STORMWATER MANAGEMENT PERMIT APPLICATION

FOR

90 DUVAL ROAD

LANCASTER, MA

September 21, 2021

REVISED

November 17, 2021

PROJECT TEAM

Civil Engineer | Landscape Architect

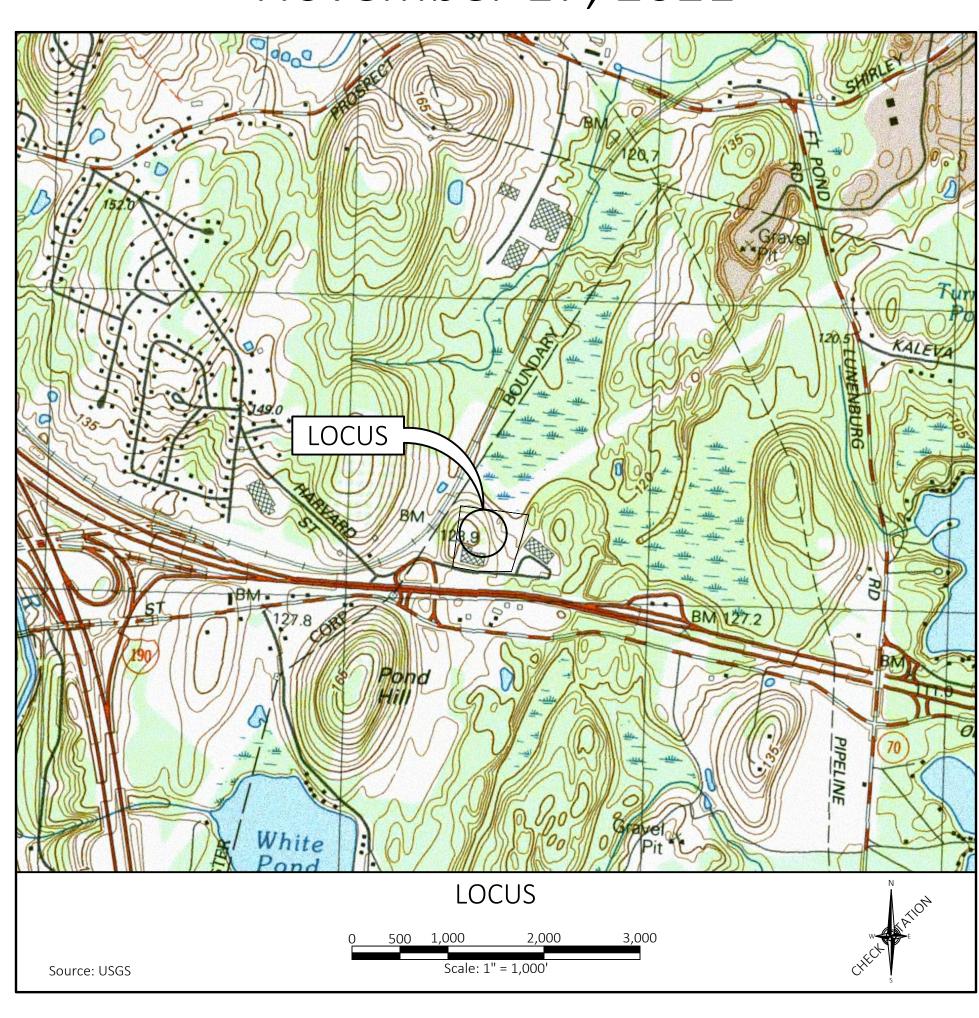


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Survey

Real Map Info LLC 11 Apex Drive Suite 300 A Marlborough, MA 01752

PROJECT OWNER	PROJECT APPLICANT
Five SAC Self-Storage Corporation	U-Haul Moving & Storage of West Springfield
207 E. Clarendon Ave.	380 Union Street
Phoenix, AZ 85012	West Springfield, MA 01809



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SHEET NO.	SHEET TITLE			
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OWNER/APPLICANT'S REPRESENTATIVE:

