



Town of Leicester PLANNING BOARD

3 Washburn Square
Leicester, Massachusetts, 01524-1333
Phone: 508-892-7007 Fax: 508-892-7070
www.leicesterma.org

PLANNING BOARD AGENDA Tuesday, November 2, 2021 @ 7:00PM

<i>In-Person</i>
Meeting Room 3 Leicester Town Hall, Lower Level

ORDER OF BUSINESS*

1. 7:00 PM **Discussion, Site Plan Review**
SPR2021-04, ZP Battery, 1355 Main St, medium-scale, ground-mounted solar energy system. Applicant: ZP Battery DevCo, LLC.
2. 7:15 PM **Public Hearing, Definitive Subdivision Plan & Special Permit**
DSUB2021-02/SP2021-08, Skyview Estates, 651 Main Street, 74-unit residential subdivision, mix of duplex & multi-family structures, Applicant: MKPEP770, LLC.
3. 7:30 PM **Public Hearing, Special Permit Amendment, Continued**
SP2019-02, Smuggler's Cove Open Space Residential Development (reduction in road length & # of lots), Applicant: Central Land Development Corp.
4. 7:45 PM **Definitive Subdivision Plan Endorsement and Covenant, SUB2021-01**
Parker Street (North), Schold Development LLC.
5. 8:00 PM **General Discussion:**
 - WorcShop: Hours of Operation
 - Miscellaneous Project Updates
 - Board Member Committee Updates
 - Upcoming Meeting Dates

Adjourn

***Note: Agenda times for items that are not public hearings may be taken out of order.**

"The listings of matters are those reasonably anticipated by the Chair 48 hours before said meeting, which may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law"



Town of Leicester PLANNING BOARD

3 Washburn Square
Leicester, Massachusetts, 01524-1333
Phone: 508-892-7007 Fax: 508-892-7070
www.leicesterma.org

Memorandum

TO: Planning Board Members
FROM: Alaa Abusalah, Town Planner
Brooke Hultgren, Planning Department Assistant
DATE: October 28, 2021
RE: **Planning Board Applications – November 2, 2021**

All application materials are available online (Planning Board page under Current Applications/Plans).

SPR2021-04, 1355 Main Street - ZP Battery DevCo, LLC

Site Plan Review: Medium-scale, ground-mounted solar energy system

- The applicant is proposing to install a new Solar Energy Storage System on the property with an estimated storage capacity of 5-Megawatt AC. Facility will be utilized purely for storage and not the generation of energy. Extensive clearing is not required. Overall development will be comprised of 8 concrete pads to store the ESS units along with applicable electrical components to allow for the interconnection to the grid. Total area of alteration will be approximately 38,000 square feet. Waiver requested from providing a review of the availability of water and sewer in the project area. Upon completion of construction, there will be no on-site employees.
- Original plans were revised in response to comments from Quinn Engineering. Updated plans and comments are included in the meeting packet.
- Comments from Police Department indicating LPD has no objections to this project but requesting emergency contacts for dispatch in the event of a catastrophic failure or evacuation plan if needed.

DSUB2021-02/SP2021-08, 651 Main Street – Skyview Estates, MKPEP770, LLC

Definitive Subdivision Plan & Special Permit: 74-unit residential subdivision, mix of duplex & multi-family structures

- Town Planner met with Quinn Engineering on October 27, to discuss revised plans. Additionally, the Department of Inspectional Services, Police Chief, Fire Chief, Highway Superintendent, and Quinn Engineering conducted a group site visit on October 28. Photos attached. Comments from departments are pending.
- No updated plans or changes have been submitted. Most recent plans, dated October 6, are included in your meeting packet.
- The applicant has filed for an NOI with the Conservation Commission.
- The following comments are leftover from the previous meeting memo.
 - The 10/5/2021 revised plans and a memo from the engineer are included in the packet (traffic and drainage reports can be found online). Draft decisions

(written by Michelle) that are included in the packet will need to be edited quite a bit post-meeting, but I included them in the packet because she lists a number of sample conditions that may be helpful in your deliberation.



SP2019-02, Smuggler's Cove Open Space Residential Development – Central Land Development Corp.

Special Permit Amendment: reduction in road length and number of lots.

- The following comments are leftover from the previous meeting memo. There have been no changes to this project/plans since July.
 - The 7/2021 revised plan is enclosed. Comments received since the hearing date on 7/20/2021 are enclosed; prior comments are online in the meeting packet for the 7/20/2021 Board meeting. The Board approved a special permit in 2020 for a 24 lot Open Space Residential Development (OSRD). The project had a 2,607'

roadway, with a 2,692' secondary emergency access). A copy of the prior decision is enclosed, as it summarizes the project, relevant bylaws & regulations, the rationale for the Board's decision, and conditions of approval.

- The current application is a proposed amendment of the 2020 special permit, to reduce the roadway length and the number of house lots (June 2021 proposal 13 lots/2,000' paved road w 1,995' gravel emergency access; July 2021 proposal 10 lots, 1,627' dead end).
- The next step for the applicant after the current application is approved or disapproved would be to proceed to the Definitive Plan stage with either the 2020 special permit design or 2021 amendment design (if approved). If the design without a secondary access is approved, a variance from the ZBA for dead-end length greater than 1,000' would be required. The project also still requires review and approval by the Conservation Commission (this is done at the Definitive Plan Stage).
- I advise the Board to allow the applicant to present his project in full and respond to Board concerns (and allow for comment for the public) before proceeding to a motion to approve or deny. I've enclosed the prior decision on this project again, as it summarizes the issues and the relevant evaluation criteria. The OSRD bylaw is contained in Section 5.13 of the Zoning Bylaw (starting on page 56).
- The Zoning Enforcement Officer has received several written requests to enforce the bylaw in relation to this project.

SUB2021-01, Parker Street (North) – Schold Development LLC

Definitive Subdivision Plan Endorsement and Covenant

- Both the final plans and the covenant need to be signed by the board.

Michelle R. Buck, Town Planner
Leicester Development and Inspectional Services
3 Washburn Square
Leicester, Massachusetts 01524

September 21, 2021

RE: Site Plan Review
#1355 Main Street Energy Storage System (ESS)
ZP Battery Devco, LLC
Map 26/Parcel A1

Dear Ms. Buck,

On behalf of our client ZP Battery Devco, LLC, Hannigan Engineering, Inc. is submitting an application for Site Plan Review for the installation of a Solar Energy Storage System (ESS) at #1355 Main Street in Leicester, Massachusetts (Map 26/Parcel A1). The project is located within the Highway-Business-Industrial District-1 (HB-1) Zoning District and Site Plan Review is required by the Bylaw under Section 5.2.02.1(g) Medium-scale Ground-Mounted Solar Energy Systems.

Submitted as part of this application are the Site Development Plans of the project depicting the proposed construction, along with the Drainage Analysis & Report which outlines the impacts and mitigation of the construction project relative to Stormwater Management. The Project will be situated on a portion of the #1355 Main Street property along the southerly side of Main Street (Route 9) in Leicester. The property is currently is approximately 5.44 acres which is generally undeveloped and comprised mostly of woodland and brush areas. It is noted that some areas of an existing gravel access way exist within the area of development that is associated with the previous use of the adjacent property at #1323 Main Street. Areas subject to protection under the Wetlands Protection Act and the Leicester Wetland Bylaws were reviewed and delineated by Caron Environmental. These areas are limited to a Bordering Vegetated Wetland (BVW) along the southerly property line. A Notice of Intent is being filed concurrently with this submittal with the Leicester Conservation Commission.

It is the intent of the applicant to install a new Solar Energy Storage System (ESS) on the property with an estimated storage capacity of 5-Megawatt AC. For the purposes of classification under the current Zoning Bylaw this project is being considered as a Medium-scale Ground-Mounted Solar Energy System as the net cleared area of land is less than 40,000 square feet. As such Site Plan Approval is required by the Board. As part of the general construction, a portion of the existing woodland on the property will be cleared to facilitate the construction. Unlike other Solar Energy Systems this facility is utilized purely for the storage and not the generation of energy. Thus, extensive clearing is not required.

Upon completion of the tree cutting, the installation of the appropriate erosion control measures will occur to prevent the transport of soils and sediments to the lower elevations of the site. The overall development will be comprised of eight (8) concrete pads to store the ESS units along with applicable electrical components to allow for the interconnection to the grid. The total area of alteration associated with the project will be approximately 38,000 square feet.

Access to the site will be via an existing 20-foot gravel access drive off of Main Street Road. This gravel drive will run along the easterly limit of the project area and be the permanent access to the site. It is anticipated to only be utilized on a periodic basis for general maintenance and inspections of the facility.

This access drive will be fitted with a T-turnaround which will allow for a typical emergency vehicle (SU40) or service vehicle to turnaround within the site.

The entire system will be surrounded by a chain-link security fence to prevent unauthorized entry. A gate will be provided at the entrance to the site with a Knox Box to allow emergency personnel to enter if necessary. Additional access gates will be provided along the perimeter of the system to allow for access to the proposed drainage infrastructure. Additionally, as required by the Bylaw, a sign will be added at the entrance of facility with the appropriate contact information for the operator and emergency contacts.

With respect to lighting, the only lighting for the project will be located in the area of the electrical systems and be operated by a motion sensor. Should maintenance be required, it is typically performed during daylight hours.

As part of the review, Stormwater Management Regulations are applicable, and the Stormwater Drainage Analysis and Report is included with this submission. To provide compliance with Stormwater Management Regulations for this project, a dry-detention basin will be constructed to mitigate the increases in peak rate of runoff. Stormwater generated by the completed project site will be transmitted via overland flow to the detention basin, which will be equipped with a PVC sub-drain system and an outlet structure consisting of various orifices to control the discharge rate of the flow. During smaller storm events, the stormwater will back up in the detention basin and be controlled by the discharge flow allowed by the subdrain system and outlet control structure.

The utility connection will utilize underground electrical conduits to transmit the electricity from the ESS to a series of transformers and inverters. From there, additional underground conduits will transmit the power to a series of connection poles or pad mounted equipment for final connect to the grid. The final design and connection location will be established by National Grid and is not under control of the applicant.

Safety and protocol surrounding the proposed ESS project are extensive. Each ESS container is equipped with sensors and monitors for heat, humidity and gases. There are audible and visible alarms associated with the protection system. Safety aspects above the automatic monitoring system will include "dry riser pipes" being installed and individually plumbed from each ESS container to a location outside of the fence-line. They will be labeled appropriately as to which container each pipe is plumbed to. In the event of an emergency, the fire department can directly connect to the pipe coupling associated with the affected ESS container.

SITE PLAN REVIEW

Per the Leicester Planning Board Site Plan Review Rules and Regulations, further information relative to the final project is required in aiding in the Planning Board's decision for Site Plan Approval. As stated above, the subject property is located at #1355 Main Street on land of WR Enterprises, LLC with an approximate land area of 5.44-acres. The construction is limited to less than an acre to be utilized as part of this ESS Development. Currently, the property is undeveloped and comprised of mostly woodland and brush, with a small area of jurisdictional wetland along the southerly property line. Upon the completion of construction, there will no habitable structures on the property, with the only structures on the property being the ESS storage units and associated electrical equipment.

Due to the nature of the project, parking areas are generally not required. In addition, the need for sewer and water connections are not required as there are no facilities on the project. A waiver has been requested from providing a review of the availability of water and sewer in the project area. Upon the completion of construction, there will be no on-site employees. The only instance that workers will be on-site will be during maintenance operations once every few months which will take place during daylight hours.

As for the construction timeline, it is the intent of the applicant to start construction of this project in the Spring or Summer of 2022, pending local approvals and financing. Upon start it typically takes six to eight months to complete the project, which will be completed within a single phase of construction.

In addition to seeking Site Plan Approval from the Leicester Planning Board, a Notice of Intent has been filed with the Leicester Conservation Commission and the Department of Environmental Protection (DEP) for the work being performed within the jurisdictional areas under the Wetland Protection Act.

As for the overall scope of the project, the total area of disturbance will be approximately 38,000 square feet which encompasses the area of tree clearing and fenced areas. The only areas within the project scope that are considered impervious are the proposed ESS concrete pads, which combined are approximately 1,700 square feet. The typical height of these ESS Units is approximately 8-feet, with no structure being more than 12-feet.

The property is currently located within a generally commercial area with the abutting property to the east being a commercial automobile facility and the property the west being commercial as well. The abutting property to the south is the undeveloped portion of residential property with the dwelling approximately 400-feet away from the intended development area. It is noted that there are several residential dwellings located along the opposite side of Main Street. As part of the design of the site, the ESS units are approximately 12 to 18-feet below the existing grade of Main Street, thus well below the sightline of the road and residential properties. As such it is not anticipated that the ESS units will be visible to the residential properties nor the roadway due to the topography relief and the existing vegetation to remain.

As previously mentioned, this project requires the filing of a Notice of Intent with the Conservation Commission for the proposed work. As part of that review, it was found that the land does not contain any NHESP habitat areas or vernal pools. As part of that filing the applicant is required to mitigate the potential impacts to the resource areas, generated by the construction process. As such erosion control measures in the form of staked straw wattles and silt fence will be placed along the limit of work.

Furthermore, due to the scope of the project, a filing for the Construction General Permit with the EPA will be required along the creation of a Stormwater Pollution Prevention Plan (SWPPP). Within these documents further detail will be provided relative to additional erosion control measures that may be required during construction. In addition to the SWPPP, regular inspections of erosion control and the site in general will be required to insure that the contractor is complying with the approved plan and that all measures in place are properly functioning.

STANDARDS FOR SITE PLAN REVIEW

Per the Leicester Planning Board Zoning Bylaw, as part of the Site Plan review, certain considerations must be given to the proposed use and the impacts to the town. These are reviewed as follows:

A.) The use complies with all provisions of the Leicester Zoning Bylaw

As described above the project is located within Highway-Business-Industrial District-1 (HB-1) Zoning District and is allowed by right with Site Plan Approval from the Leicester Planning Board.

B.) The use will not materially endanger or constitute a hazard to the public health and safety

The ESS systems are comprised of inert solid materials. In the event of failure it is not anticipated that these materials would "leak" or emit any fluid or gas. In addition, the entire system area will be surrounded by a chain-link fence which will prevent any unauthorized personnel from entering the facility.

C.) The use will not create undue traffic congestion or unduly impair pedestrian safety

Upon the completion of construction, traffic to the site will be limited to service crews to perform periodic inspections and maintenance to insure the facility operates properly.

D.) Sufficient off-street parking exists or will be provided to serve the use

Due the nature of this type of project, off-street parking is needed for its daily operation.

E.) The use can be adequately served by water, sewer and other necessary utilities, or if these are unavailable, that they will be brought to the site at the owner's expense; or, the Planning Board is satisfied that the proposed alternatives will comply with all applicable regulations;

Due the nature of this type of project, the need for water and sewer is not necessary. A waiver has been requested relative to performing a review of the availability of such utilities. The only utility connection that will be required will be an overhead electrical connection to the existing infrastructure within Main Street.

F.) The use will not result in a substantial increase of volume or rate of surface water runoff to neighboring properties and streets, nor will result in pollution or degradation of surface water or groundwater

The project's stormwater system has been designed in accordance with the DEP Stormwater Management Regulations. As noted in Drainage Analysis and Report impacts from stormwater are not anticipated.

G.) The use will not result in any undue disturbance to adjoining property owners or the Town caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, glare, etc...

Upon the completion of construction, the project will not generate any smoke, vapors, dust or glare as part of the project. The noise generated by project is isolated to ESS pad areas which will generate noise no more than that typical of a HVAC unit. These units will be located approximately 50-feet off the roadway and well below the grade of the road as to minimize sound impacts to the public way.

WAIVER REQUESTS

Per the Leicester Planning Board Site Plan Review Rules and Regulations, the Planning Board may waive any of the requirements upon submittal of information by the applicant that substantiates the waiver request. As required by the Zoning Bylaw several of the aspects of site plan review are not applicable to a project of this type specifically, traffic and water/sewer availability.

Due to the nature of this project, portions of this Site Plan Application are not applicable and waivers to these sections are requested as follows:

II.D: Traffic Study

– Due to the nature of the project, it is not anticipated that the project would have an adverse affect on traffic surrounding the site. Specifically, vehicular traffic for the project is not anticipated with the exception of the occasional maintenance and inspection. During construction, construction vehicles and equipment will be accessing the site by a proposed gravel drive off of Main Street. Additional signage will be placed along the roadway in this area to alert drivers of construction activity. Upon the completion of the project, the only traffic for the project would be for inspection and maintenance.

The applicant, therefore, requests a waiver to II.D: Traffic Study of the Bylaw.

II.E: Availability of Water and/or Sewer

-Due to the nature of the project, the project will not require any connections to the public water supply or any sewerage connections.

The applicant, therefore, requests a waiver to II.E: Availability of Water and/or Sewer of the Bylaw.

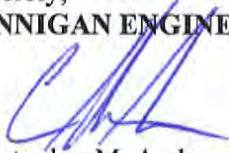
END OF TEXT

HANNIGAN ENGINEERING, INC.

8 MONUMENT SQUARE, LEOMINSTER, MA 01453 PHONE: (978) 534-1234 FAX (978) 534-6060 CIVIL ENGINEERS & LAND SURVEYORS

On behalf of our client, Hannigan Engineering, Inc. is requesting that this project be put on the agenda for the next available meeting. Representatives of this office and of the Applicant will be available to address any questions or concerns raised at that time. Should you require additional information prior to the meeting, please do not hesitate to contact this office. We appreciate the Town's assistance in this process as we look forward to working with you to obtain the anticipated approval of this project.

Sincerely,
HANNIGAN ENGINEERING, INC



Christopher M. Anderson, PE
Project Engineer

William D. Hannigan, PE
President

pc: Pete Forte, ZP Battery Devco, LLC
Tom Corbett, ZP Batter Devco, LLC


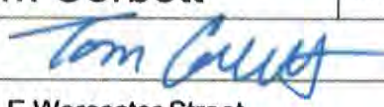
J:\My Documents\PROJECTS\3000+3010-ZP Battery Leicester\Planning\3010-Planning Narrative.docx

For Planning Office Use:
File #: SPR2021-04

**Leicester Planning Board
Site Plan Review & Special Permit Application Form**

PERMIT TYPE: ☐ Special Permit ☒ Site Plan Review

CONTACT INFORMATION

Owner Information			
Name:	William Roberts	Company Name:	W R Enterprise LLC
Signature:			
Address:	1323 Main Street Leicester, MA 01524		
Phone:	(508) 892-8007	Email:	bill@classicautomotivema.com
Applicant Information			
Name:	Tom Corbett	Company Name:	ZP Battery DevCo LLC
Signature:			
Address:	10 E Worcester Street Worcester, Ma 01604		
Phone:	(774) 479-9870	Email:	tcorbett@zpeenergy.com
Primary Contact Person (The person that will be contacted by Planning Board staff during the application process.)			
Name:	Tom Corbett	Company Name:	ZP Battery DevCo LLC
Address:	10 E Worcester Street Worcester, Ma 01604		
Phone:	(774) 479-9870	Email:	tcorbett@zpeenergy.com

PROJECT INFORMATION

Project Address:	1355 Main Street	Zoning District:	HB-1
Assessors Map & Parcel #	26B A1	Deed Reference (Book & Page):	62166 / 240
Applicable Zoning Bylaw Section(s):	5.14 Ground-Mounted Solar Energy Systems		
Proposed Land Use:	Energy Storage System		
Existing Land Use:	Vacant Lot		

PROJECT INFORMATION, Continued

Size of Proposed Structure(s):		.5 acres	
Total Lot Area:		5.44 acres	
Water Source: (Select One) (NA)	<input type="radio"/> Private Well	<input type="radio"/> Cherry Valley & Rochdale Water District	
	<input type="radio"/> Hillcrest Water District	<input type="radio"/> Leicester Water Supply District	
Sewer Source: (Select One) (NA)	<input type="radio"/> Private Septic System	<input type="radio"/> Cherry Valley Sewer District	
	<input type="radio"/> Hillcrest Water District	<input type="radio"/> Leicester Water Supply District	
	<input type="radio"/> Oxford Rochdale Sewer District		
Brief Project Description: Please include a brief description on this form (i.e. do not write "see attached"). [Examples: New construction of a 20,000s.f. retail building and associated parking; Use of a 1,000s.f. portion of an existing structure for a proposed pet grooming clinic.] Construction of a 5 Megawatt Energy Storage System consisting of a 20 ft wide access Road, eight (8) battery containers, inverters, transformers and associated interconnection equipment. All equipment will be pad mounted. Electrical lines will be underground except what is necessary to be overhead per utility requirements. Stormwater feature is included in this design. the project will be completely fenced in with a Knox Box with a code that will be given to local emergency services for access.			

Application Checklist

Use this checklist to ensure you have provided all required information. See Planning Board Site Plan Review & Special Permit Regulations for details. 13 copies are required except where noted.

<input checked="" type="checkbox"/> Plans (2-full-size & 11-11"x17")	<input checked="" type="checkbox"/> Detailed Project Narrative including any waiver requests ¹	<input checked="" type="checkbox"/> Drainage Analysis/ Stormwater Report, (3 copies) <input type="checkbox"/> n/a
<input type="checkbox"/> Documentation of Availability of Water & Sewer <input checked="" type="checkbox"/> n/a	<input checked="" type="checkbox"/> Certified Abutters List (1 copy) ² <input type="checkbox"/> n/a	<input type="checkbox"/> Traffic Study (3 copies) <input checked="" type="checkbox"/> n/a
<input checked="" type="checkbox"/> Fees ³	<input checked="" type="checkbox"/> .pdf copy of all required submittals (CD or USB Drive)	

¹ See Planning Board Site Plan Regulations for details on what should be included in a Project Narrative. For special permits that don't require conformance with Site Plan Review submittal requirements, submit a narrative explaining conformance with special permit approval criteria (see Special Permit Regulations for details).

² certified abutters lists are required for all Special Permits applications and for Major Site Plan Review Applications (new construction over 30,000 s.f. and ground-mounted solar over 250,000 s.f or 2 acres or more of tree clearing)

³ Please refer to the Planning Board's Fee Regulations. Checks must be made out to the Town of Leicester

For Planning Board Use:

Date of Submittal:			
Public Hearing/Meeting Date(s):			
Date of Planning Board Vote:			
Date Decision Filed with Town Clerk:			

Town of Leicester
3 Washburn Square
Leicester, Ma 01524

September 17, 2021

RE: Special Permit & Notice of Intent
1355 Main Street Energy Storage System
ZP Battery DevCo, LLC
Map 26B, Block A1, Parcel 0

To Whom it may concern:

Please be advised that W R Enterprise LLC has authorized ZP Battery DevCo, LLC to submit an application for Site Plan Approval and Notice of Intent relative to the construction of an Energy Storage System on land owned by W R Enterprise LLC depicted on Assessor's Map 26B, Block A1, Parcel 0.

Signed:



Date 9/17/21

Name: William Roberts

Title: Landowner



TOWN OF LEICESTER
Office of Building and Code Enforcement
3 Washburn Square, Leicester MA 01524
Phone: 508-892-7003 Fax: 508-892-1163
www.leicesterma.org

Mr. Tom Corbett
ZP Battery DevCo, LLC
10 E Worcester Street, Suite 3A
Worcester, MA 01604

Re: Zoning Interpretation
1355 Main Street
Leicester, Ma 01524

Dear Mr. Corbett:

I reviewed your enclosed request dated July 12, 2021 to provide a zoning determination in connection with the proposed use of the above-referenced property for the installation of an energy storage system ("ESS") at 1355 Main Street which is located in the HB-1 Zoning District. Like the existing solar energy systems, the ESS will be interconnected to National Grid's distribution grid on the LEICESTER 21W1 feeder.

For the reasons described herein, I have determined that the proposed ESS is a use allowed by Site Plan Review from the Planning Board under Section 5.14.4.0, "Ground-Mounted Solar Energy Systems" within the Town of Leicester Zoning Bylaws, as amended as of June 2, 2020 (the "Bylaws"). Section 3.2.05 of section 3 (Table of Use Regulations) of the bylaws provides that a "Medium-Scale Ground Mounted Solar Energy System is an allowed use by Site Plan Review from the Planning Board in the HB-1 zoning district.

Section 5.14.2 of the Bylaws (Definitions) defines a "Solar Energy System" as "Any solar collector or other solar energy device, including appurtenances, mounted on a building or on the ground, the primary purpose of which is to provide for the collection, storage, conversion and distribution of solar energy for space heating or cooling, water heating or generation of electricity." For purposes of this letter, I will use the term "solar energy system."

The Bylaws define a solar energy system as including the "*storage and distribution of electricity*." The Bylaws' definition of a solar energy system does not require that the sale and/or distribution of electricity immediately follow its generation. An energy storage system is necessary to sell and/or distribute electricity at a future time. Accordingly, the Bylaws' definition of a solar energy system necessarily includes the concept of energy storage.

I have considered the proposed ESS project and planned work in relation to the applicable requirements of the Bylaws. Accordingly, based upon your July 12, 2021 communication, and provided that the ESS will be located on the same electric distribution feeder as existing solar energy facilities and where it is proposed that electricity used to charge the ESS will be generated by solar energy facilities on the same feeder, it is my determination that the ESS is an energy storage system with respect to those solar energy facilities for the subsequent distribution of electricity. The proposed ESS will be a component of a solar energy system as defined by the Bylaws Section 5.14.4.0.

Sincerely,

Michael Silva
Building Inspector/Zoning Enforcement Officer
Town of Leicester

STANDARDS FOR INTERCONNECTION OF DISTRIBUTED GENERATION

Exhibit I—Landowner Consent Agreement

(Note: This Consent is to be signed by the owner of the land where the distributed generation installation and interconnection will be placed, when the owner or operator of the distributed generation installation is not also the owner of the land, and the landowner's electric facilities will not be involved in the interconnection of such distributed generation installation.)

This Consent is executed by WR Enterprise LLC, (the "Landowner"; as used herein the term shall include the Landowner's successors in interest to the Property), as owner of the real property situated in the City/Town of Leicester, Worcester County, Massachusetts, known as 1355 Main Street [street address] (the "Property"), at the request of **ZP Battery DevCo LLC** [name of Interconnecting Customer] (the "Interconnecting Customer"; as used herein the term shall include the Interconnecting Customer's successors and assigns) and for the benefit of **Massachusetts Electric Company (d/b/a National Grid)** a Massachusetts corporation with a principal place of business at **40 Sylvan Road, Waltham, MA 02451** (the "Company"); as used herein the term shall include the Company's successors and assigns).

1. The purpose of this Consent is to provide the Company with assurance that the installation of a distributed generation facility (the "Facility") by the Interconnecting Customer on the Property has been approved by the Landowner.
2. The Landowner hereby acknowledges that it has authorized the Facility to be installed and operated by Interconnecting Customer on the Property pursuant to agreements between the Landowner and the Interconnecting Customer that are in full force and effect as of the date hereof.
3. The Landowner hereby acknowledges that the Landowner shall look solely to the Interconnecting Customer for the performance of and compliance with all of the terms of any agreements between the Landowner and the Interconnecting Customer, and that the Company shall not, by virtue of any agreement between the Company and the Interconnecting Customer, be deemed to have assumed any obligation or liability to the Landowner.
4. The Company hereby acknowledges that the Company shall look solely to the Interconnecting Customer for the performance of and compliance with all of the terms of any agreements between the Company and the Interconnecting Customer, and that the Landowner shall not, by virtue of any agreement between the Landowner and the Interconnecting Customer, be deemed to have assumed any obligation or liability to the Company.

STANDARDS FOR INTERCONNECTION OF DISTRIBUTED GENERATION


5. The Landowner hereby grants the Company access as necessary to the Property for Company personnel, contractors or agents, to perform Company's duties under the agreements with the Interconnecting Customer.

6. Landowner acknowledges and agrees that the Company shall have no liability to the Landowner, whether in tort or contract, or under any other legal theory, and specifically excluding any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from (a) the installation or operation of the Facility on the Property, or (b) any act or omission in the Interconnecting Customer's performance of its agreements with the Landowner or the Company, except to the extent caused solely by the negligence or willful misconduct of the Company, its agents, contractors or employees.

7. This Agreement shall be interpreted, governed, and construed under the laws of the Commonwealth of Massachusetts without giving effect to choice of law provisions that might apply the law of a different jurisdiction.

IN WITNESS WHEREOF, the Landowner and the Company have caused this Consent to be executed under seal by its duly authorized representatives.

LANDOWNER

By: 
Name: Bill Roberts
Title: owner

COMPANY

By: _____
Name: _____
Title: _____



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/22/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh USA Inc. 2929 Allen Parkway, Suite 2500 Houston, TX 77019		CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL: ADDRESS:	
CN115354100-GAWU-20-21		INSURER(S) AFFORDING COVERAGE	
INSURED ENGIE Holdings Inc. And their subsidiaries 1360 Post Oak Blvd, Ste 400 Houston, TX 77056		NAIC #	
		INSURER A: ACE American Insurance Company 22667	
		INSURER B: ACE Property & Casualty Insurance Company 20699	
		INSURER C:	
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** HOU-003768082-01 **REVISION NUMBER:** 5

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVO	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		HDO G71080316	07/01/2020	07/01/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 EMPLOYEE BENEFITS \$ 1,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		ISA H25260090	07/01/2020	07/01/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		XOOG27614814 006	07/01/2020	07/01/2021	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N <input type="checkbox"/> A	WLR C50803697 (AOS) SCF C50803703 (WI)	07/01/2020 07/01/2020	07/01/2021 07/01/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Evidence of Insurance	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE of Marsh USA Inc. Freeman M. Wade <i>Freeman M. Wade</i>
--	--

AGENCY CUSTOMER ID: CN115354100

LOC #: Houston

**ADDITIONAL REMARKS SCHEDULE**

Page 2 of 2

AGENCY Marsh USA Inc.		NAMED INSURED ENGIE Holdings Inc. And their subsidiaries 1360 Post Oak Blvd, Ste 400 Houston, TX 77056
POLICY NUMBER		
CARRIER	NAIC CODE	
EFFECTIVE DATE:		

ADDITIONAL REMARKS**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,****FORM NUMBER:** 25 **FORM TITLE:** Certificate of Liability Insurance

Contractors Professional Protective Indemnity
Carrier: Berkley Assurance Company
Policy#: PCAB-5012115-0720
Effective Date: 07/01/2020 - 07/01/2021
SIR: \$250,000
Limits: \$8,000,000

Disclaimer

Each individual BESS facility requires a customized ERP which addresses the site-specific hazards and conditions of that facility. This ERP template should be used as a starting point in developing a site-specific ERP for a particular BESS facility.

Facility Name Battery Energy Storage System Emergency Response Plan

This is an Emergency Response Plan (ERP) for the **facility name** energy storage facility located at **[full street address]**. This ERP provides information and instruction to assist first responders in preparing for and safely responding to an accident, fire, or other emergency associated with the **facility name** energy storage facility. Life safety of personnel shall be the highest priority during any event.

Table of Contents

- I. Emergency Contact Information
- II. First Priorities in a BESS Emergency
- III. Facility Description
- IV. Hazards Overview
- V. PPE
- VI. Fire Suppression System and Alarms
- VII. Emergency Response Recommendations
- VIII. HAZMAT Considerations
- IX. Appendices
 - a. Appendix A: Site Plan
 - b. Appendix B: Site Specific Signage and Placards
 - c. Appendix C: Single Line Diagram
 - d. Appendix D: Top & Side View Diagrams of Major BESS Equipment
 - e. Appendix E: Battery SDS

I. Emergency Contacts

EMERGENCY CONTACT INFORMATION	
Emergency: 911	EMS Provider EMS provider name 911 or xxx-xxx-xxxx
Local Fire Department FD name FD street address, city, state xxx-xxx-xxxx (non-emergency) xxx-xxx-xxxx (dispatch)	Hospital hospital name hospital street address, city, state xxx-xxx-xxxx
Law Enforcement PD name PD street address, city, state xxx-xxx-xxxx	Burn Center burn center name burn center street address xxx-xxx-xxxx
ENGIE North America Emergency Contacts	
ENGIE call center available hours, 24/7, etc 800-xxx-xxxx	ENGIE emergency contact #1 Available hours, M-F xxx-xxx-xxxx ENGIE emergency contact #2 Available hours, M-F xxx-xxx-xxxx

II. First Priorities in a BESS Emergency

In case of emergency at **facility name**, the most important priorities are as follows, listed in order of priority:

FIRST PRIORITIES IN A BESS EMERGENCY	
#1 –	
#2 –	
#3 –	
#4 –	
#5 –	

HOW TO SAFELY DISCONNECT THE BATTERY ENERGY STORAGE SYSTEM	
Option #1 Activate the e-stop disconnect on-site	→ Emergency disconnects for the BESS are located [location description] . See Appendices A and D for specific location of the emergency disconnect. Only qualified and trained personnel should operate the emergency disconnect. Only operate the emergency disconnect if it is safe to do so.
Option #2 Contact ENGIE system operators to activate a disconnect remotely	→ ENGIE system operators may be able to disconnect the BESS remotely
Option #3 Activate the Fire Suppression System	→ Activating the Fire Suppression System (either electrically or manually) will cause the BESS to disconnect and shut down

III. Facility Description

Facility name is a battery energy storage facility located in [full street address], [lat/long].

The facility is comprised of lithium-ion batteries and other electrical equipment in [quantity] enclosures covering approximately [quantity] square feet. The primary entrance to the facility is located on [location], accessed from [best road / access point]. A secondary entrance to the facility is located on [location], accessed from [best road / access point]. Operation of the facility is managed remotely; there are no full-time personnel on-site. Maintenance technicians are typically on-site for maintenance or repair purposes only. There are no occupied buildings near the facility name facility.

A site plan of the facility name facility is provided in Appendix A. An electrical diagram of the main BESS and related components is provided in Appendix C. Side-view and top-view diagrams of the BESS equipment are provided in Appendix D.

The facility name facility provides electrical services to the electric grid. There are some low voltage auxiliary power devices associated with the BESS and other equipment, but the BESS does not provide electrical services or back-up power to a building, residence, or other facility.

An on-site emergency disconnect for the BESS is located [location]. See Appendices A and D for specific location of the emergency disconnect. Only qualified and trained personnel should operate the emergency disconnect. Only operate the emergency disconnect if it is safe to do so.

Facility Name Battery Energy Storage System Facility	
Facility Location	street address city, state, zip code
Major Equipment on Site	<ul style="list-style-type: none">[quantity] [footprint dimensions] enclosures containing lithium-ion batteries, inverter, HVAC units, and fire suppression system[quantity] [footprint dimensions] medium voltage transformers[quantity] solar electric (PV) panels (see Appendix [xx] for emergency response instructions regarding the PV panels)Low voltage switchgear, metering equipment
BESS Equipment	The xxMW/xxMWh BESS consists of [quantity] free-standing enclosures. Each BESS container includes [quantity] battery racks,

	<p>[quantity] DC-to-AC inverters, [quantity] HVAC units, an AC auxiliary power distribution system, a DC power distribution system, a fire suppression system, and controls equipment.</p> <p>The AC output of the inverters is connected to the low side of the medium voltage transformer. The high side of the medium voltage transformer is connected to the electric grid.</p>
--	---

IV. Hazards Overview

Hazards at the [facility name] facility include the following-

- **Electrical equipment** – Electrical equipment shall always be treated as energized. Associated hazards include electric shock, arc flash, and fire.
- **Overhead power lines** – Overhead power lines shall always be treated as energized. Associated hazards include electric shock, arc flash, and fire. For locations see facility site plan, Appendix A.
- **BESS electrical equipment** – BESS electrical equipment including batteries shall always be treated as energized. A BESS does not have a single point of disconnect to electrically isolate all components from each other. There are disconnects that will de-energize select parts of the system, but the batteries themselves will remain energized.
- **BESS battery fire** – Battery fires present unique hazards, including stranded energy and re-ignition risk.
- **BESS off-gassing** – Lithium-ion batteries release flammable and toxic chemicals when subjected to electrical or physical damage, including fire. Chemicals released can also pose an inhalation hazard.
- **BESS explosion** – Accumulated flammable gasses inside a BESS enclosure may result in an explosion, if ignited.
- **Other site-specific hazards**

V. Personal Protective Equipment (PPE)

[recommended PPE]

VI. Fire Suppression System and Alarms

Each BESS enclosure includes a chemical fire suppression system (FSS) and alarms with the following major components:

- FM-200 cylinder
- Control panel (internal)
- Indicator panel (external)
- Smoke and heat detectors
- Alarm bell and strobe light

The FSS can be activated either electrically or manually. Smoke and heat sensors inside the BESS enclosure(s) will activate the FSS discharge process if fire conditions are detected. The FSS will also activate audio and visual alarms to warn anyone on-site of potentially dangerous conditions. The FSS can be activated manually by pushing the red button marked 'MANUAL' on the indicator/external panel.

The fire alarm system for each BESS enclosure is set up into a single zone and includes both smoke and heat detectors. The system is designed with a two-stage alarm notification.

Stage 1 Smoke <u>or</u> heat detector sends an alarm signal	→ Alarm bell sounds <u>or</u> strobe light flashes → The HVAC units shut down
Stage 2 Smoke <u>and</u> heat detectors send an alarm signal	→ Alarm bell sounds <u>and</u> strobe light flashes → The HVAC units shut down → The FM-200 fire suppression system begins 30 second countdown to chemical agent release

If a red indicator light of the indicator panel is on, the FM-200 chemical agent has been deployed inside the BESS enclosure.

[add photo/diagram of the indicator/external panel, label the manual activation button and FM-200 deployment indicator light]

[add sequence of operations diagram for the FSS]

VII. Emergency Response Recommendations

BESS fires present a unique set of hazards and should be treated differently than fires involving other electrical equipment. A BESS fire may exhibit heat output in excess of 2,000 degrees Fahrenheit. Signs of a BESS fire at the **facility name** facility include:

- Smoke or flame
- Shrapnel ejection
- Hissing and popping noises

The **facility name** BESS includes lithium-ion batteries. The recommendations described below refer specifically to emergencies involving lithium-ion batteries. If fire conditions are suspected or observed, the on-site emergency BESS disconnect should be operated, if it is safe to do so. ENGIE system operators may also be able to remotely disconnect the BESS from the utility.

FIRE
XX
Fire Suppression Sources
Initial suppression source: Clean agent (FM-200). The clean agent fire suppression system may be deployed manually by means of the manual pulling station on the BESS cabinet exterior, located on the back/front/side of the BESS cabinet. [photo / diagram of the manual FSS deployment initiator]
Secondary suppression source: Water from the nearest available water sources . For locations see facility site plan, Appendix A .

ELECTRIC SHOCK
XX

ARC FLASH
XX

VIII. HAZMAT Considerations

Runoff water from fire suppression shall be attempted to be contained using diking, damming, or other preventative measures. Physical barriers such as PIGS may be utilized to control runoff. If any storm drains or other drainage types are present which may flow off-site and will not be contained to a retention area, those drains shall be covered with mats or protected with barriers.

Unlike some other battery chemistry types, lithium-ion batteries do not have free-flowing liquid electrolyte. A large spill battery acid is therefore not a significant hazard with lithium-ion battery fires or accidents.

Facility Name ERP Version Tracker		
This ERP should be updated to reflect any significant change conditions at the facility site (example: installation of additional BESS or other equipment)		
Version	Date	Author
1.0	xx/xx/xxxx	

Spill Prevention Plan & Hazardous Material

Energy Storage System (ESS)

1.0 SPILL PREVENTION PLAN

1.1 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

1.1.1 GOOD HOUSEKEEPING:

The following good housekeeping practices will be followed during the construction project.

- An effort will be made to store only enough product required to do the job.
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- All materials will be stored outside of resource areas.
- Products will be kept in their original containers with the original manufacturer's label.
- Manufacturer, local, and State recommendations for proper use and disposal shall be followed.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.
- Spill kits will be located in the office trailer at all times. All subcontractors will be responsible for having their own spill kits on site at all times.

1.1.2 SPILL CONTROL PRACTICES

Spill Control Practices shall be in conformance with the guidelines set forth in the National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan (SWPPP)

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.

1.1.3 REQUIREMENTS FOR STORAGE AND USE OF FERTILIZERS:

No pesticides, herbicides, or insecticides are to be used on the property.

2.0 HAZARDOUS MATERIALS

The ESS facility contains hazardous materials, although these materials are contained, controlled and non-hazardous during normal operation of the components. The batteries will be mounted on stationary racking systems with no movable parts. The ESS installation requires no lubricants, fuel or water for operation, and generates no wastewater requiring disposal. If a battery was to be punctured or damaged, the reaction of the electrolyte inside the battery would be hazardous to the environment and personnel.

The proposed transformers for the ESS facility will contain a non-toxic, vegetable oil- based fluid (Envirotemp FR3 fluid) as a coolant. Envirotemp FR3 fluid is formulated from seed oils (>98.5% vegetable oil) and performance enhancing additives and colorant.

During construction, hazardous materials in the form of limited quantities of fuel (gasoline or diesel), lubricating and hydraulic oil, and coolants, will be temporary introduced on the site within the construction vehicles and equipment. Refueling protocols and spill preventive measures will be further detailed within the SWPPP to be provided prior to the start work.

2.1 HAZARDOUS PRODUCTS:

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original containers unless they are not re-sealable.
- Original labels and material safety data will be retained; they contain important product information.
- If surplus must be disposed of, manufacturer's or local and State recommended methods for proper disposal will be followed.

2.1.1 PRODUCT SPECIFIC PRACTICES:

The following product specific practices will be followed onsite:

Lithium-Ion Batteries

As a solid, manufactured article, exposure to hazardous ingredients is not expected with normal use of Lithium-Ion batteries. Lithium-Ion batteries are articles pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement and is therefore not hazardous when used according to the recommendations of the manufacturer.

Under recommended and controlled use conditions, the electrode materials and electrolyte are non-reactive provided that the cell or battery integrity remains and the seals remain intact. If cell is mechanically, thermally or electrically abused and leakage occurs, a qualified person should remove the battery from the container.

Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum product will be stored in tightly sealed containers which are clearly labeled.

Equipment Coolant

The proposed transformers for the facility will contain a non-toxic, vegetable oil- based fluid (Envirotemp FR3 fluid) as a coolant. Envirotemp FR3 fluid is formulated from seed oils (>98.5% vegetable oil) and performance enhancing additives and colorant.

Sinopec -40 degrees Celsius Inverter Engine Coolant used as a heat transfer medium in the inverter. Coolant is comprised of Ethylene Glycol, water and an additive. This product is not classified as a physical, health or environmental hazard.

Concrete Products

Concrete contractors should be encouraged, where possible, to use the washout facilities at their own plants or dispatch facilities.

If concrete washout or discharge of surplus concrete or drum wash water on the site is needed for emergency purposes only, then the following must comply:

- Do not wash out concrete trucks or equipment into storm drains, streets, gutters, uncontained areas, or streams.
- Washout area shall be located within the designated construction laydown area per the approved permit plans only and advertise the location with signs.
- Direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation. Provide adequate containment for the amount of wash water that will be used
- Inspect washout structures daily to detect leaks or tears and to identify when materials need to be removed.
- Dispose of materials properly. The preferred method is to allow the water to evaporate and to recycle the hardened concrete. Full service companies may provide dewatering services and should dispose of wastewater properly. Concrete wash water can be highly polluted. It should not be discharged to any surface water, storm sewer system, or allowed to infiltrate into the ground. It should not be discharged to a sanitary sewer system without first receiving written permission from the system operator.

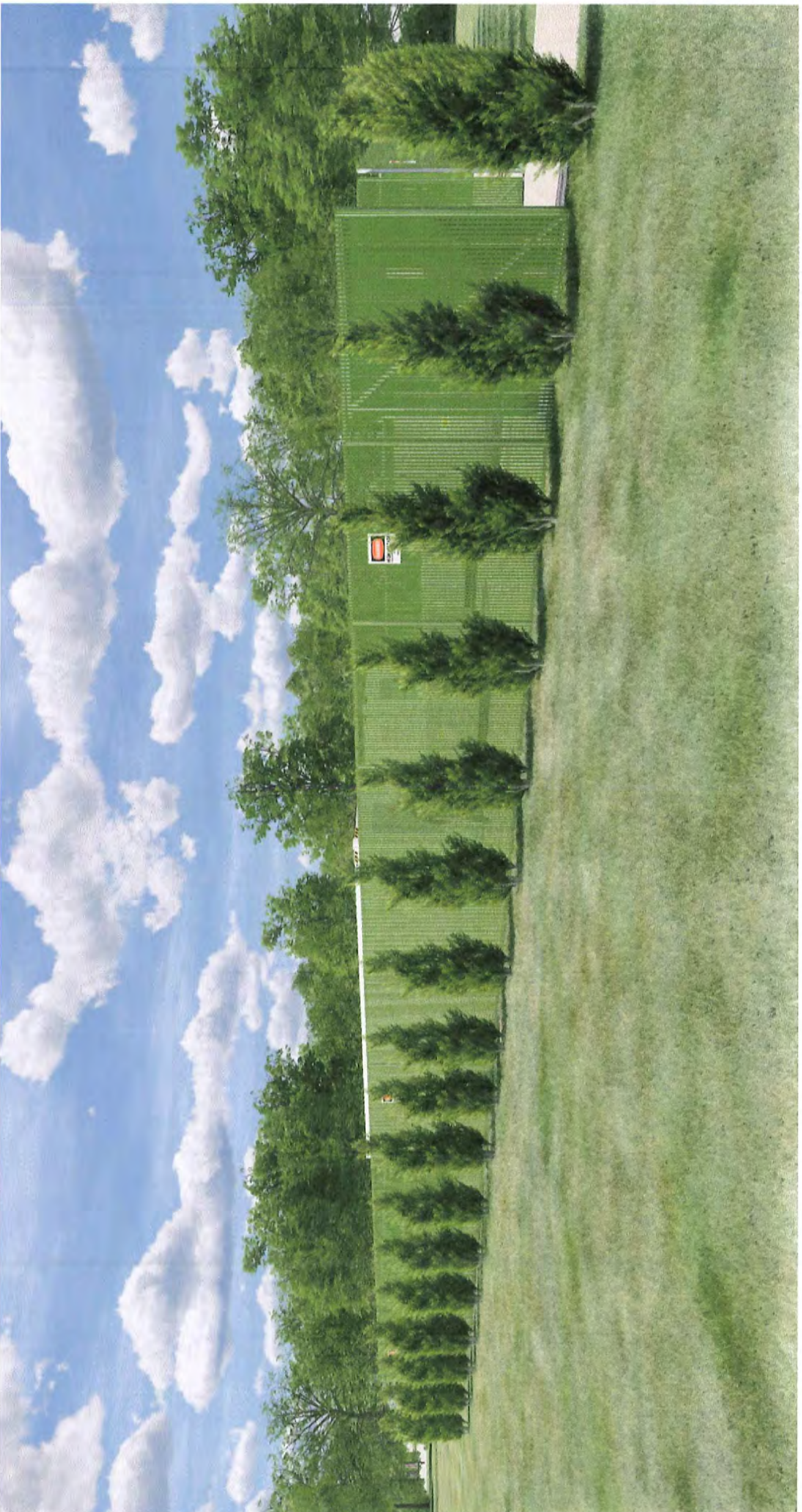
CONCEPTUAL RENDERINGS

Energy Storage System (ESS)









SYSTEM OPERATIONS & COMPONENTS

Energy Storage System (ESS)



1.0 ESS SYSTEM OPERATION

An Energy Storage System is comprised of many components to successfully store energy from a distribution line and discharge that energy back into the distribution line during times of high load. Interconnection to the distribution line is done by the local power company who owns the distribution line. The interconnection to a specific distribution line is done with intricate detail to assure the system charges and discharges at appropriate times and does not cause unwanted load on the grid. In addition, the Grid Synergy (GS) Controller is a hardware interface between ESS equipment on site and the Network Operations Center. The GS controller is typically mounted by the main electrical panel within the facility. The GS controller communicates to the ESS via an ethernet connection. The GS Controller is responsible for monitoring all components of the ESS and delivers charge and discharge commands to the ESS.

The ESS will charge from existing photovoltaic systems interconnected to the same distribution line as the ESS. PV arrays generate electricity during the day while the sun shines, known as the charging window. While PV is a clean, renewable energy source it is only supplying energy to the grid during the day. This is when energy storage systems store the power produced by the PV arrays. ESS discharge the stored PV power to be utilized during times of peak demand thus creating an efficiency within the power structure.

2.0 INTERCONNECTION

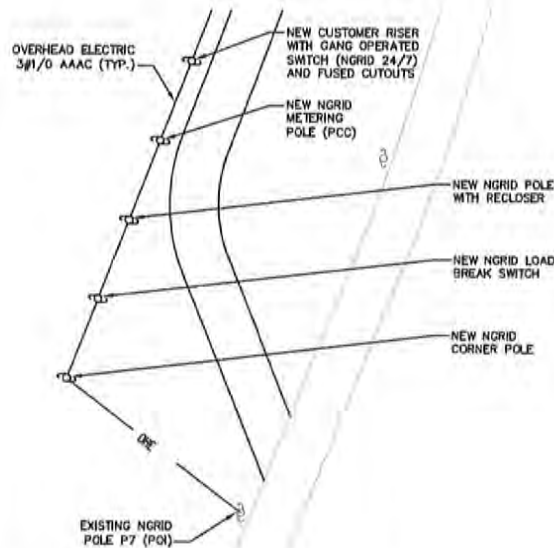
Interconnection is the energized connection of the ESS to the distribution line. The local power company designs the interconnection and what equipment is required to make the connection. The power company is also the one who makes this interconnection from the distribution line to the required project equipment on site.

A typical interconnection requires multiple pieces of equipment. That equipment can be pole mounted or pad mounted equipment. Whether the equipment is pole or pad mounted, it needs to meet the specifications and requirements of the utility company. Each connection to the distribution line goes through an interconnection service process with the utility company to assure proper relay settings and metering of the ESS.

2.1 POLE MOUNTED INTERCONNECTION

A pole mounted interconnection starts at a pre-determined utility pole in the public way. From the existing pole, the connection will go to a utility owned Gang Operated Air Break (GOAB) and Recloser, allowing the utility company to sever the connection to the site if they need to work on a failed piece of equipment. A separate line will go to the utility owned meter for the auxiliary service. Then, the line will go to a utility owned primary meter tracking the amount of power produced by the ESS.

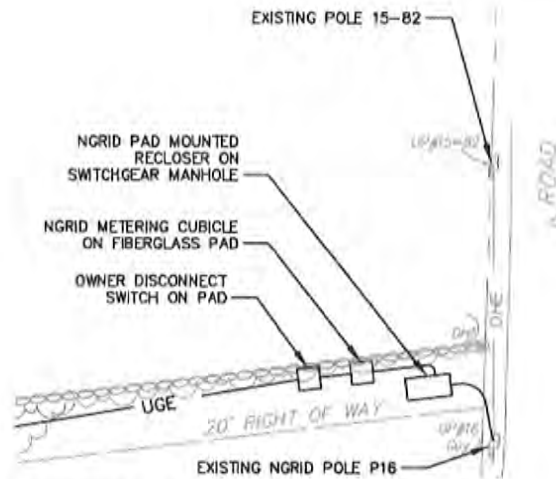
After the utility owned equipment there will be a project owned GOAB which allows the project owner to cut the power from the distribution line in case of emergency and/or maintenance of the facility. After the investor owned GOAB the line will go underground via conduit to the project location and connect to the site via a Recloser.



2.2 PAD MOUNTED INTERCONNECTION

A pad mounted interconnection starts the same way a pole mounted interconnection starts, with a GOAB/Recloser which will typically be mounted on the pre-determined interconnection pole or a new pole on the property that will get tied into the distribution line. From the Recloser, the line will go to a pad mounted, utility owned meter via underground conduit. A separate line will go to a pad mounted, utility owned meter via underground conduit from the interconnection pole for the auxiliary service.

After the utility owned equipment meter, the line will continue to a project-owned, pad mounted disconnect switch via underground conduit. The line will then continue to a Recloser and meter within the ESS site.



3.0 INTERCONNECTION COMPONENTS

3.1 GANG OPERATED AIR BREAK (GOAB)

A Gang Operated Air Break is a commonly used disconnect switch that utility companies use to break an electrical connection for isolation. It is referred to as "gang operated" because there are three separate switches, one for each phase, that are operated as a group from a single control. "Air Break" refers to it being operated in the air rather than in another medium, such as soil.



The purpose of this switch is to disconnect the project site from the incoming distribution line, not to disconnect the transformer from the load. It acts as a large safety switch that has no load breaking capability.

On the top side of the GOAB there are 300 Amp fuses that stop the flow of current in the event of an internal fault or a short circuit in the transformer.

3.2 TRANSFORMER

A transformer is a device that provides the final voltage transformation in the electric power system. In normal operation, electricity flows into the transformer on the high-voltage side where it goes into a coil of wire, usually wound around an iron core. As the electricity flows through this coil, it creates a magnetic field that "induces" a voltage in the other coil.

The transformers on site will step down the voltage that comes into the site from the distribution line for it to be stored into the battery modules. When the batteries are discharged the voltage will then be stepped up to match the voltage in the distribution line where it will be fed into.



3.3 RECLOSER

A Recloser is an automatic, high-voltage electric switch. It operates like a circuit breaker on household electrical lines, it shuts off electric power when trouble occurs. A Recloser will automatically test the electrical lines to determine whether the trouble has been removed. If the problem was only temporary, the Recloser will automatically reset and restore power.



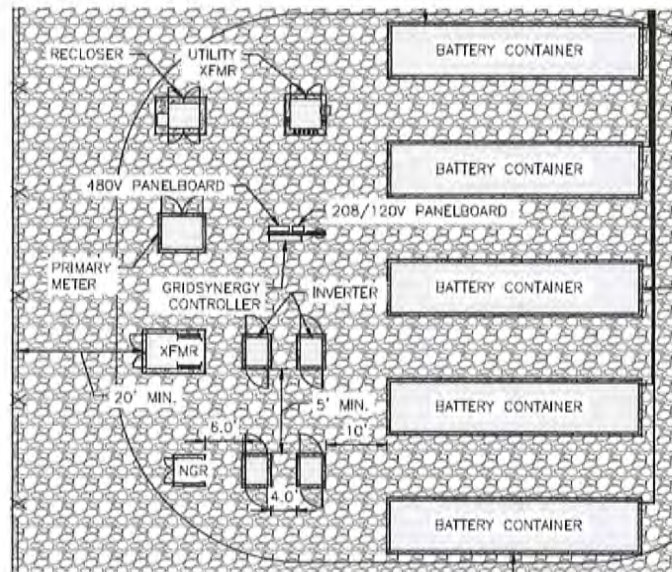
3.4 METER

A meter will read the amount of electricity that is used and taken off the distribution line. The meter reflects the total percentage of the load placed on the generating capacity of the electrical accessories and battery.



4.0 ENERGY STORAGE SYSTEM COMPONENTS

There are components of the ESS that are similar or the same as the components of interconnection, the reason for this is so that the project owner and utility company can simultaneously monitor the site. Components that make up the ESS system allow the user to create relay and time settings that provide further security and assurances that the system will be discharging and charging appropriately.



4.1 GRID SYNERGY (GS) CONTROLLER

The GS Controller monitors the entire ESS system. This controller monitors the battery management system for battery activity, charging and discharging. The GS controller also monitors the Fire Suppression System (FSS) as well as the HVAC components for the ESS. This is done by a data connection



4.2 INVERTER

An inverter is an electronic device that can turn Direct Current (DC) to Alternating Current (AC). The inverters that will be used in the ESS are Sungrow model SC1375UD-US. This Sungrow model has bidirectional power conversion system so that energy can be brought in off the distribution line as AC current and turned into DC current to be stored in the batteries then be discharged from the batteries as DC current and turned into AC current to go back into the distribution line. The inverter has a forced-air cooling system built in.



The Inverter has a sound rating of 80 Decibels (dB) at a distance of 1 meter. In a free field setting, where the sound is not bouncing off obstructions back towards the sound source, the sound level will decrease by 6 dB every time the distance from the sound source doubles. If the sound level at 1 meter is 80 dB then the at 2 meters the sound level would be 74 dB, at 4 meters the sound level would be 68 dB and so on. At a distance of 16 meters (about 53 feet) the sound level would be around 55 decibels.

Common outdoor sound pressure levels can vary significantly. It is common that day to night sound levels may vary a range of 50 dB in different areas. Outdoors in a wilderness sound levels may occur as low as 35-40 dB where in urban areas it could be 85-90 dB. In most cases urban dwellers live in areas with sound pressure levels more than 48 dB.

Night-time	Rural, no nearby traffic of concern	42
	Suburban, no nearby traffic of concern	47
	Urban, no nearby traffic of concern	52
	Business or commercial area	57
Daytime	Business or commercial area	62
	Industrial or manufacturing area	67
	Within 300 ft (91 m) of continuous heavy traffic	72

On an ESS site the inverters will not be in a free field setting, the inverters will be behind a fence, next to other equipment and will be screened with a natural buffer and/or plantings. Each of these obstructions will reduce the decibel level that is present at the distances stated above from the sound source.

System Type	SC1200UD-US	SC175UD-US	SC175UD-US	SC175UD-US
DC side				
Max. DC voltage			800 V	
Min. DC voltage	700 V	800 V	95 V	1000 V
DC voltage range	700 - 800 V	800 - 800 V	95 - 800 V	1000 - 1000 V
Max. DC current			80 A	
No. of DC inputs			1	
AC side (Grid)				
AC output power	1000VA @ 45°C (30 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz)	1000VA @ 45°C (30 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz)	1000VA @ 45°C (30 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz)	1000VA @ 45°C (30 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz) / 1000VA @ 45°C (60 Hz)
Max. AC output current			12.5 A	
Nominal AC voltage	480 V	500 V	600 V	600 V
AC voltage range	472 - 528 V	484 - 605 V	584 - 605 V	607 - 750 V
Nominal grid frequency / Grid frequency range			50 Hz / 49.5 - 50.5 Hz	
Harmonic (THD)			< 5% (in potential down)	
Power factor of nominal power / Adjustable power factor			0.95 / 0.95 - 0.99	
Adjustable reactive power range			500 VAR - 500 VAR	
Feed-in power / AC connection			3/3	
AC side (Off-grid)				
Nominal AC voltage	480 V	500 V	600 V	600 V
AC voltage range	472 - 528 V	484 - 605 V	584 - 605 V	607 - 750 V
AC voltage distortion			< 5% (in potential down)	
DC voltage conversion			< 20% (in potential down)	
Unbalance load capacity			< 20% (in potential down)	
Nominal Voltage frequency / Voltage frequency range			50 Hz / 49.5 - 50.5 Hz	
Efficiency				
Max. efficiency / CRC efficiency			95% / 95%	
Protection				
DC input protection			Input break switch + fuse	
AC output protection			Circuit breaker	
Surge protection			DC type I / AC type II	
Grid monitoring / Ground fault monitoring			Yes / Yes	
Isolation monitoring			Yes	
Overheat protection			Yes	
General Data				
Dimensions (W*H*D)			1080*940*1400 mm 42.5" * 36.5" * 55.1"	
Weight			800 kg 1760 lbs	
Topology			Transformerless	
Degree of protection			IP65 (front) / IP54 (back)	
Operating ambient temperature range			-30 to 60°C (-20 to 140°F) (-20 to 140°F) (-20 to 140°F)	
Allowable relative humidity range			0 - 100%	
Cooling method			Temperature controlled forced air cooling	
Max. operating altitude			4000 m (+2000 m derating) 13120 ft (+6560 ft derating)	
Display			LED, Web HMI	
Noise emission			< 60 dB @ 1m	
Communication			RS485, CAN, Ethernet	
Compliance			UL1741, UL1741 SA, IEEE 1547, Rule 21, NEC 690, CSA C22.2, IEC 60384-1	
Grid support			1/4/4/1, 1/4/4/1, active & reactive power control and power ramp rate control, Voltage, Voltvar, Frequency-wind	

CERTIFICATE OF COMPLIANCE

Certificate Number: SGSNA20G200180

Contract Number: 809004

Certificate Project Number: 02-CERT201207412

Certified Product: Energy Storage Converter

Trademark: SUNGROW

Model(s): SC175UD-US, SC175UD-US, SC175UD-US, SC1200UD-US

Technical Data: Software Version: MDSP_AMBER_B_V11_V1_A, SDSP_AMBER_B_V11_V1_A, SC175UD-US, AC side (On-Grid and Off-Grid): 600V(607-750V), 1443A/1725KVA@45°C, 3~ 60Hz (50/60Hz-0.5Hz), PF>0.99 (-1~1 adjustable), Battery side: 1000Vdc-1500Vdc, 1760Amax@45°C, SC175UD-US, AC side (On-Grid and Off-Grid): 600V(607-750V), 1443A/1725KVA@45°C, 3~ 60Hz (50/60Hz-0.5Hz), PF>0.99 (-1~1 adjustable), Battery side: 1000Vdc-1500Vdc, 1760Amax@45°C, SC175UD-US, AC side (On-Grid and Off-Grid): 600V(607-750V), 1443A/1725KVA@45°C, 3~ 60Hz (50/60Hz-0.5Hz), PF>0.99 (-1~1 adjustable), Battery side: 1000Vdc-1500Vdc, 1760Amax@45°C, SC1200UD-US, AC side (On-Grid and Off-Grid): 600V(607-750V), 1443A/1725KVA@45°C, 3~ 60Hz (50/60Hz-0.5Hz), PF>0.99 (-1~1 adjustable), Battery side: 1000Vdc-1500Vdc, 1760Amax@45°C

Certificate Holder: Sungrow Power Supply Co., Ltd.
1500 Xiyao Road, New & High Technology Industrial Development Zone, Hefei,
230088, Anhui, China

This certificate is issued by SGS to the company under the following conditions:
1. The product is certified according to the standard IEC 61851-1, 1547, 1547 SA, 1547 SA-1, 1547 SA-2, 1547 SA-3, 1547 SA-4, 1547 SA-5, 1547 SA-6, 1547 SA-7, 1547 SA-8, 1547 SA-9, 1547 SA-10, 1547 SA-11, 1547 SA-12, 1547 SA-13, 1547 SA-14, 1547 SA-15, 1547 SA-16, 1547 SA-17, 1547 SA-18, 1547 SA-19, 1547 SA-20, 1547 SA-21, 1547 SA-22, 1547 SA-23, 1547 SA-24, 1547 SA-25, 1547 SA-26, 1547 SA-27, 1547 SA-28, 1547 SA-29, 1547 SA-30, 1547 SA-31, 1547 SA-32, 1547 SA-33, 1547 SA-34, 1547 SA-35, 1547 SA-36, 1547 SA-37, 1547 SA-38, 1547 SA-39, 1547 SA-40, 1547 SA-41, 1547 SA-42, 1547 SA-43, 1547 SA-44, 1547 SA-45, 1547 SA-46, 1547 SA-47, 1547 SA-48, 1547 SA-49, 1547 SA-50, 1547 SA-51, 1547 SA-52, 1547 SA-53, 1547 SA-54, 1547 SA-55, 1547 SA-56, 1547 SA-57, 1547 SA-58, 1547 SA-59, 1547 SA-60, 1547 SA-61, 1547 SA-62, 1547 SA-63, 1547 SA-64, 1547 SA-65, 1547 SA-66, 1547 SA-67, 1547 SA-68, 1547 SA-69, 1547 SA-70, 1547 SA-71, 1547 SA-72, 1547 SA-73, 1547 SA-74, 1547 SA-75, 1547 SA-76, 1547 SA-77, 1547 SA-78, 1547 SA-79, 1547 SA-80, 1547 SA-81, 1547 SA-82, 1547 SA-83, 1547 SA-84, 1547 SA-85, 1547 SA-86, 1547 SA-87, 1547 SA-88, 1547 SA-89, 1547 SA-90, 1547 SA-91, 1547 SA-92, 1547 SA-93, 1547 SA-94, 1547 SA-95, 1547 SA-96, 1547 SA-97, 1547 SA-98, 1547 SA-99, 1547 SA-100, 1547 SA-101, 1547 SA-102, 1547 SA-103, 1547 SA-104, 1547 SA-105, 1547 SA-106, 1547 SA-107, 1547 SA-108, 1547 SA-109, 1547 SA-110, 1547 SA-111, 1547 SA-112, 1547 SA-113, 1547 SA-114, 1547 SA-115, 1547 SA-116, 1547 SA-117, 1547 SA-118, 1547 SA-119, 1547 SA-120, 1547 SA-121, 1547 SA-122, 1547 SA-123, 1547 SA-124, 1547 SA-125, 1547 SA-126, 1547 SA-127, 1547 SA-128, 1547 SA-129, 1547 SA-130, 1547 SA-131, 1547 SA-132, 1547 SA-133, 1547 SA-134, 1547 SA-135, 1547 SA-136, 1547 SA-137, 1547 SA-138, 1547 SA-139, 1547 SA-140, 1547 SA-141, 1547 SA-142, 1547 SA-143, 1547 SA-144, 1547 SA-145, 1547 SA-146, 1547 SA-147, 1547 SA-148, 1547 SA-149, 1547 SA-150, 1547 SA-151, 1547 SA-152, 1547 SA-153, 1547 SA-154, 1547 SA-155, 1547 SA-156, 1547 SA-157, 1547 SA-158, 1547 SA-159, 1547 SA-160, 1547 SA-161, 1547 SA-162, 1547 SA-163, 1547 SA-164, 1547 SA-165, 1547 SA-166, 1547 SA-167, 1547 SA-168, 1547 SA-169, 1547 SA-170, 1547 SA-171, 1547 SA-172, 1547 SA-173, 1547 SA-174, 1547 SA-175, 1547 SA-176, 1547 SA-177, 1547 SA-178, 1547 SA-179, 1547 SA-180, 1547 SA-181, 1547 SA-182, 1547 SA-183, 1547 SA-184, 1547 SA-185, 1547 SA-186, 1547 SA-187, 1547 SA-188, 1547 SA-189, 1547 SA-190, 1547 SA-191, 1547 SA-192, 1547 SA-193, 1547 SA-194, 1547 SA-195, 1547 SA-196, 1547 SA-197, 1547 SA-198, 1547 SA-199, 1547 SA-200, 1547 SA-201, 1547 SA-202, 1547 SA-203, 1547 SA-204, 1547 SA-205, 1547 SA-206, 1547 SA-207, 1547 SA-208, 1547 SA-209, 1547 SA-210, 1547 SA-211, 1547 SA-212, 1547 SA-213, 1547 SA-214, 1547 SA-215, 1547 SA-216, 1547 SA-217, 1547 SA-218, 1547 SA-219, 1547 SA-220, 1547 SA-221, 1547 SA-222, 1547 SA-223, 1547 SA-224, 1547 SA-225, 1547 SA-226, 1547 SA-227, 1547 SA-228, 1547 SA-229, 1547 SA-230, 1547 SA-231, 1547 SA-232, 1547 SA-233, 1547 SA-234, 1547 SA-235, 1547 SA-236, 1547 SA-237, 1547 SA-238, 1547 SA-239, 1547 SA-240, 1547 SA-241, 1547 SA-242, 1547 SA-243, 1547 SA-244, 1547 SA-245, 1547 SA-246, 1547 SA-247, 1547 SA-248, 1547 SA-249, 1547 SA-250, 1547 SA-251, 1547 SA-252, 1547 SA-253, 1547 SA-254, 1547 SA-255, 1547 SA-256, 1547 SA-257, 1547 SA-258, 1547 SA-259, 1547 SA-260, 1547 SA-261, 1547 SA-262, 1547 SA-263, 1547 SA-264, 1547 SA-265, 1547 SA-266, 1547 SA-267, 1547 SA-268, 1547 SA-269, 1547 SA-270, 1547 SA-271, 1547 SA-272, 1547 SA-273, 1547 SA-274, 1547 SA-275, 1547 SA-276, 1547 SA-277, 1547 SA-278, 1547 SA-279, 1547 SA-280, 1547 SA-281, 1547 SA-282, 1547 SA-283, 1547 SA-284, 1547 SA-285, 1547 SA-286, 1547 SA-287, 1547 SA-288, 1547 SA-289, 1547 SA-290, 1547 SA-291, 1547 SA-292, 1547 SA-293, 1547 SA-294, 1547 SA-295, 1547 SA-296, 1547 SA-297, 1547 SA-298, 1547 SA-299, 1547 SA-300, 1547 SA-301, 1547 SA-302, 1547 SA-303, 1547 SA-304, 1547 SA-305, 1547 SA-306, 1547 SA-307, 1547 SA-308, 1547 SA-309, 1547 SA-310, 1547 SA-311, 1547 SA-312, 1547 SA-313, 1547 SA-314, 1547 SA-315, 1547 SA-316, 1547 SA-317, 1547 SA-318, 1547 SA-319, 1547 SA-320, 1547 SA-321, 1547 SA-322, 1547 SA-323, 1547 SA-324, 1547 SA-325, 1547 SA-326, 1547 SA-327, 1547 SA-328, 1547 SA-329, 1547 SA-330, 1547 SA-331, 1547 SA-332, 1547 SA-333, 1547 SA-334, 1547 SA-335, 1547 SA-336, 1547 SA-337, 1547 SA-338, 1547 SA-339, 1547 SA-340, 1547 SA-341, 1547 SA-342, 1547 SA-343, 1547 SA-344, 1547 SA-345, 1547 SA-346, 1547 SA-347, 1547 SA-348, 1547 SA-349, 1547 SA-350, 1547 SA-351, 1547 SA-352, 1547 SA-353, 1547 SA-354, 1547 SA-355, 1547 SA-356, 1547 SA-357, 1547 SA-358, 1547 SA-359, 1547 SA-360, 1547 SA-361, 1547 SA-362, 1547 SA-363, 1547 SA-364, 1547 SA-365, 1547 SA-366, 1547 SA-367, 1547 SA-368, 1547 SA-369, 1547 SA-370, 1547 SA-371, 1547 SA-372, 1547 SA-373, 1547 SA-374, 1547 SA-375, 1547 SA-376, 1547 SA-377, 1547 SA-378, 1547 SA-379, 1547 SA-380, 1547 SA-381, 1547 SA-382, 1547 SA-383, 1547 SA-384, 1547 SA-385, 1547 SA-386, 1547 SA-387, 1547 SA-388, 1547 SA-389, 1547 SA-390, 1547 SA-391, 1547 SA-392, 1547 SA-393, 1547 SA-394, 1547 SA-395, 1547 SA-396, 1547 SA-397, 1547 SA-398, 1547 SA-399, 1547 SA-400, 1547 SA-401, 1547 SA-402, 1547 SA-403, 1547 SA-404, 1547 SA-405, 1547 SA-406, 1547 SA-407, 1547 SA-408, 1547 SA-409, 1547 SA-410, 1547 SA-411, 1547 SA-412, 1547 SA-413, 1547 SA-414, 1547 SA-415, 1547 SA-416, 1547 SA-417, 1547 SA-418, 1547 SA-419, 1547 SA-420, 1547 SA-421, 1547 SA-422, 1547 SA-423, 1547 SA-424, 1547 SA-425, 1547 SA-426, 1547 SA-427, 1547 SA-428, 1547 SA-429, 1547 SA-430, 1547 SA-431, 1547 SA-432, 1547 SA-433, 1547 SA-434, 1547 SA-435, 1547 SA-436, 1547 SA-437, 1547 SA-438, 1547 SA-439, 1547 SA-440, 1547 SA-441, 1547 SA-442, 1547 SA-443, 1547 SA-444, 1547 SA-445, 1547 SA-446, 1547 SA-447, 1547 SA-448, 1547 SA-449, 1547 SA-450, 1547 SA-451, 1547 SA-452, 1547 SA-453, 1547 SA-454, 1547 SA-455, 1547 SA-456, 1547 SA-457, 1547 SA-458, 1547 SA-459, 1547 SA-460, 1547 SA-461, 1547 SA-462, 1547 SA-463, 1547 SA-464, 1547 SA-465, 1547 SA-466, 1547 SA-467, 1547 SA-468, 1547 SA-469, 1547 SA-470, 1547 SA-471, 1547 SA-472, 1547 SA-473, 1547 SA-474, 1547 SA-475, 1547 SA-476, 1547 SA-477, 1547 SA-478, 1547 SA-479, 1547 SA-480, 1547 SA-481, 1547 SA-482, 1547 SA-483, 1547 SA-484, 1547 SA-485, 1547 SA-486, 1547 SA-487, 1547 SA-488, 1547 SA-489, 1547 SA-490, 1547 SA-491, 1547 SA-492, 1547 SA-493, 1547 SA-494, 1547 SA-495, 1547 SA-496, 1547 SA-497, 1547 SA-498, 1547 SA-499, 1547 SA-500, 1547 SA-501, 1547 SA-502, 1547 SA-503, 1547 SA-504, 1547 SA-505, 1547 SA-506, 1547 SA-507, 1547 SA-508, 1547 SA-509, 1547 SA-510, 1547 SA-511, 1547 SA-512, 1547 SA-513, 1547 SA-514, 1547 SA-515, 1547 SA-516, 1547 SA-517, 1547 SA-518, 1547 SA-519, 1547 SA-520, 1547 SA-521, 1547 SA-522, 1547 SA-523, 1547 SA-524, 1547 SA-525, 1547 SA-526, 1547 SA-527, 1547 SA-528, 1547 SA-529, 1547 SA-530, 1547 SA-531, 1547 SA-532, 1547 SA-533, 1547 SA-534, 1547 SA-535, 1547 SA-536, 1547 SA-537, 1547 SA-538, 1547 SA-539, 1547 SA-540, 1547 SA-541, 1547 SA-542, 1547 SA-543, 1547 SA-544, 1547 SA-545, 1547 SA-546, 1547 SA-547, 1547 SA-548, 1547 SA-549, 1547 SA-550, 1547 SA-551, 1547 SA-552, 1547 SA-553, 1547 SA-554, 1547 SA-555, 1547 SA-556, 1547 SA-557, 1547 SA-558, 1547 SA-559, 1547 SA-560, 1547 SA-561, 1547 SA-562, 1547 SA-563, 1547 SA-564, 1547 SA-565, 1547 SA-566, 1547 SA-567, 1547 SA-568, 1547 SA-569, 1547 SA-570, 1547 SA-571, 1547 SA-572, 1547 SA-573, 1547 SA-574, 1547 SA-575, 1547 SA-576, 1547 SA-577, 1547 SA-578, 1547 SA-579, 1547 SA-580, 1547 SA-581, 1547 SA-582, 1547 SA-583, 1547 SA-584, 1547 SA-585, 1547 SA-586, 1547 SA-587, 1547 SA-588, 1547 SA-589, 1547 SA-590, 1547 SA-591, 1547 SA-592, 1547 SA-593, 1547 SA-594, 1547 SA-595, 1547 SA-596, 1547 SA-597, 1547 SA-598, 1547 SA-599, 1547 SA-600, 1547 SA-601, 1547 SA-602, 1547 SA-603, 1547 SA-604, 1547 SA-605, 1547 SA-606, 1547 SA-607, 1547 SA-608, 1547 SA-609, 1547 SA-610, 1547 SA-611, 1547 SA-612, 1547 SA-613, 1547 SA-614, 1547 SA-615, 1547 SA-616, 1547 SA-617, 1547 SA-618, 1547 SA-619, 1547 SA-620, 1547 SA-621, 1547 SA-622, 1547 SA-623, 1547 SA-624, 1547 SA-625, 1547 SA-626, 1547 SA-627, 1547 SA-628, 1547 SA-629, 1547 SA-630, 1547 SA-631, 1547 SA-632, 1547 SA-633, 1547 SA-634, 1547 SA-635, 1547 SA-636, 1547 SA-637, 1547 SA-638, 1547 SA-639, 1547 SA-640, 1547 SA-641, 1547 SA-642, 1547 SA-643, 1547 SA-644, 1547 SA-645, 1547 SA-646, 1547 SA-647, 1547 SA-648, 1547 SA-649, 1547 SA-650, 1547 SA-651, 1547 SA-652, 1547 SA-653, 1547 SA-654, 1547 SA-655, 1547 SA-656, 1547 SA-657, 1547 SA-658, 1547 SA-659, 1547 SA-660, 1547 SA-661, 1547 SA-662, 1547 SA-663, 1547 SA-664, 1547 SA-665, 1547 SA-666, 1547 SA-667, 1547 SA-668, 1547 SA-669, 1547 SA-670, 1547 SA-671, 1547 SA-672, 1547 SA-673, 1547 SA-674, 1547 SA-675, 1547 SA-676, 1547 SA-677, 1547 SA-678, 1547 SA-679, 1547 SA-680, 1547 SA-681, 1547 SA-682, 1547 SA-683, 1547 SA-684, 1547 SA-685, 1547 SA-686, 1547 SA-687, 1547 SA-688, 1547 SA-689, 1547 SA-690, 1547 SA-691, 1547 SA-692, 1547 SA-693, 1547 SA-694, 1547 SA-695, 1547 SA-696, 1547 SA-697, 1547 SA-698, 1547 SA-699, 1547 SA-700, 1547 SA-701, 1547 SA-702, 1547 SA-703, 1547 SA-704, 1547 SA-705, 1547 SA-706, 1547 SA-707, 1547 SA-708, 1547 SA-709, 1547 SA-710, 1547 SA-711, 1547 SA-712, 1547 SA-713, 1547 SA-714, 1547 SA-715, 1547 SA-716, 1547 SA-717, 1547 SA-718, 1547 SA-719, 1547 SA-720, 1547 SA-721, 1547 SA-722, 1547 SA-723, 1547 SA-724, 1547 SA-725, 1547 SA-726, 1547 SA-727, 1547 SA-728, 1547 SA-729, 1547 SA-730, 1547 SA-731, 1547 SA-732, 1547 SA-733, 1547 SA-734, 1547 SA-735, 1547 SA-736, 1547 SA-737, 1547 SA-738, 1547 SA-739, 1547 SA-740, 1547 SA-741, 1547 SA-742, 1547 SA-743, 1547 SA-744, 1547 SA-745, 1547 SA-746, 1547 SA-747, 1547 SA-748, 1547 SA-749, 1547 SA-750, 1547 SA-751, 1547 SA-752, 1547 SA-753, 1547 SA-754, 1547 SA-755, 1547 SA-756, 1547 SA-757, 1547 SA-758, 1547 SA-759, 1547 SA-760, 1547 SA-761, 1547 SA-762, 1547 SA-763, 1547 SA-764, 1547 SA-765, 1547 SA-766, 1547 SA-767, 1547 SA-768, 1547 SA-769, 1547 SA-770, 1547 SA-771, 1547 SA-772, 1547 SA-773, 1547 SA-774, 1547 SA-775, 1547 SA-776, 1547 SA-777, 1547 SA-778, 1547 SA-779, 1547 SA-780, 1547 SA-781, 1547 SA-782, 1547 SA-783, 1547 SA-784, 1547 SA-785, 1547 SA-786, 1547 SA-787, 1547 SA-788, 1547 SA-789, 1547 SA-790, 1547 SA-791, 1547 SA-792, 1547 SA-793, 1547 SA-794, 1547 SA-795, 1547 SA-796, 1547 SA-797, 1547 SA-798, 1547 SA-799, 1547 SA-800, 1547 SA-801, 1547 SA-802, 1547 SA-803, 1547 SA-804, 1547 SA-

them to each individual container. The pipes outside the fence will have a pipe connection that the fire department can attach a water line on in order to flood a specific container if it happens to enter a thermal runaway.

