0"	1'-8"	3'-0"	3'-0"	1'-8"	2'-0"	2'-0"
12"x12"x10", 10"x10"x10" TEES	2'-0"	4'-0"	4'-0"	2'-0"	3'-0"	3'-0"	2'-0"	3'-0"	3'-0"	2'-0"	2'-0"	2'-0"
12"x12"x12" TEES	2'-0"	4'-0"	4'-0"	2'-0"	3'-0"	3'-0"	2'-0"	3'-0"	3'-0"	2'-0"	2'-0"	2'-0"
PLUGS	2'-0"	4'-0"	4'-0"	2'-0"	3'-0"	3'-0"	2'-0"	3'-0"	3'-0"	2'-0"	2'-0"	2'-0"
HYDRANTS	2'-0"	4'-0"	4'-0"	2'-0"	3'-0"	3'-0"	2'-0"	3'-0"	3'-0"	2'-0"	2'-0"	2'-0"



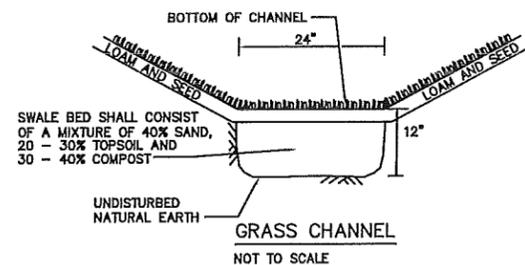
PLAN - DEAD END
PLAN AND SECTION - BEND
TYPICAL CONCRETE THRUST BLOCK DETAILS
NOT TO SCALE



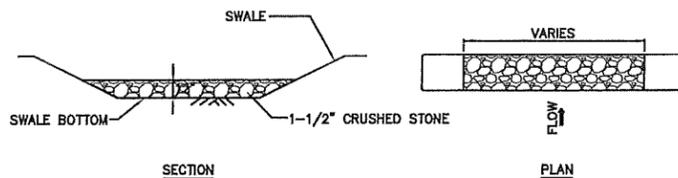
PIPE CONNECTION DETAIL
(FOR PVC PIPE)
NOT TO SCALE



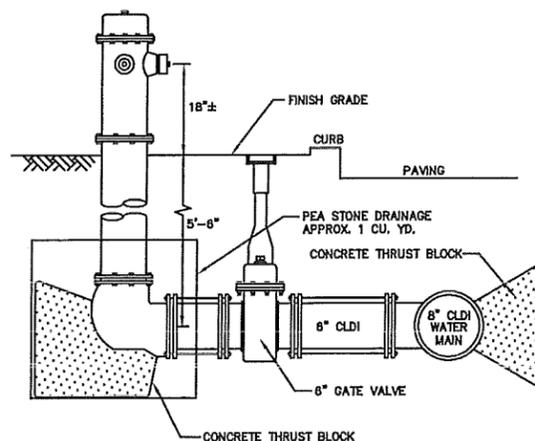
TYPICAL TRENCH SECTION
NOT TO SCALE



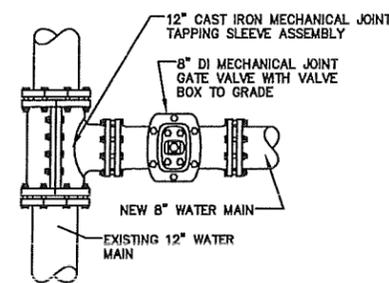
GRASS CHANNEL
NOT TO SCALE



STONE CHECK DAM DETAIL
NOT TO SCALE



FIRE HYDRANT DETAIL
NOT TO SCALE



- NOTES:
1. INSTALL TAPPING SLEEVE, VALVE AND VALVE BOX PER MANUFACTURERS RECOMMENDATIONS.
 2. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE MARLBOROUGH DEPARTMENT OF PUBLIC WORKS REQUIREMENTS.

