Site Plans

Issued for **Level Two Review** November 5, 2020 Date Issued November 5, 2020 Latest Issue

Commonwealth Fusion Systems Campus Building 2

111 Hospital Road Devens, MA 01434

Owner

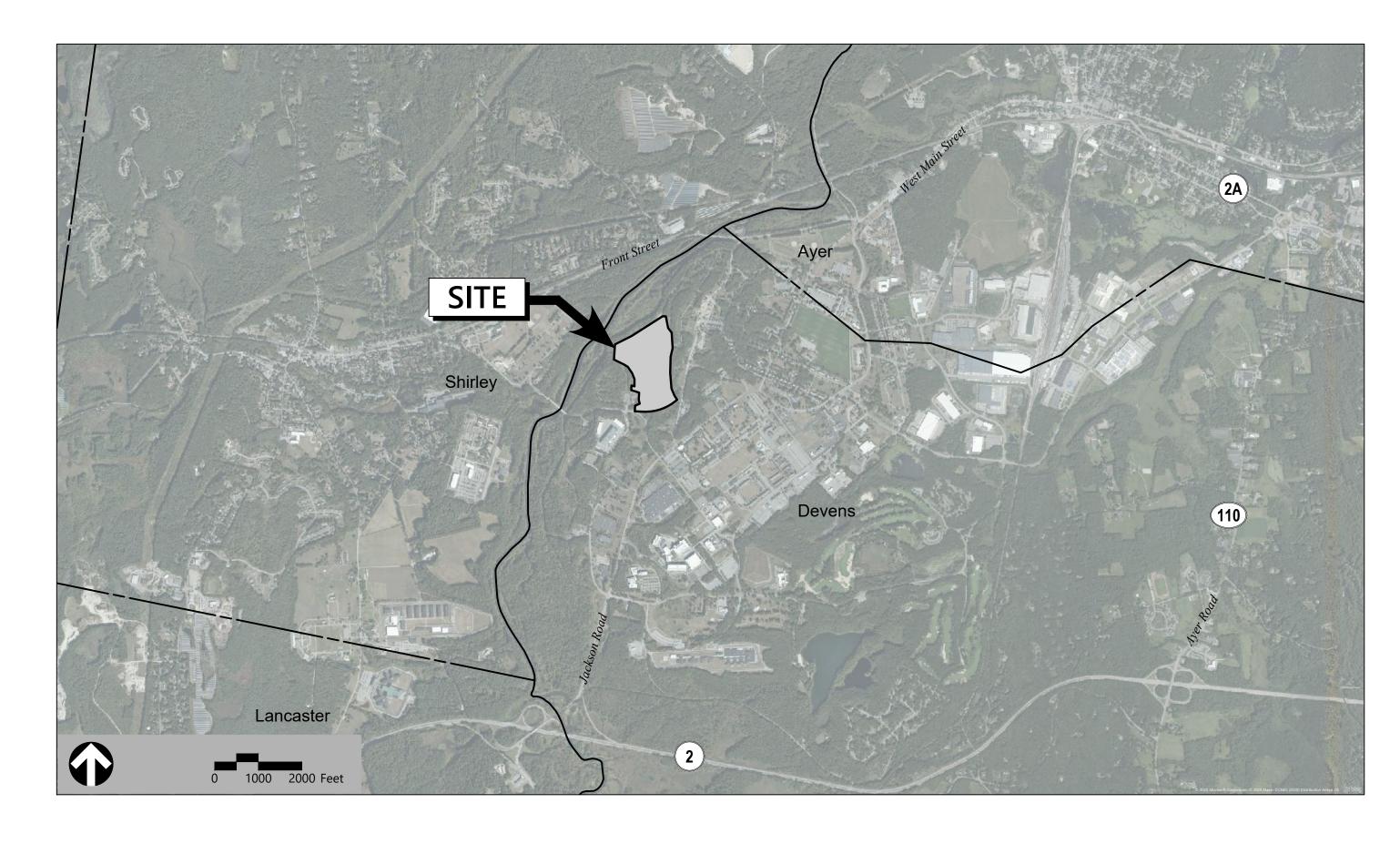
MDFA 99 High Street 11th Floor Boston, MA 02110

Applicant

Commonwealth Fusion Systems 148 Sidney Street Cambridge, MA 02139

Parcel ID:

018.0-0007-0200.0



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No.	Drawing Title	Latest Issue
C-1.00	Legend and General Notes	November 5, 2020
C-1.01	Index Plan	November 5, 2020
C-2.00	Demo Plan	November 5, 2020
C-3.00 - C-3.03	Layout and Materials Plan	November 5, 2020
C-4.00 - C-4.03	Grading and Drainage Plan	November 5, 2020
C-5.00 - C-5.03	Utility Plan	November 5, 2020
C-6.00 - C-6.03	Erosion and Sediment Control Plan	November 5, 2020
C-7.00	Fire Equipment Access Plan	November 5, 2020
C-8.01 - C-8.04	Site Details 1 - 4	November 5, 2020

974 CMR 3.04 (3)(a)(1)(h) - Bicycle Parking: Applicant is requesting a waiver from needing to providing bicycle storage facilities at the CFS-2 building. Bicycle storage will be provided adjacent to CFS-2, near the office area of CFS-1. This storage is intended to satisfy the needs of employees at the campus.

	Reference Drawings		
•	No.	Drawing Title	Latest Issue
•	SV-1 - SV-7	Existing Conditions Plan of Land	October 20, 2020
	LP001 - LI100	Landscape Planting Plans and Details	November 5, 2020
	ES101 - ES202	Lighting and Photometrics Plan	November 5, 2020
	G-200	Campus Master Plan	November 5, 2020

Devens Enterprise Commission Site Pla Commission Member	n Endorsement Date





Legena					
Exist.	Prop.		Exist.	Prop.	
			** ** ** ** ** ** ** ** ** ** ** ** **		CONCRETE
		PROPERTY LINE	And the second s	<u> </u>	
		PROJECT LIMIT LINE			HEAVY DUTY PAVEMENT
		RIGHT-OF-WAY/PROPERTY LINE			BUILDINGS
		EASEMENT			RIPRAP
		BUILDING SETBACK		%%%% 	CONSTRUCTION EXIT
10+00	10+00	PARKING SETBACK	27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
		BASELINE	26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
		CONSTRUCTION LAYOUT	132.75 ×	132.75 ×	SPOT ELEVATION
		ZONING LINE	45.0 TW.	45.0 TW 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		TOWN LINE	38.5 BW X		BORING LOCATION
		LIMIT OF DISTLIBRANCE			
<u> </u>		LIMIT OF DISTURBANCE	→ MW	■ MW	TEST PIT LOCATION
		WETLAND LINE WITH FLAG			MONITORING WELL
		FLOODPLAIN	——UD——	——UD——	UNDERDRAIN
		SLOPE RESOURCE AREA	12"D	12″D─ >	DRAIN
50'BZ —		SLOPE RESOURCE AREA	6"RD	6″RD—►	ROOF DRAIN
		50' BUFFER ZONE	1 <u>2</u> "S	1 <u>2"</u> S	SEWER
NDZ—		SLOPE RESOURCE AREA NO DISTURB ZONE	FM	<u>FM</u>	FORCE MAIN
			OHW	—— OHW ——	OVERHEAD WIRE
		GRAVEL ROAD	6"W	6"W	WATER
EOP	EOP	EDGE OF PAVEMENT	4"FP	4"FP	FIRE PROTECTION
BB	BB	BITUMINOUS BERM	1 1 (——2"DW——	DOMESTIC WATER
BC	BC	BITUMINOUS CURB	3"G		
CC	CC	CONCRETE CURB		F	GAS
	CG	CURB AND GUTTER	CTI4	E	ELECTRIC
CC	ECC		STM	——STM——	STEAM
CC	MCC	EXTRUDED CONCRETE CURB			TELEPHONE
CC	PCC	MONOLITHIC CONCRETE CURB	——FA——	——FA——	FIRE ALARM
	SGE	PRECAST CONC. CURB	CATV	—— CATV——	CABLE TV
SGE		SLOPED GRAN. EDGING			CATCH BASIN CONCENTRIC
VGC	VGC	VERT. GRAN. CURB	•		CATCH BASIN ECCENTRIC
		LIMIT OF CURB TYPE			DOUBLE CATCH BASIN CONCENTRIC
		SAWCUT	_		DOUBLE CATCH BASIN ECCENTRIC
(//////					GUTTER INLET
		BUILDING	(D)	•	
] ⊲EN	BUILDING ENTRANCE	0	•	DRAIN MANHOLE CONCENTRIC
		LOADING DOCK		O	DRAIN MANHOLE ECCENTRIC
0	•	BOLLARD	=TD=		TRENCH DRAIN
D	D	DUMPSTER PAD	CO		PLUG OR CAP
-0-	•	SIGN	•	•	CLEANOUT
	-	DOUBLE SIGN		•	FLARED END SECTION
				\sim	HEADWALL
т т		STEEL GUARDRAIL	<u>S</u>	lacktriangle	SEWER MANHOLE CONCENTRIC
		WOOD GUARDRAIL	<u>s</u>	$\overset{\smile}{ullet}$	SEWER MANHOLE ECCENTRIC
			CS		32W2KKWWWWW022 23G2KWWC
	= = = =	PATH		CS ●	CURB STOP & BOX
~~~	$\sim$	TREE LINE	₩V ●	₩V <b>⑤</b>	WATER VALVE & BOX
- <del>*</del> *	<del>-xx</del>	WIRE FENCE	TSV	TSV	TAPPING SLEEVE, VALVE & BOX
-0	•	FENCE	<b>*</b>	<b>\</b>	SIAMESE CONNECTION
-0	-	STOCKADE FENCE	HYD	HYD <b>⊚</b>	FIRE HYDRANT
000000		STONE WALL	WM	WM ⊡	WATER METER
		RETAINING WALL	PIV	PIV	POST INDICATOR VALVE
		STREAM / POND / WATER COURSE	<b>W</b>	<b>(W)</b>	WATER WELL
		DETENTION BASIN	GG	GG <b>O</b>	
		HAY BALES	GM		GAS METER
		SILT FENCE	•	GM ⊡	GAS METER
X	×		E	<b>●</b> EMH	ELECTRIC MANHOLE
· \	· C::::::> ·	SILT SOCK / STRAW WATTLE	- EM	EM ∙	ELECTRIC METER
4	<del></del> 4 <del></del>	MINOR CONTOUR	<b>\$</b>	*	LIGHT POLE
— — 20 — —	20	MAJOR CONTOUR	①	■™H	TELEPHONE MANHOLE
(10)	<u> </u>	DADVING COLINIT	_	_	
(10)	(10)	PARKING COUNT	T	T	TRANSFORMER PAD
DV4	(C10)	COMPACT PARKING STALLS	-0-	•	UTILITY POLE
DYL	DYL	DOUBLE YELLOW LINE	0-	•	GUY POLE
SL	SL	STOP LINE	Ţ	Ţ	
		CROSSWALK	HH	HH	GUY WIRE & ANCHOR
/TN		ACCESSIBLE CURB RAMP	PB	PB	HAND HOLE
Ł.	کاستان گیر	ACCESSIBLE PARKING		· · · · · · · · · · · · · · · · · · ·	PULL BOX
E, VAN		VAN-ACCESSIBLE PARKING			
VAN	گر VAN	VAIN-ACCESSIBLE FARRING			MATCHLINE

#### **Abbreviations**

General

General	
ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL
Utility	
СВ	CATCH BASIN
CMP	CORRUGATED METAL PIPE
СО	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
НН	HANDHOLE
HW	HEADWALL

HYDRANT

LIGHT POLE

RCP

MATCHLINE

INVERT ELEVATION

**INVERT ELEVATION** 

METAL END SECTION

PAVED WATER WAY

RIM ELEVATION

RIM ELEVATION

UNDERGROUND

UTILITY POLE

SEWER MANHOLE

POST INDICATOR VALVE

POLYVINYLCHLORIDE PIPE

REINFORCED CONCRETE PIPE

TAPPING SLEEVE, VALVE AND BOX

#### Notes

#### General

- 1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING. 2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES
- SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- 3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- 4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE SIX (6) INCHES LOAM AND SEED.
- 5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
- 6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- 7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- 8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S
- 10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- 12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- 13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT
- 14. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

- 1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- 2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING FER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED A INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
- 3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- 4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
- A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
- B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
- C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
- 5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY
- 7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
  - A. WATER PIPES SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON.
  - B. SANITARY SEWER PIPES SHALL BE SDR 35 SEWER PIPE.
  - C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE).
  - D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO
- 8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
- 9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
- 10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

#### Layout and Materials

- 1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- 2. CURB RADII ARE 3 FEET UNLESS OTHERWISE NOTED.
- 3. CURBING SHALL BE VGC WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
- 4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
- 5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
- 6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

#### Demolition

- 1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
- 2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- 3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- 4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE
- . UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

#### **Erosion Control**

- 1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- . CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- 3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT
- 4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT FROSION
- 5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

### **Existing Conditions Information**

- 1. BASE PLAN: THE PROPERTY LINES SHOWN ON THIS PLAN PROVIDED IN CAD BY MASS DEVELOPMENT ON JULY 17,2020. THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE DEVELOPED FROM A COMBINED EFFORT OF AERIAL PHOTOGRAMMETRIC MAPPING BY EASTERN TOPOGRAPHICS, INC., BASED ON AERIAL PHOTOGRAPHS TAKEN ON MARCH 19, 2020, AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB DURING BETWEEN MARCH 2020 AND OCTOBER 2020.
- 2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD 1988.
- 3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM TRC.

### **Industrial Performance Standards**

- 1. EXISTING OR PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHZ) IS SPECIFICALLY PROHIBITED.
- 2. PROPOSED OR EXISTING USE WILL NOT CAUSE PRONOUNCED, MULTIPLE PATTERNS OF NOISE OR VIBRATION NUISANCE TO, OR INTERFERE WITH, ANY SENSITIVE RECEPTOR (PENDING CONFIRMATION FROM NOISE MODELING).
- 3. A MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) AIR QUALITY PERMIT IS NOT REQUIRED.

### Document Use

- THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.



Watertown, MA 02471

617.924.1770

NOTES Approved by: Devens Enterprise Commission

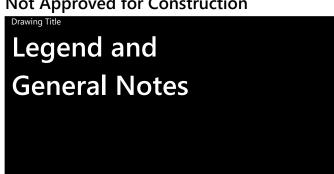
# **Commonwealth Fusion Systems Campus** Building 2

111 Hospital Road Devens, MA

No.	Revision	Date	Appvo
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Design	ed by	Checked by	

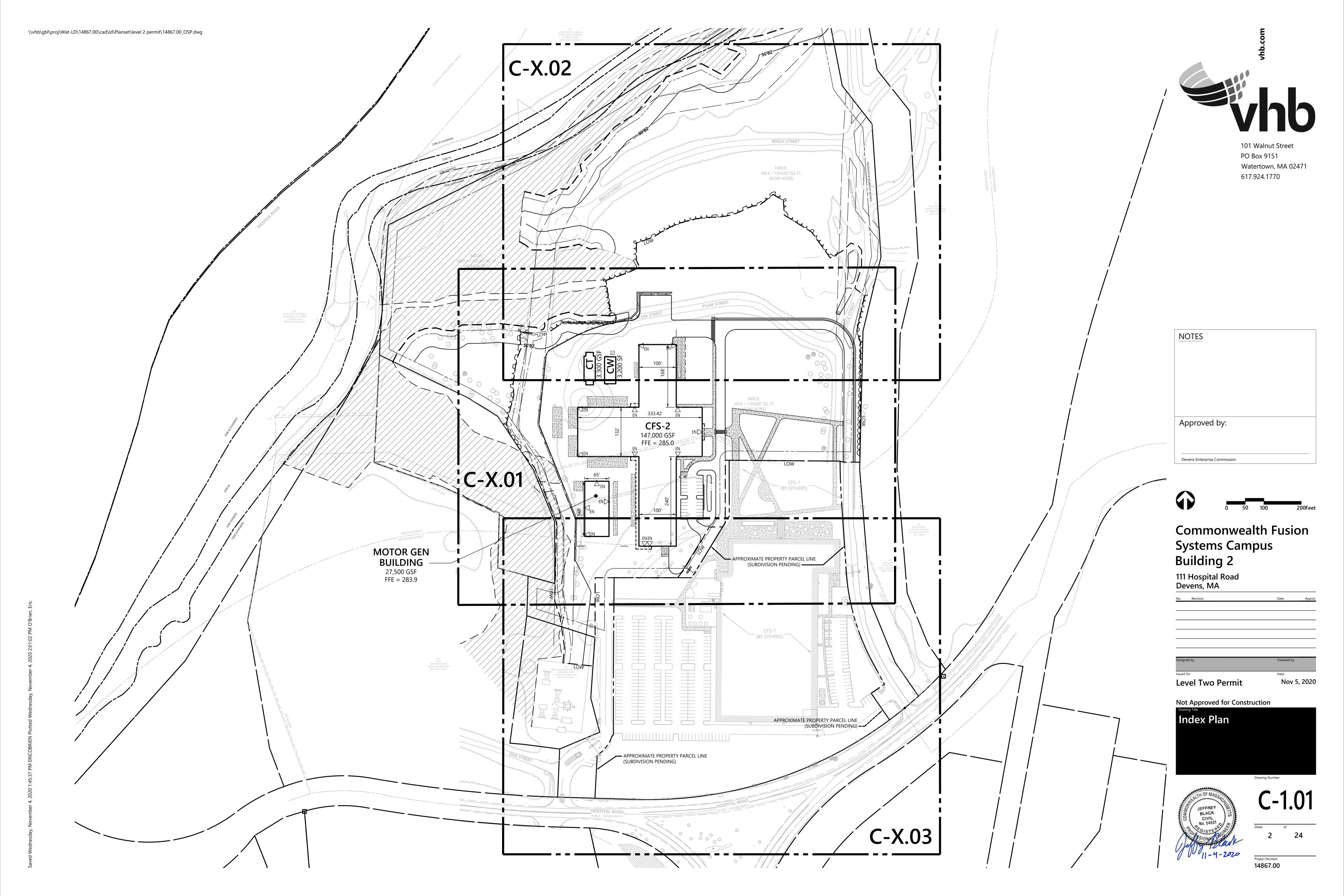
Not Approved for Construction

Level Two Permit





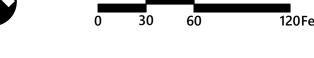








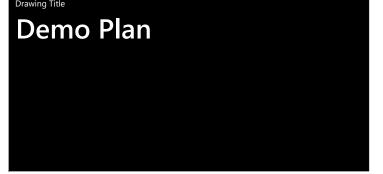