There are both visual and audible alarms on each ESS container. There is a control panel on the outside of the ESS container that has status lights for the system.

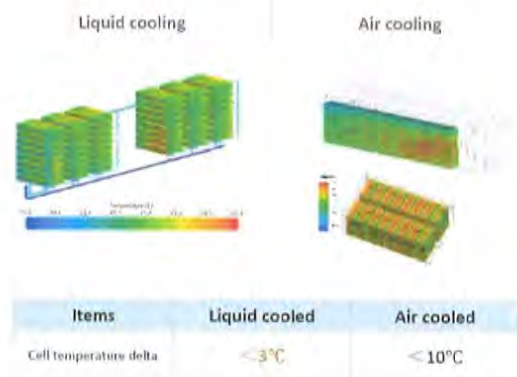


4.6 Liquid Cooling

The ESS container and battery modules is liquid cooled. The container is plumbed with piping to each battery module. The liquid that is being used as a coolant/ heat transfer medium is Sinopec. The liquid is made up of Water, Ethylene Glycol and an additive. The fluid will go through a compressor that brings the coolant back down to an operating temperature to then cycle back through the modules. Each battery module is equipped with a solenoid that will determine if the battery module needs more cooling or not. This increases the efficiency of the system and keeps a more consistent operating temperature.




REDUCE CELL MISMATCH AND EXTEND LIFE SPAN




4.7 BATTERY RACKING

The batteries are held within the ESS container on a racking system, a Sungrow model E4L-R231. Through the racking system the batteries are hooked up to a monitoring system that monitors each battery module and each battery rack with heat sensors that monitor battery temperature. Each rack holds 15 battery modules and one (1) battery monitoring system.

NO.	Item	Specification
1	Image (reference)	
2	Model	E4L-R231
3	Charging & discharging rate	$\leq 0.5C$
4	Cell type	LFP 302Ah
5	Configuration	1P240S
6	Key component	PACK*15+SG*1
7	Capacity	302Ah
8	Nominal energy	231.9kWh
9	Charging & discharging power	$\leq 112.8kW$
10	Nominal voltage	768.0V
11	Operating voltage range	648.0V~876.0V
12	Dimensions (W*H*D)	1080mm×2000mm×800mm

4.8 LITHIUM-ION BATTERY

A Lithium-Ion Battery is a type of rechargeable battery most commonly used for portable electronics, tools and electric vehicles. Li-ion batteries do not require scheduled cycling to maintain their battery life. The Lithium-ion batteries being used in the ESS is a Sungrow E4L-M154 battery module. The battery is a Lithium iron phosphate (LFP) cell battery which have excellent safety, long lifecycle and are very durable.

NO.	Item	Specification
1	Image (reference)	
2	Model	E4L-M154
3	Charging & discharging rate	$\leq 0.5C$
4	Cell type	LFP 302Ah
5	Configuration	1P16S
6	Capacity	302Ah
7	Nominal energy	15.4kWh
8	Charging & discharging power	$\leq 7.5kW$
9	Nominal voltage	51.2V
10	Operating voltage range	43.2V~58.4V
11	Dimensions (W*H*D)	410mm×230mm×760mm
12	Weight	105kg

DECOMMISSIONING PLAN

ZPB-38 Energy Storage System Map 26B, Lot A1 4.948 MWAC

1355 Main Street
Leicester, MA 01524

September 20, 2021

ZPBattery DevCo LLC
10 E Worcester St, Suite 3A, Worcester MA 01604

BACKGROUND

ZPBattery DevCo LLC ("ZPB") has prepared this Decommissioning Plan (the "Plan") for the Energy Storage System (the "System") located off 1355 Main Street, Leicester, MA 01524. The System will consist of a 4.948 MWac Energy Storage System located on approximately a third of acre of land owned by WR Enterprise.

The purpose of this Decommissioning Plan is to provide the general scope of decommissioning work as well as for a decommissioning assurance mechanism designed to satisfy the decommissioning assurance requirements under the Special Permit.

System Description:

The System will consist of a 4.948 MWac capacity energy storing operation secured within a chain-link fence surrounding the pad mounted equipment and accessed via Main Street. The System will include the following site features:

- Utility owned equipment:
 - One (1) Utility Pole
 - One (1) GOAB
 - One (1) Recloser
 - One (1) Transformer
 - Two (2) Meters
- ZPB Owned Equipment
 - One (1) GOAB
 - One (1) Recloser
 - One (1) Meter
 - One (1) Transformer
 - One (1) Neutral Ground Reactor
 - One (1) Controller
 - Four (2) Inverters
 - Five (8) Energy Storage Containers
- Seven (7)-foot chain-link security fence
- Underground conduit and wires

DECOMMISSIONING ACTIVITIES

The System will be decommissioned by completing the following major steps:

- Dismantlement and Demolition
- Disposal or Recycle
- Site Stabilization

Dismantlement, Demolition, and Disposal or Recycle:

A significant amount of the components of the System will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and batteries. Due to their resale monetary value, these components will be dismantled and disassembled rather than being demolished and disposed of.

Following coordination with the local utility company regarding timing and required procedures for disconnecting the System from the private utility, all electrical connections to the system will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the batteries will be cut at the panel and then removed from their framework by cutting or dismantling the connections to the supports. Batteries will be removed. Disposal of these materials at a recycling center will be permissible.

Finally, all associated structures will be demolished and removed from the site for recycling or disposal as required in the bylaws for Southbridge. This will include the site fence and gates, which will likely be reclaimed or recycled. Grade slabs will be broken and removed to a depth of one foot below grade, and clean concrete will be crushed and disposed of off-site or recycled (reused either on- or off-site). Sanitary facilities will be provided on-site for the workers conducting the decommissioning of the System.

Pad mounted interconnection equipment owned by the System will be completely removed and disposed of off-site in accordance with utility best practices. Overhead wires will be removed from the and terminated at the utility-owned point of common coupling.

A final site walkthrough will be conducted to remove debris and/or trash generated within the site during the decommissioning process, and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the System being removed.

Site Stabilization:

The areas of the System that are disturbed (during decommissioning) will be re-graded to establish a uniform slope, stabilized as needed, and approved by the Building Inspector/Planning Board during the decommissioning process. The gravel access driveway from Main Street, including the portion within the perimeter fence, will remain intact and shall not be removed until site is fully stabilized.

Current Permitting Requirements for Decommissioning

Given the size and location of the System, several approvals are required prior to initiation of ground-disturbing activity. ZPB has provided a summary of the expected approvals if the decommissioning were to take place in September 2021. Noting, however, that because the decommissioning is expected to occur at a later date, the permitting requirements listed below will be reviewed and updated based on current local, state, and federal regulations at the time.

National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activity

- U.S. Environmental Protection Agency - Ground disturbance of greater than 1 acre with discharge to wetlands or water bodies. Requires preparation of a storm Water Pollution Prevention Plan, including erosion and sedimentation controls.

Site Plan Approval

- Town of Leicester Planning Board - Anticipated decommissioning requirements listed in the Site Plan Approval conditions of approval.

Building Permit

- A building permit is required to construct the System. A building permit must also be obtained for any construction, alteration, repair, demolition, or change to the use or occupancy of a building.

Permitting Requirement Assumptions:

1. The access driveway will remain in place throughout the System until site is fully stabilized.
2. No ground disturbance, including temporary laydown areas, is required within areas subject to the Massachusetts Wetlands Protection Act.

Schedule

The decommissioning process is estimated to take approximately 3-6 weeks and is intended to occur outside of the winter season.

Decommissioning Cost

ZPB has estimated the decommissioning and land remediation costs. **Exhibit A** attached hereto shows the detail of ZPB's estimates of the foregoing costs.

DECOMMISSIONING ASSURANCE

Form of Decommissioning Assurance

During each year from the period of commencement of construction of the System through completion of decommissioning activities at the System, ZPB shall provide a performance guarantee in a form reasonably accepted by the Town of Leicester.

Amount of Decommissioning Assurance

The initial amounts of the decommissioning assurance shall be **\$86,653**. Please note that this amount is derived from estimates of the cost set forth in **Exhibit A**.

As of each five-year anniversary of the commercial operation date of the System, the decommissioning assurance shall be updated to reflect 110% of an updated reasonable estimate of decommissioning costs (net of salvage value). At least three (3) months prior to the five-year anniversary, ZPB shall provide an updated estimate of decommissioning costs to the Town of Leicester for its review and approval, not to be unreasonably withheld. (For avoidance of doubt, in disapproving an updated estimate of decommissioning costs, the Town of Leicester may reasonably require that an updated estimate be provided.) In connection with an update of the decommissioning assurance amount, ZPB shall provide the Town of Leicester with such supporting information as it reasonably requests.

USE OF DECOMMISSIONING ASSURANCE

In the event that ZPB fails to undertake decommissioning activities within one year of discontinued operations, the Town of Leicester shall have the right to undertake decommissioning activities and make a claim against the decommissioning assurance. ZPB agrees that in such circumstances that the Town of Leicester shall have such access to the site as may be necessary to allow its qualified contractors to conduct decommissioning activities. For purposes hereof, ZPB and the Town of Leicester agree that the "date of discontinued operations" shall be (i) the date of discontinued operations designed by ZPB in its notice to the Town of Leicester or (ii) in absence of such notice, the last day of a continuous period of nine (9) months in which the System has not operated and where such inactivity is not the result of a casualty, equipment problem, permitting matter, financial matter or other issue that ZPB or the owner/operator is in good faith attempting to remedy.

ZPB agrees to indemnify and hold the Town of Leicester harmless from and against all net loss, cost and expenses, including court costs and reasonable attorney's fees, related to and arising out of the Town of Leicester's decommissioning activities, except to the extent such loss, cost or expenses relate to or arise out of the negligence, willful misconduct or violation of the law by the Town of Leicester, its officials, employees, contractors or agents.

Submitted by:

ZPBattery DevCo LLC

By: _____

Name: Brendan Gove

Title: Authorized Person

ACKNOWLEDGEMENT AND APPROVAL

The Town of Leicester Planning Board hereby acknowledges receipt of this Decommissioning Plan and affirms that the Decommissioning Plan (assuming establishment of the escrow fund in the amount provided for above) satisfies the conditions of the Site Plan Approval relevant thereto.

Town of Leicester Planning Board

By: _____

Date: _____, 2021

Name:

Name:

Name:

Name:

Name:

Name:

Name:

SITE DEVELOPMENT PLAN SOLAR ENERGY STORAGE SYSTEM (ESS)

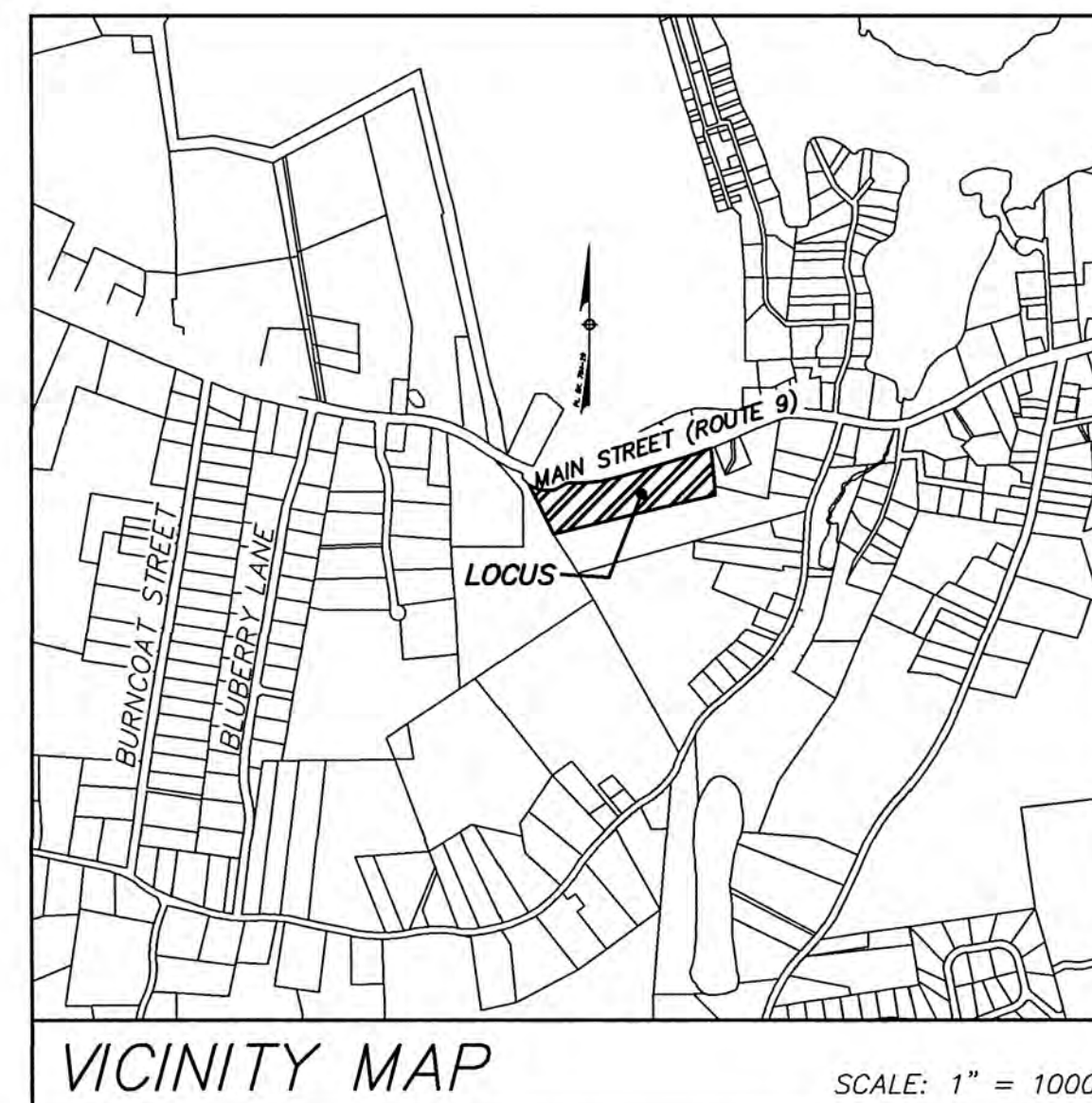
1355 MAIN STREET

IN

LEICESTER, MASSACHUSETTS

SEPTEMBER 21, 2021

REVISIONS THROUGH OCTOBER 19, 2021



APPLICANT:

ZP BATTERY DEVCO, LLC
BRENDON GOVE
10 E. WORCESTER STREET, SUITE 3A
WORCESTER, MASSACHUSETTS 01604

OWNER:

WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01420

CIVIL ENGINEER & LAND SURVEYOR:

HANNIGAN ENGINEERING, INC.
8 MONUMENT SQUARE
LEOMINSTER, MASSACHUSETTS 01453
TEL: (978) 534-1234

PLAN INDEX

SHEET 1	LOCUS PLAN
SHEET 2	INDEX PLAN
SHEET 3	EXISTING CONDITIONS PLAN
SHEET 4	SITE DEVELOPMENT PLAN
SHEETS 5-6	CONSTRUCTION DETAILS

PERMITTING SET - NOT FOR CONSTRUCTION

PROJECT INFORMATION

LAND INFORMATION
MAP/PARCEL: 26B/A1
DEED BOOK-PAGE: 65218/149
EXISTING FRONTAGE: 794.29'
EXISTING AREA: 5.44 ACRES

ZONING INFORMATION
ZONING DISTRICT: HIGHWAY BUSINESS-INDUSTRIAL 1 (HB-1)
DIMENSIONAL REQUIREMENTS:
MINIMUM AREA: 60,000 S.F.
MINIMUM FRONTAGE: 200'
MAXIMUM HEIGHT: 55'
MINIMUM SETBACKS:
FRONT YARD: 50'
SIDE YARD: 50'
REAR YARD: 50'

- GENERAL NOTES:
1. PROPERTY LINE INFORMATION BASED DEEDS AND PLANS OF RECORD. NO CERTIFICATION OF PROPERTY LINES SHOWN ON THIS PLAN IS INTENDED OR IMPLIED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JULY OF 2021.
 2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY CARON ENVIRONMENTAL CONSULTING ON MARCH 26, 2021. THESE AREAS ARE DEPICTED ON THE PLANS BASED ON FIELD SURVEY LOCATION DURING THE TOPOGRAPHIC SURVEY.
 3. LOCATION OF ALL UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON VISIBLE STRUCTURES AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR, MARKED IN THE FIELD, AND REVIEWED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITY COMPANIES AND AGENCY AS WELL AS DIG-SAFE PRIOR TO EXCAVATION. (SEE NOTE)
 4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
 5. RELOCATION OF AND/OR CONNECTION TO EXISTING UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY.
 6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF LEICESTER AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
 7. ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOAMED AND SEEDED FOR STABILIZATION.
 8. ANY DEVIATIONS IN DESIGN AS SHOWN SHALL REQUIRE A REVIEW AND APPROVAL OF THE DESIGN ENGINEER OR FIRM. CHANGES MADE IN THE FIELD MADE WITHOUT AUTHORIZATION SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND APPROPRIATE APPROVING AUTHORITY. EXPENSES INCURRED TO BRING THE UNAUTHORIZED CHANGES TO ACCEPTABLE CONFORMANCE SHALL BE BORNE BY THE COMPANY OR CONTRACTOR MAKING THE UNAUTHORIZED CHANGE.
 9. ANY MATERIALS DISCOVERED ON-SITE WHICH ARE NOT SUITABLE FOR USE IN THE PROJECT AS SHOWN ON THIS PLAN SHALL BE REMOVED AND HAULED OFF-SITE TO AN APPROPRIATELY LICENSED FACILITY.
 10. PLANS TO BE REVIEWED BY APPLICABLE UTILITY AGENCIES FOR COMPLIANCE WITH REGULATIONS. FINAL LOCATION IS SUBJECT TO CHANGE.
 11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
 12. STOCKPILING OF MATERIAL SHALL NOT BE PERMITTED WITHIN ANY AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT WITHOUT PRIOR APPROVAL BY THE LOCAL CONSERVATION COMMISSION. STOCKPILES SHALL BE PLACED IN A SUITABLE LOCATION AND SURROUNDED BY A ROW OF STAKED HAY BALES FOR EROSION CONTROL.
 13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR PERFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M.A. FIRM PANEL 050313-0781 E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
 16. ALL REINFORCED CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE NOTED.
 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF LEICESTER.

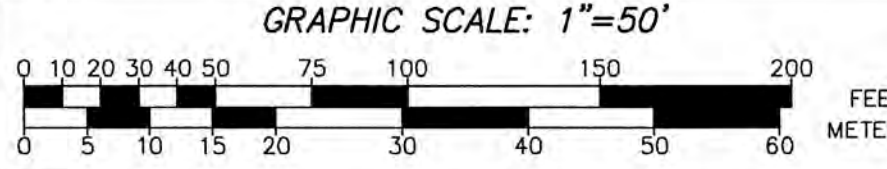


HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

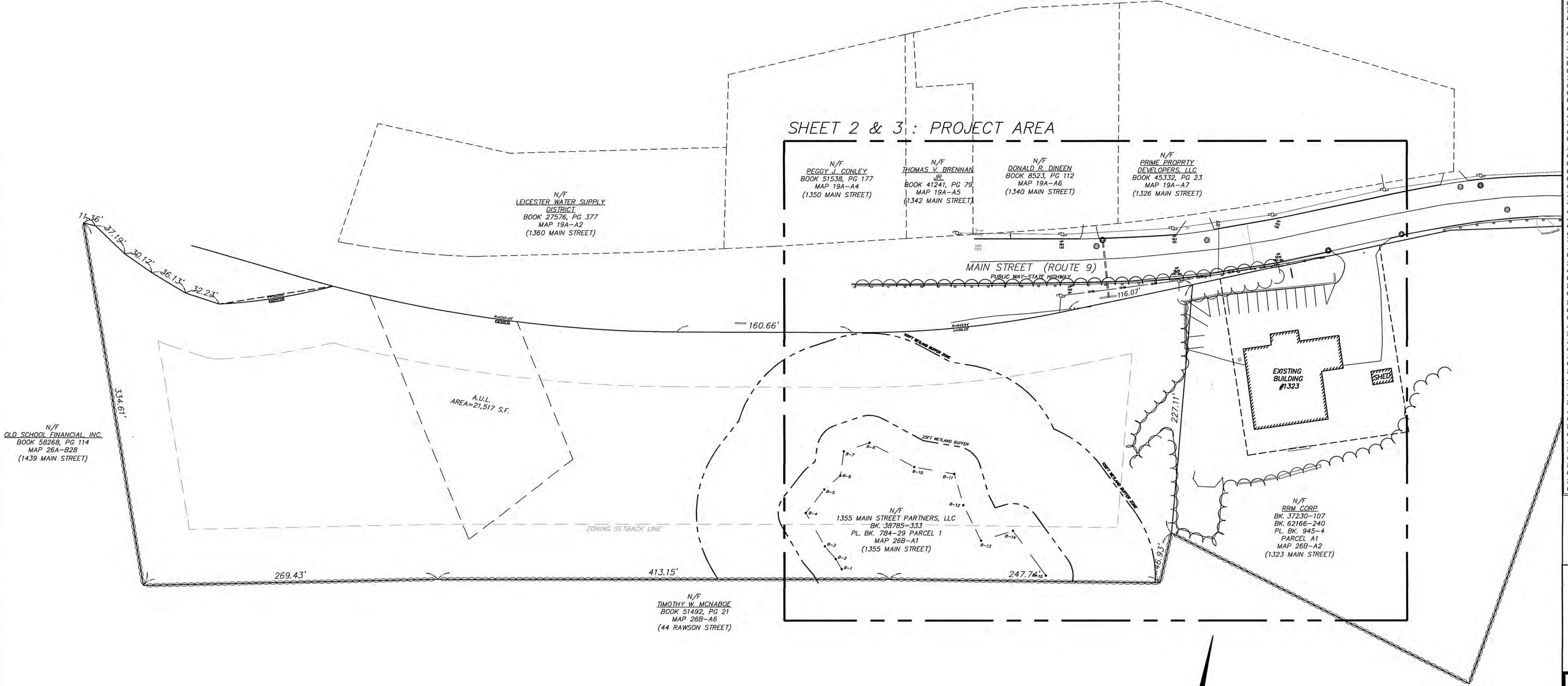
INDEX PLAN
IN
LEICESTER, MASSACHUSETTS

PREPARED FOR:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E WORCESTER STREET SUITE 3A
WORCESTER, MASSACHUSETTS 01604
TEL:

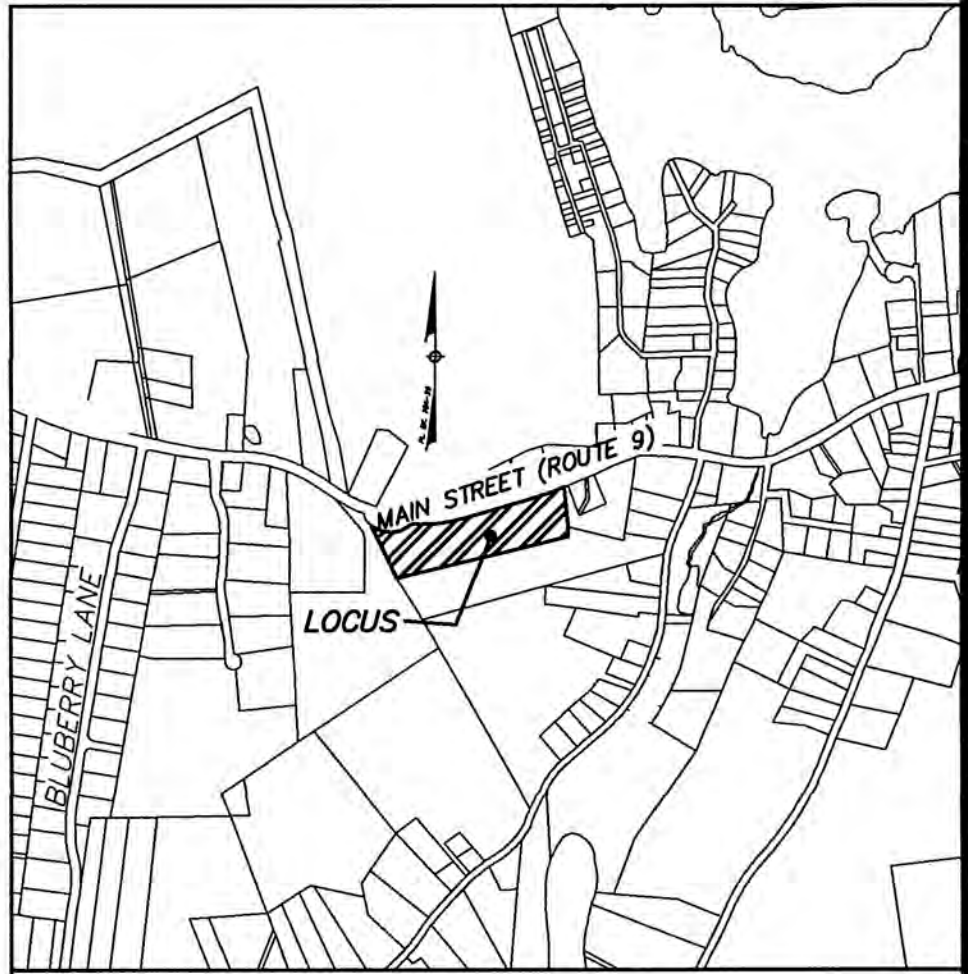


CALC: CMA	DRWN: CMA	SCALE: 1"=50'
CHKD: WDH	APPD: WDH	DATE: SEP 21, 2021
SRV: JEF	FB: 71-22	JOB NO: 3010
TAB: (2) INDEX	SHEET 2 OF 6	PLAN NO: C-17-38

SHEET 2 & 3: PROJECT AREA



APPLICANT:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET, SUITE 3A
WORCESTER, MASSACHUSETTS 01604
OWNER:
WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01524



LOCUS PLAN SCALE: 1"=1000'

PROJECT INFORMATION

LAND INFORMATION
MAP/PARCEL: 26B/A1
DEED BOOK-PAGE: 65218/149
EXISTING FRONTAGE: 794.29'
EXISTING AREA: 5.44 ACRES

ZONING INFORMATION
ZONING DISTRICT: HIGHWAY BUSINESS-INDUSTRIAL 1 (HB-1)
DIMENSIONAL REQUIREMENTS:
MINIMUM AREA: 60,000 S.F.
MINIMUM FRONTAGE: 200'
MAXIMUM HEIGHT: 55'
MINIMUM SETBACKS:
FRONT YARD: 50'
SIDE YARD: 50'
REAR YARD: 50'

GENERAL NOTES:
1. PROPERTY LINE INFORMATION BASED DEEDS AND PLANS OF RECORD. NO CERTIFICATION OF PROPERTY LINES SHOWN ON THIS PLAN IS INTENDED OR IMPLIED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JULY OF 2021.
2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY CARON ENVIRONMENTAL CONSULTING ON MARCH 26, 2021. THESE AREAS ARE DEPICTED ON THE PLANS BASED ON FIELD SURVEY LOCATION DURING THE TOPOGRAPHIC SURVEY.
3. LOCATION OF ALL UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON VISIBLE STRUCTURES AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR, MARKED IN THE FIELD, AND REVIEWED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITY COMPANIES AND AGENCY AS WELL AS DIG-SAFE PRIOR TO EXCAVATION. (SEE NOTE)
4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
5. RELOCATION OF AND/OR CONNECTION TO EXISTING UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY.
6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF LEICESTER AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
7. ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOAMED AND SEEDED FOR STABILIZATION.
8. ANY DEVIATIONS IN DESIGN AS SHOWN SHALL REQUIRE A REVIEW AND APPROVAL OF THE DESIGN ENGINEER OR FIRM. CHANGES MADE IN THE FIELD MADE WITHOUT AUTHORIZATION SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND APPROPRIATE APPROVING AUTHORITY. EXPENSES INCURRED TO BRING THE UNAUTHORIZED CHANGES TO ACCEPTABLE CONFORMANCE SHALL BE BORNE BY THE COMPANY OR CONTRACTOR MAKING THE UNAUTHORIZED CHANGE.
9. ANY MATERIALS DISCOVERED ON-SITE WHICH ARE NOT SUITABLE FOR USE IN THE PROJECT AS SHOWN ON THIS PLAN SHALL BE REMOVED AND HAULED OFF-SITE TO AN APPROPRIATELY LICENSED FACILITY.
10. PLANS TO BE REVIEWED BY APPLICABLE UTILITY AGENCIES FOR COMPLIANCE WITH REGULATIONS. FINAL LOCATION IS SUBJECT TO CHANGE.
11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
12. STOCKPILING OF MATERIAL SHALL NOT BE PERMITTED WITHIN ANY AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT WITHOUT PRIOR APPROVAL BY THE LOCAL CONSERVATION COMMISSION. STOCKPILES SHALL BE PLACED IN A SUITABLE LOCATION AND SURROUNDED BY A ROW OF STAKED HAY BALES FOR EROSION CONTROL.
13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR CONFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER E.M.A. FIRM PANEL #250313 0781 E, DATED JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
16. ALL REINFORCED CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE NOTED.
17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF LEICESTER.

1	10/19/21	PEER-REVIEW COMMENT	CMA
NO.	DATE	REVISIONS	BY



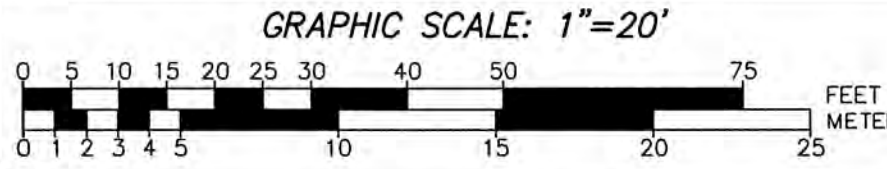
David J. LeRoy 10-22-21

HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

EXISTING CONDITIONS PLAN
IN
LEICESTER, MASSACHUSETTS

PREPARED FOR:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET SUITE 3A
WORCESTER, MASSACHUSETTS 01604
TEL:



CALC: CMA	DRWN: CMA	SCALE: 1"=20'
CHKD: WDH	APPD: WDH	DATE: SEP 21, 2021
SRV: JEF	FB: 71-22	JOB NO: 3010
TAB: (3) EXCOND	SHEET 3 OF 6	PLAN NO: C-17-38

APPLICANT:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET, SUITE 3A
WORCESTER, MASSACHUSETTS 01604
OWNER:
WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01524

N/F
TIMOTHY W. MCNABOE
BOOK 51492, PG 21
MAP 26B-A6
(44 RAWSON STREET)

N/F
DONALD R. DINEEN
BOOK 8523, PG 112
MAP 19A-A6
(1340 MAIN STREET)

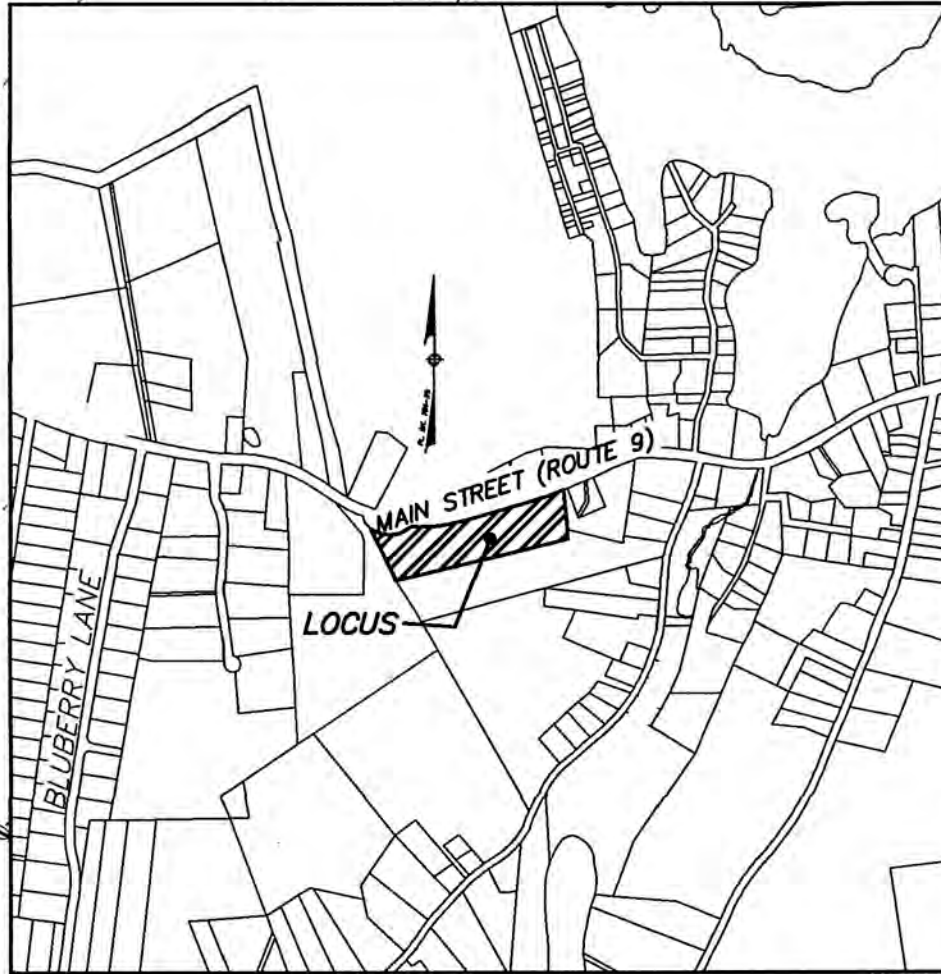
N/F
PRIME PROPERTY DEVELOPERS, LLC
BOOK 45332, PG 23
MAP 19A-A7
(1326 MAIN STREET)

N/F
THOMAS V. BRENNAN JR.
BOOK 41241, PG 79
MAP 19A-A5
(1342 MAIN STREET)

N/F
PEGGY J. CONLEY
BOOK 51538, PG 177
MAP 19A-A4
(1350 MAIN STREET)

N/F
WR ENTERPRISES, LLC
BK 65218-149
PL BK. 784-29 PARCEL 1
MAP 26B-A1
(1355 MAIN STREET)

N/F
RRM CORP
BK. 37230-107
BK. 62166-240
PL. BK. 945-4
PARCEL A1
MAP 26B-A2
(1323 MAIN STREET)



LOCUS PLAN SCALE: 1"=1000'

PROJECT INFORMATION

LAND INFORMATION	
MAP/PARCEL:	26B/A1
DEED BOOK-PAGE:	65218/149
EXISTING FRONTAGE:	794.29'
EXISTING AREA:	5.44 ACRES
ZONING INFORMATION	
ZONING DISTRICT:	HIGHWAY BUSINESS-INDUSTRIAL 1 (HB-1)
DIMENSIONAL REQUIREMENTS:	
MINIMUM AREA:	60,000 S.F.
MINIMUM FRONTAGE:	200'
MINIMUM HEIGHT:	55'
MINIMUM SETBACKS:	
FRONT YARD:	50'
SIDE YARD:	50'
REAR YARD:	50'

- GENERAL NOTES:
1. PROPERTY LINE INFORMATION BASED DEEDS AND PLANS OF RECORD. NO CERTIFICATION OF PROPERTY LINES SHOWN ON THIS PLAN IS INTENDED OR IMPLIED BY HANNIGAN ENGINEERING, INC. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND TOPOGRAPHIC SURVEY BY HANNIGAN ENGINEERING, INC. IN JULY OF 2021.
 2. AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY CARON ENVIRONMENTAL CONSULTING ON MARCH 26, 2021. THESE AREAS ARE DEPICTED ON THE PLANS BASED ON FIELD SURVEY LOCATION DURING THE TOPOGRAPHIC SURVEY.
 3. LOCATION OF ALL UTILITIES ARE APPROXIMATE AS SHOWN AND BASED UPON VISIBLE STRUCTURES AT THE TIME OF THE FIELD SURVEY. LOCATION OF EXISTING UTILITIES AND SUBSURFACE STRUCTURES, WHETHER OR NOT SHOWN ON THESE PLANS, SHALL BE DETERMINED BY THE CONTRACTOR, MARKED IN THE FIELD, AND REVIEWED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE AWARE OF THE OBLIGATION TO ALL UTILITY COMPANIES AND AGENCY AS WELL AS DIG-SAFE PRIOR TO EXCAVATION. (SEE NOTE)
 4. NOTIFICATION REQUIREMENTS SHOWN ON THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF ANY OTHER REQUIREMENTS WHICH MAY EXIST UNDER LOCAL, STATE, OR FEDERAL JURISDICTION TO WHICH THE CONTRACTOR IS OBLIGATED.
 5. RELOCATION OF AND/OR CONNECTION TO EXISTING UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY.
 6. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE TOWN OF LEICESTER AND THE MASS DOT SPECIFICATIONS OF HIGHWAYS AND BRIDGES.
 7. ALL SLOPES UNLESS OTHERWISE SPECIFIED, SHALL BE LOAMED AND SEEDED FOR STABILIZATION.
 8. ANY DEVIATIONS IN DESIGN AS SHOWN SHALL REQUIRE A REVIEW AND APPROVAL OF THE DESIGN ENGINEER OR FIRM. CHANGES MADE IN THE FIELD MADE WITHOUT AUTHORIZATION SHALL BE SUBJECT TO REVIEW BY THE ENGINEER AND APPROPRIATE APPROVING AUTHORITY. EXPENSES INCURRED TO BRING THE UNAUTHORIZED CHANGES TO ACCEPTABLE CONFORMANCE SHALL BE BORNE BY THE COMPANY OR CONTRACTOR MAKING THE UNAUTHORIZED CHANGE.
 9. ANY MATERIALS DISCOVERED ON-SITE WHICH ARE NOT SUITABLE FOR USE IN THE PROJECT AS SHOWN ON THIS PLAN SHALL BE REMOVED AND HAULED OFF-SITE TO AN APPROPRIATELY LICENSED FACILITY.
 10. PLANS TO BE REVIEWED BY APPLICABLE UTILITY AGENCIES FOR COMPLIANCE WITH REGULATIONS. FINAL LOCATION IS SUBJECT TO CHANGE.
 11. APPLICANT SHOULD BE AWARE OF OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND THE ASSOCIATED REGULATIONS (310 CMR 10.00).
 12. STOCKPILING OF MATERIAL SHALL NOT BE PERMITTED WITHIN ANY AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT WITHOUT PRIOR APPROVAL BY THE LOCAL CONSERVATION COMMISSION. STOCKPILES SHALL BE PLACED IN A SUITABLE LOCATION AND SURROUNDED BY A ROW OF STAKED HAY BALES FOR EROSION CONTROL.
 13. AREAS OF FILL TO BE COMPACTED TO A MINIMUM 95% DRY DENSITY IN AREAS WITHIN ROADWAYS AND UTILITY EASEMENTS. OTHER AREAS OF FILL TO BE COMPACTED TO A MINIMUM 90% DRY DENSITY. ALL FILL MATERIALS ARE TO BE CLEAN FILL, FREE OF DELETERIOUS MATERIALS AND DEBRIS.
 14. ALL SIDEWALKS AND RAMPS TO CONFORM TO REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AS REQUIRED. SEE ARCHITECTURAL PLANS FOR CONFORMANCE REQUIREMENTS FOR PROPOSED BUILDINGS.
 15. THE AREA PROPOSED FOR DEVELOPMENT IS NOT WITHIN A 100 YEAR FLOOD PLAIN PER F.E.M. FIRM PANEL #250313 0781 E, DATED: JULY 4, 2011. COMPLIANCE WITH APPLICABLE REGULATIONS IS REQUIRED.
 16. ALL REINFORCED CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE NOTED.
 17. PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 18. ALL UTILITIES ARE TO BE INSTALLED BY A LICENSED UTILITY CONTRACTOR LICENSED BY THE TOWN OF LEICESTER.

1	10/19/21	PEER-REVIEW COMMENT	CMA
NO.	DATE	REVISIONS	BY

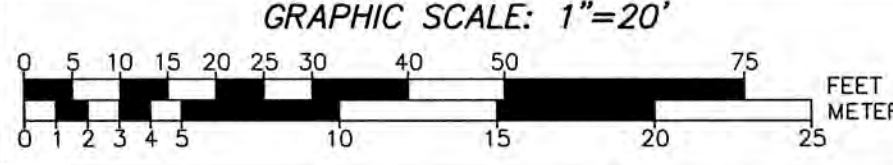


HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

SITE DEVELOPMENT PLAN
IN
LEICESTER, MASSACHUSETTS

PREPARED FOR:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E WORCESTER STREET SUITE 3A
WORCESTER, MASSACHUSETTS 01604
TEL:

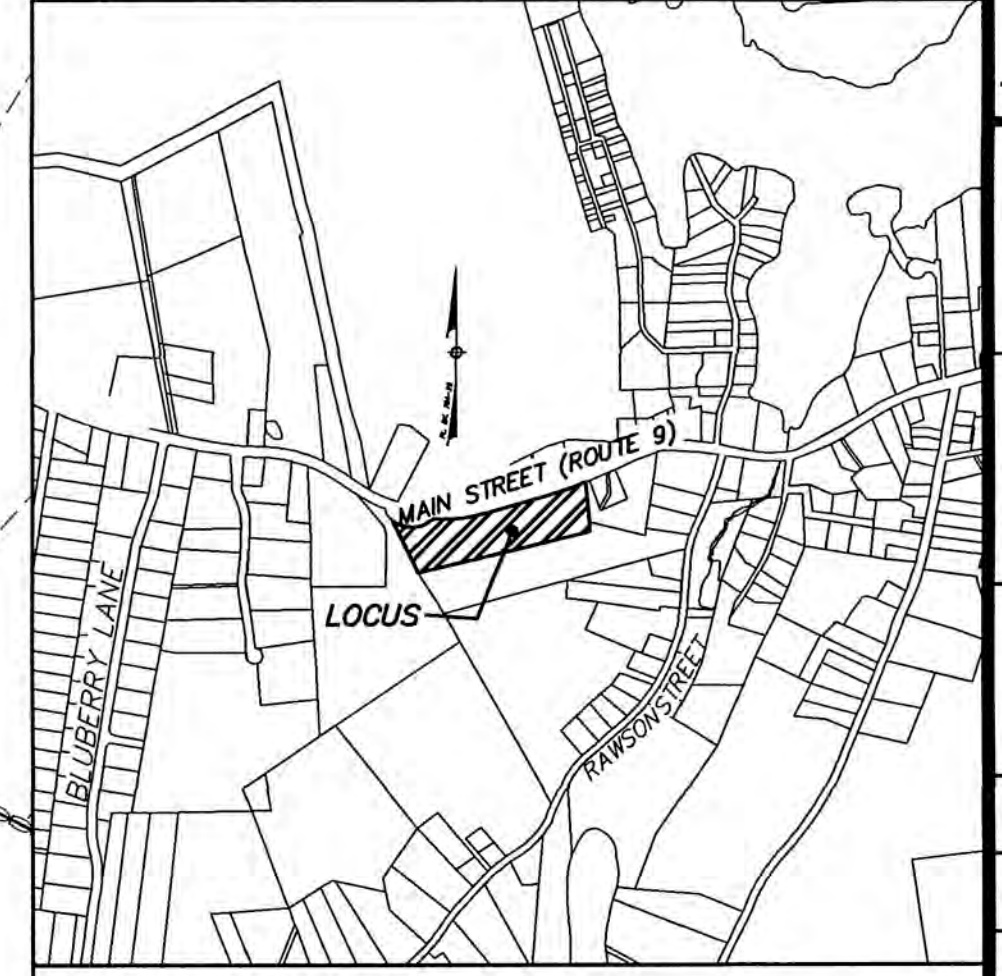


CALC:	CMA	DRWN:	CMA	SCALE:	1"=20'
CHKD:	WDH	APPD:	WDH	DATE:	SEP 21, 2021
SRV:	JEF	FB:	71-22	JOB NO:	3010
TAB:	(4) SDP	SHEET	4 OF 6	PLAN NO:	C-17-38

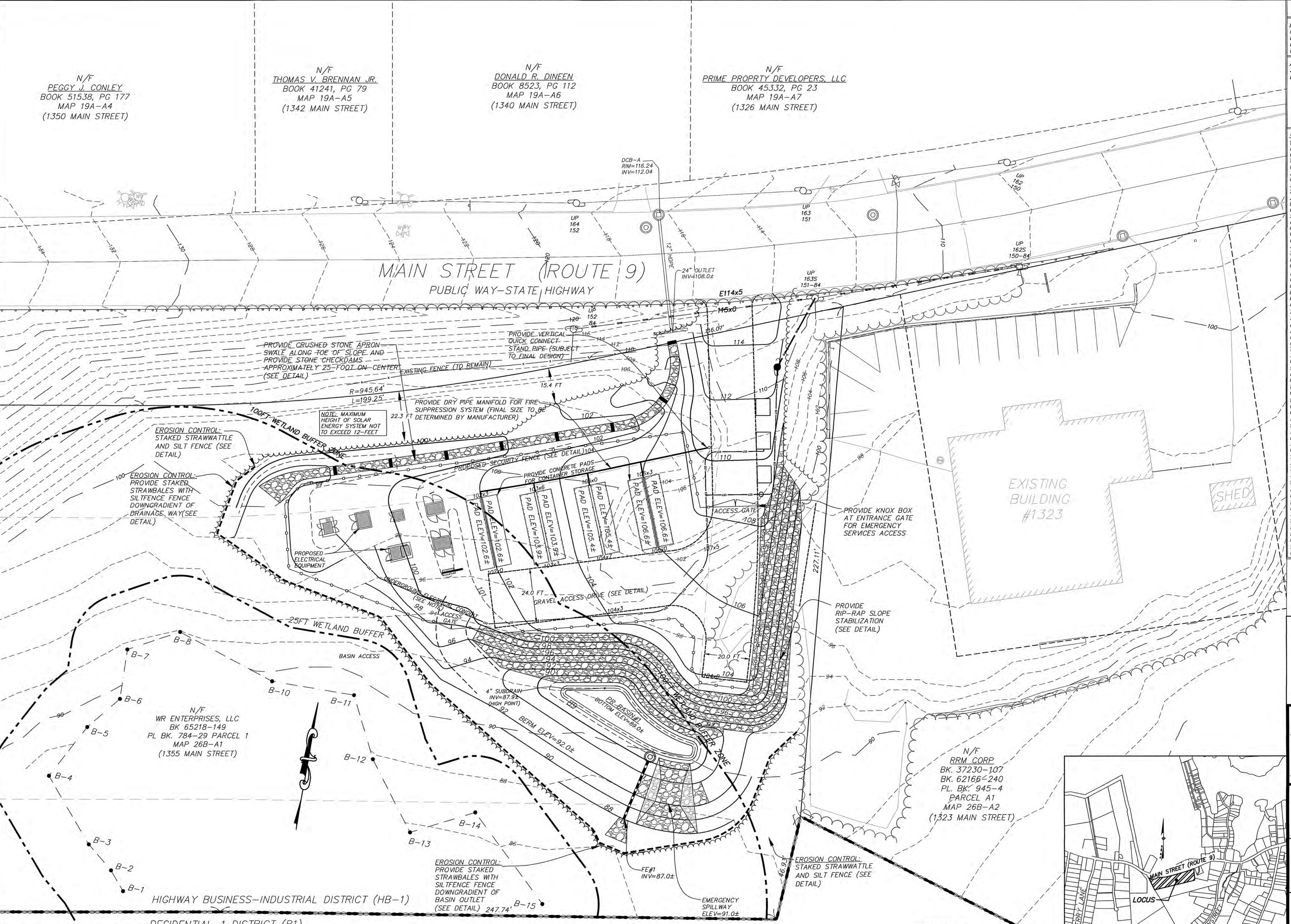
APPLICANT:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET, SUITE 3A
WORCESTER, MASSACHUSETTS 01604
OWNER:
WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01524

N/F
TIMOTHY W. MCNABOE
BOOK 51492, PG 21
MAP 26B-A6
(44 RAWSON STREET)

N/F
RRM CORP
BK. 37230-107
BK. 62166-240
PL. BK. 945-4
PARCEL A1
MAP 26B-A2
(1323 MAIN STREET)



LOCUS PLAN SCALE: 1"=1000'



N/F
PEGGY J. CONLEY
BOOK 51538, PG 177
MAP 19A-A4
(1350 MAIN STREET)

N/F
THOMAS V. BRENNAN JR.
BOOK 41241, PG 79
MAP 19A-A5
(1342 MAIN STREET)

N/F
DONALD R. DINEEN
BOOK 8523, PG 112
MAP 19A-A6
(1340 MAIN STREET)

N/F
PRIME PROPERTY DEVELOPERS, LLC
BOOK 45332, PG 23
MAP 19A-A7
(1326 MAIN STREET)

N/F
WR ENTERPRISES, LLC
BK 65218-149
PL BK. 784-29 PARCEL 1
MAP 26B-A1
(1355 MAIN STREET)

EROSION & SEDIMENTATION CONTROL PLAN

GENERAL:

1. THE PURPOSE OF THIS PLAN IS TO PRESENT A PREVENTIVE METHOD OF CONSTRUCTION TO MINIMIZE THE IMPACT OF THE CONSTRUCTION ACTIVITIES UPON WETLAND AND OTHER SENSITIVE AREAS. THE DATA CONTAINED ON THIS PLAN IS INTENDED TO SUPPLEMENT THE DEVELOPER OR CONTRACTORS' EXPERTISE AND IS NOT MEANT TO CIRCUMVENT LOGICAL DECISIONS REQUIRED BY A VARIETY OF FIELD CONDITIONS INCLUDING WEATHER AND THE TYPE OF EQUIPMENT AVAILABLE TO THE CONTRACTOR.
2. THE CONTRACTOR IS TO BE AWARE OF THE REQUIREMENTS AND OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND ITS ASSOCIATED REGULATIONS (310 CMR 10.00). CERTAIN PERMITS IN THE FORM OF AN ORDER OF CONDITIONS, OR OTHER FORMAT, MAY BE REQUIRED FOR THE CONSTRUCTION AS DEPICTED ON THIS PLAN. THESE PERMITS SHALL BE REVIEWED AND ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL ALSO MAINTAIN COPIES OF ALL PERMITS ON SITE AT ALL TIMES.
3. IF CHANGES IN THE PROJECT ARE REQUIRED DUE TO FIELD CONDITIONS THE DEVELOPER/CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER FOR REVIEW OF THESE CONDITIONS. UPON REVIEW, AND PRIOR TO THE IMPLEMENTATION OF ANY CHANGE, THE CONTRACTOR AND THE ENGINEER SHALL MEET WITH THE APPROPRIATE LOCAL AND/OR STATE OFFICIAL, OR ITS AGENT, TO DETERMINE IF THE CHANGE REQUIRES MODIFICATION TO EXISTING APPROVED PERMITS.
4. ALTERATION AND/OR DESTRUCTION OF WETLAND AREAS WITHOUT PRIOR CONSENT OF THE CONSERVATION COMMISSION IS PROHIBITED. SILTATION PLUMES, ELUOT DISCHARGES, OR INADEQUATE EROSION CONTROL SHALL BE CONSIDERED AS ACTIVITIES NOT PERMITTED BY THE ORDER AND SHALL BE REPORTED TO THE CONSERVATION COMMISSION ALONG WITH THE PROPOSED MITIGATIVE MEASURES.
5. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL BARRIER SHALL BE INSTALLED AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL BARRIER UNTIL ALL WORK IS COMPLETE AND ALL AREAS HAVE BEEN STABILIZED. THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE ONLY UPON THE APPROVAL OF THE CONSERVATION COMMISSION.
6. EROSION AND SEDIMENTATION CONTROL DEVICES, SUCH AS CHECK DAMS, SEDIMENT BASINS, ETC. ARE TO BE INSTALLED AS SHOWN ON THE SITE DEVELOPMENT PLANS WITH ASSOCIATED DETAILS, AS APPROPRIATE.
7. CONSTRUCTION OPERATIONS SHALL NOT CAUSE NOTICEABLE SEDIMENTATION PLUMES TO OCCUR ON OR SURROUNDING THE PROJECT. SHOULD SEDIMENT EXTEND BEYOND THE EROSION CONTROL BARRIERS, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL MITIGATION MEASURES TO PREVENT FURTHER SEDIMENTATION.
8. NO MATERIAL SUBJECT TO EROSION SHALL BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF ANY WETLAND AREAS WITHOUT PROPER EROSION AND SEDIMENTATION DEVICES IN PLACE.
9. EQUIPMENT SHALL NOT BE PARKED WITHIN WETLAND OR BUFFER AREAS EXCEPT DURING ACTUAL OPERATIONS REQUIRING SAID EQUIPMENT.
10. ACCUMULATED SEDIMENT ALONG EROSION CONTROL BARRIERS SHALL BE PERIODICALLY REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE ENGINEER.

1. IT IS OF GREAT IMPORTANCE THAT CONCENTRATION OF RUNOFF BE AVOIDED IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT.
2. THE PRIMARY EROSION CONTROL METHOD TO BE UTILIZED IS TO LIMIT THE AREA OF DISTURBANCE DURING CONSTRUCTION ACTIVITIES. THIS IS ACCOMPLISHED BY PROMPT STABILIZATION OF DISTURBED AREAS UPON COMPLETION OF SEQUENCES OF CONSTRUCTION.
3. EROSION AND SEDIMENT CONTROL DEVICES SUCH AS HAY BALES, SILT FENCES, DIVERSION BERMS, ETC. SHALL BE UTILIZED FOR THE PROTECTION OF THE AREAS BEYOND THE LIMIT OF CONSTRUCTION.

DEMARCATION OF SENSITIVE AREAS:

1. IT IS RECOMMEND THAT BARRIERS BE PLACED ON THE SITE TO CONTROL THE LIMITS OF THE DISTURBANCE. AS AN EXAMPLE, HAY BALE BARRIERS PROVIDE SUCH DEMARCATION AND OTHER METHODS SUCH AS LOG BARRIERS, ROPE WITH FLAGGING, ETC. MAY BE UTILIZED.
2. CARE SHOULD BE TAKEN IN THE OPERATION OF EQUIPMENT, SUCH THAT ONLY THE MINIMUM AREA NEEDED TO BE ALTERED IS DISTURBED.

1. ACCESS TO THE SITE SHALL BE MADE IN THE AREA OF A PERMANENT DRIVEWAY OR ROADWAY UNLESS DOING SO WOULD RESULT IN A TRAFFIC HAZARD.
2. AN AREA OF CRUSHED STONE SHALL BE PLACED AT THE DRIVEWAY ENTRANCE TO INSURE THAT MUD IS NOT TRACKED ONTO THE EXISTING ROAD (SEE CONSTRUCTION ENTRANCE DETAIL). IF MUD IS INADVERTENTLY TRACKED ONTO THE ROAD, IT SHOULD BE PROMPTLY REMOVED.
3. LABORERS VEHICLES SHALL BE PARKED IN A DESIGNATED AREA AS TO MINIMIZE DISTURBED SURFACES AND TO INSURE THAT RUTS ARE NOT CREATED AND WHICH COULD CARRY WATER TO A WETLAND OR OTHER SENSITIVE AREA.
4. SUITABLE MEASURES SHALL BE TAKEN TO INSURE THAT LARGE DELIVERY TRUCKS SERVICING THE SITE DO NOT DAMAGE TO AREAS OF EXISTING VEGETATION OR CAUSE DISTURBANCE TO STABILIZED AREAS.

ORDERLY CONSTRUCTION PROCEDURES:

1. THE CONTRACTOR SHALL PERFORM SITE CONSTRUCTION IN A MANNER WHICH WILL INSURE THE STABILIZATION OF AREAS IN PROXIMITY OF OR TRIBUTARY TO WETLAND AREAS AS SOON AS POSSIBLE.
2. EROSION CONTROL DEVICES SUCH AS HAY BALE BARRIERS, SILT FENCES AND MULCH SHALL BE BROUGHT TO THE SITE AND STOCKPILED PRIOR TO INITIATING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE AREAS FOR THE TEMPORARY STORAGE OF CONSTRUCTION DEBRIS. CONSTRUCTION DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE FOR AN EXTENDED PERIOD OF TIME.

CLEARING:

1. LAND CLEARING SHALL BE PERFORMED IN PHASES CONSISTENT WITH ACTUAL CONSTRUCTION REQUIREMENTS. FINAL LAND CLEARING SHALL BE LIMITED TO RETURN TO GRADE SLOPES.
2. TREES SHALL BE CUT FOR ENTIRE SITE LEAVING HUMPS IN PLACE TO MAINTAIN SOIL STABILIZATION.
3. STUMPS SHALL BE PULLED AND STOCKPILED FOR GRINDING.
4. BRUSH AND BRANCHES SHOULD BE CHIPPED AND UTILIZED FOR WOOD MULCH IF PRACTICAL.
5. VEHICLES UTILIZED IN THE CLEARING OPERATION SHOULD NOT TRAVERSE WETLANDS OR FLOWING BROOKS OR STREAMS WITHOUT PRIOR APPROVAL FROM THE LOCAL CONSERVATION COMMISSION OR AGENT.



PERIMETER SIGNAGE

NO SCALE
12" x 9"
SIGNS TO BE PLACED ALONG FENCELINE AT 50 FT INTERVALS

ROUGH GRADING:

1. THE ROUGH GRADING OF THE SITE SHALL FOLLOW THE FILL AND EXCAVATION SEQUENCES AS DESCRIBED ON THE CONSTRUCTION PHASING PLANS. SLOPES SHALL BE MAINTAINED AWAY FROM WETLANDS AND SENSITIVE AREAS AS MUCH IS PRACTICAL.
2. DURING THIS PROCESS THE EROSION POTENTIAL IS HIGH. SUFFICIENT EROSION CONTROL BARRIERS SHOULD BE KEPT IN PROXIMITY TO THE WORK AREA TO ALLOW QUICK ACTION SHOULD EROSION BECOME AN ISSUE AND TO INSURE THAT NO SEDIMENT REACHES WETLANDS OR OTHER SENSITIVE AREAS.
3. IN AREAS OF CUT AND/OR FILL WHERE SLOPES COULD DIVERT WATER TOWARD WETLAND AREAS, DIVERSION TRENCHES AND/OR SWALES SHOULD BE CONSIDERED AND IMPLEMENTED TO DIVERT WATER AWAY FROM THESE AREAS.
4. STEEP SIDE SLOPES IN EXCAVATION OR FILL SHOULD BE AVOIDED.
5. DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING OR RIPRAPPED IMMEDIATELY AFTER THE FINISH GRADE HAS BEEN MET. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY WITH A TACKIFIER, IF NECESSARY SLOPED AREAS MAY REQUIRE ADDITIONAL CONTROLS SUCH AS EROSION CONTROL SOCKS OR HAYBALES.
6. A GROUND COVER SUFFICIENT TO RETAIN SOILS IN A STABILIZED CONDITION MUST BE PROVIDED WITHIN 14 WORKING DAYS, SEASON PERMITTING, ON ANY PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

DRAINAGE:

1. IF DRAINAGE PIPES OR SWALES ARE TO BE INSTALLED, THEY SHALL BE CONSTRUCTED FROM DOWNSTREAM UP AND CONSTRUCTION SHALL INCLUDE THE PLACEMENT OF OUTFALL RIPRAP AND OTHER MITIGATIVE MEASURES SHOWN ON THE PLAN.
2. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, HAY BALES OR OTHER SUITABLE METHODS TO ENTRAP SEDIMENT SHALL BE PLACED DOWNSTREAM.
3. THE TOE OF EMBANKMENTS SHALL BE STABILIZED IMMEDIATELY, MULCHED AND TACKED DOWN BY SUITABLE MEANS.

