

# COMMERCIAL REDEVELOPMENT

## 339 ELECTRIC AVENUE

### LUNENBURG, MA

#### SHEET INDEX

- C1 TITLE SHEET
- C2 EXISTING CONDITIONS & DEMOLITION PLAN
- C3 SITE LAYOUT & UTILITIES PLAN
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- C6 CONSTRUCTION DETAILS
- C7 LANDSCAPING PLAN

#### SITE DATA

LOT AREA: 0.74± (32,364± SF)  
 WATER SUPPLY: MUNICIPAL  
 SEWAGE DISPOSAL: MUNICIPAL  
 EXISTING SEWAGE FLOW: 10± GPD  
 PROPOSED SEWAGE FLOW: 375± GPD  
 ZONING DISTRICT: COMMERCIAL  
 OVERLAY DISTRICT: ZONE 3 - WATER SUPPLY PROTECTION

#### PLAN REFERENCES

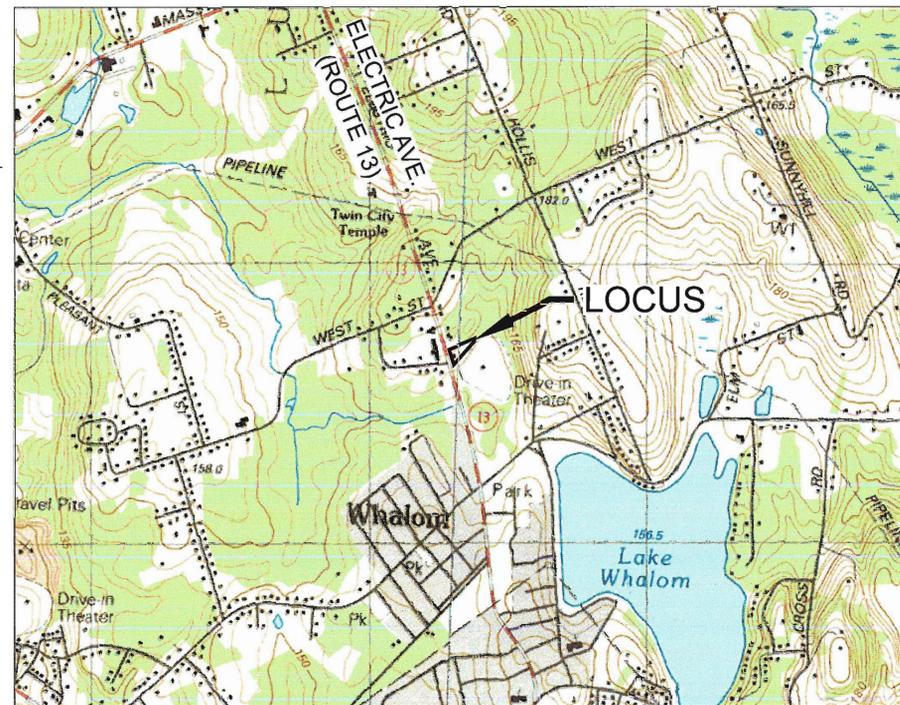
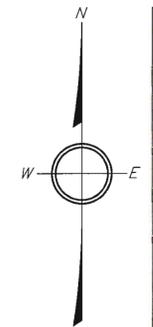
1. "THE COMMONWEALTH OF MASSACHUSETTS TOW OF LUNENBURG ZONING BOARD OF APPEALS - CERTIFICATE OF GRANTING A SPECIAL PERMIT" ISSUED FOR LEMONSTER MONUMENT COMPANY AT 339 ELECTRIC AVENUE, DATED APRIL 16, 2009B, RECORDED AT THE WORCESTER NORTH REGISTRY OF DEEDS BK 6970 PAGE 98.
2. "LAND IN LUNENBURG, MASS. OWNED BY WATER STREET HOWDY, INC." PREPARED BY WHITMAN & BINGHAM ASSOC. DATED JANUARY 10, 1994, WORCESTER NORTH REGISTRY OF DEEDS PLAN BOOK 364, PAGE 18.
3. "PLAN OF PROPERTY OWNED BY WHALOM AUTO THEATER, INC." PREPARED BY R.F. DOMBROWSKI DATED JULY 30, 1985, WORCESTER NORTH REGISTRY OF DEEDS PLAN BOOK 383 PAGE 14.