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**Level Two Permit** 

Not Approved for Construction





Nov 5, 2020

**Commonwealth Fusion** Systems Campus Building 2 111 Hospital Road Devens, MA

Zonnig Summary Chart				
Zoning District(S):	INNOVATION & TECHNOLOGY BUSINESS			
Overlay District(S):	AQUIFER / WATERSHED			
Zoning Regulation Requirements	Required	Provided		
MINIMUM LOT AREA	2.0 Acres	32.9 Acres		
FRONTAGE	100.0 Feet	200 Feet		
FRONT YARD SETBACK	25 Feet	672 Feet		
SIDE YARD SETBACK	25 Feet	72 Feet		
REAR YARD SETBACK	25 Feet	542 Feet		
MAXIMUM BUILDING HEIGHT	75 Feet	58 Feet		
MAXIMUM FLOOR AREA RATIO	0.5	0.13		
MAXIMUM IMPERVIOUS	75.0 %	25.0 %		

	Size		Spaces	
Description	Required	Provided	Required	Provided
STANDARD SPACES	9 x 18	9 x 18	*	23
VAN ACCESSIBLE SPACES**	8 x 18	9 x 18	1	1
TOTAL SPACES			1	24

	vvidtii	Tieigne	
R7-8	12"	18"	RESERVED PARKING
R7-8P	12"	6"	VAN ACCESSIBLE

101 Walnut Street PO Box 9151 Watertown, MA 02471

617.924.1770

NOTES		
Approved by:		
Devens Enterprise Commission		





# **Systems Campus** Building 2

111 Hospital Road Devens, MA

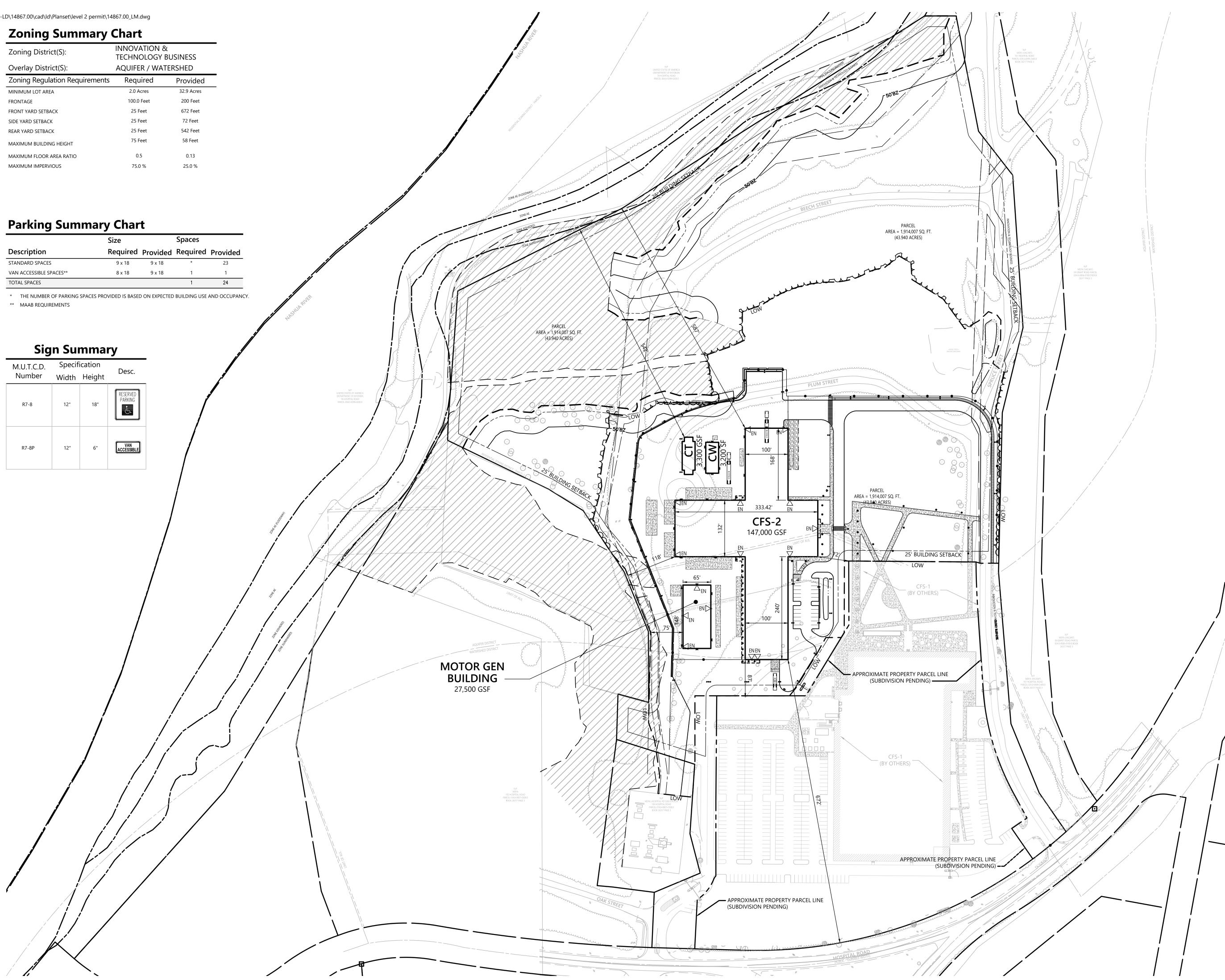
Nov 5, 2020

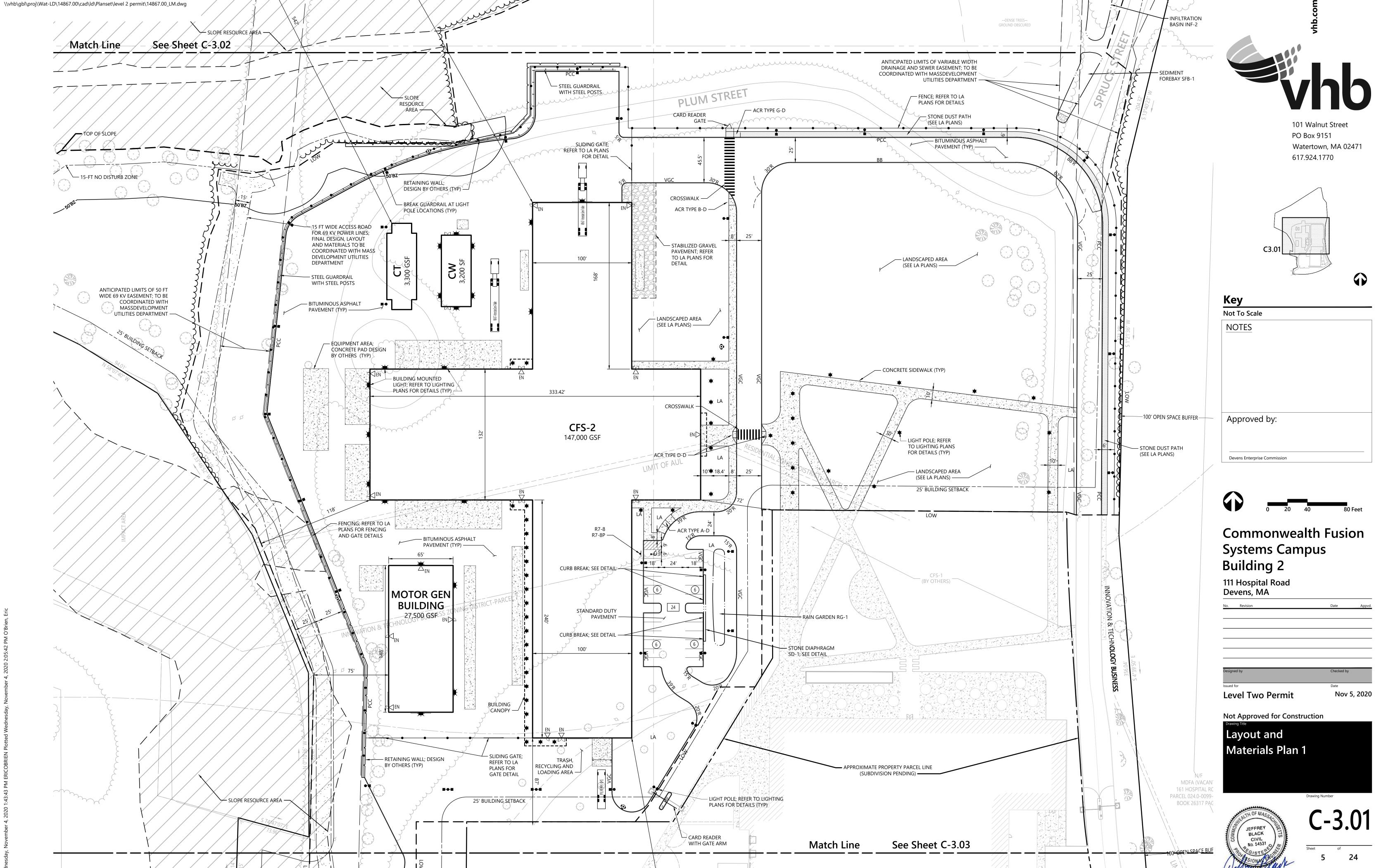
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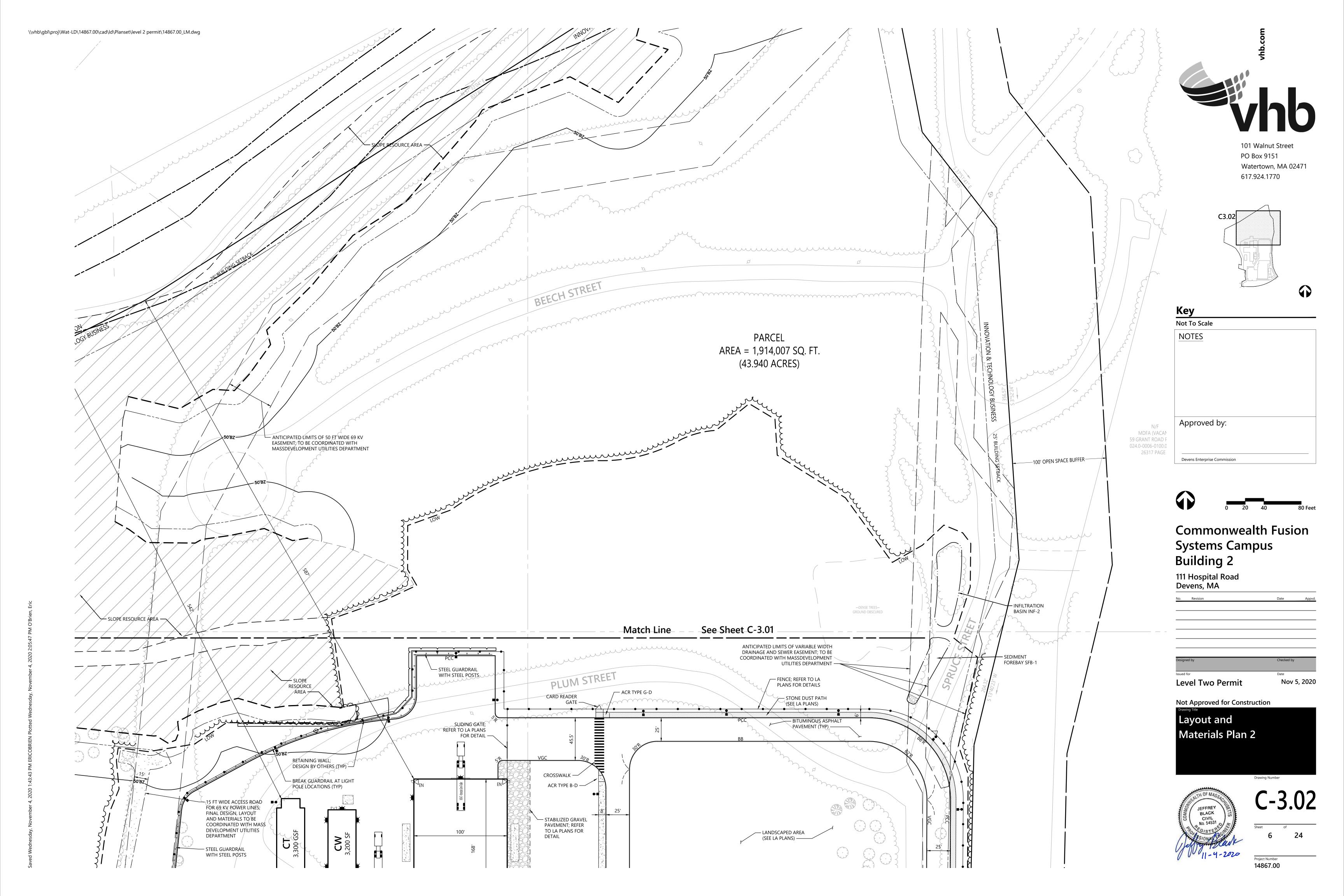
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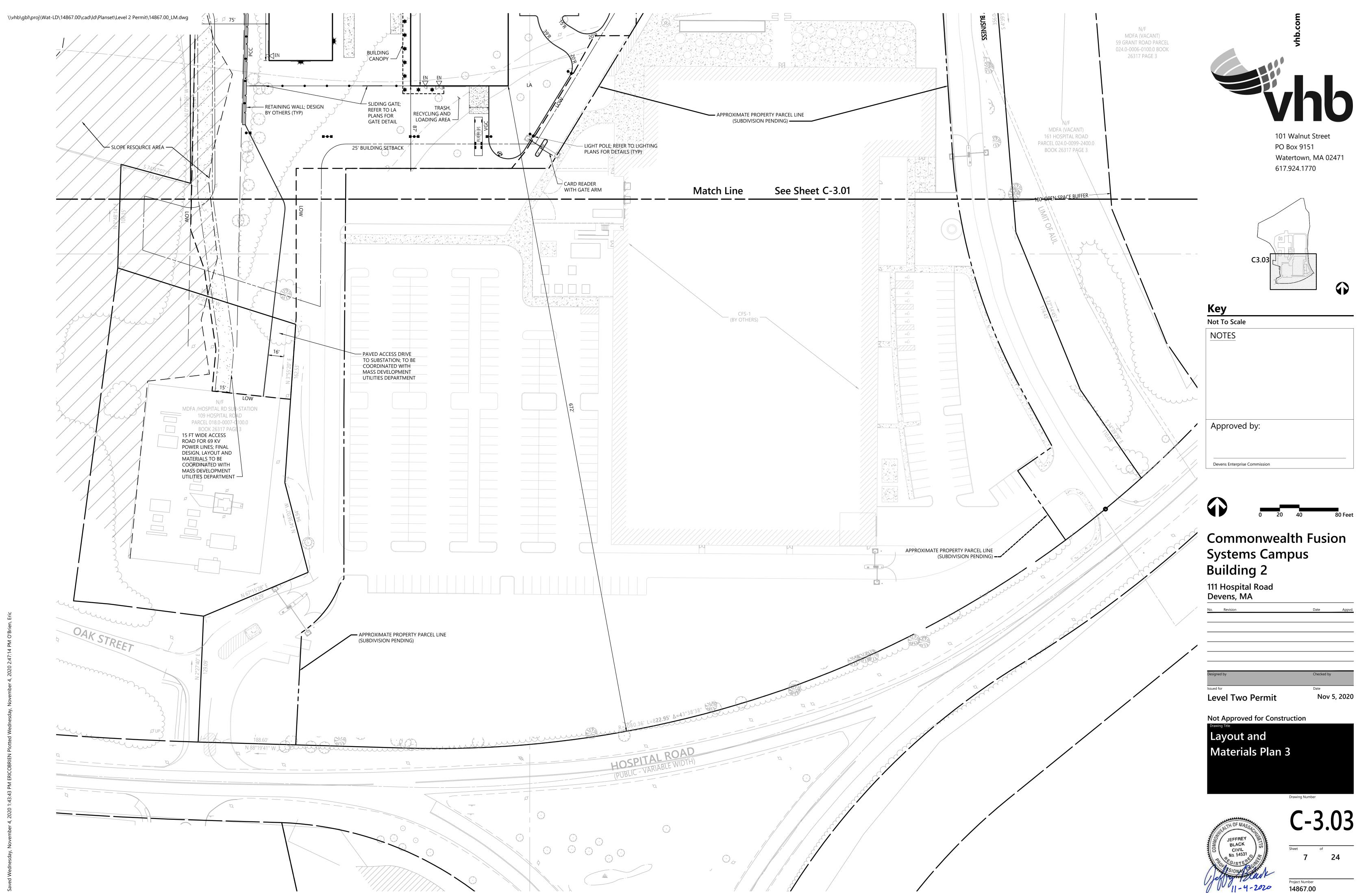
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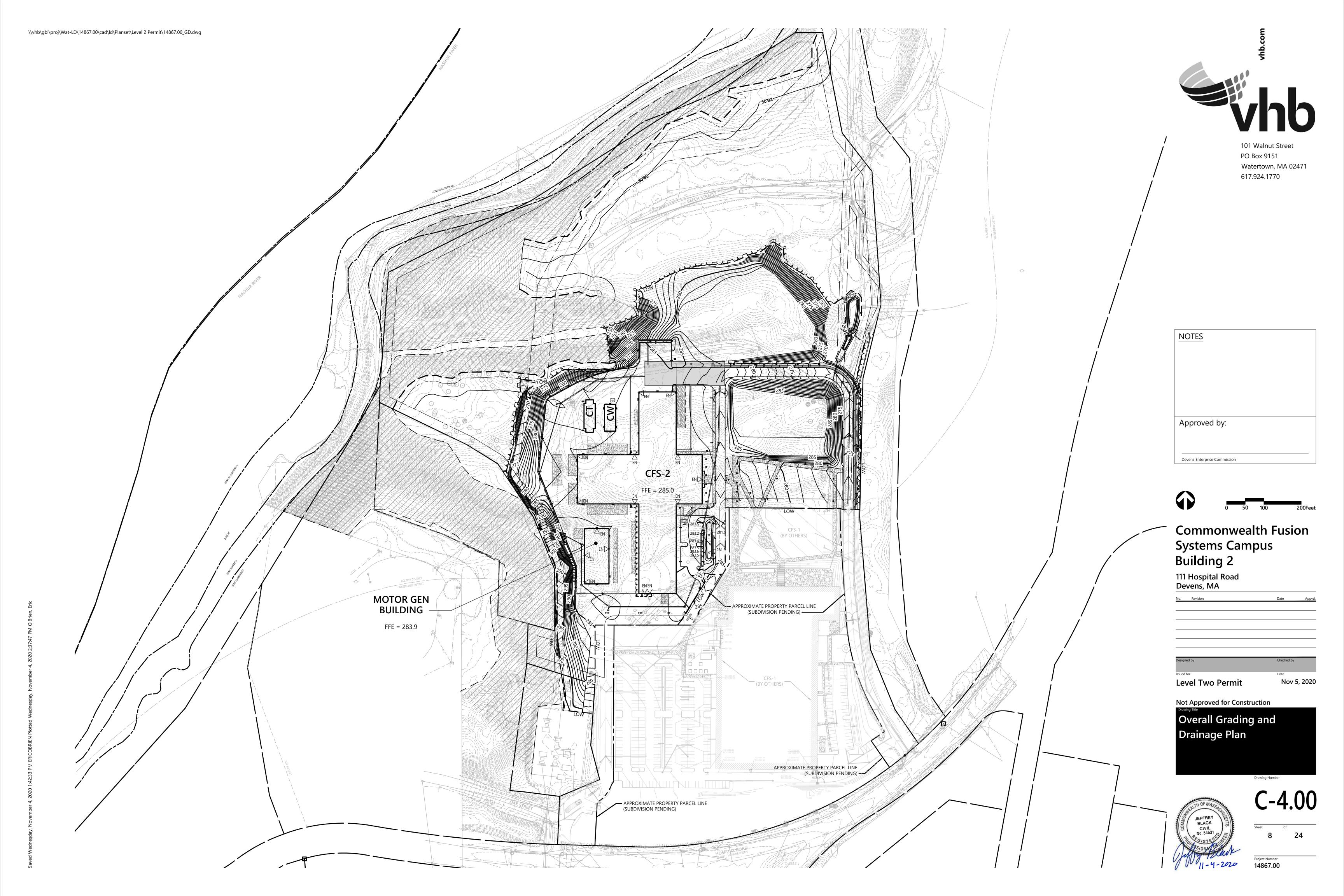
**Overall Layout and** 

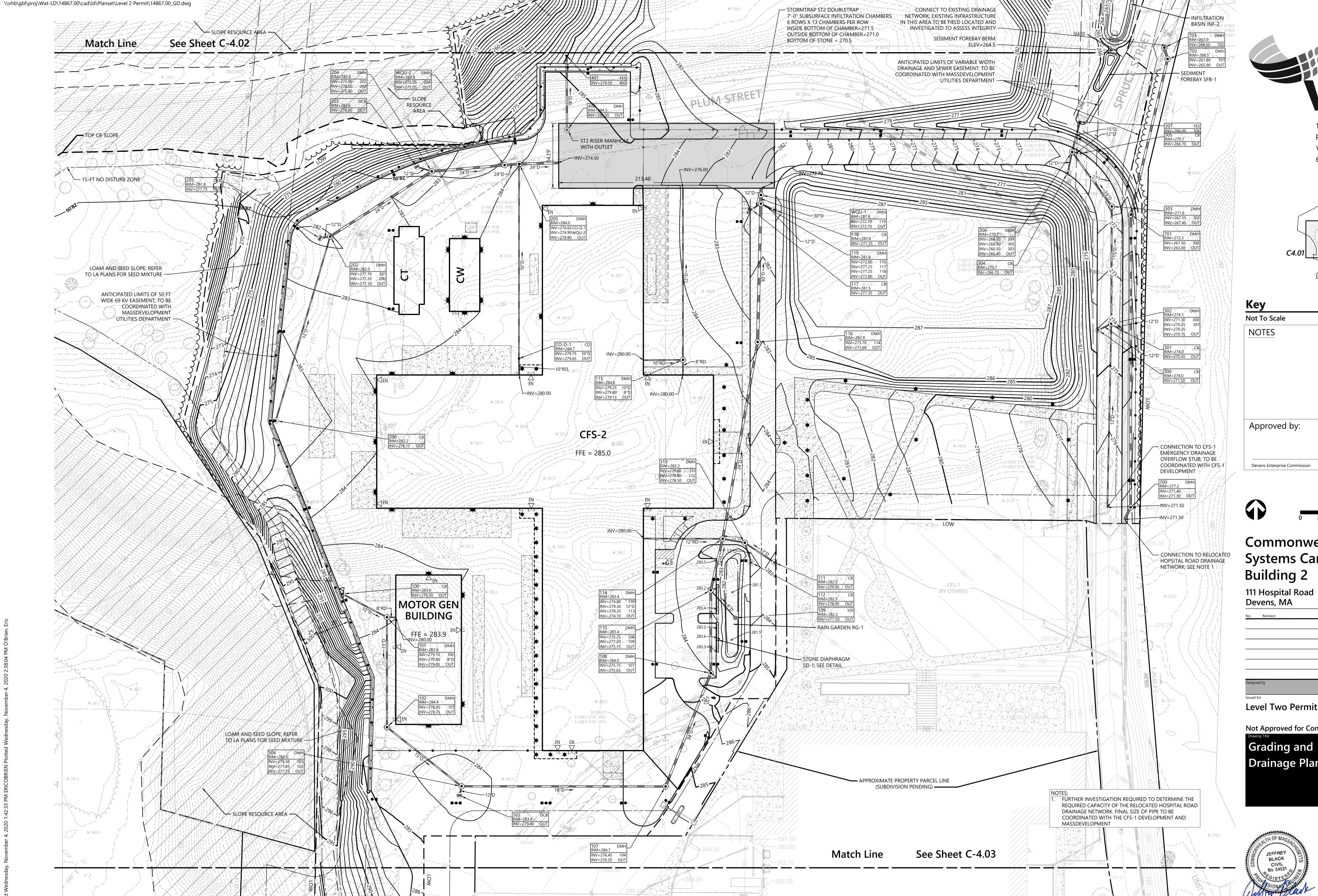




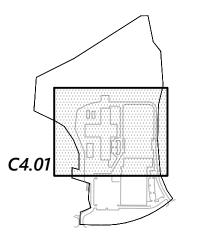












Not To Scale Approved by: Devens Enterprise Commission



# **Commonwealth Fusion Systems Campus Building 2**

111 Hospital Road Devens, MA

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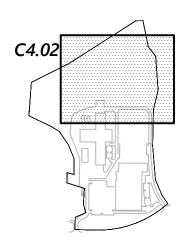
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**Grading and** Drainage Plan 1





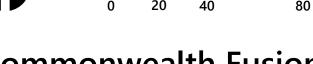




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Devens Enterprise Commission	





# Commonwealth Fusion Systems Campus Building 2

111 Hospital Road Devens, MA

Revision	Date	Appvd.
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Level Two Permit

Nov 5, 2020

Not Approved for Construction
Drawing Title

Grading and
Drainage Plan 2

Drawing Numb

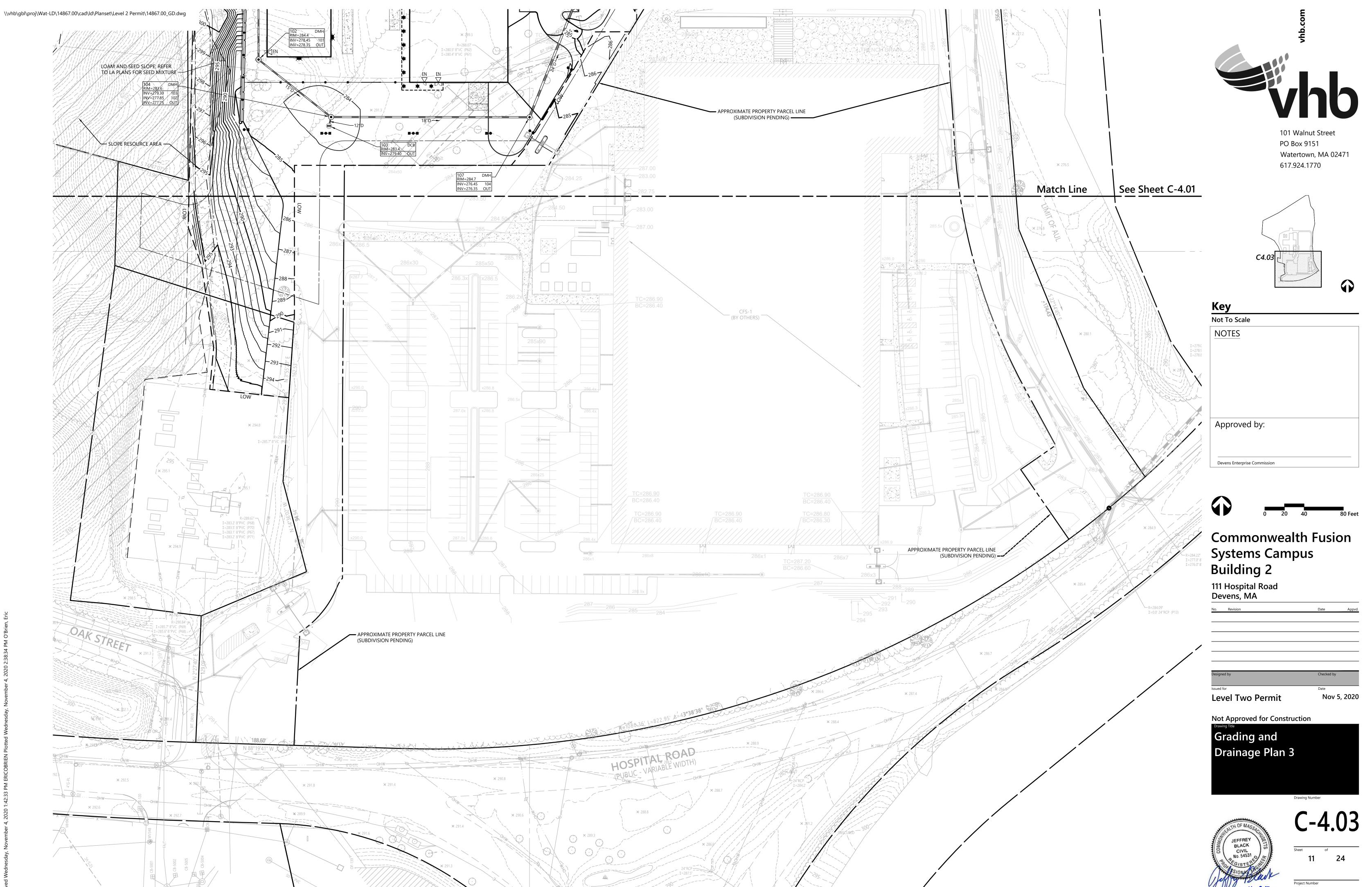


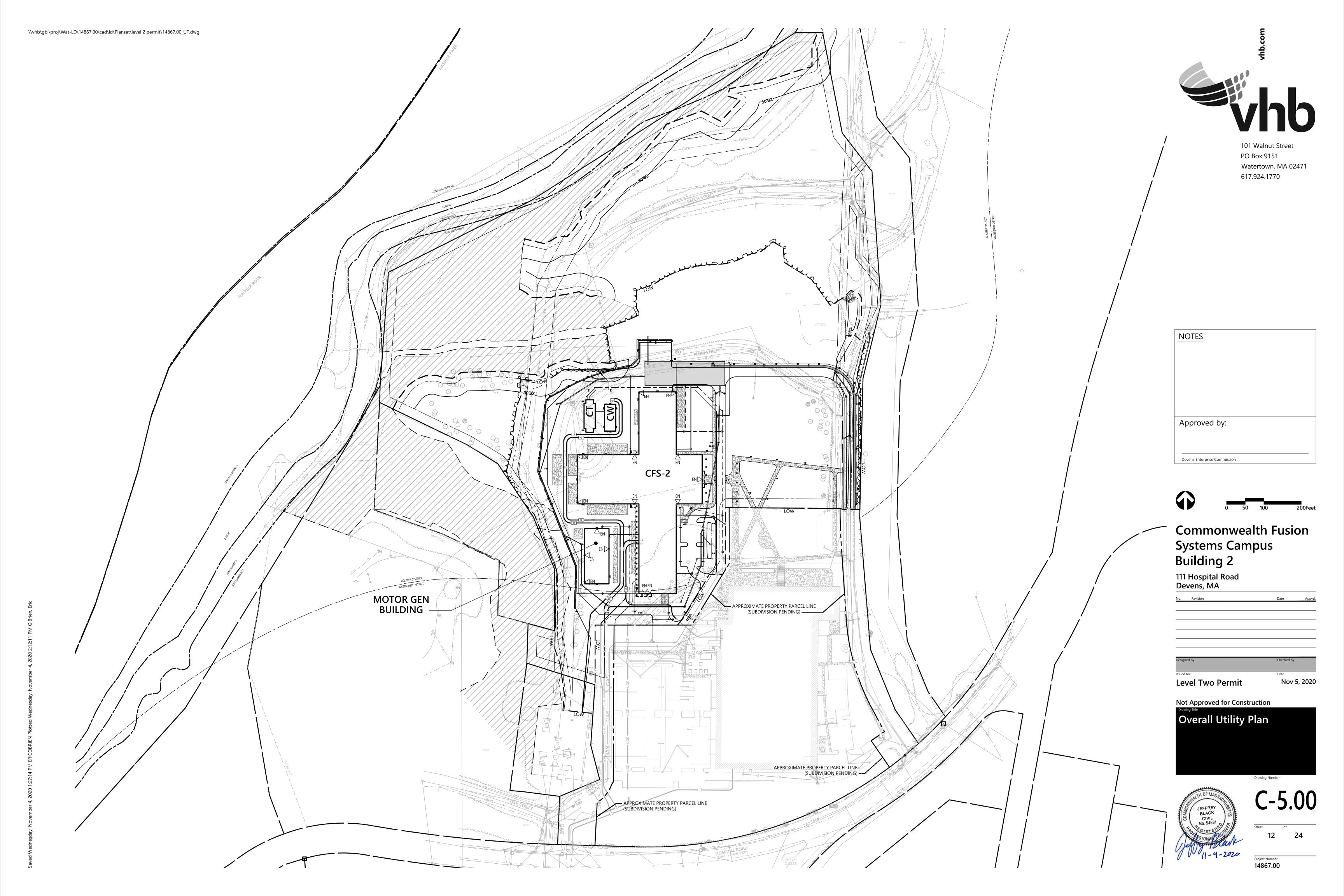
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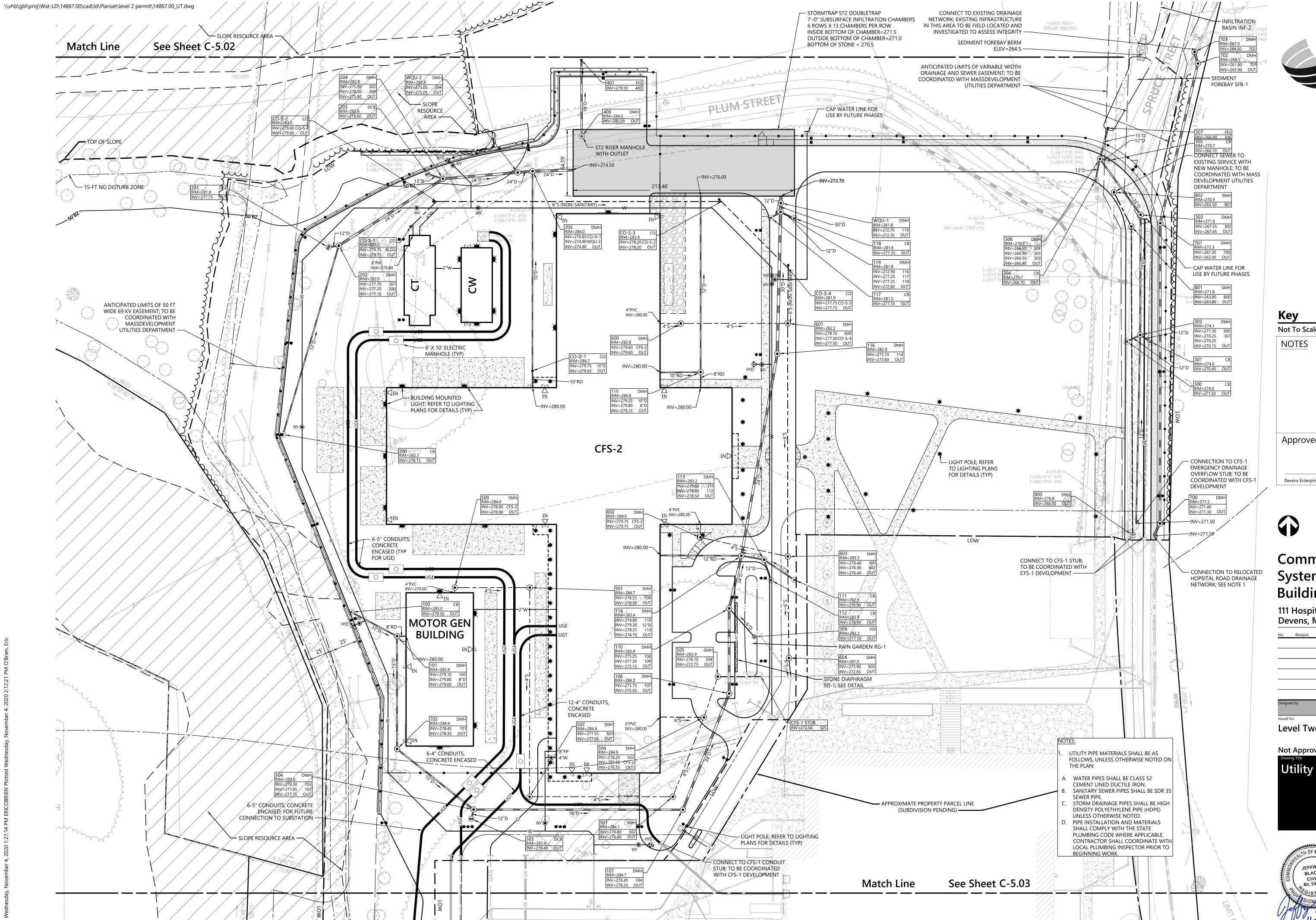
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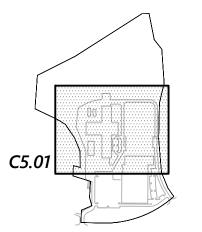
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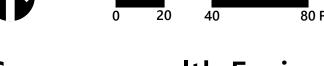








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# **Commonwealth Fusion Systems Campus Building 2**

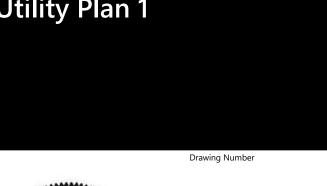
111 Hospital Road Devens, MA

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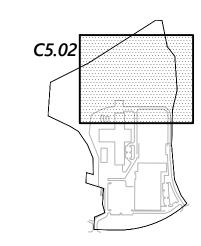
**Utility Plan 1** 



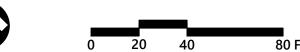








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# **Commonwealth Fusion** Systems Campus Building 2

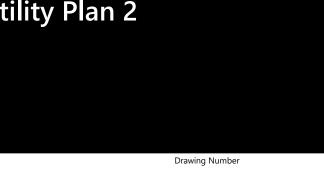
111 Hospital Road Devens, MA

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**Utility Plan 2** 







#### **Project Erosion and Sedimentation Control Narrative:**

THE PROPOSED PROJECT CONSISTS OF A ... THE APPROXIMATELY XX ACRE SITE WILL BE DEVELOPED AS A MULTI-PHASE PROJECT . THE PROJECT DISTURBANCE EXCEEDS 1 ACRE THEREFORE IS SUBJECT TO THE REQUIREMENTS OF THE EPA CONSTRUCTION GENERAL

#### **Erosion and Sedimentation Control Techniques and Measures**

THE EROSION AND SEDIMENTATION CONTROLS SHOWN HEREON ARE PERIMETER MEASURES ONLY AND ARE PROVIDED AS A STARTING POINT FOR CONTRACTOR'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS REQUIRED TO PROVIDE ADDITIONAL INTERIM EROSION AND SEDIMENTATION CONTROLS, INCLUDING BUT NOT LIMITED TO THOSE LISTED BELOW, TO MANAGE EROSION AND SEDIMENTATION DURING CONSTRUCTION TO PREVENT IMPACTS TO RESOURCE AREAS, ROADWAYS, AND ABUTTING PROPERTIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION.

THE OWNER, CONSTRUCTION MANAGER AND SITE SUBCONTRACTORS ARE RESPONSIBLE FOR THE IMPLEMENTATION, INSPECTION AND REPAIR OF THE EROSION CONTROLS. THE OWNER SHALL BE RESPONSIBLE FOR INSPECTION AND OPERATION OF THE STORM WATER MANAGEMENT SYSTEM UPON COMPLETION OF CONSTRUCTION.

THE CONSTRUCTION MANAGER SHALL LIMIT THE EXTENT OF DISTURBANCE AND STABILIZE SURFACES AS SOON AS POSSIBLE. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 14 DAYS OF FINAL GRADING (7 DAYS IF WITHIN 100 FEET OF A STREAM, POND OR WETLAND).

THE EXISTING SOIL CONDITIONS PROVIDE RUNOFF FROM AREAS WITH EROSION POTENTIAL. THE CONTRACTOR MUST ANTICIPATE HEAVY RUNOFF DURING CONSTRUCTION OR DURING AND AFTER ANY INCLEMENT WEATHER.

THE CONTRACTOR MAY ELECT TO CONSTRUCT TEMPORARY DIVERSION SWALES AND SETTLING BASINS IN AREAS OF FUTURE PHASES OF CONSTRUCTION.

AT NO TIME SHALL SILT-LADEN WATER BE ALLOWED TO ENTER SENSITIVE AREAS (OFF-SITE AREAS AND DRAINAGE SYSTEMS). ANY RUNOFF FROM DISTURBED SURFACES SHALL BE DIRECTED THROUGH SETTLING BASINS, FILTERED CATCH BASIN INLETS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS.

#### Catch Basin Protection

NEWLY CONSTRUCTED AND EXISTING CATCH BASINS WILL BE PROTECTED WITH SILT SACKS THROUGHOUT CONSTRUCTION.

#### Gravel and Construction Entrance/Exit

A TEMPORARY CRUSHED-STONE CONSTRUCTION ENTRANCE/EXIT WILL BE CONSTRUCTED. A CROSS SLOPE WILL BE PLACED IN THE ENTRANCE TO DIRECT RUNOFF TO THE SEDIMENT TRAP.

#### **Vegetative Slope Stabilization**

STABILIZATION OF OPEN SOIL SURFACES WILL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, UNLESS THERE IS SUFFICIENT SNOW COVER TO PROHIBIT IMPLEMENTATION. VEGETATIVE SLOPE STABILIZATION WILL BE USED TO MINIMIZE EROSION ON SLOPES OF 3:1 OR STEEPER. ANNUAL GRASSES, SUCH AS ANNUAL RYE, WILL BE USED TO ENSURE RAPID GERMINATION AND PRODUCTION OF ROOTMASS. PERMANENT STABILIZATION WILL BE COMPLETED WITH THE PLANTING OF PERENNIAL GRASSES OR LEGUMES. ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED BY HYDRO-SEEDING OR SODDING. A SUITABLE TOPSOIL, GOOD SEEDBED PREPARATION, AND ADEQUATE LIME, FERTILIZER AND WATER WILL BE PROVIDED FOR EFFECTIVE ESTABLISHMENT OF THESE VEGETATIVE STABILIZATION METHODS. MULCH WILL ALSO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY OF THE SOIL TO ABSORB WATER.

#### Temporary Sediment Basins

TEMPORARY SEDIMENT BASINS WILL BE DESIGNED BY THE CONTRACTOR EITHER AS EXCAVATIONS OR BERMED STORMWATER DETENTION STRUCTURES (DEPENDING ON GRADING) THAT WILL RETAIN RUNOFF FOR A SUFFICIENT PERIOD OF TIME TO ALLOW SUSPENDED SOIL PARTICLES TO SETTLE OUT PRIOR TO DISCHARGE. THESE TEMPORARY BASINS WILL BE LOCATED BASED ON CONSTRUCTION NEEDS AS DETERMINED BY THE CONTRACTOR AND OUTLET DEVICES WILL BE DESIGNED TO CONTROL VELOCITY AND SEDIMENT. POINTS OF DISCHARGE FROM SEDIMENT BASINS WILL BE STABILIZED TO MINIMIZE EROSION. AT A MINIMUM, SEDIMENTATION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE STORAGE FOR THE VOLUME OF RUNOFF GENERATED FROM A 2-YR, 24-HR DESIGN STORM, OR AT LEAST 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINING TO THE BASIN.

### Stockpile Management

SIDESLOPES OF STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES NOT USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE. STRAW BALES AND SILT FENCE ARE TO BE PLACED AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM THE TOE OF SLOPE.

MATERIAL REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWN SLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN MORE THAN THREE WEEKS. RUNOFF SHALL BE DIRECTED AWAY FROM STOCKPILES.

STOCKPILES SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT.

### **Dust Control**

PERIODICALLY MOISTEN EXPOSED SURFACES ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAY DAMP AND REDUCE DUST.

### **Temporary Erosion and Sedimentation Control Maintenance (Throughout Construction)** THE SITE CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS

REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION, CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS. RECORDS OF THE INSPECTIONS WILL BE PREPARED AND MAINTAINED ON-SITE BY THE CONTRACTOR.

SILT SHALL BE REMOVED FROM BEHIND BARRIERS IF GREATER THAN 6-INCHES DEEP OR AS NEEDED.

DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION.

SEDIMENT THAT IS COLLECTED IN STRUCTURES SHALL BE DISPOSED OF PROPERLY AND COVERED IF STORED ON-SITE.

EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN SECURELY STABILIZED. AFTER REMOVAL OF STRUCTURES, DISTURBED AREAS SHALL BE REGRADED AND STABILIZED AS SOON AS PRACTICAL.

MAINTAIN THE CONSTRUCTION ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS

### Infiltration Area Protection During Construction

FOR THE LONG-TERM FUNCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S), CARE SHALL BE TAKEN IN THE INFILTRATION AREAS DURING CONSTRUCTION THE CONTRACTOR SHALL EMPLOY THE FOLLOWING MINIMUM BEST MANAGEMENT PRACTICES (BMPS):

- 1. INFILTRATION AREAS SHALL NOT BE USED AS TEMPORARY CONSTRUCTION SEDIMENTATION BASINS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. IF INFILTRATION AREAS ARE USED AS TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION, THEN THE SOILS SHALL BE EXCAVATED A MINIMUM OF 2' FROM THE TEMPORARY BASIN BOTTOM TO REMOVE
- 2. STORMWATER RUNOFF FROM EXPOSED SURFACES SHALL BE DIRECTED AWAY FROM THE INFILTRATION BASIN(S)/STRUCTURE(S)
- 3. CONSTRUCTION EQUIPMENT, VEHICULAR TRAFFIC, PARKING OF VEHICLES, AND STOCKPILING OF CONSTRUCTION MATERIALS SHALL BE LOCATED OUTSIDE OF THE INFILTRATION AREAS.
- 4. EXCAVATION FOR CONSTRUCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S) SHALL ENSURE THAT THE SOIL AT THE BOTTOM OF THE EXCAVATION IS NOT COMPACTED OR SMEARED.