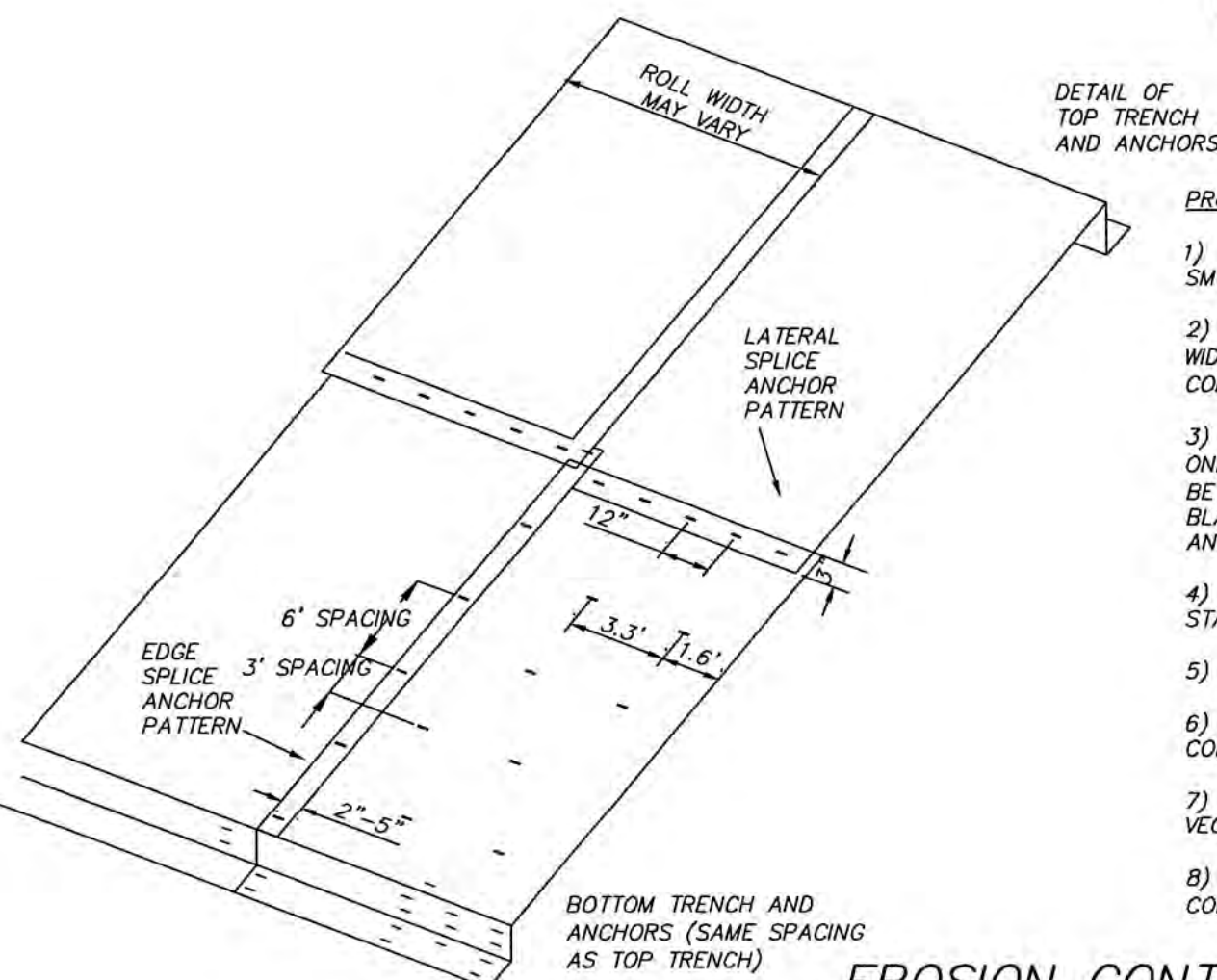
CREATION OF DETENTION BASIN:

1. THE DETENTION BASIN HAS BEEN PLACED AS A SEPARATE ITEM TO EMPHASIZE THE IMPORTANCE OF EROSION CONTROL DURING ITS CONSTRUCTION.
2. THE PRIMARY EROSION CONTROL METHOD FOR BASIN CONSTRUCTION, AS WELL AS FOR THE SITE IS THE RAPID STABILIZATION OF ALL SURFACES. SECONDARY IN IMPORTANCE IS THE CONCENTRATION OF RUNOFF BE AVOIDED IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT.
3. DURING CONSTRUCTION, THE FILL AND EXCAVATION SEQUENCES SHOWN ON THE CONSTRUCTION PHASING PLANS, ALONG WITH THE DETAILS PROVIDED IN THIS PLAN SET SHALL BE UTILIZED. THESE SEQUENCES REQUIRE THAT SLOPED AREAS LEFT FOR ANY PERIOD OF TIME NOT SLOPED TOWARDS THE WETLAND OR SENSITIVE AREA, BUT RATHER BACK INTO THE FILL MATERIAL.
4. THE BASIN BERM IS TO BE CONSTRUCTED BY EQUIPMENT WORKING ON STABLE MATERIAL ONLY. HAY BALES SHALL BE PLACED AT THE TOE OF SLOPE UNTIL SURFACES ARE STABILIZED.
5. NO EXCAVATION WITHIN THE BASIN SHALL COMMENCE UNTIL THE BERM IS IN PLACE.
6. CARE SHOULD BE TAKEN TO INSURE THAT ORGANIC MATERIAL REMOVED FROM THE BASIN AREA IS RESERVED FOR FINISH GRADING AND THE STABILIZATION OF DISTURBED AREAS.
7. IF DEWATERING IS NECESSARY, PUMPING TO A SETTLING BASIN SHALL BE PERMITTED IF SETTLING BASIN IS CONSTRUCTED, MAINTAINED AND OPERATED EFFECTIVELY.
8. AT NO TIME SHALL RUNOFF CARRYING SEDIMENT BE ALLOWED TO FLOW TO THE WETLANDS OR SENSITIVE AREAS.
9. THE WORK AREA SHALL REMAIN FREE OF LITTER AND DEBRIS AT ALL TIMES AND MONITORED ON A DAILY BASIS TO ENSURE COMPLIANCE.
10. ALL MATERIALS STOCKPILED SHALL BE LOCATED, MULCHED OR OTHERWISE TREATED TO INSURE THAT MATERIALS CONTAINED, THEREIN, AREA NOT CARRIED INTO THE WETLANDS.
11. ANY MATERIALS BLOWN OR CARRIED BY WATER AWAY FROM THE CONSTRUCTION SITE OR INTO THE WETLAND AREAS SHALL BE PROMPTLY REMOVED AS REQUIRED BY THE LOCAL CONSERVATION COMMISSION.
12. A GEOTECHNICAL FILTER FABRIC SHALL BE PLACED OVER THE BASIN SUBDRAIN DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING AND CLOGGING THE DRAIN. THE FABRIC SHALL BE REMOVED FOR BASIN PREPARATION FOR FINAL STABILIZATION.

1. TOP SOIL SHALL BE RETAINED AND STOCKPILED FOR LANDSCAPING PURPOSES.
2. GRUBBING AND STRIPPING OF SLOPES LEADING TO WETLAND AREAS SHOULD NOT BE UNDERTAKEN DURING PERIODS OF INTENSE RAINFALL.
3. TOP SOIL STOCKPILE LOCATIONS ARE DEPICTED ON THE SITE DEVELOPMENT PLAN, THE EROSION CONTROL PLAN, AND/OR THE CONSTRUCTION PHASING PLAN AND SHALL BE ADHERED TO.
4. WHEN WORKING IN THE VICINITY OF WETLANDS, TOP SOIL SATURATED WITH WATER SHALL BE REMOVED, AND CONTAINED PRIOR TO BEING USED.
5. AREAS LEADING TO WETLANDS SHALL HAVE HAY BALE BARRIERS INSTALLED ACROSS THEM IN ARCS POINTING DOWN THE HILL AT INTERVALS SUFFICIENT TO MITIGATE RUNOFF CARRYING SEDIMENT.
6. DURING PERIODS OF INTENSE RAINFALL, OR IF THE PROJECT IS TO BE LEFT FOR A PERIOD OF TIME, CONSIDERATION SHOULD BE GIVEN TO SUPPLEMENT HAY BALE BARRIERS WITH EITHER CRUSHED STONE OR ARMORED BARRIERS. CONSIDERATION MAY ALSO BE GIVEN TO DIVERTING RUNOFF INTO TEMPORARY SEDIMENTATION CONTROL AREAS.
7. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED.

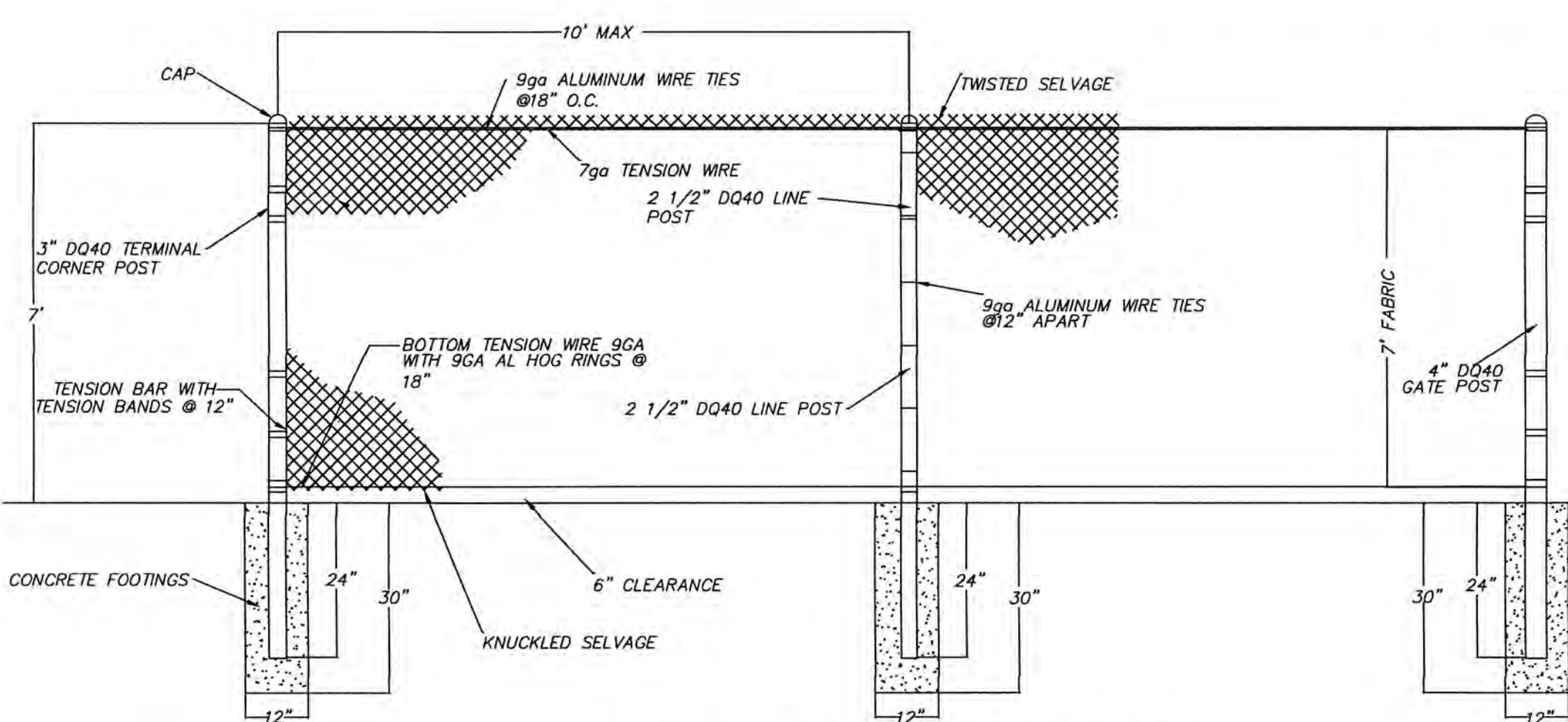
GRUBBING AND STRIPPING:

1. TOP SOIL SHALL BE RETAINED AND STOCKPILED FOR LANDSCAPING PURPOSES.
2. GRUBBING AND STRIPPING OF SLOPES LEADING TO WETLAND AREAS SHOULD NOT BE UNDERTAKEN DURING PERIODS OF INTENSE RAINFALL.
3. TOP SOIL STOCKPILE LOCATIONS ARE DEPICTED ON THE SITE DEVELOPMENT PLAN, THE EROSION CONTROL PLAN, AND/OR THE CONSTRUCTION PHASING PLAN AND SHALL BE ADHERED TO.
4. WHEN WORKING IN THE VICINITY OF WETLANDS, TOP SOIL SATURATED WITH WATER SHALL BE REMOVED, AND CONTAINED PRIOR TO BEING USED.
5. AREAS LEADING TO WETLANDS SHALL HAVE HAY BALE BARRIERS INSTALLED ACROSS THEM IN ARCS POINTING DOWN THE HILL AT INTERVALS SUFFICIENT TO MITIGATE RUNOFF CARRYING SEDIMENT.
6. DURING PERIODS OF INTENSE RAINFALL, OR IF THE PROJECT IS TO BE LEFT FOR A PERIOD OF TIME, CONSIDERATION SHOULD BE GIVEN TO SUPPLEMENT HAY BALE BARRIERS WITH EITHER CRUSHED STONE OR ARMORED BARRIERS. CONSIDERATION MAY ALSO BE GIVEN TO DIVERTING RUNOFF INTO TEMPORARY SEDIMENTATION CONTROL AREAS.
7. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED.



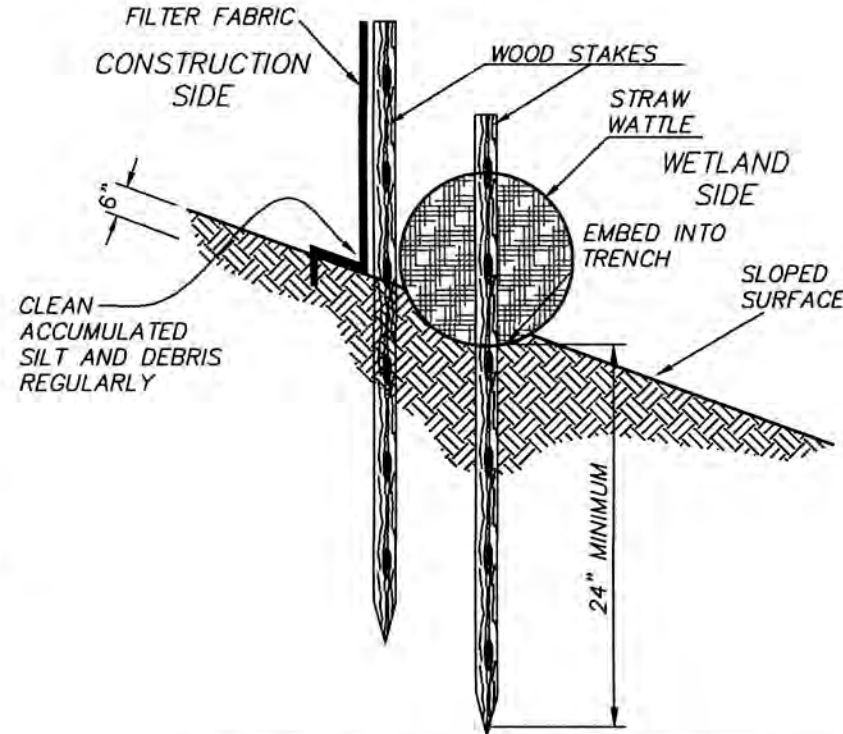
EROSION CONTROL BASKET PLACEMENT

NO SCALE



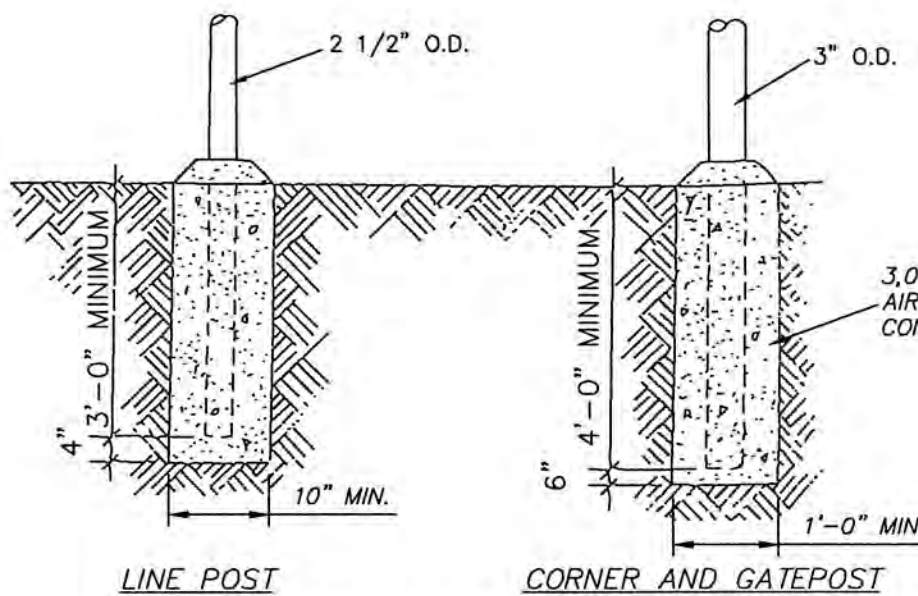
CHAIN LINK FENCE DETAIL

NO SCALE



STRAW WATTLE DETAIL

NO SCALE



FENCE POST DETAIL

NO SCALE



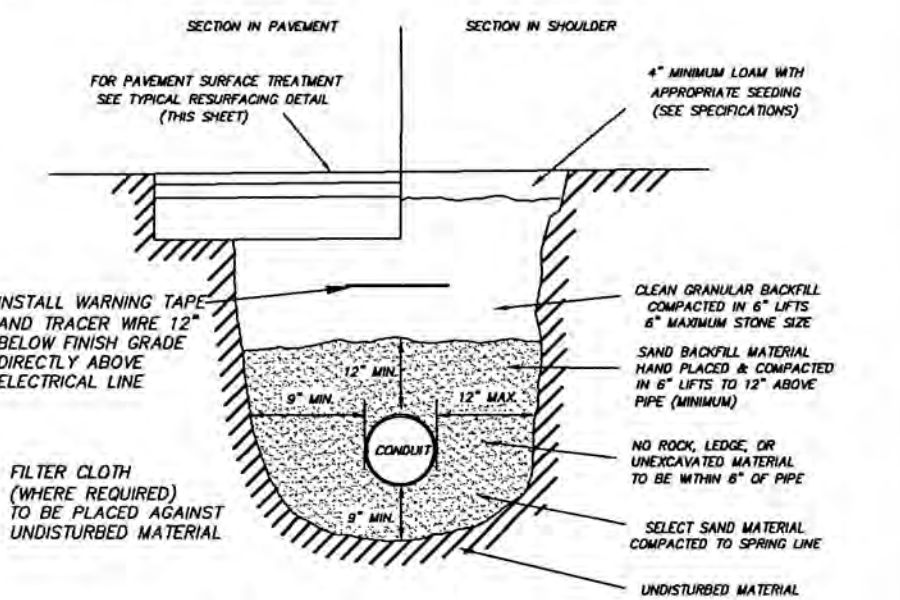
GRAVEL ACCESS LANE SECTION

(FOR ACCESS TO SITE AND DETENTION BASIN)

NO SCALE

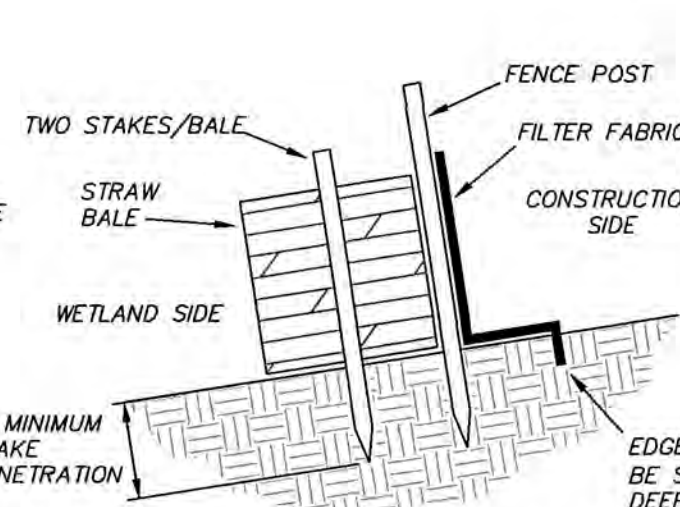
NOTES:
COLOR OF ALL MATERIALS ARE GALVANIZED
INCLUDES 101Y 20" WIDE DOUBLE GATE
GATE POSTS 4"
TERMINAL POSTS 3"
LINE POSTS 2.5"
TOP TENSION WIRE 7ga
HOG RINGS WITH
STEEL CORE
TENSION BANDS @ 12"
WIRE 9ga TENSION
WIRE TO MATCH FABRIC.
BOTTOM TENSION WIRE
WITH 9ga AL HOG RINGS
DOME CAPS RAIL ENDS
9ga TIE WIRES WITH
STEEL CORE
3" BRACE BANDS

STEEL CORE GALVANIZED
WITH 9ga PVC EXTRUDED
POLY VINYL CHLORIDE
(PVC)
COATED STEEL CHAIN LINK
FABRIC AS PER ASTM F668
CLASS 1



CONDUIT TRENCH

NO SCALE



STRAW BALE WITH SILT FENCE DETAIL

NO SCALE

PROVIDE MOISTURE
TOLERANT GRASSES
FOR SIDE SLOPES.

ANGULAR STONES
(50 LB. - 125 LB.)
(MHD SPEC. M2.02.3) PLACED TO
FORM A COMPACT, STABLE CHANNEL.

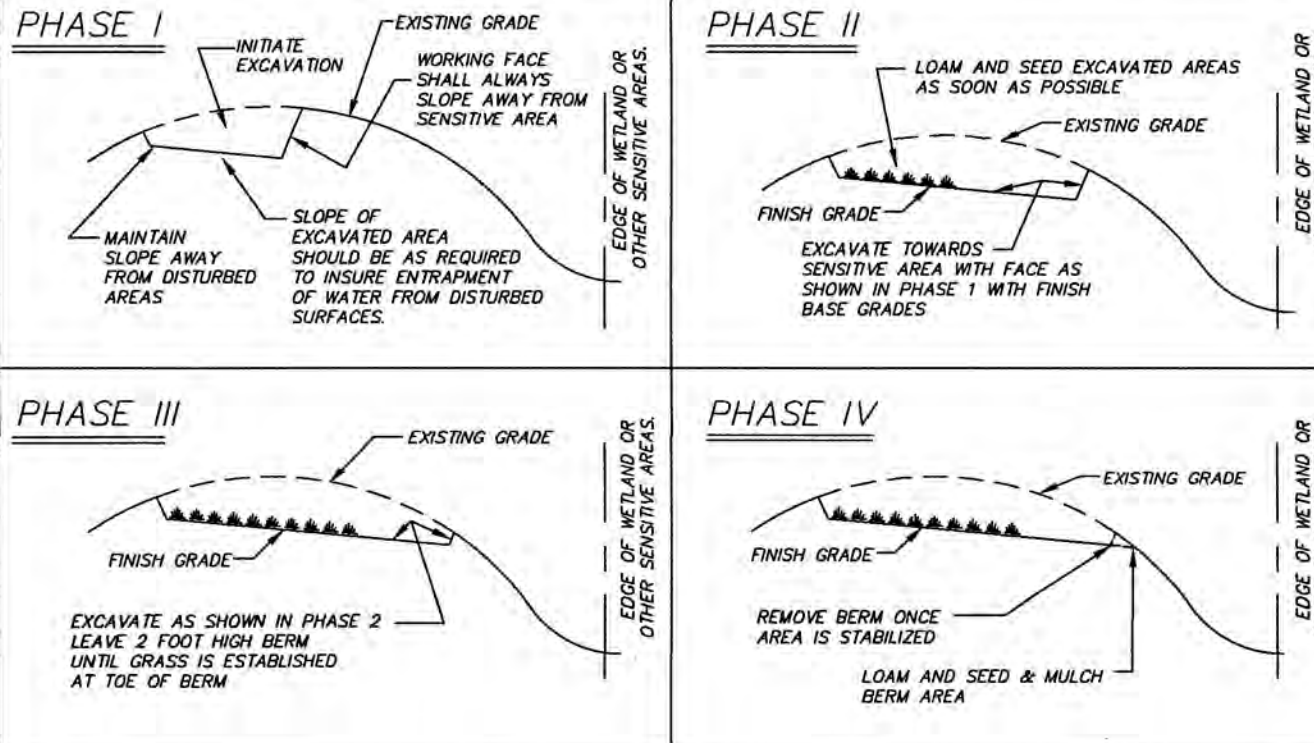
STONED BOTTOM DRAINAGE

SWALE DETAIL

NO SCALE

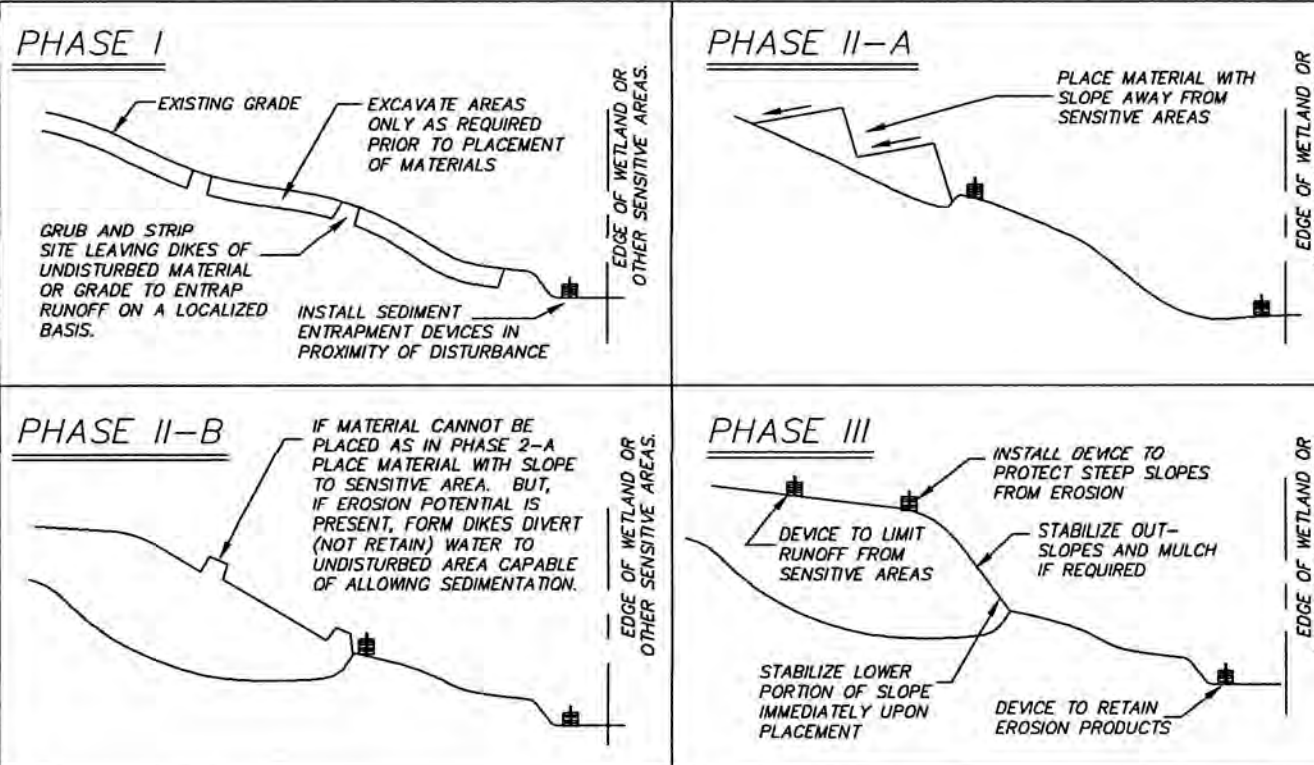
EXCAVATION SEQUENCE

NO SCALE



FILL SEQUENCE

NO SCALE



NO.	DATE	REVISIONS	BY
1	10/19/21	PEER-REVIEW COMMENT	CMA



HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE (978) 534-1234 (T)
LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F)
WWW.HANNIGANENGINEERING.COM

CONSTRUCTION DETAILS
IN
LEICESTER, MASSACHUSETTS

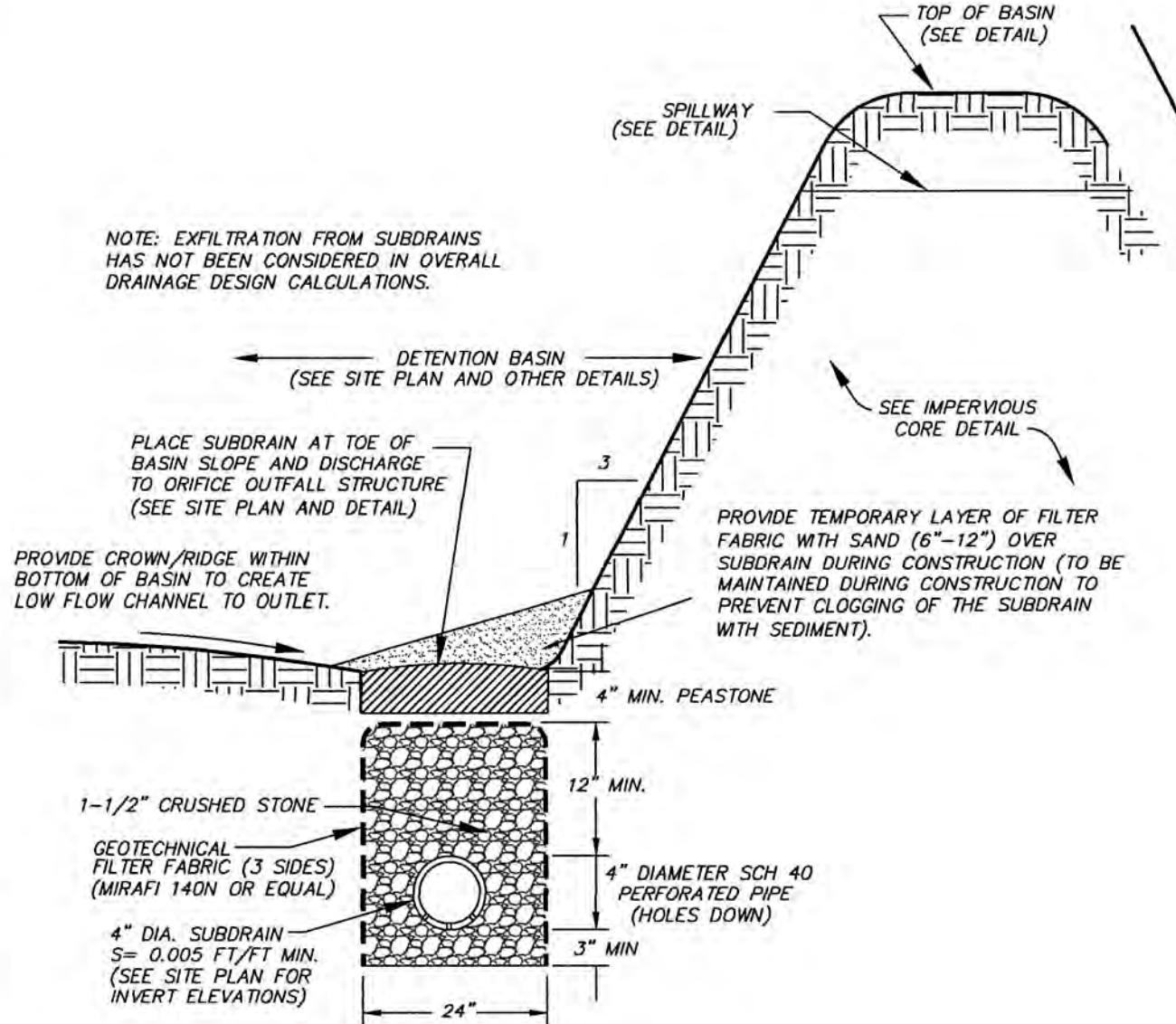
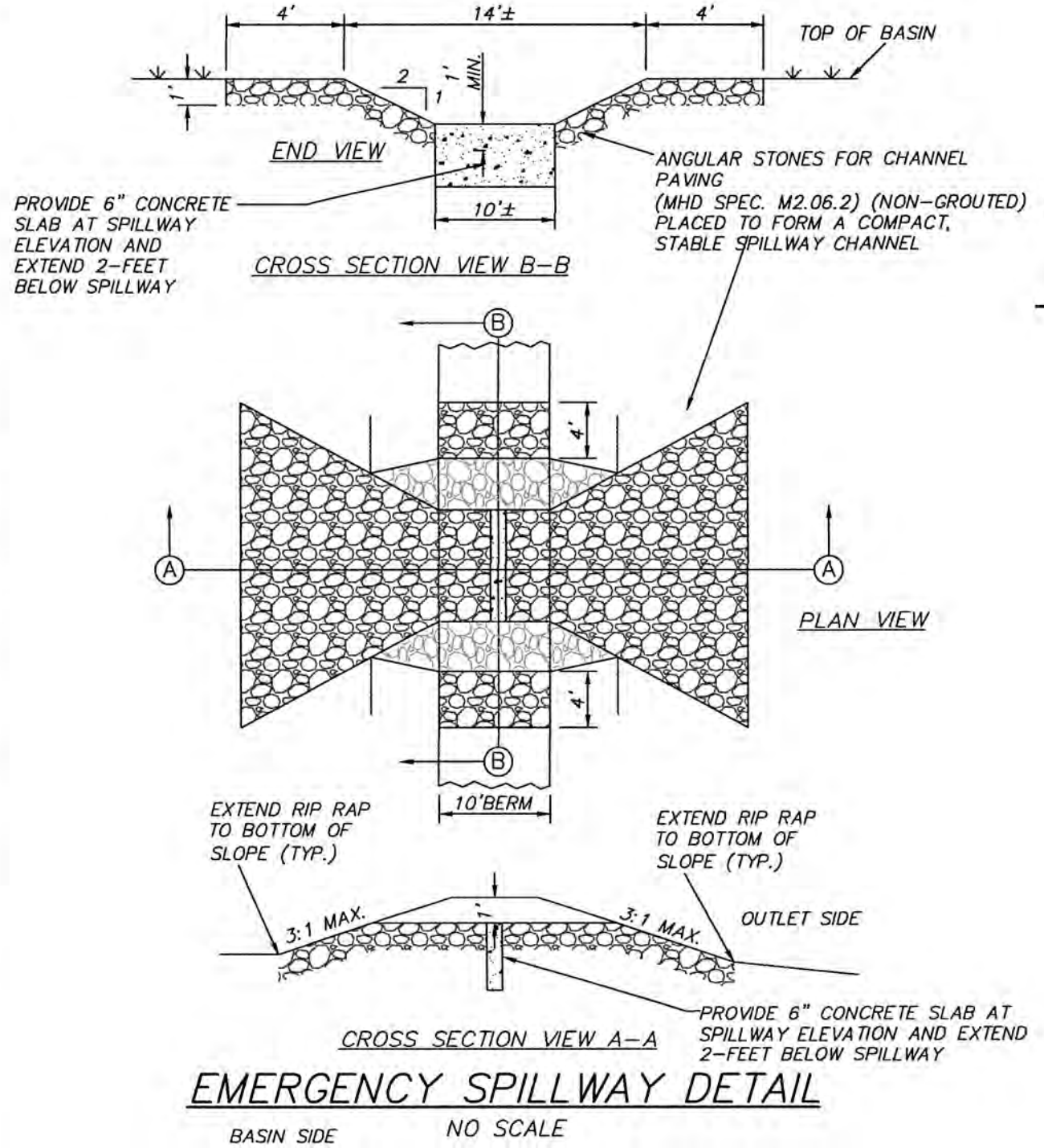
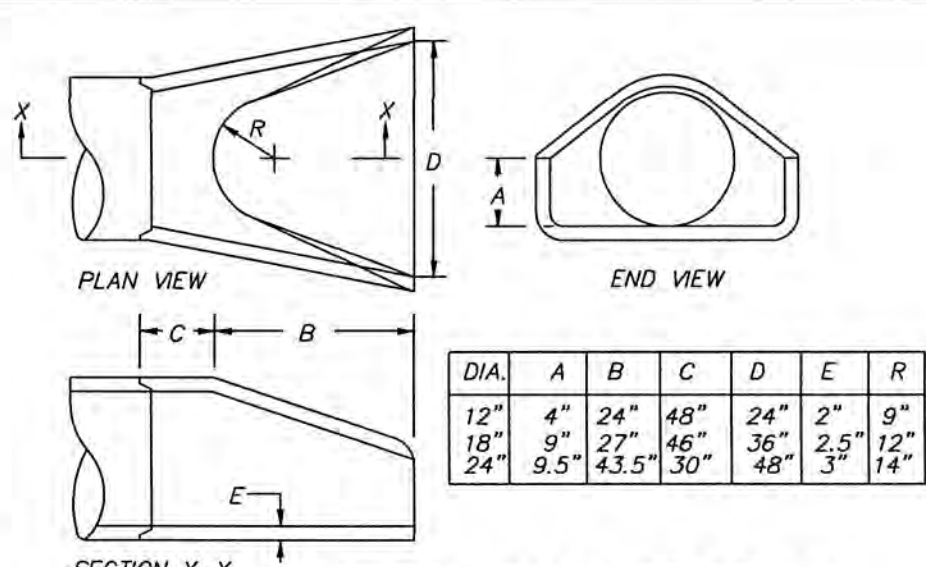
PREPARED FOR:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E WORCESTER STREET SUITE 3A
WORCESTER, MASSACHUSETTS 01604
TEL:

CALC: CMA	DRWN: CMA	SCALE: NA
CHKD: WDH	APPD: WDH	DATE: SEP 21, 2021
SRV: JEF	FB: 71-22	JOB NO: 3010
TAB: (5-6)DET	SHEET 5 OF 6	PLAN NO:c-17-38

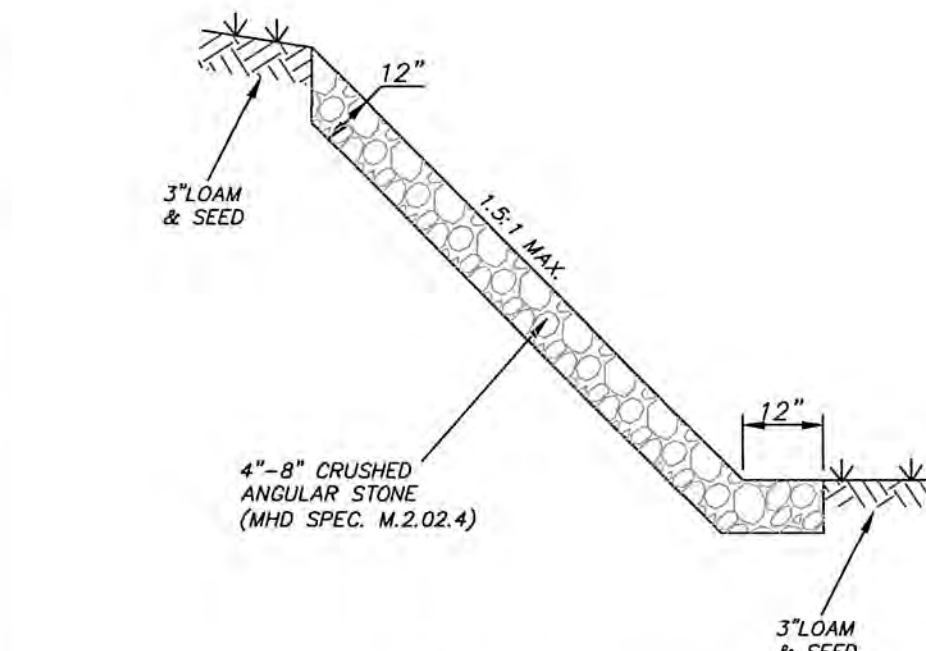
APPLICANT:

ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET, SUIT 3A
WORCESTER, MASSACHUSETTS 01604
OWNER:
WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01524

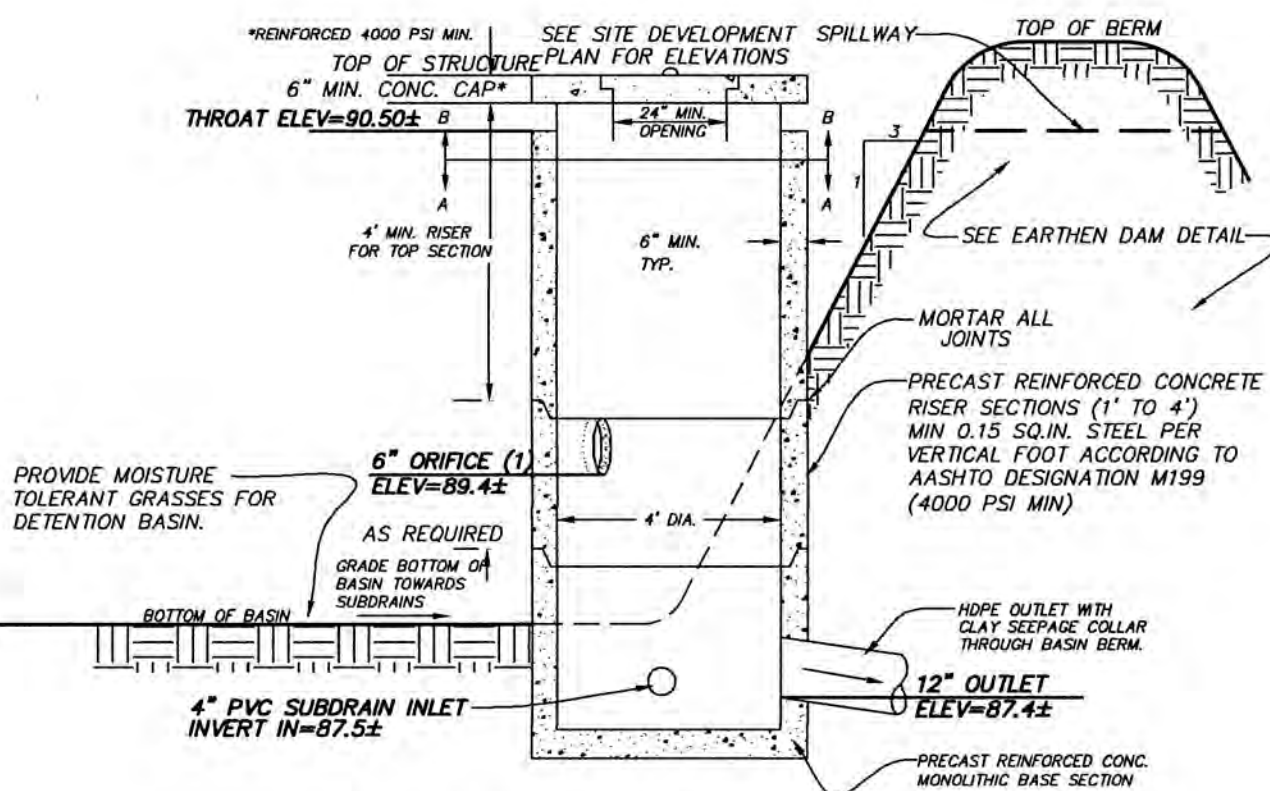
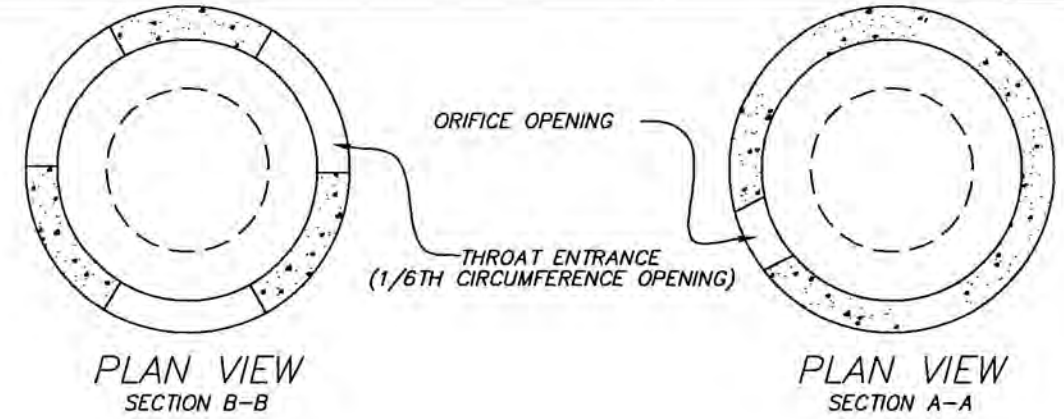
EROSION CONTROL SLOPE DETAIL



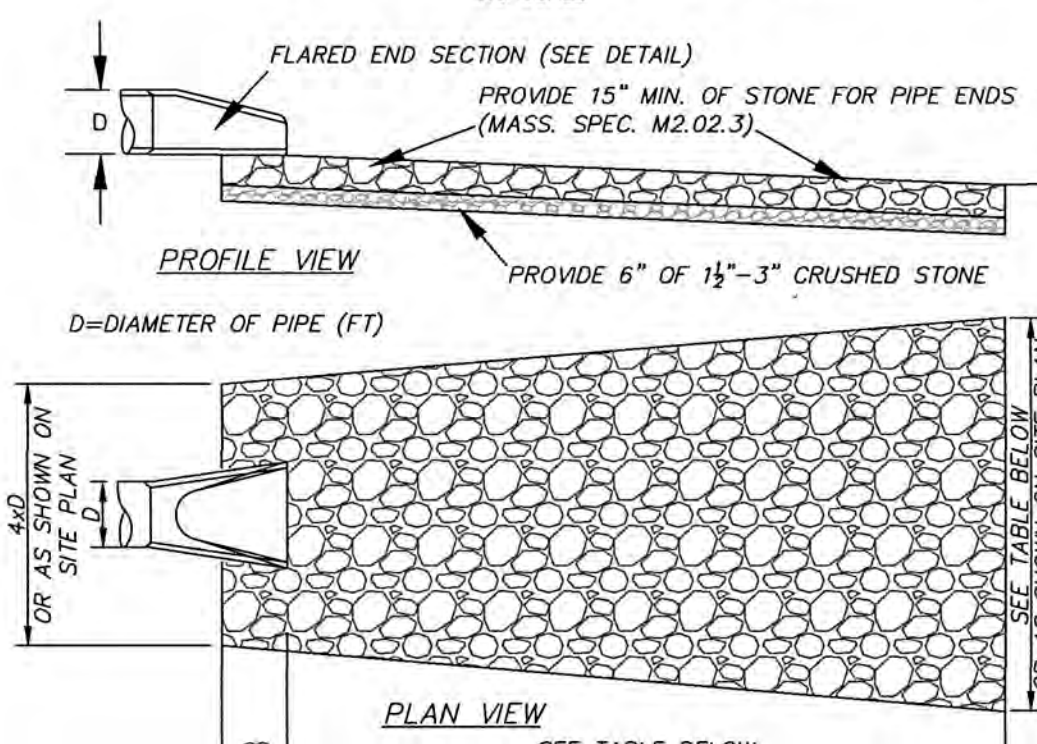
DETENTION BASIN 4"-SUBDRAIN DETAIL
NO SCALE



1.5:1 RIP RAP SLOPE DETAIL
NO SCALE

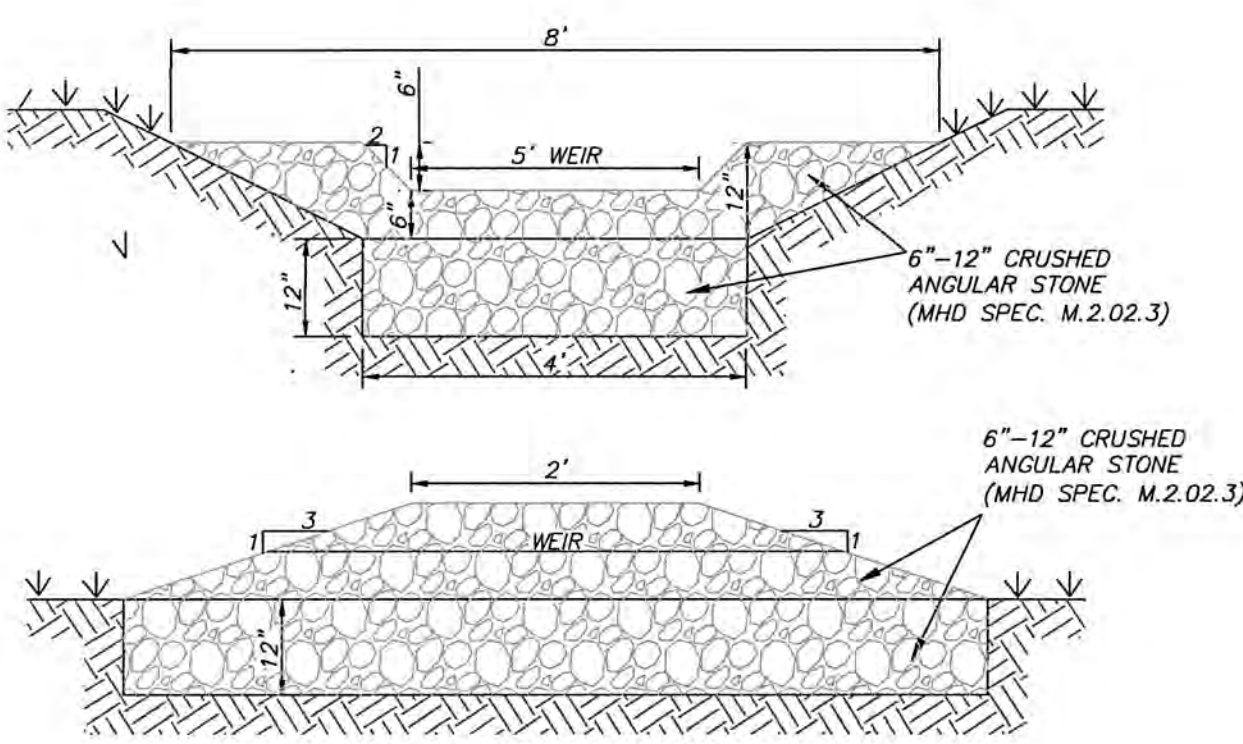


D-BASIN OUTLET STRUCTURE #11
WITH 1/6TH CIRCUMFERENCE THROAT OPENINGS
NO SCALE

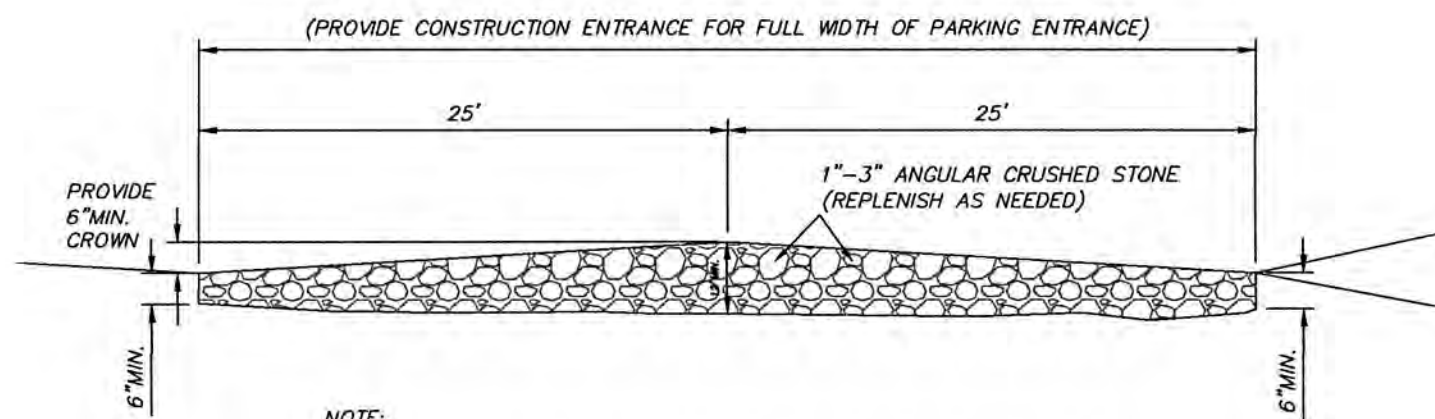


RIP RAP APRON DETAIL
NO SCALE

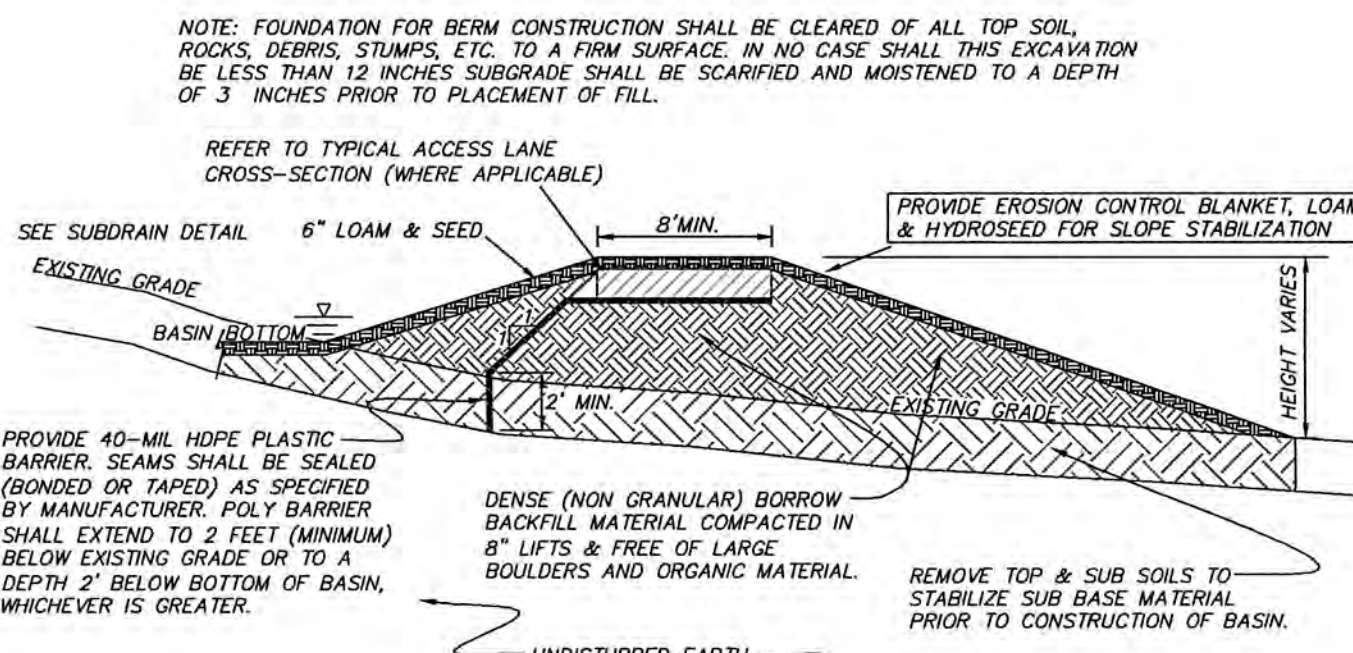
PIPE DIAMETER	LENGTH	TERMINUS WIDTH
12-INCH (FE#1)	10.0 FEET	10.0 FEET



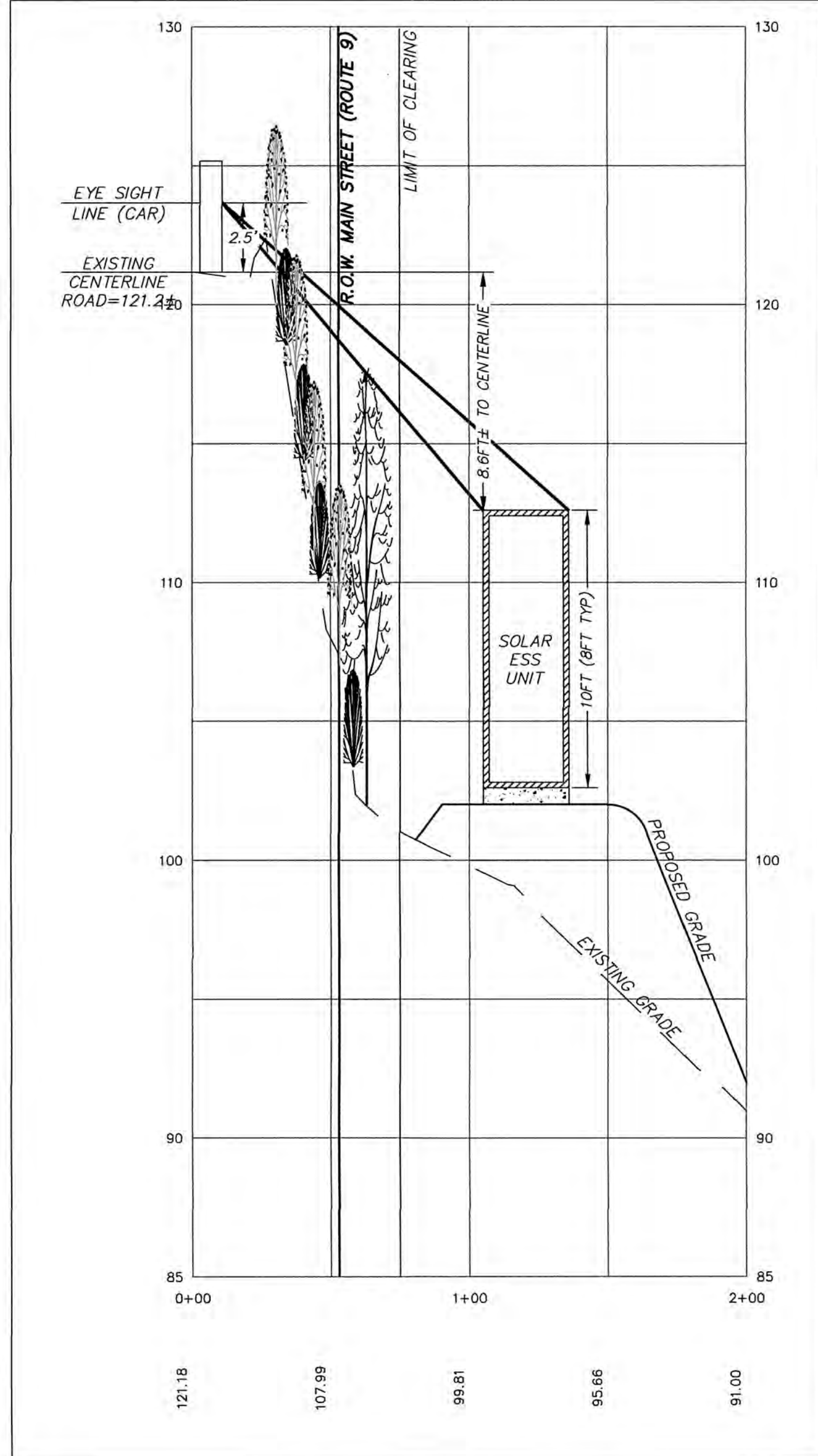
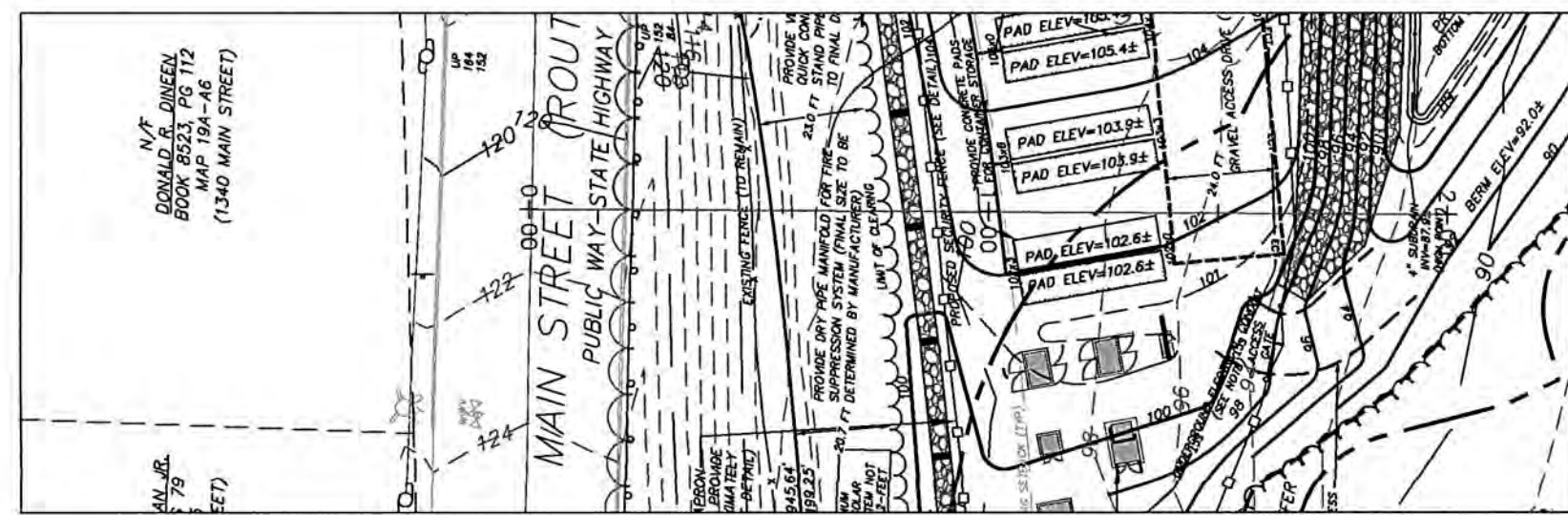
ROCK CHECK DAM
NO SCALE



CONSTRUCTION ENTRANCE
NO SCALE



DETENTION BASIN BERM
(REQUIRED FOR DETENTION BASIN CONSTRUCTION)
NO SCALE



PROJECT SIGHT LINE
HORIZONTAL SCALE=1": 40' VERTICAL SCALE=1": 4'

APPLICANT:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E. WORCESTER STREET, SUIT 3A
WORCESTER, MASSACHUSETTS 01604
OWNER:
WR ENTERPRISES, LLC
1323 MAIN STREET
LEICESTER, MASSACHUSETTS 01524

STORMWATER OPERATION AND MAINTENANCE PLAN

THE FOLLOWING SHALL BE CONSIDERED THE OPERATION & MAINTENANCE PLAN (OMP) FOR THE STORMWATER COLLECTION FACILITY FOR THIS DEVELOPMENT. THIS OMP HAS BEEN PREPARED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT POLICY AS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

I. SYSTEM OWNERSHIP

THE SYSTEM SHALL INCLUDE THE DRAINAGE INFRASTRUCTURE AND ALL OF ITS COMPONENTS AS SHOWN ON THE SITE DEVELOPMENT PLANS, INCLUDING THE DETENTION FACILITIES AND OUTFALL AREAS OF THE DRAINAGE SYSTEM. THE STRUCTURES OF THE SYSTEM SHALL INCLUDE THE DRAINAGE SWALES AND THE OUTFALL & CONTROL STRUCTURES. THE SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS AND THE APPROVED PLANS.

UPON THE COMPLETION OF CONSTRUCTION THE DRAINAGE SYSTEM DESCRIBED ABOVE AND AS DEPICTED ON THE SITE PLANS SHALL BECOME PROPERTY OF THE LAND OWNER, WITH SPECIFIC EASEMENT RIGHTS TO THE OPERATOR OF THE SOLAR SYSTEM TO MAINTAIN THE DRAINAGE SYSTEM AS DEPICTED ON THE APPROVED PLANS. SAID EASEMENT RIGHTS SHALL BE SPECIFICALLY DESCRIBED IN LEASE DOCUMENTS FOR THE PROJECT.

II. RESPONSIBLE PARTIES

THE OPERATOR OF THE SOLAR SYSTEM SHALL BE CONSIDERED THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. THE SYSTEM SHALL INCLUDE THE DRAINAGE INFRASTRUCTURE AND ALL OF ITS COMPONENTS AS SHOWN ON THE APPROVED PLANS. THE SYSTEM SHALL ALSO INCLUDE THE DETENTION FACILITIES AND THE OUTFALL AREAS OF THE DRAINAGE SYSTEM.

III. INSPECTION & MAINTENANCE SCHEDULE

THE FOLLOWING MAINTENANCE SCHEDULE SHALL BE FOLLOWED IN ORDER TO MAINTAIN THE EFFECTIVENESS OF THE STORMWATER MANAGEMENT SYSTEM.

STRUCTURE TYPE	INSPECTION	MAINTENANCE	TASK
RIP/RAP APRONS	TWICE A YEAR	EVERY 10 YEARS	REMOVE DEBRIS & ADD STONE
SUBDRAINS	TWICE A YEAR	EVERY 4 YEARS	REPLACE PEASTONE
DETENTION BASINS	MONTHLY (MAY-OCT)	MONTHLY (MAY-OCT)	MOW GRASS AREAS & REMOVE DEBRIS
OUTFALL STRUCTURES:			REMOVE SEDIMENT IF PRESENT
SPILLWAYS	TWICE A YEAR	EVERY 10 YEARS	REMOVE DEBRIS & ADD STONE

NOTE: THE DETENTION BASINS ON THIS PROJECT MAY GROW VEGETATION IN THE BOTTOM WHICH MAY INCLUDE SPECIES PART OF THE WETLAND PROTECTION ACT. THESE PLANTS SHALL NOT BE CONSTRUED AS HAVING PROTECTION UNDER THE ACT AND SHALL BE CONSIDERED OPPORTUNISTIC GROWTH PLANTS. ADDITIONALLY, THIS AREA SHALL NOT BE CONSIDERED A CONSTRUCTED WETLAND.

SEEDING OPERATION AND MAINTENANCE PLAN

I. RESPONSIBLE PARTIES

THE OPERATOR OF THE SOLAR SYSTEM SHALL BE CONSIDERED THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE GRASS & VEGETATION. THE VEGETATION SHALL INCLUDE ALL OF ITS AREAS AS SHOWN ON THE APPROVED PLANS. THE SYSTEM SHALL ALSO INCLUDE THE GRASSED AREAS AROUND THE PANELS AND DRAINAGE STRUCTURES.

II. INSPECTION & MAINTENANCE SCHEDULE

THE FOLLOWING MAINTENANCE SCHEDULE SHALL BE FOLLOWED IN ORDER TO MAINTAIN THE VEGETATED AREAS

ACTIVITY	MAINTENANCE	TASK
GRASS CUTTING	MONTHLY	GRASS HEIGHT TO BE ALLOWED TO GROW TO A HEIGHT OF NO MORE THAN 18 INCHES AND BE CUT TO A HEIGHT OF 4 TO 6 INCHES.

III. APPROPRIATE SEED MIX AND APPLICATION RATES

THE FOLLOWING SEED SCHEDULE SHALL BE FOLLOWED IN ORDER TO PROPERLY MAINTAIN VEGETATED AREAS

SEED TYPE (NATIVE SEED REQUIRED)	APPLICATION RATE	% OF MIX
WILDFLOWER SEED MIX	5 TO 10 POUNDS PER ACRE	50%
WHITE CLOVER SEED MIX	3 TO 5 POUNDS PER ACRE	10%
KENTUCKY BLUEGRASS	80 TO 100 POUNDS PER ACRE	40%

IV. HERBICIDES & PESTICIDES

THERE WILL NO HERBICIDES OR PESTICIDES USED ON THIS PROJECT.

NO.	DATE	REVISIONS	BY
1	10/19/21	PEER-REVIEW COMMENT	CMA



HANNIGAN ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE
LEOMINSTER, MASSACHUSETTS 01453
WWW.HANNIGANENGINEERING.COM

CONSTRUCTION DETAILS IN LEICESTER, MASSACHUSETTS

PREPARED FOR:
ZP BATTERY DEVCO, LLC
BRENDAN GOVE
10 E WORCESTER STREET SUITE 3A
WORCESTER, MASSACHUSETTS 01604
TEL:

CALC: CMA	DRWN: CMA	SCALE: NA
CHKD: WDH	APPD: WDH	DATE: SEP 21, 2021
SRV: JEF	FB: 71-22	JOB NO: 3010
TAB: (5-6) DET	SHEET 6 OF 6	PLAN NO: C-17-38

October 12, 2021

Leicester Planning Board
Town of Leicester
3 Washburn Square
Leicester, MA 01524-1333

Re: #1355 Main Street
Proposed Energy Storage System

To the Board:

This office has received the following information related to the site plan application for the proposed solar energy storage system (ESS) at #1355 Main Street:

- A bound set of documents with cover page addressed to Michelle R. Buck, Town Planner from Hannigan Engineering, Inc. dated September 21, 2021.
- A bound report titled “Drainage Analysis” prepared by Hannigan Engineering, Inc. dated September 21, 2021.
- A bound set of plans titled “Site Development Plan” prepared by Hannigan Engineering, Inc. dated September 21, 2021.

These documents have been reviewed with respect to the Zoning Bylaw, Site Plan Rules and Regulations (SPRR), Parking Regulations, Stormwater Regulations, Landscaping Regulations and for general engineering practice. The submission has not been reviewed for completeness. It should also be noted that review of electrical diagrams and technical information pertaining to electrical comments are outside of this office’s expertise. Our comments regarding the submission can be seen below with reference to the applicable regulations.

Comments

1. No landscaping or plantings are proposed. Hannigan Engineering, Inc. has indicated that they anticipate that the ESS will not be visible from the roadway or from residential properties due to the topography and due to the existing vegetation that will remain. The Applicant should clarify to the Board how the landscaping requirements are met or should request a waiver with justification if the landscaping requirements are not met. (Zoning Bylaw 5.5.02.2, 5.14.6.4, SPRR II.F.6, SPRR II.K.1.c and Landscaping Regulations)
2. Driveway slopes in the HB-1 district are limited to 5% under the Zoning Bylaw 5.5.02.1.C.3. The proposed driveway slopes at approximately 7.5% from Main Street. It appears that the proposed 7.5% slope is reasonable given that the driveway is expected to see minimal use and is not open to the public. This office defers to the Board if the 5% slope requirement can be waived by the Board or if a variance is required.

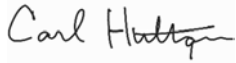
3. It is recommended that the Board seek input from the Fire Department regarding the proposed gate access, driveway slope and configuration, dry sprinkler system, etc. (Zoning Bylaw 5.14.6.7)
4. An estimate of the volume of material to be moved must be provided. (SPRR II.F.9)
5. The locus plan provided does not meet some of the requirements specified in SPRR II.G.
6. Post Construction View Representations are required under SPRR II.K.2. The conceptual renderings provided in the application generally depict the proposed ESS components but do not appear to represent the specific configuration at this site. This office defers to the Board if the conceptual renderings are sufficient or if the renderings must be updated.
7. An operation and maintenance plan for the site must be submitted. The plan should include requirements for maintenance of the driveway, plowing, mowing outside of the basin, equipment maintenance, etc. (SPRR II.K.5)
8. A specific form of decommissioning surety has not been identified. This office defers to the Board regarding the form of surety and mechanism for accounting for inflation that is to be provided. (SPRR II.K.7)
9. The Drainage Analysis indicates that a very minor increase in runoff is expected at the existing catch basin in Main Street due to the driveway construction. The work in Main Street is subject to review by MA DOT and it is expected that MA DOT will review this minor increase. (Stormwater Regulations 5.0)
10. This office has not reviewed the proposed work in Main Street (Route 9) as it falls under the jurisdiction of MA DOT. A permit from MA DOT to access the state highway will be required for the proposed work.
11. Based on the proposed grading, it appears that runoff from the easterly equipment pads may not flow to the basin as intended. The grading should be revised to ensure that the intended runoff reaches the basin.
12. A rip rap slope stabilizing detail is referred to on Sheet 3, however, the detail was not found in the plan set. The detail should be provided.
13. The extent of the rip rap slope stabilization called out on Sheet 3 must be depicted on plan.
14. Runoff from the driveway has potential to erode the slope between the driveway and basin. Additional stabilization is recommended on this slope.
15. Check dams are recommended along the flow path of the existing discharge from the catch basin in Main Street to minimize erosion potential along the toe of the proposed slopes
16. The width identified Gravel Access Lane Section must be revised to reflect the proposed conditions in the plan view.
17. The town of Southbridge is referenced in the decommissioning plan. The reference should be revised.