WET TAP DETAIL
NOT TO SCALE

CHECKED BY: BPM	SCALE: AS NOTED	JOB NUMBER: 13480	PLAN NUMBER: 51-D-31	FIELD BOOK REF(S):
DRAWN BY: MFP	DATE: 11/20/15	SHEET NUMBER: 7 OF 9	COMPS: 9779	PLAN REF(S): BY OTHERS

NO.	DESCRIPTION	DATE	BY

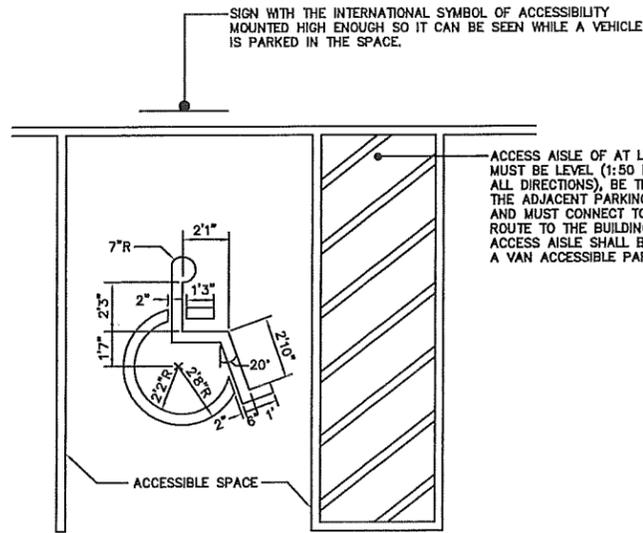
CONSTRUCTION DETAILS #1
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNTIL
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842

WHITMAN & BINGHAM
ASSOCIATES
REGISTERED ENGINEERS & LAND SURVEYORS
530 MECHANIC STREET
LUNENBURG, MASSACHUSETTS 01450
PHONE: (603) 574-4422
FAX: (603) 574-4423

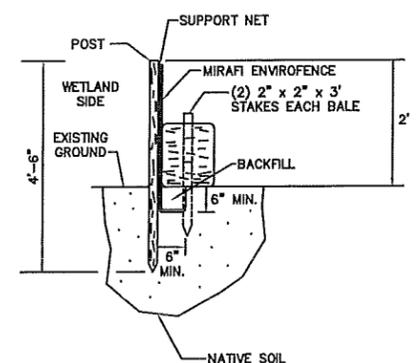
APPROVAL UNDER
SITE PLAN
IS REQUIRED

DATE _____
TOWN OF LUNENBURG
PLANNING BOARD



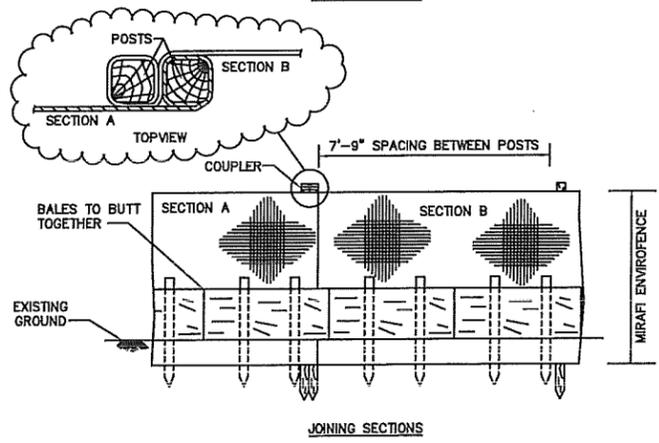
HANDICAP SYMBOL PAINT SHALL CONFORM TO STRIPING PAINT AS SPECIFIED. (SYMBOL SHALL BE CENTERED IN SPACE)

ACCESSIBLE SPACE AND PAINTED ISLAND DETAIL
NOT TO SCALE



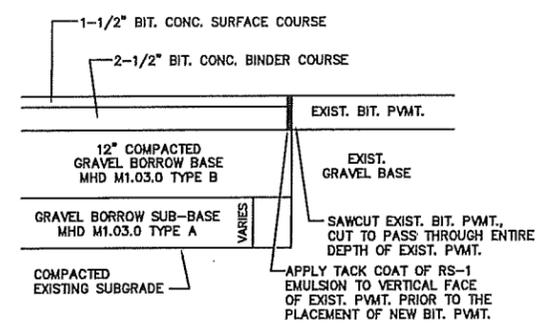
LAY THE TOE-IN FLAP OF FABRIC INTO THE UNDISTURBED BOTTOM OF TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. PLACE HAYBALES NEXT TO THE FILTER FABRIC.