- 5. THE PERIMETER OF THE INFILTRATION AREAS SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF THE AREA FOR ACTIVITIES THAT MIGHT DAMAGE THE INFILTRATION ABILITY OF THE SYSTEM.

### **SWPPP Notes:**

1. THE QUANTITIES AND LOCATIONS OF EROSION/SEDIMENTATION CONTROL MEASURES (INCLUDING TEMPORARY SEDIMENTATION BASINS) SHOWN ON THIS SITE MAP ARE APPROXIMATE. THIS SITE MAP, LIKE THE SWPPP, IS A DYNAMIC DOCUMENT, AND MUST BE CONTINUALLY UPDATED BY THE OPERATOR(S) THROUGHOUT CONSTRUCTION. PROJECT OPERATOR(S) SHALL UPDATE SITE MAP TO SHOW FINAL LOCATIONS OF STORMWATER CONTROL MEASURES AND PROVIDE INFORMATION FOR TYPES OF CONTROLS PROVIDED. PROJECT OPERATORS ARE RESPONSIBLE TO IMPLEMENT, INSPECT, MAINTAIN, REPAIR, AND MODIFY EROSION/SEDIMENTATION CONTROL MEASURES (INCLUDING TEMPORARY SEDIMENTATION

- 2. STORMWATER CONTROLS MUST BE DESIGNED, INSTALLED AND MAINTAINED IN COMPLIANCE WITH PART 2.1 OF THE 2017 3. EROSION AND SEDIMENT CONTROLS MUST BE IMPLEMENTED TO ADDRESS THE REQUIREMENTS OF PART 2.2 OF THE 2017 CGP.
- 4. IF ANY STORMWATER CONTROLS MUST BE DESIGNED (E.G., SEDIMENT BASINS OR CONVEYANCE CHANNELS), THE DESIGN

DOCUMENTATION MUST BE INCLUDED IN ATTACHMENT S OF THE SWPPP MANUAL.

- 5. THE ITEMS LISTED BELOW ARE REQUIRED TO BE SHOWN ON THIS SITE MAP PER PART 7.2.4 OF THE 2017 CGP. THIS SITE MAP ALREADY INCLUDES SOME OF THE ITEMS IDENTIFIED BELOW, BUT IT IS THE RESPONSIBILITY OF THE PROJECT OPERATOR(S) TO SUPPLEMENT THE INFORMATION INCLUDED HEREON TO ENSURE THAT ALL REQUIRED ITEMS ARE PROVIDED. PROJECT OPERATOR(S) SHALL CONTINUALLY UPDATE THIS SITE PLAN TO DOCUMENT THESE ITEMS THROUGHOUT CONSTRUCTION, INCLUDING BUT NOT LIMITED TO:
- BOUNDARIES OF THE AREA OF DISTURBANCE

- 50-FOOT BUFFER AROUND THE AREA OF DISTURBANCE
- IDENTIFY AREAS OF STEEP SLOPE
- LOCATIONS OF STOCKPILES
- LOCATIONS OF CONSTRUCTION VEHICLE ACCESS ALL STORMWATER DISCHARGE POINTS FROM THE AREA OF DISTURBANCE (TO WATERBODIES AND TO STORM DRAIN INLETS)
- LOCATION OF ALL SURFACE WATERS WHERE THE AREA OF DISTURBANCE DISCHARGES
- THE LOCATION AND NATURE OF ALL EROSION AND SEDIMENT CONTROLS
- PERIMETER CONTROLS
- STORM DRAIN INLET CONTROLS
- A NOTE THAT INDICATES THAT THE CONTRACTOR WILL PROVIDE INFORMATION FOR ANY OTHER TYPES OF CONTROLS
- LOCATION OF ON-SITE AND OFF-SITE CONSTRUCTION SUPPORT ACTIVITY AREAS COVERED BY THIS PERMIT
- AREAS OF FEDERALLY LISTED CRITICAL HABITAT WITHIN THE SITE AND/OR AT DISCHARGE LOCATIONS DRAINAGE PATTERNS OF STORMWATER AND AUTHORIZED NON-STORMWATER BEFORE AND AFTER MAJOR GRADING
- LOCATIONS OF ALL POTENTIAL POLLUTANT GENERATING ACTIVITIES.
- LOCATIONS WHERE ANY CHEMICALS WILL BE USED AND STORED.

#### **General Construction Requirements**

1. REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL TAKE PLACE ON DESIGNATED AREAS AND SHALL NOT BE CONDUCTED IN PROXIMITY TO CATCH BASINS

- 2. NO ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING BUILDING MATERIALS, IS ALLOWED. STUMPS SHALL BE DISPOSED OF IN ACCORDANCE WITH DEVENS ENTERPRISE COMMISSION REQUIREMENTS.
- 3. NO MATERIALS SHALL BE DISPOSED OF INTO THE EXISTING OR PROPOSED DRAINAGE SYSTEMS. ALL CONTRACTORS. INCLUDING CONCRETE SUPPLIERS, PAINTERS AND PLASTERERS, SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS
- PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO DRAINAGE SYSTEMS 4. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL, WHICH SHALL INCLUDE STREET SWEEPING OF ALL PAVED SURFACES

WITHIN THE SITE AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR BASIS, AS NEEDED.

- 5. ALL SITE WORK SHALL BE STABILIZED AT THE END OF THE WORK DAY OR PRIOR TO ANTICIPATED CONDITIONS WHICH COULD CAUSE EROSION OR AIR-BORNE SEDIMENT PROBLEMS (I.E., RAIN, HIGH WINDS, EXPOSED SURFACES OR STEEP SLOPES). 6. SITE OPERATIONS IN THE AREA OF DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MAINTAIN OR CREATE
- 7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THAT PUBLIC ROADS, PRIVATE DRIVES, AND ABUTTING PROPERTIES ARE KEPT CLEAN OF CONSTRUCTION RELATED DEBRIS. ALL MATERIALS TRACKED ONTO SAID STREETS, DRIVES, AND PROPERTIES

GRADES AND SURFACES WHICH SLOPE AWAY FROM PUBLIC ROADS, PRIVATE DRIVES, AND ABUTTING PROPERTIES TO THE

#### **Pre-Construction**

- 1. AN EROSION CONTROL BARRIER (SILT FENCE, STRAW WATTLE OR SILT SOCK) SHALL BE INSTALLED TO LIMIT THE AREA OF DISTURBANCE. THIS IS ESPECIALLY IMPORTANT ON PORTIONS OF THE SITE ADJACENT TO SENSITIVE AREAS. THESE BARRIERS SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY SURFACES HAVE BEEN FULLY STABILIZED. INSTALL SILT FENCES AND HAYBALES TO AVOID EXISTING TREES AND UNDERBRUSH TO MAXIMUM EXTENT POSSIBLE.
- 2. TEMPORARY STONE ACCESS AREAS SHALL BE ESTABLISHED AT THE DRIVEWAY ENTRANCES TO COLLECT ENTRAPPED SOILS AND SEDIMENT FROM CONSTRUCTION AND SERVICE VEHICLES ENTERING AND LEAVING THE SITE. THE STONE SHALL BE REPLACED REGULARLY AS WELL AS WHEN THE STONE IS SILT LADEN. THE CONSTRUCTION ENTRANCES SHALL BE LEFT IN PLACE UNTIL THE PERMANENT DRIVEWAY SURFACE IS INSTALLED.
- 3. THE CONTRACTOR SHALL ESTABLISH STAGING AREAS WITHIN THE AREA OF DISTURBANCE FOR THE OVERNIGHT STORAGE OF EQUIPMENT AND STOCKPILING OF MATERIALS.
- 4. CONSTRUCTION MATERIALS SHALL BE PILED IN SUCH A MANNER AS NOT TO CONCENTRATE RUNOFF 5. IN THE STAGING AREA, THE CONSTRUCTION MANAGER SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL
- EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO, HAY BALES, SILT FENCE AND CRUSHED STONE. 6. THE CONSTRUCTION MANAGER IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL
- MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED HEREIN OR IN CONDITIONS ISSUED BY PERMITTING AUTHORITIES.

#### **Preliminary Site Work**

1. NO SOIL OR LOAM SHALL LEAVE THE SITE EXCEPT IN ACCORDANCE WITH THE DEVENS ENTERPRISE COMMISSION REQUIREMENTS- 974 CMR 4.07 - EARTH REMOVAL.

2. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL HAY BALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE UTILIZED.

1. CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARD ROADS, PRIVATE

2. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.

1. THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSTREAM END UP. SEDIMENT SHALL NOT BE ALLOWED TO ENTER THE SYSTEM. WATER SHALL NOT BE ALLOWED TO ENTER PIPES FROM UNSTABILIZED SURFACES.

- 2. SILT FENCES SHALL BE INSTALLED AT THE OUTFALLS OF ALL TEMPORARY BASINS AND SWALES. THEY SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.
- 3. UNTIL TRIBUTARY AREAS ARE STABILIZED FILTERED CATCH BASIN SILT SACKS SHALL COVER CATCH BASINS TO MINIMIZE SILTATION IN THE CATCH BASINS.
- 1. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION. ALL TRENCHE: SHALL BE BACKFILLED AS SOON AS POSSIBLE. THE ENDS OF PIPES SHALL BE CLOSED NIGHTLY WITH PLYWOOD. 5. IF UNSTABLE AREAS ARE ENCOUNTERED DUE TO NATURAL SPRINGS OR GROUNDWATER BREAKOUT, INTERCEPTOR DRAINS
- SHALL BE INSTALLED TO DIRECT THE RUNOFF INTO THE DRAINAGE SYSTEM. 6. ALL SWALES MUST BE MAINTAINED AND KEPT FREE OF OBSTRUCTIONS TO ALLOW UNIMPEDED FLOW.
- 7. THE BINDER COURSE OF PAVEMENT WITH BERMS SHALL BE INSTALLED AS SOON AS FEASIBLE AS THIS AREA WILL FUNCTION AS A CONDUIT FOR RUNOFF. 8. IMMEDIATELY FOLLOWING PAVING THE SHOULDERS SHALL BE GRADED, LOAMED AND SEEDED AND MULCHED IF NECESSARY. ALL SURFACES SHOULD BE RAPIDLY AND THOROUGHLY STABILIZED TO THEIR FINAL CONDITION TO AVOID ENTRY OF
- SEDIMENTS IN THE DRAINAGE SYSTEM. 9. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND

### General

- 1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING. 2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN
- ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS. 3. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND
- OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.

4. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE

- CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. 5. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING
- EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS. 7. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO
- 8. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE

### AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER. DEC Erosion Control Requirements (Per 974 CMR 3.02(3)(E))

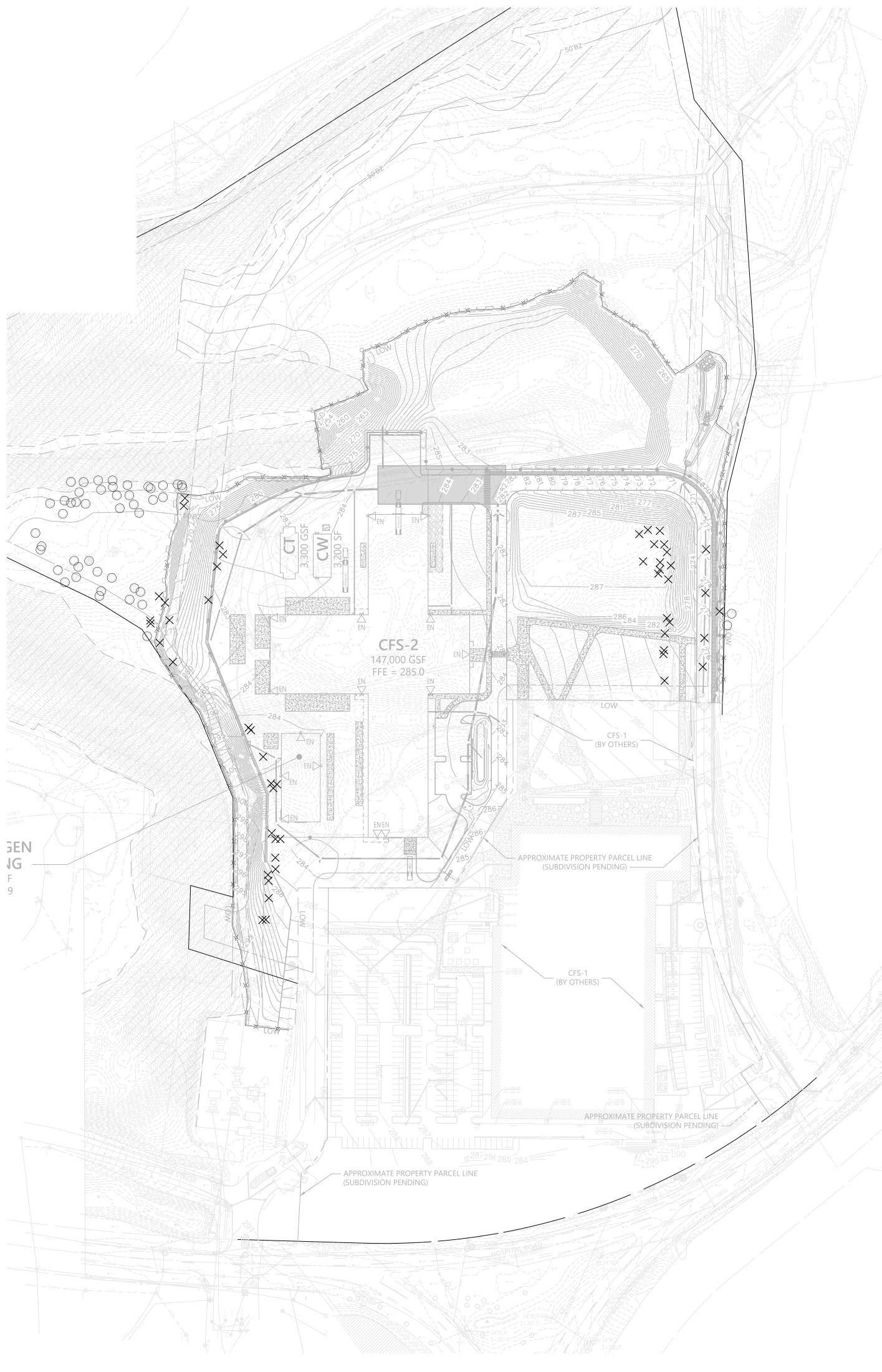
- . PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE APPLICANT/CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICALLY MAKING THE LIMITS OF CONSTRUCTION ON THE SITE WITH TAPE, SIGNS, OR ORANGE FENCE, SO THAT WORKERS UNDERSTAND THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL BE INSPECTED DAILY AND REPAIRED AS NECESSARY THROUGHOUT THE DURATION OF THE PROJECT.
- 2. PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE AND MAINTAINED TO CONTAIN SOILS ON-SITE. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED UNLESS THE APPLICANT HAS OBTAINED PRIOR APPROVAL FROM THE DEC
- 3. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA AND STREET SWEEPING OF ADJACENT STREETS AND ROADS SHALL BE INCLUDED WHERE NECESSARY 4. ALL RESOURCE AREAS SHALL BE PROTECTED FROM SEDIMENT.
- 5. MONITORING AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION SHALL BE REQUIRED. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL.
- SEDIMENTATION ON AND OFF-SIRE. TEMPORARILY STABILIZE ALL HIGHLY ERODIBLE SOILS AND SLOPES IMMEDIATELY. 7. LAND DISTURBANCE ACTIVITIES EXCEEDING TWO ACRES IN SIZE SHALL NOT BE DISTURBED WITHOUT A SEQUENCING PLAN THAT REQUIRES STORMWATER CONTROLS TO BE INSTALLED AND EXPOSED SOILS STABILIZED, AS DISTURBANCE BEYOND THE TWO ACRES CONTINUES. A CONSTRUCTION PHASING PLAN, INCLUDING EROSION AND SEDIMENT CONTROL PLAN FOR EACH PHASE, SHALL BE SUBMITTED TO THE DEC PRIOR TO ANY CONSTRUCTION ON THE SITE. MASS CLEARINGS AND GRADING OF

6. DIVERT RUNOFF FROM OFFSITE AND UNDISTURBED AREAS AWAY FROM CONSTRUCTION TO MINIMIZE SOIL EROSION AND

- THE ENTIRE SITE SHALL BE AVOIDED. 8. SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE
- GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS. 9. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED. 10. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
- 12. ALL SLOPES STEEPER THAN 3:1 (H:V. 33.3%), AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES.

11. ANTI-TRACKING PAD(S) (AKA STABILIZED CONSTRUCTION EXIT) SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIT POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE. DUST SHALL ALSO BE CONTROLLED

- 13. TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONSTRUCTION AREAS ASSOCIATED WITH THE PROJECT. SIMILARLY, STABILIZATION MUST BE ESTABLISHED PRIOR TO CONVERTING TEMPORARY SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT FACILITIES. ALL FACILITIES USED FOR TEMPORARY MEASURES SHALL BE CLEANED AND RE-STABILIZED PRIOR TO BEING PUT INTO FINAL OPERATION.
- 14. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL





101 Walnut Street

Watertown, MA 02471

PO Box 9151

617.924.1770

→ ★ ★ ★ EROSION CONTROL BARRIEF TREE PROTECTION FENCING

TREE TO BE REMOVED

Approved by: Devens Enterprise Commission



NOTES



**Building 2** 111 Hospital Road Devens, MA

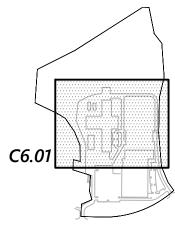
**Level Two Permit** 

**Overall Erosion and** Sediment Control Plan

Not Approved for Construction







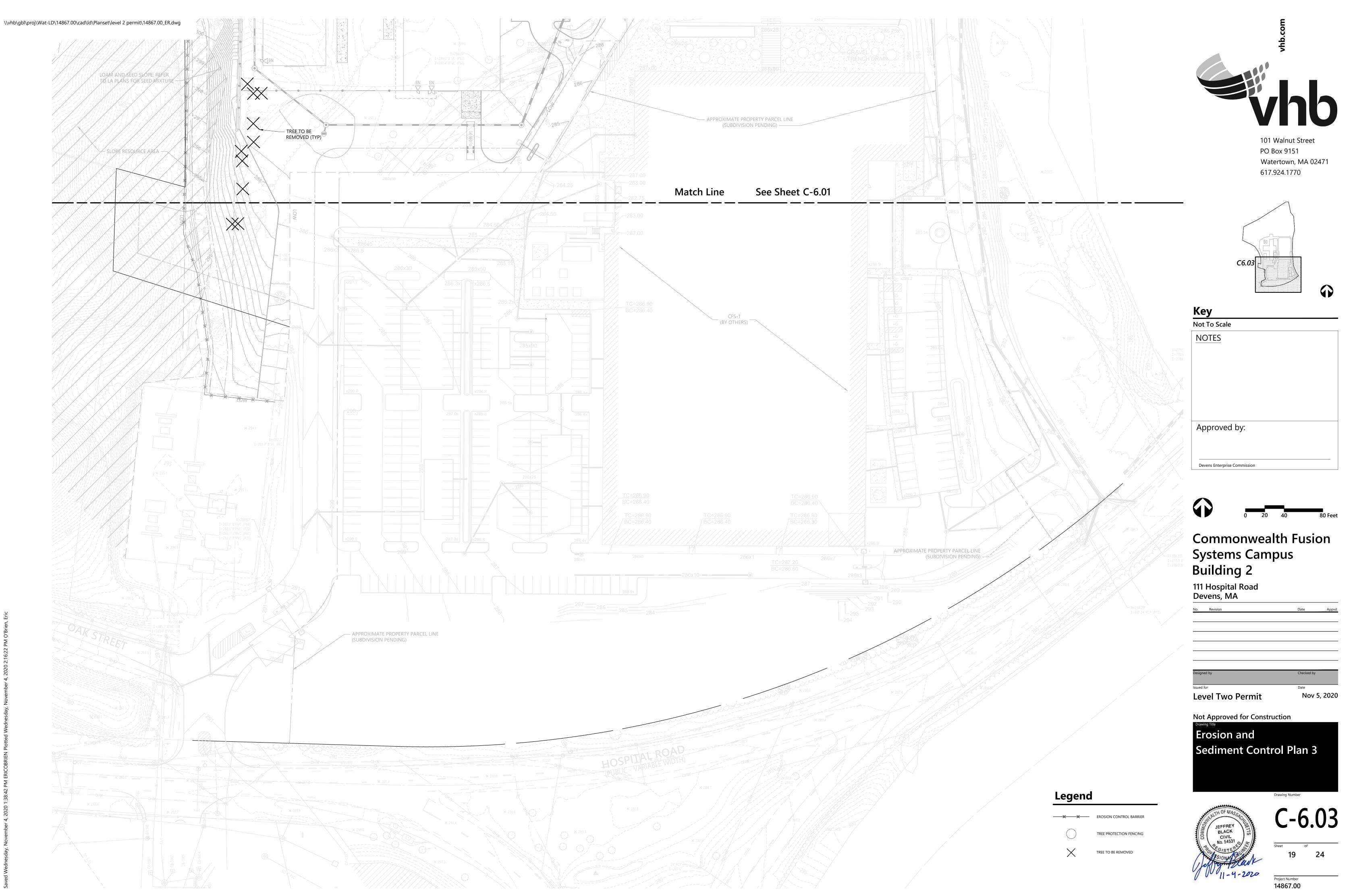


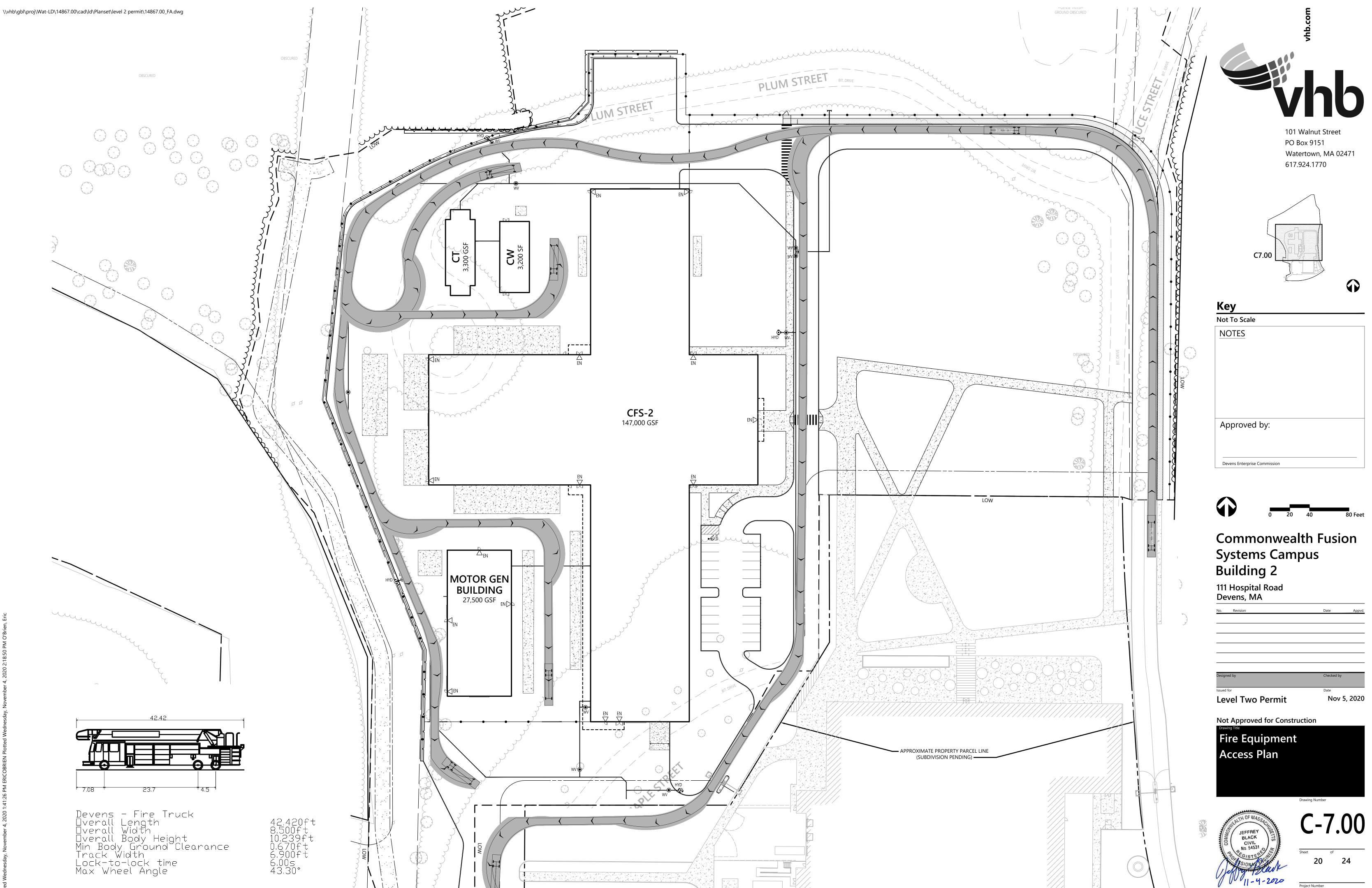
Nov 5, 2020

**Sediment Control Plan 1** 

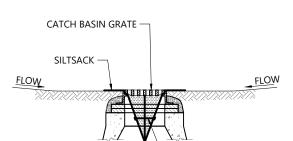
X







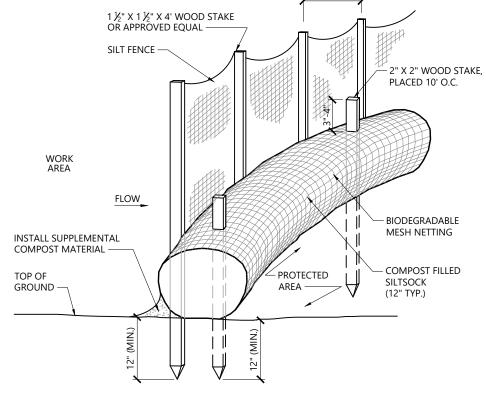
Project Number 14867.00



#### SECTION VIEW

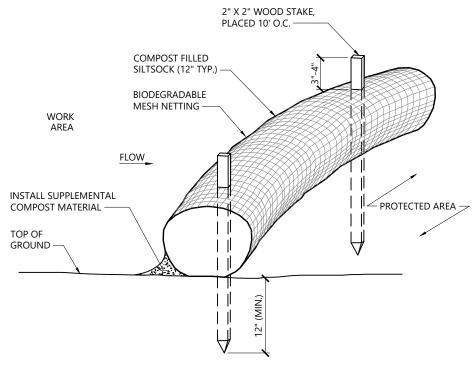
- 1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
- 2. GRATE TO BE PLACED OVER SILTSACK.
- 3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN

Siltsack Sediment Trap LD_674



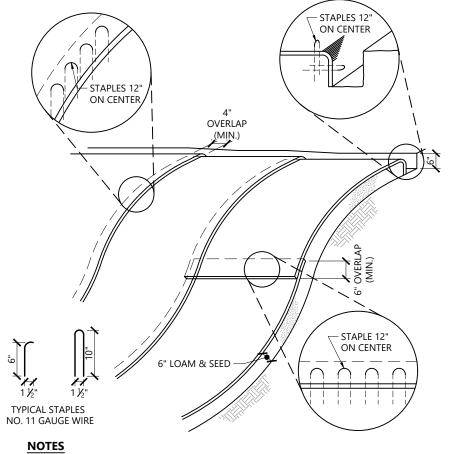
- 1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
- 2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES. 3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY
- 4. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE
- 5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Siltsock / Silt Fence Barrier		1/16
N.T.S.	Source: VHB	LD_658-A



- 1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
- 2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.
- 3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY
- 4. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE
- 5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Siltsock - Erosion Control Barrier		1/1
N.T.S.	Source: VHB	LD_65

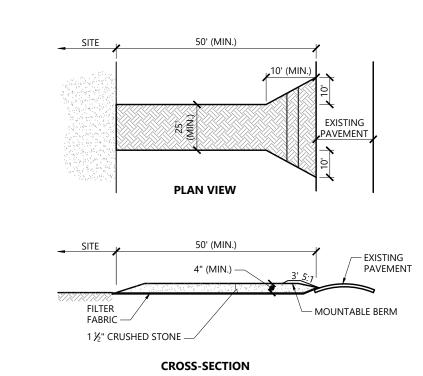


- 1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH BACKFILL AND COMPACT TRENCH AFTER STAPLING.
- 2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
- 3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
- OVER LOWER END WITH 6 INCH (MIN.) OVERLAP AND STAPLE BOTH TOGETHER.

5.	METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
6.	EROSION CONTROL BLANKETS SHALL BE USED IN ALL AREAS WHERE SLOPES EXCEED 3:1.

4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE UPPER BLANKET END

Erosion Control Blanket Slope Installation		1/16
N.T.S.	Source: VHB	LD_680

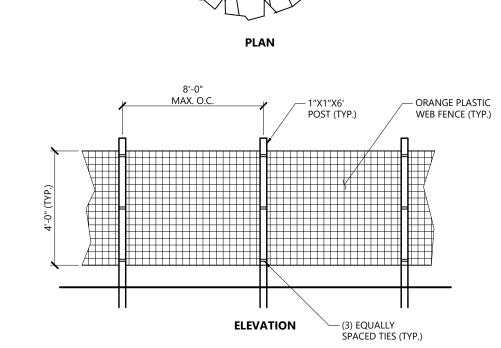


- 1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS
- 2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
- 3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

**Stabilized Construction Exit** LD_682

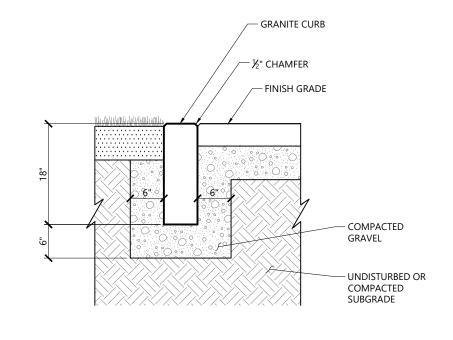


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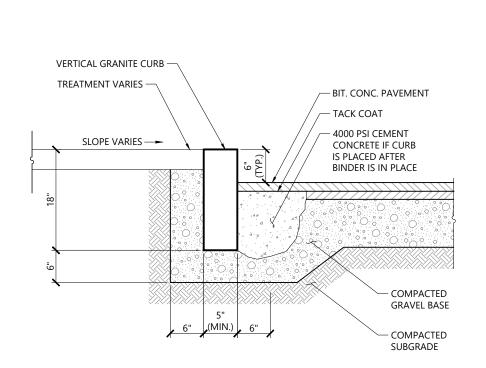


1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

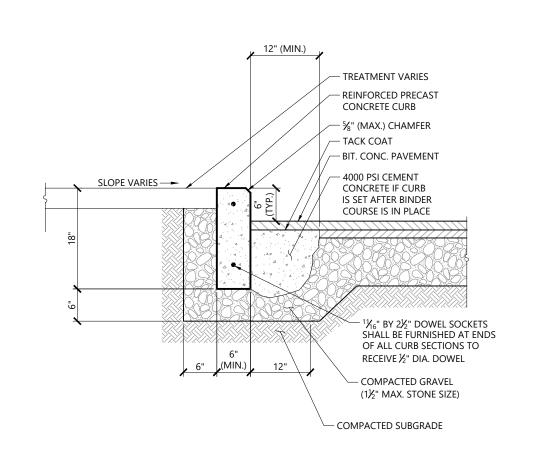
Tree Protection Fence	
Source: VHB	LD_610



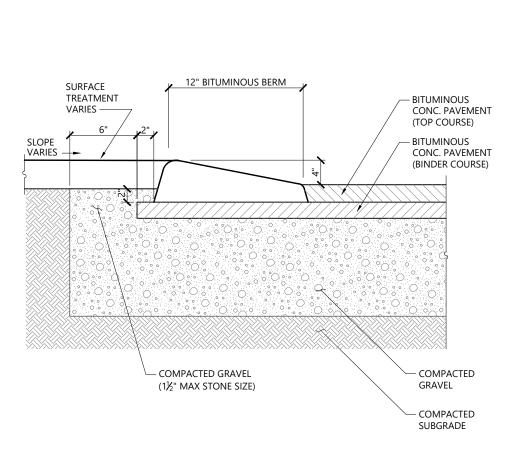
Flush Granite Curb		1/16
N.T.S.	Source: VHB	LD_409



Vertical Granite Curb (VGC)		1/16
N.T.S.	Source: VHB	LD_402



Precast Concrete Curb (PCC)		1/16
N.T.S.	Source: VHB	LD_404



ALL CURBING TO BE MACHINE EXTRUDED

**Bituminous Berm (BB)** N.T.S. Source: VHB

NOTE: CONCRETE FOR SIDEWALKS TO BE 4000 PSI

TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.