#### GENERAL NOTES

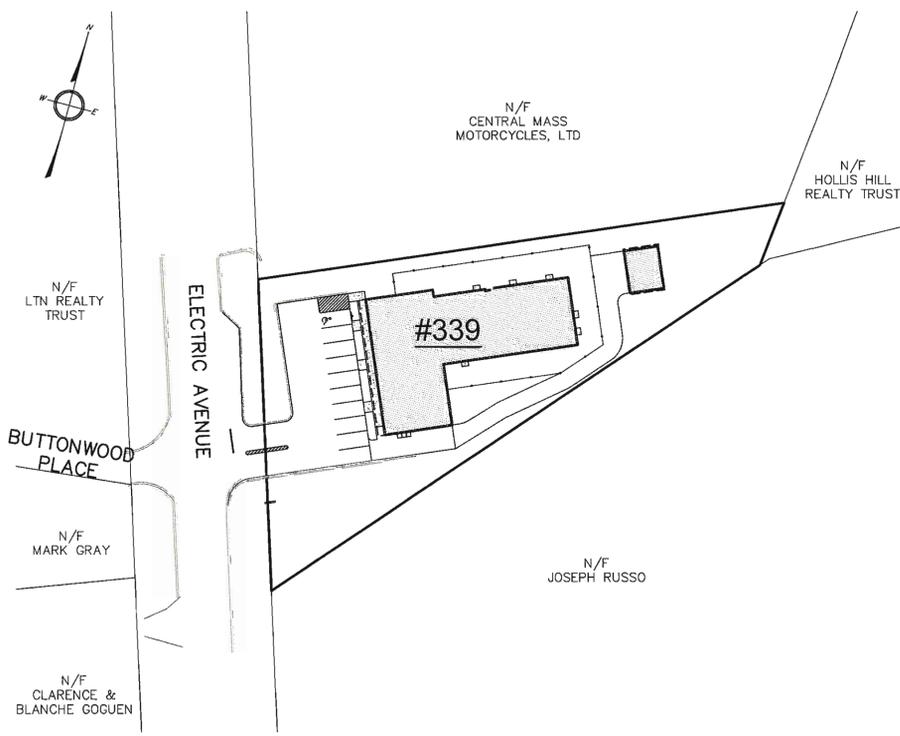
1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
2. UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
3. BURIED UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE COMPANY SPECIFICATIONS.
4. CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR. LOCATIONS OF EXISTING FEATURES OR PROPOSED IMPROVEMENTS DERIVED BY SCALING DRAWINGS MAY NOT BE ACCURATE. PROPERTY LINES SHOWN HEREON ARE APPROXIMATE. SEE PLAN REFERENCE HEREON.
5. SAFETY MEASURES, CONSTRUCTION METHODS, AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING UTILITY OR STRUCTURE DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON. DAMAGED UTILITY OR STRUCTURE SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
7. ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
8. CONTRACTOR SHALL NOTIFY ENGINEER UPON COMMENCEMENT OF CONSTRUCTION IN ORDER TO ENSURE THAT REQUIRED INSPECTIONS ARE PERFORMED IN A TIMELY AND EFFICIENT MANNER.
9. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER UPON DISCOVERY OF ANY UNFORESEEN SURFACE OR SUBSURFACE CONDITIONS THAT MAY IMPACT SITE CONSTRUCTION.
10. FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED OTHERWISE.
11. WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
12. EROSION CONTROL MEASURES, SUCH AS SILT FENCE OR HAY BALES AS MAY BE SHOWN HEREON, SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS WITHIN BUFFER ZONE, AND SHALL SERVE AS THE LIMIT OF WORK.
13. WHERE THE WORD "INSTALL" IS USED HEREIN, IT IS INTENDED TO DIRECT CONTRACTOR TO "FURNISH, INSTALL, AND PLACE IN OPERATION" THE COMPONENT REFERRED TO.
14. LIMITS OF WORK SHALL BE STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION.
15. ALL STORM DRAIN PIPE TO BE SMOOTH INTERIOR HDPE PIPE, 2.0 PSI GASKETED JOINT, UNLESS OTHERWISE NOTED.
16. WHERE SHOWN, CONSTRUCTION NOTES ARE INTENDED TO SUMMARIZE AND CLARIFY MAJOR ITEMS OF WORK. THESE NOTES SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE LISTING OF ALL WORK REQUIRED. CONTRACTOR SHOULD CONTACT ENGINEER WHEN FURTHER CLARIFICATION OF DEPICTED WORK IS DESIRED.
17. CONSTRUCTION OF FIRE AND DOMESTIC WATER SUPPLY IMPROVEMENTS SHALL CONFORM TO TOWN OF LUNENBURG REQUIREMENTS.
18. WHERE DIMENSIONS INVOLVE CURB, DIMENSIONS ARE TO FACE OF CURB. WHERE SLOPED GRANITE CURB OR CAPE COD BERM SPECIFIED, FACE OF CURB IS EDGE OF FINISH PAVEMENT AT TOE OF CURB.
19. NO DEBRIS, JUNK, RUBBISH OR OTHER NON-BIODEGRADABLE MATERIALS, FILL CONTAINING HAZARDOUS MATERIALS OR WASTES, OR STUMPS SHALL BE BURIED ON ANY LAND ON THIS SITE, OR LEFT ON ANY LOT OR ON THE STREET RIGHT OF WAY.

#### REGULATORY NOTES

1. CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 888.344.7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL GIVE TWENTY-FOUR (24)-HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD.
2. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
3. CONTRACTOR SHALL BE AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK.
4. ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATION SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.
5. GENERAL COMPLIANCE WITH 28 CFR PART 36 - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 521 CMR PART C, EXTERIOR OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS IS INTENDED. CONTRACTOR SHALL VERIFY COMPLIANCE DURING CONSTRUCTION AND SHALL NOTIFY THE OWNER OF ANY NON-COMPLIANCE ISSUES AS SOON AS DISCOVERED.



VICINITY MAP  
SCALE: 1" = 1,000'



PLOT PLAN  
SCALE: 1" = 50'

#### ZONING

Parameter	Section [1]	Requirement	Remarks
Zoning District	3.1	C	Commercial District
Overlay District	4.9	Water Supply Protection District	within Zone 3 (see note 2)
Proposed Use (see note 3)	4.6.2.1(a) 4.6.2.1(b) 4.6.3.1(k)	Allowed Allowed Special Permit from ZBA	Retail (per 4.5.2.1(F)) Outdoor storage & Display (within side & rear yards) Kennel - Up to 15 Dogs (See Note 4)
Lot Area	5.1.2.1 (Table)	40,000 SF	[see note 5]
Frontage	5.1.2.1 (Table)	100 FT	[see note 6]
Lot Width	5.1.2.1 (Table)	150 FT	Through Building (see note 7)
Yard	Front 5.2.1.1 Side 5.2.6.1 (c)(1) Rear 5.2.6.1 (c)(2)	40 FT 20 FT 20 FT	[see notes 8, 9, 10 & 11] [see note 7 & 12] [see note 10 & 12]
Building Height	5.3.1.3	55 FT	
Occupied Lot Area	4.6.5.2(a)	85%	Ratio of Impervious Surfaces to Total Lot Area
Landscaping	4.6.5.2(b) 4.6.5.2(m)	4 ft 4 ft	strip along side and rear lot line along street frontage & front and side of building
Parking Area	6.1.1.6 6.1.1.7	Retail - ratio of 3 to 1 All Other Uses - 1 sp / 1,000 of GFA	ground area to GFA, exclusive of storage & loading min ratio of 1 sf ground for each 3 sf floor area
Driveways & Entrances	6.4.3.5	14 ft min, 24 ft max each way	minimum 4 ft island
Wetlands Setback	see Local Bylaw	within 100-foot wetland buffer zone	flagged resource area on abutting property
MDEP Riverfront Area	MassGIS		None on Site
FEMA Floodplain	250315 0004 B		None on Site
ACEC	MassGIS		None on Site
NHESP	MassGIS		None on Site
Zone 1 Protective Radius	MassGIS		None on Site
Mapped Zone 2	MassGIS		None on Site
IWPA	MassGIS		None on Site