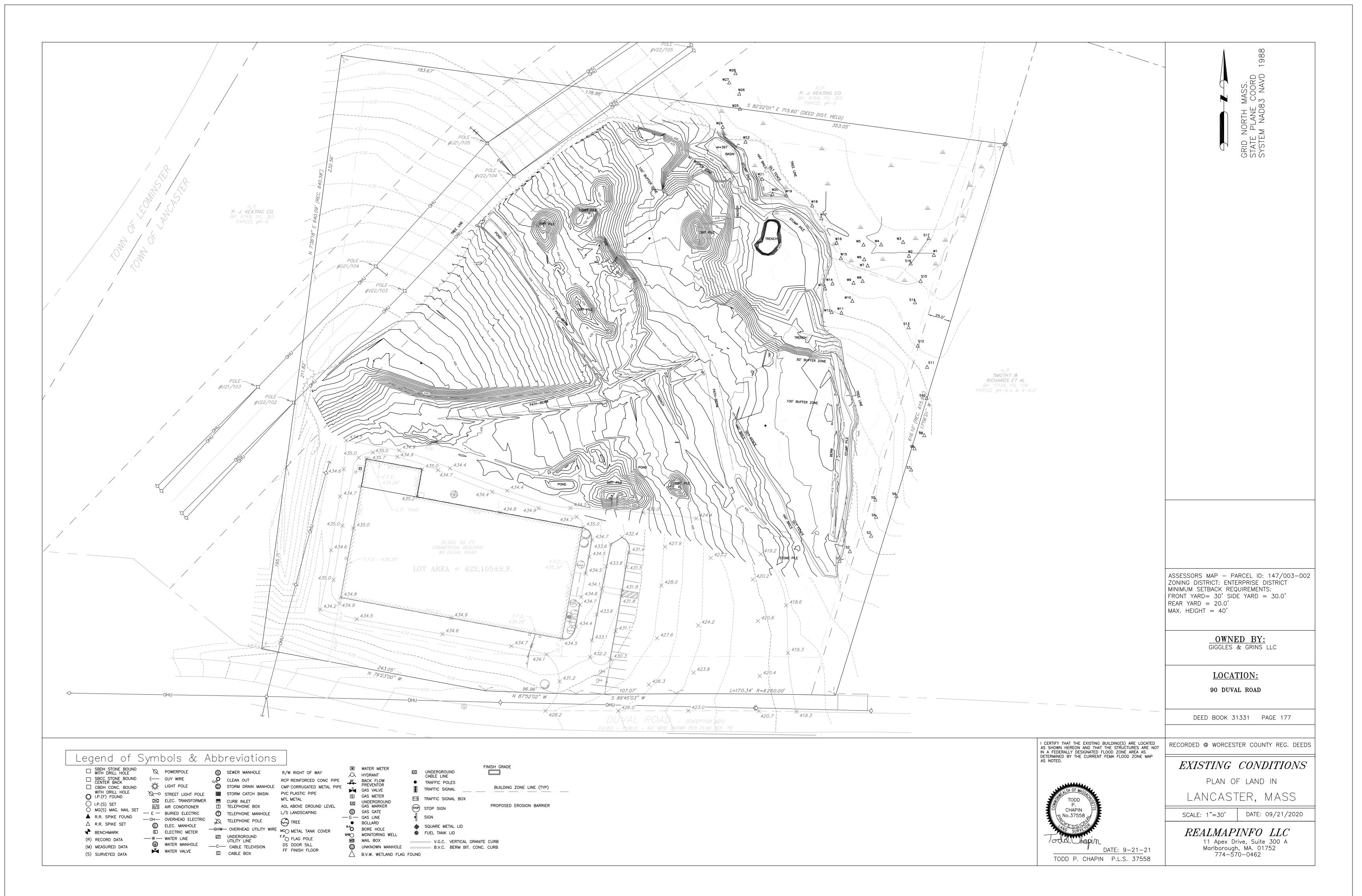
U-Haul Moving & Storage of West Springfield Mr. Jeff Vaine 603 762 5535

SITE CONTRACTOR:

All County Paving Mr. Bob Foley 617 733 0504

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GENERAL NOTES:

- SURVEY INFORMATION PRESENTED HEREON COMPILED FROM FIELD NOTES/OBSERVATIONS AND FROM PLAN PROVIDED BY THE APPLICANT AND PREPARED BY REALMAPINFO OF MARLBOROUGH, MA AND SUPPLEMENTED WITH 2011 USGS LIDAR DATA. FIELD WORK OCCURRED IN SEPTEMBER 2021. REFER TO SURVEY PLAN FOR OWNERSHIP INFORMATION AND ASSESSOR'S INFORMATION.
- THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND IS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) JURISDICTION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS TO SUBMIT A NOTICE OF INTENT WITH THE EPA AND SECURE AND COMPLY WITH THE CGP IN ACCORDANCE WITH THE NPDES REGULATIONS.
- A MINIMUM OF SEVENTY-TWO (72) HOURS BEFORE COMMENCING SITE WORK, CONTRACTOR SHALL CALL "DIG SAFE" AT 1-888-344-7233 (PER 220 CMR 99), MUNICIPAL UTILITY DEPARTMENTS, AND UTILITY DISTRICTS TO ACCURATELY LOCATE UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION NOTIFICATION AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK AND COORDINATE WITH THE PROJECT ARCHITECT AND ENGINEER AS NECESSARY
- THE CONTRACTOR SHALL OBTAIN PERMIT(S) FOR TRENCH EXCAVATION (PER 520 CMR 14).
- ALL ITEMS NOTED FOR REMOVAL AND DISPOSAL, AS WELL AS THOSE ITEMS DISCOVERED DURING EXCAVATION THAT REQUIRE REMOVAL AND REPLACEMENT, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND MUST EITHER BE RECYCLED OR DISPOSED OF OFF SITE ACCORDING TO APPLICABLE REGULATIONS (310 CMR 7, 18 & 19 AND 453 CMR 6). CONTRACTOR IS RESPONSIBLE FOR OBTAINING NECESSARY PERMITS FOR DEMOLITION, HAULING AND DISPOSING OF SAID MATERIALS.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY, JOB SAFETY AND CONSTRUCTION MEANS AND METHODS. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND STATE AND LOCAL REQUIREMENTS.
- REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL NOT BE CONDUCTED IN PROXIMITY TO CATCH BASINS, STORMWATER BASINS OR WETLAND RESOURCES
- THE CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES OF ANY UTILITIES DAMAGED DURING CONSTRUCTION. ANY COSTS RELATED TO THE REPAIR OF UTILITIES DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITY SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- . ANY AREA DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED TO ITS ORIGINAL CONDITIONS AT NO COST TO THE OWNER.