18. The deeds submitted with the application package are for property in Ashby. The deed for the subject property should be included in the application.

Requested Waivers

- a. Site Plan Review Regulations II.J – Traffic Study.
The proposed use is not expected to generate any traffic except for the occasional maintenance and inspection. The waiver request appears to be reasonable.
- b. Site Plan Review Regulations II.E. – Documentation of Sewer and Water
The proposed use will not require sewer or water service. The waiver request appears to be reasonable.

Sincerely,
QUINN ENGINEERING, INC.



Carl Hultgren, PE
Senior Engineer

CC: Christopher Anderson – Hannigan Engineering, Inc.
File

October 28, 2021

Leicester Planning Board
Town of Leicester
3 Washburn Square
Leicester, MA 01524-1333

Re: #1355 Main Street
Proposed Energy Storage System

To the Board:

This office has received the following information related to the site plan application for the proposed solar energy storage system (ESS) at #1355 Main Street:

- A stapled packet with cover memorandum addressed to Jason Grimshaw, Chair, Leicester Planning Board, dated October 19, 2021.
- A bound report titled “Drainage Analysis” prepared by Hannigan Engineering, Inc. revised through October 19, 2021.
- A bound set of plans titled “Site Development Plan” prepared by Hannigan Engineering, Inc. revised through October 19, 2021.
- An email from canderson@hanniganengineering.com with the following attachments:
 - 3010-hydroPRE.pdf – This attachment consist of 64 pages of pre-development HydroCAD data.
 - 3010-HydroPOST.pdf – This attachment consist of 84 pages of post-development HydroCAD data.

We have reviewed this submittal for responses to comments that this office provided in a letter to Leicester Planning Board dated October 12, 2021. Any changes made not in response to our comments must be identified by the applicant. Comments from the previously issued review memorandum can be seen below with supplemental comments noted in *italic* based on the Applicant’s responses. Comments that have been adequately addressed are prefaced with “**Resolved**”. Comments for which this office has not further comment have been prefaced with “**No further comment**”. Supplemental comments that require review by or input from the Board have been prefaced with “***This office defers to the Board***”.

Comments

1. No landscaping or plantings are proposed. Hannigan Engineering, Inc. has indicated that they anticipate that the ESS will not be visible from the roadway or from residential properties due to the topography and due to the existing vegetation that will remain. The Applicant should clarify to the Board how the landscaping requirements are met or should request a waiver with justification if the landscaping requirements are not met. (Zoning Bylaw 5.5.02.2, 5.14.6.4, SPRR II.F.6, SPRR II.K.1.c and Landscaping Regulations)

This office defers to the Board. Hannigan Engineering, Inc. has requested several waivers related to the landscaping requirements. No landscaping or plantings are proposed. A profile has been submitted depicting the elevation relief and layout of the system.

Under §5.5.02.2.A, a 20 foot landscape buffer is required along the roadway frontage.

Under §5.5.02.2.B and C, a 50 foot landscape buffer is required where a non-residential use abuts a residential use and a 100 foot buffer is required where the HB-1 district boundary abuts a residential district boundary. The Board may reduce these buffers to 20 feet and 50 feet, respectively, where site constraints do not allow for the full buffer and an opaque fence and/or other comparable method is provided to adequately buffer the residential property.

The Board's Landscaping Regulations state that the Board may allow or require the use of an opaque fence in addition to or in lieu of planted areas where the nature of a site or site development would not provide adequate screening.

This office defers to the Board if screening is required or if the requested waivers should be granted based on the existing vegetation and the existing topography providing a sufficient buffer. Also, the Board may request that the proposed security fence be equipped with slats to decrease visibility of the proposed equipment in addition to any other required screening.

A waiver/relief from the landscape and screening requirements in §5.14.6 may also be required.

2. Driveway slopes in the HB-1 district are limited to 5% under the Zoning Bylaw 5.5.02.1.C.3. The proposed driveway slopes at approximately 7.5% from Main Street. It appears that the proposed 7.5% slope is reasonable given that the driveway is expected to see minimal use and is not open to the public. This office defers to the Board if the 5% slope requirement can be waived by the Board or if a variance is required.

This office defers to the Board. Hannigan Engineering, Inc. has requested a waiver from the 5% driveway limit specified in §5.5.02.1.C.3. The proposed 7.5% slope is reasonable, however, this office defers to the Board if a waiver can be granted or if a variance is required.

3. It is recommended that the Board seek input from the Fire Department regarding the proposed gate access, driveway slope and configuration, dry sprinkler system, etc. (Zoning Bylaw 5.14.6.7)

No further comment.

4. An estimate of the volume of material to be moved must be provided. (SPRR II.F.9)

Resolved. Hannigan Engineering, Inc. has indicated that the volume of material to be moved is 5,700 cu. yd.

5. The locus plan provided does not meet some of the requirements specified in SPRR II.G.

Resolved. A revised locus plan has been provided meeting the requirements.

6. Post Construction View Representations are required under SPRR II.K.2. The conceptual renderings provided in the application generally depict the proposed ESS components but do not appear to represent the specific configuration at this site. This office defers to the Board if the conceptual renderings are sufficient or if the renderings must be updated.

This office defers to the Board. Hannigan Engineering, Inc. has indicated that a profile depicting the elevation relief and layout of the system has been provided to aid in review. This office defers to the Board if the conceptual renderings are sufficient or if the renderings must be updated.

7. An operation and maintenance plan for the site must be submitted. The plan should include requirements for maintenance of the driveway, plowing, mowing outside of the basin, equipment maintenance, etc. (SPRR II.K.5)

Operation and maintenance requirements for the site have been included in this submission. It is recommended that the Fire Department review and comment the proposed snow plowing routine to ensure that the Department is comfortable with the proposal.

8. A specific form of decommissioning surety has not been identified. This office defers to the Board regarding the form of surety and mechanism for accounting for inflation that is to be provided. (SPRR II.K.7)

This office defers to the Board. Hannigan Engineering, Inc. has indicated that the specific type of surety will be determined prior to the issuance of a building permit.

9. The Drainage Analysis indicates that a very minor increase in runoff is expected at the existing catch basin in Main Street due to the driveway construction. The work in Main Street is subject to review by MA DOT and it is expected that MA DOT will review this minor increase. (Stormwater Regulations 5.0)

No further comment.

10. This office has not reviewed the proposed work in Main Street (Route 9) as it falls under the jurisdiction of MA DOT. A permit from MA DOT to access the state highway will be required for the proposed work.

No further comment.

11. Based on the proposed grading, it appears that runoff from the easterly equipment pads may not flow to the basin as intended. The grading should be revised to ensure that the intended runoff reaches the basin.

The grading has been revised to depict a shallow swale at the end west end of the equipment pads, however based on the revised grading, the runoff in the swale will flow towards the proposed access gate and does not appear to flow into the basin. The plan should be revised to depict a more defined channel directing runoff into the basin in order to ensure that the intended runoff reaches the basin.

12. A rip rap slope stabilizing detail is referred to on Sheet 3, however, the detail was not found in the plan set. The detail should be provided.

Resolved. A rip rap slope detail has been provided.

13. The extent of the rip rap slope stabilization called out on Sheet 3 must be depicted on plan.

Resolved. The extent of the rip rap slope has been called out on the revised plan.

14. Runoff from the driveway has potential to erode the slope between the driveway and basin. Additional stabilization is recommended on this slope.

Resolved. The rip rap slope has been extended onto the slope between the driveway and basin.

15. Check dams are recommended along the flow path of the existing discharge from the catch basin in Main Street to minimize erosion potential along the toe of the proposed slopes

Check dams and a defined rip rap channel have been proposed along the flow path from the existing culvert. The Applicant should confirm that channelizing the flow does not increase flows to the downstream property.

16. The width identified Gravel Access Lane Section must be revised to reflect the proposed conditions in the plan view.

Resolved. *The Gravel Access Lane Section has been revised.*

17. The town of Southbridge is referenced in the decommissioning plan. The reference should be revised.

Resolved. *An updated decommissioning plan has been included in this submission.*

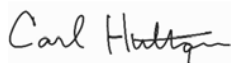
18. The deeds submitted with the application package are for property in Ashby. The deed for the subject property should be included in the application.

Resolved. *The deed has been included in this submission.*

Requested Waivers

- a. Site Plan Review Regulations II.J – Traffic Study.
The proposed use is not expected to generate any traffic except for the occasional maintenance and inspection. The waiver request appears to be reasonable.
- b. Site Plan Review Regulations II.E. – Documentation of Sewer and Water
The proposed use will not require sewer or water service. The waiver request appears to be reasonable.
- c. Zoning Bylaw §5.5.02.1.C.3 – Slope of driveways shall be no greater than 5%.
See comment 2.
- d. Zoning Bylaw 5.5.02.2.C – Landscape buffer at least 100 feet where an HB-1 district abuts a Residential District.
See comment 1.
- e. Site Plan Rules and Regulations II.F.6 – Proposed Landscaping.
See comment 1.
- f. Site Plan Rules and Regulations II.K.1.c – Proposed screening/buffering in conformance with the Zoning Bylaw requirements.
See comment 1.

Sincerely,
QUINN ENGINEERING, INC.



Carl Hultgren, PE
Senior Engineer

CC: Christopher Anderson – Hannigan Engineering, Inc.
File

Brooke Hultgren

From: Ken Antanavica <antanavicak@leicesterpd.org>
Sent: Thursday, September 23, 2021 7:34 AM
To: Brooke Hultgren
Subject: RE: Site Plan Review Application - ZP Battery Solar/1355 Main St

Hello Brooke:

It appears that there will be very little impact on traffic once the project is completed. LPD has no objections to this project, we will need all emergency contacts for dispatch in the event of a catastrophic failure and an evacuation plan if needed.

Thank You

*Chief Kenneth M Antanavica
Leicester Police Department
90 S. Main St.
Leicester, Ma 01524
(508) 892-7010 ext 2010
Fax (508) 892-7012*

From: Brooke Hultgren <hultgrenb@leicesterma.org>
Sent: Wednesday, September 22, 2021 4:03 PM
To: Ken Antanavica <antanavicak@leicesterpd.org>
Subject: Site Plan Review Application - ZP Battery Solar/1355 Main St

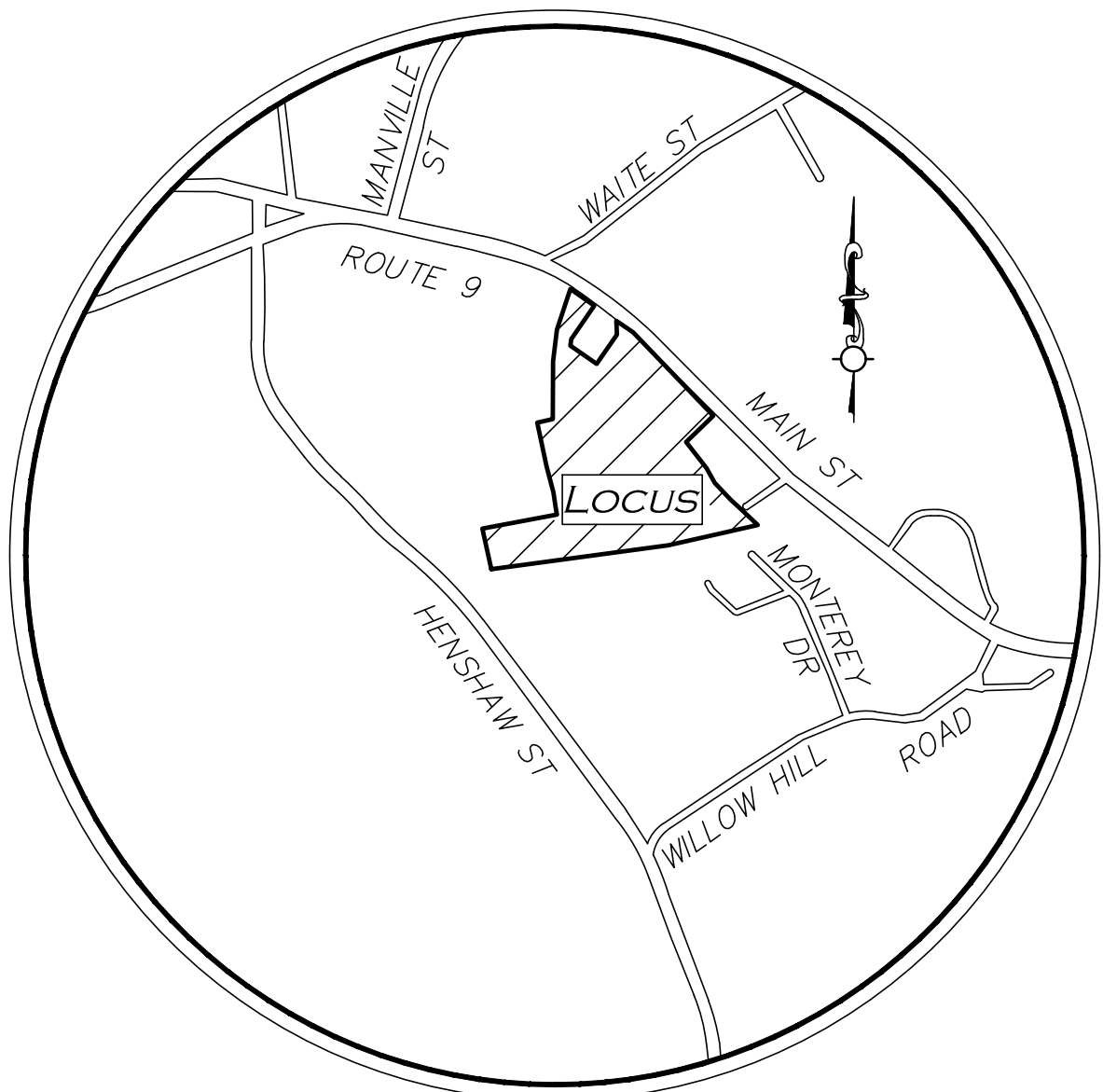
The Planning Board has received a new application, as summarized below. Comments, if any, should be submitted by email to hultgrenb@leicesterma.org or planning@leicesterma.org.

Type of Application: Site Plan Review
Project Name: ZP Battery Solar
Location/Description: 1355 Main St
Water/Sewer: N/A
Planning Board Meeting Date: 11/2/2021
Deadline for Comments: **10/27/2021**

The application & plans are available at the link below:
<https://www.leicesterma.org/planning-board/pages/current-applications-plans>

Brooke Hultgren

Planning, Conservation, and ZBA Assistant
Town of Leicester
(508) 892-7007
Please note that Leicester Town Hall is closed on Fridays.



LOCUS MAP
NOT TO SCALE

DEFINITIVE SUBDIVISION PLANS FOR SKYVIEW ESTATES MAIN STREET LEICESTER, MA 01611

FOR REGISTRY USE ONLY

CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN" DATED _____, 2021 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK _____ PAGE _____.

THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED _____, TO BE RECORDED HEREWITH.

APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR _____ YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN YEARS _____ FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER ASSESSOR'S RECORDS.

I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY THE THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

ISSUED FOR
PLANNING BOARD REVIEW
OCTOBER 5, 2021

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

LEICESTER PLANNING BOARD WAIVERS REQUESTED

SECTION V.A.1.f – MINIMUM CENTER LINE RADII. 200' MIN. REQUIRED TO ALLOW CENTER LINE RADIUS OF 120' AND 135'

SECTION V.A.3.a – MAXIMUM STREET GRADE 10% TO ALLOW FOR A STREET GRADE OF NO MORE THAN 14%

SECTION VI.B.1A –REINFORCED CONCRETE STORM DRAINAGE PIPING REQUIRED
A WAIVER IS REQUESTED TO UTILIZE HIGH DENSITY POLYPROPYLENE (HDPE) DRAINAGE LINES OR APPROVED EQUAL WITHIN THE DRAINAGE SYSTEM OF THE SUBDIVISION.

SECTION VI.C.4 – VELOCITIES SHALL BE BETWEEN 2 AND 10 FEET PER SECOND
A WAIVER IS REQUESTED ALLOW WATER VELOCITY WITHIN THE CLOSED STORMWATER SYSTM FROM 11.92 FPS TO 14.0 FPS WHICH IS LESS THAN THE MANUFACTURES RECOMMENDATION FOR SCOUR WITHIN THE PIPING NETWORK.

SECTION VI.E.3 – STREET LIGHTING REQUIRED
TO ALLOW STREET LIGHTING TO BE INSTALLED AS PRIVATE DRIVEWAY LIGHT

SECTION VI.L STREET TREES SHALL BE INSTALLED ON BOTH SIDES OF THE ROADWAY
TO ALLOW FOR STREET TREE PLANTINGS TO BE INSTALLED ON ONE SIDE ONLY

SECTION VI.G.1 – SIDEWALKS SHALL BE INSTALLED ON BOTH SIDES OF ALL STREETS WITHIN A SUBDIVISION
A WAIVER IS REQUESTED TO INSTALL SIDEWALKS ON ONLY 1 SIDE OF THE ROADWAY DUE TO THE STEEP TERRAIN OF THE PROPOSED SUBDIVISION AND LACK OF CONNECTION TO A MUNICIPAL SIDEWALK ALONG MAIN STREET (AKA ROUTE 9)

GENERAL NOTES

- THE OWNER OF RECORD:
LOT 21-B5.1
EFG REALTY TRUST
76 MCCLELLAN STREET
AMHERST, MA 01002
BOOK 16761, PAGE 78
- ZONING DISTRICT: BUSINESS (B) AND SUBURBAN AGRICULTURAL (SA) DISTRICT TO THE SOUTH & WEST
LOT SIZE: 22,500 SF
LOT FRONTAGE: 100 FT.
FRONT SETBACK: 25 FT.
SIDE SETBACK: 15 FT.
REAR SETBACK: 25 FT.
- EXISTING USE OF LOT 21-B5.1 IS VACANT LAND.
- NO PORTION OF THE PROPERTY IS WITHIN THE 100 YEAR FLOOD BOUNDARY HAZARD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP #25027C0782E WITH AN EFFECTIVE DATE: JULY 14, 2011 FOR THE CITY OF LEICESTER.

AGENT:
RE/MAX PATRIOT REALTY
55 MEAD STREET
LEOMINSTER, MA 01453

APPLICANT
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

OWNER
E F G REALTY TRUST
EDGAR GREENEY, JR - TRUSTEE
76 MCCLELLAN STREET
AMHERST, MA 01002

CIVIL ENGINEER / SURVEYOR:
ALLEN & MAJOR ASSOCIATES, INC.
100 COMMERCE WAY, SUITE 5
WOBBURN, MA 01801

ENVIRONMENTAL CONSULTANT
GOVE ENVIRONMENTAL SERVICES, INC.
8 CONTINENTAL DR BLDG 2 UNIT H
EXETER NH 03833-7507

LIST OF DRAWINGS			
DRAWING TITLE	SHEET NO.	ISSUED	REVISED
EXISTING CONDITIONS	V-101	03-08-21	-
SITE PREPARATION PLAN	C-100	09-17-21	10-05-21
SUBDIVISION LAYOUT KEY PLAN	C-101	09-17-21	10-05-21
DEFINITIVE LAYOUT PLAN	C-101A	09-17-21	10-05-21
DEFINITIVE LAYOUT PLAN	C-101B	09-17-21	10-05-21
DEFINITIVE LAYOUT PLAN	C-101C	09-17-21	10-05-21
OVERALL GRADING & DRAINAGE PLAN	C-102	09-17-21	10-05-21
GRADING & DRAINAGE PLAN	C-102A	09-17-21	10-05-21
GRADING & DRAINAGE PLAN	C-102B	09-17-21	10-05-21
GRADING & DRAINAGE PLAN	C-102C	09-17-21	10-05-21
OVERALL UTILITIES PLAN	C-103	09-17-21	10-05-21
UTILITIES PLAN	C-103A	09-17-21	10-05-21
UTILITIES PLAN	C-103B	09-17-21	10-05-21
UTILITIES PLAN	C-103C	09-17-21	10-05-21
ROADWAY PROFILE - SKYVIEW DRIVE	C-201	09-17-21	10-05-21
ROADWAY PROFILES - SKYVIEW TERRACE, EMERGENCY ACCESS, & COLONIAL EXTENSION	C-202	09-17-21	10-05-21
DETAILS	C-501	09-17-21	10-05-21
DETAILS	C-502	09-17-21	10-05-21
DETAILS	C-503	09-17-21	10-05-21
DETAILS	C-504	09-17-21	10-05-21
DETAILS	C-505	10-05-21	10-05-21
DETAILS	C-506	10-05-21	10-05-21

ISSUED FOR DEFINITIVE SUBDIVISION: JULY 16, 2021
UPDATES PER PEER REVIEW & LAYOUT CHANGE: OCT. 5, 2021

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK – TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: NONE DWG. : C-2889-01_Cover

DESIGNED BY: SM CHECKED BY: MAM

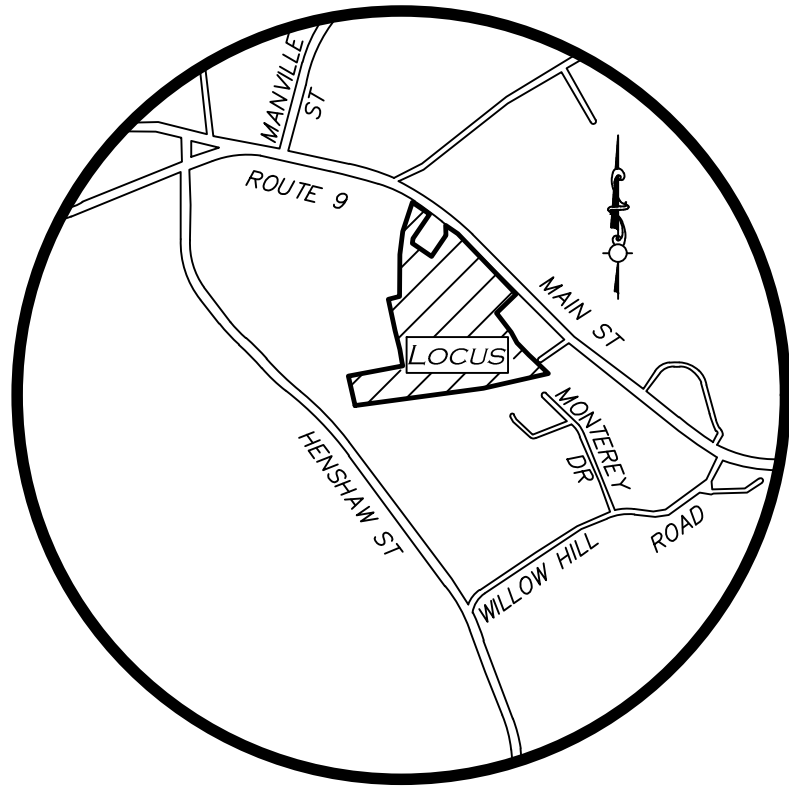
PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:	SHEET No.
COVER	C
Copyright ©2021 Allen & Major Associates, Inc. All Rights Reserved	0 OF 22



LOCUS MAP
(NOT TO SCALE)

UTILITY STATEMENT

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

LOCUS REFERENCES

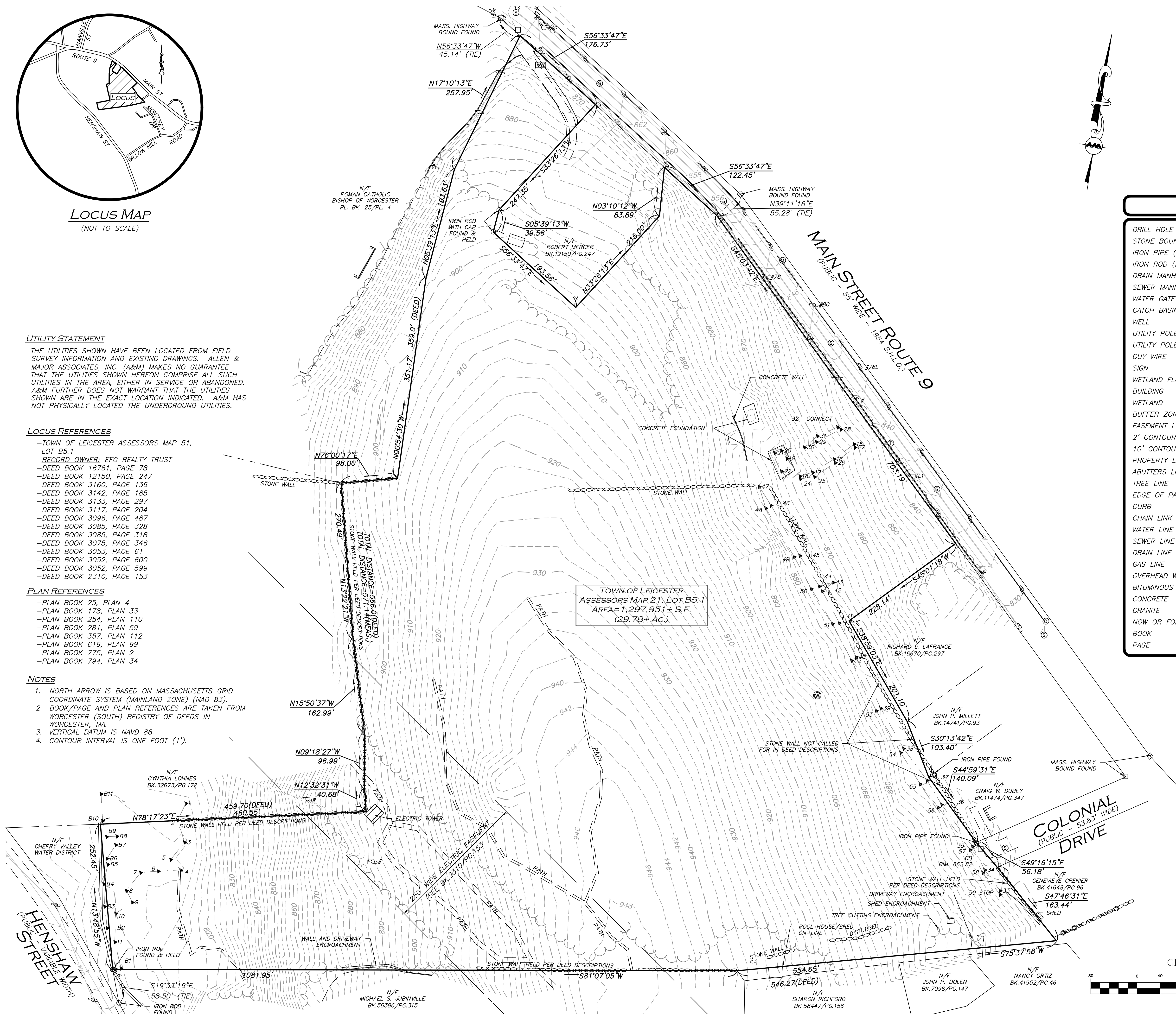
- TOWN OF LEICESTER ASSESSORS MAP 51, LOT B5.1
- RECORD OWNER: EFG REALTY TRUST
- DEED BOOK 16761, PAGE 78
- DEED BOOK 12150, PAGE 247
- DEED BOOK 3160, PAGE 136
- DEED BOOK 3142, PAGE 185
- DEED BOOK 3133, PAGE 297
- DEED BOOK 3117, PAGE 204
- DEED BOOK 3096, PAGE 487
- DEED BOOK 3085, PAGE 328
- DEED BOOK 3085, PAGE 318
- DEED BOOK 3075, PAGE 346
- DEED BOOK 3053, PAGE 61
- DEED BOOK 3052, PAGE 600
- DEED BOOK 3052, PAGE 599
- DEED BOOK 2310, PAGE 153

PLAN REFERENCES

- PLAN BOOK 25, PLAN 4
- PLAN BOOK 178, PLAN 33
- PLAN BOOK 254, PLAN 110
- PLAN BOOK 281, PLAN 59
- PLAN BOOK 357, PLAN 112
- PLAN BOOK 619, PLAN 99
- PLAN BOOK 775, PLAN 2
- PLAN BOOK 794, PLAN 34

NOTES

1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM WORCESTER (SOUTH) REGISTRY OF DEEDS IN WORCESTER, MA.
3. VERTICAL DATUM IS NAVD 88.
4. CONTOUR INTERVAL IS ONE FOOT (1').

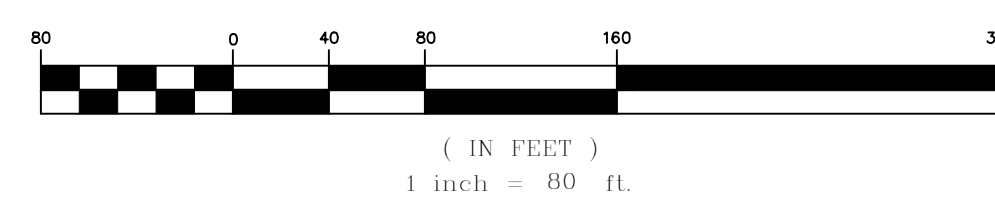


LEGEND

DRILL HOLE (DH)	⊙
STONE BOUND (SB)	□
IRON PIPE (IP)	○
IRON ROD (IR)	◊
DRAIN MANHOLE (DMH)	⊗
SEWER MANHOLE (SMH)	⊕
WATER GATE	⊗
CATCH BASIN (CB)	⊗
WELL	⊗
UTILITY POLE W/LIGHT	⊗
UTILITY POLE	⊗
GUY WIRE	⊗
SIGN	⊗
WETLAND FLAG	▲A31
BUILDING	▭
WETLAND	▭
BUFFER ZONE	▭
EASEMENT LINE	▭
2' CONTOUR	▭
10' CONTOUR	▭
PROPERTY LINE	▭
ABUTTERS LINE	▭
TREE LINE	▭
EDGE OF PAVEMENT	▭
CURB	▭
CHAIN LINK FENCE	▭
WATER LINE	▭
SEWER LINE	▭
DRAIN LINE	▭
GAS LINE	▭
OVERHEAD WIRES	▭
BITUMINOUS	▭
CONCRETE	▭
GRANITE	▭
NOW OR FORMERLY	▭
BOOK	▭
PAGE	▭

FOR REGISTRY USE ONLY

GRAPHIC SCALE



N:\PROJECTS\2889-01\SURVEY\DRAWINGS\CURRENT\S-2889-01-EC.DWG

WE HEREBY CERTIFY THAT:

THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN JANUARY 10, 2021 AND FEBRUARY 9, 2021.
THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS DATED JANUARY 1, 1976 AND REVISED JANUARY 12, 1988.
ACCORDING TO DEEDS AND PLANS OF RECORD, THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIP, AND THE LINES OF THE STREETS OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS AND WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR THE DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.
THE ABOVE CERTIFICATION IS INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS FOR THE RECORDING OF PLANS AND IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN OF LEICESTER ASSESSOR'S INFORMATION.
THE ABOVE IS CERTIFIED TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF.

ALLEN & MAJOR ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
651 MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 03/08/21
SCALE: 1" = 80' DWG. NAME: S-2889-01-EC
DRAFTED BY: AJR CHECKED BY: NIL

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY
WOBBURN MA 01801-8501
TEL: (781) 935-6889
FAX: (781) 935-2896

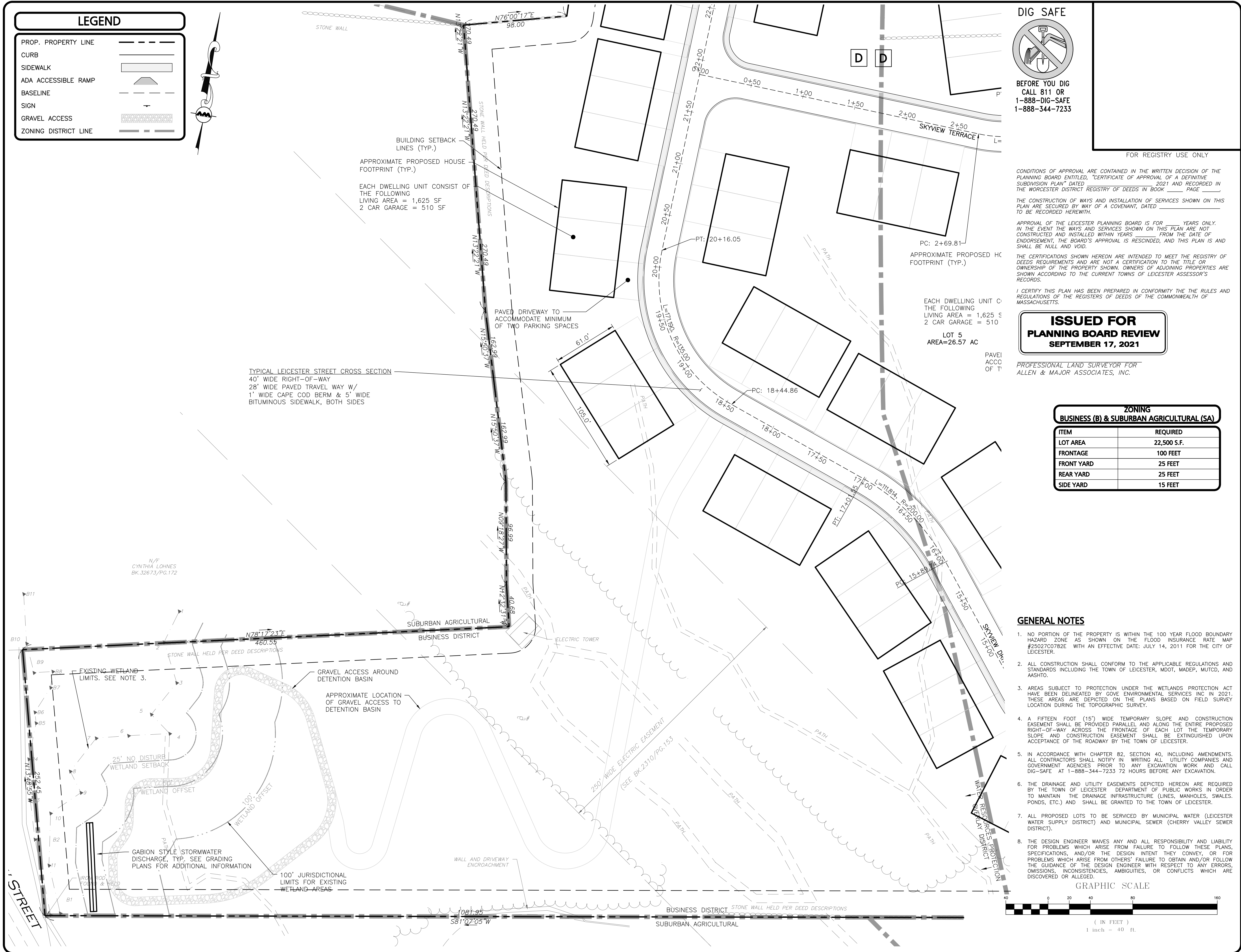
WOBBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: EXISTING CONDITIONS SHEET NO. V-101

Copyright ©2021 Allen & Major Associates, Inc.
All Rights Reserved

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\G-2889-01_LAYOUT & MATERIALS.DWG



DIG SAFE



BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

FOR REGISTRY USE ONLY

CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD, ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN" DATED 2021 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK PAGE

THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED TO BE RECORDED HEREWITH.

APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN YEARS FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER ASSESSOR'S RECORDS.

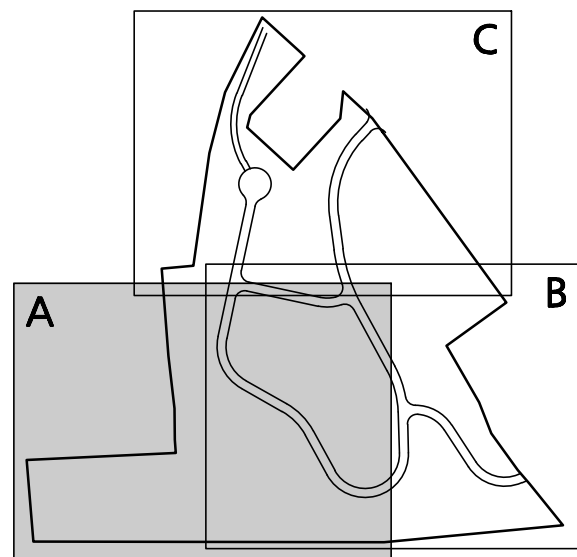
I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY THE THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

**ISSUED FOR
PLANNING BOARD REVIEW
SEPTEMBER 17, 2021**

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

ZONING BUSINESS (B) & SUBURBAN AGRICULTURAL (SA)

ITEM	REQUIRED
LOT AREA	22,500 S.F.
FRONTAGE	100 FEET
FRONT YARD	25 FEET
REAR YARD	25 FEET
SIDE YARD	15 FEET



KEY MAP
NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

**DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021**

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
**SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA**

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG.: C2889-01_Layout & Materials

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:
ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

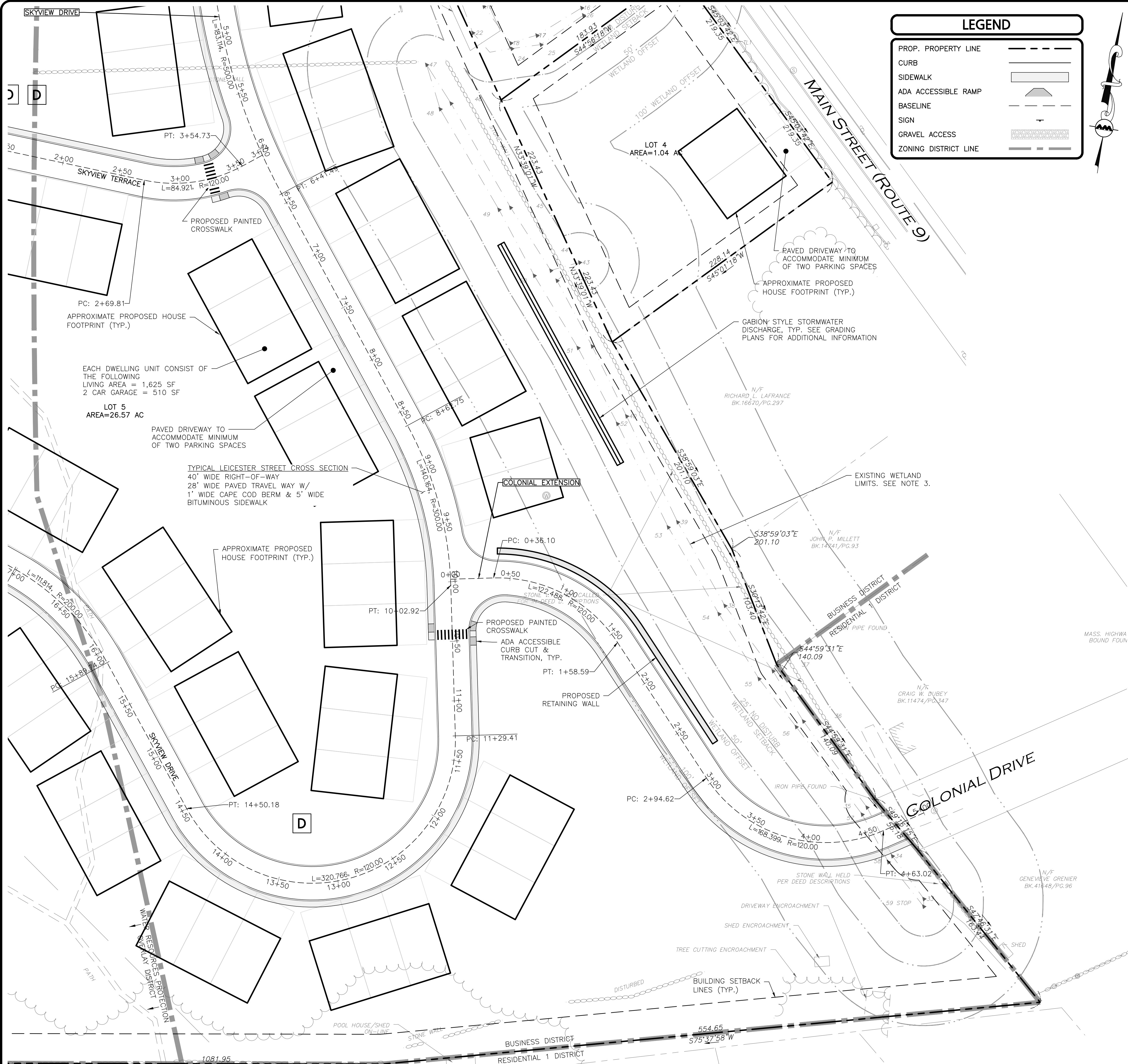
DRAWING TITLE: SHEET No.

DEFINITIVE LAYOUT PLAN C-101A

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

4 OF 22

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\G-2889-01_LAYOUT & MATERIALS.DWG



LEGEND

PROP. PROPERTY LINE

CURB

SIDEWALK

ADA ACCESSIBLE RAMP

BASELINE

SIGN

GRAVEL ACCESS

ZONING DISTRICT LINE

DIG SAFE



BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

FOR REGISTRY USE ONLY

CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD, ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN" DATED 2021 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK PAGE

THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED TO BE RECORDED HERewith.

APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN YEARS FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER ASSESSOR'S RECORDS.

I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

ISSUED FOR
PLANNING BOARD REVIEW
SEPTEMBER 17, 2021

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

ZONING
BUSINESS (B) & SUBURBAN AGRICULTURAL (SA)

ITEM	REQUIRED
LOT AREA	22,500 S.F.
FRONTAGE	100 FEET
FRONT YARD	25 FEET
REAR YARD	25 FEET
SIDE YARD	15 FEET

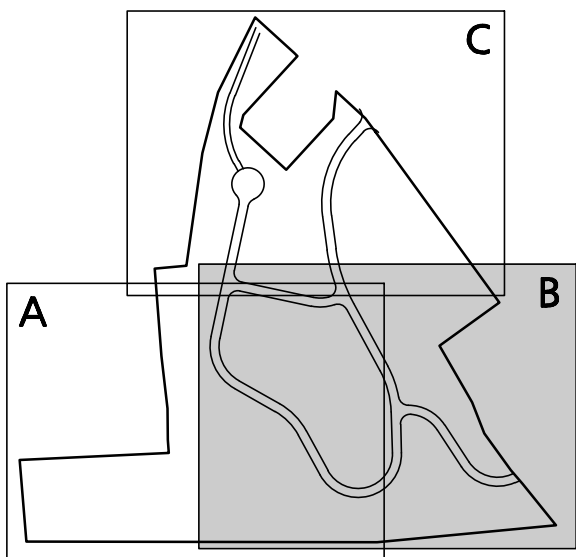
GENERAL NOTES

- NO PORTION OF THE PROPERTY IS WITHIN THE 100 YEAR FLOOD BOUNDARY HAZARD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP #25027C0782E WITH AN EFFECTIVE DATE: JULY 14, 2011 FOR THE CITY OF LEICESTER.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND ASHTO.
- AREAS SUBJECT TO PROTECTION UNDER THE WETLANDS PROTECTION ACT HAVE BEEN DELINEATED BY GOVE ENVIRONMENTAL SERVICES INC IN 2021. THESE AREAS ARE DEPICTED ON THE PLANS BASED ON FIELD SURVEY LOCATION DURING THE TOPOGRAPHIC SURVEY.
- A FIFTEEN FOOT (15') WIDE TEMPORARY SLOPE AND CONSTRUCTION EASEMENT SHALL BE PROVIDED PARALLEL AND ALONG THE ENTIRE PROPOSED RIGHT-OF-WAY ACROSS THE FRONTAGE OF EACH LOT. THE TEMPORARY SLOPE AND CONSTRUCTION EASEMENT SHALL BE EXTINGUISHED UPON ACCEPTANCE OF THE ROADWAY BY THE TOWN OF LEICESTER.
- IN ACCORDANCE WITH CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 1-888-344-7233 72 HOURS BEFORE ANY EXCAVATION.
- THE DRAINAGE AND UTILITY EASEMENTS DEPICTED HEREON ARE REQUIRED BY THE TOWN OF LEICESTER DEPARTMENT OF PUBLIC WORKS IN ORDER TO MAINTAIN THE DRAINAGE INFRASTRUCTURE (LINES, MANHOLES, SWALES, PONDS, ETC.) AND SHALL BE GRANTED TO THE TOWN OF LEICESTER.
- ALL PROPOSED LOTS TO BE SERVICED BY MUNICIPAL WATER (LEICESTER WATER SUPPLY DISTRICT) AND MUNICIPAL SEWER (CHERRY VALLEY SEWER DISTRICT).
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.



KEY MAP
NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HERewith.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

10-05-21	MISC. REVISIONS PER TOWN COMMENTS
REV	DATE DESCRIPTION

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG. : C2889-01_Layout & Materials

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR
ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2886

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENTS AUTHORITY ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: SHEET No.

DEFINITIVE LAYOUT PLAN C-101B

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved 5 OF 22

EROSION CONTROL NOTES

1. AS THIS PROJECT SHALL ALTER OVER ONE ACRE OF LAND, IT WILL REQUIRE FILING A NOTICE OF INTENT WITH THE EPA UNDER THE NPDES PHASE II PROGRAM AND WILL REQUIRE A STORMWATER POLLUTION PREVENTION PLAN (SWPP) TO BE FILED PRIOR TO ANY LAND DISTURBANCE. THE SWPP SHALL BE PROVIDED TO THE SITE CONTRACTOR PRIOR TO CONSTRUCTION AND SHALL BE ACCESSIBLE ON SITE DURING ALL CONSTRUCTION ACTIVITY.
2. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL REQUIREMENTS OF THE PROJECT "ORDER OF CONDITIONS" AS ISSUED BY THE TOWN OF LEICESTER CONSERVATION COMMISSION. THE CONTRACTOR AND ALL SUB-CONTRACTORS ARE TO BE MADE AWARE OF THE ORDER OF CONDITIONS AS GRANTED BY THE LEICESTER CONSERVATION COMMISSION AND ITS REGULATIONS APPLICABLE TO THIS PROJECT. A COPY OF THIS ORDER IS TO BE READILY AVAILABLE ON SITE AT ALL TIMES.
3. THE SEDIMENTATION AND EROSION CONTROLS DEPICTED HEREON ARE THE MINIMUM REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL EROSION CONTROLS AND SHALL INSTALL ADDITIONAL MITIGATION MEASURES AS MAY BE NECESSARY TO ENSURE PROTECTION OF ALL NATURAL RESOURCES.
4. PRIOR TO THE START OF ANY CONSTRUCTION, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DEPICTED HEREON. THE CONTRACTOR SHALL MAINTAIN THESE MEASURES UNTIL ALL WORK IS COMPLETED AND ALL AREAS HAVE BEEN STABILIZED.
5. AT NO TIME SHOULD HEAVY EQUIPMENT CROSS THE EROSION CONTROL BARRIERS OR OPERATE BEYOND THE LIMIT OF WORK DEPICTED HEREON. ALL FUELING OF CONSTRUCTION EQUIPMENT IS TO BE DONE IN THE UPLANDS OUTSIDE OF THE 100' BUFFER ZONE.
6. TEMPORARY STABILIZATION OF DISTURBED AREAS IS TO LIMIT EROSION TOWARD THE WETLAND AREAS. ALL TRENCHES ARE TO BE FILLED ON A DAILY BASIS WITH SPECIAL CARE TAKEN TO AVOID ROUTING RAINFALL THROUGH GULLIES TOWARD THE WETLAND AREAS. TEMPORARY DETENTION BASINS ARE TO BE INSTALLED IN AREAS PRONE TO CHANNEL FLOWS DURING PERIODS OF HIGH INTENSITY RAINFALL.
7. THE CONTRACTOR IS TO USE PROPER JUDGMENT RELATIVE TO CONSTRUCTION PRACTICES DURING ADVERSE WEATHER CONDITIONS OR PERIODS OF HIGH GROUNDWATER. NO WORK IS TO BE PERFORMED NEAR THE WETLAND AREAS DURING PERIODS OF HEAVY RAINFALL.
8. PERIODIC MAINTENANCE OF THE EROSION CONTROL MEASURES IS REQUIRED IN ORDER TO INSURE THE PROPER PROTECTION OF THE RESOURCE: AREAS. ALL EROSION CONTROL STRUCTURES ARE TO BE INSPECTED ON A WEEKLY BASIS OR WHENEVER THERE IS A STORM EVENT EXCEEDING 1/2" OF RAIN IN TWENTY FOUR HOURS.
9. THE TREE CLEARING REMOVAL LIMITS SHALL NOT EXTEND BEYOND THE SILTFENCE/HAYBALE EROSION CONTROL BARRIERS AND THE LIMIT OF WORK. AREAS OF EXISTING VEGETATION TO REMAIN ARE TO BE PROTECTED THROUGHOUT CONSTRUCTION.
10. THE BASE OF ALL STOCKPILES SHALL BE CONTAINED WITHIN THE EROSION CONTROL MEASURES LIMITS. STOCKPILES TO BE LEFT OVER 30 DAYS SHALL BE SEEDED WITH ANNUAL RYE GRASS.
11. THE FUNCTIONING OF THE TEMPORARY SEDIMENT CONTROLS OR CONSTRUCTION OPERATIONS SHALL NOT CAUSE NOTICEABLE SEDIMENT PLUMES. IF PLUMES OCCUR, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL SEDIMENTATION CONTROLS IMMEDIATELY TO PREVENT FURTHER SEDIMENTATION.
12. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ACCUMULATED SEDIMENT AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE ENGINEER.
13. AFTER THE CONSTRUCTION/INSTALLATION OF THE PERMANENT DRAINAGE INFRASTRUCTURE, THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE APPROPRIATE SEDIMENTATION CONTROLS TO PROTECT THE INTEGRITY OF THE STRUCTURES DURING THE ONGOING CONSTRUCTION. ALL CATCH BASINS SHALL HAVE A SILT SAC CATCH BASIN FILTER INSTALLED. THE FILTERS SHALL BE MAINTAINED AND/OR REPLACED AS NECESSARY UNTIL THE CONSTRUCTION IS COMPLETED.
14. ALL DISTURBED NON-PAVED AREAS WITHIN THE PROJECT LIMIT OF WORK SHALL BE DRESSED WITH A MINIMUM OF FOUR INCHES (4") OF SCREENED LOAM AND SHALL BE SEEDED WITH AN APPROVED GRASS MIX AND MULCHED AS SOON AS POSSIBLE IN ORDER TO INSURE THE RAPID STABILIZATION OF THE EROSION PRONE AREAS. A CONSERVATION SEED MIXTURE OF 20% ANNUAL RYEGRASS, 30% CREEPING RED FESCUE, 30% CHEWINGS FESCUE AND 20% PERENNIAL RYEGRASS IS RECOMMENDED. IF PERMANENT SEEDING CANNOT BE INSTALLED IMMEDIATELY AFTER FINAL GRADING, THE AREAS ARE TO BE TEMPORARILY MULCHED TO STABILIZE ALL SLOPES UPON COMPLETION OF WORK TO PREVENT EROSION OF SOILS INTO THE RESOURCE AREAS AND THEIR ASSOCIATED BUFFER ZONES. DURING THE GROW-IN PERIOD, TEMPORARY EROSION CONTROLS (I.E. BARK MULCH OR STRAW) IS TO BE USED TO PREVENT EROSION DURING PERIODS OF RAINFALL OR SNOW MELT. WHERE PRACTICAL DURING CONSTRUCTION, DISTURBED AREAS SHALL BE STABILIZED BY TEMPORARILY SEEDING OR MULCHING.
15. ALL DISTURBED AREAS TO BE LEFT DORMANT FOR MORE THAN 60 DAYS SHALL BE STABILIZED BY TEMPORARILY SEEDING OR MULCHING.
16. DEWATERING OPERATIONS, IF REQUIRED SHALL DISCHARGE ONTO STABILIZED AREAS AND ALL DISCHARGE WATER IS TO PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON THE WETLANDS RESOURCES, DRAINAGE SYSTEMS, AND ADJUTING PROPERTIES.
17. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE REMOVED IN THEIR ENTIRETY AFTER FINAL SITE STABILIZATION AND ISSUANCE OF THE FINAL CERTIFICATE OF COMPLIANCE BY THE CONSERVATION COMMISSION.
18. THE APPLICANT JS TO NOTIFY THE LEICESTER CONSERVATION COMMISSION ONCE THE JURISDICTIONAL WORK HAS BEEN COMPLETED AND THE ENTIRE SITE HAS BEEN PROPERLY STABILIZED. UPON APPROVAL OF THE WORK SUBJECT TO THE ORDER OF CONDITIONS. THE APPLICANT IS TO RECEIVE A CERTIFICATE OF COMPLIANCE THAT IS TO BE RECORDED AT THE WORCESTER REGISTRY OF DEEDS.

SHEET A

SHEET C

GRADING & DRAINAGE NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
3. ALL ELEVATIONS REFER TO NAVD 88.
4. PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE FACE OF THE STRUCTURE.
5. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION, ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.
6. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
7. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
8. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 2 FOOT
9. ROOF DRAINS SHALL CONNECT TO NEAREST DRAIN STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS.
10. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
11. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "DRAIN".
13. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
14. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
15. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
16. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH COUNTY SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
17. ALL CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH HOODS AND 4 FOOT SUMPS AND SHALL CONFORM TO LOCAL DRAINAGE REQUIREMENTS.
18. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES. WATER SERVICES SHALL BE ENCASED IN CONCRETE REGARDLESS OF CLEARANCE WHEN PASSING BELOW STORM DRAIN LINES. ENCASEMENT SHALL EXTEND ALONG WATER SERVICE A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
19. ALL DRAINAGE SHALL CONFORM TO LOCAL AND MADEP REQUIREMENTS.
20. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES, PIPES AND BASINS SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION.
21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
22. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

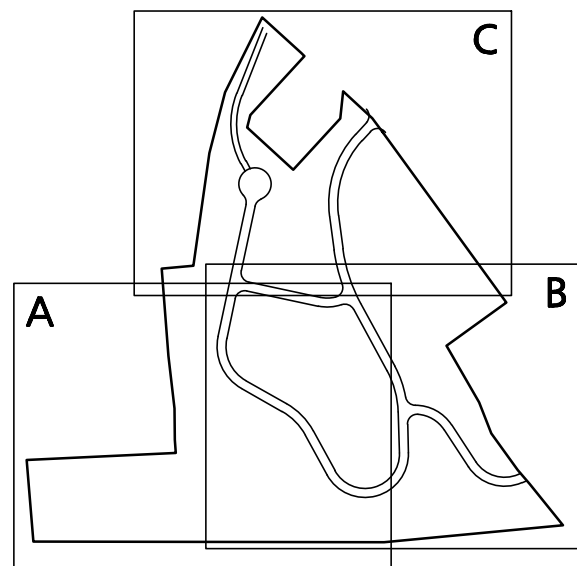
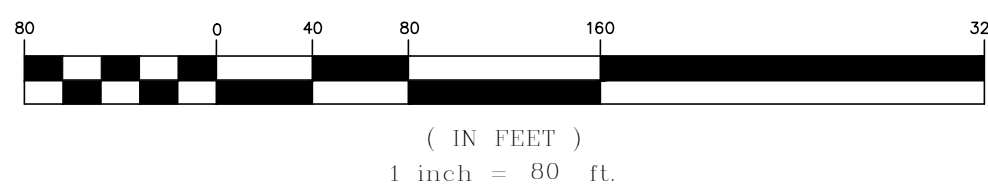
LEGEND

- DRAIN MANHOLE
CATCH BASIN
DRAIN LINE
10' CONTOUR
2' CONTOUR
DETENTION CHAMBER
FLOW DIRECTION

SOIL TESTING NOTES:

1. ADDITIONAL TEST PITS SHALL BE DUG WITHIN THE FOOTPRINT OF EACH DRYWELL USED FOR STORMWATER INFILTRATION. A MINIMUM OF 2 VERTICAL FEET BELOW THE BOTTOM OF STONE ELEVATION. DURING EXCAVATION, DEPTHS TO BEDROCK AND/OR SEASONAL HIGH WATER SHALL BE OBSERVED AND RECORDED IF ENCOUNTERED. IF LEDGE, BEDROCK OR SIMILAR SUBSURFACE MATERIAL IS DISCOVERED WITHIN 2 VERTICAL FEET FROM THE DESIGNED BOTTOM STONE ELEVATION OF THE INFILTRATION SYSTEM, THE MATERIAL SHALL BE EXCAVATED AND REPLACED WITH CRUSHED STONE OF EQUAL DIAMETER THAT WILL BE USED TO CONSTRUCT THE INFILTRATION SYSTEM.
2. IN THE EVENT THE ON-SITE CONDITIONS ARE NOT CONSISTENT WITH THE MODELED INFILTRATION RATE, MODIFICATIONS TO THE SYSTEM MUST BE REVIEWED AND APPROVED BY THE TOWN'S ENGINEER AND BY THE PLANNING STAFF.

GRAPHIC SCALE



KEY MAP
NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK -- TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 80' DWG. : C2889-01_Grading & Drainage

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER'S REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:

**OVERALL GRADING &
DRAINAGE PLAN**

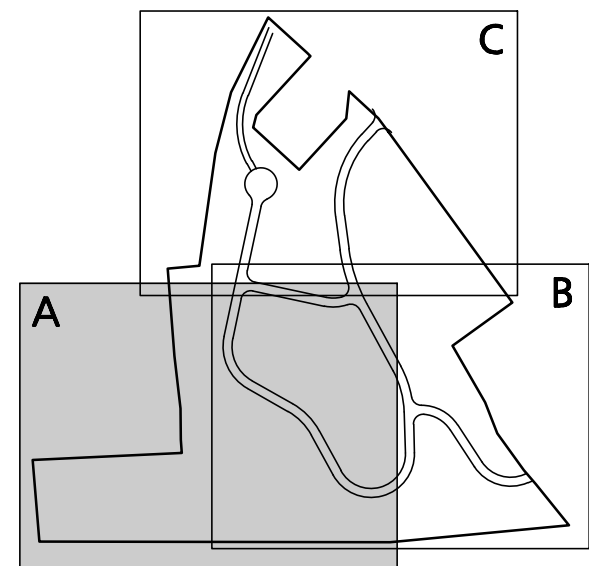
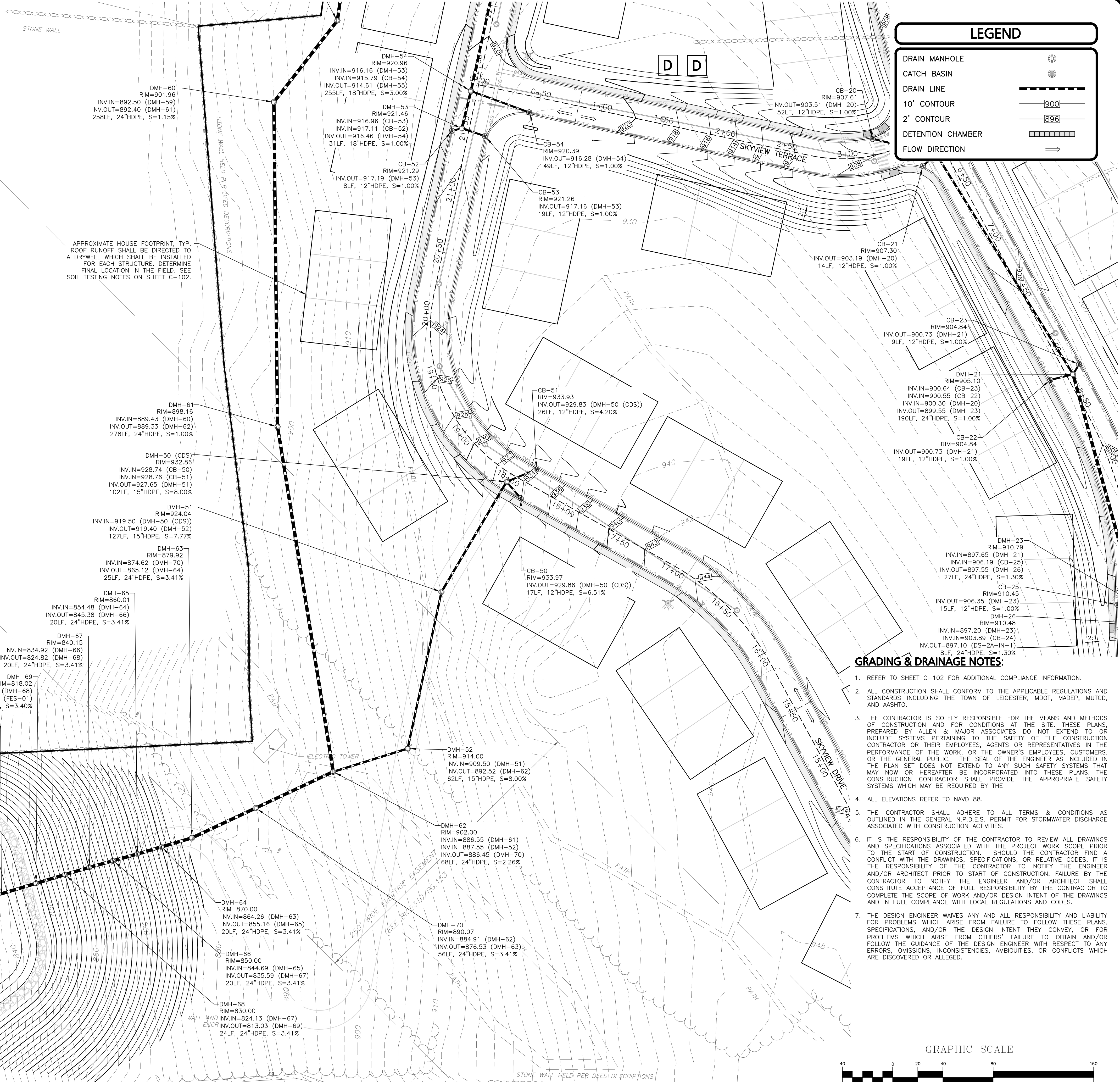
Copyright ©2021 Allen & Major Associates, Inc.
All Rights Reserved

SHEET No.

C-102

7 OF 22

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\C-2889-01-GRADING & DRAINAGE.DWG



KEY MAP
NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HERewith.

DATE: _____

LEICESTER PLANNING BOARD
I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

10-05-21	MISC. REVISIONS PER TOWN COMMENTS
REV	DATE DESCRIPTION

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG. : C2889-01, Grading & Drainage

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:



ALLEN & MAJOR
ASSOCIATES, INC.

civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

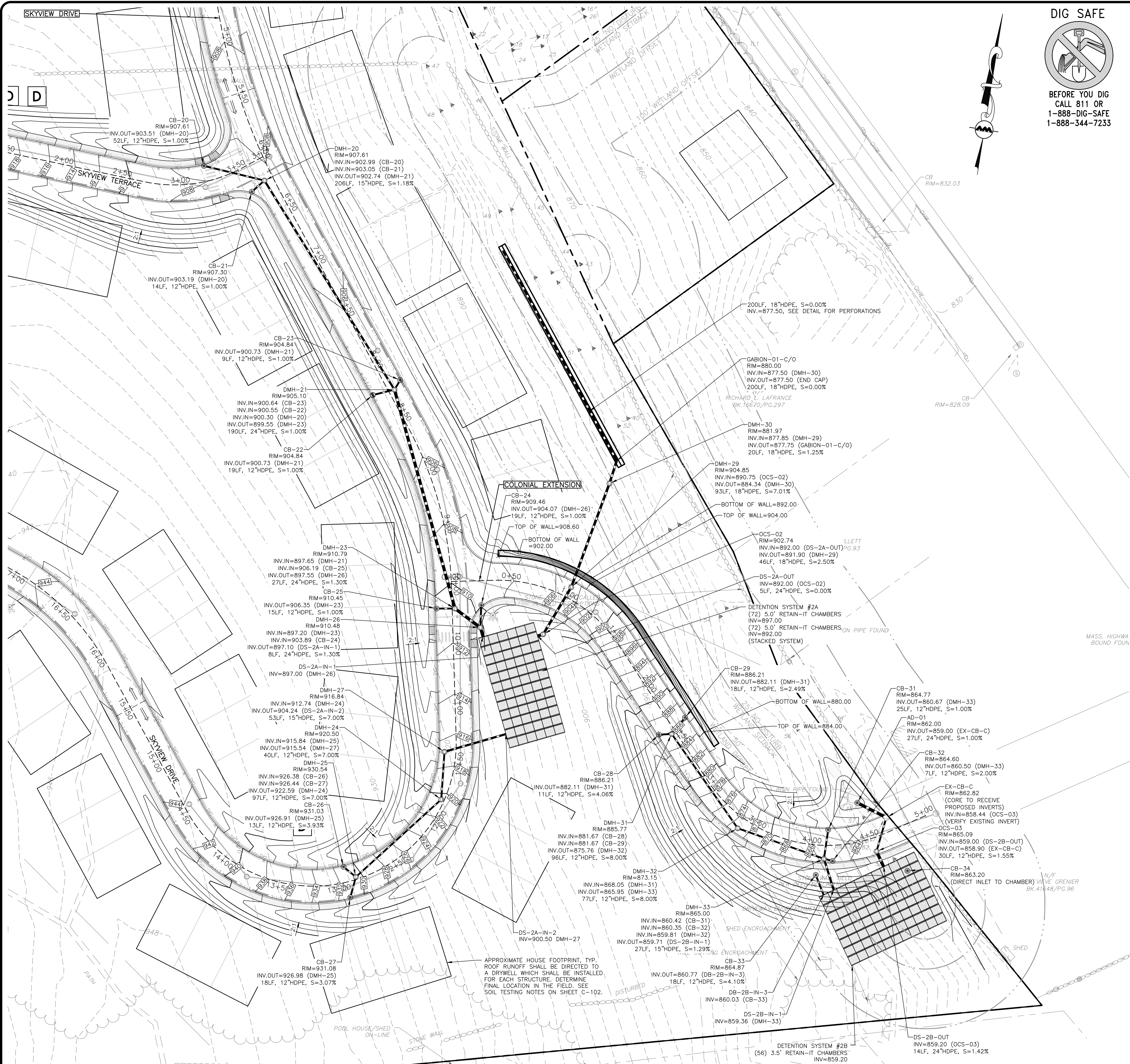
THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT.
CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE
PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER
INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE
POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED
UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES,
INC. MAY REMOVE ALL INDICATION OF THE DOCUMENTS
AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR
PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND
SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF
ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: SHEET No.

GRADING & DRAINAGE
PLAN
C-102A

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved
8 OF 22

R:\PROJECTS\2889-01 CIVIL DRAWINGS\CURRENT\C-2889-01-GRADING & DRAINAGE.DWG



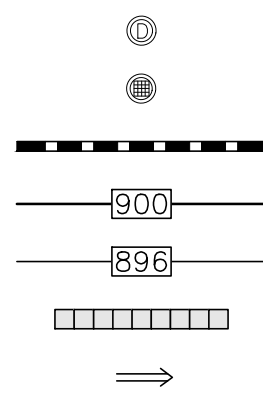
DIG SAFE



BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

LEGEND

DRAIN MANHOLE
CATCH BASIN
DRAIN LINE
10' CONTOUR
2' CONTOUR
DETENTION CHAMBER
FLOW DIRECTION



KEY MAP

NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HERewith.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

	10-05-21	MISC. REVISIONS PER TOWN COM
V	DATE	DESCRIPTION

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT: **SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA**

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG. : C2889-01 Grading & Drainage

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:



**ALLEN & MAJOR
ASSOCIATES, INC.**

civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com

100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2886

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT.
CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY
PROVIDE COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER
INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE
POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED
UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES,
INC. MAY REMOVE ALL INDICATION OF THE DOCUMENTS
AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR
PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND
SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF
ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: SHEET No.

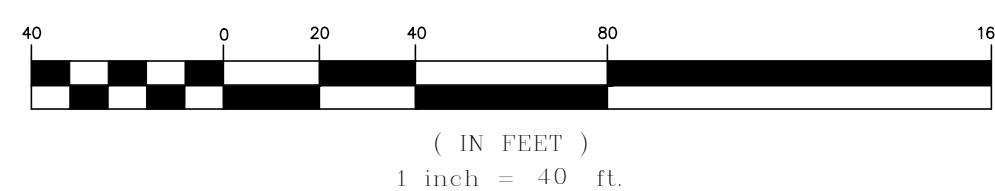
**GRADING & DRAINAGE
PLAN**
C-102B

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved 9 OF 22

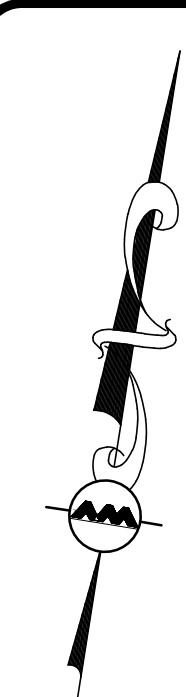
GRADING & DRAINAGE NOTES:

- REFER TO SHEET C-102 FOR ADDITIONAL COMPLIANCE INFORMATION.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
- ALL ELEVATIONS REFER TO NAVD 88.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
- AREA DRAINS SHALL BE MINIMUM 24" NYLOPLAST STRUCTURES WITH BEEHIVE GRATES AND 4" SUMPS.