- NOTES:
- [1] Reference to section of Zoning Bylaw, where applicable.
  - [2] per 4.9.3.4(c) - proposed uses are allowed being "commercial activities permitted in the underlying district subject to the development plan approval to prevent adverse impact on the environment"
  - [3] Section 8.4.2.1(b) - "A development plan approved in accordance with Section 8.4 is required before the issuance of a building permit for all uses in a Commercial District or Industrial District encompassing more than one thousand (1,000) square feet of gross floor area for new construction, or more than two thousand five hundred (2,500) square feet for expansion of existing construction of gross floor area or, in any case, requiring six (6) or more parking spaces."
  - [4] Proposed kennel use allowed up to 60 dogs and 15 cats per Special Permit granted by the Zoning Board of Appeals; North Worcester Registry of Deeds Book 6970, Page 98.
  - [5] Section 5.1.1.1 - "In all districts, no more than ten (10) percent of the required lot area shall consist of wetlands or land under water."
  - [6] Section 5.1.2.1(d)(2) - "Except for public utilities in place at the time of the passage of this provision, no more than thirty (30) percent of required frontage shall be encumbered by easements, drives, access strips, or ways of any type."
  - [7] Section 5.2.6.1 - "On an existing lot, the required side yard width may, without authorization by the Board of Appeals, be reduced by six (6) inches for each foot by which the width of said lot is less than the required lot width through the building... provided, however, that no side yard shall be so reduced to less than six (6) feet."
  - [8] Section 5.2.2.1 - "If authorized by the Board of Appeals in a Retail Commercial, Commercial and Office Park & Industrial Districts..., a building may be constructed as near to the exterior and/or centerline of any street as the average setbacks of the dwellings or other main buildings nearest thereto on either side..."
  - [9] per 5.2.3.1 - open display / storage of goods or materials shall be greater than 20 feet from the street line
  - [10] per 5.3.2.1 - cornices, eaves, sills or ornamental feature not greater than 2 feet in width, terraces, steps or uncovered porches less than three feet above average grade can project into required yard setback areas
  - [11] Section 6.6.17.3 - "No more than 50% of the required front yard shall be covered by impervious surfaces and except for walkways, driveways and wall, impervious surfaces shall not be within 10 feet of the right-of-way line"
  - [12] Section 4.6.3.1(k)(6) - "The kennel, including outside runs, shall comply to the setbacks as provided in Section 5.0 for side and rear yards."
  - [13] Section 4.6.5.2(l)(1) - 4-foot landscape strip on rear and side lot lines

ABBREVIATIONS:  
 SF=Square feet; FT=feet; GFA=Gross floor area; PB=Planning Board; ZBA=Zoning Board of Appeals; IWP=interim wetland protection area; ACEC=Area of Critical Environmental Concern; FIRI=Fire Insurance Rate Map; MDEP=Massachusetts Dept of Environmental Protection; FEMA=Federal Emergency Management Agency

#### PARKING COMPUTATIONS

Use	Formula	Variable	Parking Space Area Provided	Required Spaces
Retail (Monuments, Pet Retail & Grooming)	Min. Ratio of 3 sf of ground area to 1 sf of GFA	2,492 sf	9' x 18' = 162 sf	5.1
Other (Pet Care Area)	1 Space per 1,000 sf GFA	3,908 sf		3.9
<b>Total Spaces Required</b>				<b>9</b>
<b>Total Spaces Provided</b>				<b>10</b>

Notes:  
 [1] Required Handicap Accessible Spaces: 1 Spaces; Provided: 1 Van Accessible Space

#### COVERAGE COMPUTATIONS

PARAMETER	AREA (ACRES)	AREA (SQUARE FEET)	FRACTION OF TOTAL LOT AREA (%)
<b>EXISTING CONDITIONS</b>			
Lot Area	0.74	32,364	100%
Building Footprint	0.08	3,383	10%
Other Impervious Areas <sup>1</sup>	0.21	9,195	28%
Total Impervious Coverage	0.29	12,578	39%
<b>DEVELOPED CONDITIONS</b>			
Lot Area	0.74	32,364	100%
Building Footprint	0.16	6,900	21%
Other Impervious Areas <sup>1</sup>	0.19	8,177	25%
Total Impervious Coverage	0.35	15,077	47%

Notes:  
 [1] per Protective Bylaw of the Town of Lunenburg, impervious surfaces include surfaces with a runoff coefficient greater than 50 (e. gravel surfaces)

#### ASSESSORS REFERENCE

ASSESSORS MAP 93, PARCEL 55  
 OWNER PER ASSESSOR RECORD:  
 339 ELECTRIC AVE. CORP  
 572 TURNPIKE ROAD, ASHBY, MA 01431

#### DRAWING ISSUED FOR:

- CONCEPT
- CONSTRUCTION
- PERMIT
- CONSTRUCTION RECORD

THIS DRAWING MAY NOT SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, AND MAY NOT IDENTIFY ALL CONSTRUCTION WORK ITEMS/AREAS OF CONTRACTOR JURISDICTION.