EROSION AND SEDIMENT CONTROL NOTES:

- PRIOR TO SITE RESTORATION AN EROSION CONTROL BARRIER (ECB) SHALL BE PROVIDED AT THE EDGE OF THE DEVELOPMENT AREA AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ECB THROUGHOUT ALL PHASES OF CONSTRUCTION AS WELL AS COMPLYING WITH ANY OTHER CONDITIONS ESTABLISHED IN THE ORDER OF CONDITIONS (MASSDEP FILE # CE 193-0593) ISSUED BY THE LANCASTER CONSERVATION COMMISSION OR ANY OTHER PERMIT ISSUED FOR THE SITE.
- THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS DURING CONSTRUCTION TO MINIMIZE THE RUNOFF OF POLLUTING SUBSTANCES SUCH AS SILT. CLAY, FUELS, OILS, BITUMENS, CALCIUM CHLORIDE OR OTHER POLLUTING MATERIALS HARMFUL TO HUMANS, FISH. OR OTHER LIFE, INTO WATER SUPPLIES AND SURFACE WATERS. SPECIAL PRECAUTIONS SHALL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT OPERATIONS WHICH PROMOTE
- CONTRACTOR SHALL UTILIZE TEMPORARY SEDIMENT PITS OR BASINS AS NECESSARY TO PREVENT SEDIMENT LADEN WATERS FROM ENTERING DRAINAGE FACILITIES. IF ADDITIONAL SILTATION CONTROL IS REQUIRED, CHECK DAMS OR SILT FENCES MAY BE PLACED IN DITCHES RECEIVING STORMWATER FROM DISTURBED AREAS, UPON APPROVAL OF THE PROJECT ENGINEER AND/OR CONSERVATION AGENT.
- AS WORK PROGRESSES AND SEASONAL CONDITIONS DICTATE. MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS NEW CONDITIONS THAT MAY BE CREATED AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MEASURES DEPICTED HEREON.
- MEASURES FOR CONTROL OF EROSION MUST BE ADEQUATE TO ASSURE THAT TURBIDITY IN THE RECEIVING WATER WILL NOT BE INCREASED BEYOND LEVELS ESTABLISHED BY THE STATE OR OTHER CONTROLLING BODY, IN WATERS USED FOR PUBLIC SUPPLY OR FISHING UNLESS OTHER LIMITS HAVE BEEN ESTABLISHED FOR THE PARTICULAR WATER.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING THE DURATION OF RESTORATION TO INSURE THAT CHANNELS, DITCHES, AND PIPES ARE CLEAR OF DEBRIS AND THAT EROSION CONTROL BARRIERS ARE INTACT. EROSION
- AN ANTI-TRACKING CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AT ALL POINTS OF CONSTRUCTION ACCESS AND EGRESS TO PUBLIC RIGHTS-OF-WAY
- ANY SEDIMENT TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE SWEPT AND CLEANED AT THE END OF EACH WORK DAY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL, WHICH INCLUDES STREET SWEEPING OF ALL PAVED SURFACES WITHIN THE SITE AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION.
- 0. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN THE LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.

CONTROL BARRIERS SHALL BE CLEANED AND MAINTAINED AS REQUIRED TO ENSURE FUNCTIONALITY.

- SILTATION AND SEDIMENTATION BASINS SHALL BE INSTALLED ON SITE TO DE-SILT ALL STORMWATER OR WATER PUMPED FROM EXCAVATED AREAS. FOLLOWING STABILIZATION OF UPSTREAM TRIBUTARY AREAS, TOPSOIL AND SUBSOIL SHALL BE REMOVED FROM BASINS AND FREE-DRAINING SOIL FILL MATERIAL PLACED FROM PARENT MATERIAL UP TO SUBGRADE.
- . EROSION CONTROL BLANKETS SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS FOR AREAS REQUIRING SLOPE STABILIZATION. FOR PERMANENT STABILIZATION, DISTURBED AREAS SHALL BE LOAMED, SEEDED AND FERTILIZED PRIOR TO THE PLACEMENT OF THE BLANKETS.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH SUITABLE COVER VEGETATION, MULCH/TACKIFIER, BONDED FIBER MATRIX, EROSION CONTROL BLANKETS - WITHIN FOURTEEN (14) DAYS OF DISTURBANCE.
- . ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED OR MULCHED AS SOON AS PRACTICABLE TO PROVIDE PERMANENT STABILIZATION.
- CONSTRUCTION MATERIALS STORED ON SITE SHALL BE INERT AND NON-HAZARDOUS SILT FENCE, SOIL AGGREGATE PRODUCTS, STRAW WATTLES, STRAW BALES, CPE PIPE - AND OTHER SITE STABILIZATION MATERIALS MAY BE STORED WITHIN SILT FENCE BARRIERS WHEN NECESSARY. FUEL AND LUBRICANTS FOR MAINTENANCE OF EQUIPMENT AND OTHER HAZARDOUS MATERIALS - SOLVENTS, DEGREASERS - SHALL NOT BE STORED OUTDOORS AT THE SITE.