LOAM & SEED SURFACE

OR TOP OF SOD MAT —

— 4" CEMENT CONCRETE

1.5% (MAX.) 1.0% (MIN.)

8" COMPACTED GRAVEL

(1½" MAX STONE SIZE) ____

(6" THICK IN VEHICULAR AREAS)

COMPACTED

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH

3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR

PRE- FORMED JOINT FILLER.

TO SIDEWALK DIRECTION.

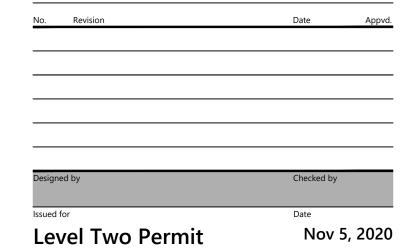
AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES



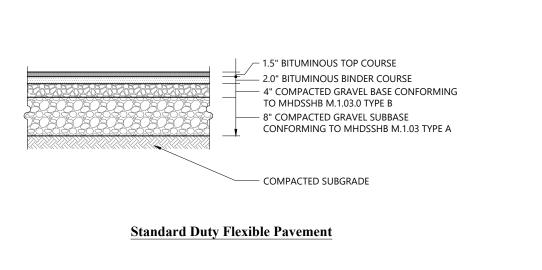
NOTES

# **Commonwealth Fusion Systems Campus Building 2**

111 Hospital Road Devens, MA

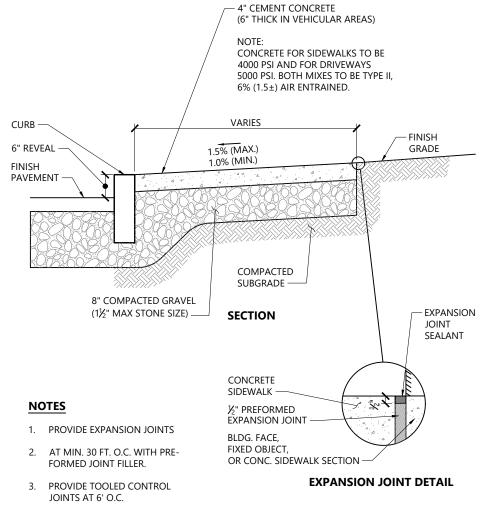






1. PAVEMENT DESIGN CONFORMS TO DEVENS RULES AND REGULATIONS 2. FINAL PAVEMENT SECTION DESIGN SHALL BE PROVIDED BY GEOTECHNICAL ENGINEER

<b>Bituminous Concrete Pavement Sections</b>			1/16
N.T.S.	Source: VHB	REV	LD_430



4. PROVIDE BROOM FINISH IN

Concrete Sidev	valk	1/16
N.T.S.	Source: VHB	LD 420

DIRECTION PERPENDICULAR TO CURB.

2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.

- 1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
- 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%. 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
- 4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
- 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
- 6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
- 7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
- 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
- 9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
- 10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. 11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.



* PROVIDE FENCE WHERE WALL

HEIGHT EXCEEDS 4 FEET

(MIN.) 12" THICK APPROXIMATE

**EXCAVATION** 

— GEOSYNTHETIC

GEOSYNTHETIC REINFORCEMENT GRAVEL

– UNDERDRAIN

(SLOPE TO DRAIN)

DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. STAMPED

ROUNDED CONCRETE CAP

— 6" DIA. SCHEDULE 40 STEEL PIPE

TO BE COMPATIBLE WITH EXTERIOR METAL SURFACES.

SURFACE TREATMENT VARIES

- 24" DIA. CONCRETE ENCASEMENT

- FINISHED GRADE

- COMPACTED GRAVEL

COMPACTED SUBGRADE

FILLED WITH CONCRETE. COLOR

SELECTED BY OWNER/ARCHITECT PAINT PRIME AND FINISH COATS

- CONCRETE FILL

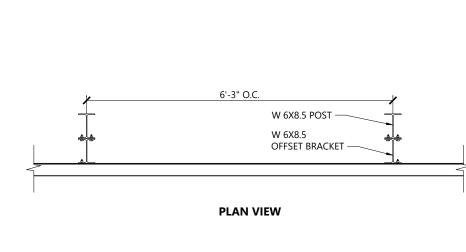
FINAL DESIGN OF MODULAR WALL SYSTEM TO BE PROVIDED BY WALL MANUFACTURER BASED ON GEOTECHNICAL ENGINEERS

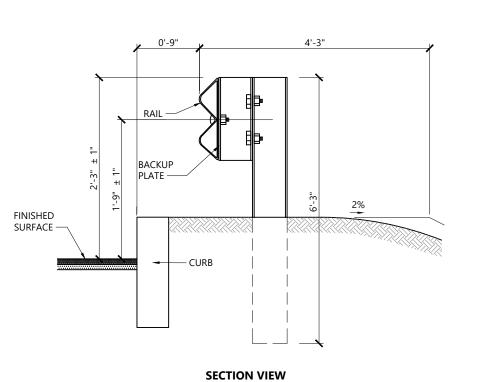
– LEVELING PAD

- COMPACTED SUBGRADE

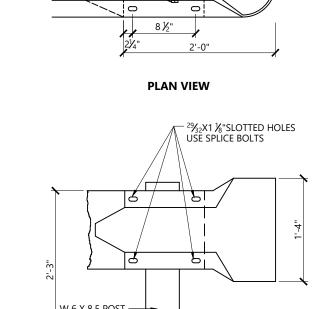
RECOMMENDATIONS.

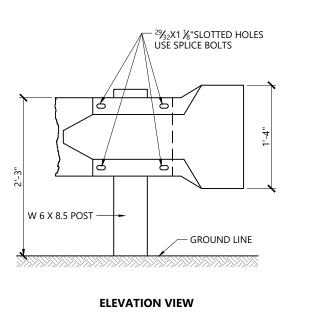
**Modular Retaining Wall** 





**Steel Beam Guardrail with Steel Post** 







- Area of Colored Surface

(PLAN VIEW) (PROFILE)

TRUNCATED DOMES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).

3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.

4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).

6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.

10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.

11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.

W 6X8.5 POST -

F-3-70 BOLT -

WOOD OR PLASTIC BLOCK —

Source: VHB

7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.

Accessible Curb Ramp (ACR) Type 'D-D'

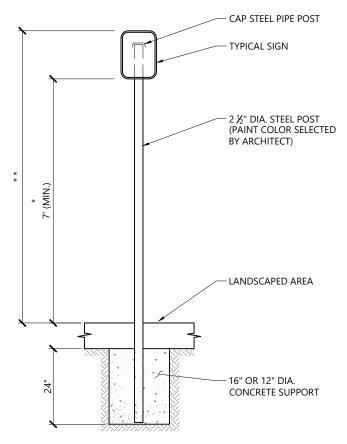
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.

8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.

9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.

*DIMENSIONS ARE CENTER TO CENTER

LD_503



* THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE

* * THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE

Sign Post - Type 'A'		
N.T.S.	Source: VHB	LD



N.T.S.

- 5000 PSI CEMENT

CONCRETE (TYPE II)

6%(1.5%±) AIR ENTRAINED

1. SIZE OF PAD TO BE AS INDICATED ON PLANS. 2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND

-- #4 @ 16"

**BOTH WAYS** 

(CENTERED)

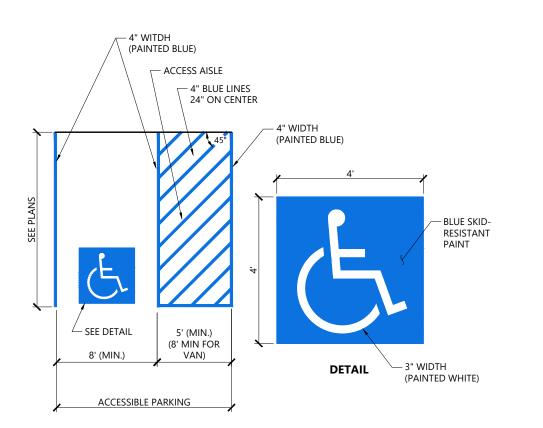
**Bollard** 9/17 N.T.S. Source: VHB LD_700



LD_750

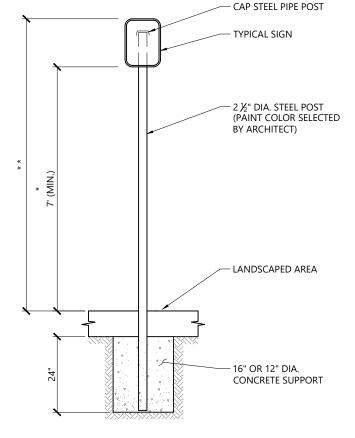
8' (TYP.)

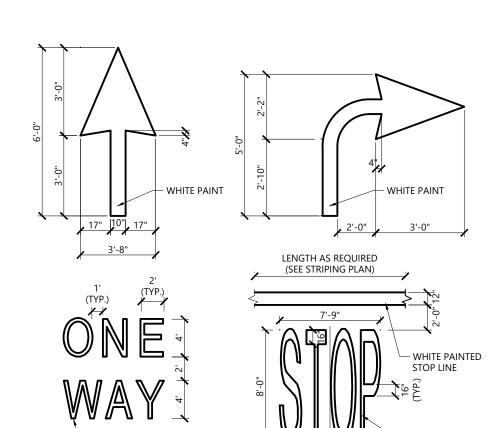




- 1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
- 2. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.
- 3. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.
- 4. ACCESS AISLE MEASURED BETWEEN OUTSIDE EDGES OF PAVEMENT

**Accessible Parking Space** LD_552B





PAVEMENT MARKINGS TO BE INSTALLED FOR ON SITE WORK IN LOCATIONS SHOWN.

**Painted Pavement Markings - On Site** 

4" WHITE PAINT (TYP.)



101 Walnut Street

Watertown, MA 02471

PO Box 9151

617.924.1770

# **Commonwealth Fusion Systems Campus** Building 2

111 Hospital Road Devens, MA

Level Two Permit	Nov 5	5, 2020
Issued for	Date	
Designed by	Checked by	
No. Revision	Date	Appvo

Not Approved for Construction

Site Details 2



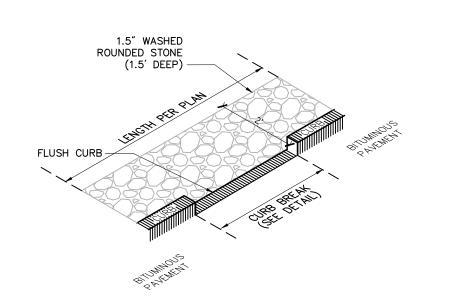
**Dumpster Pad** LD_710

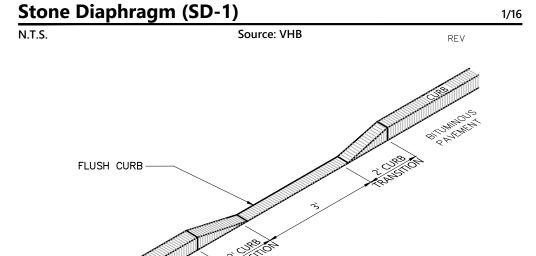
1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED. 2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE. 3. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED. 4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

N.T.S.

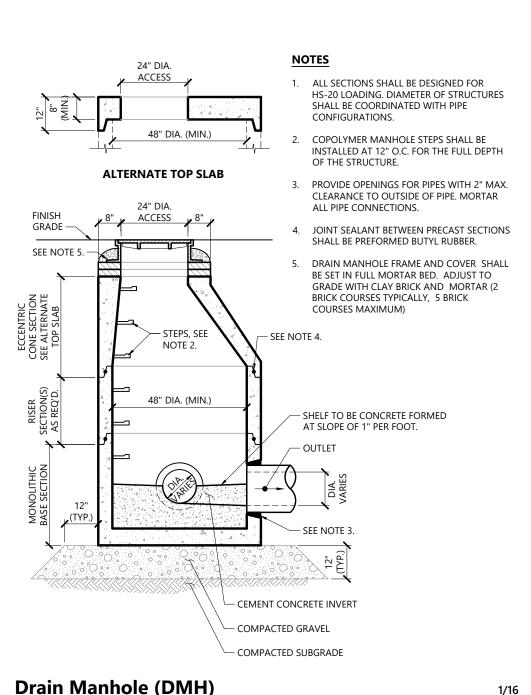
- PLANTED SWALE WIDTH AND PLANTINGS PER LANDSCAPE PLAN.
- 2. SIDE SLOPES SHALL BE 3:1 MAX. 2% MIN.



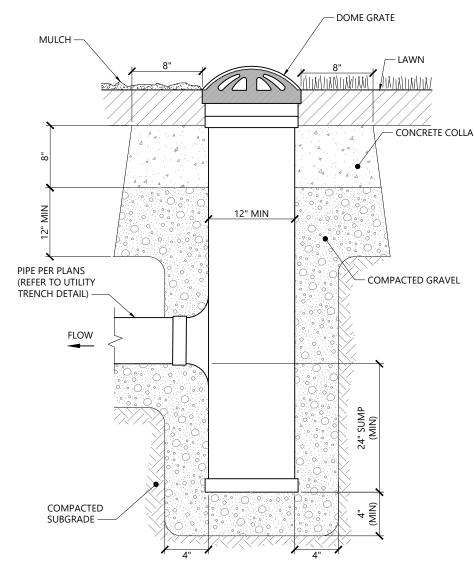




**Curb Break** N.T.S. Source: VHB

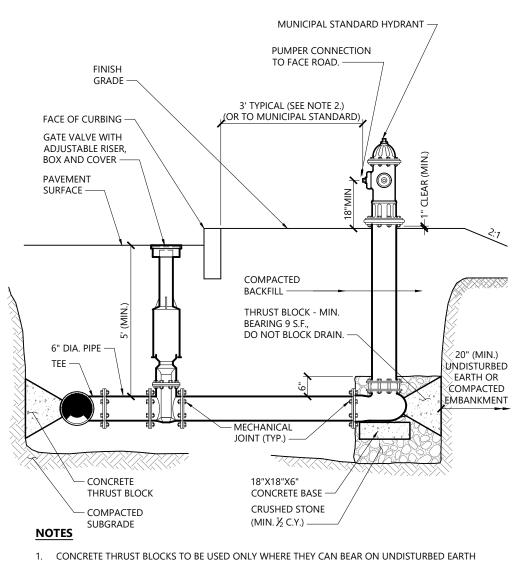


Source: VHB



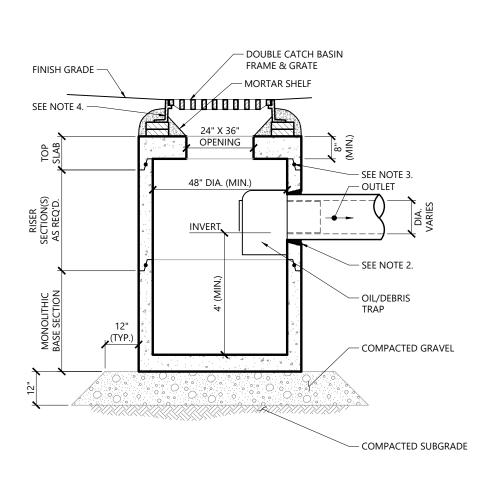
- 1. LANDSCAPE DRAINS SHALL BE NYLOPLAST 12" DRAIN BASIN, OR APPROVED EQUAL.
- GRATES SHALL BE NYLOPLAST, 12" DOME GRATE MODEL 1299CGD, OR APPROVED EQUAL AS SHOWN ON PLANS.

Area Drain (AD) N.T.S. LD_197 Source: VHB



- 1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
- 2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK
- 3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

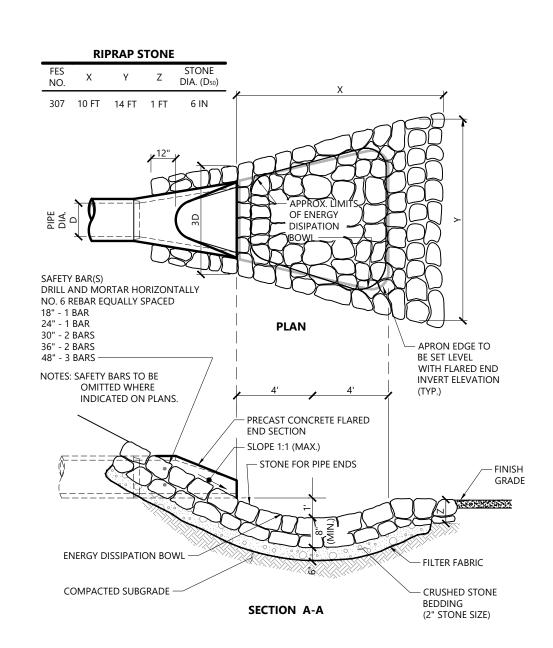
**Hydrant Construction** 12/18 N.T.S. LD_250 Source: VHB



LD_115

- 1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
- 2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF
- 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
- 4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS

**Double Grate Catch Basin (DCB) with Oil/Debris Trap 1/16** LD_103



**Flared End Section (FES) with Stone Protection** LD_134

RING & COVER -

THREADED PLUG

CONCRETE COLLAR —

**Cleanout - Paved Area** 

- FINISH GRADE

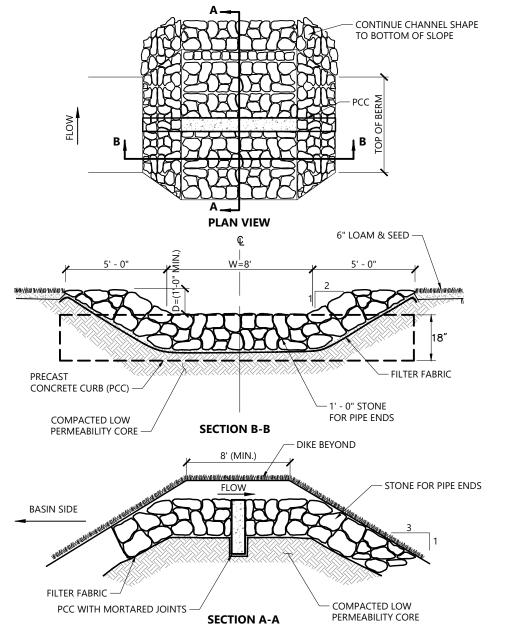
- 45°PVC BEND AT END OF LINE

— SEE PLANS FOR INVERT AND PIPE SIZE

Source: VHB

WYE CONNECTION FOR IN-LINE

LD_303

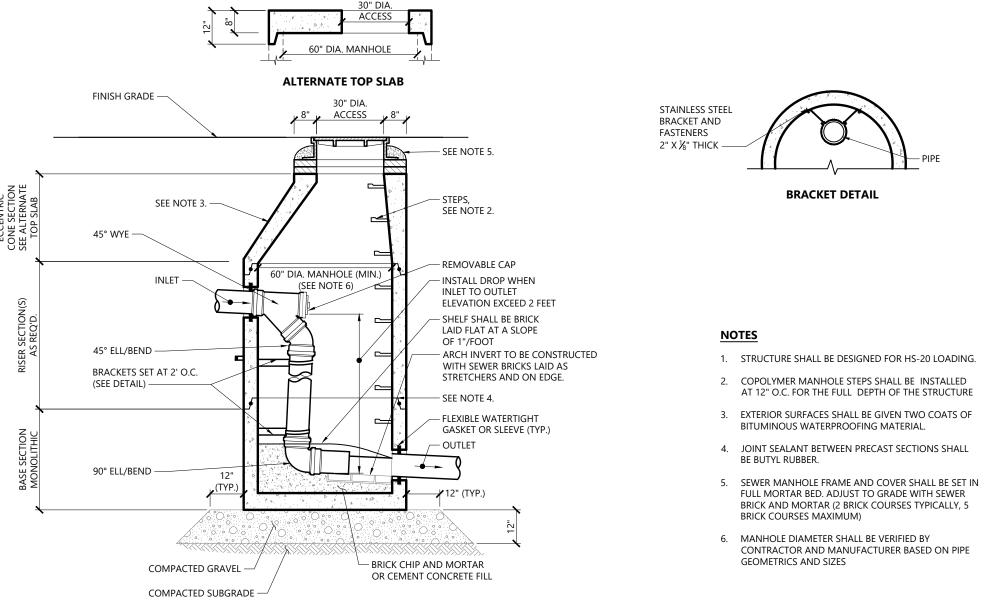


**Overflow Stone Swale - SFB-1 Outlet** 

SEE APPLICABLE PAVEMENT SECTION LANDSCAPED AREA COMMON FILL/ ORDINARY BORROW COMPACTED GRANULAR FILL — — DEPTH AND SURFACE TREATMENT VARIES WARNING TAPE - HAND TAMPED HAUNCHING COMPACTED BEDDING COMPACTED SUBGRADE

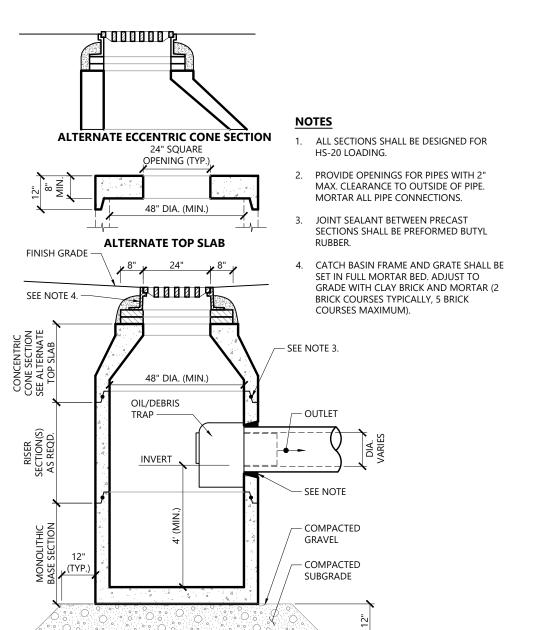
1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS. 2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

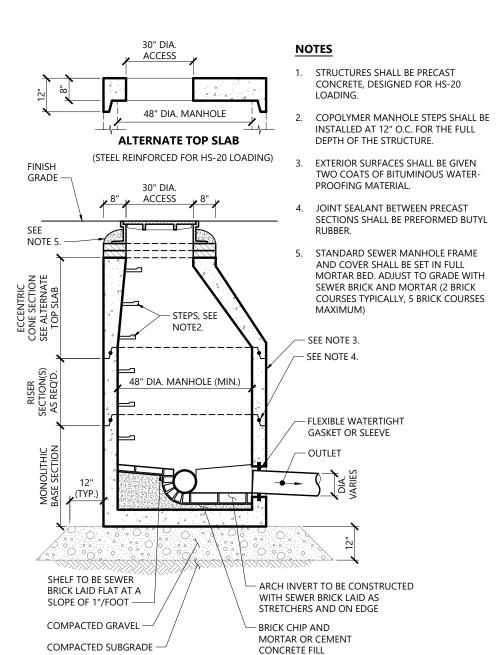
**Utility Trench** 



Source: VHB

**Interior Drop Sewer Manhole (SMH)** 





NOTES Approved by: Devens Enterprise Commission

101 Walnut Street

Watertown, MA 02471

PO Box 9151

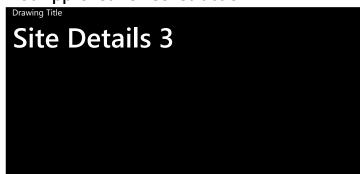
617.924.1770

# **Commonwealth Fusion Systems Campus Building 2**

111 Hospital Road Devens, MA

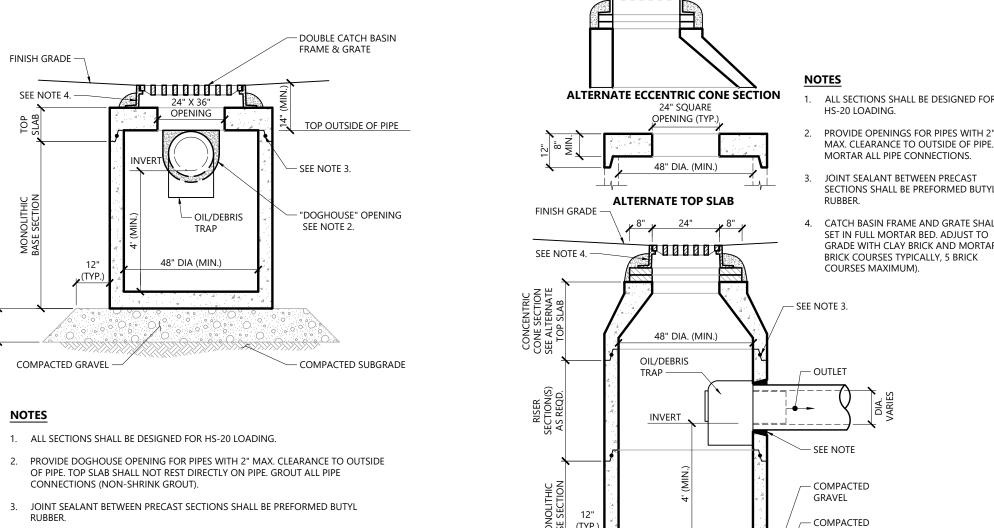
No. Revision	Date	Appvo
Designed by	Checked by	
Issued for	Date	
<b>Level Two Permit</b>	Nov 5,	2020

Not Approved for Construction





Drawing Number



Double Grate Catch Basin (DCB) Shallow Cover with Oil Debris Traps Basin (CB) With Oil Debris Trap

TYPICALLY, 5 BRICK COURSES MAXIMUM)

N.T.S.

PIPE. MORTAR ALL PIPE CONNECTIONS.

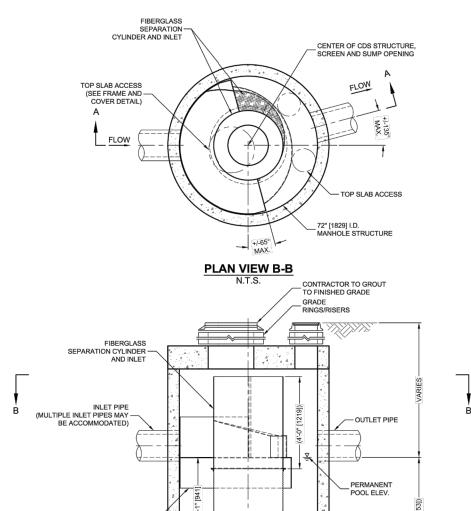
N.T.S. LD_106

4. CATCH BASIN FRAME AND GRATE (4"DEPTH) SHALL BE SET IN FULL MORTAR BED.

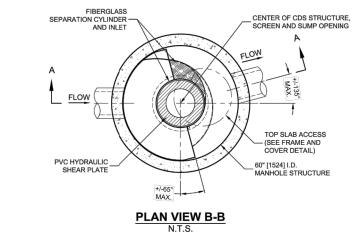
5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

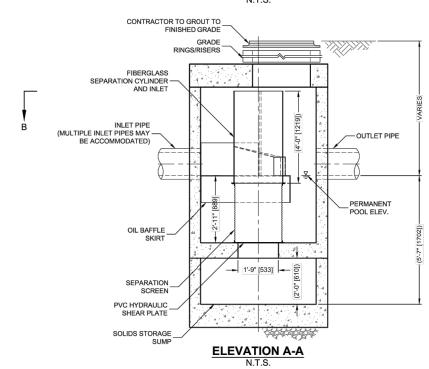
**Sanitary Sewer Manhole (SMH)** LD_101 N.T.S.

 $\washington{ line black} $$ \washington{ line black} $$$ 



1'-9" [533]

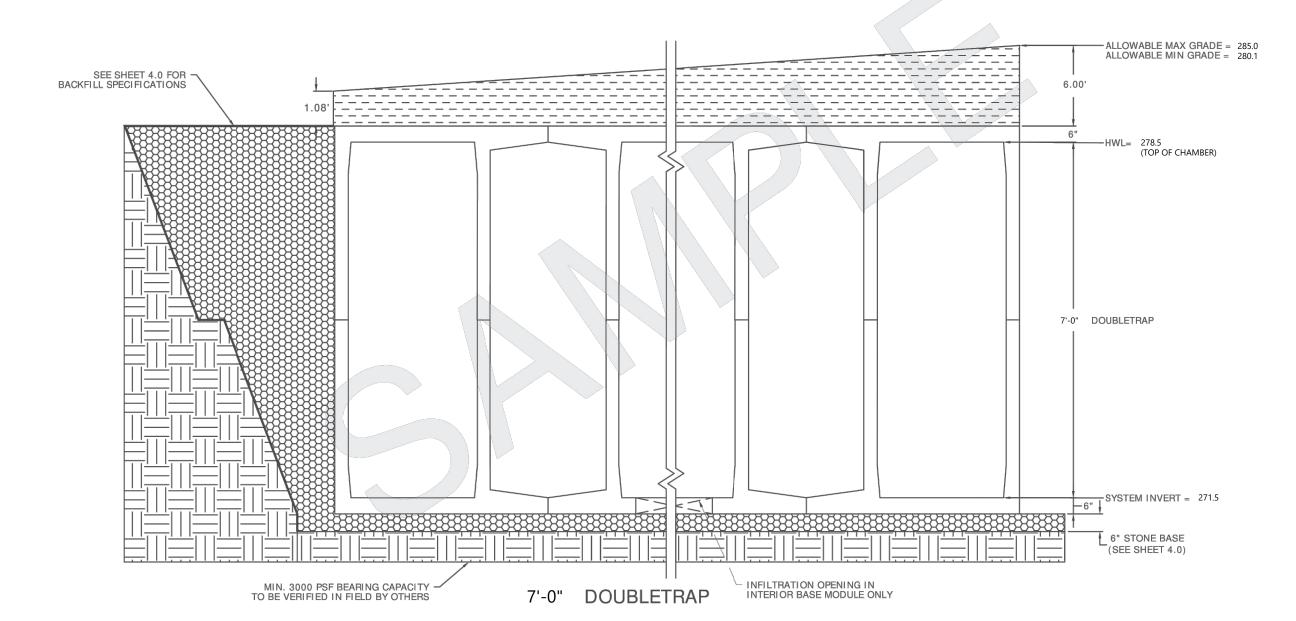




Water Quality Unit WQU-1 (CDS 3025-6-C)

SOLIDS STORAGE ___/

Water Quality Unit WQU-2 (CDS 2025-5-C)



Subsurface Infiltration Chambers - DoubleTrap ST2

N.T.S.