TOE-IN METHODS

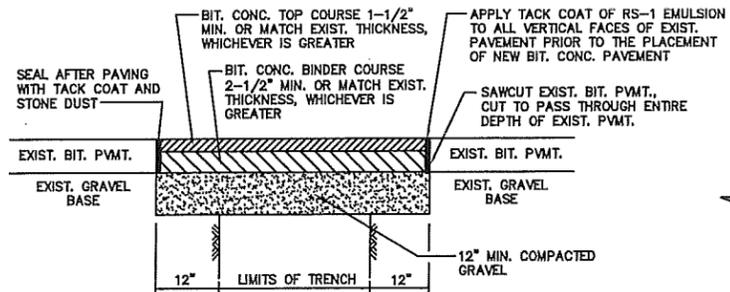


JOINING SECTIONS

SILTATION CONTROL FENCE WITH HAYBALES DETAIL
NOT TO SCALE

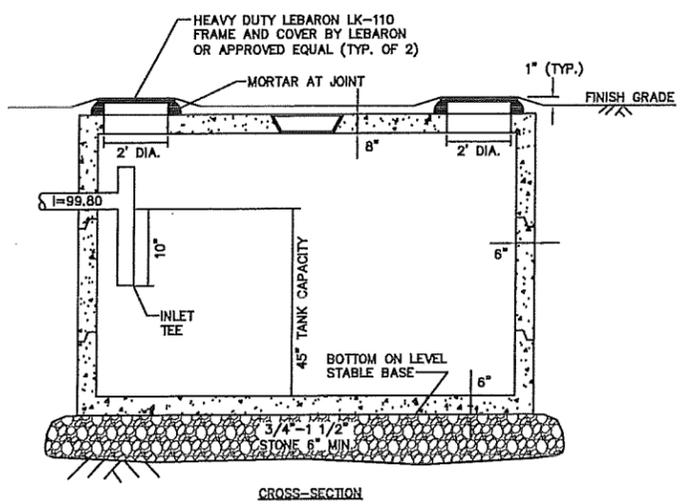


BIT. CONC. PAVEMENT DETAIL
NOT TO SCALE



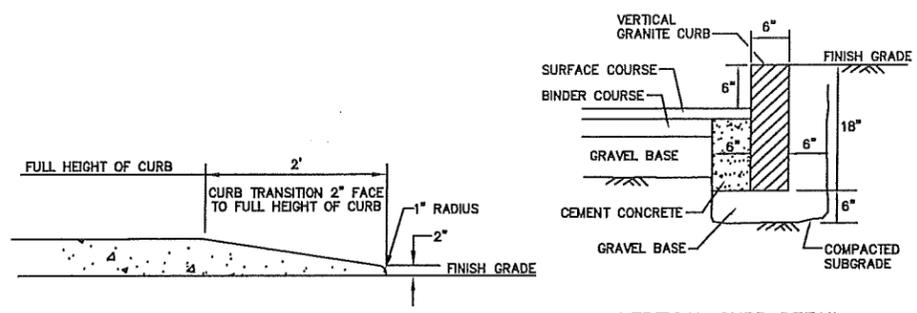
- NOTES:
1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
 2. ANY PAVEMENT PATCH APPLIED AT A WIDTH OF 6' OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER.

BIT. CONC. PAVEMENT PATCH DETAIL
NOT TO SCALE

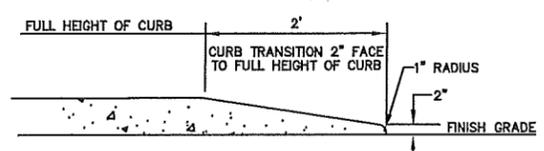


- NOTES:
1. TANK SHALL BE PRECAST REINFORCED, WATERPROOF AND WATERTIGHT CONCRETE TANK (1=14', W=7', H=5'-8" OUTSIDE DIMENSIONS). ANY VARIATION IN TANK DIMENSIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, REFER TO GENERAL NOTE #9.
 2. TANK SHALL BE ABLE TO WITHSTAND H-20 LOADING.
 3. ALL PIPE CONNECTIONS AND CONCRETE CONSTRUCTION SHALL BE WATERTIGHT.
 4. INLET TEE SHALL BE PVC SCHED. 40.