CONSTRUCTION SEQUENCING NOTES:

- INSTALL CONSTRUCTION ENTRANCE.
- INSTALL EROSION CONTROL BARRIERS AND SEDIMENT CONTROL MEASURES AS WELL AS LIMIT OF WORK DEMARCATION (FLAGGING OR FENCING) AS MAY BE SHOWN ON THE DRAWINGS OR REQUIRED BY PERMIT GRANTING AUTHORITIES.
- ESTABLISH STOCKPILE AREA AND SURROUND WITH EROSION CONTROL BARRIER. AVOID STOCKPILING IN VALLEYS OR LOW-LYING AREA WHERE SUSCEPTIBLE TO EROSION.
- EXCAVATE TEMPORARY SEDIMENTATION BASINS AND CONSTRUCT TEMPORARY DIVERSION SWALES TO DIRECT SEDIMENTATION RUNOFF TO BASINS.
- PERFORM EARTHWORK TO RESTORE BUFFER ZONE TO PRE-DISTURBANCE CONDITIONS.
- STABILIZE SLOPES THAT ARE TO REMAIN INACTIVE FOR MORE THAN FOURTEEN (14) DAYS. SEE L-101 FOR SEEDING AND PLANTING SPECIFICATIONS.
- TEMPORARY STABILIZATION SHALL BE SLOPE TERRACING AND SEED COVERED WITH A PROPERLY ANCHORED EROSION CONTROL BLANKFT. PERMANENT STABILIZATION SHALL BE LOAM, AND SEED COVERED WITH A PROPERLY ANCHORED EROSION CONTROL BLANKET. 6.3. RESTORE DISTURBED WETLAND AND PLANT TREES WITHIN FIFTY (50) FEET OF THE WETLAND. TREES SHALL BE PLANTED IN THE SPRING PLANTING
- MAINTAIN CONSTRUCTION ENTRANCE, EROSION CONTROL MEASURES, TEMPORARY DIVERSION SWALES AND TEMPORARY SEDIMENTATION BASINS THROUGHOUT DURATION OF CONSTRUCTION. REMOVE SEDIMENT IN TEMPORARY BASIN(S) WHEN ACCUMULATED TO A DEPTH OF TWELVE (12) INCHES.
- SEDIMENTATION BASINS TO REMAIN DURING EARTHWORK OPERATIONS. ALL SEDIMENT SHALL BE REMOVED FROM BASINS AND BOTTOM OF BASINS EXCAVATED TO FINAL BOTTOM ELEVATION FOLLOWING STABILIZATION OF DISTURBED AREAS
- EROSION AND SEDIMENT CONTROL IS SUBJECT TO CHANGE BASED UPON FIELD CONDITIONS, CONSTRAINTS, AND OTHER UNFORESEEN FACTORS.

GRADING, DRAINAGE AND UTILITY NOTES:

- THE CONTRACTOR SHALL CONFIRM THE SIZE AND DISPOSITION OF ALL UTILITIES TO SITE AND COORDINATE WITH RESPECTIVE UTILITY COMPANIES REGARDING ANY UTILITIES THAT REQUIRE REMOVAL OR RELOCATION. NO EXCAVATION SHALL BE PERFORMED UNTIL ALL UTILITY COMPANIES HAVE BEEN
- LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND ARE APPROXIMATE AND ASSUMED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITIES THAT ARE NOT DEPICTED HEREON. NO WARRANTEE IS EXPRESSED OR IMPLIED AS TO THE ACCURACY OF SUBSURFACE UTILITY LOCATIONS OR DISPOSITION, UNLESS OTHERWISE NOTED ON THE PLAN.
- CONTRACTOR SHALL CONFIRM DEPTH(S) OF PERTINENT UTILITIES BY TEST PIT AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE PROJECT SURVEYOR AND
- PROVIDE CRIBBING TO PROTECT UTILITY LINES DURING CONSTRUCTION AS NECESSARY.
- THE CONTRACTOR SHALL PROTECT SUBSURFACE DRAINAGE, SEWER AND ALL OTHER UTILITIES FROM EXCESSIVE VEHICLE LOADS DURING CONSTRUCTION. FACILITIES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO
- FINAL GRADES SHALL BE PITCHED EVENLY BETWEEN SPOT ELEVATIONS AND ALL AREAS SHALL BE GRADED TO DRAIN WITH NO PUDDLING OR PONDING.
- THE CONTRACTOR SHALL SCHEDULE THE WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURBING MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE (1.5% MINIMUM) AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
- . ALL DRAIN PIPE SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE (CPE TYPE S; AASHTO M252 OR M294), UNLESS OTHERWISE NOTED. PIPE LENGTHS ARE MEASURED CENTER-OF-STRUCTURE TO CENTER-OF-STRUCTURE.

OWNER/APPLICANT'S REPRESENTATIVE:

U-Haul Moving & Storage of West Springfield Mr. Jeff Vaine 603 762 5535

SITE CONTRACTOR:

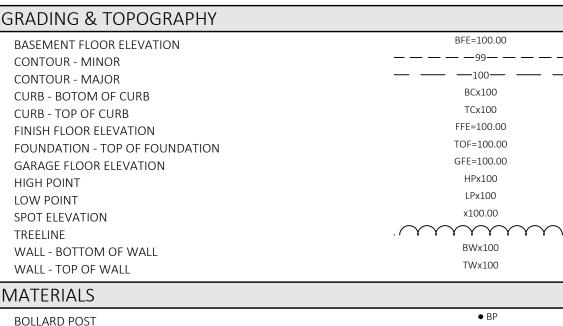
All County Paving Mr. Bob Foley 617 733 0504



THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ABBREVIATIONS				
ACRES	AC.			
BITUMINOUS CONCRETE	BIT. CON			
CONCRETE	CONC.			
DIAMETER	DIA.			
FOUND	FND.			
LINEAR FEET	L.F.			
MAINTAIN AND PROTECT	M&P			
NOT TO SCALE	N.T.S.			
NOW OR FORMERLY	N / F			
PLUS OR MINUS	±			
SQUARE FEET	S.F.			
REMOVE AND DISPOSE	R&D			
REMOVE AND REPLACE	R&R			
TURF REINFORCEMENT MAT	TRM			
VERIFY IN FIELD	V.I.F.			