PER 250 CMR 5.03(13), THE FOLLOWING ARE EXCLUDED FROM THE PROFESSIONAL ENGINEER'S RESPONSIBILITY: ALL BOUNDARY INFORMATION; LOCATION OF EXISTING STRUCTURES, TREES, UTILITIES, TOPOGRAPHY OR SIMILAR FEATURES; DESIGN OF RETAINING WALLS, PROPRIETARY EQUIPMENT. SEE EXISTING CONDITION NOTES.

NO.	DATE	BY	APP.	REVISION DESCRIPTION
1	9/15/2015	NMP	DEM	PEER REVIEW & TOWN DEPARTMENT COMMENTS

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COMMERCIAL REDEVELOPMENT

TITLE SHEET

339 ELECTRIC AVE.  
 LUNENBURG, MA

PREPARED FOR:  
 339 ELECTRIC AVE. CORPORATION  
 339 ELECTRIC AVENUE  
 LUNENBURG, MA 01462

DES. BY: NMP	DATE: AUGUST 2015	JOB 091058	C1
CHK. BY: DEM			







**EROSION AND SEDIMENT CONTROL REQUIREMENTS**

**PART 1 - GENERAL**

- 1.01 SUMMARY
- A. FURNISH, INSTALL, AND MAINTAIN TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS, BUT NOT NECESSARILY LIMITED TO, HAY BALE AND SILT FENCE BARRIERS, RIPRAP, DIVERSION CHANNELS AND BERMS, CHECK DAMS, STRATEGICALLY LOCATED STOCKPILES, SEDIMENT BASINS, MULCH, AND SEED MIX (HEREINAFTER "CONTROL MEASURES") ADEQUATE TO PREVENT THE CONVEYANCE OF EROSION PRODUCTS (E.G., SOIL, MULCH, SOD) OFF SITE, OR INTO ENVIRONMENTALLY SENSITIVE AREAS, OR INTO AREAS WHERE WORK WILL BE ADVERSELY IMPACTED. ENVIRONMENTALLY SENSITIVE AREAS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, WETLANDS, TRIBUTARIES TO WETLANDS, WETLAND BUFFER ZONES, INTERMITTENT AND PERENNIAL STREAMS / RIVERS, AND THEIR ATTENDANT BUFFER ZONES.
1. REFER TO DRAWINGS FOR LOCATION AND DETAILS OF CONTROL MEASURES REQUIRED TO COMMENCE WORK. THESE CONTROL MEASURES WILL BE ADEQUATE ONLY FOR VEGETATION CLEARING. THE DRAWINGS ARE NOT INTENDED TO GRAPHICALLY DEPICT ALL CONTROL MEASURES THAT WILL BE REQUIRED TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.
2. DEVISE AND EMPLOY CONTROL MEASURES THROUGHOUT THE DURATION OF PROJECT, OVER ALL AREAS DISTURBED OR UNDISTURBED BY CONSTRUCTION, AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.
3. DEVISE AND EMPLOY TEMPORARY CONTROL MEASURES AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A, WHILE ALLOWING WORK TO PROCEED IN AN EFFICIENT, COST EFFECTIVE MANNER.
4. DEVISE, EMPLOY AND MAINTAIN CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA.
5. ONCE THE SITE IS PERMANENTLY STABILIZED AND CERTIFIED AS SUCH BY ENGINEER, REMOVE TEMPORARY CONTROL MEASURES WHILE PROTECTING STABILIZED SURFACES.

- 1.02 SUBMITTALS
- A. SUBMIT PRODUCT DATA, WARRANTY, AND TEST REPORTS AS INDICATED ON THE DRAWINGS.
- 1.03 QUALITY ASSURANCE
- A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS FROM ACCEPTABLE MANUFACTURERS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. CONFORM TO CONDITIONS OF APPROVAL ISSUED BY REGULATORY AGENCIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, LOCAL PLANNING BOARD, CONSERVATION COMMISSION, BOARD OF SELECTMEN, BOARD OF HEALTH, PUBLIC WORKS / HIGHWAY DEPARTMENT, STATE ENVIRONMENTAL PROTECTION DEPARTMENT, AND U.S. GOVERNMENT, ENVIRONMENTAL PROTECTION AGENCY. WHERE CONDITIONS OF REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.

**PART 2 - PRODUCTS**

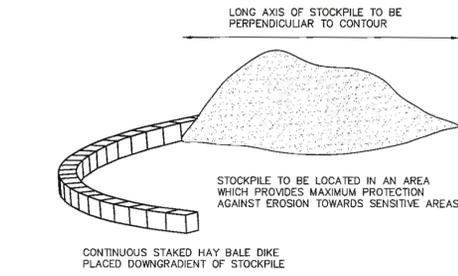
- 2.01 MATERIALS
- A. HAY BALES: DRY GRASS OR STRAW, MACHINE BOUND WITH JUTE OR WIRE, APPROXIMATE SIZE EACH BALE 42" x 16" x 16"
- B. SILT FENCE: NON-WOVEN, UV-RESISTANT, POLYPROPYLENE FABRIC, FLOW RATED AT 10 GPM/SF MINIMUM, GRAB TENSILE RATED AT 124 POUNDS MINIMUM, WITH INTEGRAL STAKE LOOPS, AND HARDWOOD STAKES. USE NO. 2130 BY AMOCO FABRICS & FIBERS, OR APPROVED EQUAL.
- C. MULCH: ORGANICS INCLUDING HAY, PROCESSED PINE / HEMLOCK TWIGS AND NEEDLES.
- D. SEED MIXES: PERENNIAL RYEGRASS, KENTUCKY BLUEGRASS, AND / OR FINE FESCUE, DISEASE RESISTANT, NON-MAINTAINED AREA OPTION - ANNUAL RYEGRASS COMBINED WITH MEDIUM RED CLOVER.
- E. EXCELSIOR BLANKET: CURLED WOOD FIBER ON PHOTODEGRADABLE EXTRUDED PLASTIC MATRIX, 80% OF FIBERS 6-INCHES LONG OR LONGER, WEIGHT 0.975 POUNDS / SY, CONTAINING NO CHEMICAL ADDITIVES. USE CURLEX I BLANKET BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.
- F. ROCK RIPRAP: SOUND, ANGULAR, 6-INCH MINUS PROCESSED ROCK, BLAST ROCK, OR TALLINGS.
- G. CRUSHED STONE: SOUND, ANGULAR, 2-INCH MINUS PROCESSED CRUSHED STONE.