NOTES	
Approved by:	
Devens Enterprise Commission	

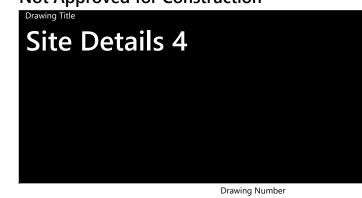
# **Commonwealth Fusion Systems Campus** Building 2

111 Hospital Road Devens, MA

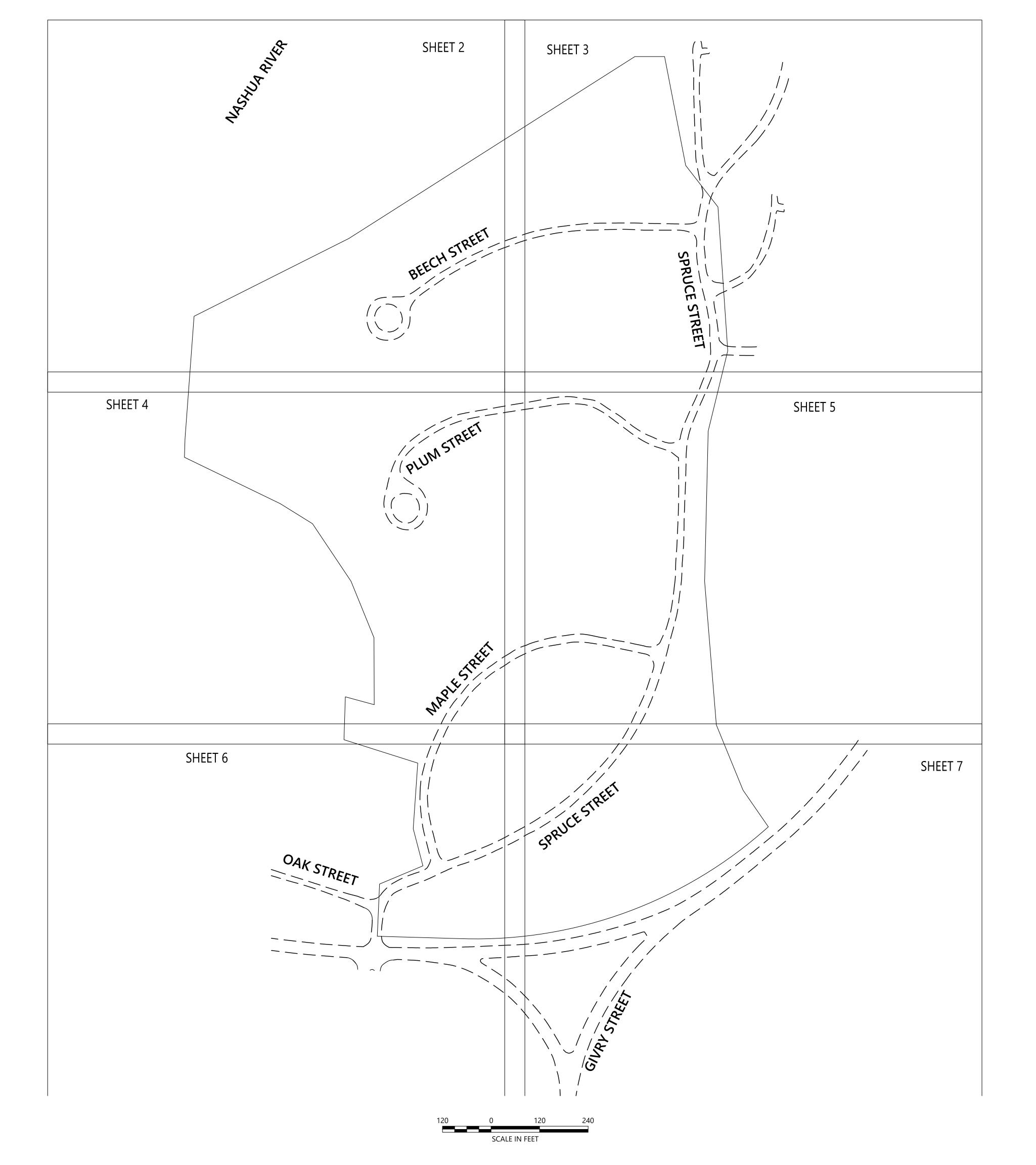
No.	Revision	Date	Appvo

**Level Two Permit** Nov 5, 2020

Not Approved for Construction









### Legend

DRAIN MANHOLECATCH BASIN

S SEWER MANHOLE © ELECTRIC MANHOLE

TELEPHONE MANHOLE MANHOLE HH HAND HOLE

WATER GATE

FIRE HYDRANT GAS GATE □ LIGHT POLE -O- UTILITY POLE GUY POLE
GUY WIRE MONITORING WELL FLOOD LIGHT WELL
 MARSH
 F.F.E.=45.27'
FINISHED FLOOR ELEVATION CNO COULD NOT OPEN NPV NO PIPES VISIBLE DYL DOUBLE YELLOW LINE DWL DASHED WHITE LINE SYL SINGLE YELLOW LINE LSA LANDSCAPED AREA EDGE OF PAVEMENT CONCRETE CURB WERTICAL GRANITE CURB SGE
BB
SLOPED GRANITE EDGE
BITUMINOUS BERM BITUMINOUS CURB GUARD RAIL
CHAIN LINK FENCE OVERHEAD WIRE ----- E ----- UNDERGROUND ELECTRIC TELEPHONE LINE — G — GAS LINE WATER LINE
STONE WALL
TREE LINE

# Devens

111 Hospital Road Devens, Massachusetts

1	ZONING & AQUIFER DISTRICTS ADDED	10/7/20	CDKR
2	TREE SURVEY ADDED	10/16/20	CDKR
3	REVISED BOUNDARY	10/20/20	CDKR

Issued for Date

July 21, 2020





Project Number 14867.01

**Record Owner** 

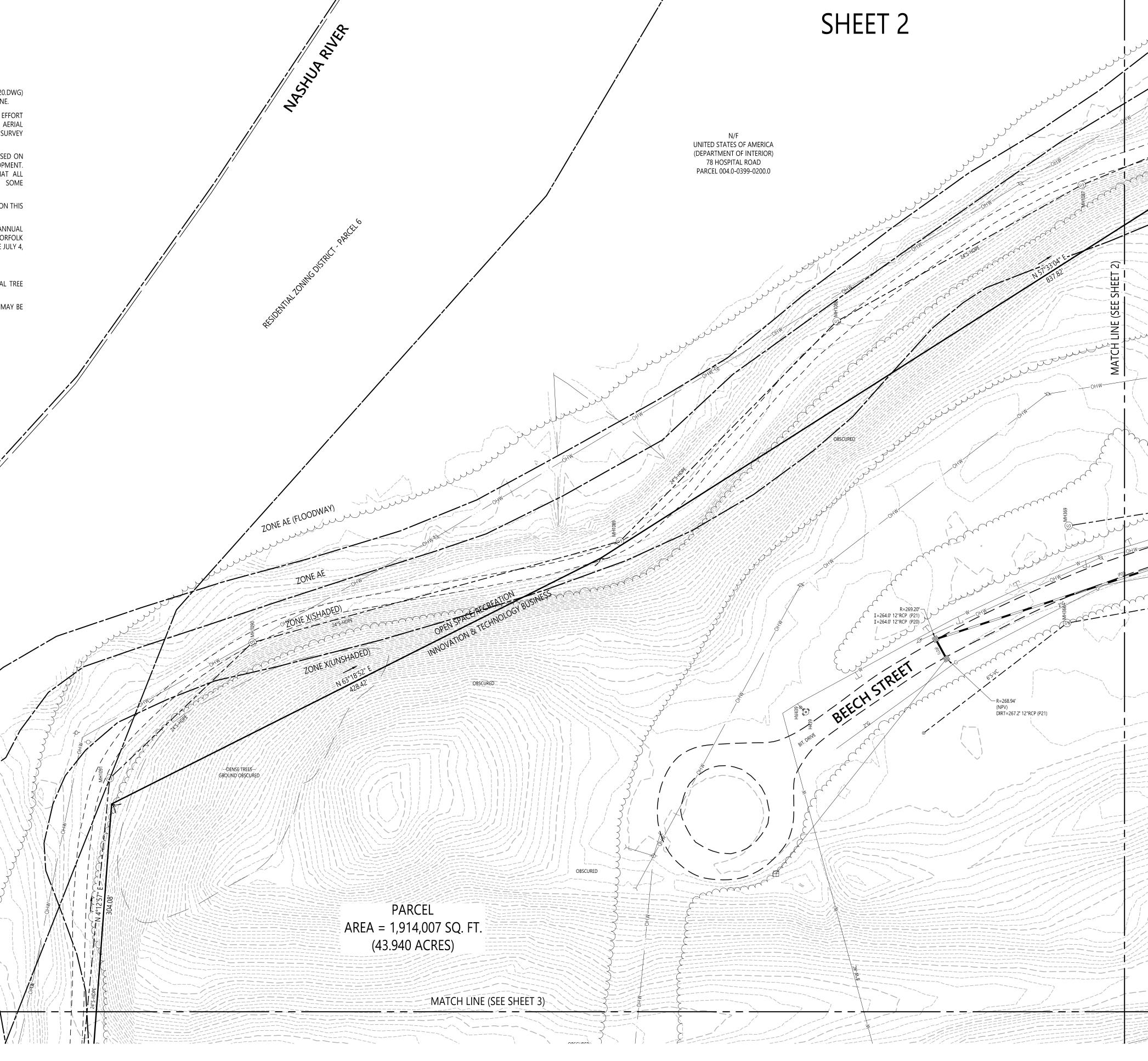
**Plan References** 

111 HOSPITAL ROAD DEVENS, MASS. PARCEL 018.0-0007-0100.0 BOOK 26317, PAGE 3

REGISTRY OF DEEDS PLAN 411 OF 1996 PLAN BK. 822 PLAN 22 PLAN BK. 889 PLAN 36 PLAN BK. 890 PLAN 108 PLAN BK. 894 PLAN 122 PLAN BK. 924 PLAN 24

### **General Notes**

- 1) THE PROPERTY LINES SHOWN ON THIS PLAN PROVIDED IN CAD (HOSPITAL RD_111_7-13-20.DWG) BY MASS DEVELOPMENT ON JULY 17, 2020. VHB HAS NOT FIELD VERIFIED THE PROPERTY LINE.
- 2) THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE DEVELOPED FROM A COMBINED EFFORT OF AERIAL PHOTOGRAMMETRIC MAPPING BY EASTERN TOPOGRAPHICS, INC., BASED ON AERIAL PHOTOGRAPHS TAKEN ON MARCH 19, 2020, AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB DURING BETWEEN MARCH 2020 AND OCTOBER 2020.
- 3) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND GIS INFORMATION OF RECORD PROVIDED BY MASS DEVELOPMENT. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN. SOME STRUCTURES WERE NOT FOUND AND ARE SHOWN FROM GIS INFORMATION.
- 4) HORIZONTAL DATUM IS BASED ON MASS. GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN ON THIS PLAN REFER TO NAVD OF 1988.
- 5) THE LOT LIES ENTIRELY WITHIN ZONE X (UNSHADED) (AREAS TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR NORFOLK COUNTY, MASSACHUSETTS, MAP NUMBERS 25027C0292E & 25027C0311E, EFFECTIVE DATE JULY 4,
- 6) THE LOT LIES ENTIRELY WITHIN THE INNOVATION & TECHNOLOGY BUSINESS DISTRICT.
- 7) THE TREE SYMBOL OUTLINE SHOWN ON THIS PLAN DOES NOT REPRESENT THE ACTUAL TREE
- 8) THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND MAY BE SUBJECT TO ADDITIONAL INFORMATION DISCLOSED IN SUCH.





101 Walnut Street PO Box 9151 Watertown, MA 02471 617.924.1770

### Legend

D DRAIN MANHOLE ■ CATCH BASIN S SEWER MANHOLE © ELECTRIC MANHOLE **TELEPHONE MANHOLE** MANHOLE HH□ HAND HOLE WATER GATE FIRE HYDRANT GAS GATE → STREET SIGN □ LIGHT POLE -O- UTILITY POLE GUY POLE GUY WIRE MONITORING WELL FLOOD LIGHT WELL WELL MARSH F.F.E.=45.27' FINISHED FLOOR ELEVATION CNO COULD NOT OPEN NPV NO PIPES VISIBLE DYL DOUBLE YELLOW LINE DWL DASHED WHITE LINE SYL SINGLE YELLOW LINE LSA LANDSCAPED AREA — EDGE OF PAVEMENT CONCRETE CURB VERTICAL GRANITE CURB SLOPED GRANITE EDGE BITUMINOUS BERM BITUMINOUS CURB GUARD RAIL —— DRAINAGE LINE — — — — SEWER LINE OVERHEAD WIRE UNDERGROUND ELECTRIC TELEPHONE LINE — G — GAS LINE WATER LINE
STONE WALL
TREE LINE LIMIT MEAN ANNUAL HIGH WATER

BF1-100

WF1-100

LIMIT MEAN ANNUAL HIGH WATER

LIMIT OF BANK

VEGETATED WETLAND BOUNDARY

# Devens

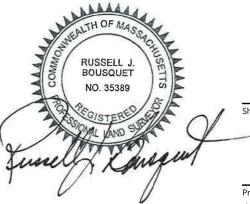
111 Hospital Road Devens, Massachusetts

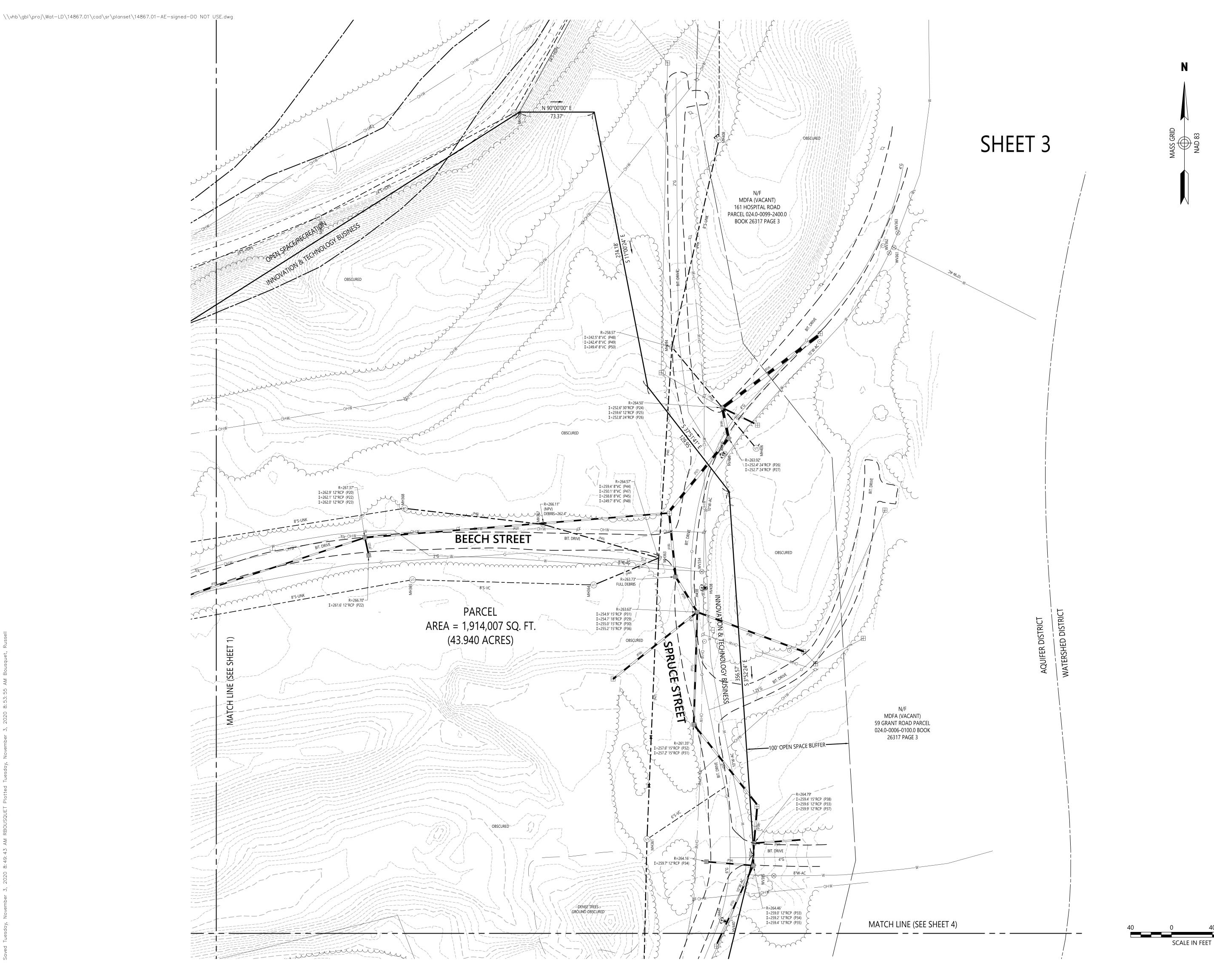
110.	1/C 1/3/011	Date	дрруц.
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2	TREE SURVEY ADDED	10/16/20	CDKR
3	REVISED BOUNDARY	10/20/20	CDKR

Designed by	Checked by
Issued for	Date
	Luby 21, 2020

July 21, 2020









### Legend

DRAIN MANHOLE ■ CATCH BASIN

S SEWER MANHOLE © ELECTRIC MANHOLE TELEPHONE MANHOLE MANHOLE HHI HAND HOLE

WATER GATE

FIRE HYDRANT GAS GATE BOLLARD w/LIGHT → STREET SIGN □ LIGHT POLE → UTILITY POLE GUY POLE GUY WIRE MONITORING WELL FLOOD LIGHT WELL WELL <u>₩</u> MARSH F.F.E.=45.27'
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STONE WALL
TREE LINE ______ 200'RA ____ 200-FT RIVER FRONT AREA LIMIT MEAN ANNUAL HIGH WATER

BF1-100

WF1-100

LIMIT MEAN ANNUAL HIGH WATER

LIMIT OF BANK

VEGETATED WETLAND BOUNDARY

# Devens

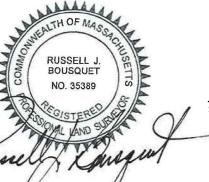
111 Hospital Road Devens, Massachusetts

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	Checked by
Issued for	Date

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### Legend

D DRAIN MANHOLE CATCH BASINSEWER MANHOLE SEWER MANHOLE

ELECTRIC MANHOLE

TELEPHONE MANHOLE

MANHOLE

HAND HOLE

WATER GATE

FIRE HYDRANT GAS GATE ■ BOLLARD w/LIGHT → STREET SIGN □ LIGHT POLE --- UTILITY POLE GUY POLE GUY WIRE

MONITORING WELL FLOOD LIGHT WELL
 MARSH
 ■ MARSH
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BITUMINOUS BERM BITUMINOUS CURB GUARD RAIL CHAIN LINK FENCE OVERHEAD WIRE UNDERGROUND ELECTRIC T TELEPHONE LINE — G — GAS LINE WATER LINE
STONE WALL
TREE LINE

# Devens

111 Hospital Road Devens, Massachusetts

2	TREE SURVEY ADDED	10/16/20	CI
	TREE SURVET ADDED	10/10/20	CI
3	REVISED BOUNDARY	10/20/20	CI

LIMIT MEAN ANNUAL HIGH WATER

BF1-100

WF1-100

WF1-100

LIMIT MEAN ANNUAL HIGH WATER

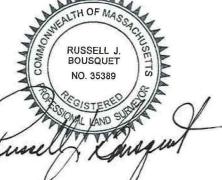
LIMIT OF BANK

VEGETATED WETLAND BOUNDARY

Checked by	
Date	

July 21, 2020





SCALE IN FEET

I=259.0' 12"RCP (P33) I=259.2' 12"RCP (P34) I=259.4' 12"RCP (P35) MATCH LINE (SEE SHEET 3) STREET SHEET 5 R=268.59'
I=262.6' 8"VC (P40)
I=262.7' 8"VC (P41)
I=263.2' 10"PVC (P42)
I=262.6' 8"VC (P43) (NPV) DIRT=264.4' 12"RCP (P15) R=267.27'

I=263.2' 12"RCP (P15)

I=261.9' 30"RCP (P16)

I=261.2' 30"RCP (P75) R=269.00' I=-1.2' 30"RCP (P17) PARCEL AREA = 1,914,007 SQ. FT. (43.940 ACRES) —100' OPEN SPACE BUFFER— R=275.85' I=268.4' 8"VC (P39) -I=268.2' 8"VC (P40) R=285.06 — I=282.2' 15"RCP (P2) I=282.3' 15"RCP (P1) MDFA (VACANT) 59 GRANT ROAD PARCEL 024.0-0006-0100.0 BOOK 26317 PAGE 3 MAPLE STREET R=283.94' I=277.1' 8"VC (P61) I=277.0' 8"VC (P60) R=285.10' I=281.4' 15"RCP (P1) R=280.56' I=277.2' 18"RCP (P11) I=277.4' 12"RCP (P12) R=280.87'

I=273.9' 8"VC (P59)

J=273.2' 8"VC (P60)

I=273.3' 8"VC (P64)

I=273.1' 8"VC (P39) N/F MDFA (VACANT) 161 HOSPITAL ROAD PARCEL 024.0-0099-2400.0 BOOK 26317 PAGE 3 Marina R=283.15'— I=275.6' 8"VC (P65) I=275.6' 8"VC (P64) MATCH LINE (SEE SHEET 7)



101 Walnut Street PO Box 9151 Watertown, MA 02471 617.924.1770

### Legend

DRAIN MANHOLE

■ CATCH BASIN S SEWER MANHOLE © ELECTRIC MANHOLE

① TELEPHONE MANHOLE

① MANHOLE HAND HOLE

WATER GATE

FIRE HYDRANT GAS GATE BOLLARD w/LIGHT → STREET SIGN □ LIGHT POLE → UTILITY POLE GUY POLE GUY WIRE MONITORING WELL FLOOD LIGHT WELL WELL <u>₩</u> MARSH F.F.E.=45.27'
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STONE WALL
TREE LINE ----- 100'RA ----- 100-FT RIVER FRONT AREA 200'RA 200-FT RIVER FRONT AREA LIMIT MEAN ANNUAL HIGH WATER

BF1-100
WF1-100
WF1-100
USB WETLAND BOUNDARY

# Devens

111 Hospital Road Devens, Massachusetts

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Designed by	Checked by

July 21, 2020





Sv-5

SCALE IN FEET

Project Number **14867.01** 

MATCH LINE (SEE SHEET 4) SHEET 6 STREE N/F MDFA 105 HOSPITAL ROAD PARCEL 018.0-0007-0200.0 BOOK 26317 PAGE 3 PARCEL MDFA /HOSPITAL RD SUB-STATION
109 HOSPITAL ROAD
PARCEL 018.0-0007-0100.0
BOOK 26317 PAGE 3 AREA = 1,914,007 SQ. FT.(43.940 ACRES) R=292.7**7'** I=285.7'8"VC (P6B) R=287.47' I=280.2' 8"PVC (P67) I=280.1' 8"VC (P72) R=289.67'
I=283.2' 8"PVC (P68)
I=283.5' 8"PVC (P70)
I=283.1' 8"PVC (P67)
I=283.2' 8"PVC (P71) R=288.03' I=285.0' 12"RCP (P4) I=284.9' 12"RCP (P5) R=290.84' I=285.7' 8"VC (P69) I=285.6' 8"PVC (P68) R=3612.74' L=24.20' Δ=0°23'02" CHB=S 88°22'18" E CHD=24.20' HOSPITAL ROAD (PUBLIC - VARIABLE WIDTH) 

SCALE IN FEET



101 Walnut Street PO Box 9151 Watertown, MA 02471 617.924.1770

### Legend

D DRAIN MANHOLE

CATCH BASINSEWER MANHOLE

S SEWER MANITULE

© ELECTRIC MANHOLE

① TELEPHONE MANHOLE

○ MANHOLE

HAND HOLE

○ WATER GATE

○ FIRE HYDRANT GAS GATE BOLLARD w/LIGHT → STREET SIGN □ LIGHT POLE --- UTILITY POLE GUY POLE
GUY WIRE
MONITORING WELL FLOOD LIGHT WELL
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 ■ MARSH
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BITUMINOUS BERM BITUMINOUS CURB GUARD RAIL
CHAIN LINK FENCE — — — — SEWER LINE OVERHEAD WIRE E ---- UNDERGROUND ELECTRIC TELEPHONE LINE — G — GAS LINE WATER LINE
STONE WALL
TREE LINE — 100'BZ — 100-FT BUFFER ZONE ——— 100'RA ———— 100-FT RIVER FRONT AREA ———— 200'RA —— 200-FT RIVER FRONT AREA

# Devens

111 Hospital Road Devens, Massachusetts

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LIMIT MEAN ANNUAL HIGH WATER

BF1-100

WF1-100

WF1-100

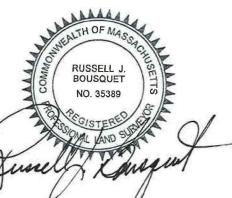
WF1-100

WF1-100

Checked by
Date

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Project Number 14867.01



### Legend

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■ CATCH BASIN S SEWER MANHOLE © ELECTRIC MANHOLE

① TELEPHONE MANHOLE MANHOLE HAND HOLE

WATER GATE

FIRE HYDRANT GAS GATE ■ BOLLARD w/LIGHT → STREET SIGN □ LIGHT POLE --- UTILITY POLE GUY POLE GUY WIRE

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STONE WALL
TREE LINE ----- 100'RA ----- 100-FT RIVER FRONT AREA ———— 200'RA —— 200-FT RIVER FRONT AREA LIMIT MEAN ANNUAL HIGH WATER

BF1-100

WF1-100

WF1-100

WF1-100

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111 Hospital Road Devens, Massachusetts

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Date

July 21, 2020





Project Number

### PLANTING NOTES

- 1. THE FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE OF THE A/E & O/R.
- 2. SEE SPECIFICATIONS FOR ADDITIONAL PLANTING REQUIREMENTS.
- 3. FOR PLANT LIST AND DETAILS, SEE SHEET LP502.
- 4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING AND PROPOSED SITE UTILITIES PRIOR TO THE INSTALLATION OF PLANT MATERIAL. IF A CONFLICT ARISES, NOTIFY A/E.
- PROVIDE 3" SHREDDED COMPOSTED HARDWOOD BARK MULCH CONTINUOUS UNDER PLANT MASSINGS AND AROUND INDIVIDUAL PLANTS.
- PERFORM WORK IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
- 7. PLANTING SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR BEYOND THE TIME OF FINAL ACCEPTANCE BY THE OWNER.
- 8. CONTRACTOR SHALL ALLOW FOR THE STAKING OF 50% OF THE TOTAL NUMBER OF SHADE, EVERGREEN, AND ORNAMENTAL TREES.
- 9. ALL PLANT MATERIAL SHALL MEET ALL AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) FOR PLANT MATERIAL AS SET FORTH IN Z60.1 AMERICAN STANDARD FOR NURSERY STOCK; LATEST EDITION. ALL PLANT MATERIAL SHALL ALSO MEET CERTAIN STANDARDS OF QUALITY FOR FORM, STRUCTURE, AND HEALTH.
- 10. DISTURBED AREAS INTENDED FOR NATURAL RE-GROWTH SHALL BE, AT A MINIMUM, GRADED, LOAMED, AND SEEDED WITH A NATIVE NEW ENGLAND WILDFLOWER AND/OR CONSERVATION SEED MIX.
- 11. LANDSCAPING SHALL BE MAINTAINED IN GOOD CONDITION IN PERPETUITY.
- 12. AN IRRIGATION SYSTEM IS NOT PROPOSED FOR THIS PROJECT. LIMITED WATER NEEDS SHALL BE MET THROUGH USE OF THE DEVENS WATER SYSTEM. HOWEVER, THE CENTRAL CAMPUS GREEN SHALL BE IRRIGATED FROM THE CFS-1 PARCEL, SUBMITTED BY OTHERS. IRRIGATION IS PROVIDED TO ENSURE UNIFORMITY OF APPEARANCE AND SUCCESS OF PLANTS AT THIS IMPORTANT CAMPUS SPACE.
- 13. EXISTING VEGETATION TO REMAIN SHALL BE PRESERVED IN ACCORDANCE WITH 974 CMR. CONSTRUCTION ACTIVITIES SHALL NOT DISTURB THE ROOT ZONE OF TREES DESIGNATED TO REMAIN.
- 14. DURING THE FIRST YEAR WARRANTY PERIOD, ALL PLANTS SHALL BE WATERED MANUALLY WITH AN ADEQUATE AMOUNT OF WATER TO ENSURE PLANT ESTABLISHMENT.
- 15. AREAS DESIGNATED AS 'MEADOW MIX' SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. MEADOW AREAS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.

### LANDSCAPE MAINTENANCE NOTES

- 1. THE LANDSCAPE MAINTENANCE PLAN WILL ENSURE THAT THE LANDSCAPE TREATMENT BE MAINTAINED IN GOOD CONDITION AND THAT THE PARCEL PRESENT A HEALTHY, NEAT, AND ORDERLY APPEARANCE FREE FROM REFUSE AND DEBRIS.
- 2. LANDSCAPE MAINTENANCE SHALL INCLUDE:
- 2.1. INTEGRATED TURF MANAGEMENT/INTEGRATED PEST MANAGEMENT, AS REQUIRED: MOWING SCHEDULE, WEED CONTROL, PEST CONTROL, FERTILIZER PLAN, ETC.
- SHRUB AND GROUNDCOVER MANAGEMENT: MULCH SCHEDULE, WEED CONTROL, PRUNING, FERTILIZER, ETC.
- TREE MANAGEMENT: MULCH SCHEDULE, WEED CONTROL, DEADWOOD REMOVAL, PRUNING, FERTILIZER,
- SEASONAL MAINTENANCE: SPRING CLEAN-UP PLAN, FALL CLEAN-UP, DISPOSAL PLANS FOR LEAVES AND PLANT DEBRIS, WINTER PLOWING AND WINTER DEICING.
- MAINTENANCE SHALL INCLUDE INVASIVE PLANT SPECIES IDENTIFICATION FOR THE PURPOSES OF REMOVAL, TREATMENT, AND MONITORING.