LEGEND					
ENVIRONMENTAL					
100' FLOOD ZONE 50' WETLAND BUFFER ZONE 100' WETLAND BUFFER ZONE 200' RIVERFRONT AREA BOUNDARY BORDERING VEGETATED WETLAND EROSION CONTROL BARRIER STREAM - INTERMITTENT STREAM - PERENNIAL WATER BODY	50' WBZ 100' WBZ 200' RFA BBVW ECB FLOW FLOW				
GRADING & TOPOGRAPHY					



MATERIALS BOLLARD POST BUILDING **BUILDING - DOOR** BUILDING - OVERHEAD DOOR **BUILDING - OVERHANG** CAPE COD BERM CURB - BITUMINOUS CONCRETE CURB - CONCRETE CURB - HAUNCHED CURB - SLOPED GRANITE **CURB - VERTICAL GRANITE EDGE OF PAVEMENT** — CLF FENCE - CHAIN LINK FENCE - POST & RAIL _____SF____ FENCE - STOCKADE SGR GUARDRAIL - STEEL O O O O O O GUARDRAIL - STEEL BACK WOODEN

GUARDRAIL - WOODEN WGR HANDICAP ACCESSIBLE PARKING SPACE HANDICAP ACCESSIBLE RAMP HANDRAIL - STEEL WHR HANDRAIL - WOODEN (TRADITIONAL)
☐ LP
★ (ORNAMENTAL) LIGHTPOLE RIPRAP SIGN

 ∞ WALL - STONE WALL - WING **MONITORING & TESTING** MW MONITORING WELL **-**← PT-## PERCOLATION TEST **□** TP-## TEST PIT

WALL - CONCRETE

WALL - RAILROAD TIE

SANITARY SEWER LINE

OUTLET CONTROL STRUCTURE

WELL

WALL - HEAD

UTILITIES & DRAINAGE ELECTRIC & COMMUNICATION ELECTRIC BOX ——— UGF ——— UGF —— ELECTRIC, COMMUNICATION & DATE LINE EMH ELECTRIC MANHOLE ——OHW——OHW— OVERHEAD WIRE TMH TELEPHONE MANHOLE

TRANSFORMER UTILITY POLE **GAS LINE GAS METER** GV **GATE VALVE** SANITARY SEWER & WASTEWATER — FM — FM — FM — FORCEMAIN

— ss — ss — ss —

OCS

R=100.00

SANITARY SEWER SERVICE → SMH SANITARY SEWER MANHOLE STORMWATER AREA DRAIN ■ CB CATCH BASIN CB D-TYPE CATCH BASIN - D-TYPE CATCH BASIN - DOUBLE LCB CATCH BASIN - LEACHING CB CATCH BASIN - ROUND DROP INLET DRAINLINE DRAIN MANHOLE FLARED END — FD — FD — FD — FOUNDATION DRAIN INV=100.00 INVERT

— RD — RD — RD — **ROOF DRAIN** WATER & APPURTENANCES HYDRANT **GATE VALVE** REDUCER TEE WATER LINE WATER SERVICE WATER SHUT OFF

LAND DESIGN COLLABORATIVE Chauncy Place | Terrace North | Suite 1

> 45 Lyman Street Westborough, MA 01581

508.952.6300 | LDCollaborative.com CONTENT, INFORMATION AND DESIGN OF THIS PLAN ARE ROPRIETARY AND DUPLICATION AND/OR UTILIZATION FOR ANY PURPO STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN AUTHORIZATION FRO AND DESIGN COLLABORATIVE. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. LAND DESIGN COLLABORATIVE, LLC.