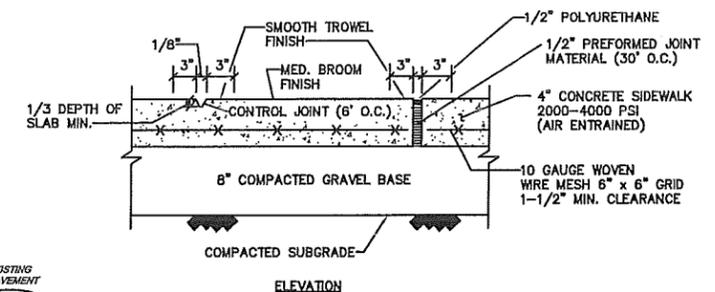
2,000 GAL. CONC. TANK DETAIL
NOT TO SCALE



VERTICAL CURB DETAIL
NOT TO SCALE

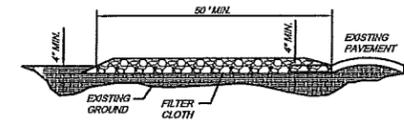


TRANSITION CURB DETAIL
NOT TO SCALE

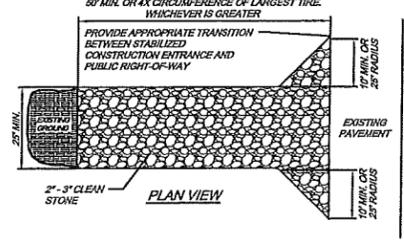


NOTE: INSTALL 1/2" PREFORMED JOINT MATERIAL BETWEEN ALL FIXED OBJECTS AND THE WALKWAY

CONCRETE SIDEWALK DETAIL
NOT TO SCALE

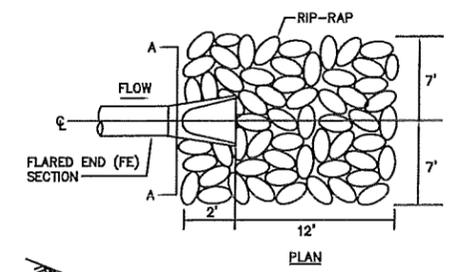


SIDE ELEVATION

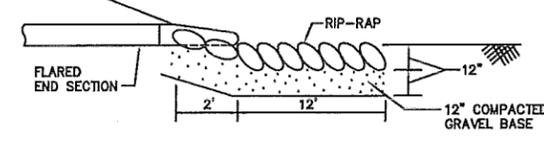


PLAN VIEW

STABILIZED CONSTRUCTION ENTRANCE
(NOT TO SCALE)



PLAN



SECTION

Each stone shall weigh not less than 50 pounds nor more than 125 pounds, and at least 75% of the volume shall consist of stones weighing not less than 75 pounds each. The remainder of the stones shall be so graded that when placed with the larger stones, the entire mass will be compact.

RIP-RAP AT FLARED END SECTION
NOT TO SCALE

APPROVAL UNDER SITE PLAN IS REQUIRED

DATE

TOWN OF LUNENBURG PLANNING BOARD

CHECKED BY:	DATE:	SHEET NUMBER:	COMPS:	PLAN REF(S):
BFM	11/20/15	6 OF 9	9779	BY OTHERS
DRAWN BY:	SCALE:	JOB NUMBER:	PLAN NUMBER:	FIELD BOOK REF(S):
MFP	AS NOTED	13460	31-D-31	

NO.	DESCRIPTION	DATE	BY
1	PER ENGINEERING COMMENTS	12/14/15	MFP

CONSTRUCTION DETAILS #2
AT
357 ELECTRIC AVENUE
IN
LUNENBURG, MA

PREPARED FOR:
UNILIT
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
6 LIBERTY LANE WEST
HAMPTON, NH 03842



WHITMAN & BINGHAM
ASSOCIATES
REGISTERED ENGINEERS & LAND SURVEYORS
500 MECHANIC STREET
LEONUMETER, MASSACHUSETTS 01463
PHONE: 978-537-3433
FAX: 978-537-3433