### LEGEND

	CONTRACT LIMIT LINE
	SHADE TREE
A C C C C C C C C C C C C C C C C C C C	EVERGREEN TREE
	FLOWERING TREE
$\bigcirc\bigcirc\bigcirc$	SHRUB
	GRASSES
	GROUNDCOVER
	MEADOW SEED MIX
	NATIVE PLANTING MIX



HDR Architecture, P.C. 1000 Lenox Drive Lawrenceville, N.J. 08648



101 Walnut Street PO Box 9151 Watertown, MA 02471

Commonwealth Fusion Systems Campus -Building 1 and Building 2

111 Hospital Rd. Devens, MA

NOTES		
Approved by:		

DESCRIPTION MARK DATE

11/05/2020 LEVEL TWO PERMIT

Devens Enterprise Commission

Sheet Name

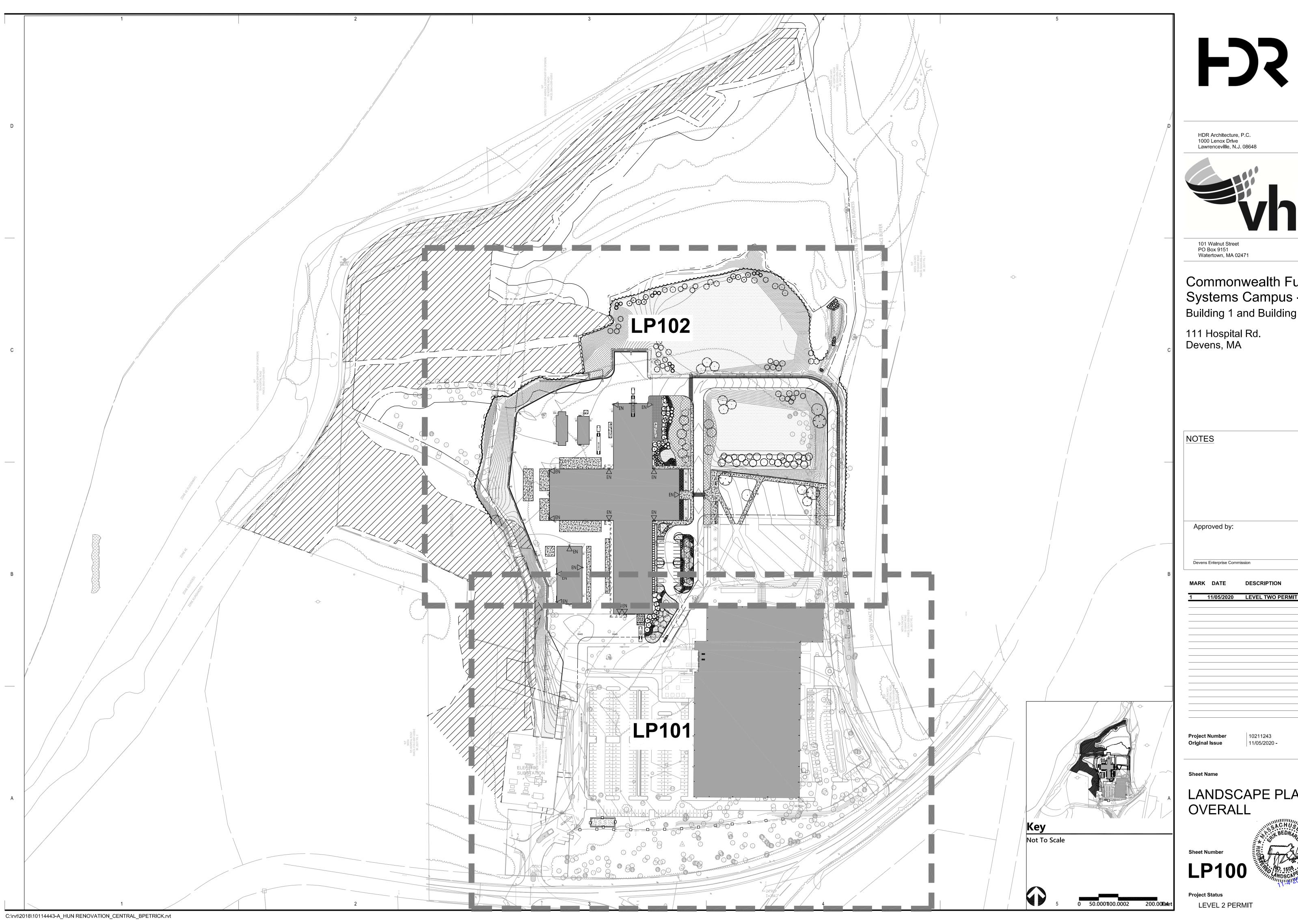
LANDSCAPE NOTES AND LEGEND

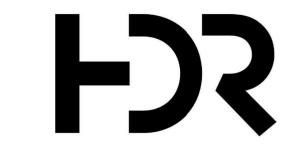
10211243 11/05/2020 -



**LEVEL 2 PERMIT** 

Project Status





HDR Architecture, P.C. 1000 Lenox Drive Lawrenceville, N.J. 08648



101 Walnut Street PO Box 9151 Watertown, MA 02471

Commonwealth Fusion Systems Campus -Building 1 and Building 2

111 Hospital Rd. Devens, MA

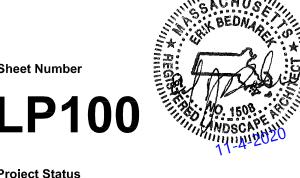
NOTES		

Approved by:

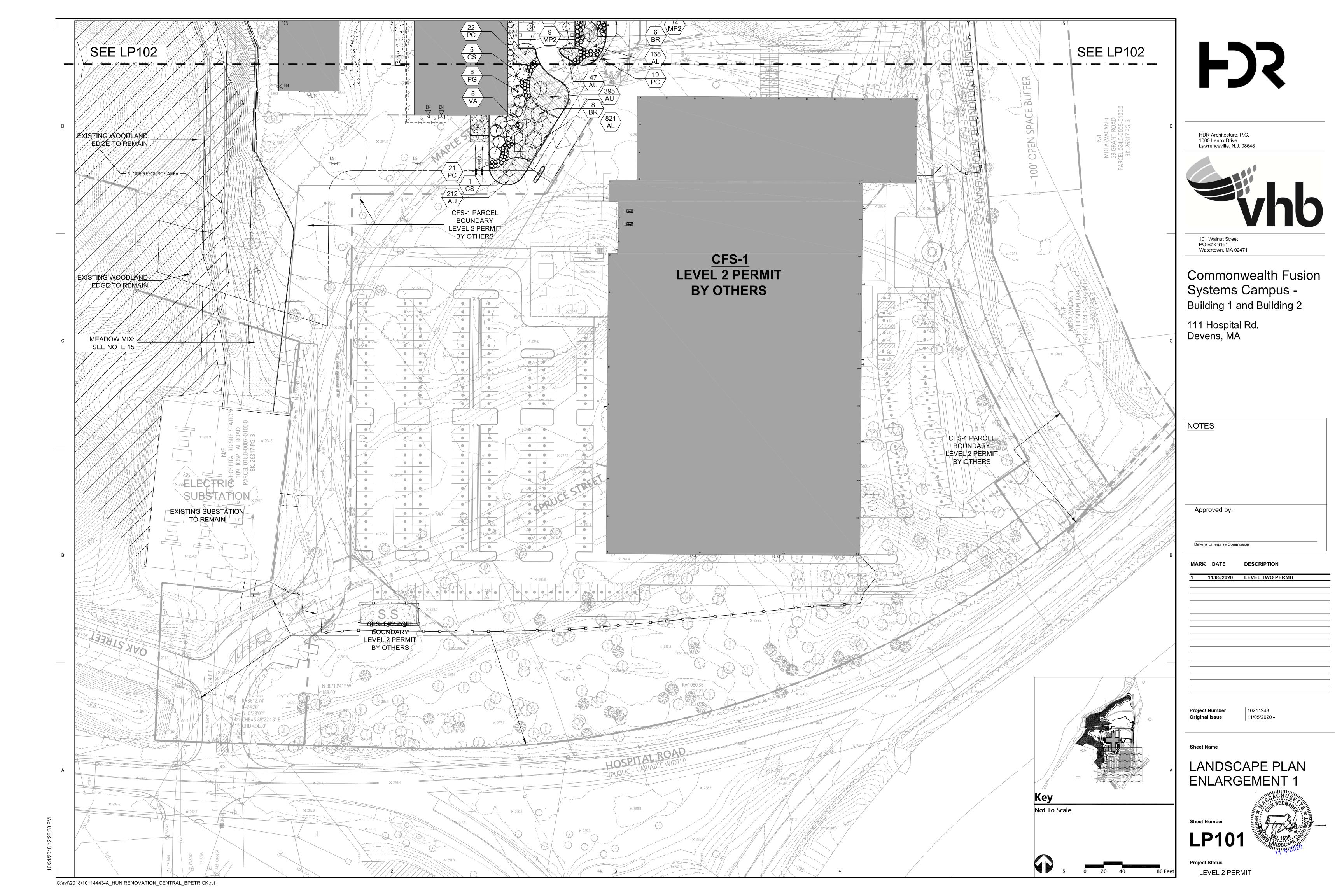
Devens Enterprise Commission

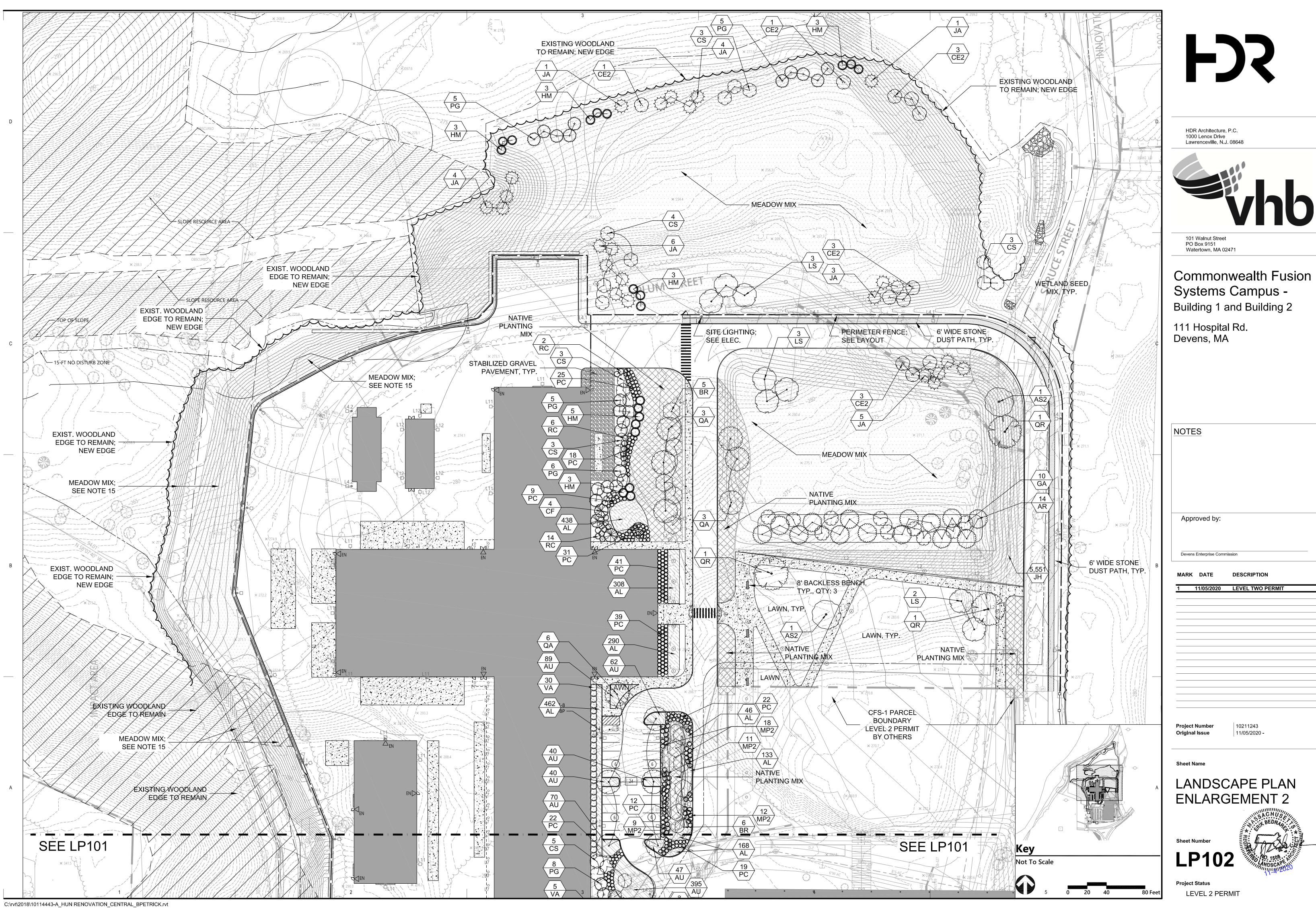
DESCRIPTION

LANDSCAPE PLAN **OVERALL** 

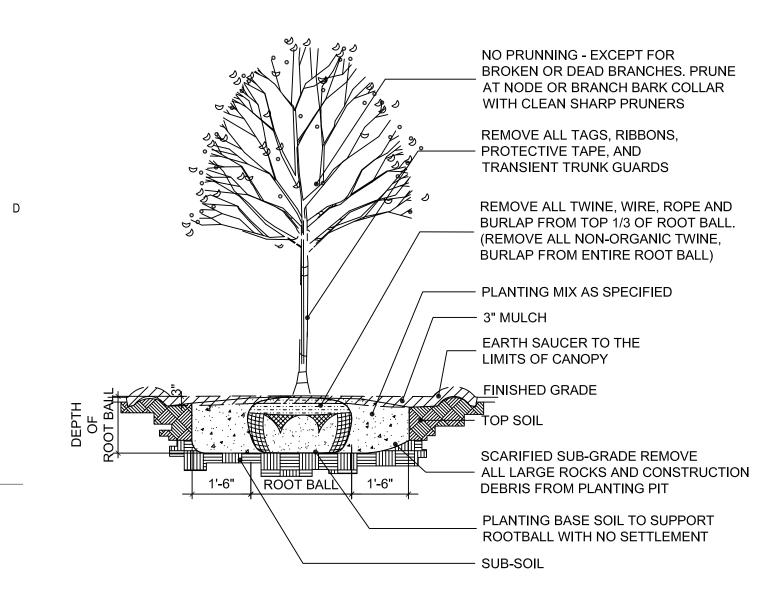


LEVEL 2 PERMIT





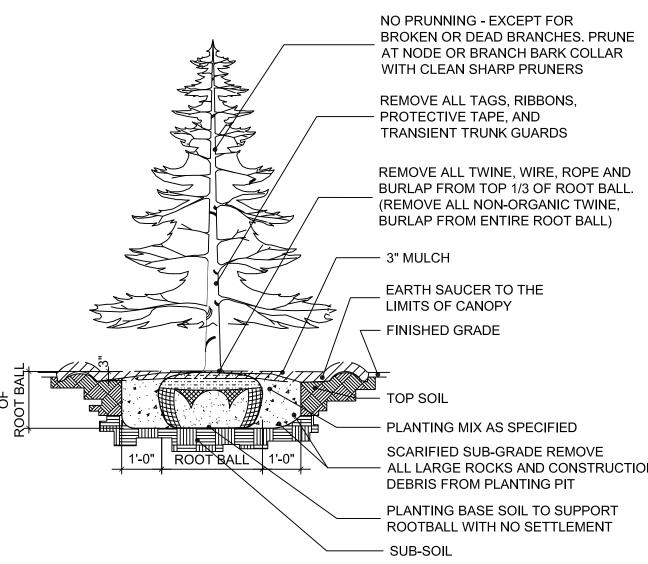




- NOTES: 1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF
- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK BELOW GRADE.
- 3. STAKING IS NOT REQUIRED UNLESS PROPER VERTICAL ALIGNMENT OF PLANT CANNOT BE MAINTAIN DUE TO WINDY CONDITIONS, OR IF PLANTING ON A STEEP SLOPE STAKING MAY BE REQUIRED. SEE

### SHADE TREE PLANTING

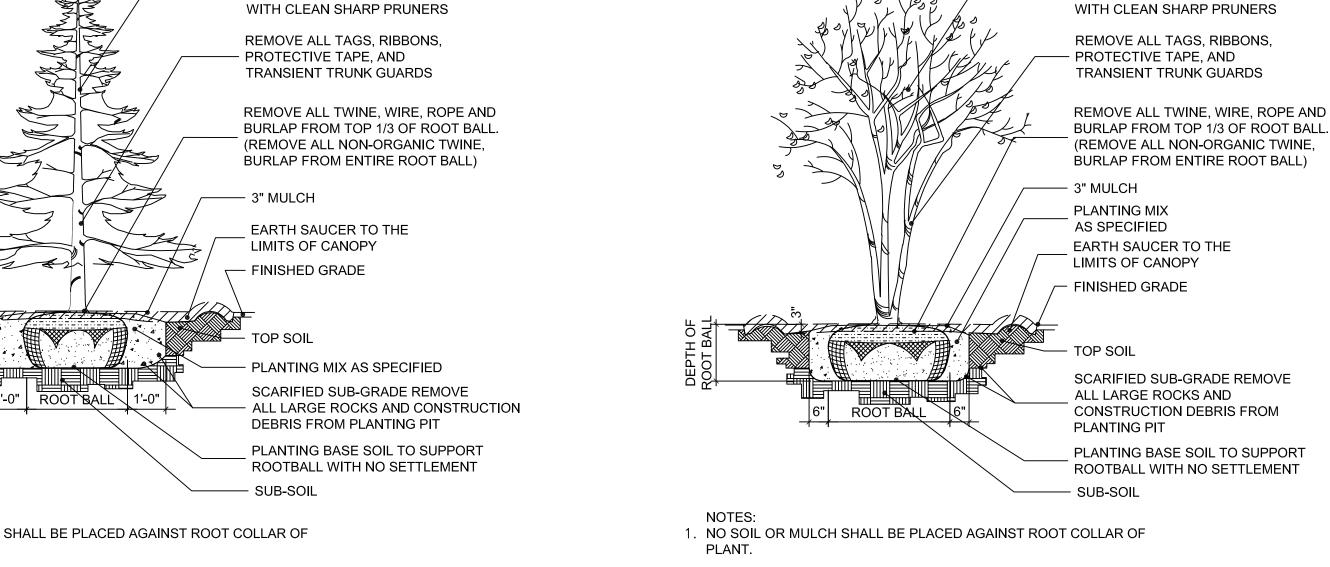
SCALE: NTS



- 1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF
- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK BELOW GRADE.
- 3. STAKING IS NOT REQUIRED UNLESS PROPER VERTICAL ALIGNMENT OF PLANT CANNOT BE MAINTAIN DUE TO WINDY CONDITIONS, OR IF PLANTING ON A STEEP SLOPE STAKING MAY BE REQUIRED. SEE

#### **EVERGREEN TREE PLANTING**

SCALE: NTS



ORNAMENTAL TREE PLANTING

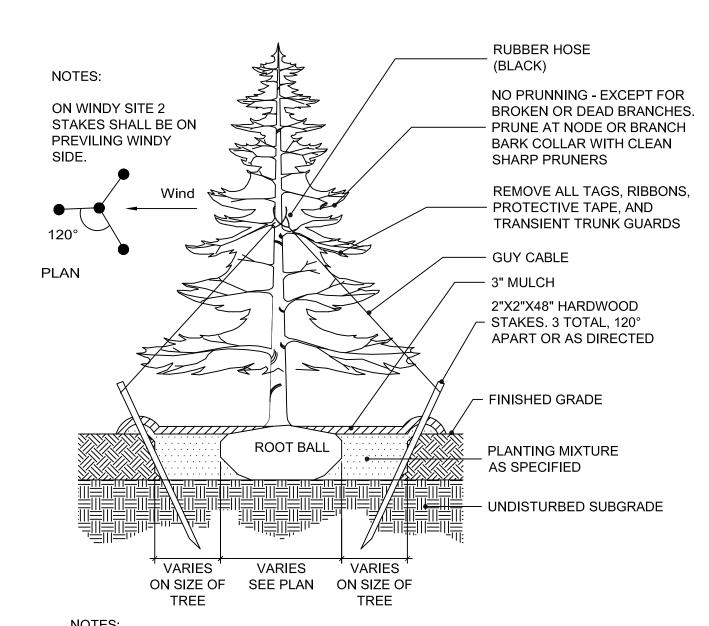
BURLAP BACK BELOW GRADE.

2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD

3. STAKING IS NOT REQUIRED UNLESS PROPER VERTICAL ALIGNMENT OF PLANT CANNOT BE MAINTAIN DUE TO WINDY CONDITIONS, OR IF

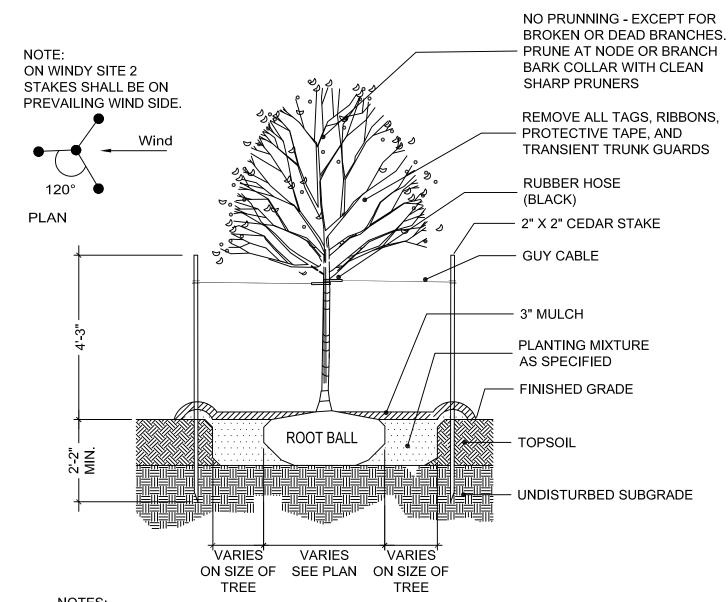
PLANTING ON A STEEP SLOPE STAKING MAY BE REQUIRED. SEE

SCALE: NTS



- . NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF
- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK BELOW GRADE.
- 3. SEE RELATED PLANTING DETAILS PER TREE SIZE FOR ALL OTHER RELATED DETAILS AND DEPTHS FOR TREE PLANTING.

SCALE: NTS



1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.

- 2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK BELOW GRADE.
- 3. SEE RELATED PLANTING DETAILS PER TREE SIZE FOR ALL OTHER RELATED DETAILS AND DEPTHS FOR TREE PLANTING.

SHADE TREE STAKING

SHRUB PLANTING

TOP OF THE CONTAINER SHALL BE - FLUSH WITH THE SURROUNDING

REMOVE THE CONTAINER COMPLETELY.

MAKE 4 TO 8(DEPENDING ON THE SIZE

OF THE ROOT BALL) - 1" DEEP CUTS

THE LENGTH OF THE ROOTBALL.LOOSEN

POT BOUND ROOTS, AND SPREAD ON

SCARIFIED SUB-GRADE REMOVE ALL

- LARGE ROCKS AND CONSTRUCTION

PLAN

SECTION

GROUNDCOVER PLANTING

EQ EQ EQ

DEBRIS FROM PLANTING PIT

PLANTING MIX AS SPECIFIED

UNDISTURBED SUBGRADE

PLANTING BASE IS TO BE

UNDISTURBED SOIL TO SUPPORT

SCARIFIED SUBGRADE.

- FORM SAUCER

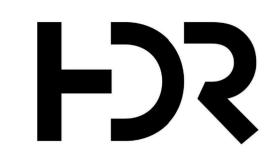
FINISHED GRADE

CONTAINER.

NO PRUNNING - EXCEPT FOR

BROKEN OR DEAD BRANCHES. PRUNE

AT NODE OR BRANCH BARK COLLAR



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1	11/05/2020	LEVEL TWO PERM
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Project Number	10211243
Original Issue	10211243 11/05/2020 -

Sheet Name

-GROUNDCOVER

2" OF SHREDDED

CONTINUOUS

THROUGH BED.

MIX OR TOPSOIL,

—LEAFMOLD,

HARDWOOD MULCH

8" OF PREPARED BEDDING

MYCORTREE(TM.), AND

FERTILIZER AS SPECIFED

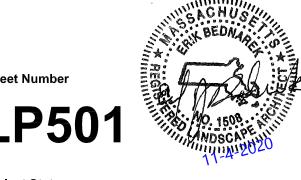
1. GROUNDCOVER MUST BE PLANTED IN BEDDING MIX OR

2. ON-CENTER SPACING IS

INDICATED ON PLANT LIST.

TOPSOIL <u>NOT</u> MULCH.

LANDSCAPE **DETAILS** 



Project Status **LEVEL 2 PERMIT** 

ZUZU-11**-**U3 1Z:45

TREES	
AS2	REMARKS
BR	
GA	
Liquidambar styraciflua / American Sweet Gum   3 1/2" - 4"   8 & B   12" HT   Single Stem with Central Leader	
QA         12         Quercus alba / White Oak         3 1/2" - 4"         B & B         12' HT         Single Stem with Central Leader           QR         3         Quercus rubra / Red Oak         6" CAL         CONT.         HEIGHT         REMARKS           EVERGREEN TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           JA         24         Juniperus virginiana "Greenbelt' / Greenbelt Eastern Red Cedar          8: 10'         8: 10'           PG         29         Picea glauca / White Spruce          8: 10'         8: 10'           FLOWERING TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           CE2         11         Cercis canadensis / Eastern Redbud Multi-trunk         2 1/2"-3"         B & B         8' HT         Multi-stem           CS         22         Chionanthus virginicus "Spring Fleecing" / White Fringetree         2 1/2"-3"         B & B         8' HT         H           HM         20         Hamamelis virginiana "Mohonk Red" / Mohonk Red Witch Hazel         2 1/2"-3"         B & B         8' 10'         B           SHRUBS         QTY <td< td=""><td></td></td<>	
QR         3         Quercus rubra / Red Oak         6" CAL         CONT.         HEIGHT         REMARKS           EVERGREEN TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           JA         24         Juniperus virginiana "Greenbelt" / Greenbelt Eastern Red Cedar         -         8:10"         8:10"           PG         29         Picea glauca / White Spruce         -         8:10"         8:10"           FLOWERING TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           CE2         11         Cercis canadensis / Eastern Redbud Multi-trunk         2 1/2" - 3"         B & B         8' HT         Multi-stem           CS         22         Chionanthus virginicus "Spring Fleecing" / White Fringetree         2 1/2" - 3"         B & B         8' HT         WILLIAM STANDOWN	
EVERGREEN TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           JA         24         Juniperus virginiana 'Greenbelt' / Greenbelt Eastern Red Cedar         -         8 '-10'         8 '-10'           PG         29         Picea glauca / White Spruce         -         8 '-10'         8 '-10'           FLOWERING TREES         QTY         BOTANICAL / COMMON NAME         CAL         CONT.         HEIGHT         REMARKS           CE2         11         Cercias canadensis / Eastern Redbud Multi-trunk         2 1/2" - 3"         8 & B         8' HT         Multi-stern           CS         22         Chionanthus virginicus 'Spring Fleecing' / White Fringetree         2 1/2" - 3"         8 & 10'         8' -10'           CF         4         Corrus florida / Eastern Dogwood         2 1/2" - 3"         8 & B         8' HT           HM         20         Hamamelis virginiana 'Mohonk Red' / Mohonk Red Witch Hazel         2 1/2" - 3"         8 & B         8' -10'           SHRUBS         QTY         BOTANICAL / COMMON NAME         SIZE         CONTAINER         HEIGHT         REMARKS           MP2         50         Myrica pensylvanica / Northern Bayberry         5 GAL         5 GAL	
JA	
JA	
PG   29   Picea glauca / White Spruce     8'-10'	REMARKS
FLOWERING TREES   QTY   BOTANICAL / COMMON NAME   CAL   CONT.   HEIGHT   REMARKS	
CE2         11         Cercis canadensis / Eastern Redbud Multi-trunk         2 1/2" - 3"         B & B         8' HT         Multi-stem           CS         22         Chionanthus virginicus 'Spring Fleecing' / White Fringetree         2 1/2" - 3"         8 '-10'           CF         4         Cornus florida / Eastern Dogwood         2 1/2" - 3"         B & B         8' HT           HM         20         Hamamelis virginiana 'Mohonk Red' / Mohonk Red Witch Hazel         2 1/2" - 3"         B & B         8' -10'           SHRUBS         QTY         BOTANICAL / COMMON NAME         SIZE         CONTAINER         HEIGHT         REMARKS           MP2         50         Myrica pensylvanica / Northern Bayberry         5 GAL         5 GAL         Policum virgatum 'Cheyenne Sky' / Switch Grass         2 GAL.           RC         22         Rhododendron carolinianum / Carolina Rhododendron         5 GAL	
CE2         11         Cercis canadensis / Eastern Redbud Multi-trunk         2 1/2" - 3"         B & B         8' HT         Multi-stem           CS         22         Chionanthus virginicus 'Spring Fleecing' / White Fringetree         2 1/2" - 3"         8 '-10'           CF         4         Cornus florida / Eastern Dogwood         2 1/2" - 3"         B & B         8' HT           HM         20         Hamamelis virginiana 'Mohonk Red' / Mohonk Red Witch Hazel         2 1/2" - 3"         B & B         8' -10'           SHRUBS         QTY         BOTANICAL / COMMON NAME         SIZE         CONTAINER         HEIGHT         REMARKS           MP2         50         Myrica pensylvanica / Northern Bayberry         5 GAL         5 GAL         Portion virgatum 'Cheyenne Sky' / Switch Grass         2 GAL.           RC         22         Rhododendron carolinianum / Carolina Rhododendron         5 GAL         5 GAL	DEMARKO.
CS 22 Chionanthus virginicus 'Spring Fleecing' / White Fringetree 2 1/2" - 3" 8 - 10'  CF 4 Cornus florida / Eastern Dogwood 2 1/2" - 3" B & B 8' HT  HM 20 Hamamelis virginiana `Mohonk Red' / Mohonk Red Witch Hazel 2 1/2" - 3" B & B 8' - 10'  SHRUBS QTY BOTANICAL / COMMON NAME SIZE CONTAINER HEIGHT REMARKS  MP2 50 Myrica pensylvanica / Northern Bayberry 5 GAL  PC 259 Panicum virgatum `Cheyenne Sky' / Switch Grass 2 GAL.  RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	REMARKS
CF 4 Cornus florida / Eastern Dogwood 2 1/2" - 3" B & B 8' HT  HM 20 Hamamelis virginiana `Mohonk Red` / Mohonk Red Witch Hazel 2 1/2" - 3" B & B 8'-10`  SHRUBS QTY BOTANICAL / COMMON NAME SIZE CONTAINER HEIGHT REMARKS  MP2 50 Myrica pensylvanica / Northern Bayberry 5 GAL  PC 259 Panicum virgatum `Cheyenne Sky` / Switch Grass 2 GAL.  RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	
HM 20 Hamamelis virginiana `Mohonk Red` / Mohonk Red Witch Hazel 2 1/2" - 3" B & B 8`-10`  SHRUBS QTY BOTANICAL / COMMON NAME SIZE CONTAINER HEIGHT REMARKS  MP2 50 Myrica pensylvanica / Northern Bayberry 5 GAL  PC 259 Panicum virgatum `Cheyenne Sky` / Switch Grass 2 GAL.  RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	
SHRUBS QTY BOTANICAL / COMMON NAME SIZE CONTAINER HEIGHT REMARKS  MP2 50 Myrica pensylvanica / Northern Bayberry 5 GAL  PC 259 Panicum virgatum `Cheyenne Sky` / Switch Grass 2 GAL.  RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	
MP250Myrica pensylvanica / Northern Bayberry5 GALPC259Panicum virgatum `Cheyenne Sky` / Switch Grass2 GAL.RC22Rhododendron carolinianum / Carolina Rhododendron5 GAL	
MP250Myrica pensylvanica / Northern Bayberry5 GALPC259Panicum virgatum `Cheyenne Sky` / Switch Grass2 GAL.RC22Rhododendron carolinianum / Carolina Rhododendron5 GAL	REMARKS
PC 259 Panicum virgatum `Cheyenne Sky` / Switch Grass 2 GAL.  RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	
RC 22 Rhododendron carolinianum / Carolina Rhododendron 5 GAL	
VA 35 Viburnum dentatum / Viburnum 5 GAL	
GROUND COVERS QTY BOTANICAL / COMMON NAME SIZE CONTAINER HEIGHT REMARKS SPACING	REMARKS
AU 955 Arctostaphylos uva-ursi / Kinnikinnick 1 GAL 1 GAL 24" o.c.	
AL 2,666 Aronia melanocarpa `UCONNAM165` TM / Low Scape Mound Black Chokeberry 1 GAL 18" o.c.	
JH 5,551 Juniperus horizontalis / Creeping Juniper 1 GAL 1 18" o.c.	