GRAPHIC SCALE



R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\G-2889-01-GRADING & DRAINAGE.DWG



DIG SAFE

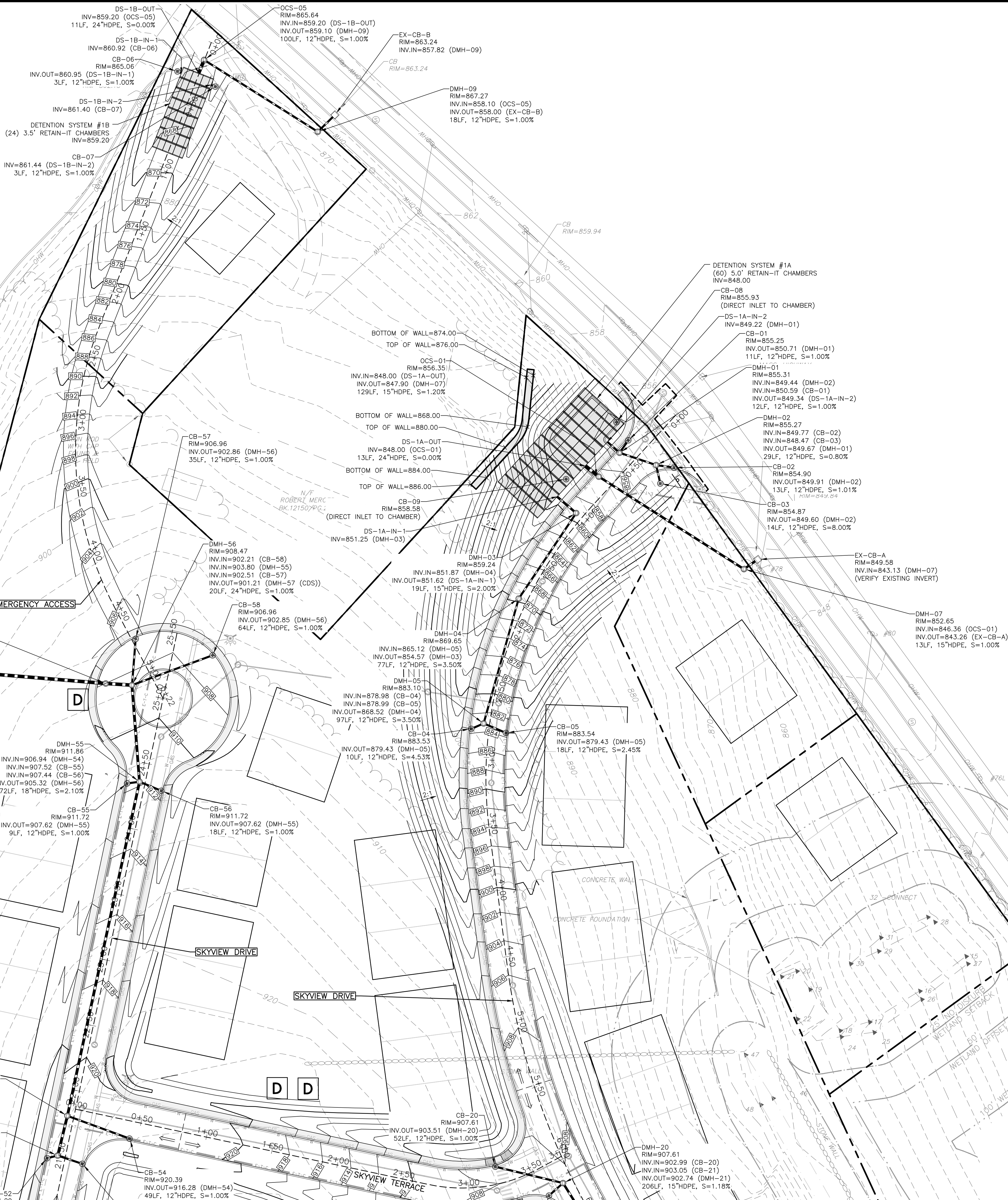


BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

N/F
ROMAN CATHOLIC
BISHOP OF WORCESTER
PL. BK. 25/PL. 4

N/F
ROBERT MERC
BK.121507PG.1

APPROXIMATE HOUSE FOOTPRINT, TYP.
ROOF RUNOFF SHALL BE DIRECTED TO
A DRYWELL WHICH SHALL BE INSTALLED
FOR EACH STRUCTURE. DETERMINE
FINAL LOCATION IN THE FIELD. SEE
SOIL TESTING NOTES ON SHEET C-102.



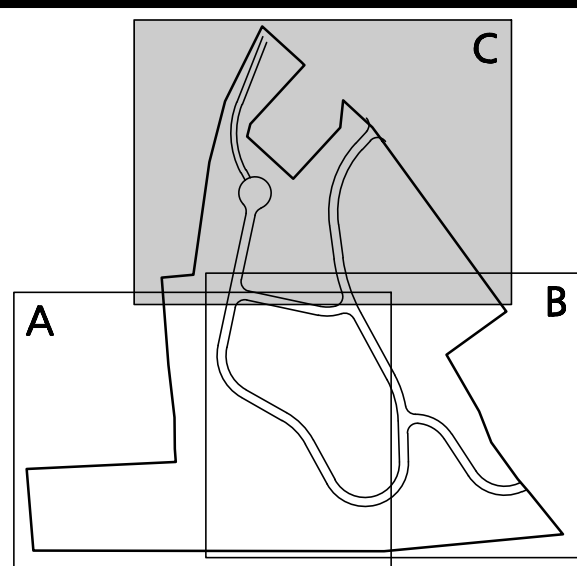
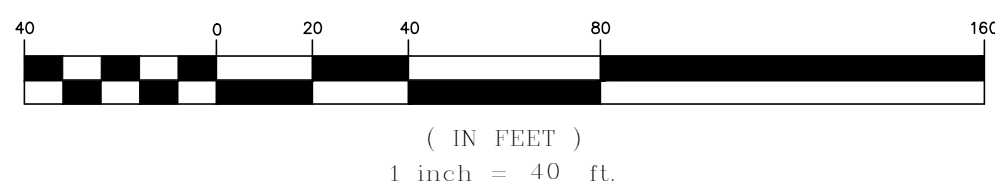
LEGEND

- DRAIN MANHOLE
- CATCH BASIN
- DRAIN LINE
- 10' CONTOUR
- 2' CONTOUR
- DETENTION CHAMBER
- FLOW DIRECTION

GRADING & DRAINAGE NOTES:

- REFER TO SHEET C-102 FOR ADDITIONAL COMPLIANCE INFORMATION.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
- ALL ELEVATIONS REFER TO NAVD 88.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

GRAPHIC SCALE



KEY MAP

NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG.: C2889-01-Grading & Drainage

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER'S REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:

GRADING & DRAINAGE
PLAN

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

SHEET No.

C-102C

10 OF 22

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\C-2889-01_UTILITIES.DWG

LEGEND

SEWER MANHOLE

SEWER LINE

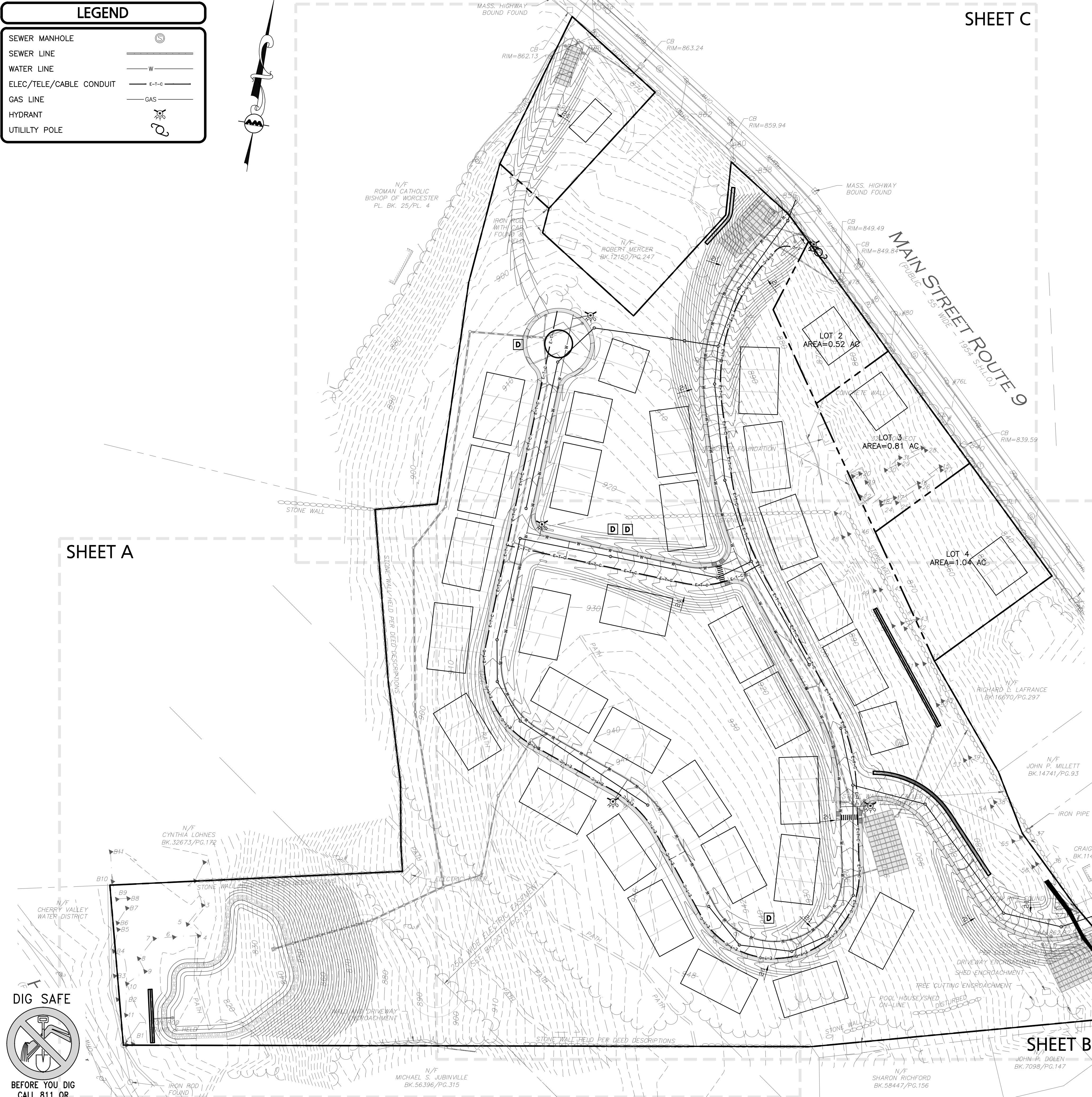
WATER LINE

ELEC/TELE/CABLE CONDUIT

GAS LINE

HYDRANT

UTILITY POLE



DIG SAFE

BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

UTILITY NOTES:

- A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER MAINS AND/OR STORM DRAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE DIFFERENCE IN ELEVATION BETWEEN THE WATER MAIN AND THE SEWER MAIN SHALL BE AT LEAST 18 INCHES.
- IN THE CASE THAT WATER MAINS CROSS SANITARY SEWER MAINS AND ARE SEPARATED BY LESS THAN 18" OF VERTICAL CLEARANCE, THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR A DISTANCE OF 8 LINEAR FEET CENTERED ON THE CROSSING.
- THE CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL ROOF DRAIN LATERALS AND UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRIC, TELEPHONE, AND GAS SERVICE. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND COORDINATE WITH THE PROPER AGENCY THE LOCATION AND SCHEDULING OF CONNECTIONS WITH THEIR FACILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION. THE ENGINEER WILL THEN PROVIDE RESOLUTION TO UTILITY CONFLICTS WITHOUT DELAY.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MADOT, MADER, MUTCD, AND AASHTO.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE. THESE PLANS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., DO NOT EXTEND TO, NOR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THE EMPLOYEES, AGENTS OF REPRESENTATIVES IN PERFORMANCE OF THE WORK. THE SEAL OF THE ARCHITECT OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OF OBTAIN THE APPROPRIATE SAFETY SYSTEMS THAT MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- ALL ELEVATIONS REFER TO NAVD 88.
- PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE FACE OF THE STRUCTURE.
- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
- LOCATION OF PROPOSED ELECTRICAL/COMMUNICATION SERVICE IS SCHEMATIC IN NATURE AND FOR COORDINATION PURPOSES ONLY. SPECIFIC ALIGNMENTS ARE TO BE DESIGNED BY OTHERS AND REVIEWED BY THE UTILITY PROVIDING SERVICE. PROPOSED ELECTRICAL SERVICE TO BE BURIED IN ACCORDANCE WITH THE CITY OF DOVER REGULATIONS AND ELECTRIC COMPANY.
- LOCATION OF PROPOSED GAS MAIN IS SCHEMATIC IN NATURE AND FOR COORDINATION PURPOSES ONLY. SPECIFIC ALIGNMENTS ARE TO BE DESIGNED BY OTHERS AND REVIEWED BY THE UTILITY PROVIDING SERVICE. THIS WORK TO BE INCLUDED AS PART OF BASE BID FOR SITE WORK.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

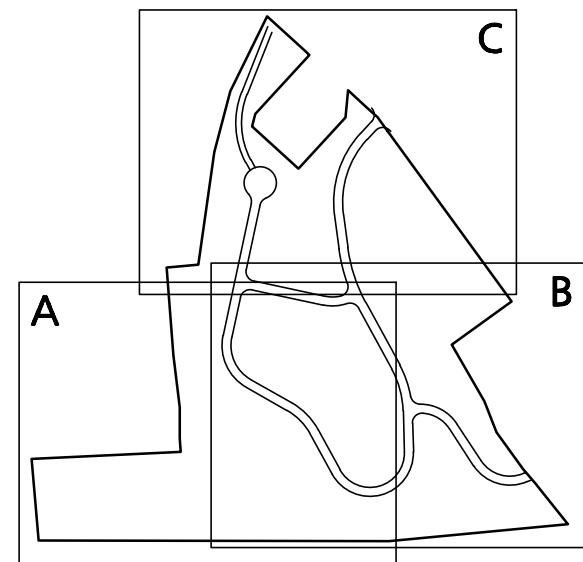
STREET/LOT LIGHTING NOTES:

- EACH GROUPING OF HOMES SHALL BE PROVIDED WITH A STANDARD LAMP POST LIGHT ON THE LOT NEAR THE INTERSECTION OF THE DRIVEWAY WITH THE STREET RIGHT-OF-WAY LINE. THE TYPE AND INSTALLATION SHALL BE AS DIRECTED BY THE TOWN OF LEICESTER PLANNING BOARD AND IN ACCORDANCE WITH THE STATE ELECTRICAL CODES.
- EACH HOUSE LIGHT SHALL BE PLACED ON A DUSK TO DAWN TIMER AND SHALL BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNER AND MAINTAINED IN PERPETUITY AS STATED IN THE RECORDED COVENANTS.

SHEET C

SHEET A

SHEET B



APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK – TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 80' DWG.: C-2889-01_Utilities

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.

civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER'S REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:	SHEET NO.
OVERALL UTILITIES PLAN	C-103
Copyright © 2021 Allen & Major Associates, Inc. All Rights Reserved	11 OF 22

R:\PROJECTS\2889-01 CIVIL DRAWINGS\CURRENT\C-2889-01 UTILITIES.DWG



LEGEND

SEWER MANHOLE

SEWER LINE

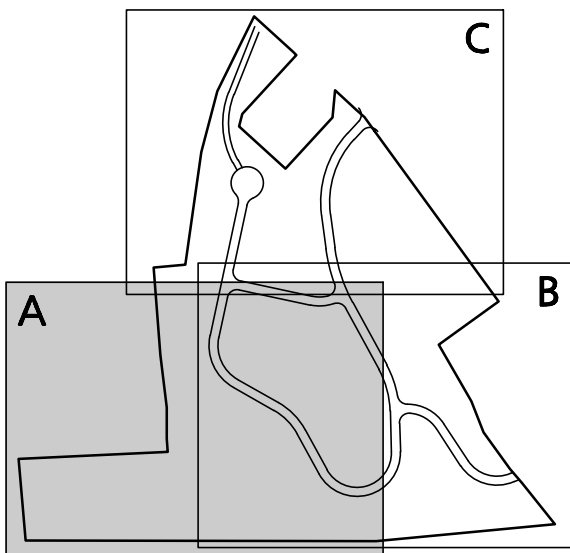
WATER LINE

ELEC/TELE/CABLE CONDUIT

GAS LINE

HYDRANT

UTILITY POLE



KEY MAP
NOT TO SCALE

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

10-05-21	MISC. REVISIONS PER TOWN COMMENTS
REV	DATE DESCRIPTION

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. **2889-01** DATE: **09-17-21**

SCALE: **1" = 40'** DWG. : **C-2889-01_Utillities**

DESIGNED BY: **SM** CHECKED BY: **MAM**

PREPARED BY:



ALLEN & MAJOR ASSOCIATES, INC.

civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com

100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENTS AUTHORITY ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:

GRADING & DRAINAGE PLAN

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

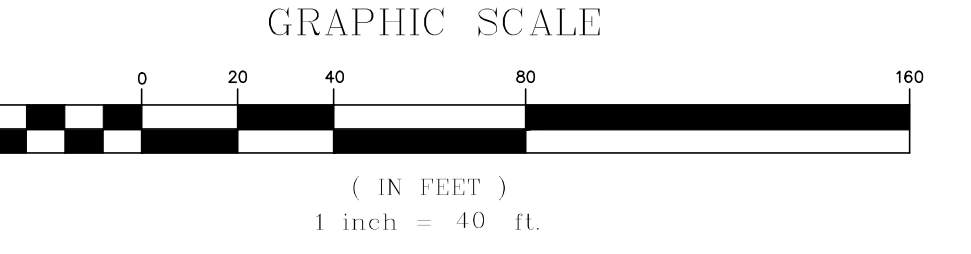
SHEET NO.

C-103A

12 OF 22

GENERAL PLAN NOTES:

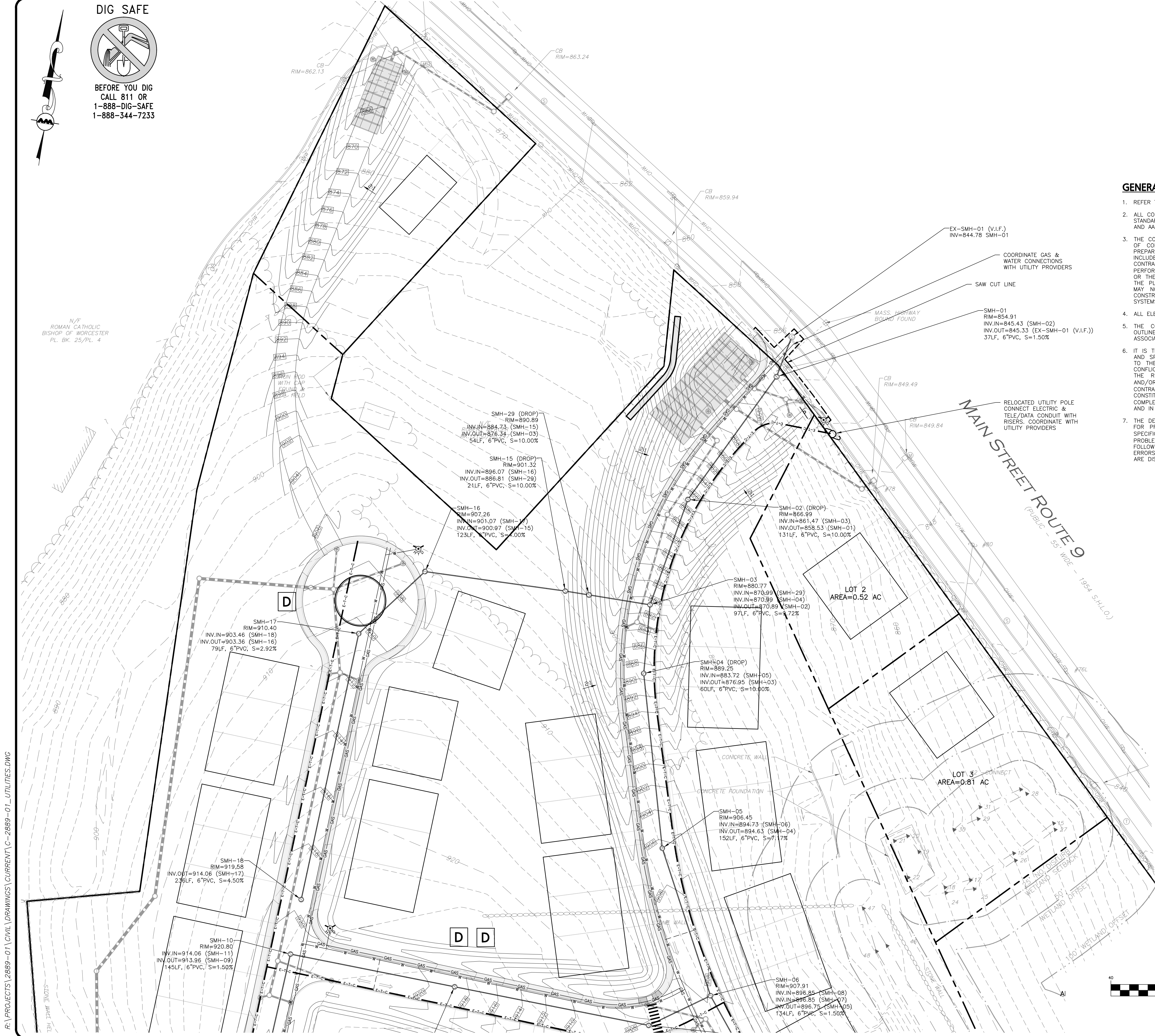
1. REFER TO SHEET C-103 FOR ADDITIONAL COMPLIANCE INFORMATION.
2. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
4. ALL ELEVATIONS REFER TO NAVD 88.
5. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.F.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
7. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.



DIG SAFE

BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

N/T
ROMAN CATHOLIC
BISHOP OF WORCESTER
PL. BK. 25/PL. 4



LEGEND

SEWER MANHOLE

SEWER LINE

WATER LINE

ELEC/TELE/CABLE CONDUIT

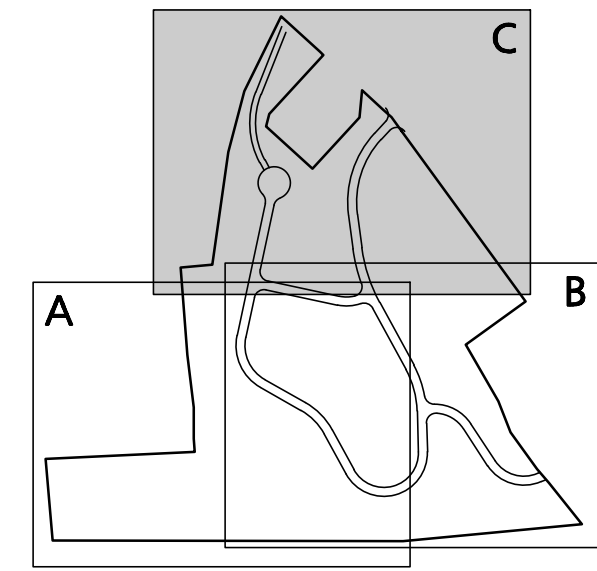
GAS LINE

HYDRANT

UTILITY POLE

GENERAL PLAN NOTES:

- REFER TO SHEET C-103 FOR ADDITIONAL COMPLIANCE INFORMATION.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
- ALL ELEVATIONS REFER TO NAVD 88.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.



APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HEREWITH.

DATE:

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 40' DWG.: C-2889-01_Utillities

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.

civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com

100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENTS' REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: UTILITY PLAN

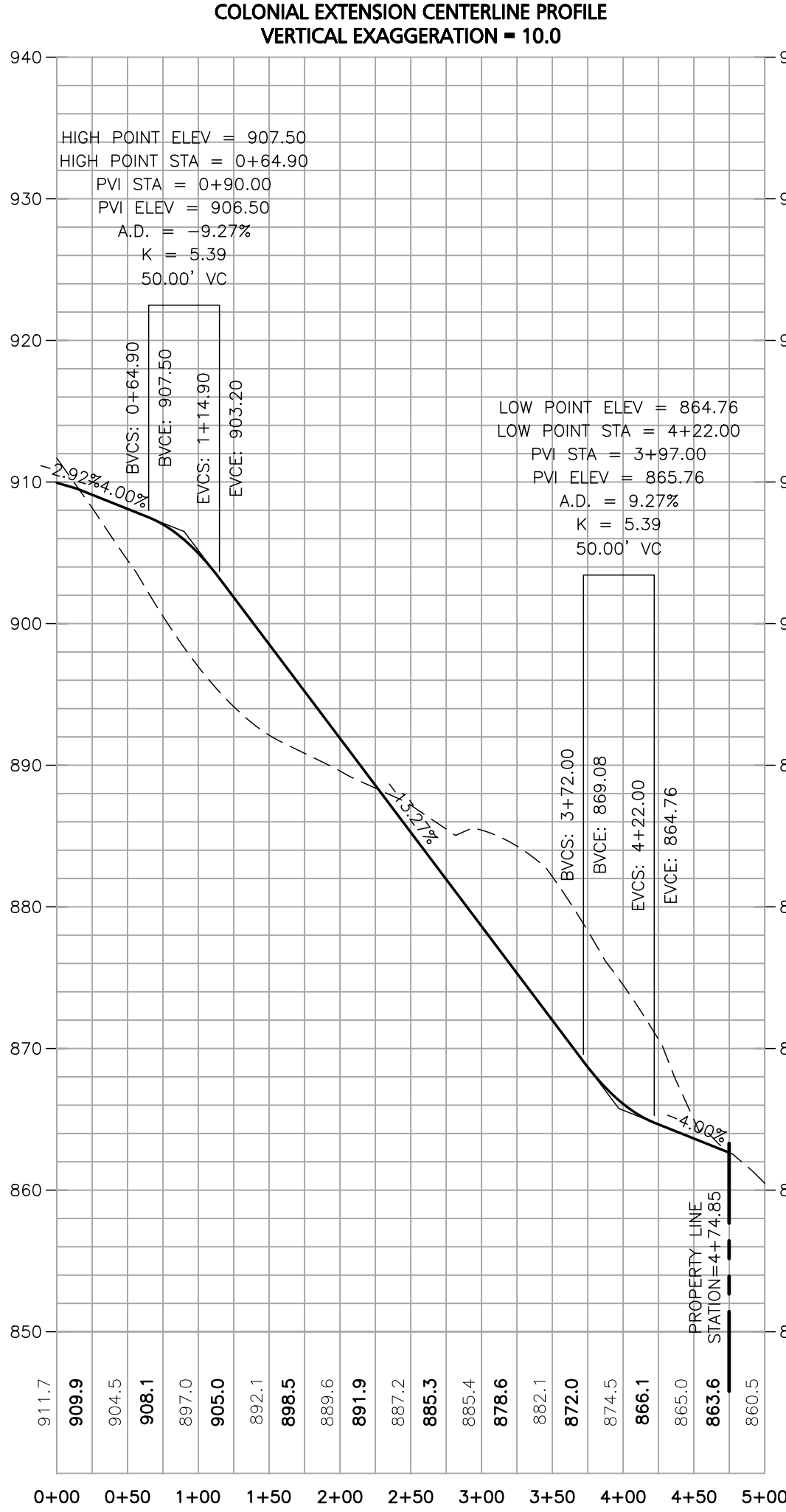
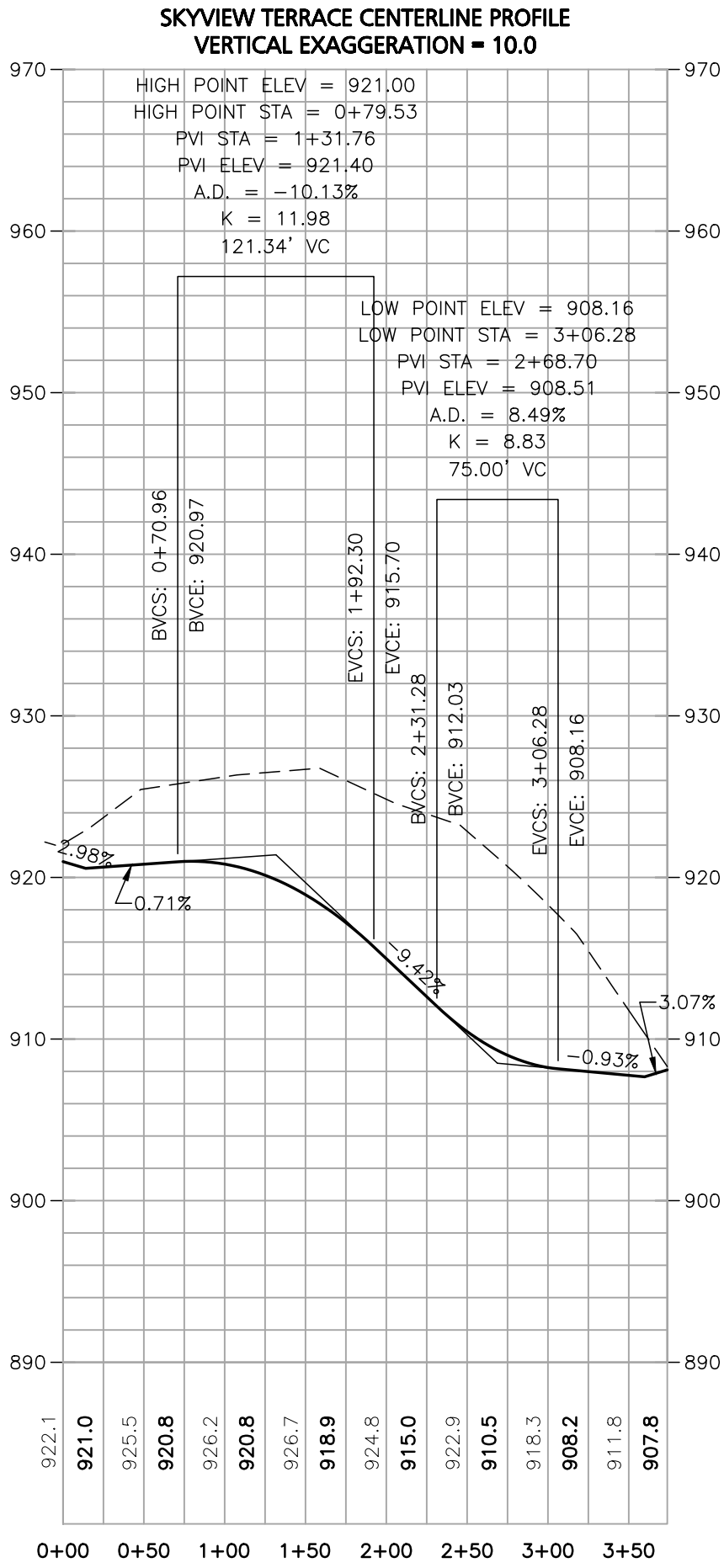
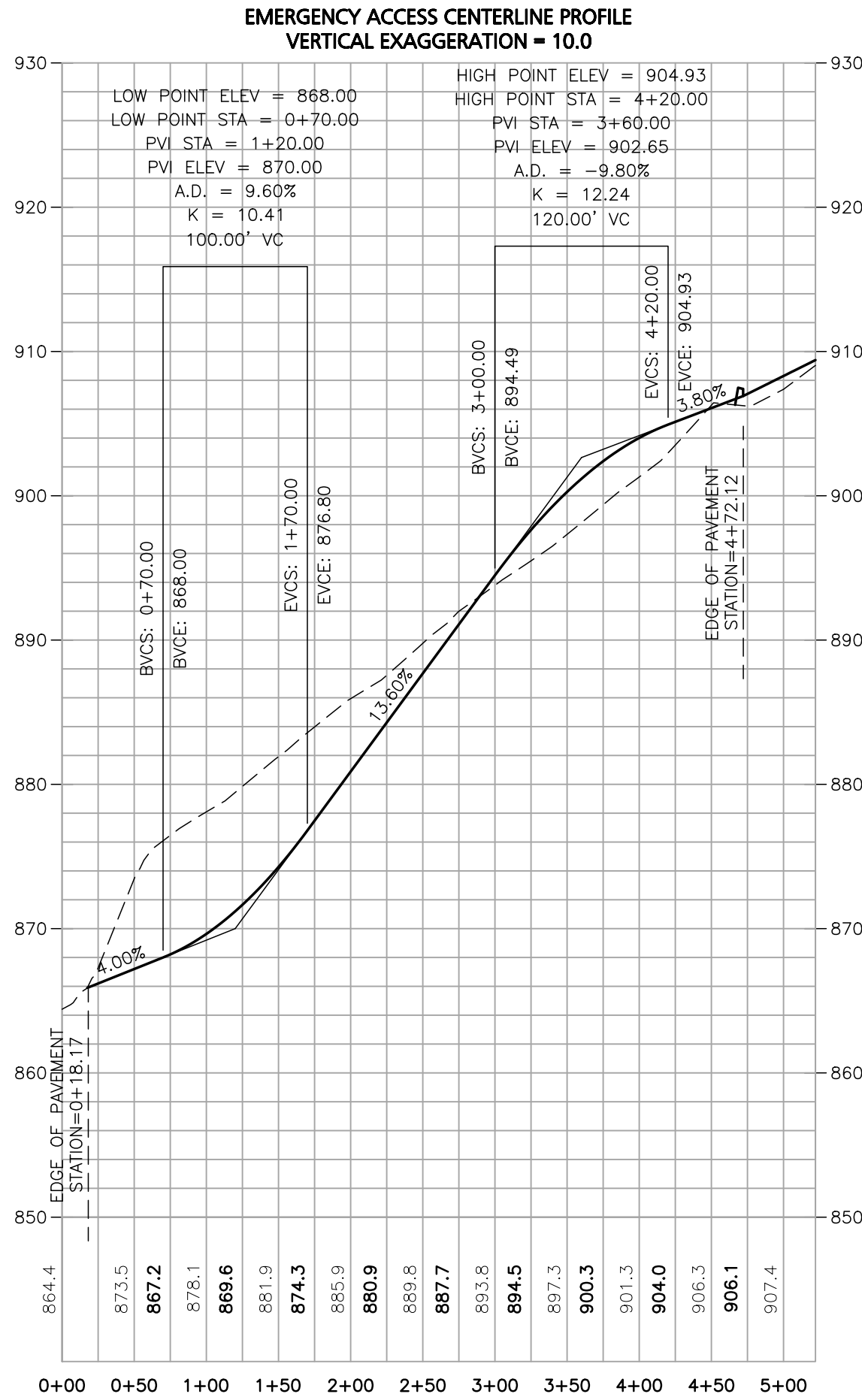
SHEET No. C-103C

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

14 OF 22

GENERAL NOTES

1. REFER TO SHEET C-102 FOR ADDITIONAL INFORMATION
2. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN OF LEICESTER, MDOT, MADEP, MUTCD, AND AASHTO.
3. ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
4. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS
5. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE. THESE PLANS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., DO NOT EXTEND TO, NOR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THE EMPLOYEES, AGENTS OF REPRESENTATIVES IN PERFORMANCE OF THE WORK. THE SEAL OF THE ARCHITECT OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OF OBTAIN THE APPROPRIATE SAFETY SYSTEMS THAT MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
8. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

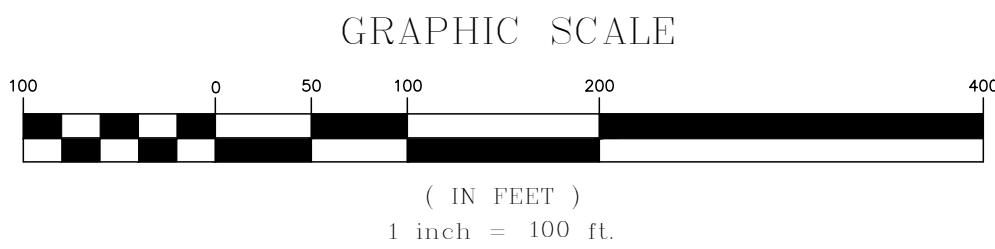


DIG SAFE



BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\C-2889-01_GRADING & DRAINAGE.DWG



APPROVAL UNDER SUBDIVISION CONTROL
REQUIRED. SUBJECT TO A COVENANT TO
BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

**DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021**

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
**SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA**

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: 1" = 100' DWG. : C2889-01_Grading & Drainage

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

**ALLEN & MAJOR
ASSOCIATES, INC.**
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

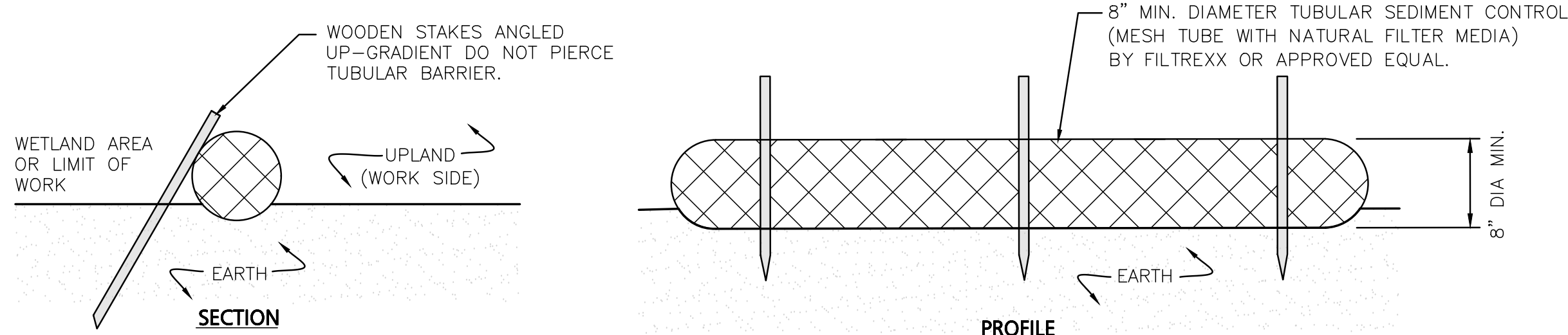
WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:
**ROADWAY PROFILES
SKYVIEW TERRACE, EMERGENCY
ACCESS, & COLONIAL EXTENSION**

SHEET No.
C-202
16 OF 22

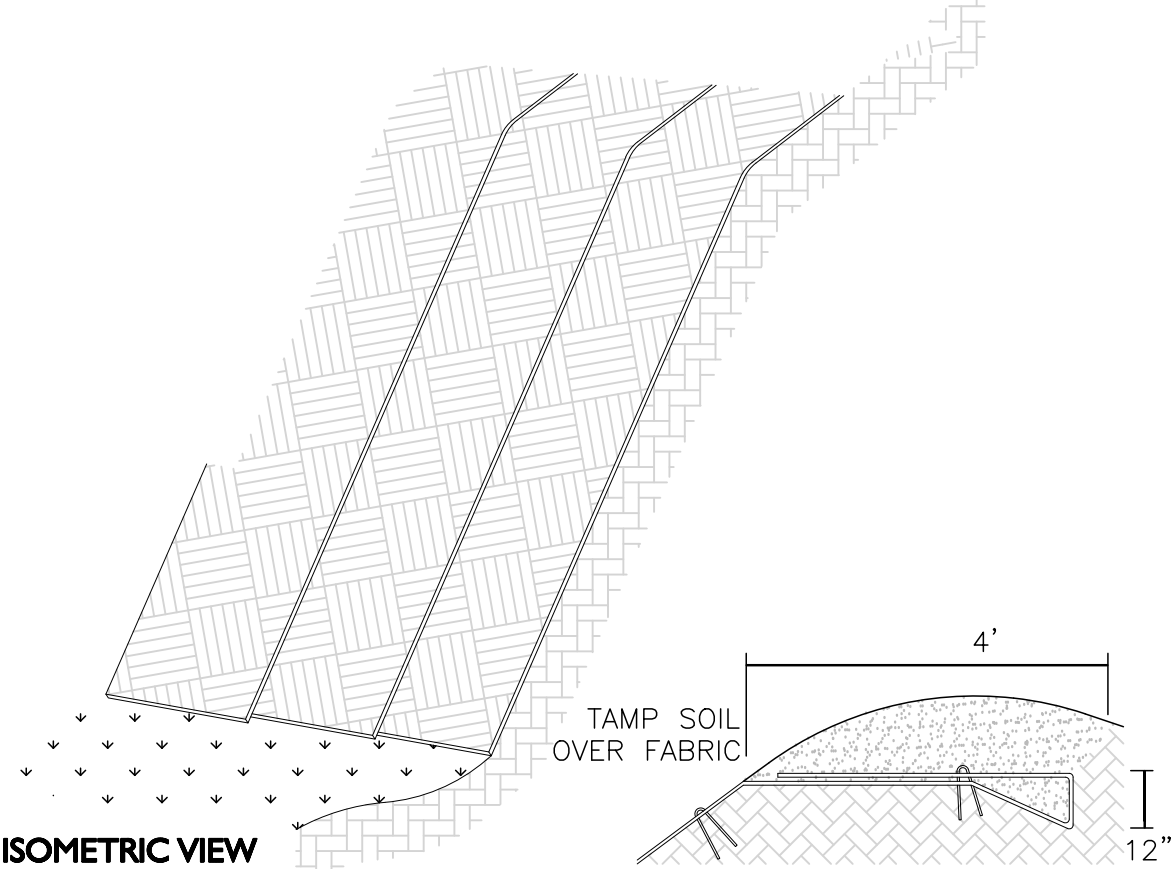
R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\C-2889-01_DETAILS.DWG



- NOTES:
1. TUBULAR SEDIMENT CONTROL SHALL BE 8" MIN. DIAMETER MESH TUBE WITH NATURAL FILTER MEDIA BY FILTREXX OR APPROVED EQUAL.
 2. ALL MATERIALS TO MEET MANUFACTURERS SPECIFICATIONS.
 3. INSTALL WOODEN STAKES ANGLED UP-GRADE EVERY 8' ON CENTER
 4. OVERLAP TUBULAR BARRIER SEGMENTS A MINIMUM OF 12".
 5. THE CONTRACTOR SHALL MAINTAIN THE TUBULAR BARRIERS IN A FUNCTIONAL CONDITION AT ALL TIMES. THE CONTROLS SHALL BE ROUTINELY INSPECTED BY THE CONTRACTOR.
 6. WHERE THE TUBULAR BARRIERS REQUIRE REPAIR OR SEDIMENT REMOVAL, IT WILL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST.
 7. AT A MINIMUM, THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE WHEN THEY REACH 1/3 THE EXPOSED HEIGHT OF THE BARRIER.

TUBULAR SEDIMENT BARRIER
NOT TO SCALE

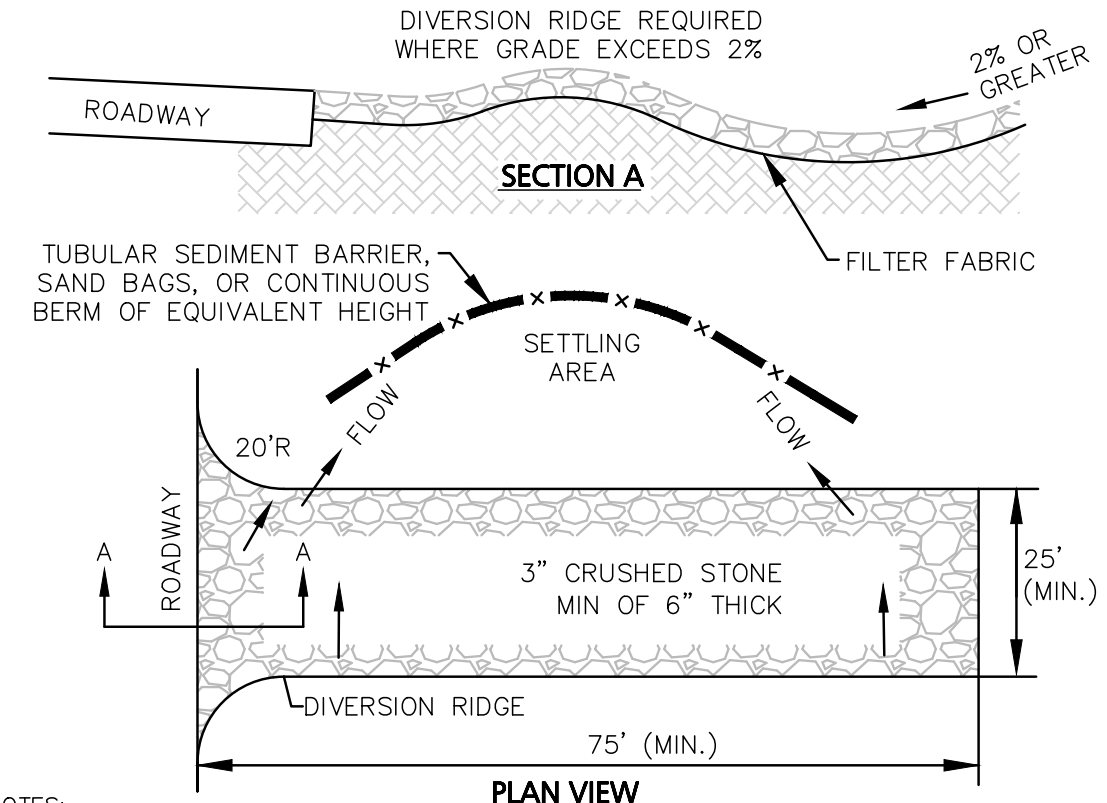
1



- NOTE:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
 2. APPLY PERMANENT SEEDING BEFORE PLACING FABRIC.
 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

EROSION CONTROL FABRIC
NOT TO SCALE

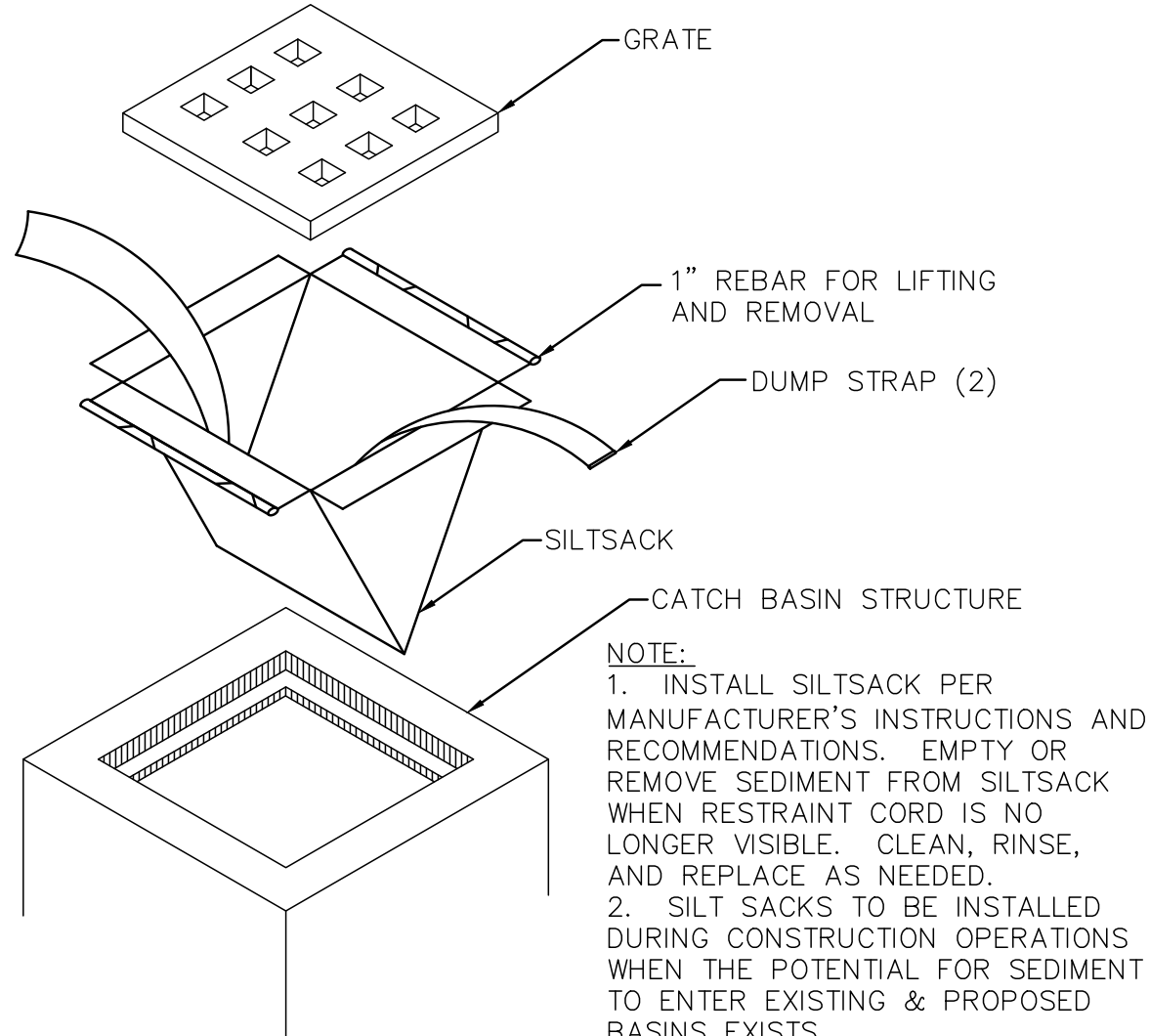
2



- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

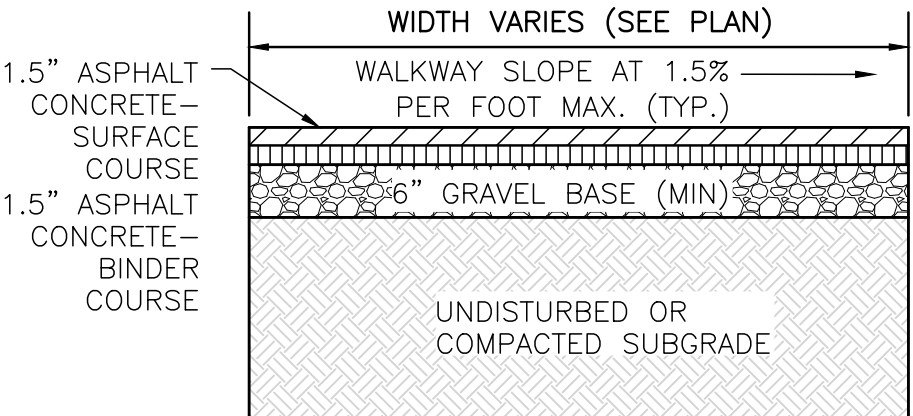
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

3



CATCH BASIN INLET PROTECTION
NOT TO SCALE

4

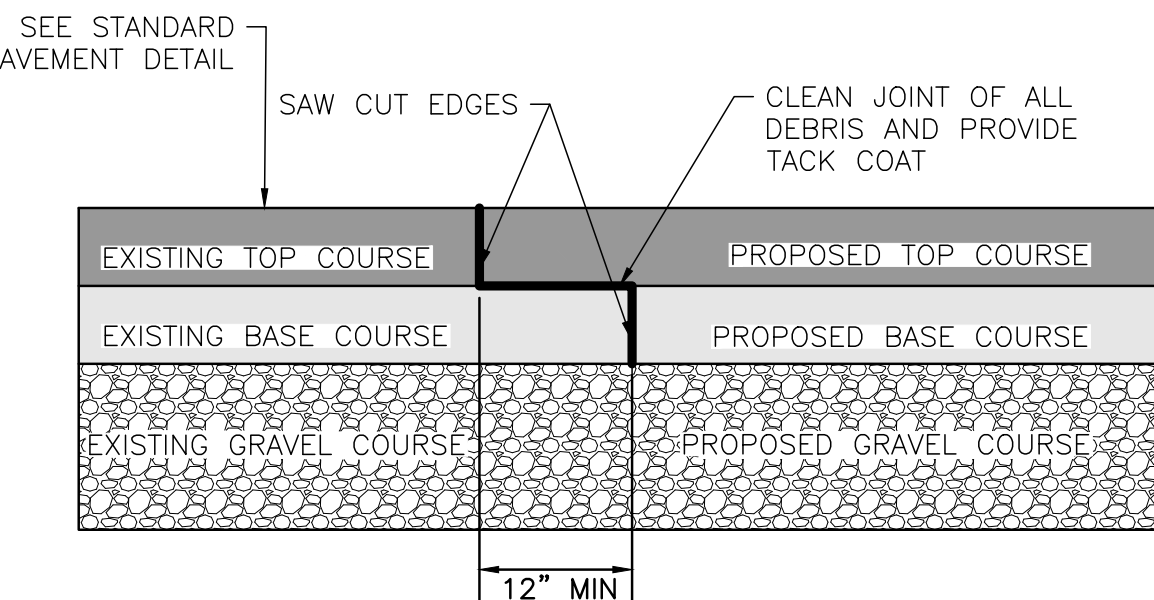


- NOTES:
1. REFERENCE PLANS FOR ELEVATIONS.
 2. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95% OF ASTM D 1557 LABORATORY DENSITY.
 3. PROOF-ROLL PREPARED SUBGRADE TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY GEOTECHNICAL ENGINEER AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.
 4. CONTRACTOR SHALL COORDINATE SURFACE, BINDER, AND BASE COURSES WITH GEOTECHNICAL OR SOILS REPORT. REFER TO REPORT FOR RECOMMENDATIONS FOR LOCAL SOILS OR DRAINAGE CONDITIONS AND/OR METHODS.
 5. BASE COURSE SHALL EXTEND 6 INCHES BEYOND WALKWAY EDGE WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.
 6. WALKWAY EDGES SHALL BE TAMPED WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.

BITUMINOUS WALKWAY
NOT TO SCALE

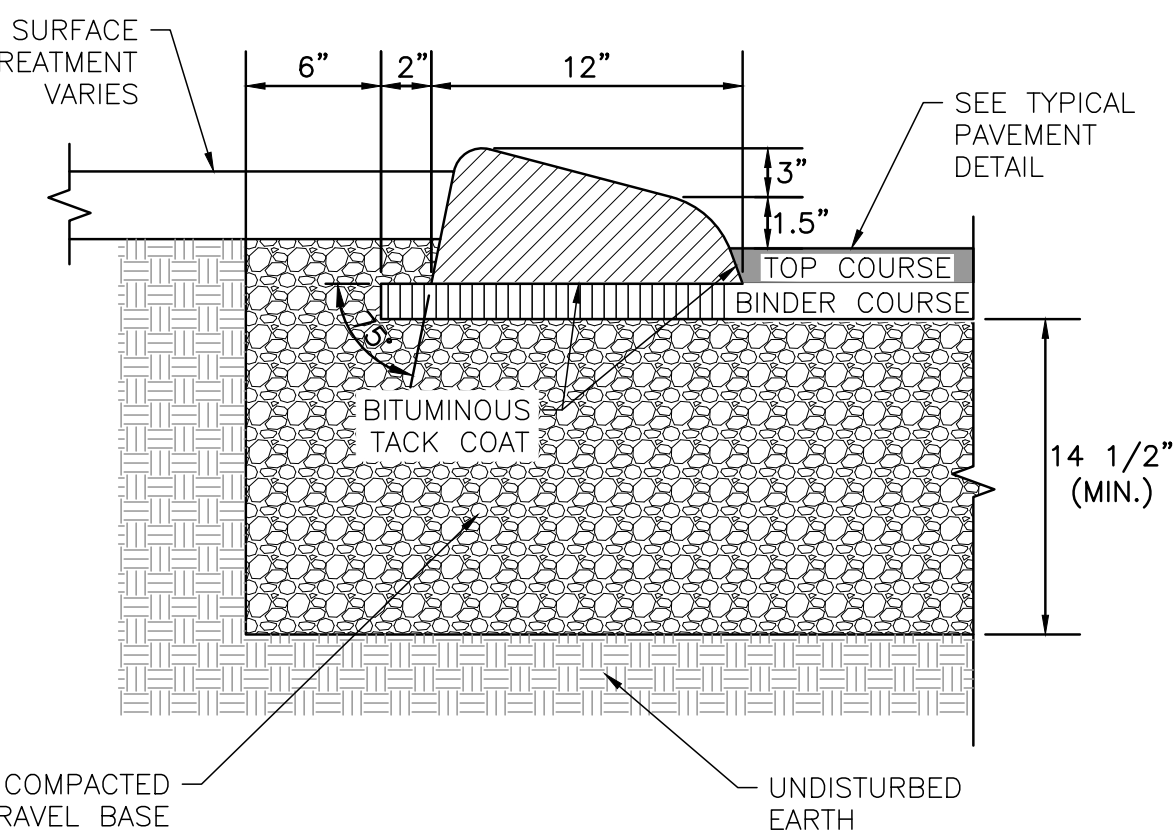
5

- NOTE:
- TACK COAT — PROVIDE EMULSIFIED ASPHALT WHICH CONFORMS TO THE REQUIREMENTS OF THE STATE SPECIFICATIONS, DILUTED WITH ONE PART WATER TO ONE ONE PART ASPHALT FOLLOWING AASHTO M140/ASTM D997, OR AASHTO M208/ASTM D2397, SS-1H, CSS-1, OR CSS-1H.



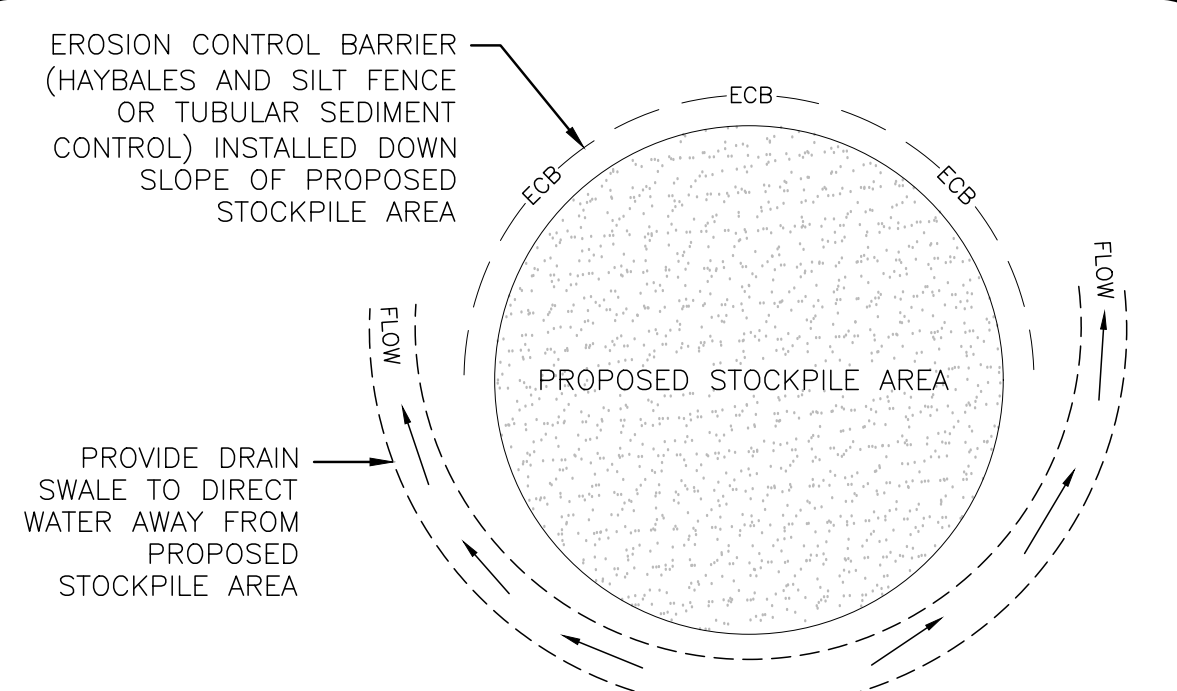
PAVEMENT KEY CUT
NOT TO SCALE

6



CAPE COD BERM
NOT TO SCALE

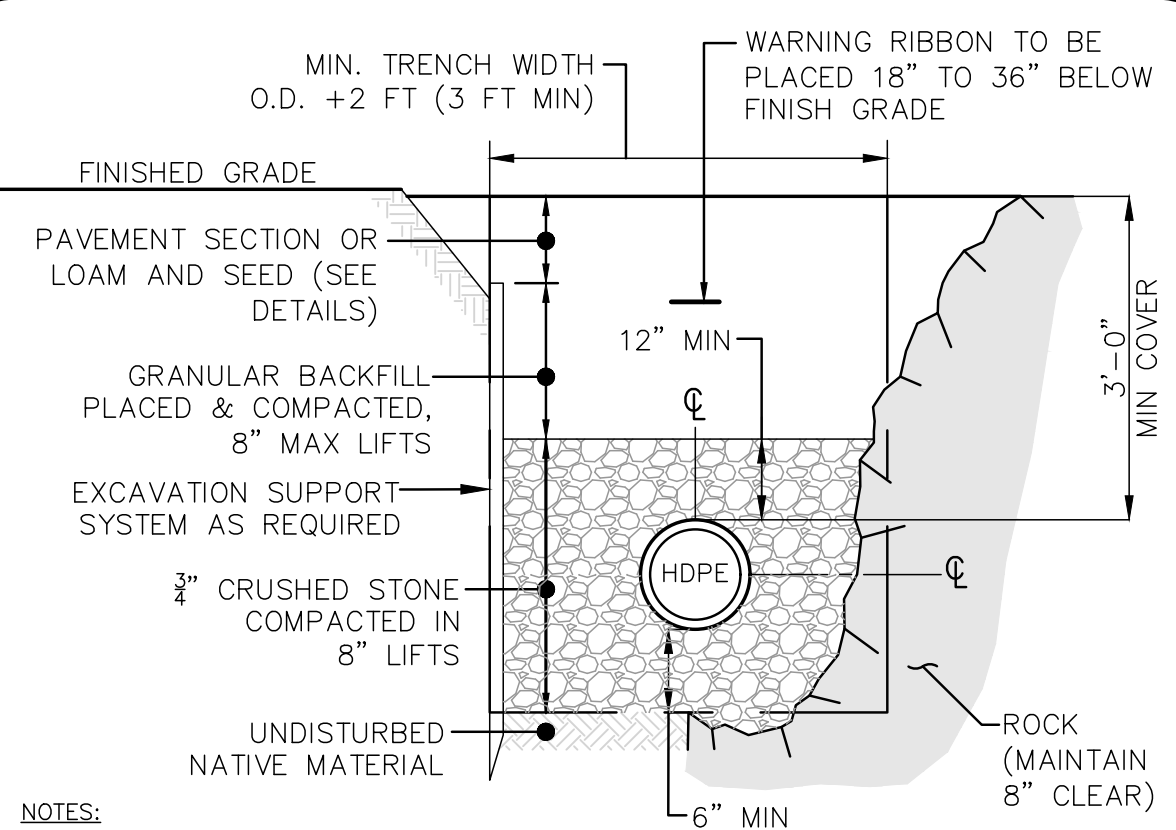
7



- NOTES:
1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 3LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

STOCKPILE PROTECTION
NOT TO SCALE

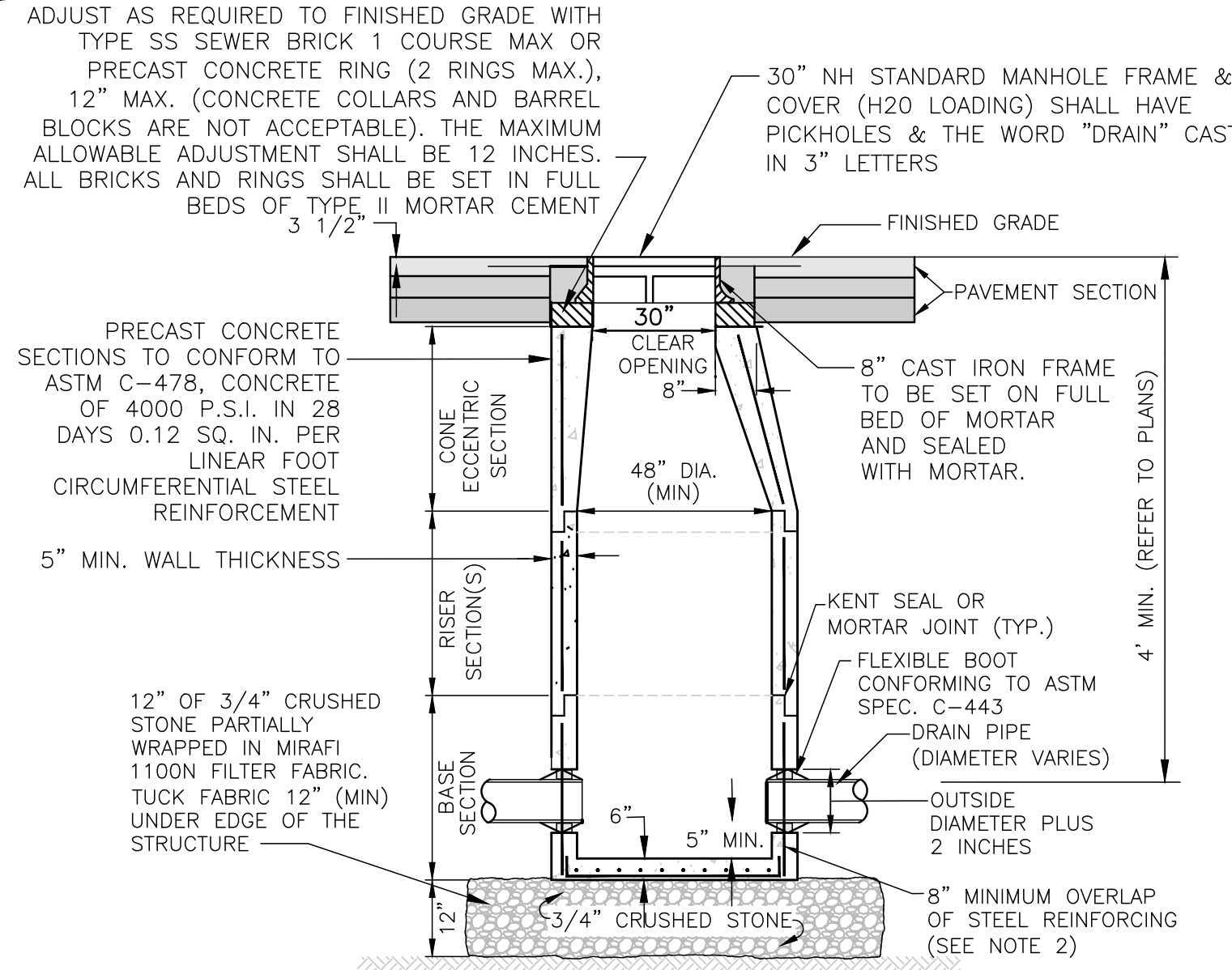
8



- NOTES:
1. WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
 2. FOR ALL TRENCHES WITH A GRADE GREATER THAN 4% AND/OR WHERE GROUNDWATER IS APPARENT, INSTALL CLAY DAMS AROUND THE PIPE AT 100' INTERVALS.
 3. CRUSHED STONE SHALL BE CLEAN, HARD, FREE FROM COATINGS AND THOROUGHLY WASHED WITH A GRADATION BY WEIGHT OF 100% PASSING A 1" SQUARE OPENING, AND 0 TO 5% PASSING A 1/4" SQUARE OPENING.

DRAIN TRENCH DETAIL
NOT TO SCALE

9



- NOTES:
1. MANHOLE TO BE CAPABLE OF AASHTO H-20 LOADING WITHOUT FAILURE.
 2. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 3. BASE SECTION SHALL BE MONOLITHIC
 4. ANY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW CUTTING AND/OR CORING. THE USE OF JACKHAMMERS, HAMMERS, AND CHISELS WILL NOT BE ALLOWED.

DRAIN MANHOLE
NOT TO SCALE

10

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK — TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: AS SHOWN DWG.: C-2889-01_Details

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896
WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: DETAILS SHEET No. C-501
Copyright ©2021 Allen & Major Associates, Inc. All Rights Reserved 17 OF 22

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' ±, AND GROUNDWATER ELEVATION AT, OR BELOW, THE QUALITY PIPE INVERT. ELEVATIONS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

B.	CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE
C.	CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D.	CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E.	CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS2020-5-C RATED TREATMENT CAPACITY IS 2.2 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE
AVAILABLE AND LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE
REQUIREMENTS

REQUIREMENTS	CONFIGURATION DESCRIPTION
	GRATED INLET ONLY (NO INLET PIPE)
	GRATED INLET WITH INLET PIPE OR PIPES
	CURB INLET ONLY (NO INLET PIPE)
	CURB INLET WITH INLET PIPE OR PIPES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' 2", AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET. ALL INVERT LEVELS, SHEAR PILES SHALL MEET AASHTO M306 AND BE CAST WITH THE CONCRETE.
5. IF REQUIRED, PVC HYDRAULIC SLIP PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.

C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND PROVIDE SUFFICIENT GROUT FOR ALL JOINTS.

D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.

E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS EIGHT, 10' MINIMUM, HOLDING WATER. FLOWING INVERTS MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



I CERTIFY THAT NO NOTICE OF APPEAL
WAS RECEIVED DURING THE TWENTY (20)
RECORDING DAYS NEXT AFTER RECEIPT
AND OF NOTICE FROM THE PLANNING
BOARD OF THE APPROVAL OF THIS PLAN

**DEFINITIVE
SUED FOR REVIEW
OCTOBER 5, 2021**

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC

	10-05-21	MISC. REVISIONS PER TOWN COMMENTS
REV	DATE	DESCRIPTION

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT: SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO.	2889-01	DATE:	09-17-21
-------------	---------	-------	----------

SCALE: AS SHOWN DWG. : C-2889-01 Details

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY



THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CLIENT'S REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE:

DETAILS

SHEET No.