**PART 3 - EXECUTION**

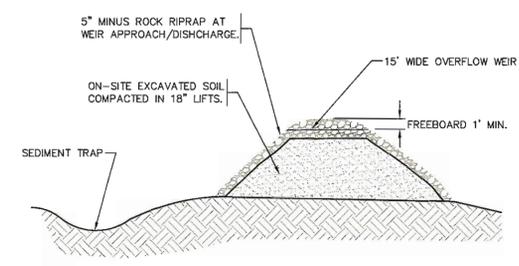
- 3.01 THROUGHOUT CONSTRUCTION
- A. DEVISE WORK SEQUENCE SO AS TO LIMIT DRAINAGE AREA THAT IS TRIBUTARY TO DISTURBED AREAS. DEVISE, EMPLOY, AND MAINTAIN CONTROL MEASURES SUCH AS DIVERSION CHANNELS AND BERMS, STRATEGICALLY LOCATED STOCKPILES, AND SEDIMENT BASINS TO SUBDIVIDE DRAINAGE AREAS INTO SMALL, MANAGEABLE SUBAREAS, THEREBY MINIMIZING RUNOFF AND THE POTENTIAL FOR EROSION.
- B. MAINTAIN BARRIER AT LIMIT OF WORK AND PROTECT EXISTING VEGETATION / FACILITIES OUTSIDE OF LIMIT OF WORK.
- C. MAINTAIN SPARE MATERIAL STOCKPILES FOR IMMEDIATE EMPLOYMENT / REPAIR / EXPANSION OF CONTROL MEASURES. AT A MINIMUM, SUCH MATERIALS SHALL INCLUDE HAY BALES, SILT FENCE AND STAKES, AND CRUSHED STONE.
- D. INSPECT AND MAINTAIN EFFECTIVENESS OF CONTROL MEASURES BY REPAIRING AS NECESSARY TO ENSURE INTENDED FUNCTION; BY SUPPLEMENTING AS NECESSARY FOR ADEQUATE EXTENT; BY REMOVING TRAPPED PRODUCTS OF EROSION AS NECESSARY TO MAINTAIN EFFECTIVE TRAP VOLUME.
- E. LIMIT EXTENT OF WORK AREA SO THAT ALL DISTURBED AREAS CAN BE STABILIZED WITH CONTROL MEASURES WITHIN A 24-HOUR PERIOD.
- F. INSTALL CONTROL MEASURES AS SOON AS PRACTICABLE AFTER EACH MANAGEABLE PORTION OF EARTHWORK IS COMPLETE. EMPLOY TEMPORARY MEASURES AS NECESSARY TO STABILIZE DISTURBED AREAS, EVEN WHERE SUBSEQUENT CONSTRUCTION OPERATIONS MAY REQUIRE RE-DISTURBANCE.
- G. WHEN INTENSE RAINFALL IS EXPECTED, CONSIDER, DEVISE, AND EMPLOY REINFORCING CONTROL MEASURES PRIOR TO THE RAINFALL EVENT TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A. IF NECESSARY, EMPLOY TEMPORARY CONTROL MEASURES ON MATERIAL STOCKPILES TO COUNTERACT POTENTIAL SEDIMENT TRANSPORT DURING INTENSE RAINFALL.
- H. WHEN VEHICLE REFUELING IS REQUIRED ON SITE, CONDUCT REFUELING OPERATIONS OUTSIDE OF ENVIRONMENTALLY SENSITIVE AREAS.
- I. PROPERLY DISPOSE OF DEBRIS, SOLID WASTE, TRASH, AND CONSTRUCTION WASTE / BY-PRODUCTS OFF SITE.
- J. SWEEP ON-SITE PAVED AREAS AND OFF-SITE STREETS AS NECESSARY TO PREVENT SILT AND DEBRIS ORIGINATING ON SITE FROM ENTERING CLOSED DRAINAGE SYSTEMS AND / OR ENVIRONMENTALLY SENSITIVE AREAS.
- 3.02 SITE PREPARATION AND ACCESS
- A. WALK SITE AND IDENTIFY LOCATIONS OF LIMIT OF WORK AND ENVIRONMENTALLY SENSITIVE AREAS. ESTABLISH CONSTRUCTION STAGING AREA, LOCATED BEYOND ENVIRONMENTALLY SENSITIVE AREAS.
- B. INSTALL CONTROL MEASURES AS SHOWN ON THE DRAWINGS, INCLUDING THOSE DEFINING THE LIMIT OF WORK.
- C. LIMIT VEHICULAR TRAFFIC TO AND FROM SITE TO MINIMIZE TRANSPORT OF SEDIMENT.
- 3.03 CLEARING, GRUBBING, AND STRIPPING
- A. SCHEDULE GRUBBING AND STRIPPING TO OCCUR IMMEDIATELY PRIOR TO EARTH DISTURBANCE. DEPENDING ON SITE AREA, CONSIDER MULTIPLE GRUBBING PHASES, SEQUENCED TO TAKE ADVANTAGE OF THE EROSION PREVENTION POTENTIAL OF EXISTING VEGETATIVE COVER.
- B. MINIMIZE THE AREA OF EXISTING VEGETATION REMOVED WHEREVER POSSIBLE.
- C. LOCATE AND SIZE STOCKPILES TO MINIMIZE EROSION POTENTIAL, TAKING ADVANTAGE OF TERRAIN SLOPE AND ASPECT, WHERE APPROPRIATE.
- D. PROTECT VEGETATION, INCLUDING ROOT SYSTEMS, BEYOND LIMIT OF CLEARING.
- E. PROCESS TIMBER, STUMPS, SLASH, AND BRUSH SO AS TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS AND INSTALLED CONTROL MEASURES. PROPERLY DISPOSE OF EXCESS OFF SITE. BURIAL OF STUMPS ON SITE IS PROHIBITED.
- 3.04 EXCAVATION FOR BUILDING FOUNDATIONS AND UTILITIES
- A. DEVISE AND INSTALL CONTROL MEASURES ADEQUATE TO HANDLE DISCHARGES AND TRAP SEDIMENT FROM FOOTING SUMP AND WELL POINT PUMPS PRIOR TO EXCAVATION.
- B. ARMOR SUMP PUMP DISCHARGE LOCATIONS TO PREVENT EROSION AT POINT OF DISCHARGE AND AREAS DOWNSTREAM.
- C. IF FOUNDATION EXCAVATIONS GRADE TO DAYLIGHT ON THE LOW SIDE, DEVISE AND INSTALL CONTROL MEASURES TO HANDLE SURFACE AND GROUNDWATER FLOW FROM EXCAVATION LOW POINT.
- D. STOCKPILE EXCAVATED MATERIALS TO BAFFLE OVERLAND RUNOFF, AVOIDING THE CREATION OF LENGTHY PATHS OF CONCENTRATED RUNOFF.
- E. BACKFILL UTILITY TRENCHES AS SOON AS PRACTICABLE TO PREVENT FLOODING, SLOUGHING, POTENTIAL OVERFLOW, AND REPETITIVE EARTH DISTURBANCE.