## SEED MIXES:

SEED MIX	AREA	
NATIVE PLANTING MIX Native Grasses and Perennials; Container	18,100	SF
MEADOW MIX Native Seed Mix	223,100	SF
WETLAND SEED MIX New England Wetmix ( <i>NE Wetland Plants</i> )	3,200	SF

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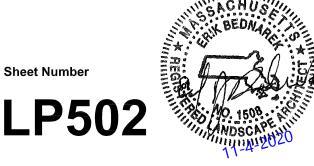
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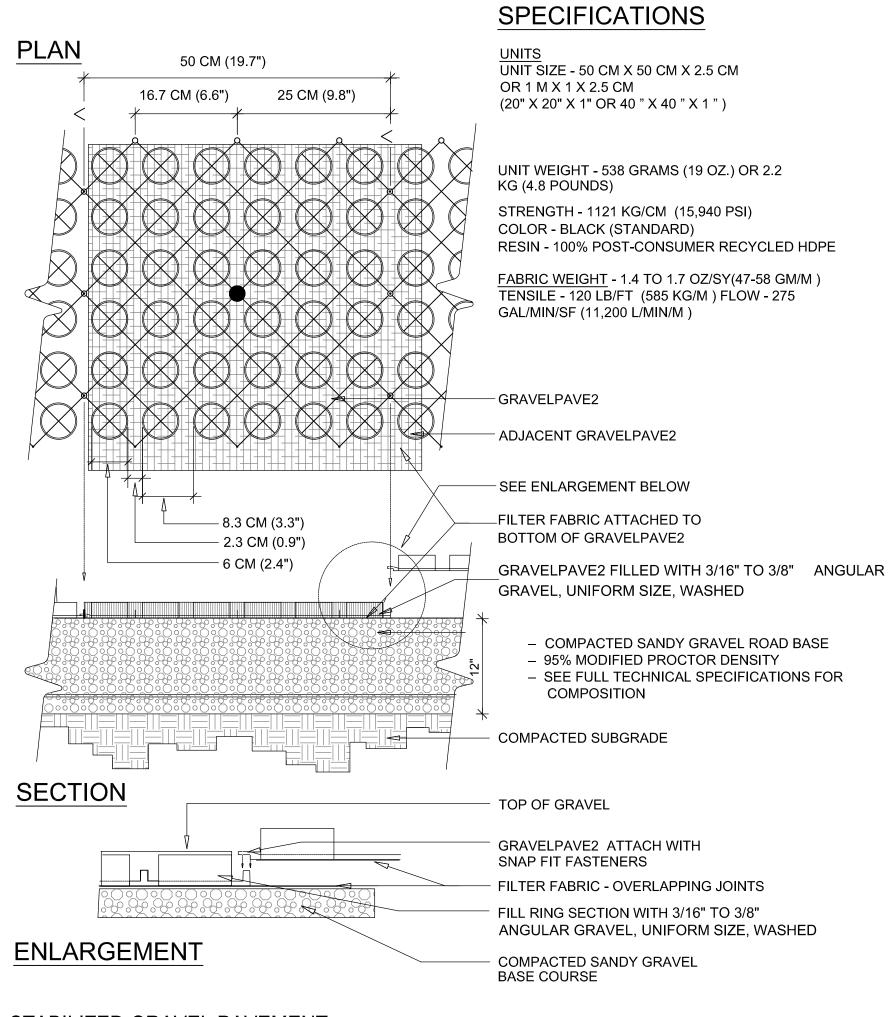
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LANDSCAPE SCHEDULE



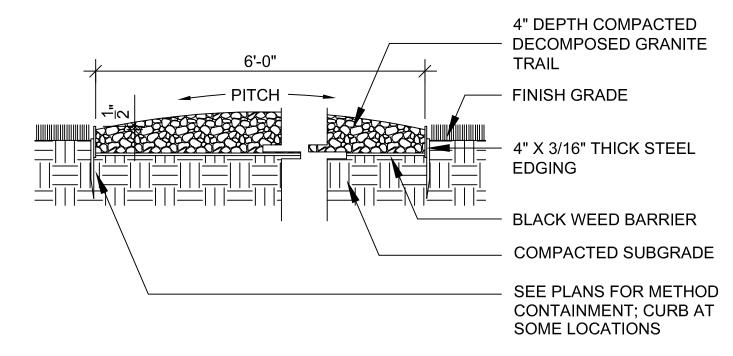
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STABILIZED GRAVEL PAVEMENT

SCALE: NTS



STONE DUST PATH - TYPICAL SECTION

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Sheet Name

LANDSCAPE DETAILS

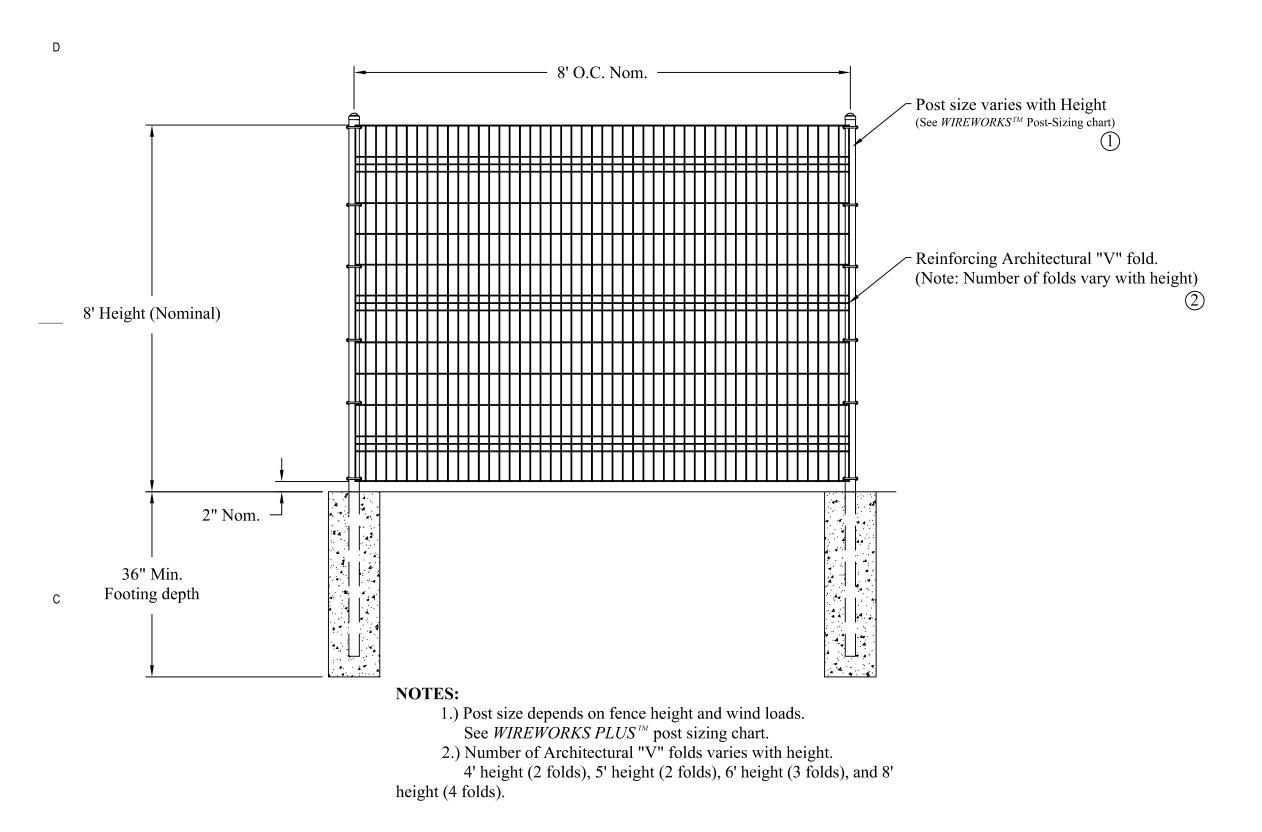
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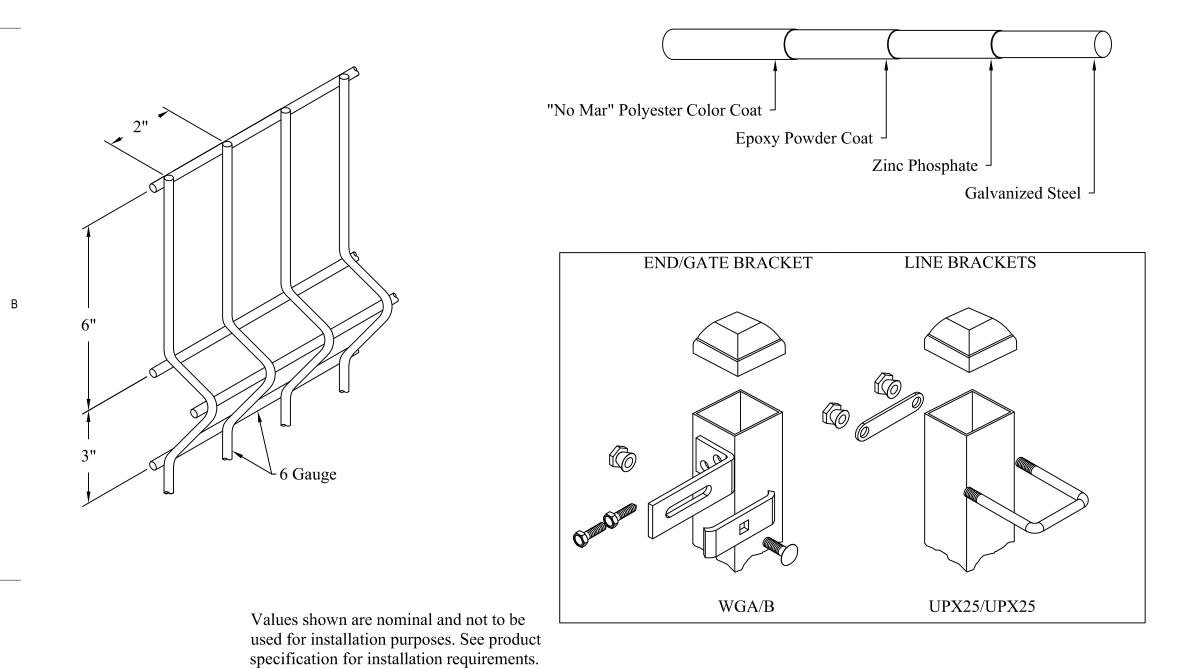
Project Status

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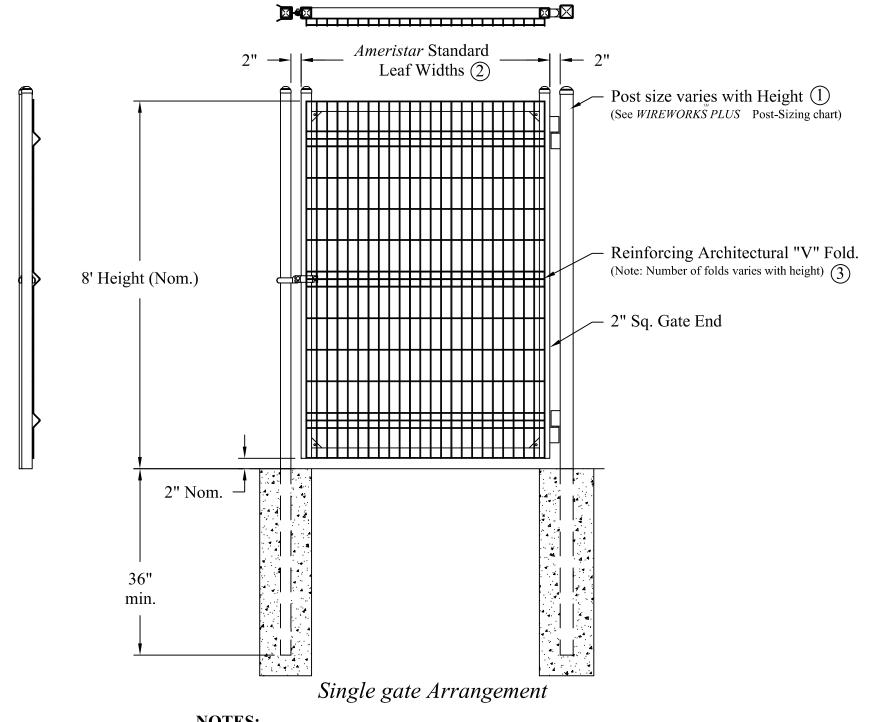
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PERIMETER FENCE - 8' HT

SCALE: NTS



NOTES:
1.) Post size depends on fence height, weight and wind loads.

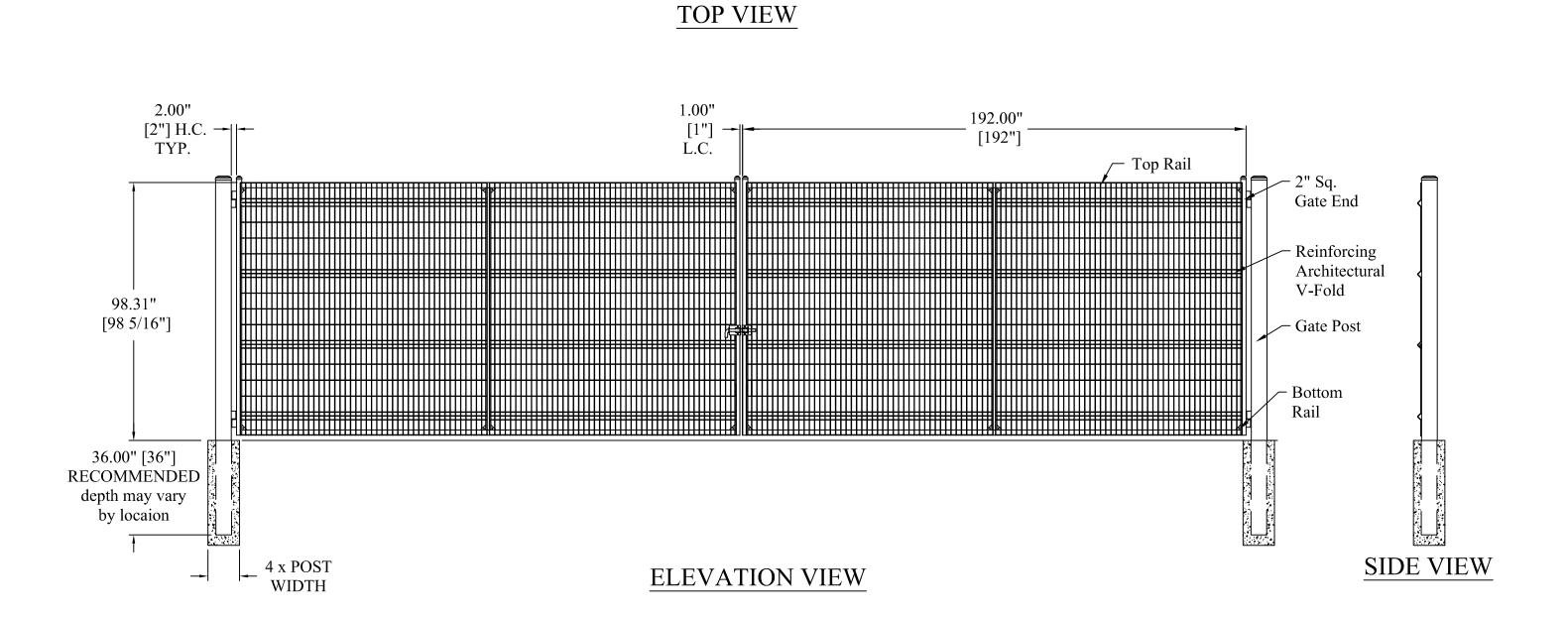
See *WIREWORKS PLUS* specifications for post sizing chart.

2.) See *Ameristar* gate table for standard out to outs. Custom gate openings available for special out to out/leaf widths.

3.) Number of Architectural "V" folds varies with height.
4' height (2 folds), 5' height (2 folds), 6' height (3 folds), 8' height

(4 folds)

2 PEDESTRIAN GATE



VEHICULAR GATE

SCALE: NTS



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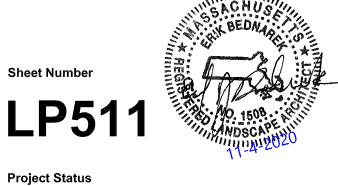
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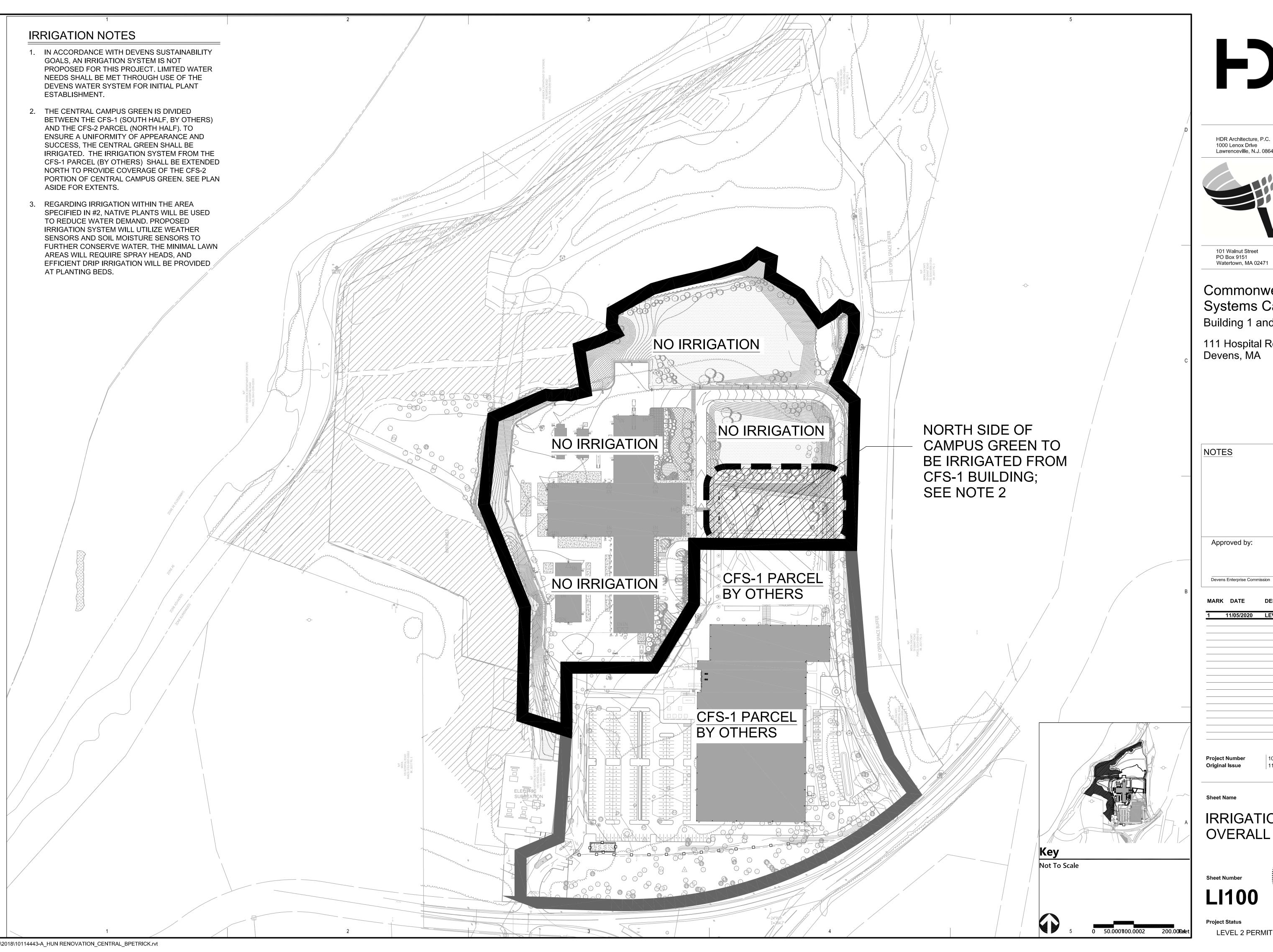
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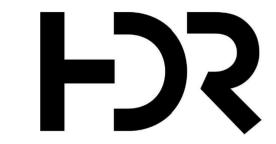
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IRRIGATION PLAN **OVERALL** 

## LIGHTING NOTES

- SITE LIGHTING SHALL BE CONTROLLED THROUGH A LIGHTING RELAY PANEL WITH AN ASTRONOMICAL TIMECLOCK WHICH TURNS LIGHTS ON AT DUSK AND OFF AT 11PM.
- 2. FOR FIXTURE DETAILS, REFER TO SHEET ES501.
- 3. FOR LIGHTING CUT SHEETS, REFER TO SHEET ES502.

LEGEND

— - - — CONTRACT LIMIT LINE

DOUBLE HEAD POLE MOUNTED AREA LIGHT

SINGLE HEAD POLE MOUNTED AREA LIGHT

WALL MOUNTED LIGHT

SURFACE MOUNTED CYLINDER LIGHT

O POST TOP DECORATIVE AREA LIGHT



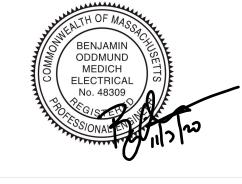
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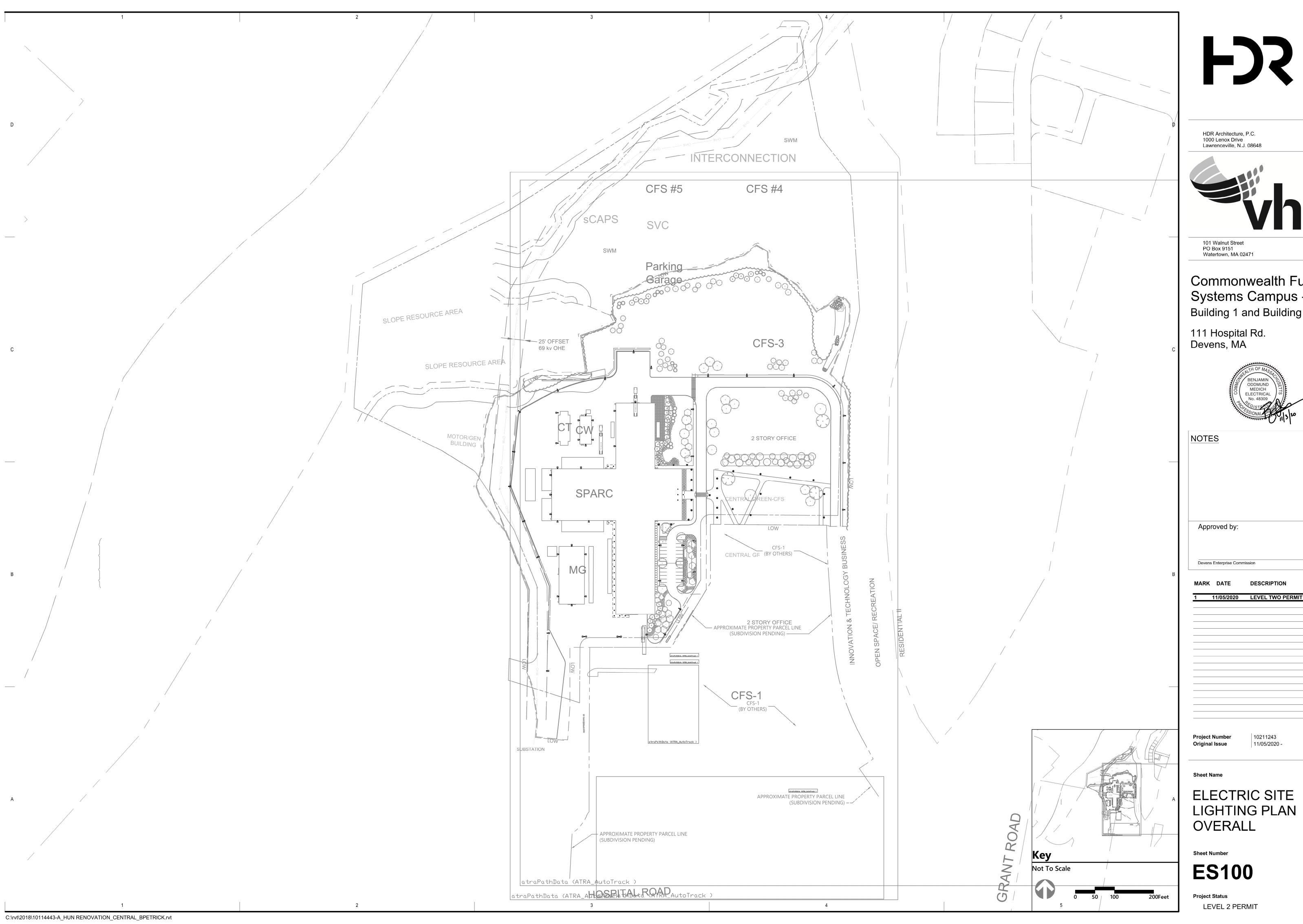
ELECTRIC SITE LIGHTING NOTES AND LEGEND

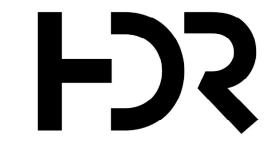
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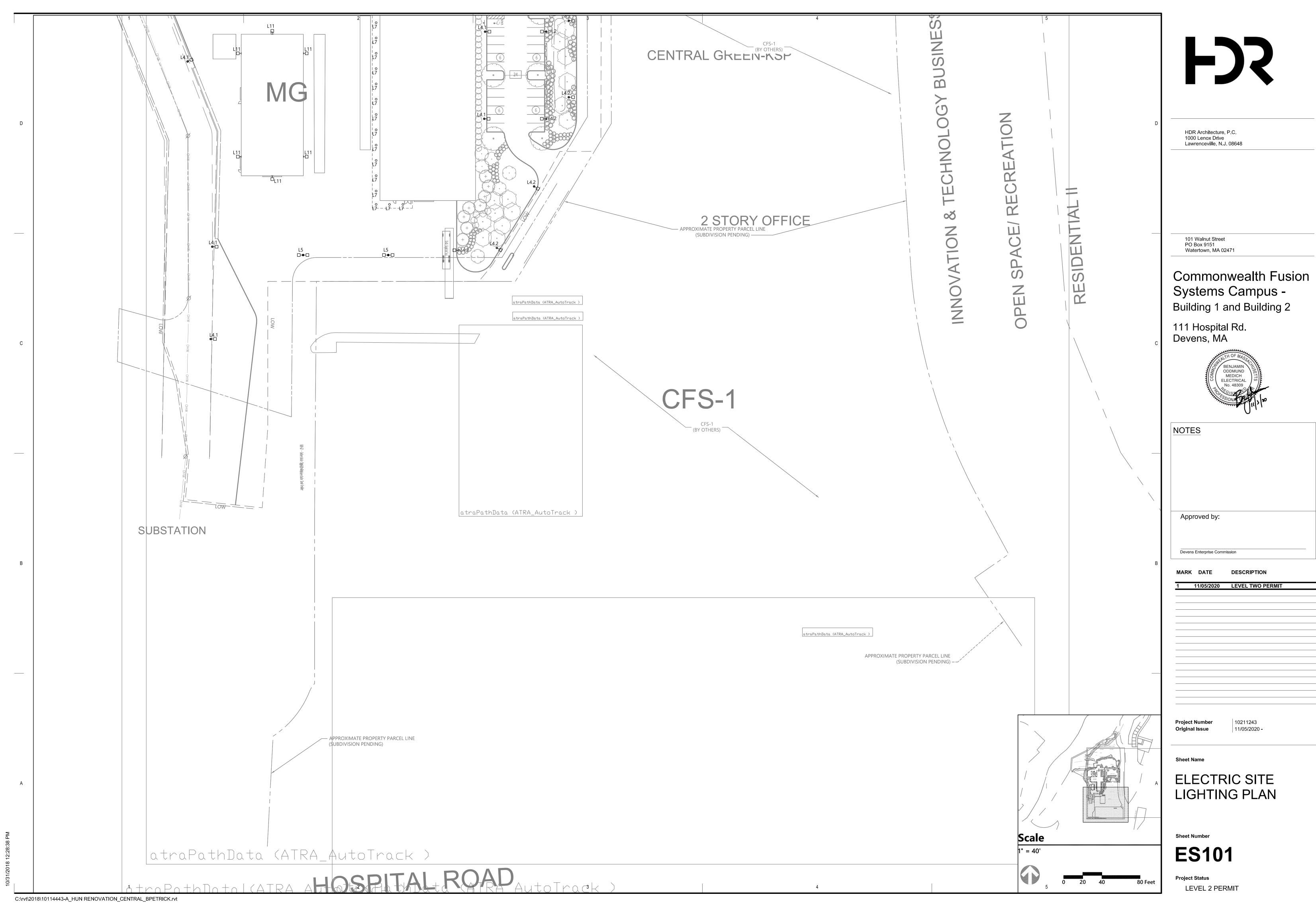


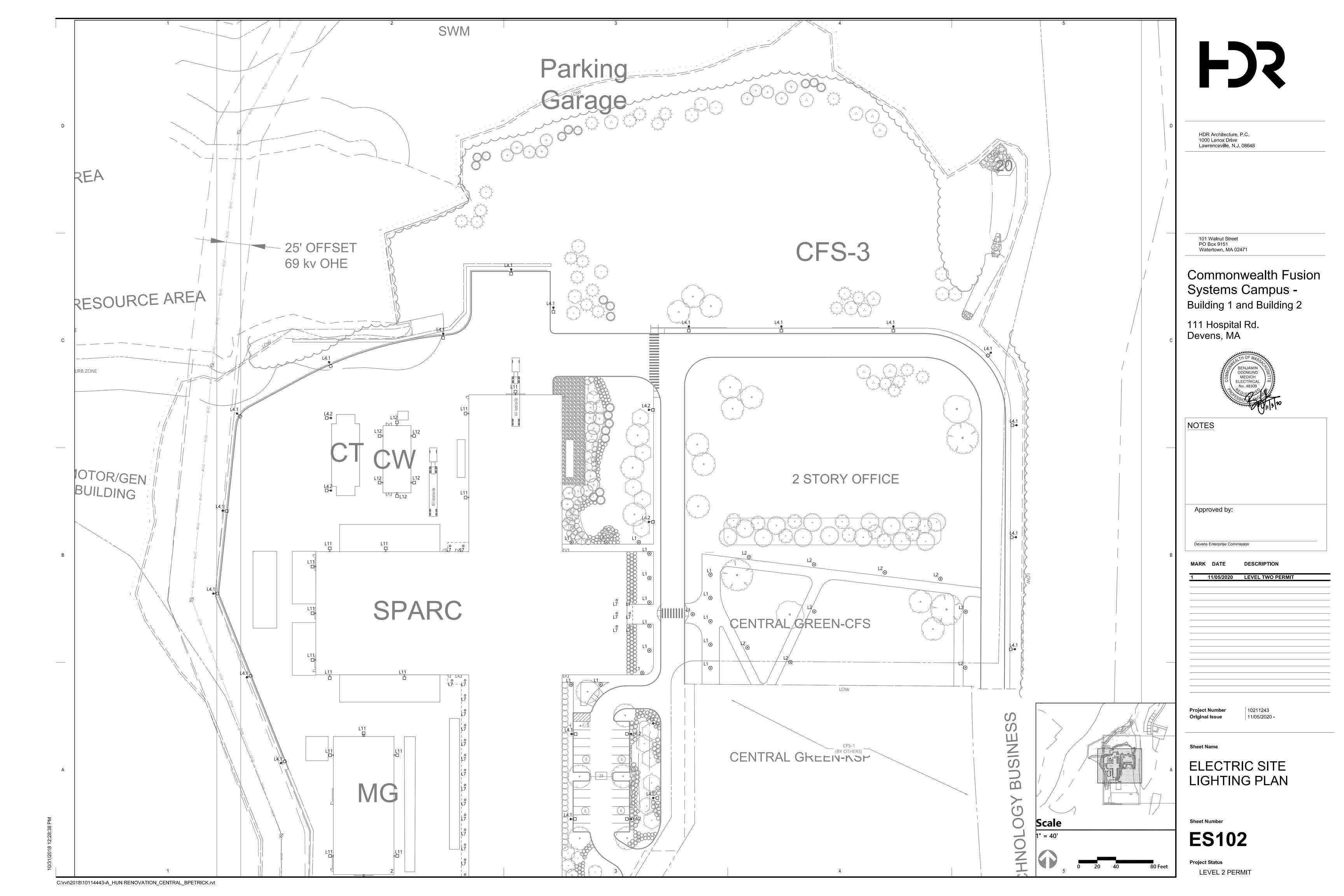


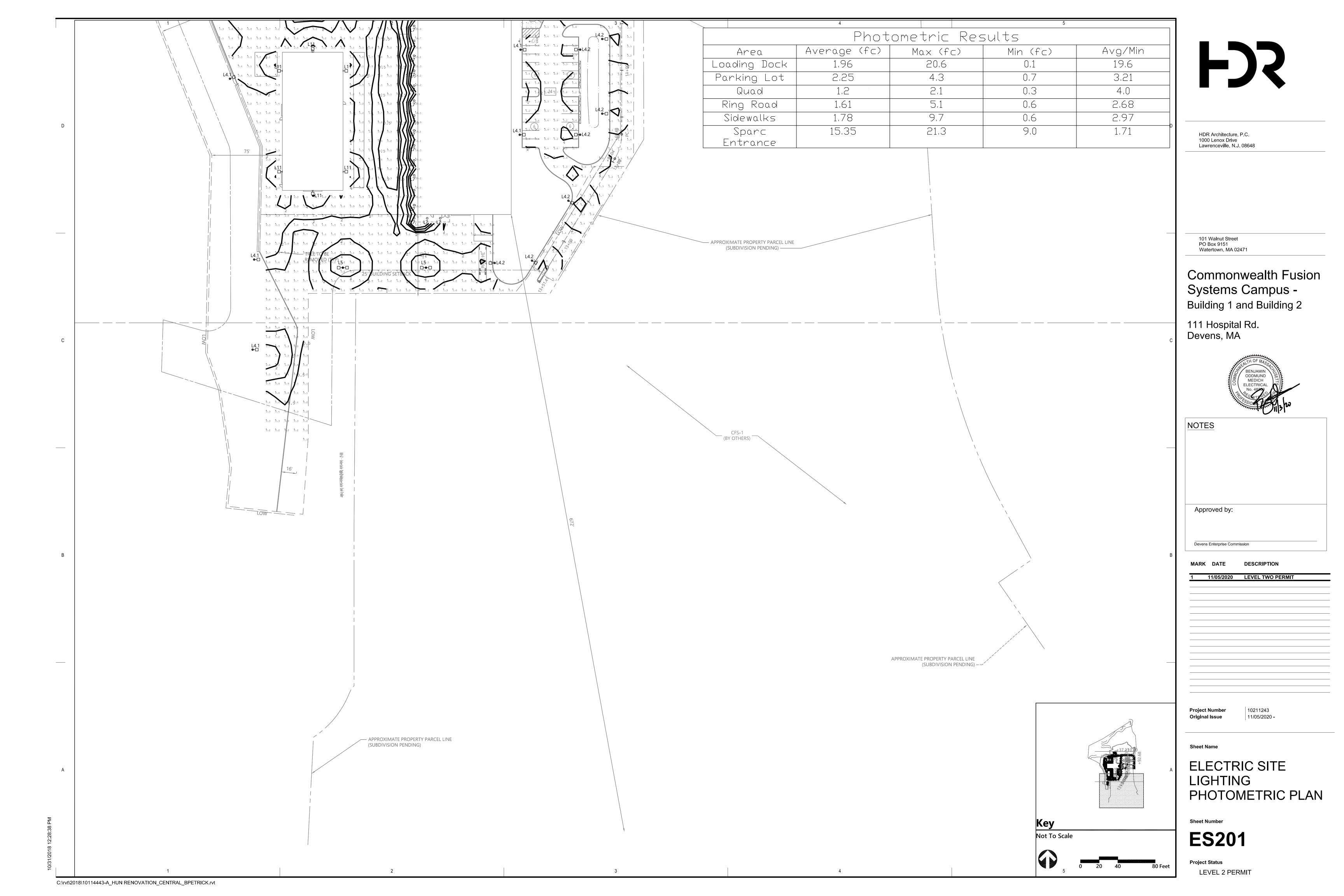
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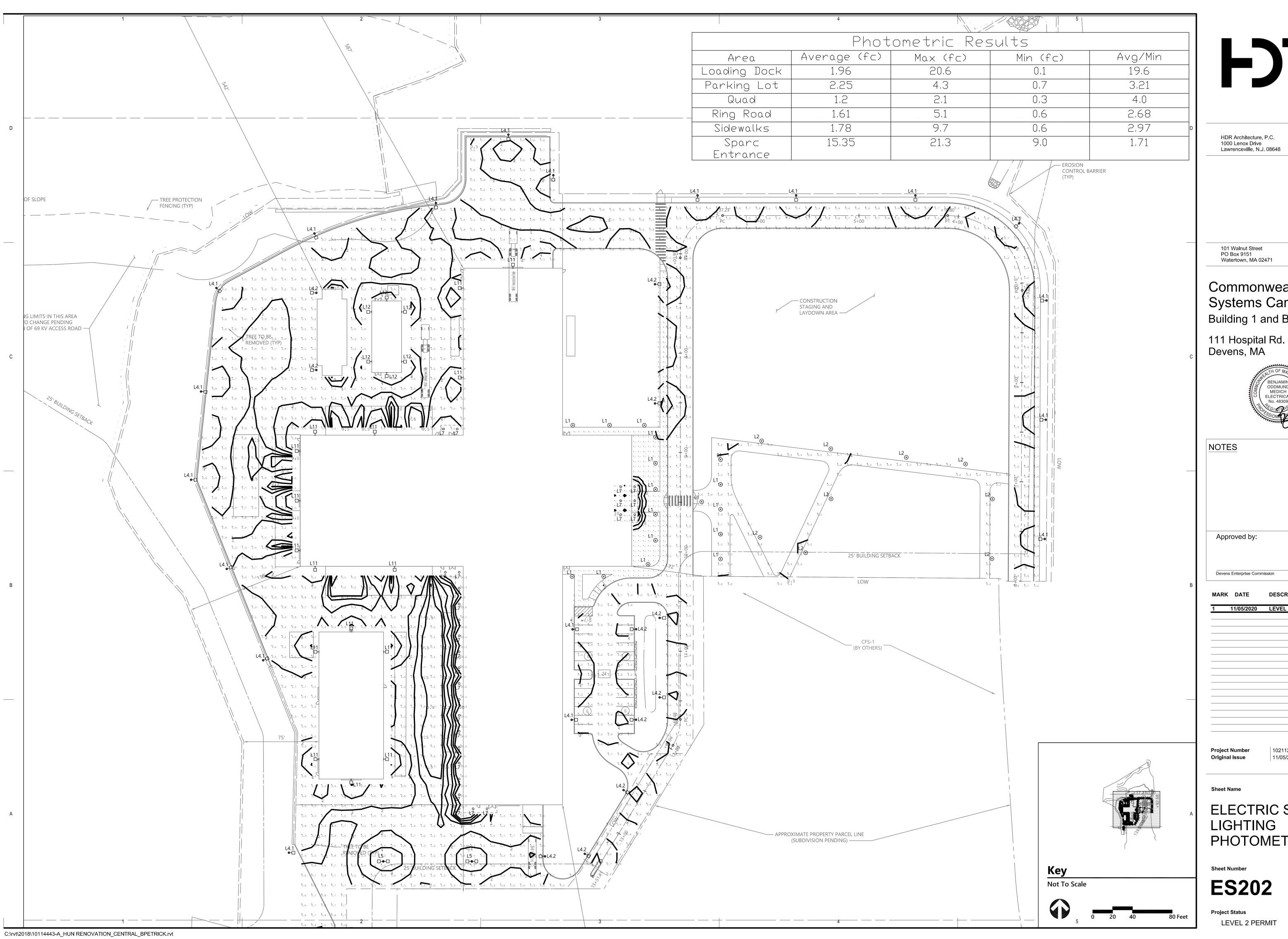


ELECTRIC SITE LIGHTING PLAN











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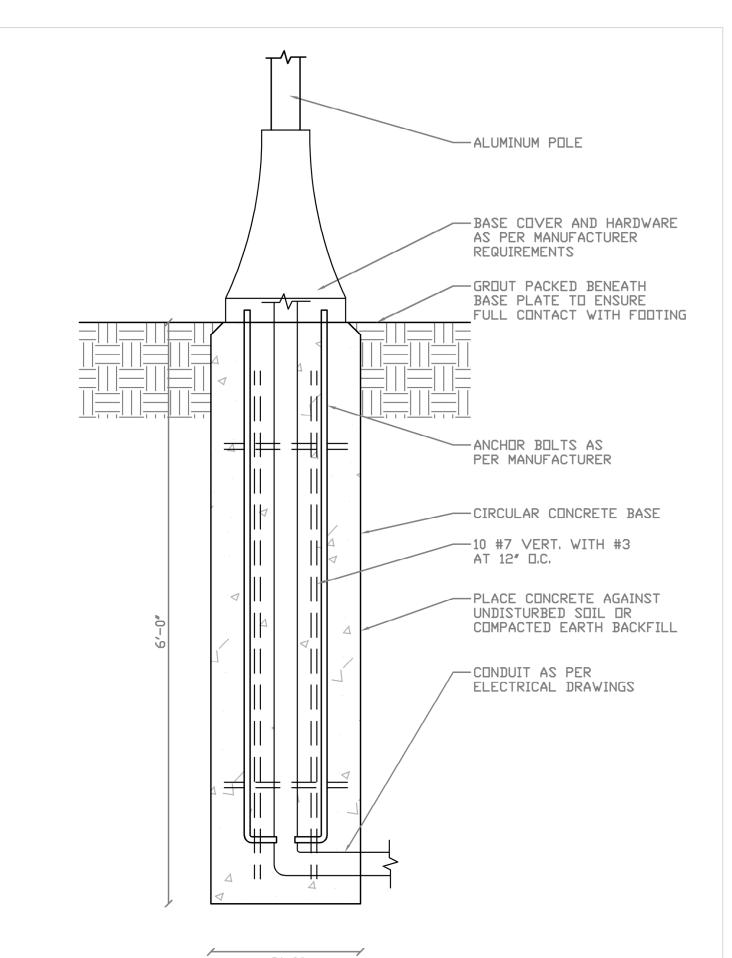
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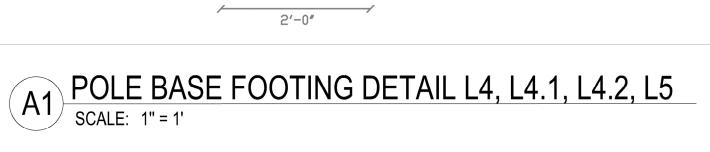
ELECTRIC SITE LIGHTING PHOTOMETRIC PLAN

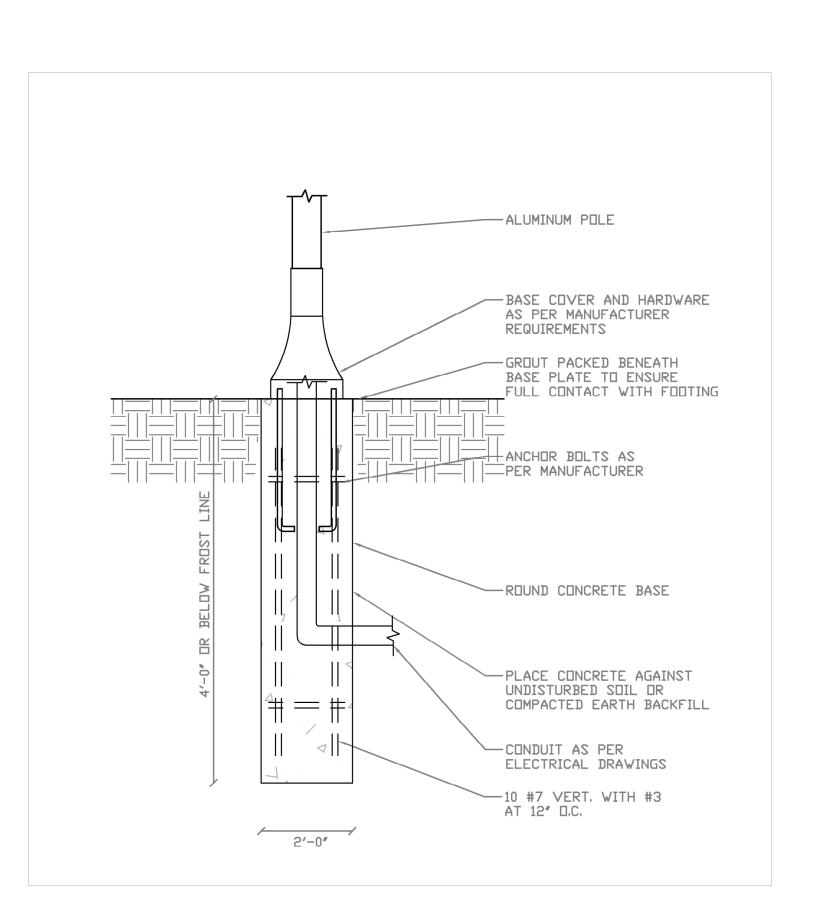
**ES202** 

LEVEL 2 PERMIT