C-502

Copyright©2021 Allen & Major Associates, Inc.
All Rights Reserved

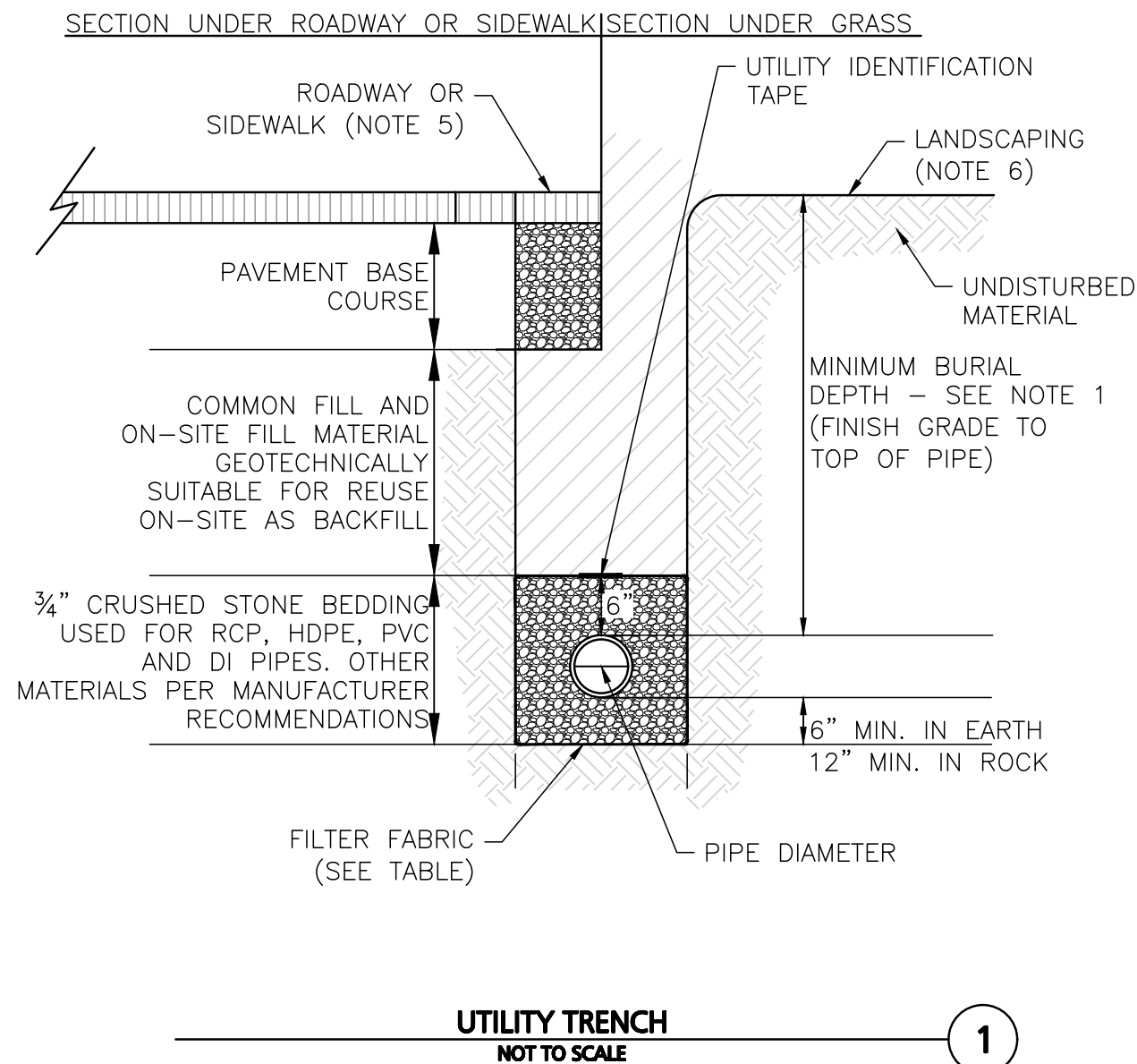
18 OF 22

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\C-2889-01_DETAILS.DWG

NOTES:

1. MINIMUM BURIAL DEPTH (FINISH GRADE TO TOP OF PIPE)
GRAVITY PIPE (SEWER & DRAIN) - SEE PLAN OR PROFILE
PRESSURE PIPE UNDER PAVING - 4'
PRESSURE PIPE BENEATH UNPAVED - 3'
WATER PIPE - 5'
2. WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
3. TRENCHES WITHIN PUBLIC RIGHT OF WAY MAY REQUIRE FLOWABLE FILL. VERIFY WITH MUNICIPAL ENGINEER.
4. WHERE WASTE FILLS ARE ENCOUNTERED AT SUBGRADE LEVEL FOR NEW UTILITIES, THE FILL SHOULD BE OVER-EXCAVATED, THE SUBGRADE SHOULD BE RE-COMPACTED, AND BACKFILL CONSISTING OF PIPE BEDDING MATERIAL, CRUSHED STONE OR OTHER SUITABLE GRANULAR FILL SHOULD BE PLACED TO A SUFFICIENT DEPTH TO CREATE A FIRM AND STABLE SUBGRADE (TYPICALLY 12 TO 18 INCHES OVER-EXCAVATION).
5. REFER TO PAVING, CURBS, WALKS AND DRIVEWAY DETAILS.
6. REFER TO LANDSCAPING DETAILS.

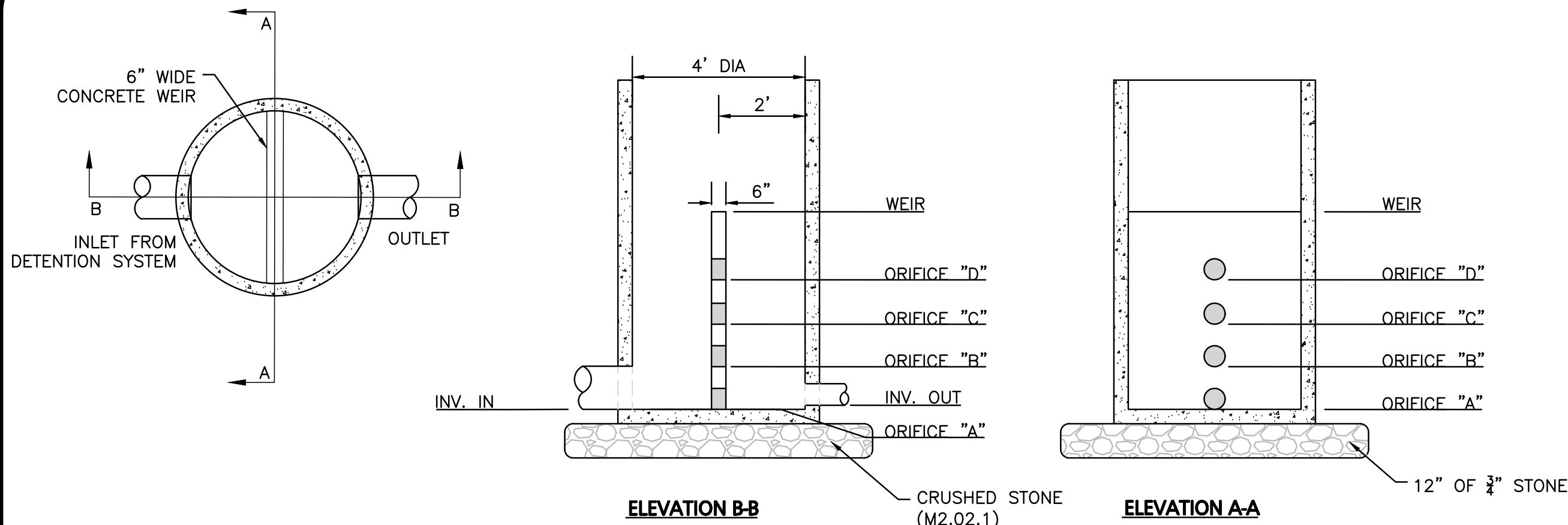
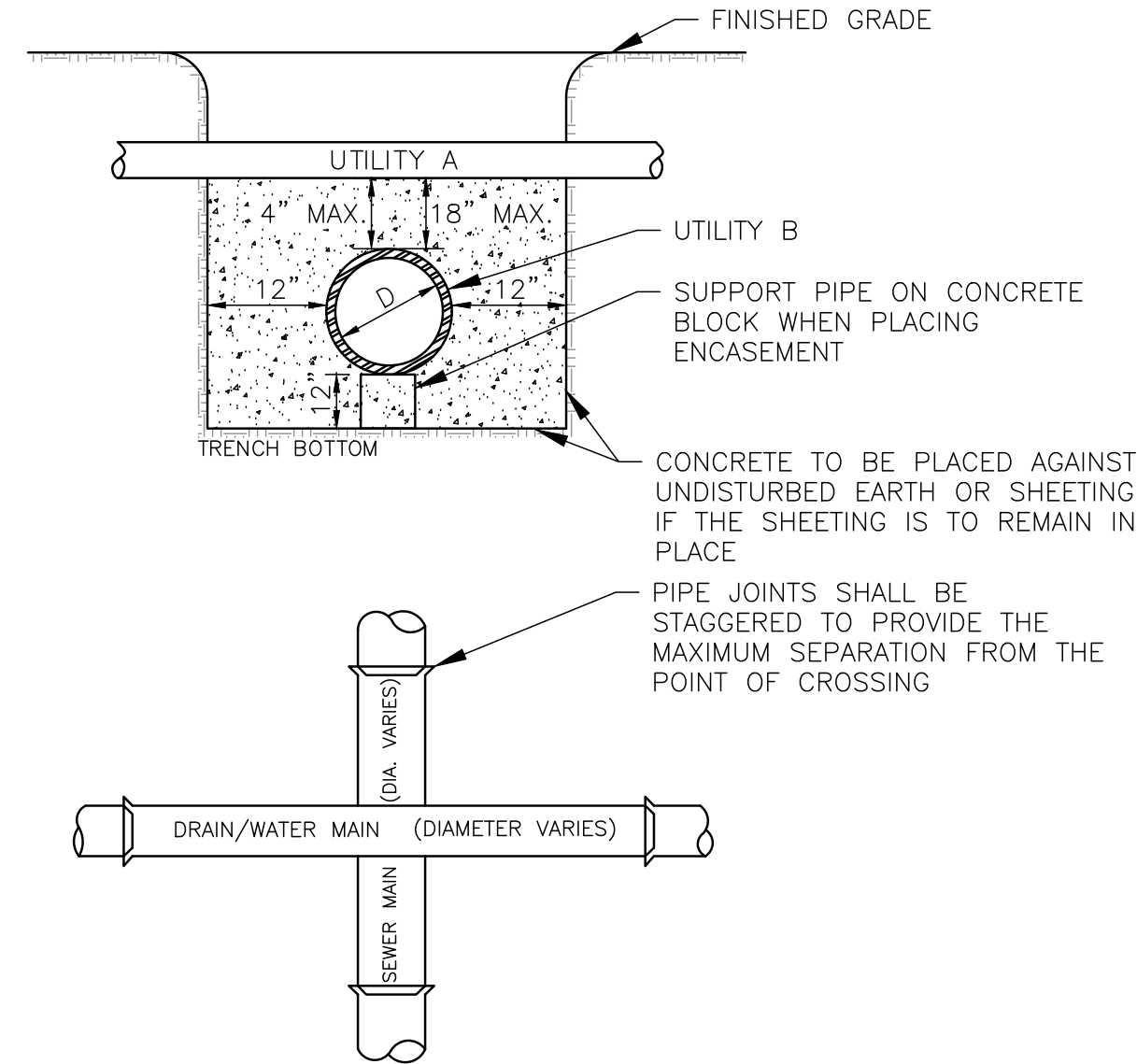
	FILTER FABRIC USE	
	SOIL TYPE	
	SILT OR CLAY	GRANULAR SOIL
ABOVE GROUND WATER	FILTER FABRIC NOT REQUIRED	FILTER FABRIC NOT REQUIRED
BELOW GROUND WATER	FILTER FABRIC REQUIRED	FILTER FABRIC NOT REQUIRED



NOTES:

WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET BETWEEN A SEWER MAIN AND A WATER/DRAIN MAIN:

1. THE WATER/DRAIN MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE DIFFERENCE IN ELEVATION BETWEEN THE WATER/DRAIN MAIN AND THE SEWER MAIN SHALL BE AT LEAST 18 INCHES.
2. THE PIPE CROSSING SHALL OCCUR AS CLOSE TO 90° AS PRACTICABLE.
3. THE PIPE JOINTS SHALL BE STAGGERED TO PROVIDE THE MAXIMUM SEPARATION FROM THE POINT OF CROSSING.
4. THE CROSSING SHALL BE ENCASED IN CONCRETE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR A DISTANCE OF 10 LINEAR FEET CENTERED ON THE CROSSING.
5. UTILITIES A AND B CAN BE EITHER NEW OR EXISTING.
6. WHEN ONE UTILITY IS A SANITARY SEWER, IT IS PREFERABLE TO BE POSITIONED AS SHOWN FOR UTILITY B.
7. ENCASEMENT EXTENDS 10'-0" ON EACH SIDE OF THE CENTERLINE OF UTILITY A.
8. PIPE MUST BE BRACED VERTICALLY AND HORIZONTALLY TO PREVENT FLOATATION DURING PLACEMENT OF CONCRETE.

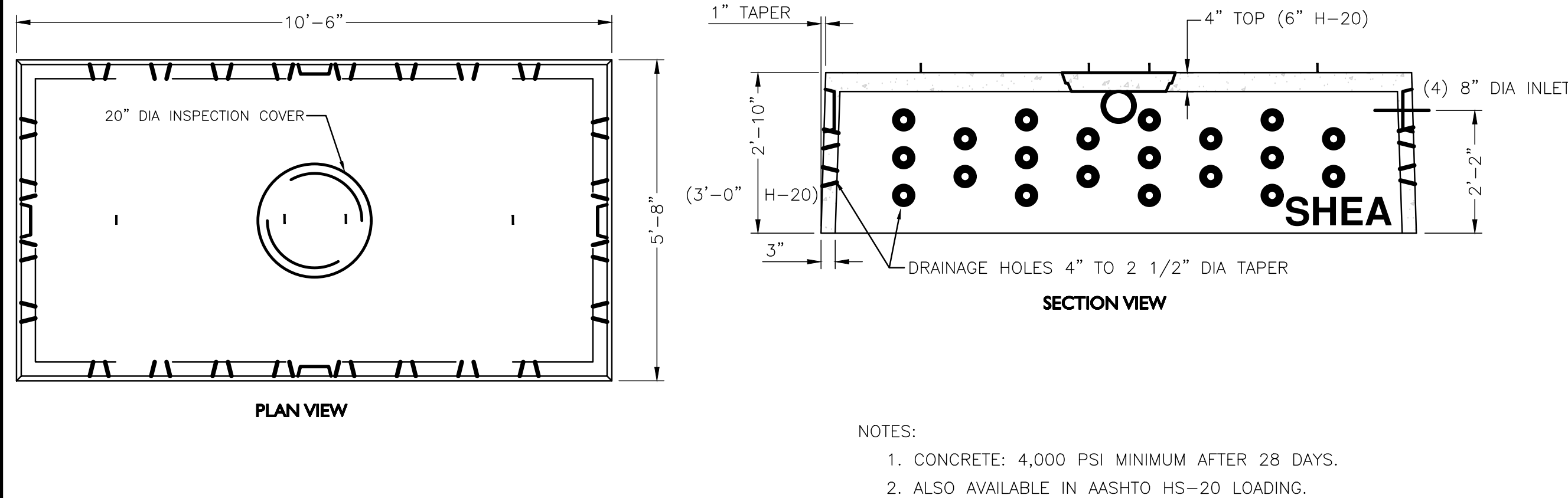


OUTLET CONTROL STRUCTURE TABLE							
STRUCTURE	ORIFICE			INLET		OUTLET	
	IDENTIFIER	DIAMETER	ELEV.	DIAMETER	INVERT ELEV.	DIAMETER	INVERT ELEV.
OCS-1 (DS-1A)	A	3"	847.90	24"	848.00	15"	847.90
	B	8"	849.00				
	C	8"	850.15				
	D	7"	851.15				
	WEIR	N/A	852.80				
OCS-2 (DS-2A)	A	5"	892.00	24"	892.00	18"	891.90
	B	10"	895.40				
	C	11"	897.90				
	D	10"	899.90				
	WEIR	N/A	901.45				
OCS-3 (DS-2B)	A	8"	859.2	24"	859.00	12"	858.90
	WEIR	N/A	862.55				
OCS-05 (DS-1B)	A	4"	859.20	24"	859.20	12"	859.10
	WEIR	N/A	862.50				

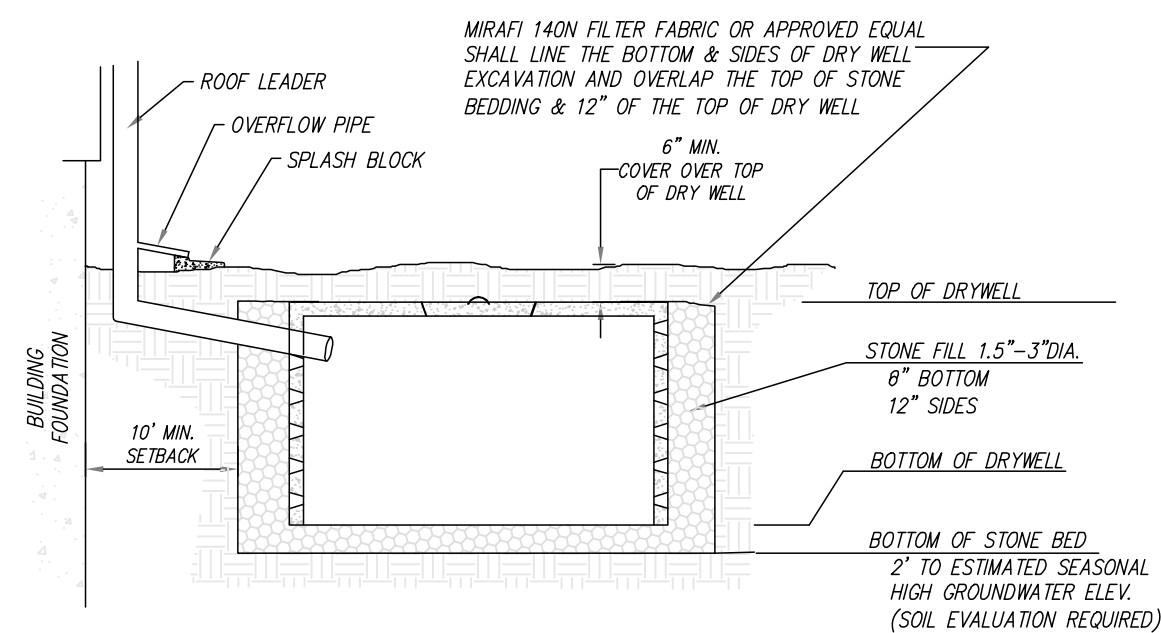
NOTE:
1. MANHOLE TO MATCH LOCAL DPW STANDARDS

OUTLET CONTROL STRUCTURE NOT TO SCALE

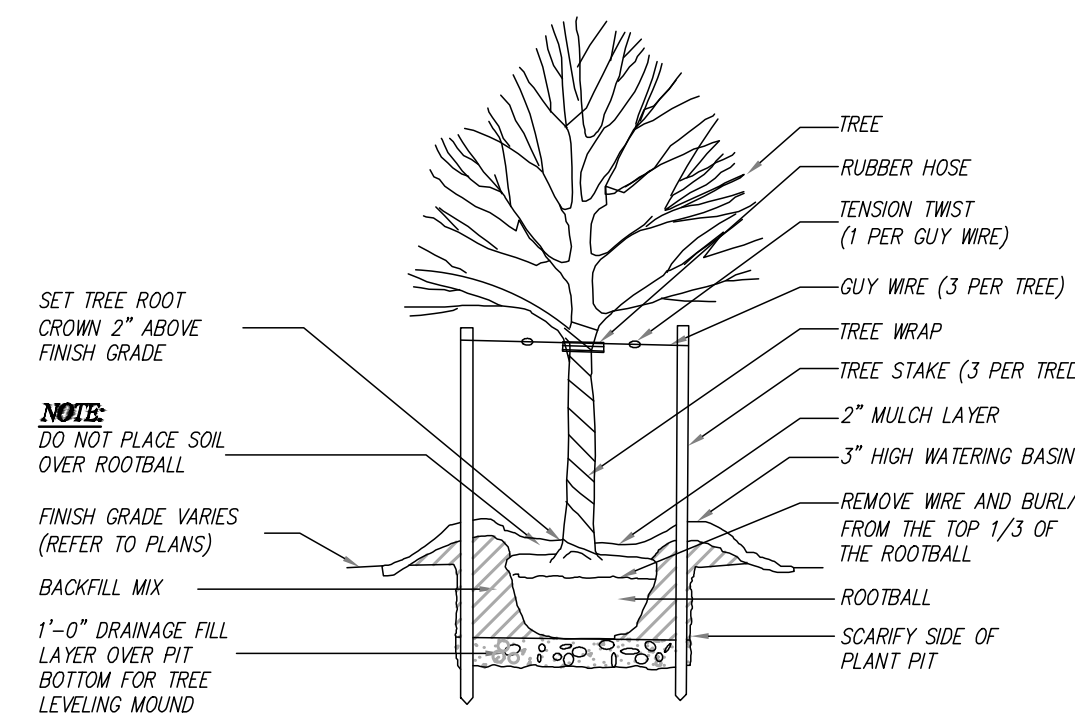
3



- NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.



- NOTES:
1. DRYWELLS SHALL BE INSTALLED IN STONE BED AS DEPICTED HEREON FOR EACH INDIVIDUAL STRUCTURE FOR STORMWATER RECHARGE, IN A LOCATION WHERE FIELD CONDITIONS MAKE IT POSSIBLE. EACH LOCATION SHALL BE EVALUATED BASED ON SITE SOIL EVALUATION OF THE ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION AT THE TIME OF LOT CONSTRUCTION.
 2. THE DRYWELLS SHALL BE SHEA CONCRETE PRODUCTS 1000 GALLON SHALLOW RECTANGULAR OR APPROVED EQUAL.
 3. THE DRYWELLS SHALL BE RATED FOR H20 LOADING.



APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: AS SHOWN DWG.: C-2889-01_Details

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

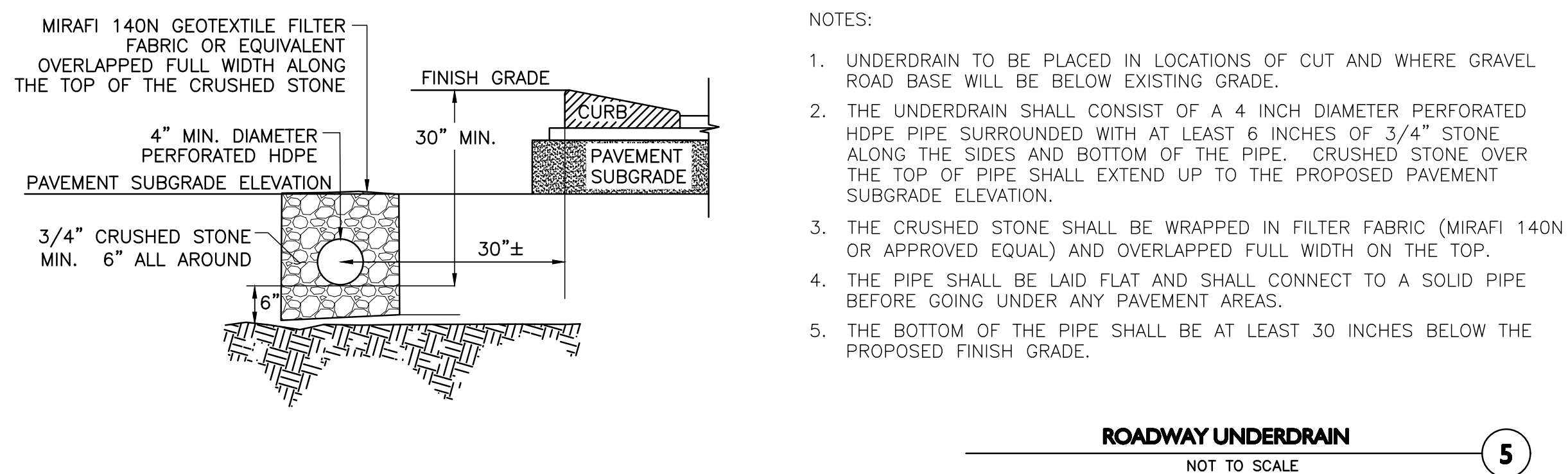
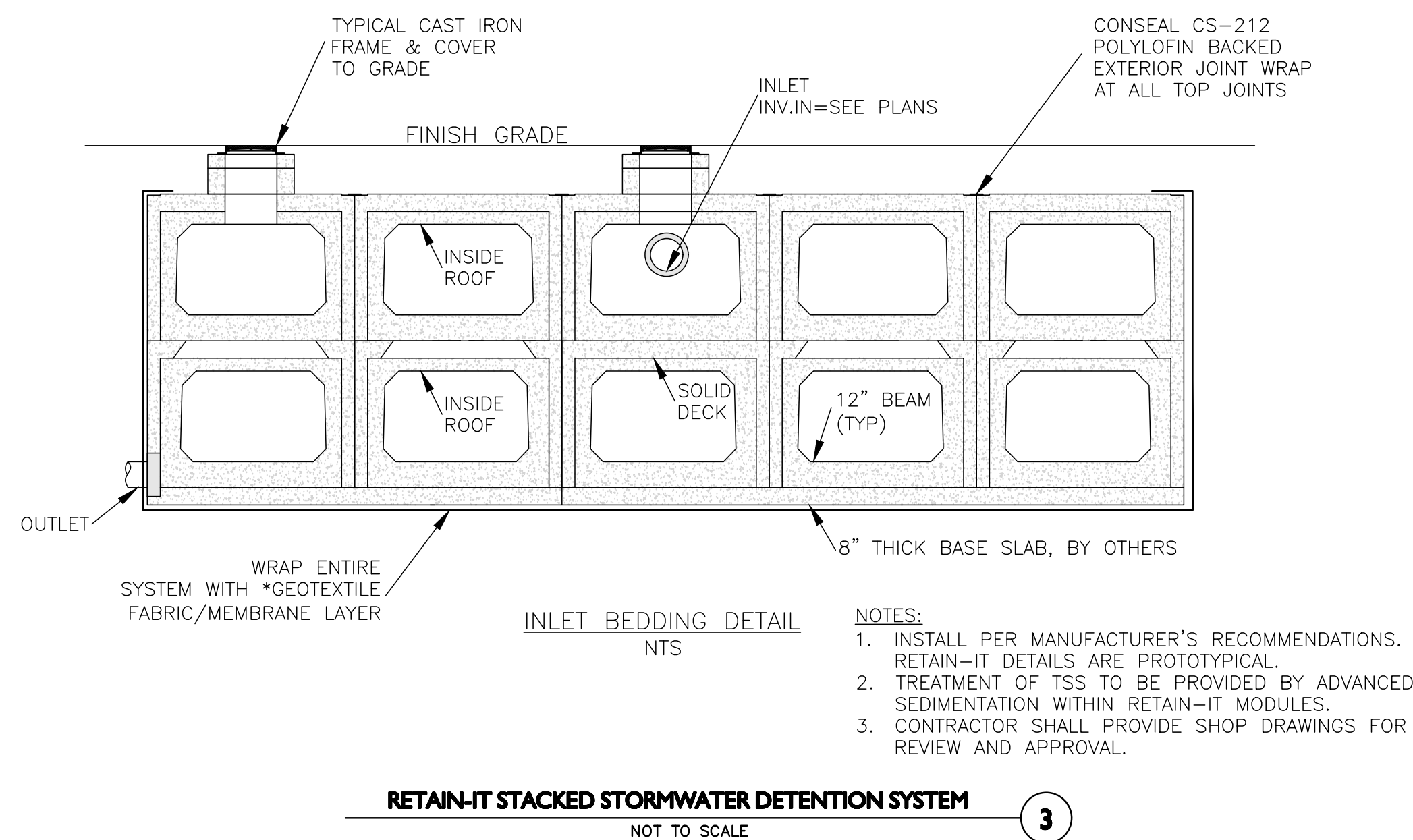
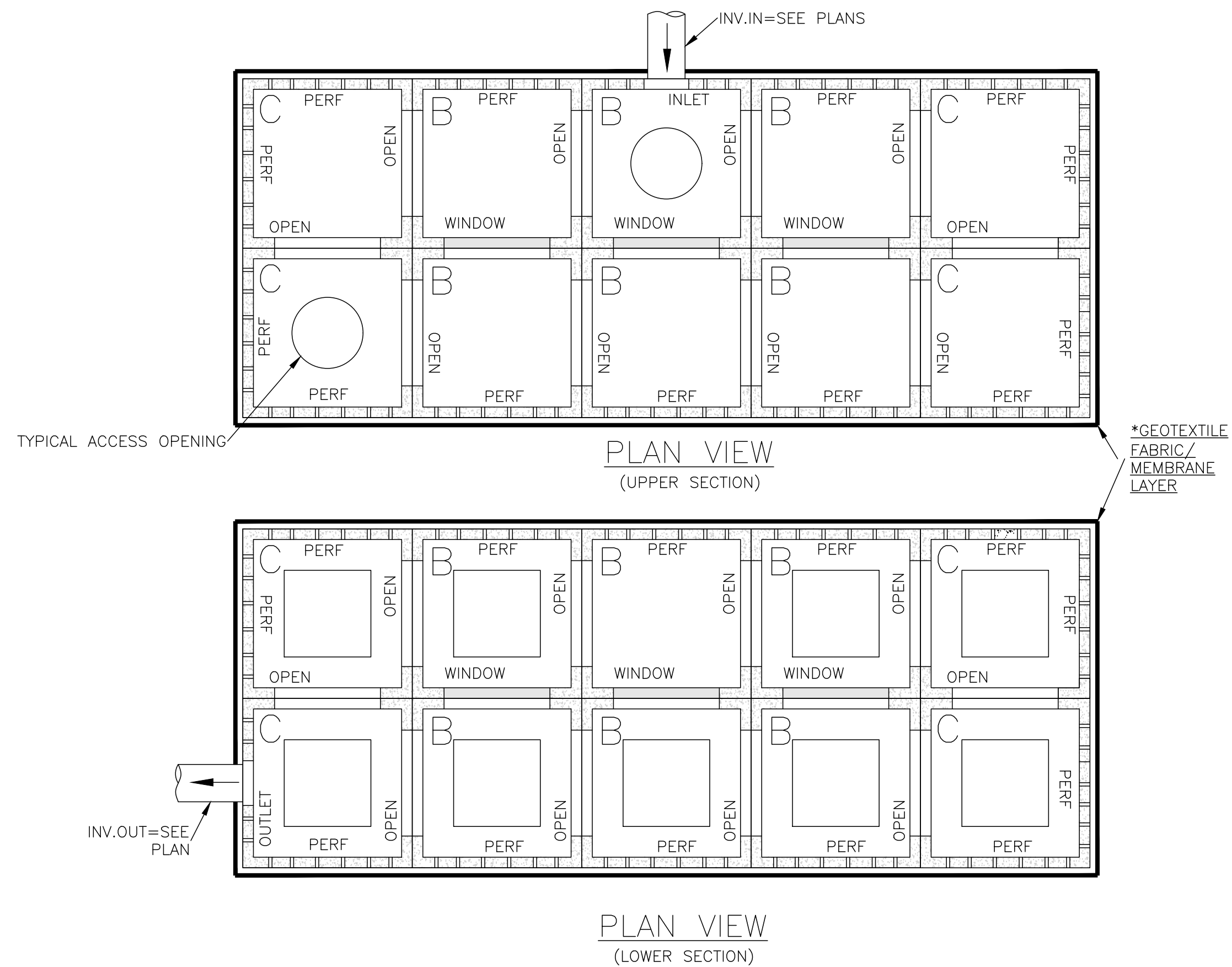
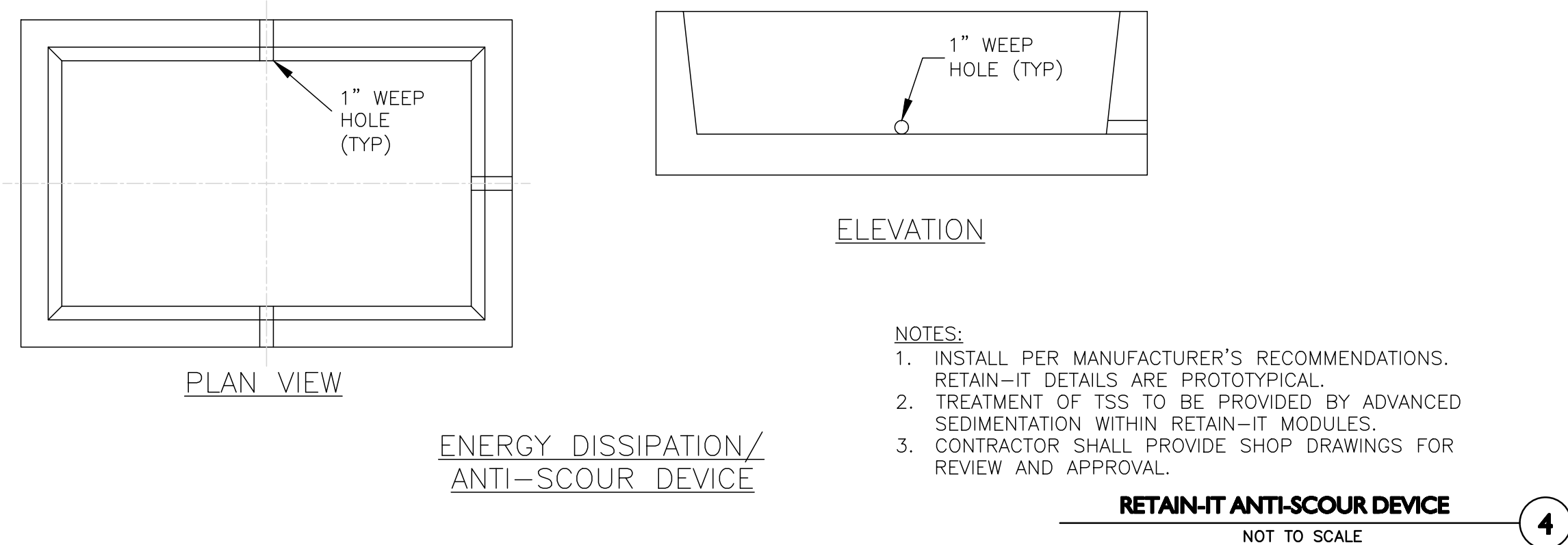
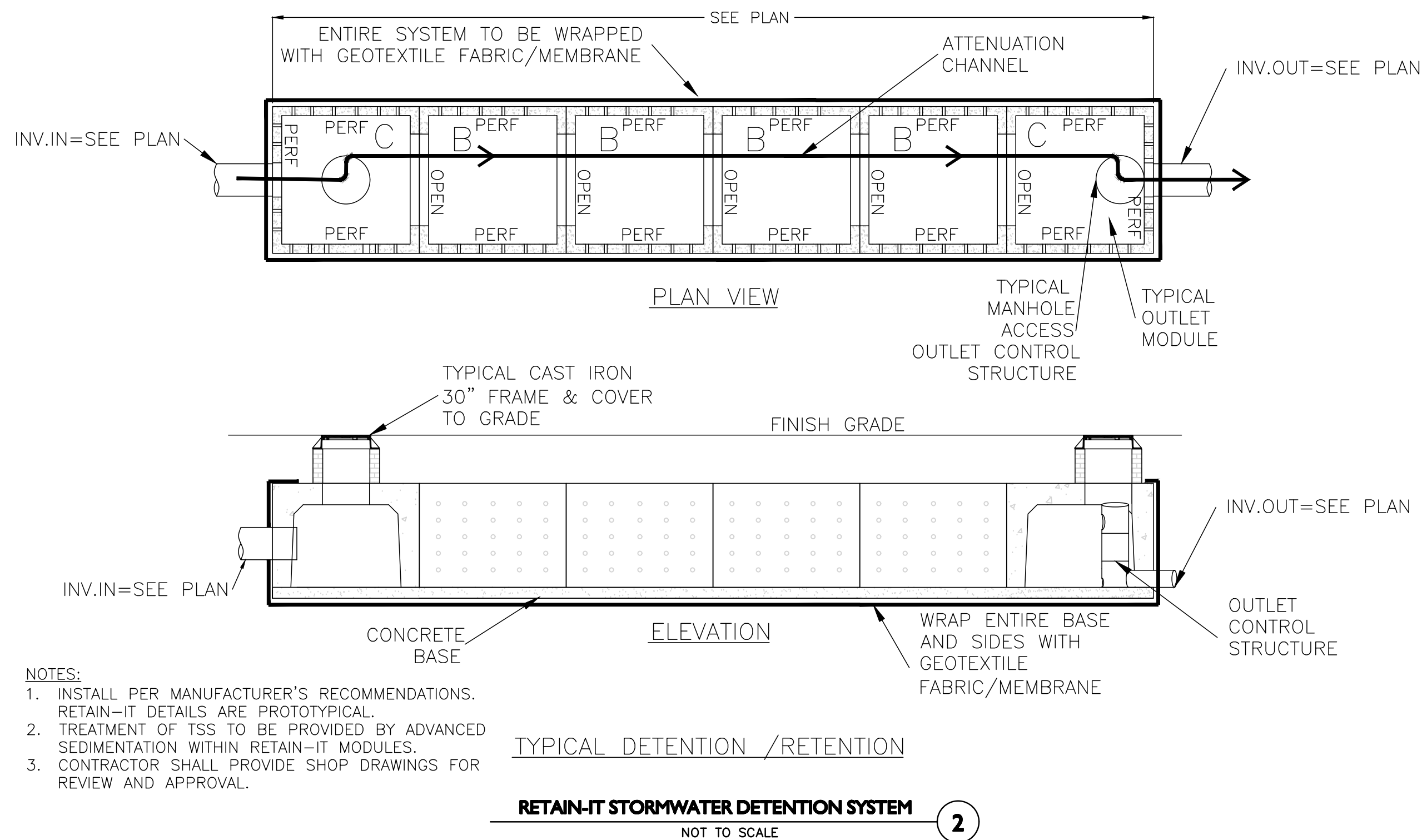
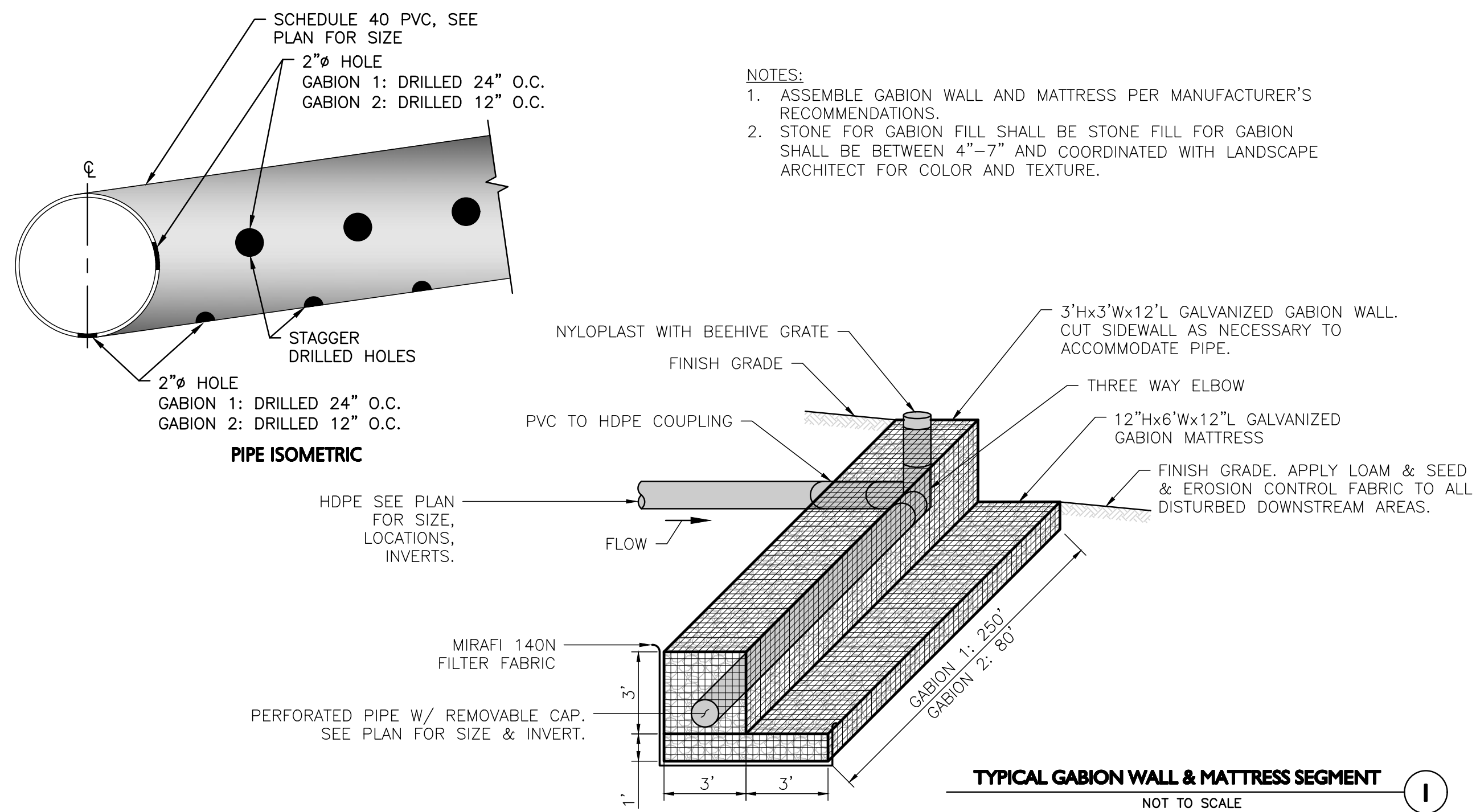
DRAWING TITLE: SHEET No.

DETAILS C-503

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

19 OF 22

R:\PROJECTS\2889-01\CIVIL\DRAWINGS\CURRENT\2889-01_DETAILS.DWG



APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD
I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: AS SHOWN DWG.: C-2889-01_Details

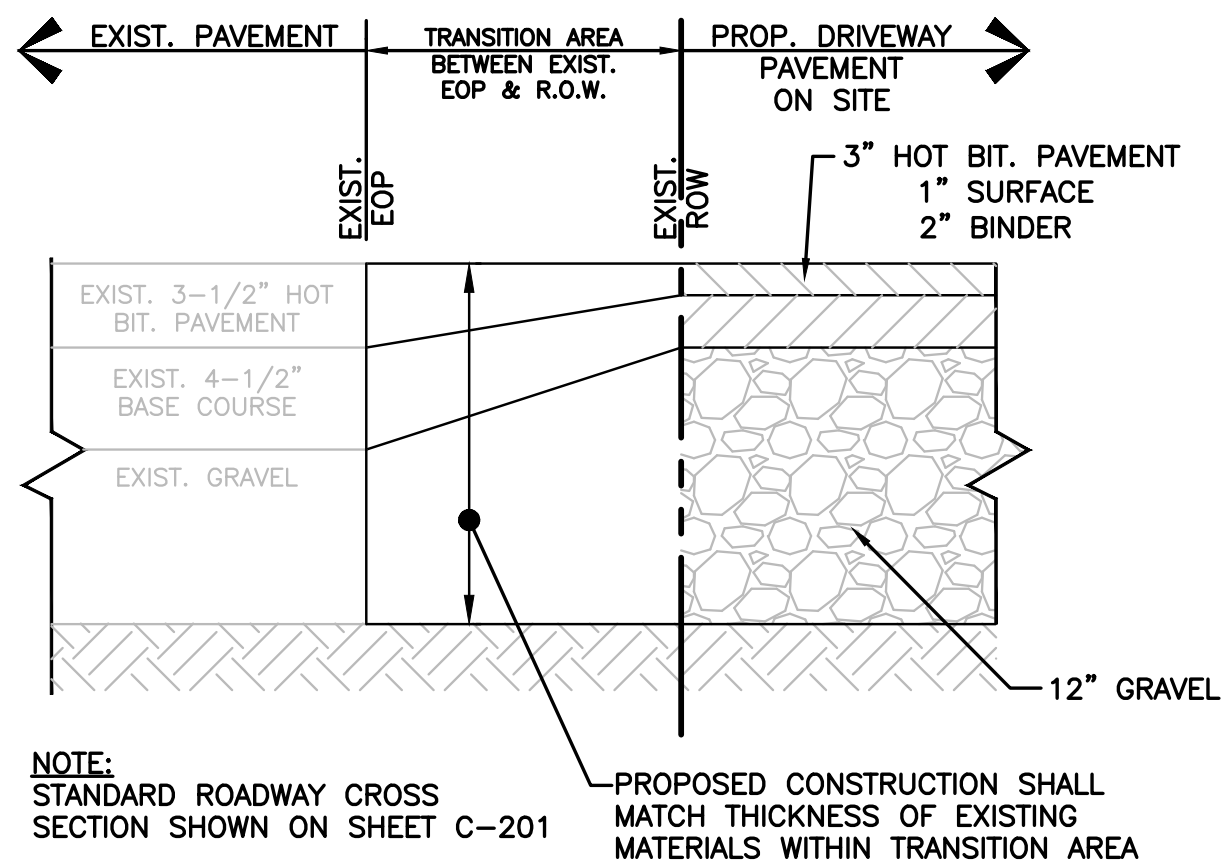
DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

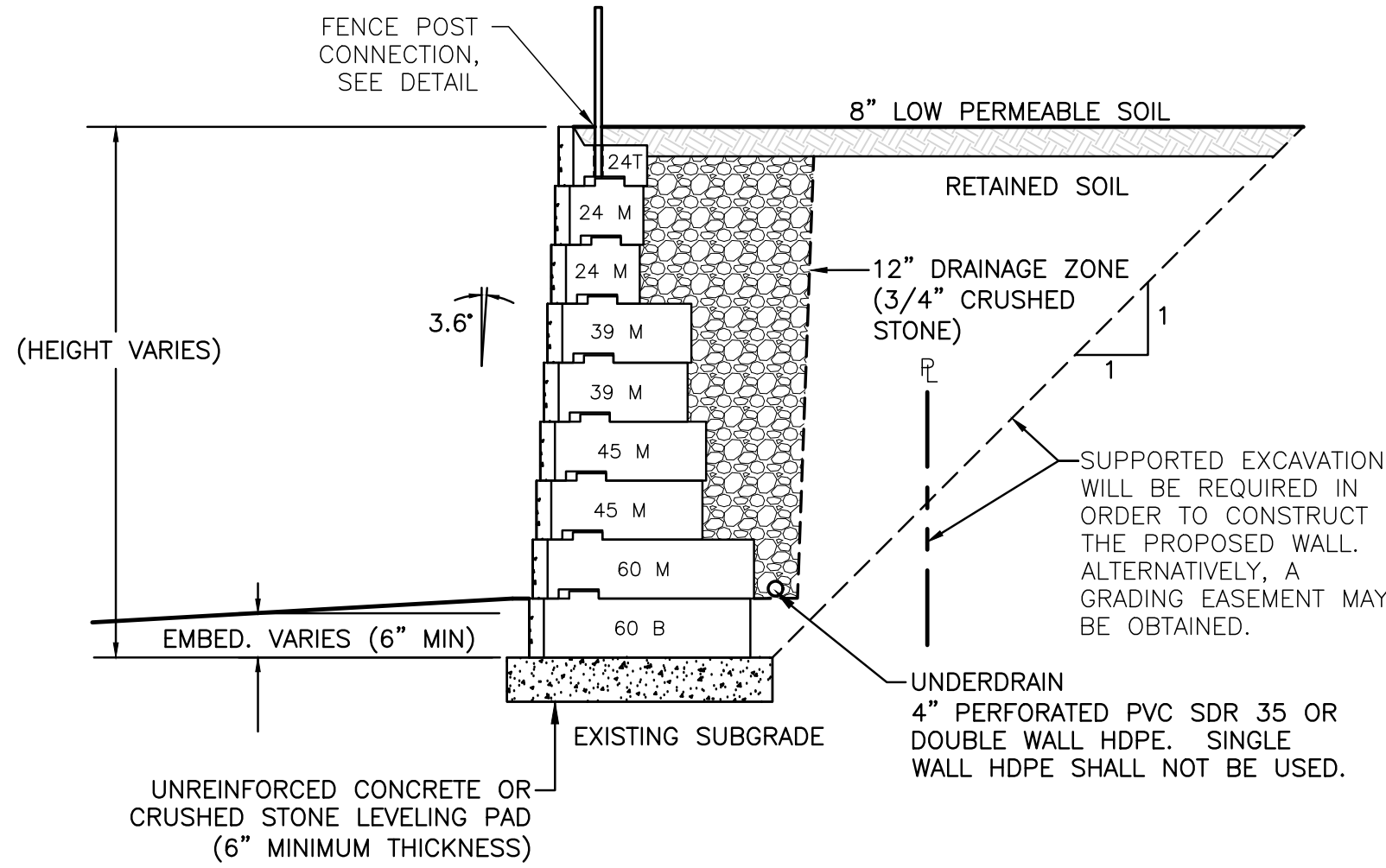
ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896
WOBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

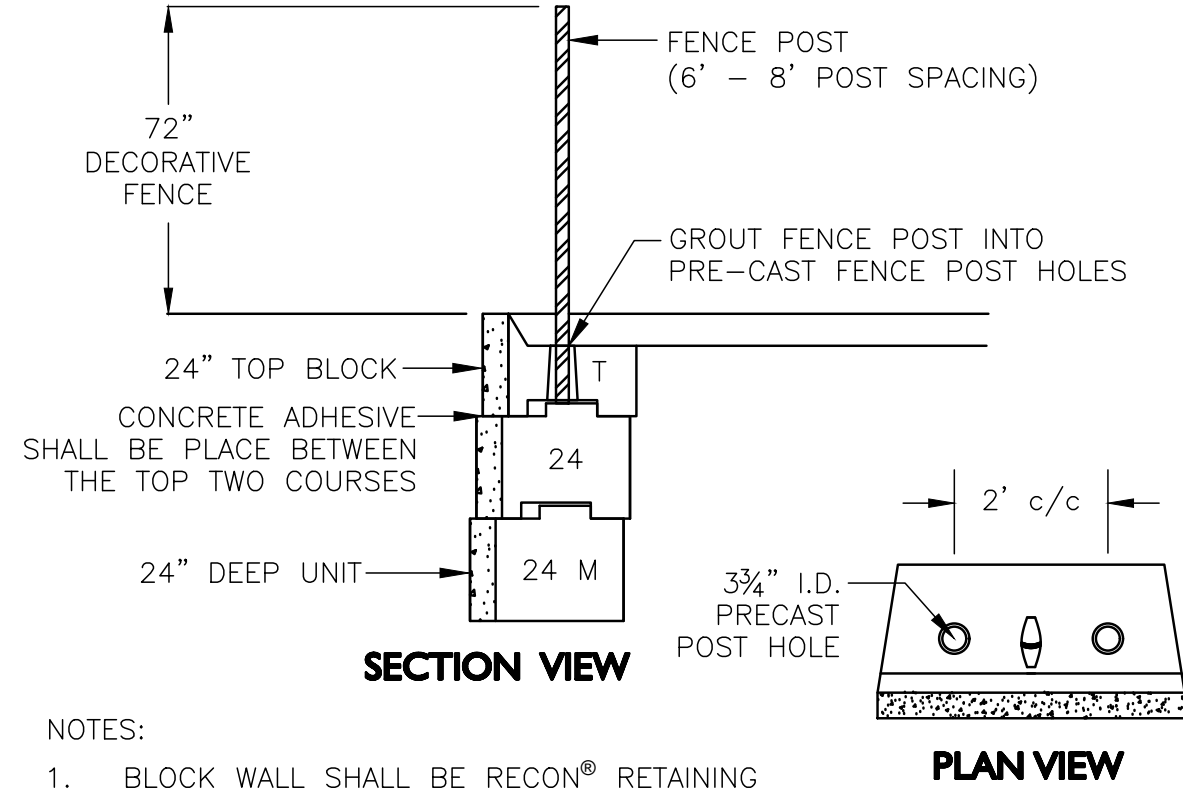
DRAWING TITLE: DETAILS SHEET No. C-504
20 OF 22



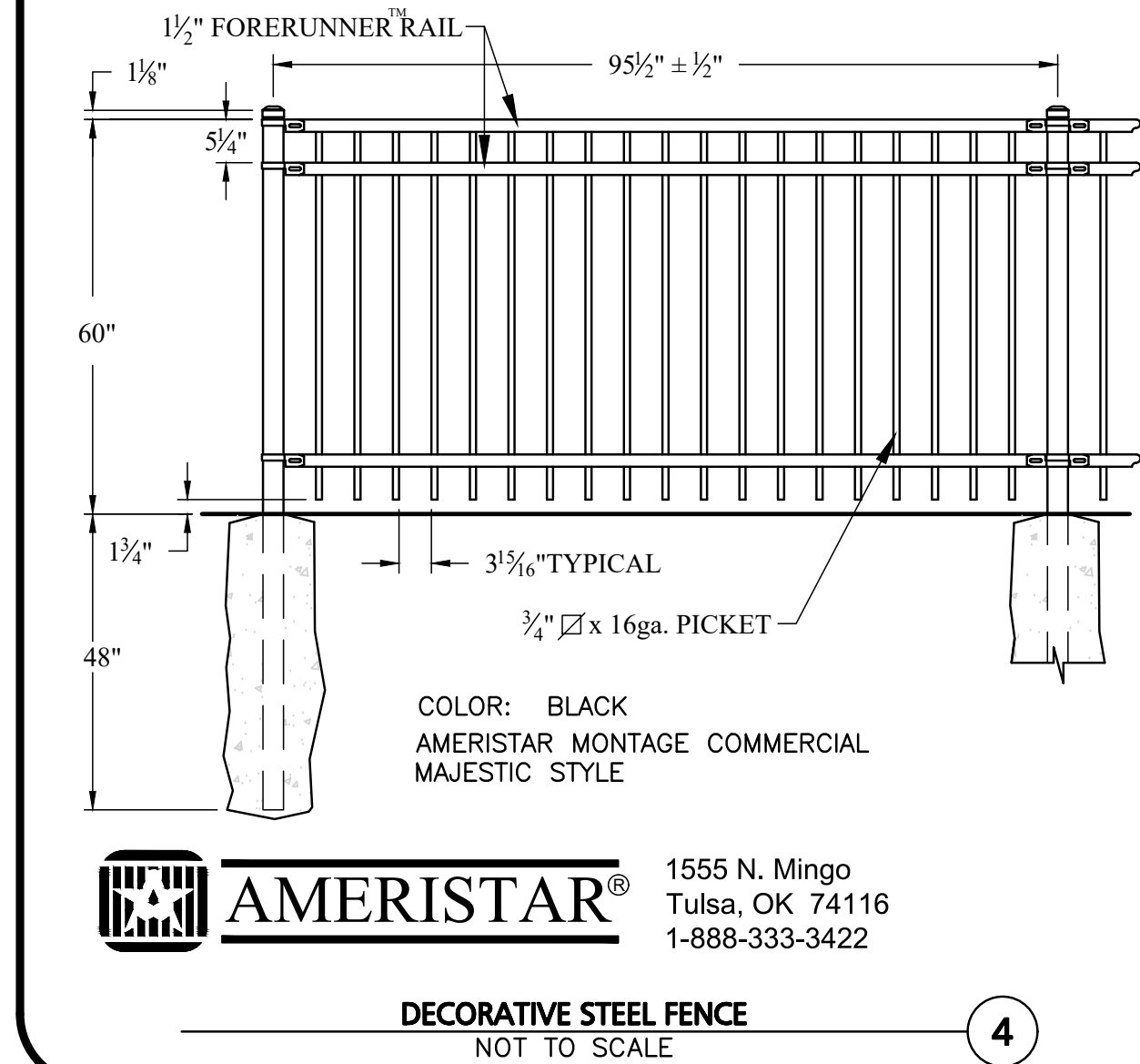
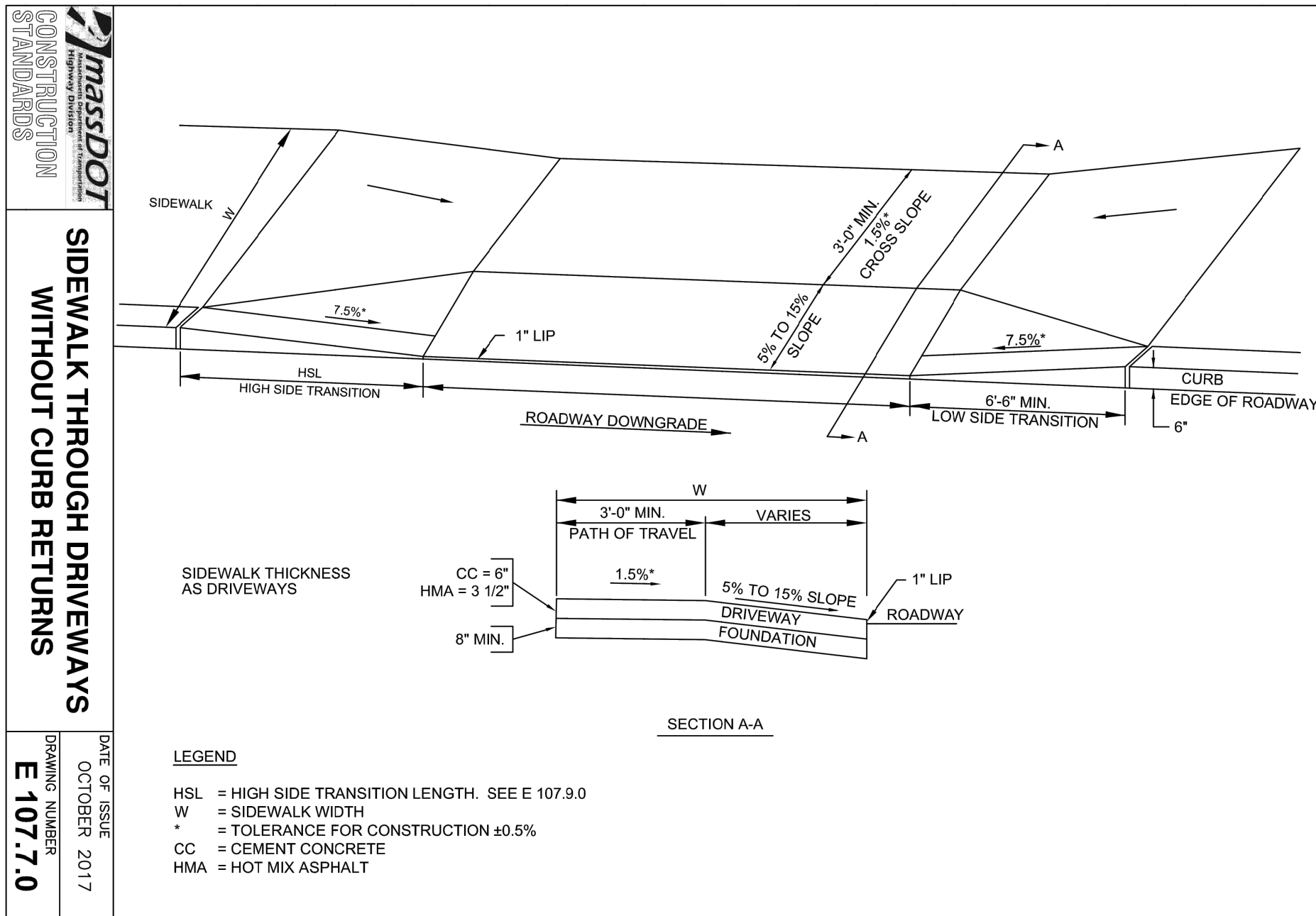
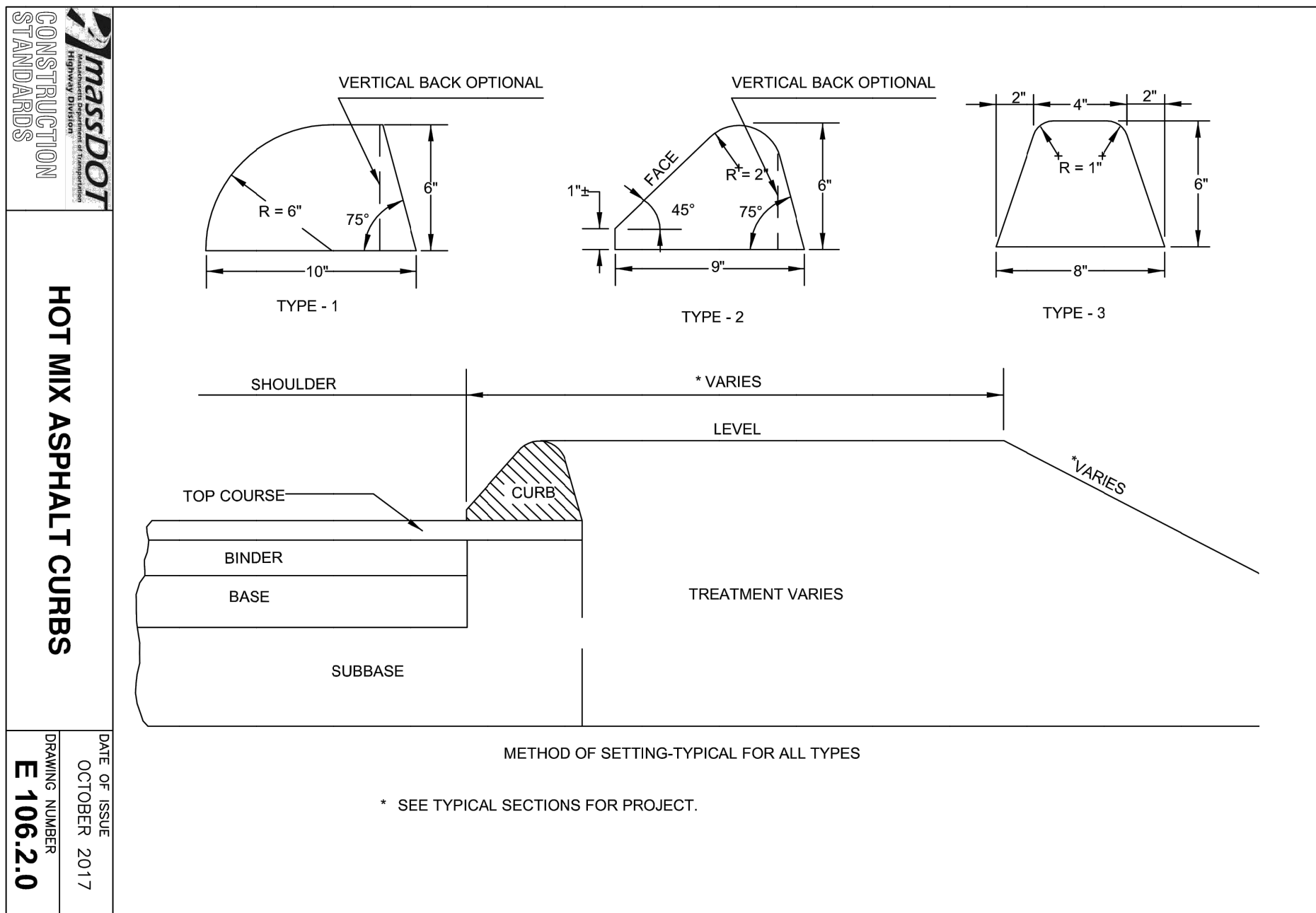
PAVEMENT TRANSITION
NOT TO SCALE



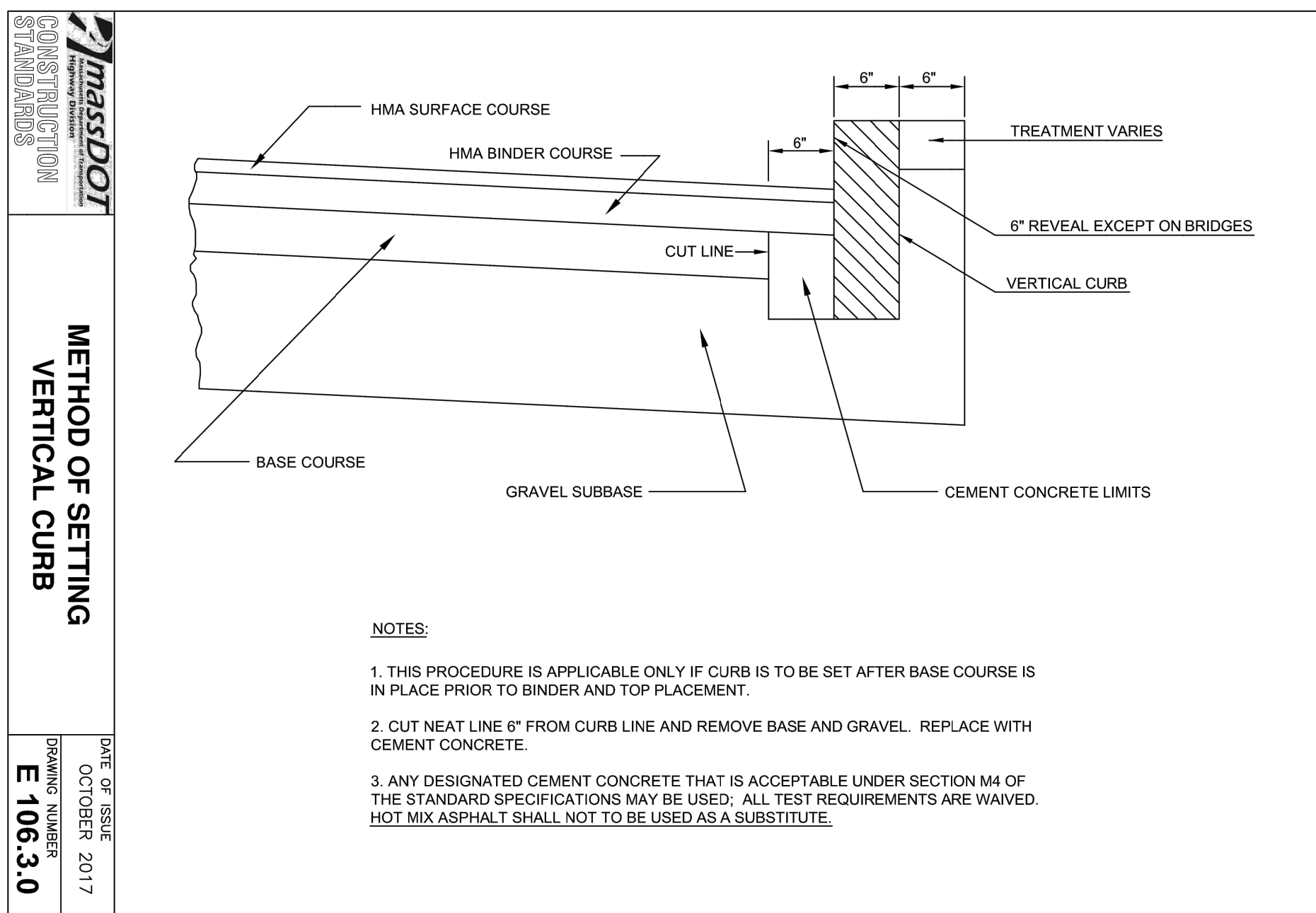
BLOCK RETAINING WALL SECTION
NOT TO SCALE



FENCE CONNECTION TO TOP OF WALL
NOT TO SCALE



DECORATIVE STEEL FENCE
NOT TO SCALE



ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

NOTE:

* BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:
MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:
SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: AS SHOWN DWG. : C-2889-01_Details

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896

WOBBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENTS/CLIENTS REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMAT OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

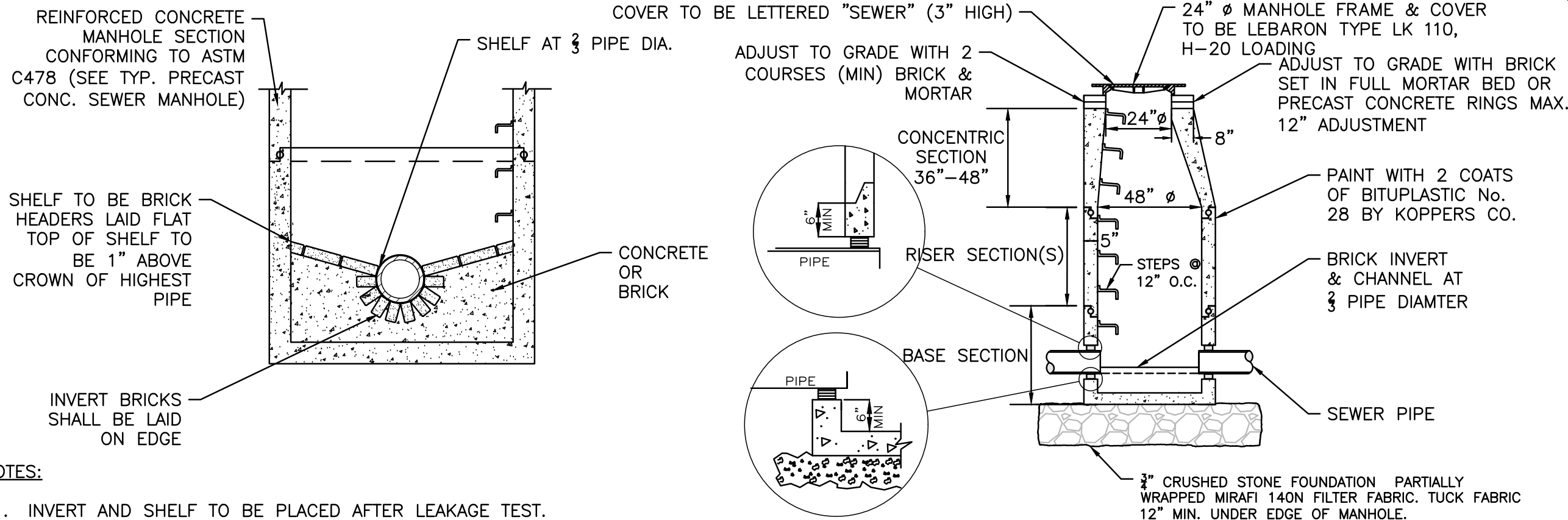
DRAWING TITLE: SHEET No.