**PART 3 - EXECUTION (CONTD)**

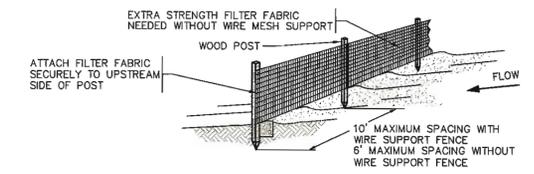
- 3.05 SITE GRADING
- A. WHERE APPLICABLE, FOLLOW EXCAVATION AND FILL PRACTICES SHOWN ON DRAWINGS TO LOCALIZE AND MINIMIZE EROSION.
- B. MONITOR SEDIMENT VOLUME IN TEMPORARY SEDIMENT BASINS AND AT DIVERSION BERMS AND CHECK DAMS IN ALL AREAS EXCEPT THOSE THAT DO NOT PRESENT POTENTIAL PROBLEMS WITH REGARD TO FUTURE SOIL STABILITY, DRAINAGE, OR BEARING CAPACITY. REMOVE AND PROPERLY DISPOSE OF TRAPPED SEDIMENT BEFORE BRINGING SITE TO FINAL SUBGRADE.
- 3.06 STORMWATER MANAGEMENT SYSTEM
- A. THE STORMWATER MANAGEMENT SYSTEM INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, ALL PERMANENT DETENTION / RETENTION BASINS, DISCHARGE STRUCTURES / WEIRS, CULVERTS, OPEN CHANNELS, CURBS, GUTTERS, PAVED SWALES, CATCH BASINS, DRAIN MANHOLES, DRAINAGE PIPES, ROOF DRAIN MANIFOLDS, WATER QUALITY SWALES, SEPARATORS, AND SIMILAR STORMWATER RUNOFF CONVEYANCE, TREATMENT, AND STORAGE FACILITIES.
- B. INSTALL STORMWATER MANAGEMENT SYSTEM COMPONENTS STARTING AT THE DOWNSTREAM END AND PROCEED UPSTREAM, WHERE POSSIBLE, COMPLETE INSTALLATION OF PERMANENT DETENTION / RETENTION BASINS PRIOR TO BEGINNING WORK ON UPSTREAM SYSTEM COMPONENTS.
- C. INSTALL CONTROL MEASURES AT FINISHED UPSTREAM AND DOWNSTREAM PIPE ENDS AS SOON AS POSSIBLE AFTER COMPLETION OF PIPE RUN. SUCH MEASURES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, RIPRAP, CHECK DAMS, HAY BALE / SILT FENCE BARRIERS, AND VELOCITY DISPATORS.
- D. AT THE END OF EACH DAY OR WHEN RAINFALL IS EXPECTED, PLUG UPSTREAM END OF PIPES / DAM OPEN CHANNELS OR OTHERWISE REDIRECT POTENTIAL RUNOFF AND PREVENT FLOW FROM ENTERING PARTIALLY COMPLETED SYSTEM / SYSTEM COMPONENTS.
- E. WHERE PORTIONS OF A NEW SYSTEM ARE TO BE ACTIVATED PRIOR TO COMPLETION OF THE ENTIRE SYSTEM, EMPLOY CONTROL MEASURES TO PREVENT SILT AND DEBRIS FROM ENTERING THE SYSTEM. EMPLOY SILT SACKS OR FABRIC ON CATCH BASIN INLETS, AND PIPE AND CULVERT OPENINGS. EMPLOY CHECK DAMS AND TEMPORARY SEDIMENT BASINS UPSTREAM OF AND ALONG OPEN CHANNELS, SWALES, AND DITCHES TO TRAP SEDIMENT UPGRADIENT OF ENVIRONMENTALLY SENSITIVE AREAS.
- F. REMOVE TRAPPED SEDIMENT AND DEBRIS FROM ALL SYSTEM COMPONENTS AFTER COMPLETION OF INSTALLATION, AND AGAIN AFTER THE ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA. REMOVE TRAPPED SEDIMENT AND DEBRIS FROM DETENTION / RETENTION BASIN BOTTOMS SO THAT FINISH BOTTOM MATERIALS / INFILTRATION FUNCTION CONFORM TO DESIGN.
- 3.07 LANDSCAPING
- A. COMPLETE LANDSCAPING AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL SUBGRADE.
- B. IMMEDIATELY AFTER PLACEMENT OF TOPSOIL, STABILIZE WITH CONTROL MEASURES INCLUDING, BUT NOT NECESSARILY LIMITED TO, SEED MIX, MULCH, AND / OR BLANKET.