Five SAC Self-Storage

207 E. Clarendon Ave Phoenix, AZ 85012

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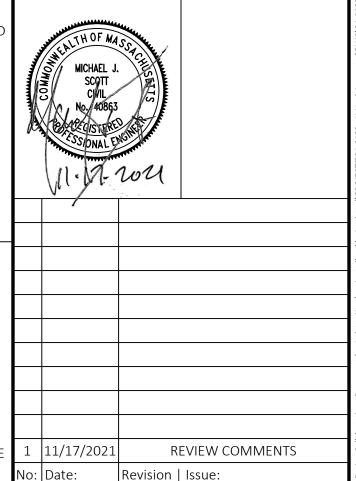
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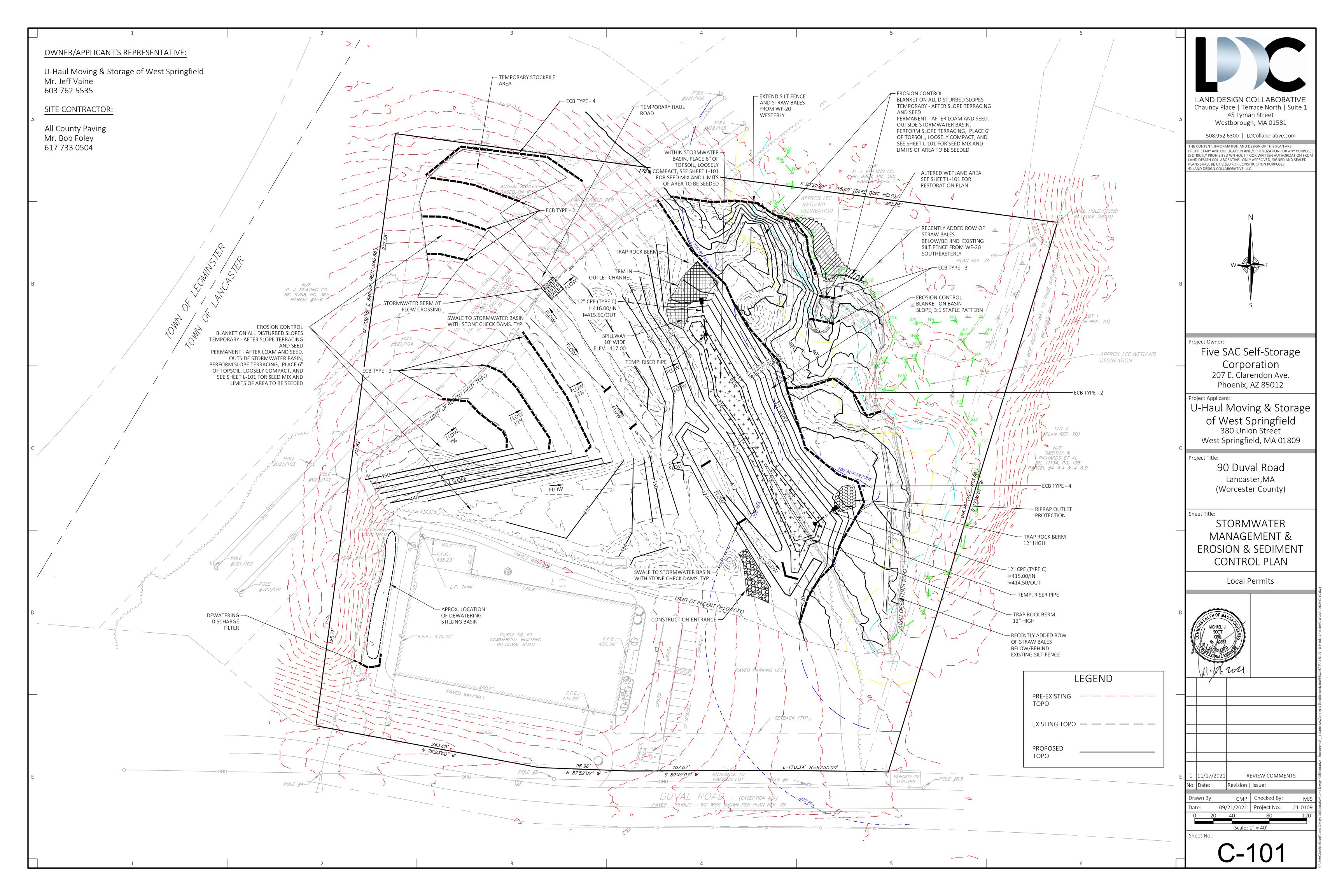