DETAILS

C-505

Copyright © 2021 Allen & Major Associates, Inc.
All Rights Reserved

21 OF 22



NOTES:

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF CEMENT CONCRETE OR BRICK IN MORTAR.

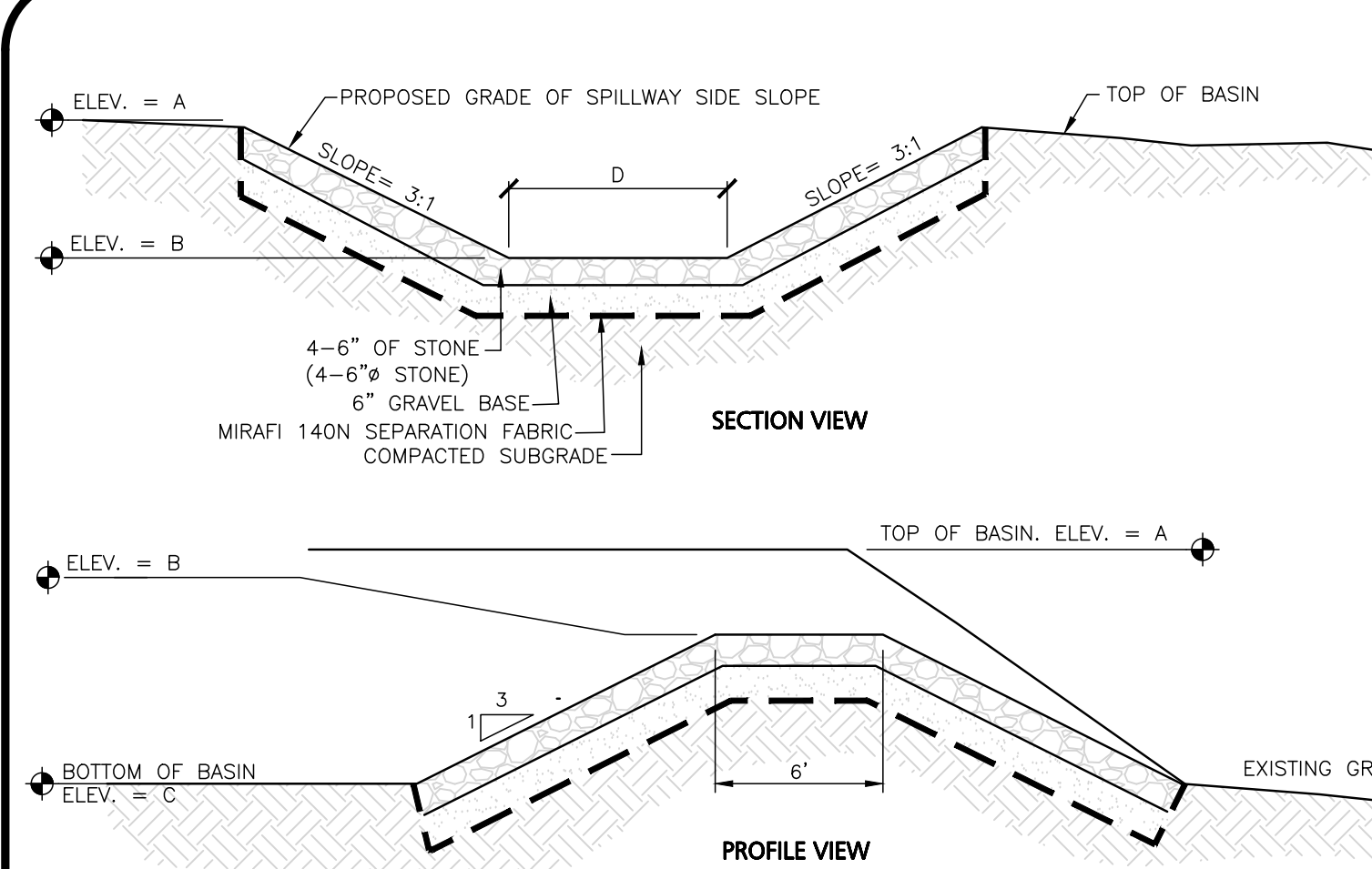
NOTE:

THE MANHOLE, INCLUDING ALL COMPONENT PARTS, SHALL HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENT AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OR PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.

PRECAST CONCRETE SEWER MANHOLE

NOT TO SCALE

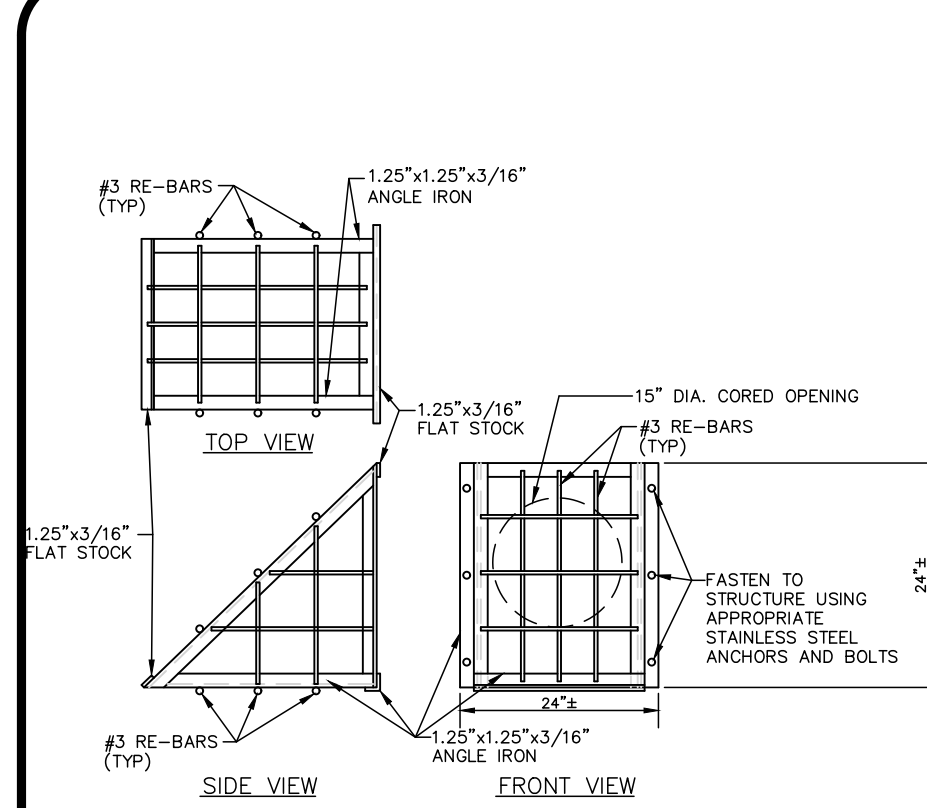
1



TYPICAL SECTION & PROFILE OF EMERGENCY SPILLWAY

NOT TO SCALE

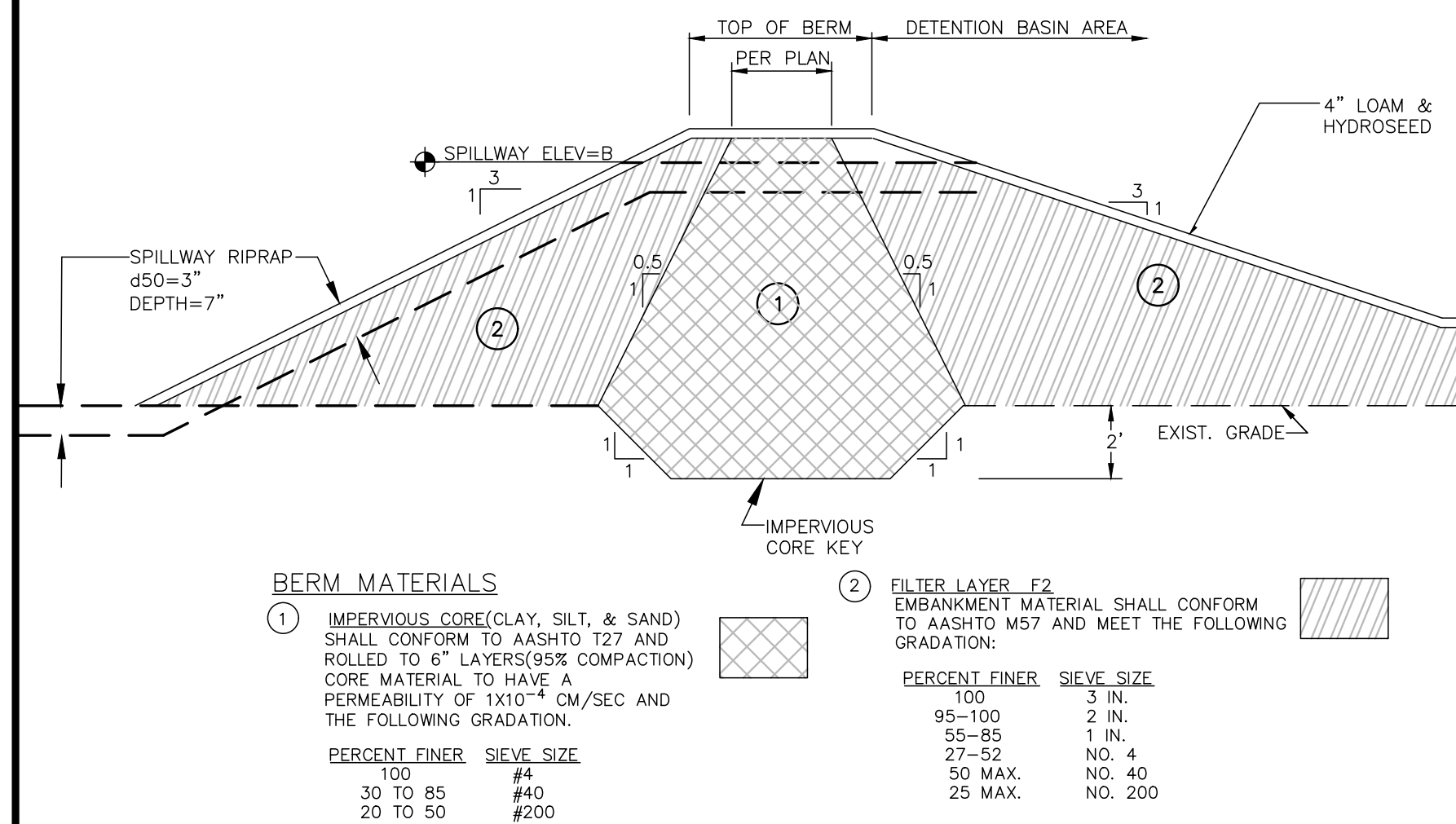
2



TRASH RACK

NOT TO SCALE

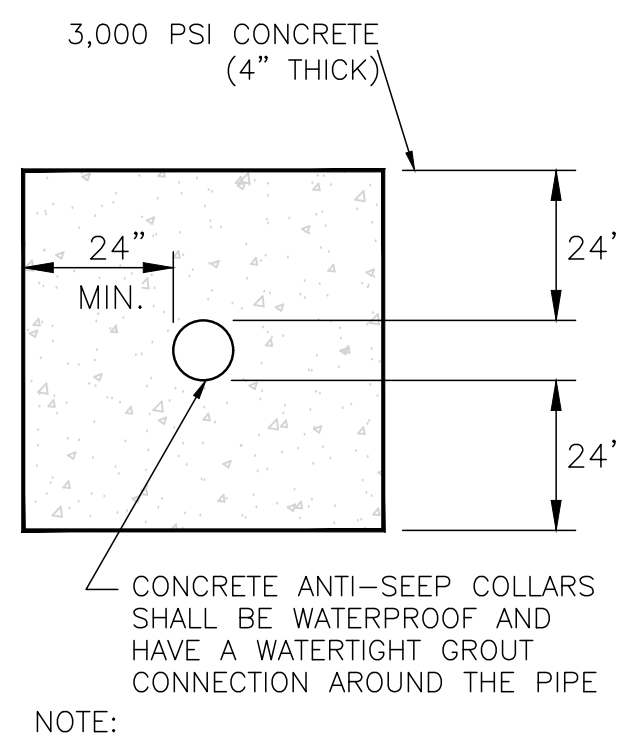
3



TYPICAL BASIN EMBANKMENT CROSS SECTION

NOT TO SCALE

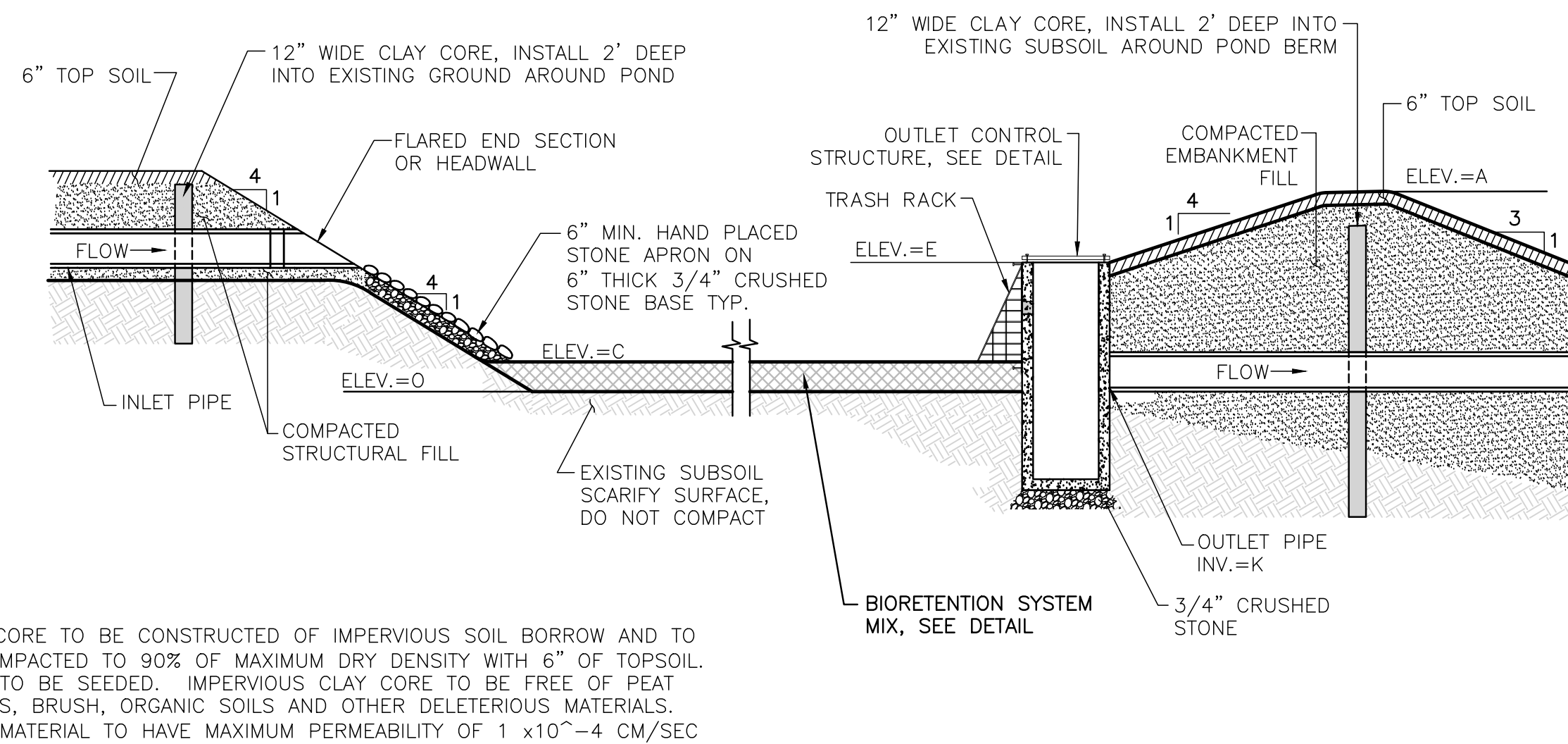
4



ANTI-SEEP COLLAR FOR BASIN OUTLET

NOT TO SCALE

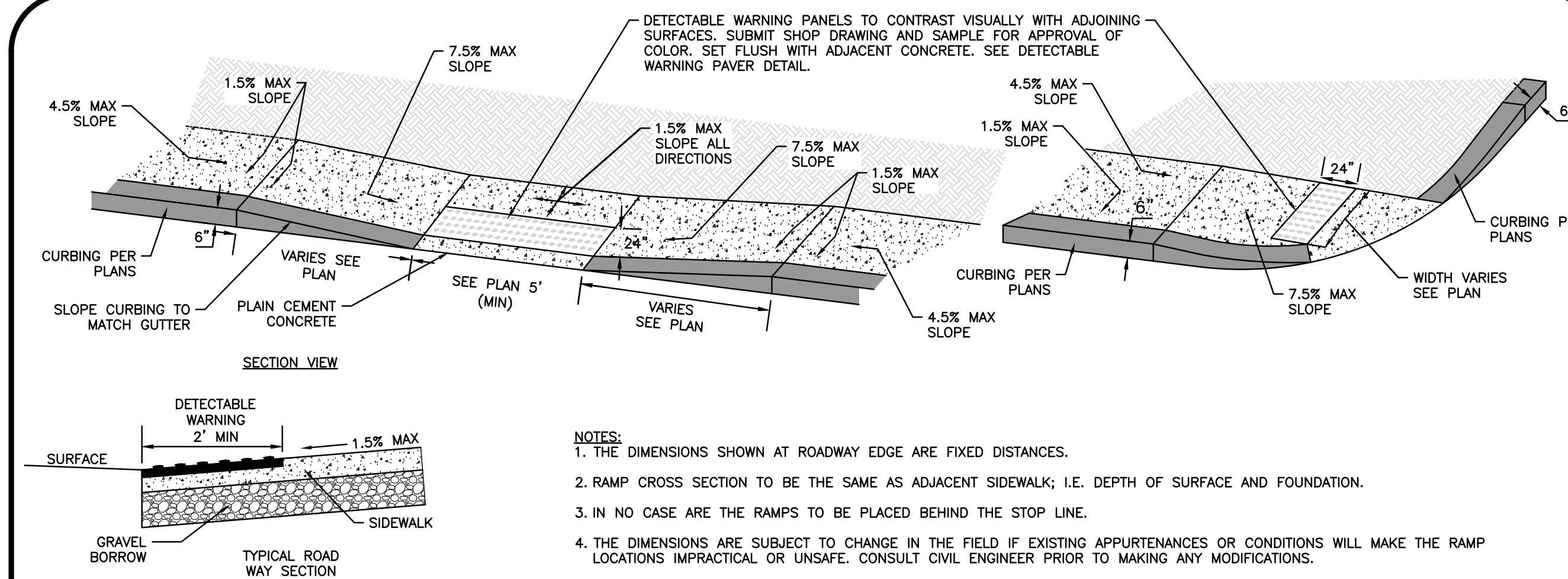
5



VEGETATED STORMWATER BASIN

NOT TO SCALE

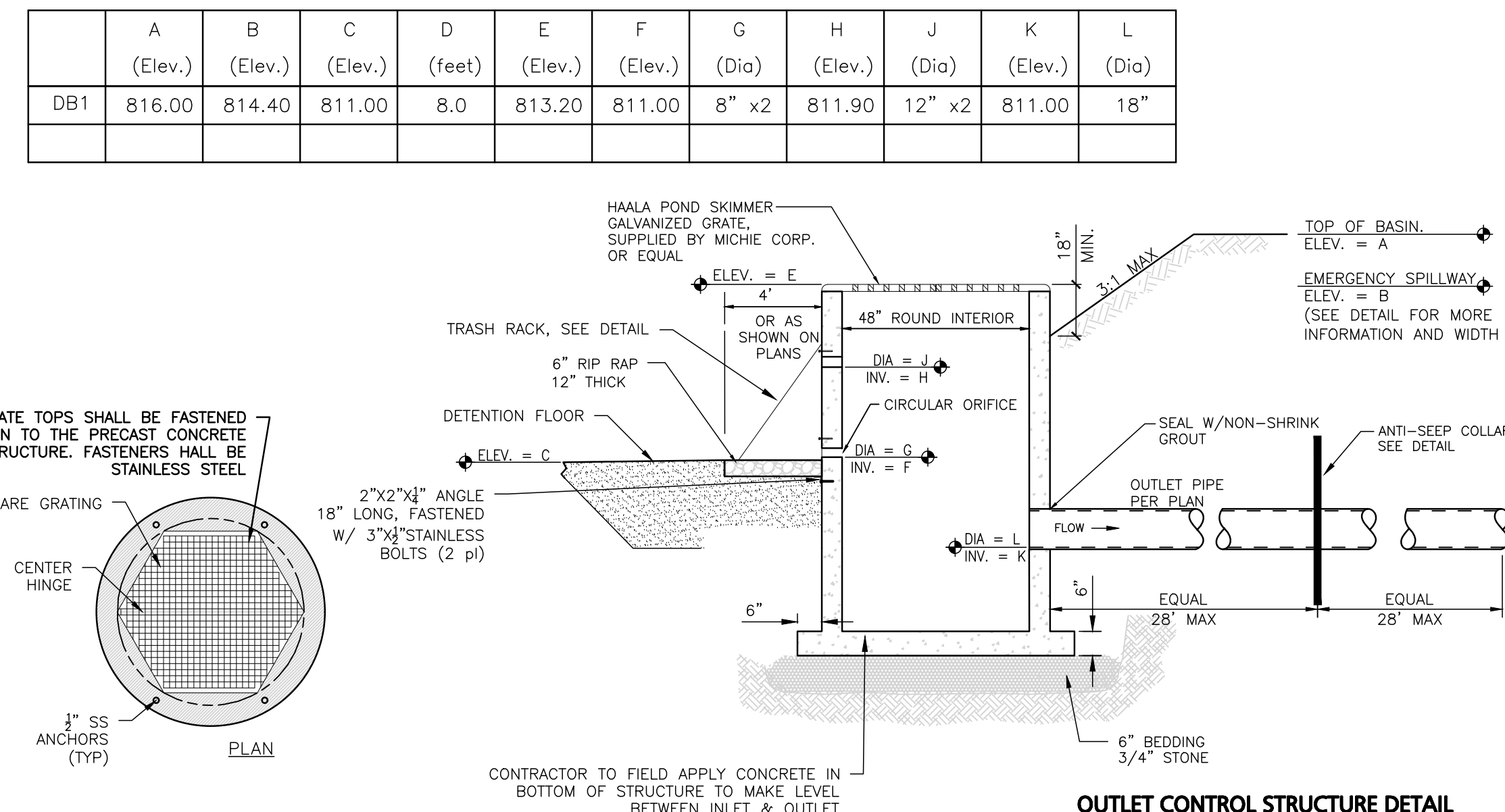
6



ADA ACCESSIBLE CURB CUT AND TRANSITION

NOT TO SCALE

7



OUTLET CONTROL STRUCTURE DETAIL

NOT TO SCALE

8

APPROVAL UNDER SUBDIVISION CONTROL REQUIRED. SUBJECT TO A COVENANT TO BE RECORDED HEREWITH.

DATE: _____

LEICESTER PLANNING BOARD

I CERTIFY THAT NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY (20) RECORDING DAYS NEXT AFTER RECEIPT AND OF NOTICE FROM THE PLANNING BOARD OF THE APPROVAL OF THIS PLAN

TOWN CLERK - TOWN OF LEICESTER

DEFINITIVE
ISSUED FOR REVIEW
OCTOBER 5, 2021

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	10-05-21	MISC. REVISIONS PER TOWN COMMENTS

APPLICANT:

MKEP 770 LLC
265 SUNRISE HIGHWAY, SUITE 1368
ROCKVILLE CENTER, NY 11570

PROJECT:

SKYVIEW ESTATES
RESIDENTIAL SUBDIVISION
MAIN STREET
LEICESTER, MA

PROJECT NO. 2889-01 DATE: 09-17-21

SCALE: AS SHOWN DWG.: C-2889-01_Details

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • landscape architecture
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBBURN MA 01801
TEL: (781) 935-6889
FAX: (781) 935-2896
WOBBURN, MA • LAKEVILLE, MA • MANCHESTER, NH

THIS DRAWING HAS BEEN PREPARED IN DIGITAL FORMAT. CLIENT/CUSTOMER'S REPRESENTATIVE OR CONSULTANTS MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS FOR HIS/HER INFORMATION AND/OR SPECIFIC USE ON THIS PROJECT. DUE TO THE POTENTIAL THAT THE PROVIDED INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE DIGITAL MEDIA. PRINTED REPRESENTATIONS OR PORTABLE DOCUMENT FORMATS OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.

DRAWING TITLE: DETAILS SHEET NO. C-506

Copyright © 2021 Allen & Major Associates, Inc. All Rights Reserved. 22 OF 22

R:\PROJECTS\2889-01\CIVIL DRAWINGS\CURRENT\C-2889-01_DETAILS.DWG

Jason Grimshaw, Chair and
Planning Board Members
3 Winslow Square
Leicester, MA 01524

Date: 10/22/2021

Re: Skyview Estates Development
651 Main Street
Leicester, MA

RECEIVED

OCT 26 2021

Abutter: Genevieve Grenier
7 Colonial Drive
Cherry Valley, MA

Town of Leicester
Development & Inspectional Services

Dear Sirs and Madam:

I wish to state my deep concerns to the above-referenced development for the following reasons:

1. Reference Sheet # C102 B page 20 on PDF document on Leicester Planning Board/Current Applications/Plans. According to the development plan a Retain-it water detention system, DS-2b, is to be installed close to my driveway my driveway approximately 20 feet away and more importantly 42 feet from my house. The system is uphill from my house. Do you see a problem? The other systems are either next to Main Street (Route 9) and the other is placed between two groups of condos with no condo below them and the houses on Main Street are approximately 700 feet away. Why is DS-2b within 50 feet of my house? I understand that the Retain-It system stores the water temporarily and slowly releases the water over 12-24 hours. The problem is that soil is already wet indicated by my sump pump running daily once early in the morning and again in the evening when it is not raining. When it rains less than one inch it will run about 5 times during the day. More than an inch it can be about 10 times. July was an extremely rainy month 10 inches above normal according to the National Weather Service and for most of the month the sump pump ran at least 8 minutes every hour. When the aftermath Storm IDA hit the area 8/31-9/1/21 with 4.71 inches of rain my sump pump ran nonstop for 2 days before it took a two-minute breather. I did not sleep that first night and stayed in the cellar for fear the sump pump would burn out. I was told by a firefighter that sump pumps are not meant to run non-stop. They do break down. It took another 5 days for the sump pump to get to 10 times a day cycle. It was October before it reached the 2 times a day cycle.

I have learned that one inch of rain on one acre of land receives 27,154 gallons of water. The detention system DS-2b (next to 7 Colonial Drive) is will be covering the rain of more than one acre and can handle a maximum of 130,423, I do not see even adding 27,200 gallons into that already wet ground will be negligible when it comes to my cellar. I have calculated that the cellar is approximately 9 below the ground. The base of this system will be higher which will mean when the water is slowly discharged it will look for the lowest level down the hill which will be my cellar and sump pump.

I have lived my whole life (72 Years) and know this hill. Living next to the run-off (made by Leicester in the 50's) I know how water reacts and where it runs. It was part of my chore as a

child about 6 years of age and older to clean the course of the run-off. It was my job to make sure there was no standing water meaning raking leaves and clearing any other obstructions in the runoff starting from the top of Colonial Drive down to end where the side and back wall meet. Standing water meant and means more water in the cellar. This plan creates totally reverses what I have worked to avoid, a standing pool near the house and a dry cellar. In October 2005 when it rained for two weeks from 10-6-2005 to 10-15-2005 accumulation of 11.96 inches of rain a pool formed in the runoff area (other side of wall on the uphill side- from cellar entrance of the house to the shed approximately fifty long and about ten feet wide) the sump pump ran continuously and eventually failed resulting in 6 inches of water in the cellar. A pool of water in that runoff area is bad news. It took 2 years for that area to be just damp. In 2006 between May and June 11.94 inches of rain fell. With a new pump and my vigil checking the pump and an emergency pump I was able to keep just ahead of having my basement flooded. Now this plan proposes an even larger pool abutting and higher than that area.

This Retain It system can certainly be effective but not 50 feet away from an occupied house downhill, not on the side of a hill and certainly not in this soil. I can see it working where the acreage it discharges is flat and where any residential dwelling is thousands of feet away and the soil for the most part dry and needs some recharging. The soil is in no need of recharging it's always charged.

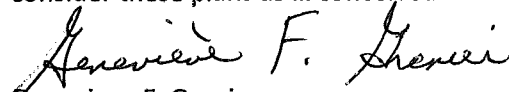
2. Colonial Drive was never meant or designed for a lot of traffic. The town of Leicester particularly the Highway Department would like it to disappear. Having the Colonial Drive Extension will only exacerbate an already bad and sometimes dangerous situation. Again, as I have lived here a considerable years I have seen people do the strangest and stupidest maneuvers on this hill. Nonresidents in general drive too fast up the hill and more inexplicably give it the gas going down the hill to hit the brakes at the bottom. Dangerous at any time of year but certainly most in late fall into winter with snow and ice. I know the representative of the developer does not see an accident at the junction of Colonial Drive and Colonial Drive extension. Driver coming down the Extension too fast, late for work, driver backing out of 8 Colonial Drive. Result is broad side accident or driver coming down the Extension loses control swerves hard right and depending how DS-2b is designed on the side facing the extension the car could land on top or damage the structure itself. One must remember Colonial Drive and even Colonial Drive Extension is far from a flat surface. All the other residents would also have to be alert to sudden changes. This would not be a children friendly situation. At the bottom of the hill (junction with Route 9) a driver must practice patience to turn right and the patience of a saint to go left. Most drivers have neither. Another guarantee of an accident. The main entrance to Skyview is also problematic. I know the representative of the developer said that the speed driven by drivers was 48mph. Who did the study of traffic on Route 9? What time and date was this study done? Were trailer trucks included? I drive numerous times on a daily basis on that stretch of Route 9 – other drivers ride your “tail”, overtake you, honking or giving a special salute. I’ve been there- 58 mph would be more accurate. Having the entrance not that far from that slow curve with people picking speed is a recipe for an accident and worse an accident with a school bus. I know these things I worked 23 years in the insurance industry and took too many accident reports of these situations and more.
3. Snow removal – What happens for snow removal where Colonial Drive (public road) and Colonial Drive Extension? It is only in the last 4 years that snow was pushed directly up to end of Colonial Drive. For decades at the top they swung left dumping and creating a large snow pile

which on warm days (32 degrees and above) some snow melted and created a large sheet of ice about 12 feet long in the driveway. The accumulation of ice was daily despite daily application of sand and ice melt. Ice only was gone in late April. When the highway department pushed straight up the hill the situation stopped with only minor icing melting with warm winter days. How is Colonial Drive Extension to be plowed. The easiest is from top to bottom but where is the snow to end? I know next to the Colonial Drive pile next to my driveway since Leicester Highway department can no longer push to the end of the street and then the icing begins but even worse.

4. Sidewalk down Colonial Drive Extension – Really!! Someone is going to walk down Colonial Drive Extension onto Colonial Drive that has no sidewalk. They are walking down that steep hill to Main Street with cars coming up and down Colonial Drive. Right now that doesn't happen because we are only 4 houses. Add Skyview Estates and now you have 150+ more vehicles using Colonial Drive.
5. Henshaw Street has already problems with frequent washes of assorted debris, placing a large of water that close to street is a future problem. Historically these pools are cheaper to install and design but are very labor intensive in maintenance as shown in the BMP practices of the Skyview Estate Development. As I worked with Donna Williams, Chair of the Board of Directors of the Blackstone River Coalition and Peter Coffin, Coordinator of the Blackstone Coalition, Watershed Advocate I learned that these pools are labor intensive for continued maintenance. In time the work slacks off and the retention pools deteriorate. I know the representatives states they will follow the Best Management Practices, they are only there until the units are sold, as time goes on with only reporting required humans being what they are things will slack off unless the Town of Leicester is on their backs with aggressive and frequent checking. In my experience Leicester has done a poor job in the long run which does not bode well. In addition, this would in the hands of people forming a condo association that Leicester has no knowledge and/or experience that they would comply and how well.
6. Now I know that the main entrance and all roads in Skyview Estates are private but has anyone seen a problem during the winter if there are severe storms or blizzards and drifting. I only mention this because it is a private road- ambulances, fire trucks and police cars would go in if there was an emergency. The entrance faces north/northeast, the worst direction in a snowstorm. The entrance and other roads that I can see on the development plan cut deep at certain elevations (some 20 feet into the hill) and in a bad storm certainly these areas would fill in quickly with snow in high winds. The Town will not be doing the plowing, a private service will be doing it but they won't be there 24/7. How does the Town plan on handling such emergency situations? Will Skyview Estates pay for the plowing? If there is an accident with a town plow? With 103 units and at least 200 residents you know it will happen. Having lived on this hill on Colonial Drive I have seen drifts that have broken plows and frustrated the Highway Department. Why do you think that Colonial Drive is the bane of their existence?

I really think that this development is still badly designed development and concept. The topography is not suited for dwellings. To be honest Colonial Drive should never have been developed in 1948. It was a mistake and now Skyview Estates, much bigger scale, is greatly compounding the same mistake 73 years later. Hasn't Leicester learned anything in 73 years? Developers are interested in making a profit and do not see beyond their immediate benefit. The developers are not of the community to see the impact,

they have they have no tie to the community. I believe there is a reason that prior to Colonial Drive (1948) the hill was not developed, one hundred years ago people knew that it was not suitable for living. The topography is wrong. Houses were built at the bottom and the rest was used as farmland. Please consider these plans as ill conceived and developed.


Genevieve F. Grenier

Summit Engineering & Survey, Inc.

July 14, 2021

Planning Board
Town of Leicetser
3 Washburn Square,
Leicester, MA 01524

via hand delivery

Re: **Modification of Open Space Residential Development
Off Paxton Street "Smugglers Cove"**

Dear Members of the Board,

On behalf of our Client, DJT Properties, LLC, this office is submitting a Revised Plan per comments from the town departments and abutters concerns. The following changes have been made to the Plan;

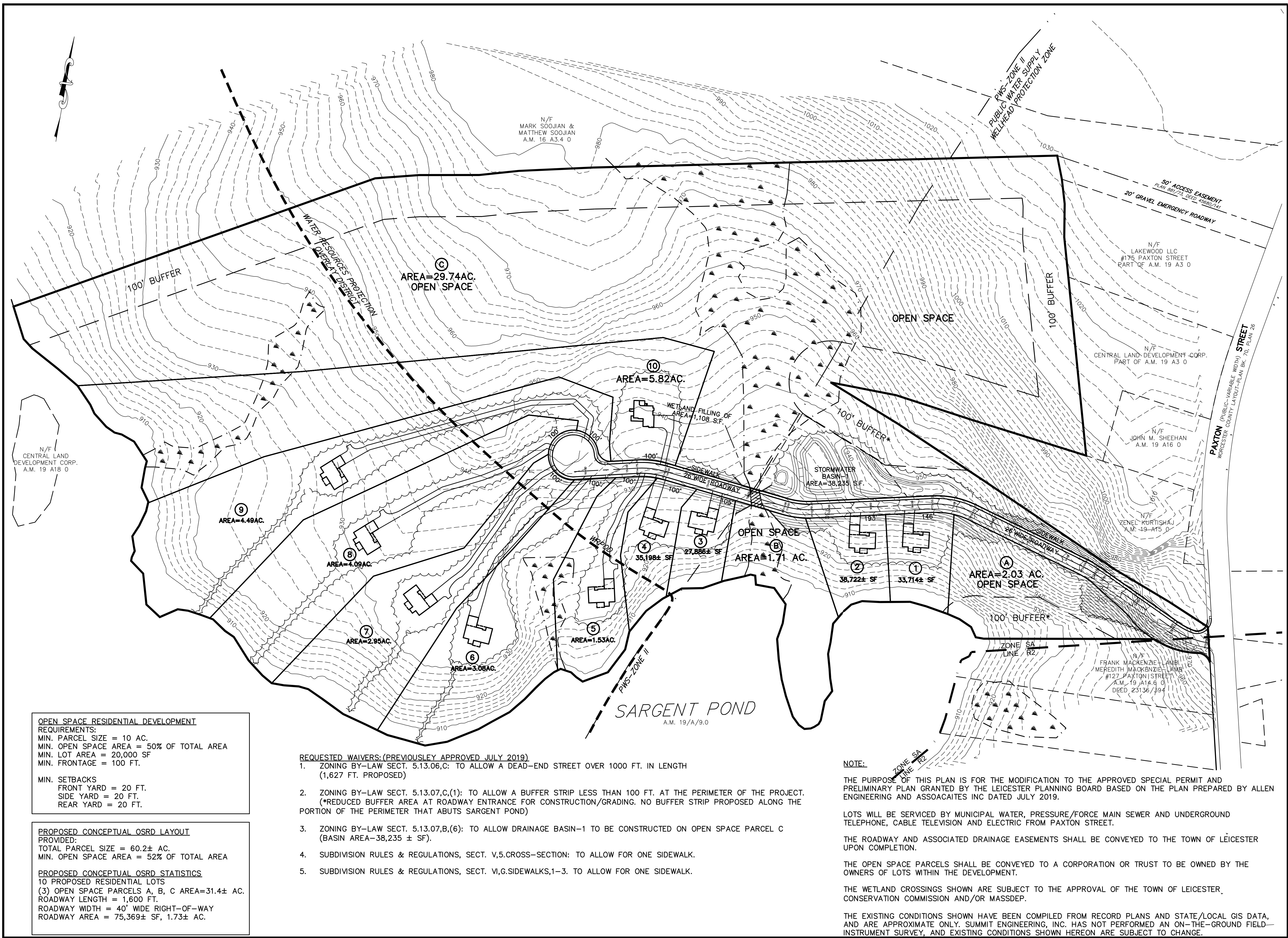
1. The proposed roadway pavement width has been increased to 26 feet.
2. Proposed sidewalk has been added to the roadway cross section on the North side of the proposed roadway.
3. The number of Building Lots has been reduced to 10 Lots instead of 13 Building Lots, which was submitted originally.
4. The length of the roadway has been reduced to 1,627 feet instead of 2,000 feet, which was submitted originally.
5. The emergency gravel access road has been removed.
6. The right of way has been adjusted from station 0+00 to station 3+50 as shown on the revised plan.

Respectfully Submitted,
Summit Engineering & Survey, Inc.

By: *Peter Lavoie*
Peter Lavoie, Project Engineer

Summit Engineering & Survey, Inc.

710 Main Street North Oxford MA 01537 (P) 508-987-8713 (F) 508-987-8714



OPEN SPACE RESIDENTIAL DEVELOPMENT REQUIREMENTS:
MIN. PARCEL SIZE = 10 AC.
MIN. OPEN SPACE AREA = 50% OF TOTAL AREA
MIN. LOT AREA = 20,000 SF
MIN. FRONTAGE = 100 FT.

MIN. SETBACKS
FRONT YARD = 20 FT.
SIDE YARD = 20 FT.
REAR YARD = 20 FT.

PROPOSED CONCEPTUAL OSRD LAYOUT PROVIDED:
TOTAL PARCEL SIZE = 60.2± AC.
MIN. OPEN SPACE AREA = 52% OF TOTAL AREA

PROPOSED CONCEPTUAL OSRD STATISTICS
10 PROPOSED RESIDENTIAL LOTS
(3) OPEN SPACE PARCELS A, B, C AREA=31.4± AC.
ROADWAY LENGTH = 1,600 FT.
ROADWAY WIDTH = 40' WIDE RIGHT-OF-WAY
ROADWAY AREA = 75,369± SF, 1.73± AC.

- REQUESTED WAIVERS:(PREVIOUSLEY APPROVED JULY 2019)**
1. ZONING BY-LAW SECT. 5.13.06,C: TO ALLOW A DEAD-END STREET OVER 1000 FT. IN LENGTH (1,627 FT. PROPOSED)
 2. ZONING BY-LAW SECT. 5.13.07,C,(1): TO ALLOW A BUFFER STRIP LESS THAN 100 FT. AT THE PERIMETER OF THE PROJECT. (*REDUCED BUFFER AREA AT ROADWAY ENTRANCE FOR CONSTRUCTION/GRADING. NO BUFFER STRIP PROPOSED ALONG THE PORTION OF THE PERIMETER THAT ABUTS SARGENT POND)
 3. ZONING BY-LAW SECT. 5.13.07,B,(6): TO ALLOW DRAINAGE BASIN-1 TO BE CONSTRUCTED ON OPEN SPACE PARCEL C (BASIN AREA-38,235 ± SF).
 4. SUBDIVISION RULES & REGULATIONS, SECT. V,5.CROSS-SECTION: TO ALLOW FOR ONE SIDEWALK.
 5. SUBDIVISION RULES & REGULATIONS, SECT. VI,G.SIDEWALKS,1-3. TO ALLOW FOR ONE SIDEWALK.

NOTE:

THE PURPOSE OF THIS PLAN IS FOR THE MODIFICATION TO THE APPROVED SPECIAL PERMIT AND PRELIMINARY PLAN GRANTED BY THE LEICESTER PLANNING BOARD BASED ON THE PLAN PREPARED BY ALLEN ENGINEERING AND ASSOACAITES INC DATED JULY 2019.

LOTS WILL BE SERVICED BY MUNICIPAL WATER, PRESSURE/FORCE MAIN SEWER AND UNDERGROUND TELEPHONE, CABLE TELEVISION AND ELECTRIC FROM PAXTON STREET.

THE ROADWAY AND ASSOCIATED DRAINAGE EASEMENTS SHALL BE CONVEYED TO THE TOWN OF LEICESTER UPON COMPLETION.

THE OPEN SPACE PARCELS SHALL BE CONVEYED TO A CORPORATION OR TRUST TO BE OWNED BY THE OWNERS OF LOTS WITHIN THE DEVELOPMENT.

THE WETLAND CROSSINGS SHOWN ARE SUBJECT TO THE APPROVAL OF THE TOWN OF LEICESTER, CONSERVATION COMMISSION AND/OR MASSDEP.

THE EXISTING CONDITIONS SHOWN HAVE BEEN COMPILED FROM RECORD PLANS AND STATE/LOCAL GIS DATA, AND ARE APPROXIMATE ONLY. SUMMIT ENGINEERING, INC. HAS NOT PERFORMED AN ON-THE-GROUND FIELD-INSTRUMENT SURVEY, AND EXISTING CONDITIONS SHOWN HEREON ARE SUBJECT TO CHANGE.

LOCUS MAP

Professional Engineer

REFERENCES

ASSESSORS INFORMATION:
MAP 19, PARCELS A14, A14.1, A14.2

DEED REFERENCE:
BOOK 59309, PAGE 122

NOTES

LOCUS IS LOCATED WITHIN THE ZONING DISTRICT "SA"

UNDERGROUND UTILITIES HAVE BEEN COMPILED FROM AVAILABLE PLANS FROM PUBLIC AND PRIVATE AGENCIES AND ARE APPROXIMATE ONLY. UNDERGROUND UTILITIES OR STRUCTURES OTHER THAN THOSE SHOWN MIGHT EXIST. BEFORE ANY EXCAVATION OR CONSTRUCTION CALL DIG-SAFE AT 811.

OWNER & APPLICANT:

Central Land Development Corp.
One Charlesview Road, Suite 1,
Hopedale, MA 01747

SMUGGLER'S COVE

TITLE:

MODIFICATION
Preliminary Plan
Open Space Residential
Development Plan
in
Leicester, Massachusetts

1 7/13/21 Reduced number of lots and length of road. Added 26' wide pavement and sidewalk on one side. Adjusted entrance.

SUMMIT
Engineering & Survey, Inc.
710 MAIN STREET
NORTH OXFORD, MA 01537
P:(508)987-8713 F:(508)987-8714

SCALE: 1"=100' FEET

SCALE: AS SHOWN
DATE: MAY 26, 2021
JOB NO: 2021-151
PLAN NO: PRELIMINARY PLAN
SHEET NO: 1 OF 1

PRELIMINARY PLAN



Town of Leicester
PLANNING BOARD
3 WASHBURN SQUARE
LEICESTER, MASSACHUSETTS, 01524-1333
Phone: 508-892-7007 Fax: 508-892-7070
www.leicesterma.org

SPECIAL PERMIT DECISION
Amendment
8/3/2021 rough draft

Date:

File Number: SP2019-02

Applicant: Matt Schold
Central Land Development Corp.
One Charlesview Road, Suite 1
Hopedale, MA 01747

Owner: Same as Applicant

Location: off Paxton Street. Assessors' Map 19, Parcels A14, A14.1, and A14.2

Deed Ref.: Book 59309/Page 122

Zoning: Suburban Agriculture (SA)/Residential 2 (R2)
Water Resources Protection Overlay District

Water/Sewer: Leicester Water Supply District (water & sewer)

Subject: Application for amendment to a Special Permit granted under §5.13 of the Leicester Zoning Bylaw to allow an Open Space Residential Development

The decision of the Planning Board on the above-referenced application is as follows:

PROCEDURAL HISTORY:

1. On January 7, 2020, the Planning Board issued a Special Permit for a 24 lot Open Space Residential Development (OSRD) under §5.13 of the Leicester Zoning Bylaw. The project included a 2,607' paved road and gravel emergency access drive providing secondary access on Paxton Street.
2. On June 7, 2021, the applicant submitted a request to amend the 2020 special permit, specifically to reduce the amount of lots from 24 to 13, and the paved roadway length (from 2,607' to 2,000'). As with the 2020 plan, the project included a long gravel emergency access drive. After conversations with the Highway department and public safety officials, the applicant submitted a revised plan on July 15, 2021 showing 10 lots and a 1,627' paved road with no emergency access way.
3. All application materials are on file with the Planning Board. The Board's decision is based on the following submittals:

- a. Application packet received June 7, 2021 (application forms, 6/2/2021 project narrative, 6/2/2021 waiver request letter, letter from the Leicester Water Supply District, & abutters list)
- b. The following Plans (1 sheet) prepared by Summit Engineering & Survey, Inc., dated May 26, 2021, revised July 13, 2021:

Sheet Title	Sheet #
Modification Preliminary Plan: Open Space Residential Development Plan in Leicester, MA	1 of 1

- c. Color presentation plan showing estimated location of houses, prepared by Summit Engineering and Associates, Inc. May 26, 2021, revised July 13, 2021.
 - d. Letter from Peter Lavoie of Summit Engineering & Survey, Inc. dated July 14, 2021 (describing modifications to plans).
 - e. Letter from Matt & Jenny Schold, Schold Development dated July 12, 2021 (response to June 10, 2021 letter from Carrie Panepinto).
 - f. Letter from Jennifer Schold to Jennifer Fish, Service Forestry Program Director DCR, undated (response to Chris Capone email dated June 29, 2021)
4. The Board engaged Quinn Engineering of Paxton, Massachusetts, pursuant to G.L. c. 44, s. 53G, to review the Applicant's proposed development.
 5. The Planning Board held a public hearing on the application on July 20, 2021. The hearing was continued to August 3, 2021 (no discussion) and August 17m 2021 to allow the Applicant to address comments from the public, the Board and other Departments. At each hearing date(s) opportunity was given to all those interested to be heard in favor of or opposition to such application. The hearing was closed on _____.
 6. During the review process, the following documents, exhibits, and plans were submitted to the Planning Board:
 - a. The plans and submittals referred to above;
 - b. Correspondence of Quinn Engineering, Inc. to Leicester Planning Board dated July 2, 2021 and July 21, 2021;
 - c. Written comments from the following Town Boards and Departments: Fire Department, Highway Department, and Police Department.
 - d. Letter from Attorney George H. Harris dated July 12, 2021 (easement information)
 - e. Email from Carrie Panepinto to the Leicester Planning Board dated June 10, 2021.
 - f. Email from Chris Capone, State Forester DCR, dated June 29, 2021
 - g. Leicester Water Supply District Amendment Review, undated
 - h. Letter from Town Counsel Petrini & Associates dated July 30, 2021 (privileged attorney-client communication; not public record)

FINDINGS:

1. As noted above, this application is to amend a previously-granted special permit for 24 lot Open Space Residential Development (OSRD) on a 60.2± acre vacant wooded tract of land (3 parcels) west of Paxton Street and north of Sargent Pond in the Suburban Agriculture (SA) zoning districts and Water Resources Protection Overlay District (a tiny portion of the site is in the Residential 2 (R2) zoning district).

Findings below are from the 2019 approval:

2. The proposed 24 lot Open Space Residential Development (OSRD) is on a 60.2± acre vacant wooded tract of land (3 parcels) west of Paxton Street and north of Sargent Pond in the Suburban Agriculture (SA) zoning districts and Water Resources Protection Overlay District (a tiny portion of the site is in the Residential 2 (R2) zoning district). The site is also accessible via an existing 50-foot wide access easement to Paxton Street at the northeast corner of the tract. The land abuts Sargent Pond with approximately 3,700 feet of water frontage and the entirety of the site slopes from its northern border southerly toward Sargent Pond.
3. The OSRD project as submitted proposes 24 residential lots (14 with water frontage) on a proposed new roadway off Paxton Street and terminating with a cul-de-sac. A second means of access will continue from the cul-de-sac back through the northerly portion of the subdivision connecting to Paxton Street through the existing access easement. The remainder of the site (31 acres) will be designated as Open Space. The greater portion of the open space will be along the northern side of the tract, directly accessible from the proposed secondary access way. Two other open space parcels along the southern border will provide access from the cul-de-sac roadway to Sargent Pond.
4. In response to comments received during the review process, the secondary access is proposed as a gravel base with 6-8" of compacted asphalt millings. In addition, the Applicant will provide a transition strip (approximately 4' wide and 40' long) along the west side of Paxton Street for southbound traffic entering the project. The Leicester Public Safety Committee approved the secondary access and transition strip as described above at their meeting of September 10, 2019.
5. The proposed site will be provided with public sewer, water, underground electrical and communication services from the existing public utilities located Paxton on Street. In addition to those utilities a proposed stormwater management system will be designed for the developed site to conform to the current Massachusetts DEP Stormwater Management Standards. The project will require Conservation Commission review and approval.
6. The Conventional lot plan required to determine the total number of lots to be created for the OSRD concept shows 27 lots on ±5,249 lineal feet of new roadway with two entrances on Paxton Street. The formula in Section 5.13.05.B(3) of the Zoning Bylaw results in a yield of 28 lots.
7. The OSRD development plan is designed to allow single family residential dwelling units to be "clustered" closer together to minimize the total area of site disturbance for the proposed number of dwellings as compared to a conventionally zoned development and thereby provide for more permanent protected open space. The OSRD concept proposes 2,607 feet of roadway (and a 2,692 foot secondary access way as described above). Along this proposed roadway would be twenty-four (24) frontage lots in conformance with the current Zoning Bylaws. The OSRD bylaw requires a minimum lot size of 20,000 square feet in the SA district; all lots proposed are well in excess of this requirement. Proposed lots range in size from 27,664 - 154,157 square feet (average of 47, 865 square feet). All lots exceed the minimum required frontage of 100 feet.

8. Both the conventional and OSRD proposals show roadways over easements on land owned by others.
9. Leicester's Zoning Bylaw, Section 5.13.07 (A) requires that "no less than 50% of the land area shall be devoted to open space" and "no more than 50% of the open space may contain wetlands." The OSRD plan shows ± 31.3 acres of open space (52% of the total land area of ± 60.2 acres). The proposed open space contains 2.3 acres of wetlands (7.3%).
10. The Applicant proposes that the open space remain private as part of a Homeowners' Association that will maintain it in perpetuity. The Open Space will be available to residents of the subdivision to access the open space using existing logging trails. In addition, a beach and swim area will be provided for homeowners that don't have direct water access.
11. MGL, Chapter 40A, §9 requires that the Board find uses allowed by special permit to be "in harmony with the general purpose and intent of the ordinance or bylaw." The Board finds that this project is in harmony with the purpose and intent of the Bylaw.
12. Special Permit Criteria in Section 5.13.09 (B) of the Zoning Bylaw:
 - a) **The development meets the purpose of an Open Space Residential Development as described in Section 5.13.01.**

The OSRD plan preserves ± 31.3 acres (52% of the total land area of ± 60.2 acres) as permanently protected open space. The project accommodates the site's physical characteristics, particularly wetlands and topography, by reducing the overall footprint of roadways and residential development areas thereby minimizing impacts on the site's wetland areas. The open space area will preserve scenic vistas of Sargent Pond below. The peninsula extending into Sargent Pond from the site will also be preserved as open space restricted to use by the residents of the subdivision.
 - b) **The site design shall preserve and, where possible, enhance the historic and natural features of the property, including scenic views, by adapting the location and placement of structures and ways to the existing topography in order to minimize the amount of soil removal, tree cutting and general disturbance to the landscape and surrounding properties.**

As noted above, the project preserves a significant amount of open space and is designed to adapt to existing topography. The project minimizes soil removal, tree cutting and land disturbance. Special historic and natural features will be further identified and provided for in development of the Definitive Subdivision Plan.
 - c) **The site design shall identify and ensure preservation of significant and special historic and natural features.**

The site design protects significant wetland areas and scenic views of Sargent Pond. The Applicant will investigate potential historic cave of historic interest per comments from the Historical Commission. The Notice of Intent process through the Conservation Commission will also be required.
 - d) **The open space is designed in accordance with the standards set forth in this Section 5.13.**

The Board finds that the project meets these standards as conditioned herein and as modified by vote of the Board (see WAIVERS, below). [Note: these are specifically the standards in Section 5.13.07 – Open Space Use & Design Standards. The project meets these standards except where the Applicant has requested waivers to allow a drainage basin in the open space and reduce buffers as described below.]

- e) **The parcel could be developed as a conventional subdivision under existing local, state and federal land use regulations.**
The Board finds that the site could be developed as a conventional subdivision.
- f) **The Open Space Residential Development provides for efficient use and delivery of municipal and other services and infrastructure.**
The residential lots will be served by public water and sewer. The project will minimize road maintenance costs as compared to a standard development.

WAIVERS:

WAIVERS: *[as written below is based on the July 2021 submittal]*

Zoning Bylaw:

1. Section 5.13.06.C.: To allow a dead-end street over 1,000' in length [The Board took no action; a ZBA variance is required.]
2. Section 5.13.07.C.1: To allow a buffer of less than 100' at the perimeter of the project. [The Board previously granted this waiver, with conditions, as part of the 2020 approval.]
3. Zoning Bylaw §5.13.07.B.(6): to allow drainage basin 1 to be constructed in open space parcel C. (Board may allow clearing of up to 5% for this purpose). The basin area is 17,000± square feet (1.4% of open space parcel C.) [The Board granted this waiver as part of the 2020 special permit decision.]

Subdivision Rules and Regulations

In accordance with Section 5.13.06.D of the Zoning Bylaw, the Planning Board **approved/disapproved** the following reduction of minimum subdivision standards after finding that such waivers will result in better site design, improved protection of historic, natural and scenic resources, and will be consistent with the purpose of this Section 5.13:

4. Section V.2.(A): To allow a travelled way width of 26 feet (28 feet required). [The Board previously voted to approve 24' feet]
5. Sections V.5 and VI.G: to allow for the one sidewalks (sidewalk required on both sides of proposed roads). [The Board previously approved one sidewalk.]

DECISION:

In view of the foregoing, at the meeting of January 7, 2020, the Planning Board voted to approve the Special Permit application for the above-described project. As used in this decision, the term "Applicant" shall mean the Applicant, its heirs, successors and assigns. Unless otherwise specified, the Board may designate an agent or agents to review and approve matters set forth in this decision. The Planning Board's approval is subject to the following conditions:

CONDITIONS:

General

1. This special permit shall not take effect until it has been recorded at the Worcester District Registry of Deeds and evidence of such recording is delivered to the Planning Board.
2. If the rights authorized by this Special Permit are not exercised by January 7, 2022 (two years from the date of approval), they shall lapse and may be re-established only after notice and new hearing in accordance with MGL, Chapter 40A. For the purposes of this special permit, approval of the related Definitive Subdivision Plan (hereafter referred to as the Definitive plan) shall be considered exercising the rights granted herein. This deadline may be extended for good cause upon the written request of the applicant *prior to the specified deadline*.

Project-Specific Conditions:

3. The Definitive plan shall be in substantial conformance with the plans submitted to the Planning Board and this Special Permit Decision.
4. The Definitive Plan shall include a revised calculation of the formula in Section 5.13.05.b (3) based on final wetland delineation. If the formula results in fewer than 24 lots, the Board may reconsider the total number of allowable lots.
5. The Definitive Plan shall show a transition strip (approximately 4' wide and 40' long) along the west side of Paxton Street for southbound traffic entering the project.
6. The Definitive Plan shall show the secondary access as a minimum of a gravel base with 6-8" of compacted asphalt millings.
7. The Definitive plan shall clearly show the boundaries of the buffer required by Section 5.13.07.C. (as reduced in certain areas by vote of the Board).
8. The Planning Board's approval specifically allows a model home for the project to be located on adjacent property owned by the applicant at 173 Paxton Street.
9. The applicant shall notify the Historical Commission if evidence of a cave used by an early Leicester settler is found on the site.
10. Where the required 100 foot buffer has been reduced at the entrance to the project, landscaping and/or other screening shall be provided to the satisfaction of the Planning Board to screen the project from abutting landowners. The Definitive plan shall show detailed plans for such landscaping and/or other screening. Screening may consist of existing vegetation where sufficient to screen the project from abutting landowners.
11. Where the required 100 foot buffer has been reduced along the shoreline of Sargent Pond, the Definitive plan shall show details of no-cut easements, conservation restrictions or similar

land use restrictions in accordance with Section 5.13.07.C.(2) of the Zoning Bylaw where the buffer has been reduced, with the intent of minimizing tree removal within the 100 foot buffer, allowing only limited tree clearing for water access for residents.

12. The Open Space shall be maintained in perpetuity in accordance with Section 5.13.08 of the Zoning Bylaw (Open Space Ownership and Management). The open space shall be conveyed (or otherwise protected) as soon as practical; the specific deadline shall be determined by the Planning Board at the Definitive plan approval stage.

Approval by the Planning Board shall not be construed as approval from any other board or official that is needed regarding permitting for this project.

RECORD OF VOTE

The Board vote was ____ in favor of approval ____ opposed.

Jason Grimshaw, Chair

Debra Friedman, Vice-Chair

Sharon Nist

Andrew Kularski

Jaymi-Lyn Souza

APPEALS

Appeals, if any, shall be made pursuant to M.G.L., Ch. 40A, §17 and notice of appeal shall be filed within 20 days after the date of filing of this notice in the office of the Town Clerk.

Copy of Decision sent to:

Town Clerk

Applicant*

Owner

Building Inspector

Assessors Office

Quinn Engineering

Town Administrator

* by certified mail

Notice of Decision mailed to:

“Parties in Interest” (abutters & Planning Boards of abutting Towns)

GRAZ Engineering, L.L.C.



323 West Lake Road • Fitzwilliam, NH 03447 • Telephone (603) 585-6959 • Fax (603) 585-6960

Transmittal

To: Planning Board
Company: Town of Leicester
Address: 3 Washburn Square
City/State: Leicester, MA 01524

Subject: Parker Street (North)
Definitive Plans for Endorsement
Date: October 26, 2021
Transmitted: ☐ Mail ☒ Email ☒ Hand

- | | |
|--|---|
| <input checked="" type="checkbox"/> For Your Approval | <input checked="" type="checkbox"/> Which You requested |
| <input checked="" type="checkbox"/> For Your Review | <input type="checkbox"/> Approved |
| <input type="checkbox"/> For Your Signature | <input type="checkbox"/> Approved As Noted |
| <input checked="" type="checkbox"/> For Your Information | <input type="checkbox"/> Revise And Resubmit |
| <input type="checkbox"/> For Your Files | <input type="checkbox"/> Not Approved |

1	copies	Parker Street (North) - Final Definitive Subdivision Mylar Plans dated 9/8/2021
1	copies	Parker Street (North) - Final Definitive Subdivision Paper Plans dated 9/8/2021
1	email	Parker Street (North) - Final Definitive Subdivision Plans - Digital PDF via Email
1	email	Parker Street (North) - Final Definitive Subdivision Plans - Digital CAD via Email
	copy	

Comments: Enclosed are the final mylar Definitive Subdivision Plans and associated paper & digital copies as set forth in the Planning Board's Definitive Approval, Section E. Conditions, Items 3 & 4, dated September 22, 2021. The Covenant in lieu of the required Performance Guaranty was submitted separately on October 3, 2021 electronically for the Planning Departments review.

Should you have any questions or require any additional information, please call my cell at 508-769-9084.

Respectfully yours,
GRAZ Engineering, L.L.C.

Brian MacEwen, PLS, BSCE
Project Manager

cc: Matt Schold, Applicant/Owner

APPLICANT & OWNER:
SCHOLD DEVELOPMENT, LLC, 77 CHICKERING ROAD, SPENCER, MA 01562

ENGINEER & SURVEYOR:
GRAZ ENGINEERING, L.L.C., 323 WEST LAKE ROAD, FITZWILLIAM, NH 03447

ENVIRONMENTAL CONSULTANT
EBT ENVIRONMENTAL CONSULTING, 2 WELLINGTON ROAD, OXFORD, MA 01540




PLAN REFERENCE: PLAN BOOK 800, PLAN 29 - PARCELS A & C


<i>LOT AREA</i>	<i>80,000 SQ</i>
<i>FRONTAGE & WIDTH</i>	<i>200 FT</i>
<i>FRONT SETBACK</i>	<i>40 FT</i>
<i>SIDE SETBACK</i>	<i>40 FT</i>
<i>REAR SETBACK</i>	<i>40 FT</i>
<i>MAX. BLDG. HEIGHT</i>	<i>35 FT.</i>
<i>MAX. NO. STORIES</i>	<i>2-1/2</i>
<i>MAX. LOT COVERAGE</i>	<i>30%</i>

- TOTAL LAND AREA: ± 3,195,623 SQ. FT. (± 73.36141 ACRES)
- TOTAL LOT AREA: ± 243,802 SQ. FT. (± 5.59693 ACRES)
- REMAINING LAND: ± 2,912,178 SQ. FT. (± 66.85441 ACRES)
- RIGHT-OF-WAY AREA: ± 50,322 SQ. FT. (± 1.15523 ACRES)
- EASEMENT AREA: ± 78,429 SQ. FT. (± 1.80049 ACRES)

1	COVER SHEET	5	PARKER STREET PLAN & PROFILE (SHT 1 OF 2)
2	KEY PLAN AND NOTES	6	PARKER STREET PLAN & PROFILE (SHT 2 OF 2)
3	LOT LAYOUT PLAN	7	CONSTRUCTION NOTES & DETAILS
4	EROSION CONTROL PLAN	8	DRAINAGE DETAILS

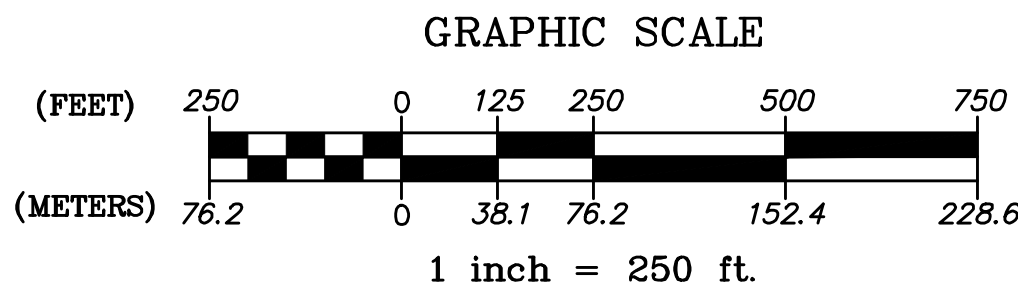
SECTION V.A.2.g - MINIMUM WIDTH OF TRAVELLED WAY 28' MIN. REQUIRED: & SECTION V.A.2 - TO ALLOW A TRAVELLED WAY WIDTH OF 20'.	SECTION V.I.E.3 - STREET LIGHTING SHALL BE REQUIRED. TO ALLOW STREET LIGHTING TO BE INSTALLED AS STIPULATED IN THE WRITTEN PLANNING BOARD DECISION AND AS DEPICTED ON THE FINAL APPROVED PLANS.
SECTION V.A.4.g - MAXIMUM LENGTH OF DEAD-END CUL-DE-SAC 500' MIN. REQUIRED: TO ALLOW DEAD-END STREET LENGTH OF 22+05.33' & RIGHT-OF-WAY LENGTH OF 22+15.33' BOTH AS MEASURED FROM SOUTHERLY EDGE OF PINE STREET.	SECTION V.G.1 - SIDEWALKS SHALL BE INSTALLED ON BOTH SIDES OF THE ROADWAY. TO ALLOW FOR NO SIDEWALKS INSTALLATION.
	SECTION V.I.L - STREET SHADE TREES SHALL BE INSTALLED ON BOTH SIDES OF THE ROADWAY. TO ALLOW FOR STREET TREE PLANTINGS TO BE INSTALLED ONLY ON THE WESTERLY SIDE OF THE PROPOSED ROADWAY AS DEPICTED ON THE FINAL APPROVED PLANS AND AS STIPULATED IN THE CONDITIONS OF THE WRITTEN PLANNING BOARD DECISION.

FOR REGISTRY USE ONLY	<p>THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER & SPENCER ASSESSOR'S RECORDS.</p> <p>I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.</p>  <p>CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN", DATED _____, 2019 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK _____, PAGE _____. THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED _____ TO BE RECORDED HEREWITH. APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR ____ YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN ____ YEARS FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.</p>	<p align="center">CERTIFICATE OF NO APPEAL</p> <hr/> <p>THIS IS TO CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE LEICESTER PLANNING BOARD WAS RECEIVED AND RECORDED AT THIS OFFICE ON _____ AT _____ AND NO APPEAL WAS RECEIVED DURING THE 20 DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.</p> <p>TOWN CLERK – LEICESTER _____</p> <p>DATE _____</p>	<p align="center">APPROVED UNDER THE SUBDIVISION CONTROL LAW PLANNING BOARD OF LEICESTER</p> <hr/> <p>DATE: _____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">SCALE: AS NOTED</th><th>DRAWN: BCM</th><th>CHECKED: PFG & BCM</th><th>PLAN DATE: JUNE 8, 2021</th></tr> <tr> <th>REV.</th><th>DATE</th><th colspan="2">DESCRIPTION</th><th>BY</th></tr> </thead> <tbody> <tr> <td align="center">1</td><td align="center">8/24/21</td><td colspan="2">REVS PER QUINN ENG. TECH. REVIEW & LPB</td><td align="center">BCM</td></tr> <tr> <td align="center">2</td><td align="center">9/8/21</td><td colspan="2">REVS PER QUINN ENG. TECH. REVIEW & LPB</td><td align="center">BCM</td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> <tr><td> </td><td> </td><td colspan="2"> </td><td> </td></tr> </tbody> </table>	SCALE: AS NOTED		DRAWN: BCM	CHECKED: PFG & BCM	PLAN DATE: JUNE 8, 2021	REV.	DATE	DESCRIPTION		BY	1	8/24/21	REVS PER QUINN ENG. TECH. REVIEW & LPB		BCM	2	9/8/21	REVS PER QUINN ENG. TECH. REVIEW & LPB		BCM																																																		
SCALE: AS NOTED		DRAWN: BCM	CHECKED: PFG & BCM	PLAN DATE: JUNE 8, 2021																																																																						
REV.	DATE	DESCRIPTION		BY																																																																						
1	8/24/21	REVS PER QUINN ENG. TECH. REVIEW & LPB		BCM																																																																						
2	9/8/21	REVS PER QUINN ENG. TECH. REVIEW & LPB		BCM																																																																						


SHEET 1 OF 8
 REGISTRY SHEET 1 OF 3

GENERAL NOTES

- 1) THE EXISTING TOPOGRAPHY, SITE FEATURES, AND UTILITIES DEPICTED HEREON ARE BASED ON AERIAL PHOTOGRAMMETRY PREPARED BY COL-EAST, INC. FROM AERIAL PHOTOGRAPHS TAKEN IN 2004.
- 2) THE EXISTING BOUNDARY LINES AND THE AERIAL PHOTOGRAMMETRY INFORMATION DEPICTED HEREON ARE THE RESULT OF THE RESULT OF AN ACTUAL ON THE GROUND FIELD SURVEY PERFORMED BY THE BSC GROUP, INC. IN JUNE THROUGH JULY 2005 AND MARCH 2005 AND COMPIATION OF THE DEEDS AND PLANS OF RECORD CITED HEREON.
- 3) THE HORIZONTAL AND VERTICAL DATUMS WERE ESTABLISHED BY NETWORK-RTK GNSS GPS PERFORMED AT THE SITE.
- HORIZONTAL DATUM & BEARING BASIS = MASSACHUSETTS MAINLAND GRID (NAD83)
- VERTICAL DATUM = NAVD88 (REFER TO PLAN FOR LOCATION OF BENCHMARKS SET DURING SURVEY)
- NOTE: THE NGVD 1929 DATUM IS 0.68 FEET HIGHER THAN THE NAVD 1988 DATUM.
1929 NGVD DATUM ELEV = 378.49'
- 4) THE TOWN LINE DEPICTED HEREON WAS DETERMINED BY NETWORK RTK-GNSS LOCATION OF THE TOWN BOUNDS (MASSACHUSETTS MAINLAND GRID, NAD 83).
- 5) THE WETLANDS WERE FIELD DELINEATED BY EBT ENVIRONMENTAL CONSULTING, INC. IN OCTOBER 2005 AND WERE LOCATED BY THE FIELD SURVEY CITED ABOVE.
- 6) THE PORTION OF THE SITE ADJOINING THE EASTERLY SIDE OF STILES LAKE LIES WITHIN ZONE A, SPECIAL FLOOD HAZARD AREA WITH NO ELEVATIONS DETERMINED AS SET FORTH ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOE INSURANCE RATE MAP (FIRM) 25027C0780E WITH THE REMAINDER OF THE SITE BEING IN ZONE X, MINIMAL FLOOD HAZARD AS SET FORTH ON THE FIRM 25027C0783E, BOTH MAPS BEARING EFFECTIVE DATES OF JULY 4, 2011.
- 7) THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON, ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF THE OBSERVABLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. AND THE COMPIATION OF INFORMATION OBTAINED FROM VARIOUS UTILITY COMPANIES, AND GOVERNMENT AGENCIES. THE ENGINEER DOES NOT GUARANTEE THAT ALL UTILITIES AND SUB-SURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERT ELEVATIONS OF THE UTILITIES AND STRUCTURES, AS REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE OBSERVED BETWEEN THE EXISTING CONDITIONS DEPICTED HEREON AND THE ACTUAL CONDITIONS.
- 8) IN ACCORDANCE WITH CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 1-888-344-7233 72 HOURS BEFORE ANY EXCAVATION.
- 9) A FIFTEEN FOOT (15') WIDE TEMPORARY SLOPE AND CONSTRUCTION EASEMENT SHALL BE PROVIDED PARALLEL AND ALONG THE ENTIRE PROPOSED RIGHT-OF-WAY ACROSS THE FRONTAGE OF EACH LOT. THE TEMPORARY SLOPE AND CONSTRUCTION EASEMENT SHALL BE EXTINGUISHED UPON ACCEPTANCE OF THE ROADWAY BY THE TOWN OF LEICESTER.
- 10) THE DRAINAGE AND UTILITY EASEMENTS DEPICTED HEREON ARE REQUIRED BY THE TOWN OF LEICESTER DEPARTMENT OF PUBLIC WORKS IN ORDER TO MAINTAIN THE DRAINAGE INFRASTRUCTURE (SWALES, PONDS, ETC.) AND SHALL BE GRANTED TO THE TOWN OF LEICESTER.