	LIGHTING FIXTURE SCHEDULE							
MARK	DESCRIPTION	MANUFACTURER	CATALOG NO.	LAMP TYPE	LAMP WATTAGE	DRIVER TYPE	VOLTAGE	NOTES
L1	ARCHITECTURAL POST MOUNT FIXTURE WITH ROUND TOP, ACRYLIC LENS FOR GLARE CONTROL, AND SYMMETRIC LIGHT DISTRIBUTION.	INVUE	LXS-VA-1-730-U-SYM-S-GM	3000K, 2300lm LED	28 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 15' POLE
L2	ARCHITECTURAL POST MOUNT FIXTURE WITH ROUND TOP, ACRYLIC LENS FOR GLARE CONTROL, AND ASYMMETRIC LIGHT DISTRIBUTION.	INVUE	LXS-VA-1-730-U-ASW-C-GM	3000K, 2300lm LED	28 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 15' POLE
L4	POLE MOUNTED SINGLE HEAD AREA LIGHT WITH ROUND HOUSING AND TYPE 3 LIGHT DISTRIBUTION.	NLS	VSR-S-T3-32L-1-30K-UNV-DP6-GPH	3000K, 10812lm LED	106 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 25' POLE
L4.1	POLE MOUNTED SINGLE HEAD AREA LIGHT WITH ROUND HOUSING AND TYPE 3 LIGHT DISTRIBUTION AND HOUSE SIDE SHIELD.	NLS	VSR-S-T3-32L-7-30K-UNV-DP6-GPH-HSS	3000K, 4118lm LED	71 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 25' POLE
L4.2	POLE MOUNTED SINGLE HEAD AREA LIGHT WITH ROUND HOUSING AND TYPE 5 LIGHT DISTRIBUTION.	NLS	VSR-S-T5-32L-1-30K-UNV-DP6-GPH	3000K, 11130lm LED	106 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 25' POLE
L5	POLE MOUNTED DOUBLE HEAD AREA LIGHT WITH ROUND HOUSING AND TYPE 3 LIGHT DISTRIBUTION AND HOUSE SIDE SHIELD.	NLS	(2) VSR-S-T3-32L-1-30K-UNV-DP6-GPH	(2) 3000K, 10812lm LED	(2) 106 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE ON 25' POLE
L7	SURFACE MOUNTED CYLINDER LIGHT FIXTURE WITH NOMINAL 6" APERTURE AND WHITE FINISH.	LITHONIA	LDN6CYL-30/30-LO6AR-LS	3000K, 3138lm LED	35 W	INTEGRAL LED DRIVER	120-277 V	
L11	LED FULL CUTOFF WALL PACK WITH DIE CAST ALUMINUM HOUSING AND TYPE 3 DISTRIBUTION.	NLS	NV-W-T3-32L-7-30K-UNV-WM-GPH	3000K, 9100lm LED	71 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE AT 20' ABOVE GRADE
L12	LED FULL CUTOFF WALL PACK WITH DIE CAST ALUMINUM HOUSING AND TYPE 3 DISTRIBUTION.	NLS	NV-W-T3-16L-7-30K-UNV-WM-GPH	3000K, 4432lm LED	37 W	INTEGRAL LED DRIVER	120-277 V	MOUNT FIXTURE AT 12' ABOVE GRADE

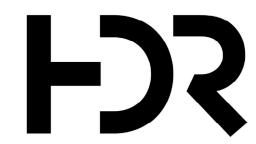






A2 POLE BASE FOOTING DETAIL L1 & L2

SCALE: 1" = 1'



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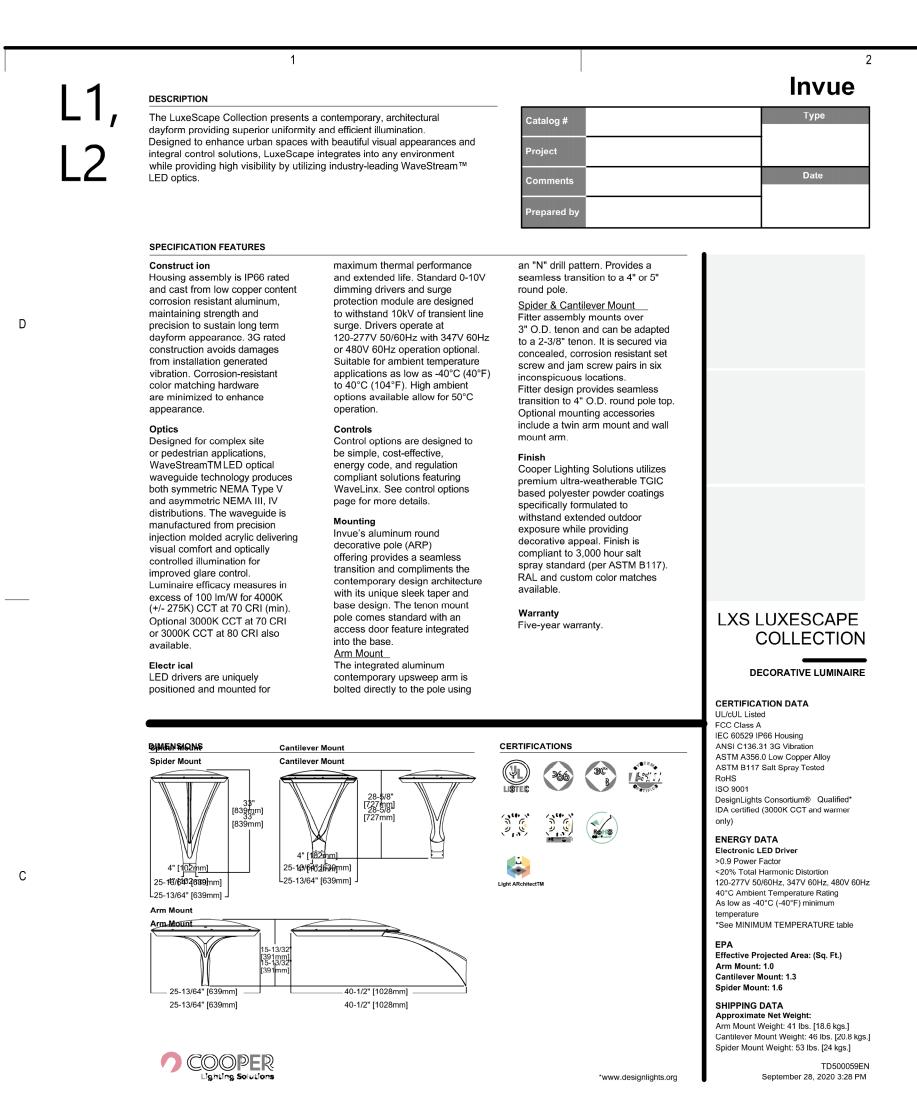
LIGHTING FIXTURE SCHEDULE AND DETAILS

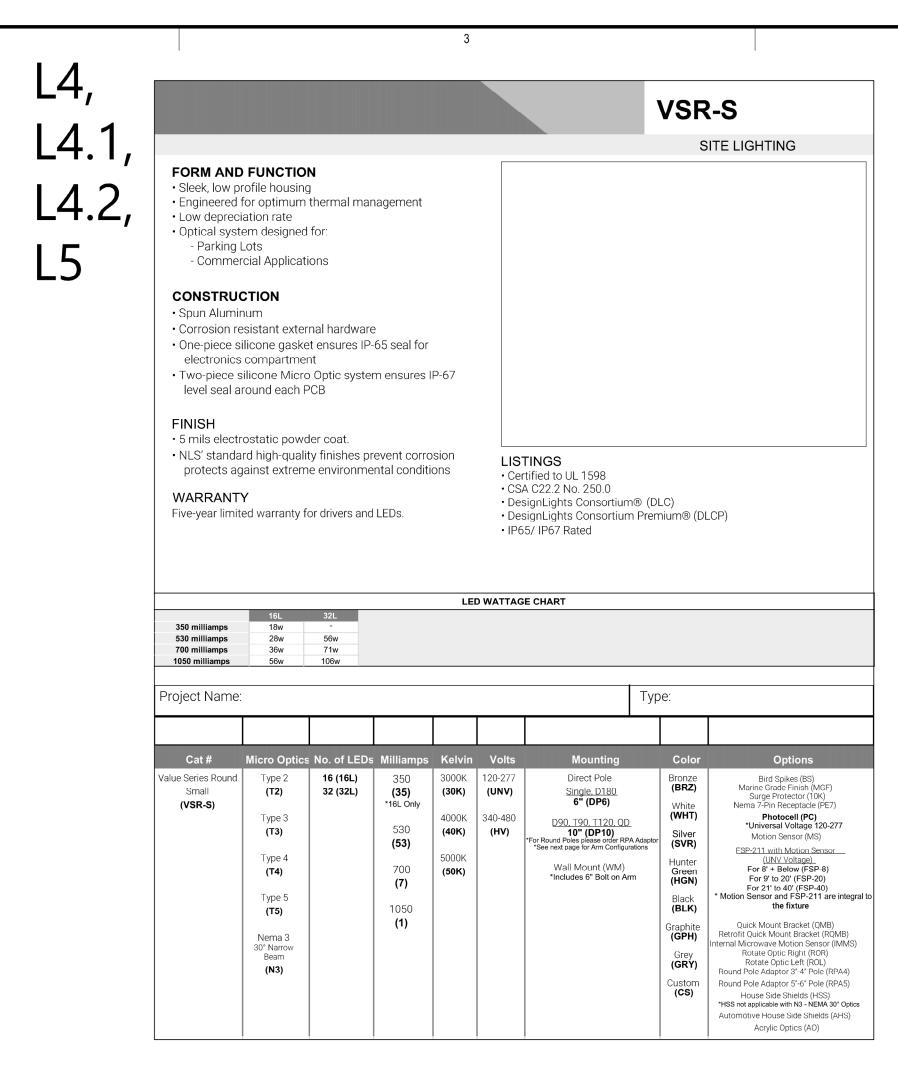
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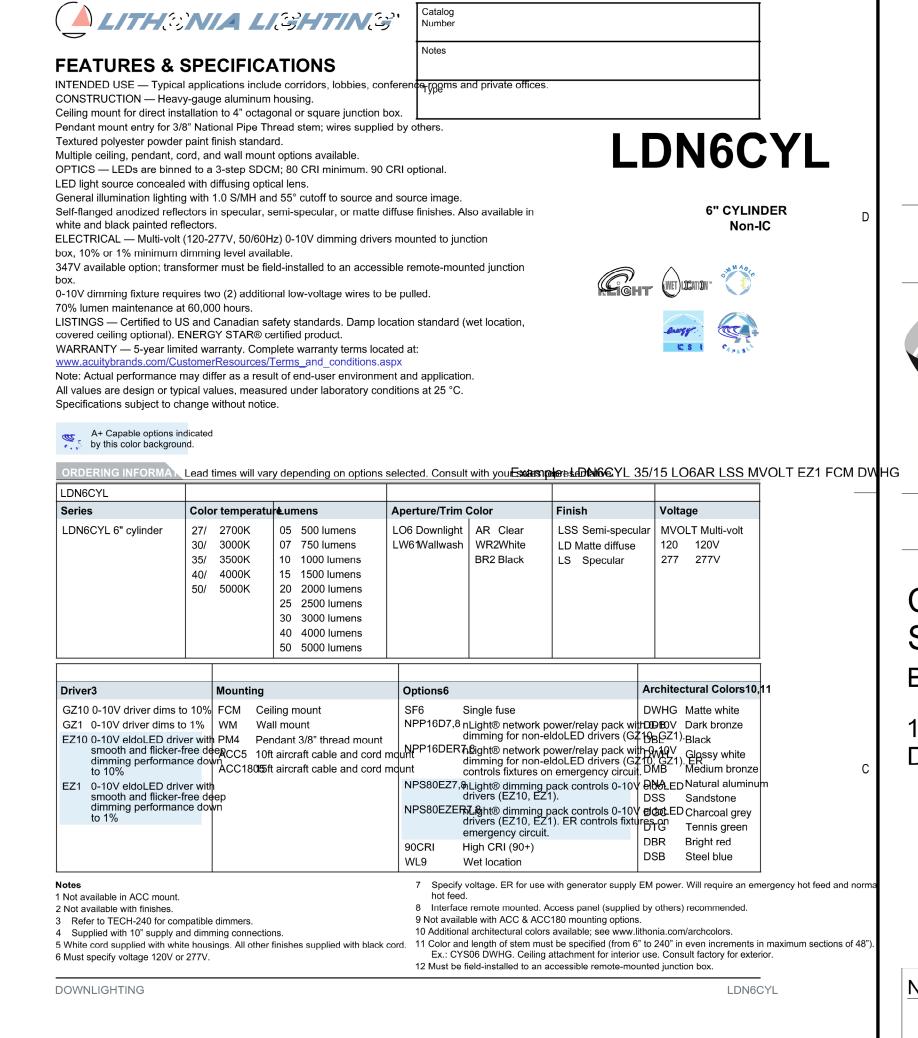
**ES501** 

Project Status

LEVEL 2 PERMIT







# HDR Architecture, P.C. 1000 Lenox Drive Lawrenceville, N.J. 08648 101 Walnut Street PO Box 9151 Watertown, MA 02471 Commonwealth Fusion Systems Campus -Building 1 and Building 2 111 Hospital Rd. Devens, MA

ODDMUND MEDICH ELECTRICAL NOTES

Approved by:		

Devens Enterprise Commission

MAR	K DATE	DESCRIPTION	
1	11/05/2020	LEVEL TWO PERMIT	

10211243 Project Number 11/05/2020 -

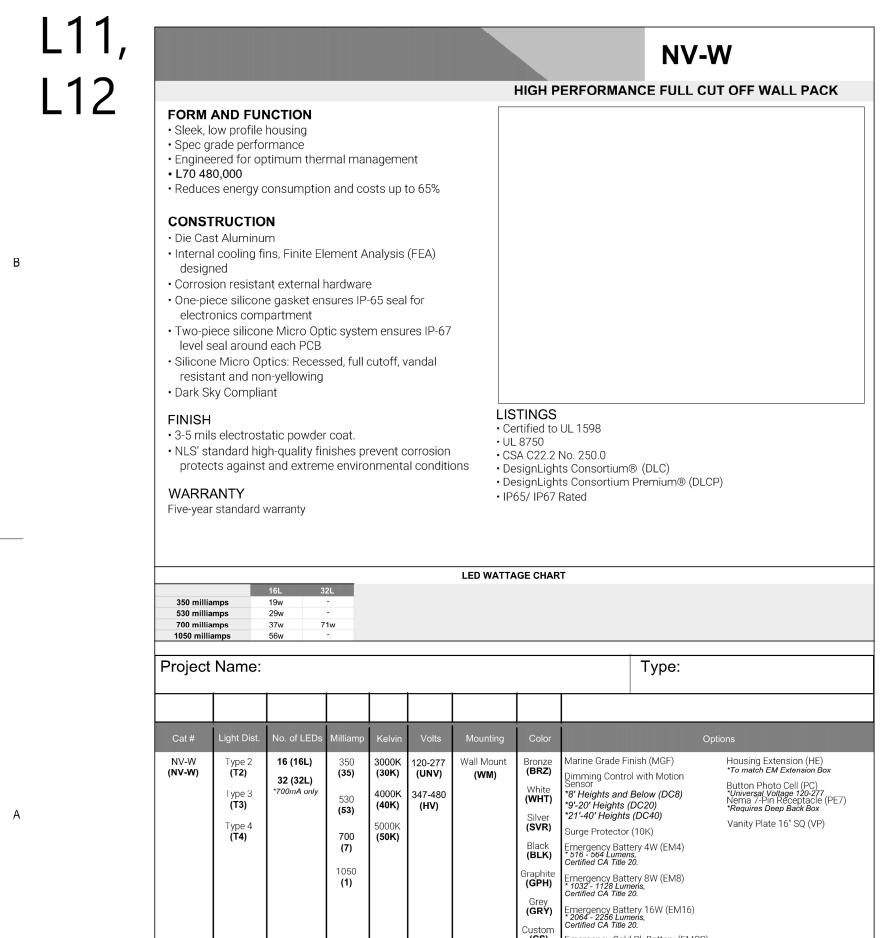
Sheet Name

LIGHTING CUT SHEETS

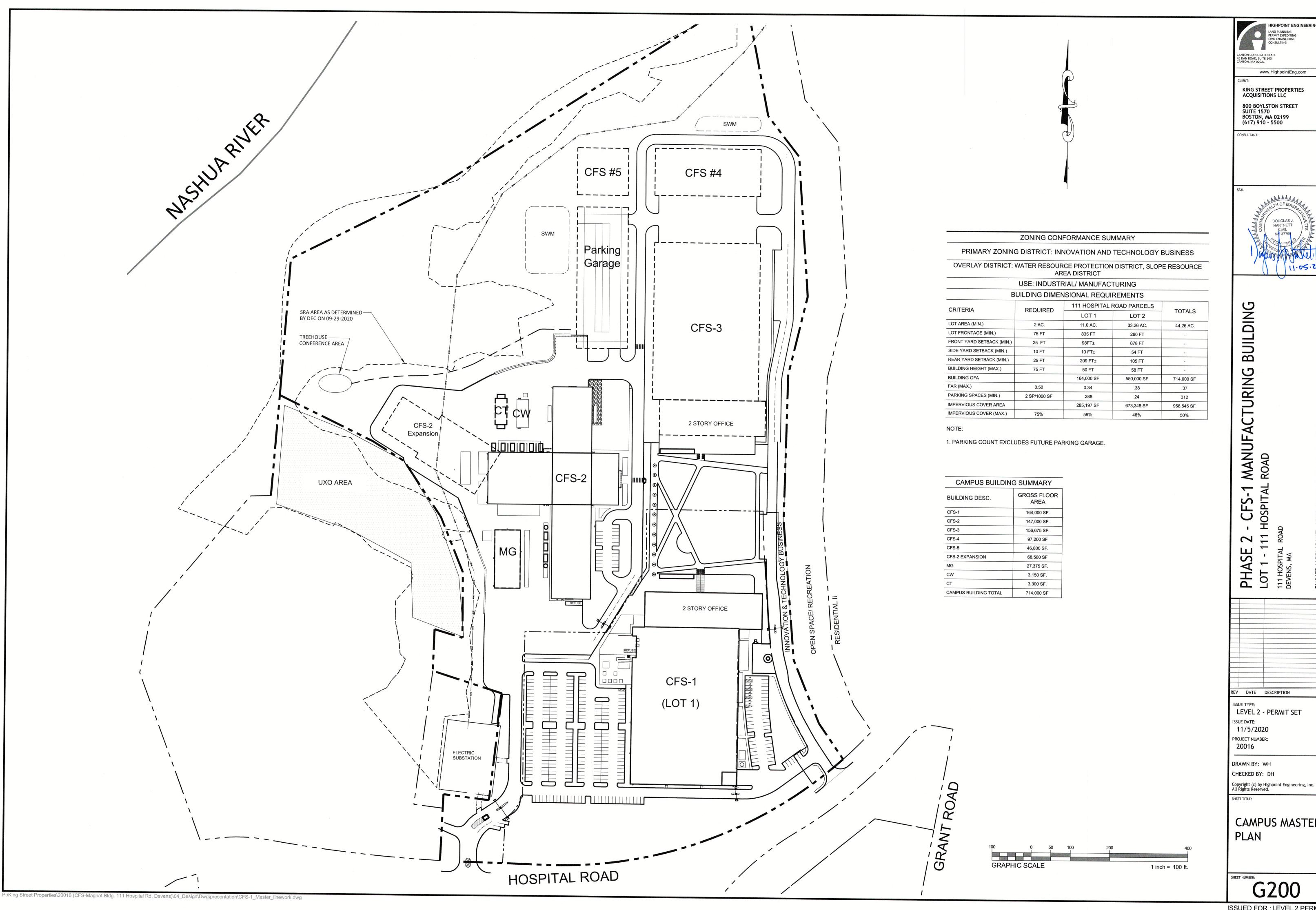
Sheet Number

**ES502** 

**LEVEL 2 PERMIT** 



Emergency Cold Pk Battery (EMCP)
*14 Watt
* 1806 - 1974 Lumens,
Certified CA Title 20.



**CAMPUS MASTER** 

G200

ISSUED FOR : LEVEL 2 PERMIT