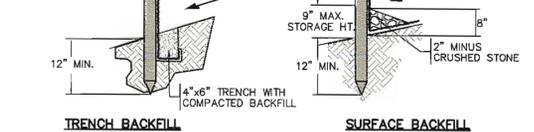
**TEMPORARY STOCKPILE**  
ISOMETRIC VIEW  
NOT TO SCALE



**TEMPORARY SEDIMENT BASIN**  
TYPICAL CROSS SECTION  
NOT TO SCALE



**TRENCH BACKFILL**



**SURFACE BACKFILL**

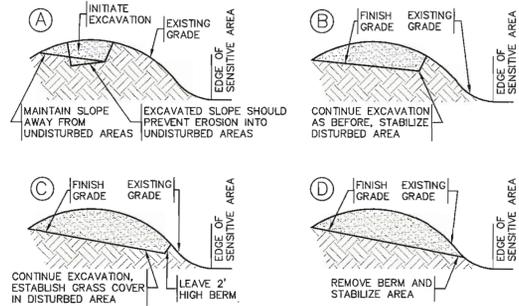
**NOTES:**

[1] SILT FENCE SHALL BE PLACED ALONG CONTOUR TO MAXIMIZE PONDING EFFICIENCY.

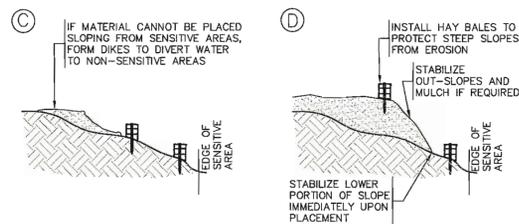
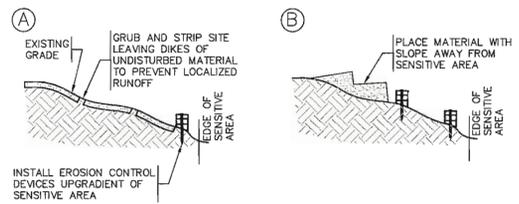
[2] INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

[3] REMOVED SEDIMENT SHALL BE DEPOSITED TO A NON-SENSITIVE UPLAND AREA.

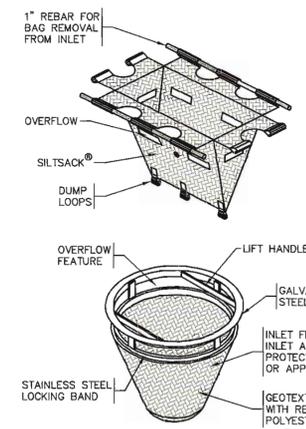
**SILT FENCE BARRIER**  
TYPICAL CROSS SECTION  
NOT TO SCALE



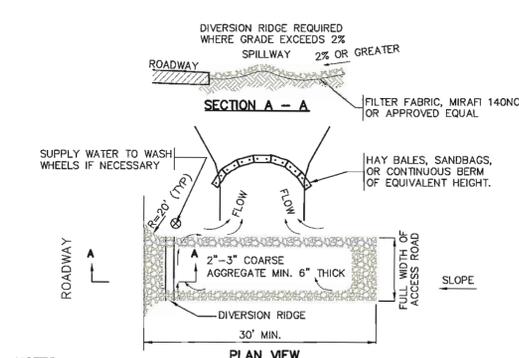
**EXCAVATION PROCEDURE**  
TYPICAL CROSS SECTION  
NOT TO SCALE



**FILL PROCEDURE**  
SLOPE PROFILES  
NOT TO SCALE



**INLET PROTECTION**  
TYPICAL CROSS SECTION  
NOT TO SCALE



**CONSTRUCTION ENTRANCE**  
NOT TO SCALE

**NOTES:**

[1] THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

[2] WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

[3] WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

[4] USE SANDBAGS, HAY BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

**DRAWING ISSUED FOR:**

CONCEPT  CONSTRUCTION

PERMIT  CONSTRUCTION RECORD

THIS DRAWING MAY NOT SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, AND MAY NOT IDENTIFY ALL CONSTRUCTION WORK ITEMS/AREAS OF CONTRACTOR JURISDICTION.

PER 250 CMR 5.03(13), THE FOLLOWING ARE EXCLUDED FROM THE PROFESSIONAL ENGINEER'S RESPONSIBILITY: ALL BOUNDARY INFORMATION; LOCATION OF EXISTING STRUCTURES, TREES, UTILITIES, TOPOGRAPHY OR SIMILAR FEATURES; DESIGN OF RETAINING WALLS, PROPRIETARY EQUIPMENT. SEE EXISTING CONDITION NOTES.