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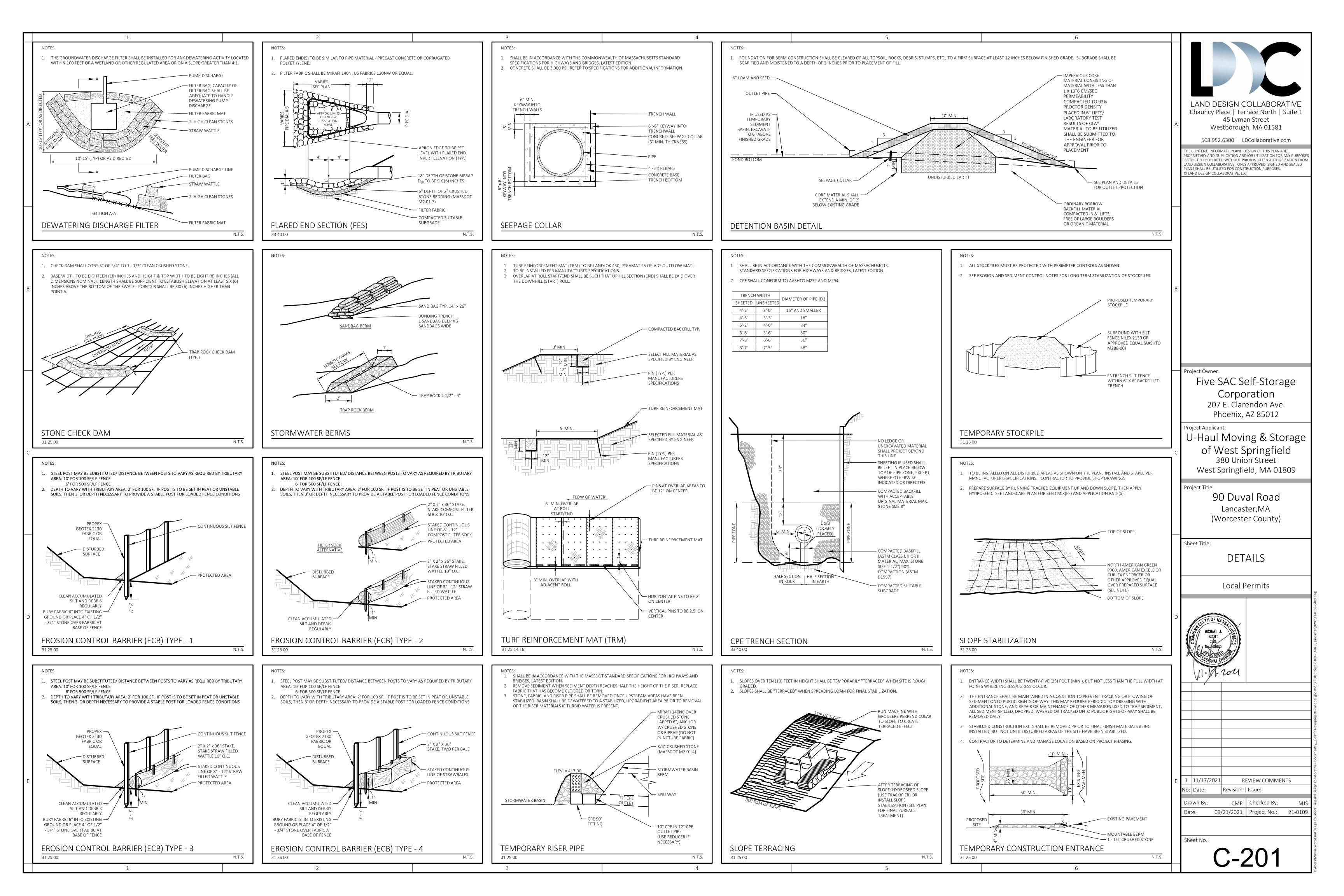
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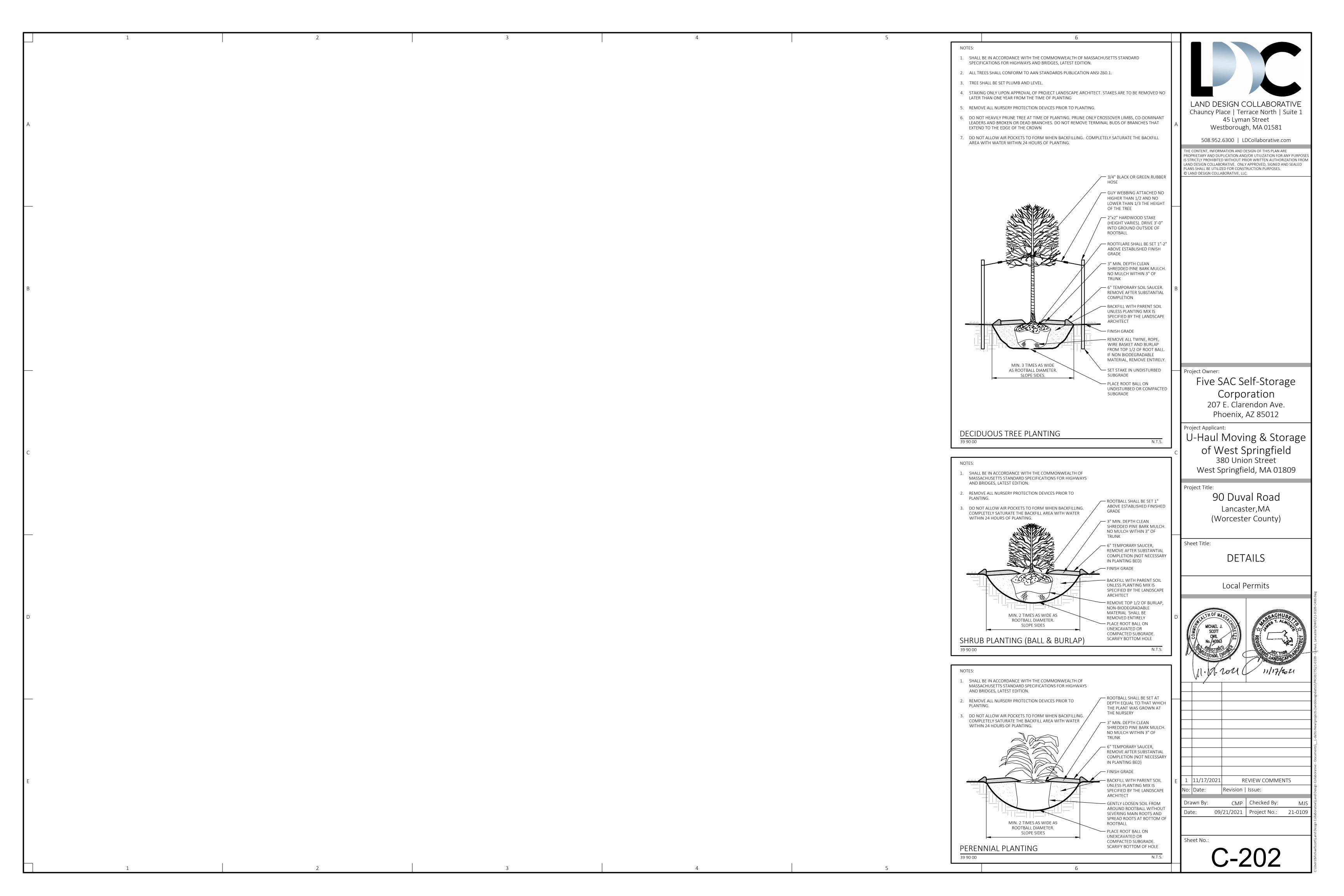
Local Permits