NO.	DATE	BY	APP.	PEER REVIEW & TOWN DEPARTMENT COMMENTS	REVISION DESCRIPTION
1	9/15/2015	NMP	DEM		

**GPR** Engineering Solutions for Land & Structures

**GOLDSMITH, PREST & RINGWALL, INC.**

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 www.gpr-inc.com

**COMMERCIAL REDEVELOPMENT**

**EROSION AND SEDIMENT CONTROL PLAN**

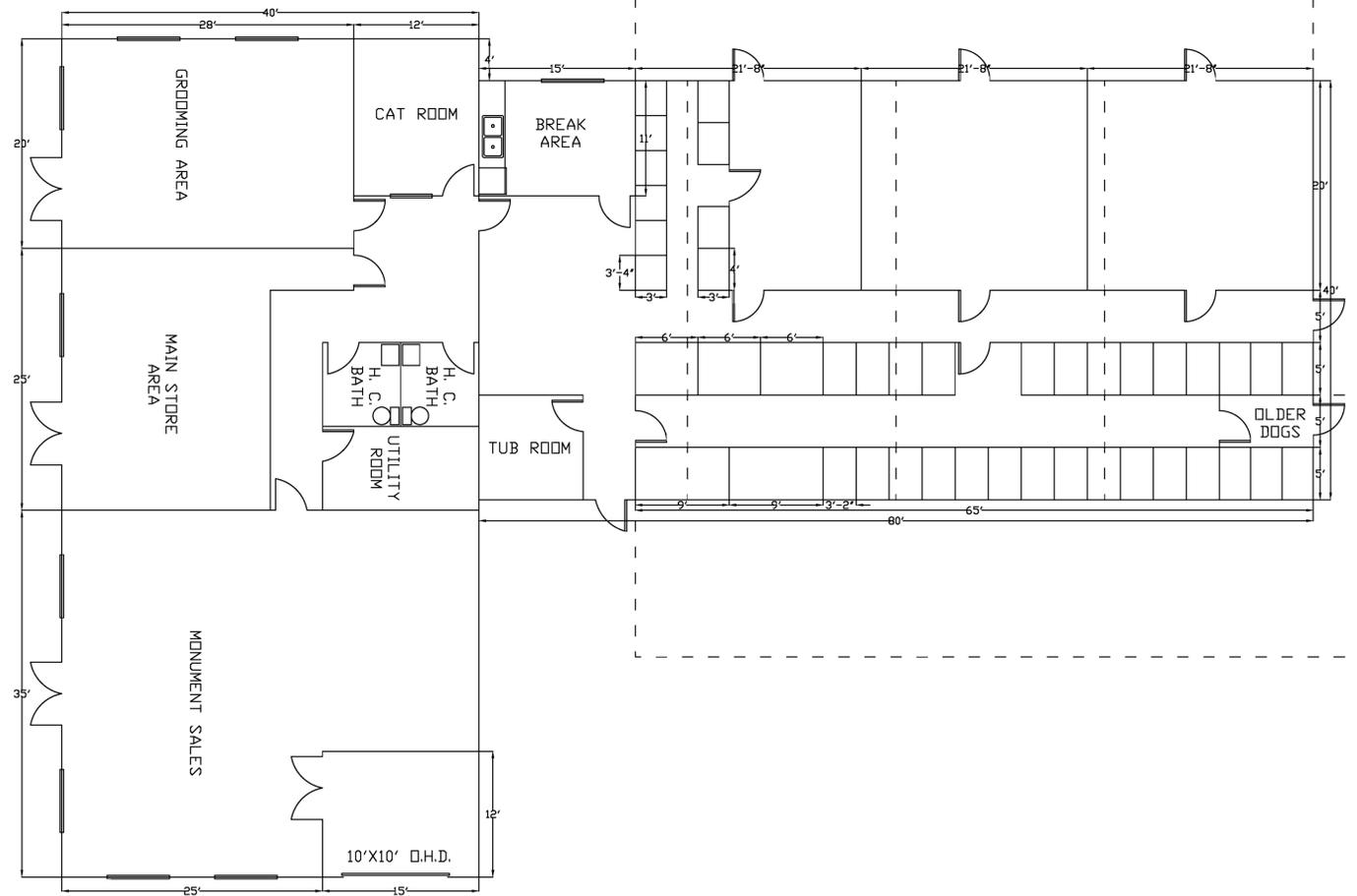
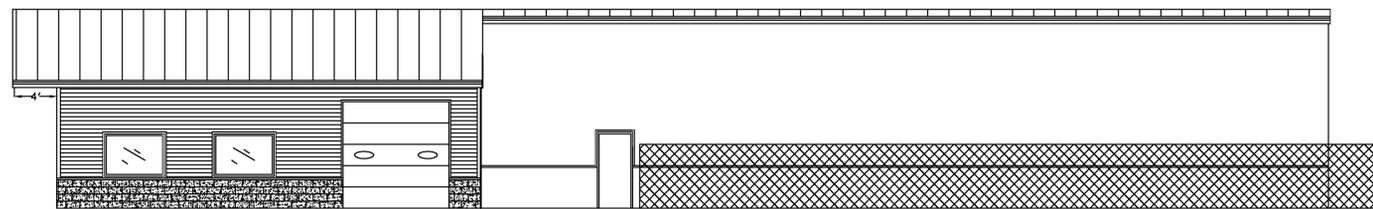
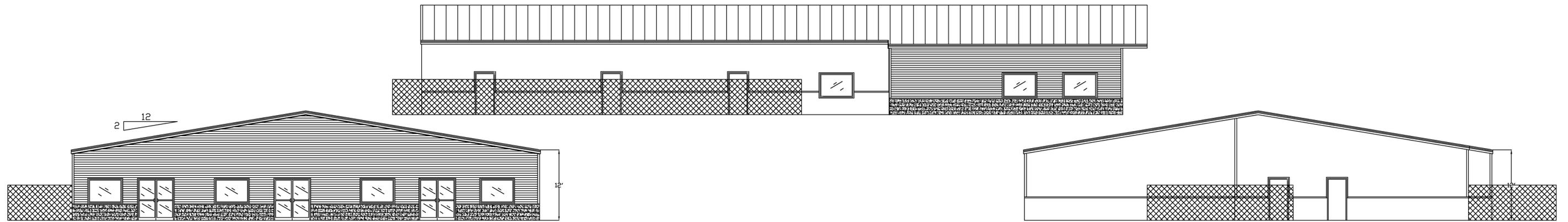
**339 ELECTRIC AVE. LUNENBURG, MA**

PREPARED FOR:  
 339 ELECTRIC AVE. CORPORATION  
 339 ELECTRIC AVENUE  
 LUNENBURG, MA 01462

DES. BY: NMP	DATE: AUGUST 2015	JOB 091058	C5
CHK. BY: DEM			







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SCALE		LOEMINSTER MONUMENT	
1/8"=1'	D.R. POULIN CONSTRUCTION		REVISION 3-5-15
DATE	1-16-15	PROPOSED BUILDING	DRN. BY SHP
			A-1