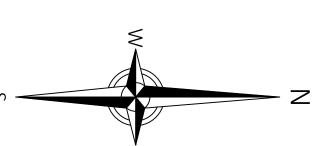
Drawn By: CMP | Checked By: 09/10/2021 | Project No.: 21-0109











PLANT SCHEDULE

QTY	KEY	BOTANICAL NAME	TANICAL NAME COMMON NAME SIZE		ROOT	
DECIDUOUS TREES						
7	Ar	Acer rubrum	Red Maple	2" - 2.5" cal.	B&B	
8	Qa	Quercus alba White Oak 2" - 2.5" cal.		2" - 2.5" cal.	B&B	
SHRU	BS					
3	Am	Aronia melonocarpa	Black Chokeberry	#3	CONTAINER	
6	Ca	Cornus amomum	Silky Dogwood	#3	CONTAINER	
21	Hv	Hamamelis virginiana	Common Witch Hazel	4'-5' HT.	B&B	
6	lv	Ilex verticillata	Winterberry	#3	CONTAINER	
79	Κl	Kalmia latifolia	Mountain Laurel	3'-4' HT.	B&B	



WETLAND AREA SEED MIX (NORTHEAST WETLAND NATIVE WILDFLOWER MIX)

DISTURBED UPLAND AREA SEED MIX (NORTHEAST UPLAND NATIVE / NATURALIZED WILDFLOWER MIX)

STORMWATER BASIN SEED MIX (NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES)

Three Oaks Environmental P.O. Box 404 Hubbardston, MA 01452

October 22, 2021

(978) 855-3180

James Almonte jalmonte@LDcollaborative.com

Re: Planting plan U-haul site, 90 Duval Rd. Lancaster

If there are areas of wetland that need to be restored I would recommend bare-root seedlings of red maple, silky dogwood, black chokeberry and winterberry holly 4-feet on center along with NE wetland seed mix applied on the bare ground between the

Red maple - Acer rubrum Silky Dogwood - Cornus amomum Black chokeberry - Aronia melanocarpa Winterberry Holly - Ilex verticillata

Northeast Wetland Native Wildflower Mix

Code: STCMX-6

plantings.

\$105.00 Per Pound

1 pound will cover 11,000 sq. ft. @ 50 seeds per sq. ft.

This mix is to seed the early growing season draw down and saturated soil zones. The species have been chosen to provide colorful flowers at various times of the growing season especially in late summer. The mix is produced using hand collected seed from western New York and northwestern Pennsylvania; only a limited amount is available. We recommend a seeding rate of 4 pounds per acre as a supplement to plantings of bare root herbaceous and woody species plantings.

Percent by No. of seeds (not weight)		Scientific Name	Common Name
26.66%	N	Eupatorium perfoliatum	Boneset
20.80%	N	Verbena hastata	Blue Vervain
19.75%	N	Panicum dichotomiflorum	Smooth Panic-Grass
8.89%	N	Solidago rugosa	Wrinkled Goldenrod
8.74%	N	Eupatorium maculatum	Joe Pye Weed
6.65%	N	Euthamia graminifolia	Grass Leaf Goldenr
4.59%	N	Polygonum pensylvanicum	Pennsylvania Smartweed
2.80%	N	Aster novae-angliae	New England Aster
0.79%	N	Bidens cernua	Nodding Beggar's Ti
0.21%	N	Asclepias incarnata	Swamp Milkweed
0.12%	N	Iris versicolor	Blue Flag

Plantings for the upland buffer zone include

Mountain laurel - Kalmia latifolia Witch hazel - Hamamalis virginiana White oak - Quercus alba

Northeast Upland Native/Naturalized Wildflower Mix

Code: STCMX-1

\$50.00 Per Pound

1 pound will cover 1,900 sq. ft. @ 250+ seeds per sq. ft.

The primary difference between this and ordinary wildflower mixes now commonly used is that this contains only species native and/or fully naturalized in the northeast whereas the common mixes contain a number of species alien to the region. This mix will not flower profusely during the first growing season because it lacks the usual exotic annual weeds, but in later years it will produce a wildflower/grass meadow that appears common to the region. We recommend a seeding rate of 23 pounds per acre with 8 pounds of wildflowers and 15 pounds of grass seed.

Percent by No. of seeds (not weight)		Scientific Name	Common Name	
Grass Portion (15 Pounds)				
28.1%		Festuca ovina	Sheep Fescue	
26.0%	N	Panicum virgatum	Switchgrass	
15.3%		Setaria italica	Foxtail Millet	
12.8%		Anthoxanthum odoratum	Sweet Vernal Grass	
11.1%		Lolium multiflorum	Annual Ryegrass	
6.7%	N	Elymus canadensis	Wild Rye	

Wildflower Portion (8 Pounds)			
47.5%	N	Achillea millefolium	Common Yarrow
9.1%		Rudbeckia hirta	Black Eyed Susan
7.5%		Chrysanthemum leucanthem.	Ox-Eye Daisy
7.4%	N	Verbena hastata	Blue Vervain
7.3%		Cichorium intybus	Cichory
6.8%		Lotus corniculatus	Birdsfoot Trefoil
5.0%		Hesperis matronalis	Dame's Rocket
2.2%		Daucus carota	Queen Anne's Lace
2.0%	N	Solidago canadensis	Canada Goldenrod
2.0%	N	Euthamia graminifolia	Grass Leaf Goldenrod
1.5%	N	Monarda fistulosa	Wild Bergamot
1.3%	N	Aster novae-angliae	New England Aster
0.4%	N	Asclepias syriaca	Common Milkweed

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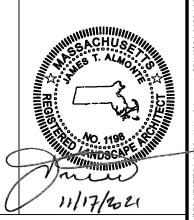
Project Title:

90 Duval Road Lancaster, MA (Worcester County)

Sheet Title:

RESTORATION PLANTING PLAN

Local Permits



REVIEW COMMENTS Revision | Issue:

lo: Date: JTA Checked By: Drawn By: 10/25/2021 Project No.: 21-010