MERIDIAN OF MASSACHUSETTS MAINLAND GRID (NAD83)

APPROVED UNDER THE SUBDIVISION CONTROL LAW PLANNING BOARD OF LEICESTER

DATE: _____

CERTIFICATE OF NO APPEAL

THIS IS TO CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE LEICESTER PLANNING BOARD WAS RECEIVED AND RECORDED AT THIS OFFICE ON _____ AT _____ AND NO APPEAL WAS RECEIVED DURING THE 20 DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK - LEICESTER

DATE _____

FOR REGISTRY USE ONLY

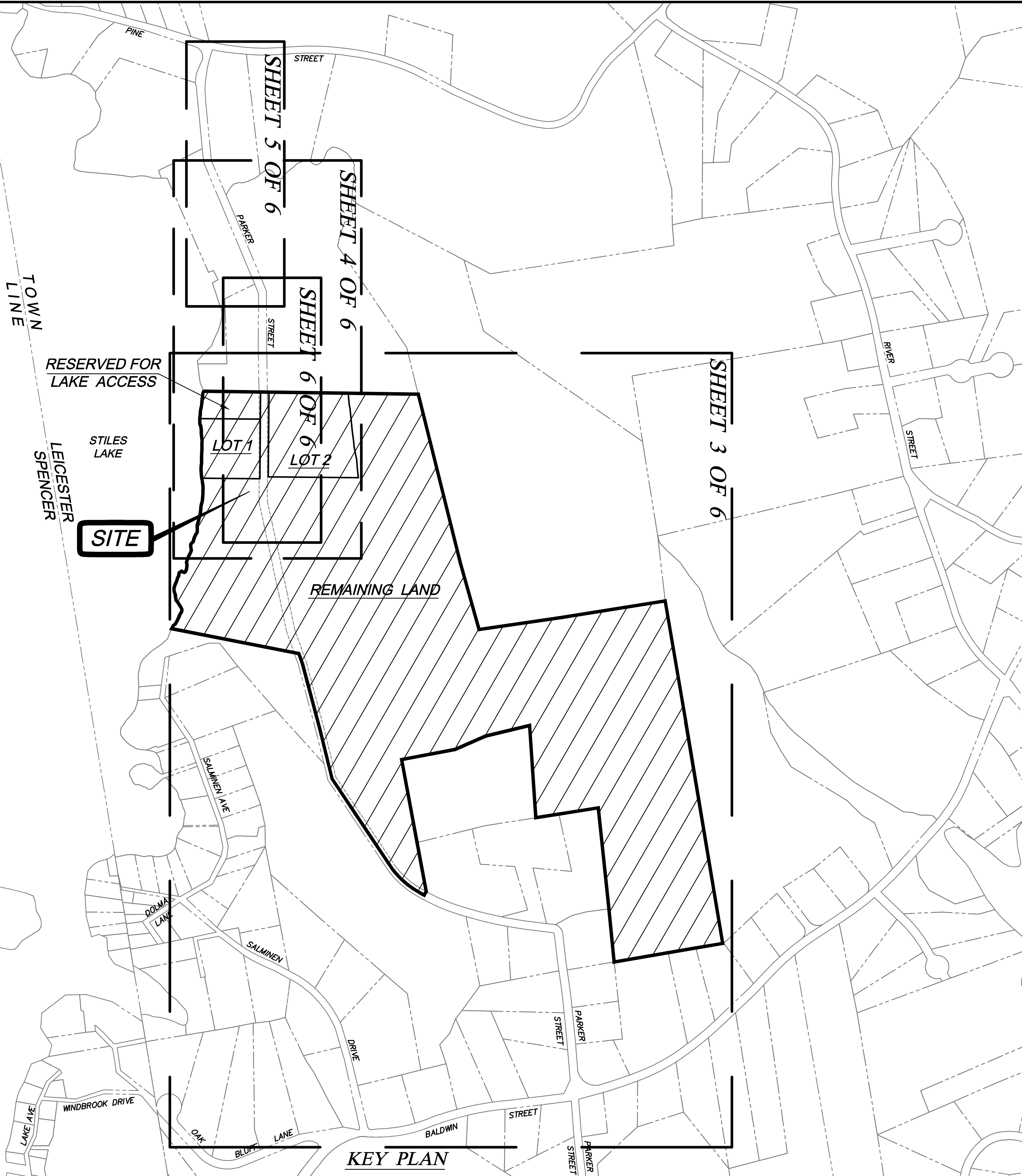
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER & SPENCER ASSESSOR'S RECORDS.

I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN", DATED _____, 2019 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK _____, PAGE _____.

THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED _____ TO BE RECORDED HEREWITH.

APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR _____ YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN _____ YEARS FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.



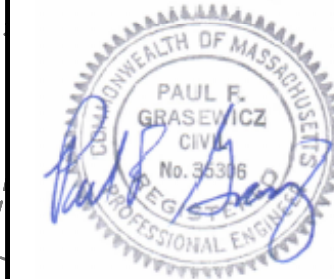
GRAZ Engineering, L.L.C.

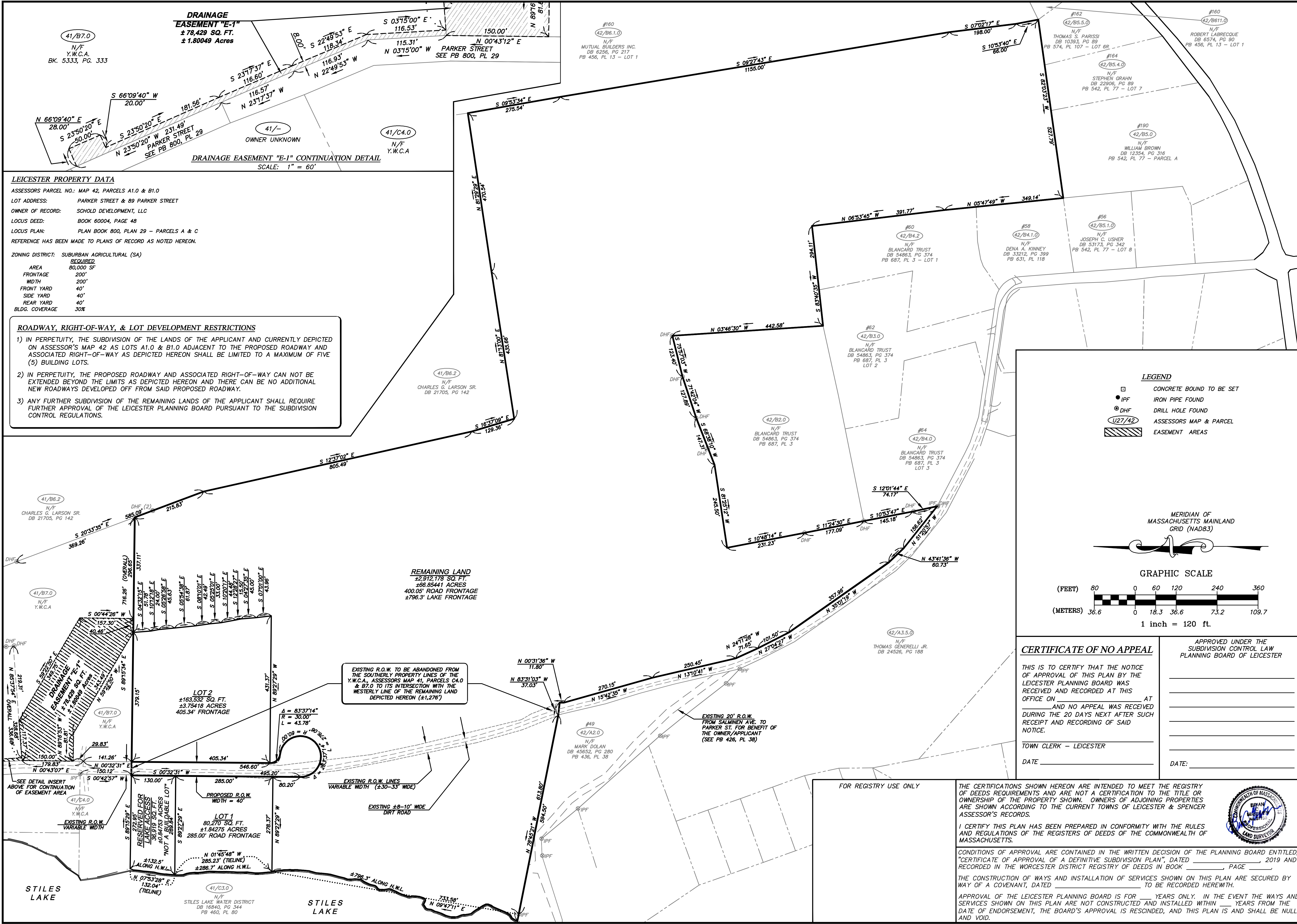
323 West Lake Road, Fitzwilliam, NH 03447
Phone: (603) 885-9559 Fax: (603) 885-9960

PARKER STREET (NORTH) - DEFINITIVE SUBDIVISION
LEICESTER, MASSACHUSETTS

KEY PLAN & NOTES
PREPARED FOR: SCHOLD DEVELOPMENT, LLC (OWNER/APPLICANT)
77 CHICKERING ROAD, SPENCER, MA 01562

SCALE:	AS NOTED	DATE	DRAWN:	CHECKED:	PLAN DATE:
REV.	DATE	DESCRIPTION	BCM	FIG & BCM	JUNE 8, 2021
1	8/24/21	REVS PER QUINN ENG. TECH. REVIEW & LPB	BCM		BY BCM
2	9/8/21	REVS PER QUINN ENG. TECH. REVIEW & LPB	BCM		BCM





LEICESTER PROPERTY DATA

ASSESSORS PARCEL NO.: MAP 42, PARCELS A1.0 & B1.0

LOT ADDRESS: PARKER STREET & 89 PARKER STREET

OWNER OF RECORD: SCHOLD DEVELOPMENT, LLC

LOCUS DEED: BOOK 60004, PAGE 48

LOCUS PLAN: PLAN BOOK 800, PLAN 29 - PARCELS A & C

REFERENCE HAS BEEN MADE TO PLANS OF RECORD AS NOTED HEREON.

ZONING DISTRICT: SUBURBAN AGRICULTURAL (SA)

REQUIRED:

AREA 80,000 SF

FRONTAGE 200'

WIDTH 200'

FRONT YARD 40'

SIDE YARD 40'

REAR YARD 40'

BLDG. COVERAGE 30%

ROADWAY, RIGHT-OF-WAY, & LOT DEVELOPMENT RESTRICTIONS

1) IN PERPETUITY, THE SUBDIVISION OF THE LANDS OF THE APPLICANT AND CURRENTLY DEPICTED ON ASSESSOR'S MAP 42 AS LOTS A1.0 & B1.0 ADJACENT TO THE PROPOSED ROADWAY AND ASSOCIATED RIGHT-OF-WAY AS DEPICTED HEREON SHALL BE LIMITED TO A MAXIMUM OF FIVE (5) BUILDING LOTS.

2) IN PERPETUITY, THE PROPOSED ROADWAY AND ASSOCIATED RIGHT-OF-WAY CAN NOT BE EXTENDED BEYOND THE LIMITS AS DEPICTED HEREON AND THERE CAN BE NO ADDITIONAL NEW ROADWAYS DEVELOPED OFF FROM SAID PROPOSED ROADWAY.

3) ANY FURTHER SUBDIVISION OF THE REMAINING LANDS OF THE APPLICANT SHALL REQUIRE FURTHER APPROVAL OF THE LEICESTER PLANNING BOARD PURSUANT TO THE SUBDIVISION CONTROL REGULATIONS.

LEGEND

- CONCRETE BOUND TO BE SET
- IRON PIPE FOUND
- DRILL HOLE FOUND
- ASSESSORS MAP & PARCEL
- EASEMENT AREAS

MERIDIAN OF MASSACHUSETTS MAINLAND GRID (NAD83)

GRAPHIC SCALE

(FEET) 0 60 120 240 360

(METERS) 0 18.3 36.6 73.2 109.7

1 inch = 120 ft.

CERTIFICATE OF NO APPEAL

THIS IS TO CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE LEICESTER PLANNING BOARD WAS RECEIVED AND RECORDED AT THIS OFFICE ON _____ AT _____ AND NO APPEAL WAS RECEIVED DURING THE 20 DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK - LEICESTER

DATE _____

APPROVED UNDER THE SUBDIVISION CONTROL LAW PLANNING BOARD OF LEICESTER

DATE: _____

FOR REGISTRY USE ONLY

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO THE CURRENT TOWNS OF LEICESTER & SPENCER ASSESSOR'S RECORDS.

I CERTIFY THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

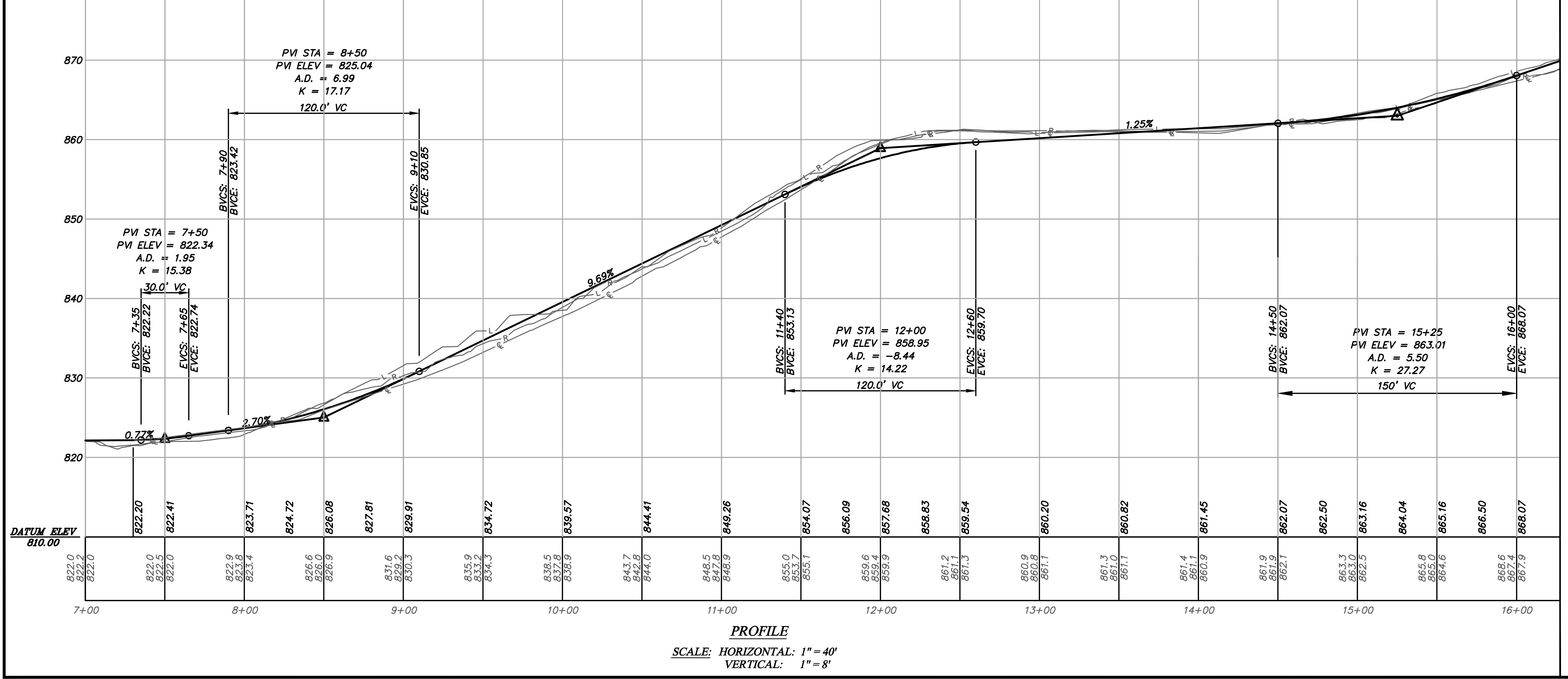
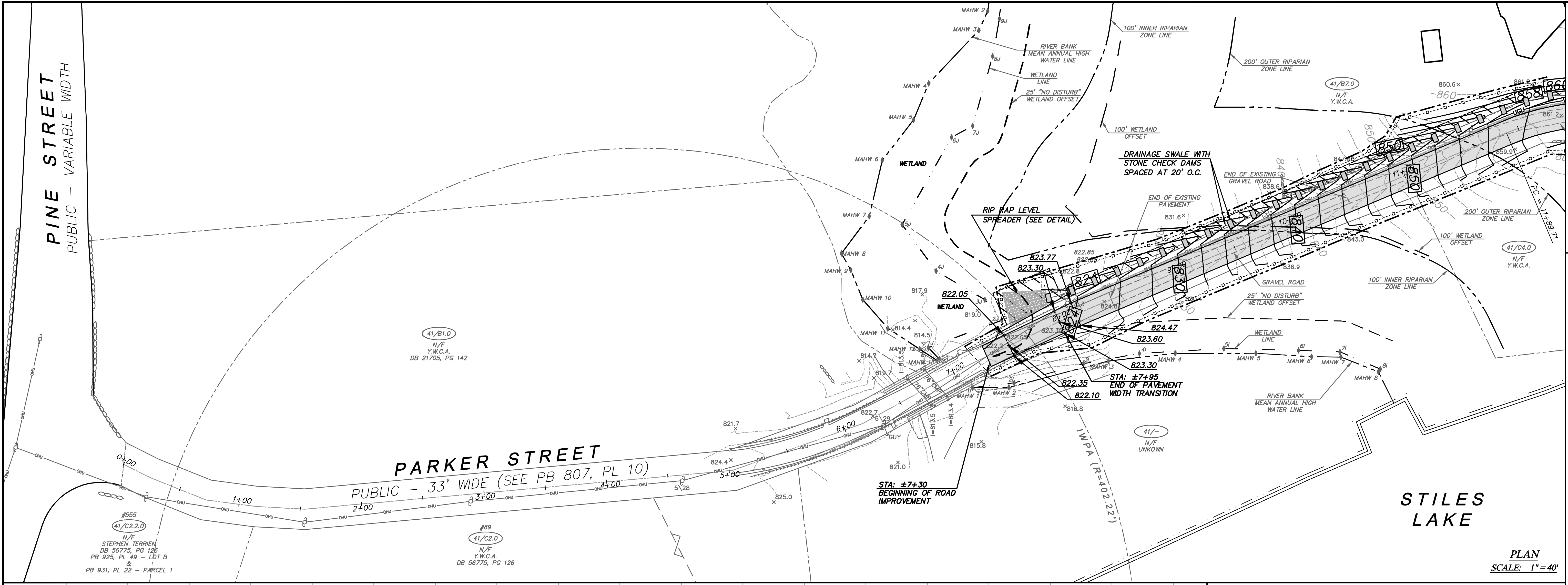
CONDITIONS OF APPROVAL ARE CONTAINED IN THE WRITTEN DECISION OF THE PLANNING BOARD ENTITLED, "CERTIFICATE OF APPROVAL OF A DEFINITIVE SUBDIVISION PLAN", DATED _____, 2019 AND RECORDED IN THE WORCESTER DISTRICT REGISTRY OF DEEDS IN BOOK _____ PAGE _____.

THE CONSTRUCTION OF WAYS AND INSTALLATION OF SERVICES SHOWN ON THIS PLAN ARE SECURED BY WAY OF A COVENANT, DATED _____ TO BE RECORDED HERewith.

APPROVAL OF THE LEICESTER PLANNING BOARD IS FOR _____ YEARS ONLY. IN THE EVENT THE WAYS AND SERVICES SHOWN ON THIS PLAN ARE NOT CONSTRUCTED AND INSTALLED WITHIN _____ YEARS FROM THE DATE OF ENDORSEMENT, THE BOARD'S APPROVAL IS RESCINDED, AND THIS PLAN IS AND SHALL BE NULL AND VOID.



SHEET 4 OF 8



LEGEND

- 328 --- EXISTING CONTOURS
- 328 --- DESIGN CONTOURS
- +867.0 DESIGN GRADES
- - - - - SILTFENCE
- - - - - WATTLES
- - - - - LIMIT OF WORK
- - - - - PROPOSED TREE LINE
- ☆ LOT/STREET LIGHT

GRAPHIC SCALE

1 inch = 40 ft.

APPROVED UNDER THE SUBDIVISION CONTROL LAW PLANNING BOARD OF LEICESTER

DATE: _____

PROFILE LEGEND

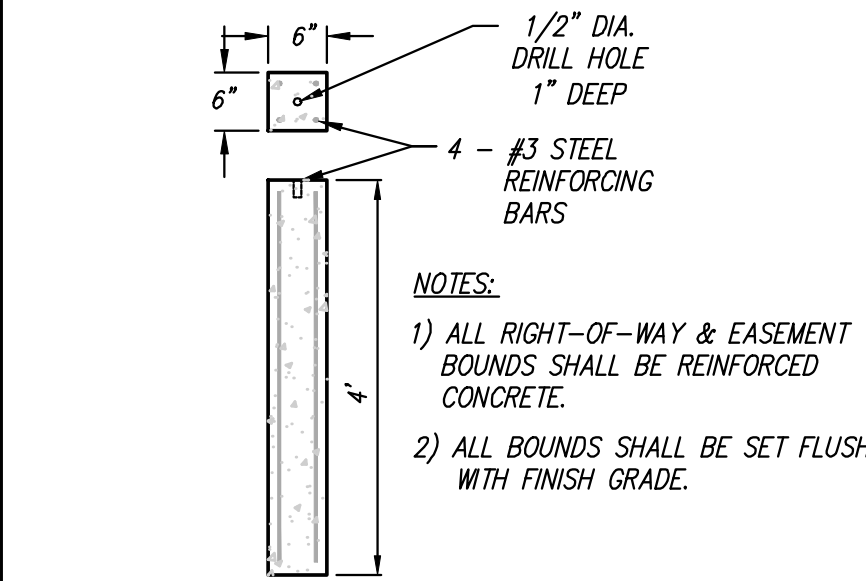
- PROPOSED GRADE CENTERLINE
- EXISTING GRADE 25' RIGHT
- EXISTING GRADE CENTERLINE
- EXISTING GRADE 25' LEFT

GENERAL CONSTRUCTION NOTES

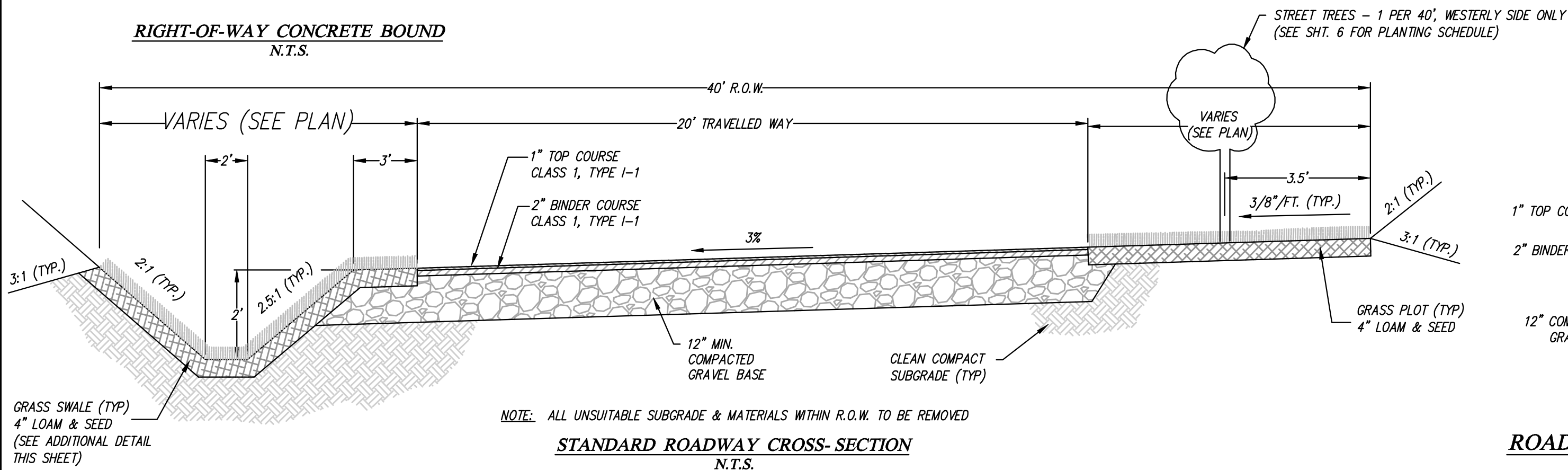
- 1) ALL REQUIRED PERMITS SHALL BE SECURED PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
- 2) THE TOWN OF LEICESTER CONSERVATION COMMISSION'S ORDER OF CONDITIONS ARE HEREBY MADE CONDITIONS OF THE JURISDICTIONAL WORK FOR THIS PROJECT.
- 3) AT LEAST 10 DAYS PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE TOWN LEICESTER PLANNING BOARD, CONSERVATION COMMISSION, BUILDING DEPARTMENT, HIGHWAY DEPARTMENT, & BOARD OF HEALTH, GRAZ ENGINEERING, LLC, AND QUINN ENGINEERING, INC.
- 4) IN ACCORDANCE WITH CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 1-888-344-7233, 72 HOURS BEFORE ANY EXCAVATION.
- 5) THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON, ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF THE OBSERVABLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. AND THE COMPILATION OF INFORMATION OBTAINED FROM VARIOUS UTILITY COMPANIES, AND GOVERNMENT AGENCIES. THE ENGINEER DOES NOT GUARANTEE THAT ALL UTILITIES AND SUB-SURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERT ELEVATIONS OF THE UTILITIES AND STRUCTURES, PRIOR TO THE START OF CONSTRUCTION.
- 6) ALL WORK AND MATERIALS SHALL CONFORM TO THE TOWN OF LEICESTER SUBDIVISION RULES & REGULATIONS, ZONING BYLAWS, PLANNING BOARD DECISIONS, CONSERVATION COMMISSION ORDERS, & HIGHWAY DEPARTMENT STANDARDS, AND THE LATEST EDITION OF THE MASSACHUSETTS HIGHWAY DEPARTMENT OF PUBLIC WORKS (MHPW) CONSTRUCTION STANDARDS AND THE MHPW "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES" AND ALL OF THEIR RESPECTIVE AMENDMENTS, UNLESS OTHERWISE SPECIFIED BY THE LOCAL AUTHORITY OR THE ENGINEER.
- 7) THE CONTRACTOR SHALL COORDINATE ALL UTILITY AND ROADWAY CONSTRUCTION WITHIN THE TOWN RIGHT-OF-WAYS WITH THE HIGHWAY DEPARTMENT SUPERINTENDENT AND/OR THE APPROPRIATE UTILITY COMPANY.
- 8) THE CONTRACTOR SHALL PROVIDE EVERYTHING NECESSARY TO CONSTRUCT THE UTILITIES AND ROADWAY WITHIN THE SPECIFIED PARAMETERS AND IN A WORKMANSHIP LIKE MANNER.
- 9) THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE OBSERVED BETWEEN THE EXISTING CONDITIONS DEPICTED HEREON AND THE FIELD VERIFIED CONDITIONS.
- 10) THE CONTRACTOR SHALL CONTROL AIRBORNE DUST WITH USE OF SPRAYED WATER AS REQUIRED TO MINIMIZE THE IMPACTS TO NEIGHBORING PROPERTIES. THE USE OF CALCIUM CHLORIDE OR OTHER CHEMICALS ARE PROHIBITED.
- 11) THIS ROADWAY PROJECT SHALL BE BUILT ALL IN ONE PHASE. IF AT ANY TIME SHOULD THE DEVELOPER DECIDE TO CONSTRUCT THE PROJECT IN PHASES, A CONSTRUCTION SEQUENCING PLAN SHALL BE SUBMITTED TO THE PLANNING BOARD FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
- 12) ALL PROPOSED LOTS ARE TO BE SERVICED BY PRIVATE ON-SITE SEPTIC AND WELLS.
- 13) THE TEST PITS FOR THE PROPOSED STORMWATER INFILTRATION BASIN SHALL BE PERFORMED PRIOR THE COMMENCEMENT OF ANY ROADWAY CONSTRUCTION.
- 14) BACK FILL FOR UTILITY TRENCHES SHALL BE PLACED IN 12-INCH LOOSE LIFTS AND COMPACTED TO 95 PERCENT DRY DENSITY, IN ACCORDANCE WITH ASTM DESIGNATION 1557-70 METHOD D.
- 15) "GRAVEL BASE" MATERIALS SHALL CONFORM WITH THE CURRENT TOWN SUBDIVISION REGULATIONS AND THE 1997 MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. M1.03.0 TYPE "B" GRAVEL SHALL BE USED AND PLACED IN CONFORMANCE WITH MASS DOT SECTION 401.
- 16) TOP COURSE, BINDER COURSE, & MODIFIED CAPE COD BERM SHALL BE CLASS 1, TYPE I-1 (M3.11.0 & M3.12.0), PLACED IN ACCORDANCE WITH MASS DOT SECTION 460.
- 17) PLACE 4" OF LOAM AND SEED IN ALL DISTURBED AREAS OF THE PROJECT NOT OTHERWISE IMPROVED (E.G. PAVED, RIP-RAPPED, ETC.).
- 18) ALL PROPOSED GRADES SHALL BE GRADED SMOOTHLY AND EVENLY INTO THE EXISTING GRADES AND PROVIDE POSITIVE DRAINAGE. THE TOPS AND BOTTOMS OF ALL SLOPES SHALL BE ROUNDED OFF.
- 19) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED, INCLUDING TIES TO SERVICE LATERALS, AND SUBMIT ONE SET OF RED-LINED AS BUILT DRAWINGS TO THE ENGINEER OF RECORD.
- 20) FINAL DRIVEWAY LOCATIONS SHALL BE DETERMINED BY DEVELOPER DURING CONSTRUCTION. CURB CUTS AND DRIVEWAY OPENINGS SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT SUPERINTENDENT AND COMPLY WITH THE TOWN DPW & SUBDIVISION REGULATIONS.

DEMOLITION NOTES

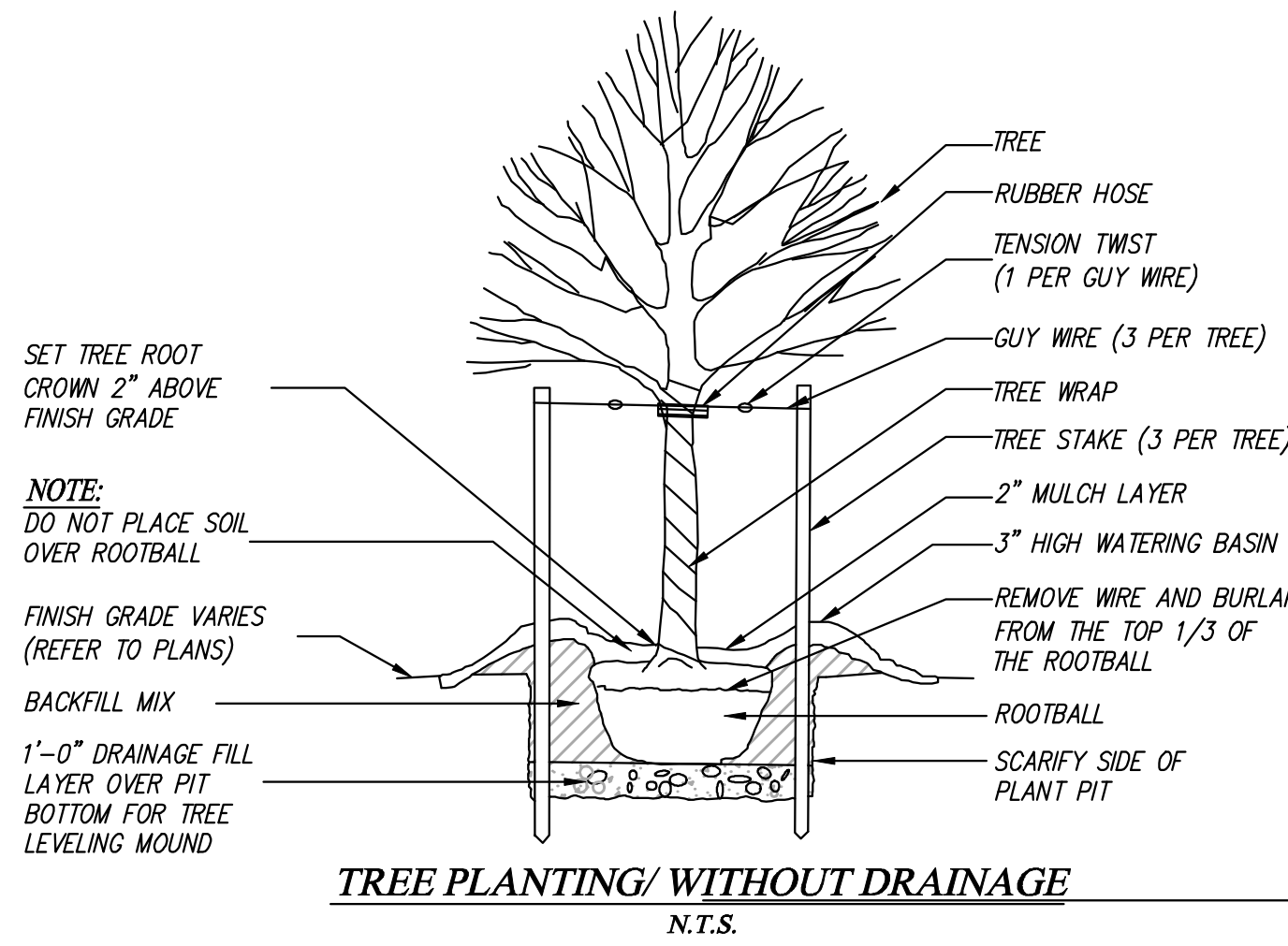
- 1) THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICES. ANY DAMAGE TO THE EXISTING UTILITIES BY THE CONTRACTOR'S OPERATION SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 2) THE CONTRACTOR SHALL SAW CUT THE EXISTING BITUMINOUS PAVEMENT ON PARKER STREET WHERE REQUIRED TO CONSTRUCT AND SMOOTHLY BLEND THE PROPOSED ROADWAY AND WITH THE EXISTING PAVEMENT.
- 3) ALL EXISTING FEATURES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND DISPOSED OF LEGALLY OFF SITE UNLESS NOTED OTHERWISE.
- 4) THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE GOVERNMENT AGENCIES AND UTILITY COMPANIES FOR DETAILS ON THE TEMPORARY REMOVAL, RELOCATION, AND ABANDONMENT OF ALL OVERHEAD AND UNDERGROUND UTILITY SERVICES INCLUDING ELECTRICAL, COMMUNICATIONS, WATER, SEWER, DRAINAGE, CATV, AND GAS.
- 5) THE TREE CLEARING LIMITS SHALL NOT EXTEND BEYOND THE HAYBALE/SILT FENCE BARRIER. AREAS OF EXISTING VEGETATION TO REMAIN ARE TO BE PROTECTED THROUGHOUT CONSTRUCTION. REVIEW THE ACTUAL LIMITS OF CLEARING WITH THE OWNER, AND SELECTIVELY CLEAR AND PRUNE AS REQUIRED TO REMOVE DEAD, DISEASED, OR POORLY FORMED VEGETATION.



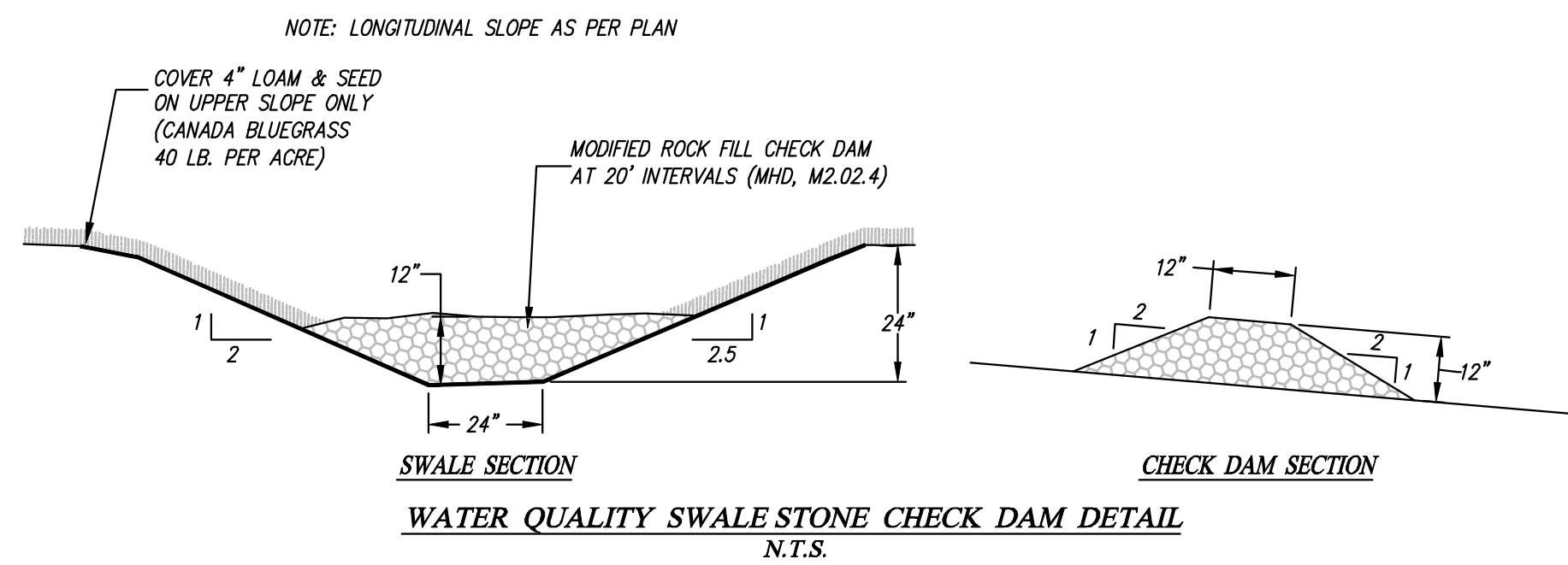
RIGHT-OF-WAY CONCRETE BOUND
N.T.S.



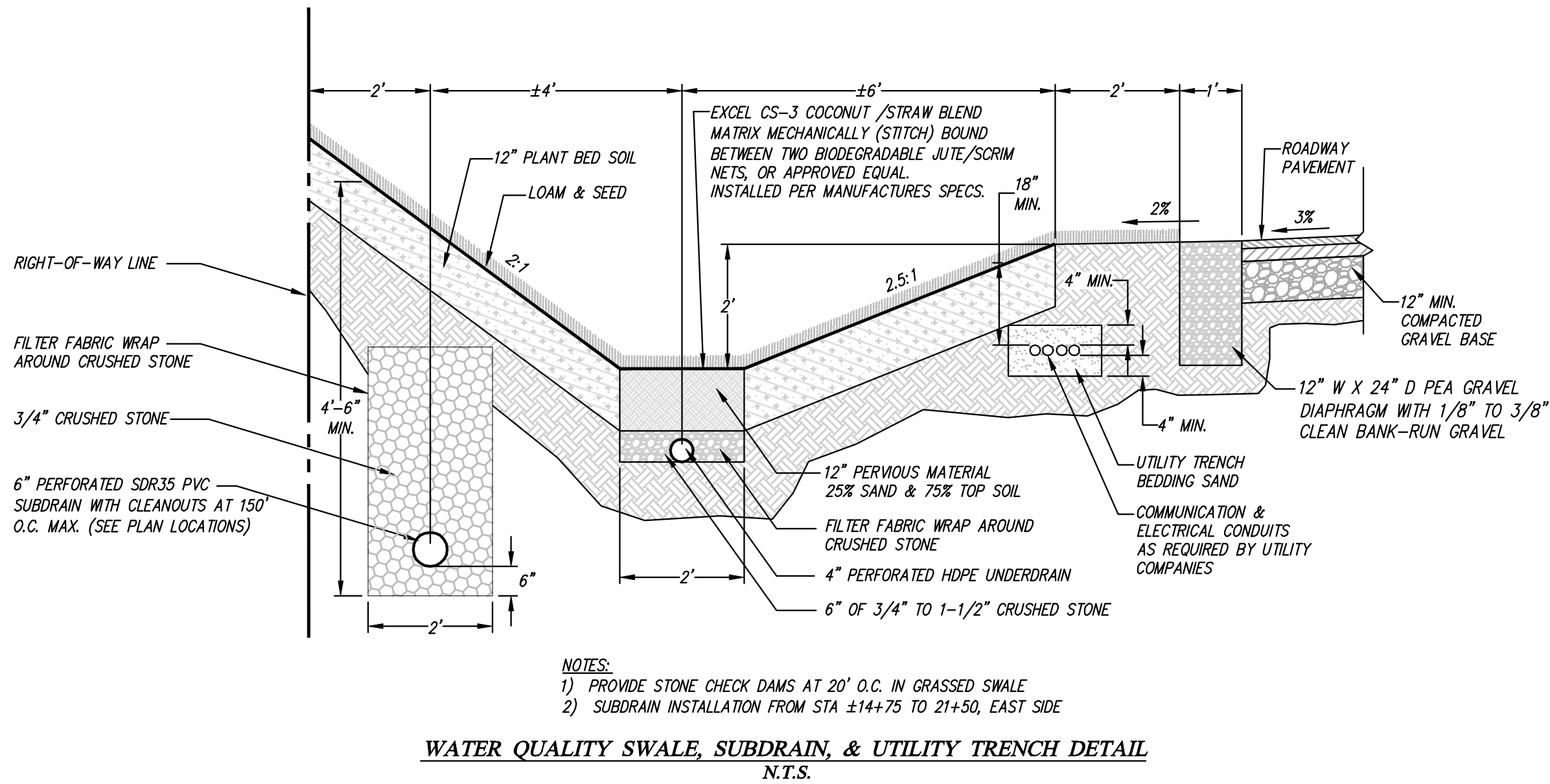
STANDARD ROADWAY CROSS-SECTION
N.T.S.



TREE PLANTING/ WITHOUT DRAINAGE
N.T.S.

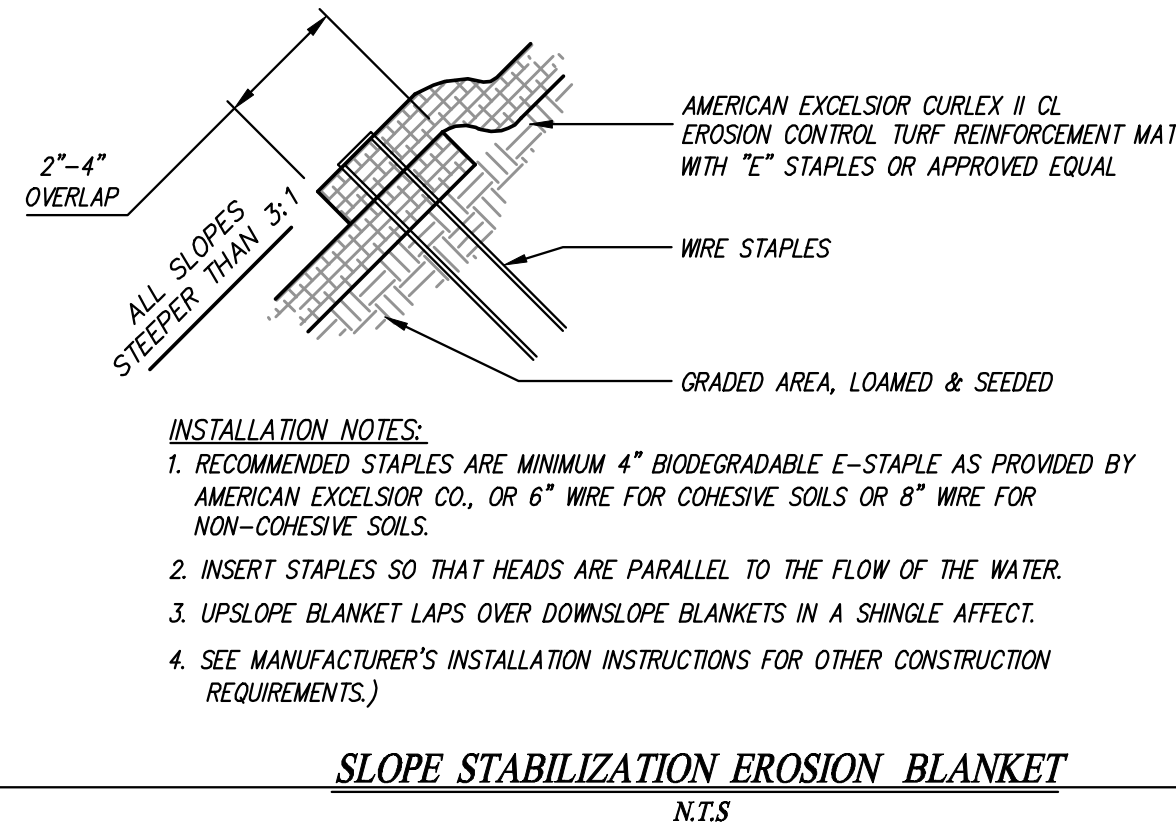


WATER QUALITY SWALE/STONE CHECK DAM DETAIL
N.T.S.

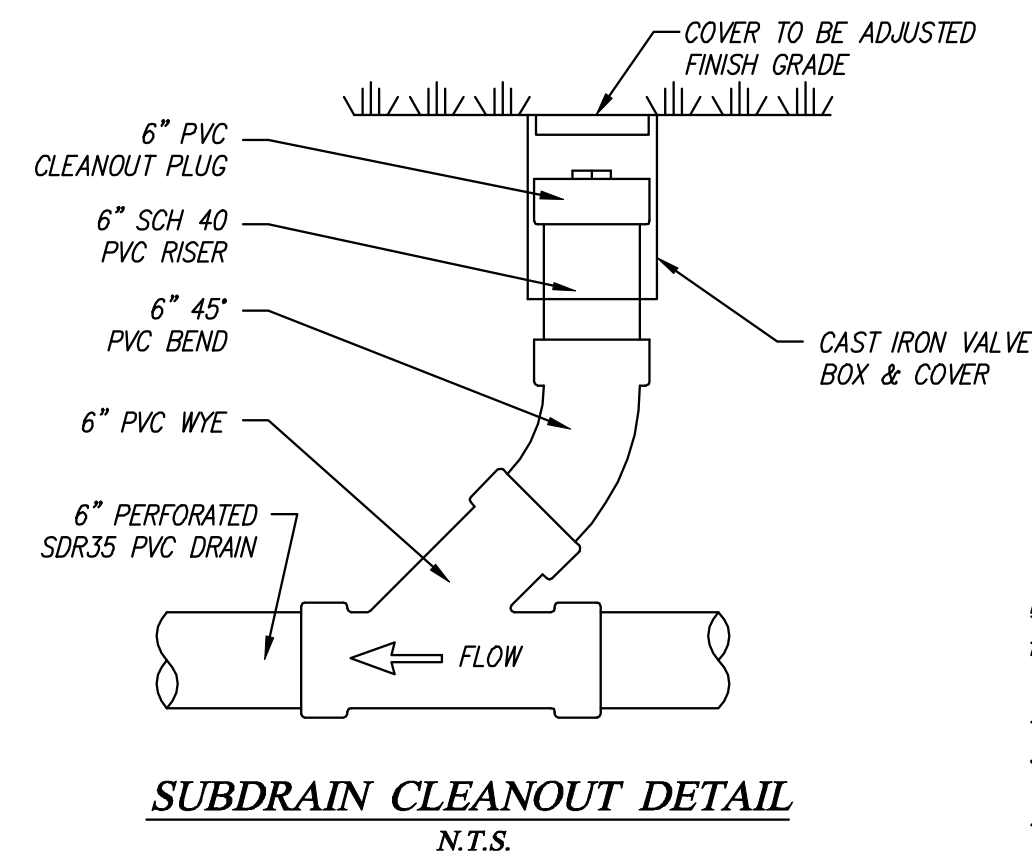


WATER QUALITY SWALE, SUBDRAIN, & UTILITY TRENCH DETAIL
N.T.S.

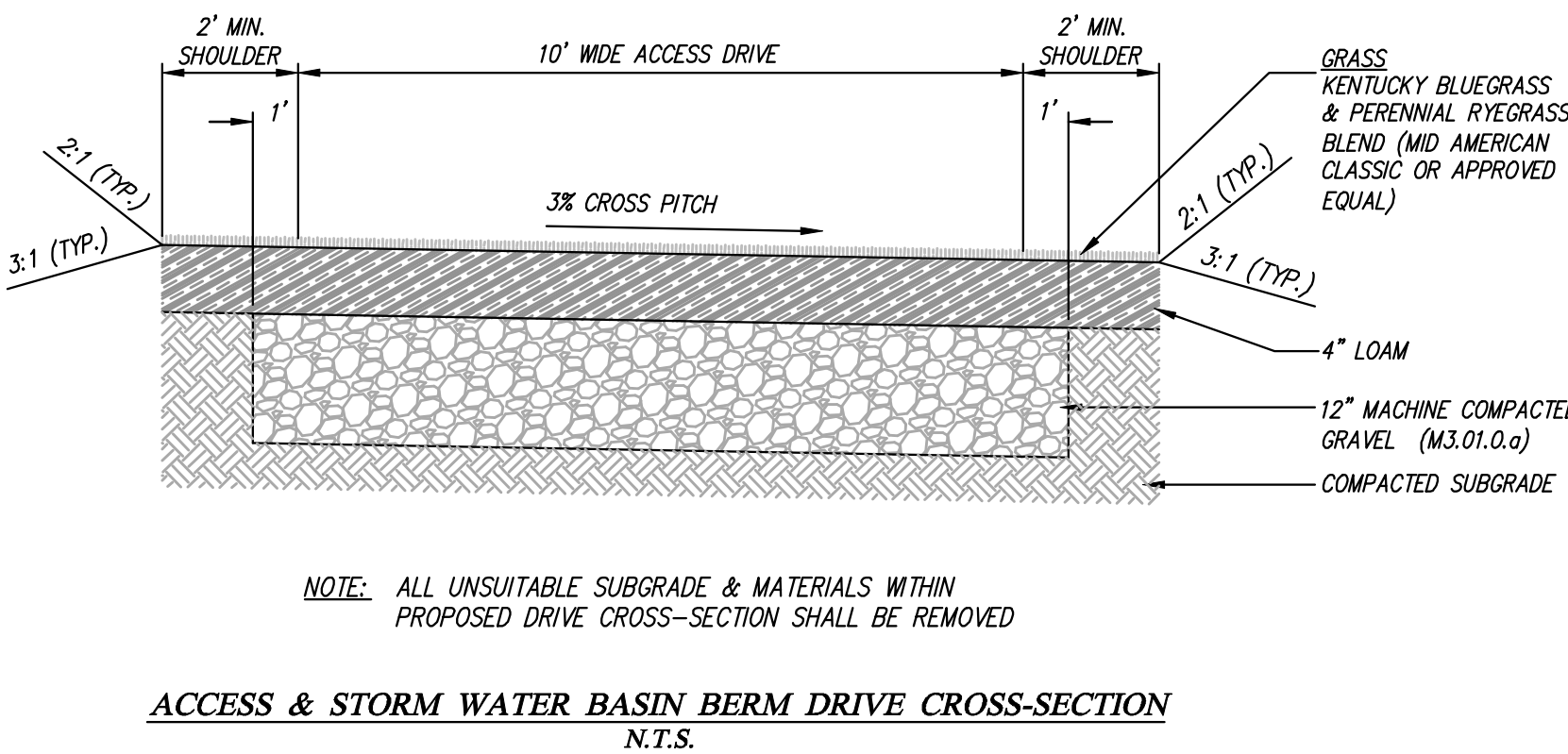
ROADWAY PAVEMENT CROSS SECTION
N.T.S.



SLOPE STABILIZATION EROSION BLANKET
N.T.S.

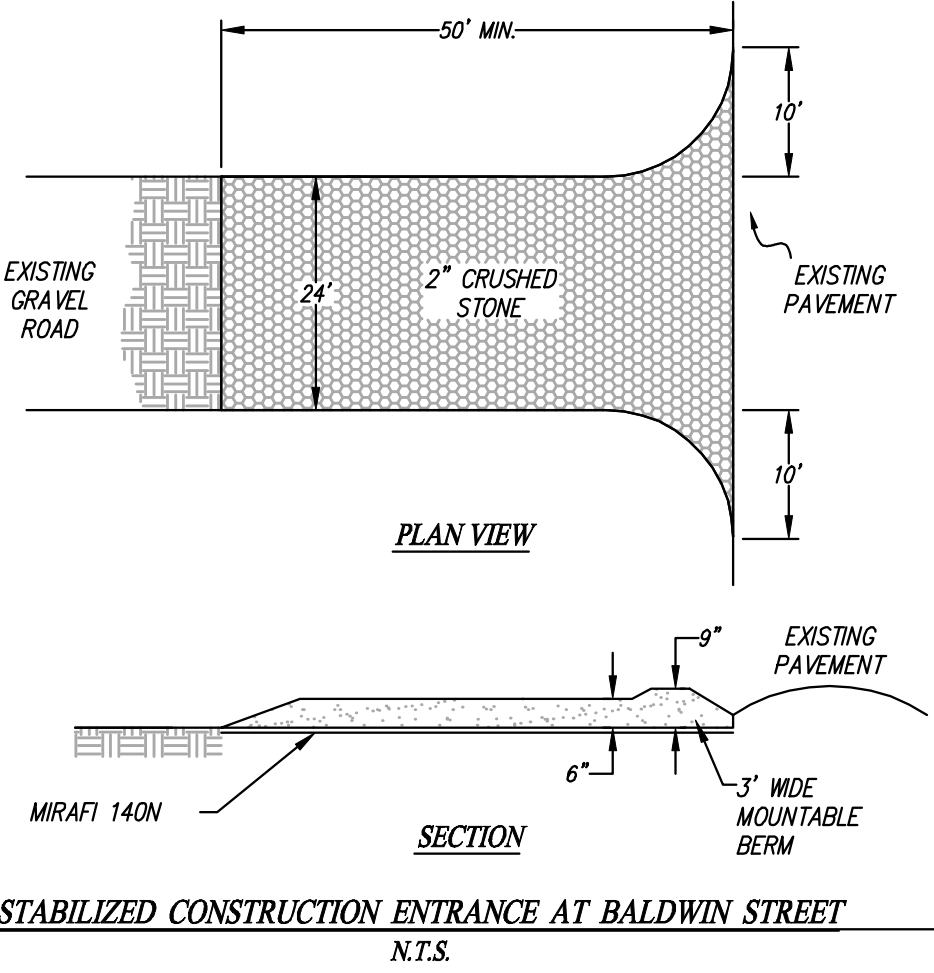


SUBDRAIN CLEANOUT DETAIL
N.T.S.

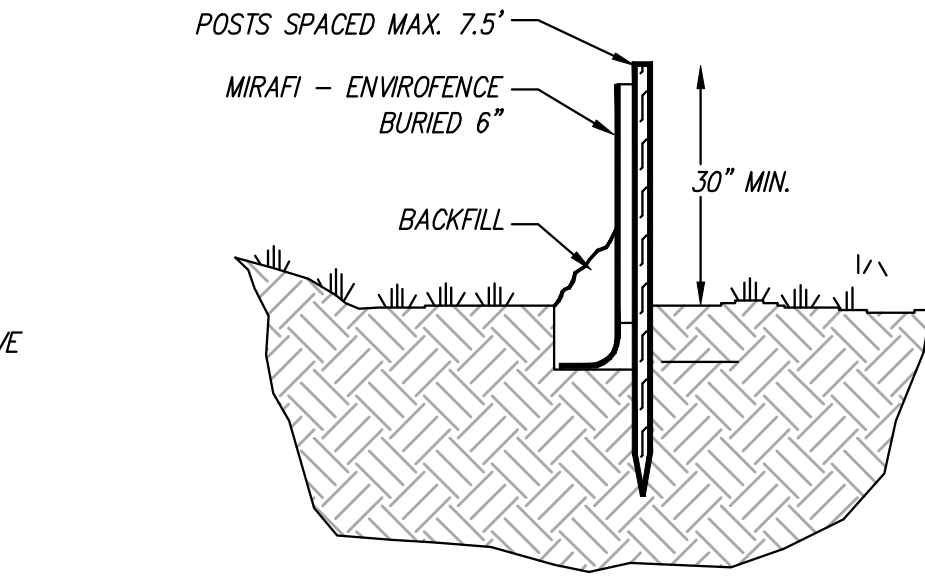


NOTE: ALL UNSUITABLE SUBGRADE & MATERIALS WITHIN PROPOSED DRIVE CROSS-SECTION SHALL BE REMOVED

ACCESS & STORM WATER BASIN BERM DRIVE CROSS-SECTION
N.T.S.

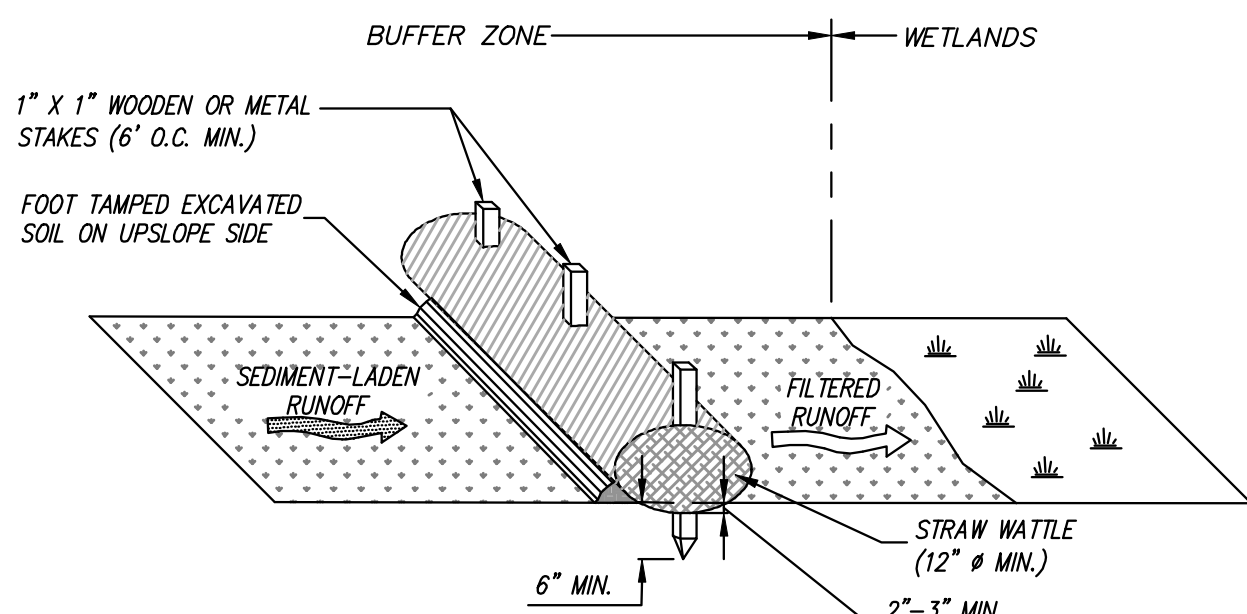


STABILIZED CONSTRUCTION ENTRANCE AT BALDWIN STREET
N.T.S.



- NOTES:
- 1) SILT FENCE SHALL BE THE SOLE EROSION CONTROL BARRIER AT ALL LOCATIONS WITH UPGRADIENT SLOPES OF EQUAL OR GREATER THAN 10% AND AROUND ALL STOCKPILES.
 - 2) DIG A TRENCH 4" DEEP X 4" WIDE WHERE SILT FENCE IS TO BE INSTALLED.
 - 3) SEAT THE SILT FENCE AGAINST THE DOWNGRADIENT SIDE OF THE TRENCH WITH THE BASE OF THE FENCING FABRIC SEATED INTO BOTTOM OF THE TRENCH.
 - 4) STAKE WITH WOODEN STAKES AT 7.5' MAXIMUM ON CENTER.
 - 5) FOOT TAMP THE EXCAVATED SOIL ALONG THE ENTIRE UPSLOPE SIDE THE SILT FENCE TO PREVENT DRAINAGE FROM ROUTING BENEATH THE BARRIER.

SILT FENCE EROSION CONTROL BARRIER DETAIL
N.T.S.



- NOTES:
- 1) SHEATHING FOR STRAW WATTLES SHALL BE 100% BIODEGRADABLE AND WITHOUT FIXED DIAMETER OPENINGS.
 - 2) WATTLES SHALL BE AS THE SOLE EROSION CONTROL BARRIER AT ALL LOCATIONS WITH UPGRADIENT SLOPES OF LESS THAN 10%.
 - 3) DIG A TRENCH 2"-3" DEEP X 9" WIDE WHERE WATTLES ARE TO BE INSTALLED.
 - 4) SEAT WATTLE FIRMLY INTO TRENCH AND STAKE WITH WOODEN STAKES AT 6' O.C. MINIMUM.
 - 5) FOOT TAMP THE EXCAVATED SOIL ALONG THE ENTIRE UPSLOPE SIDE THE WATTLES TO PREVENT DRAINAGE FROM ROUTING BENEATH THE BARRIER.

STRAW WATTLE EROSION CONTROL BARRIER DETAIL
N.T.S.

APPROVED UNDER THE
SUBDIVISION CONTROL LAW
PLANNING BOARD OF LEICESTER

DATE: _____

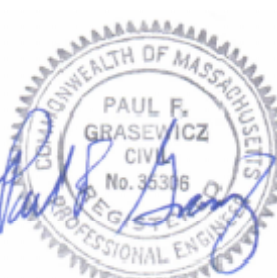
GRAZ Engineering, L.L.C.

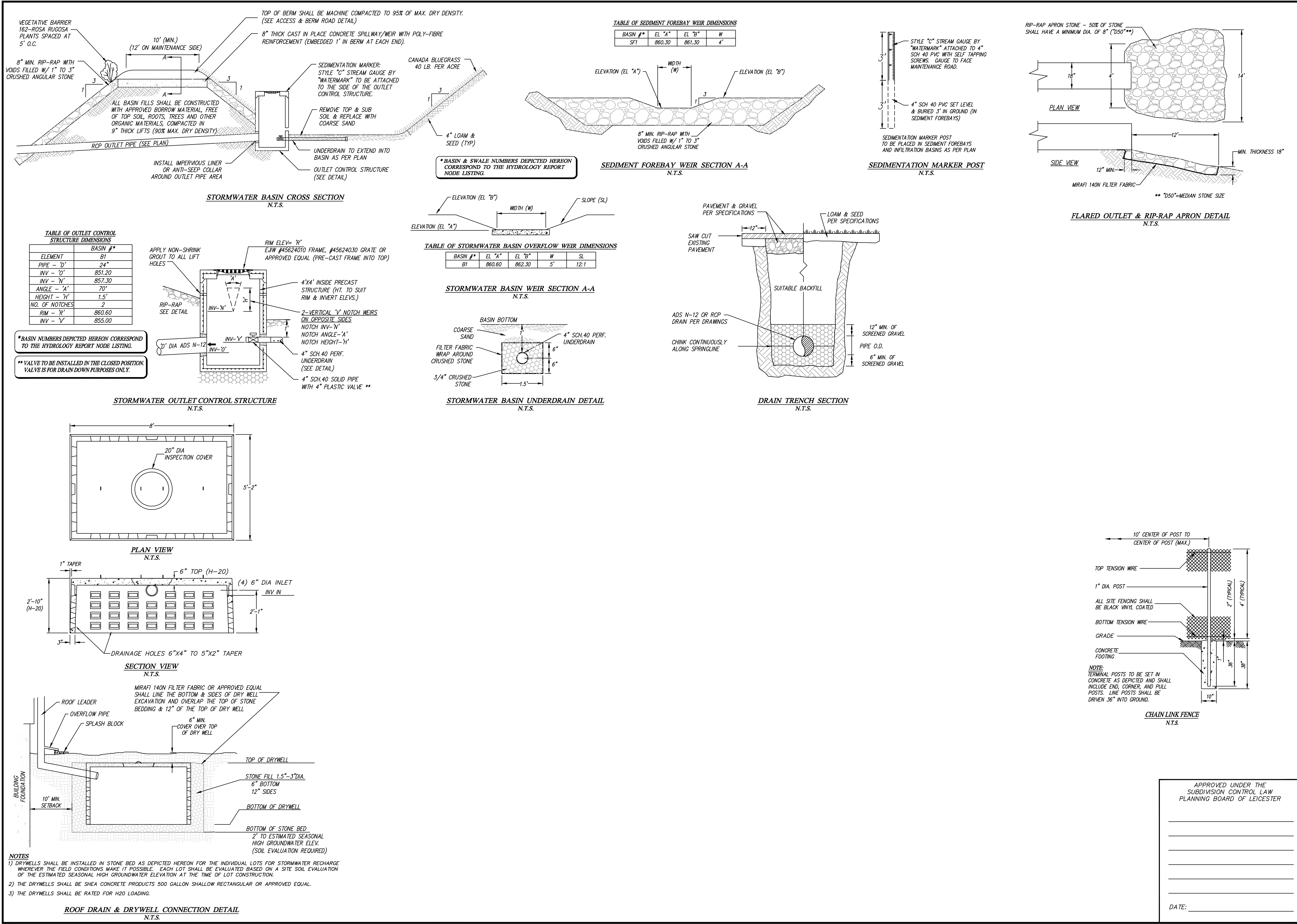
323 West Lake Road, Fitzwilliam, NH 03447
Phone: (603) 585-6959 Fax: (603) 585-6960

PARKER STREET (NORTH) - DEFINITIVE SUBDIVISION
LEICESTER, MASSACHUSETTS

CONSTRUCTION NOTES & DETAILS
PREPARED FOR: SCHOLD DEVELOPMENT, LLC (OWNER/APPLICANT)
77 CHICKERING ROAD, SPENCER, MA 01562

SCALE:	AS NOTED	DATE	PLAN DATE:	CHECKED:	PGF & BCM	DRAWN:	BCM	BY:	BCM
REV.	1	8/24/21	REV'S PER QUINN ENG.	TECH. REVIEW & LPB	BCM				
REV.	2	9/9/21	REV'S PER QUINN ENG.	TECH. REVIEW & LPB	BCM				





GRAZ Engineering, L.L.C.

323 West Lake Road, Fitzwilliam, NH 03447
Phone: (603) 585-0959 Fax: (603) 585-0960

PARKER STREET (NORTH) - DEFINITIVE SUBDIVISION
LEICESTER, MASSACHUSETTS

DRAINAGE DETAILS

PREPARED FOR: SCHOLD DEVELOPMENT, LLC (OWNER/APPLICANT)
77 CHICKERING ROAD, SPENCER, MA 01562

SCALE:	AS NOTED	DATE	PLAN DATE:	CHECKED:	DRAWN:
REV.	1	8/24/21	BY	PG & BCM	BCM
	2	9/8/21	TECH. REVIEW & LPB	TECH. REVIEW & LPB	BCM

APPROVED UNDER THE
SUBDIVISION CONTROL LAW
PLANNING BOARD OF LEICESTER

DATE: _____

SHEET 8 OF 8

COVENANT

Date: October 28, 2021
Leicester, Massachusetts

KNOW ALL MEN BY THESE PRESENTS, that the undersigned has submitted an application dated June 9, 2021, to the Leicester Planning Board for approval of a definitive plan of a subdivision of land entitled: Parker Street (North), plan by Graz Engineering, LLC dated June 8, 2021 and revised through September 8, 2021, and Owned by: Schold Development, LLC address: 77 Chickering Road Spencer, MA 01562, land located on Parker Street, Assessor's Map 42, Parcels A1.0 and B1.0, and showing three (3) proposed lots. The undersigned has requested the Planning Board to approve such plan without requiring a performance bond, the IN CONSIDERATION of said Planning Board of the Town of Leicester in the county of Worcester approving said plan without requiring a performance bond, the undersigned hereby covenants and agrees with the inhabitants of the Town of Leicester as follows:

1. That the undersigned is the Owner* in fee simple absolute of all the land included in the subdivision and that there are no mortgages or otherwise of any of said land, except for those described below, and that the present holders of such mortgages have assented to this contract prior to its execution by the undersigned.

*If there is more than one owner, all must sign. "Applicant" may be an owner or his agent or representative, or his assigns, but the owner of record must sign the covenant.

2. That the undersigned will not sell or convey any lot in the subdivision or erect or place any permanent building on any lot until the construction of ways and installation of municipal services necessary to adequately service such lot has been completed in accordance with the covenants conditions, agreements, terms and provisions as specified in the following:

- The application for approval of a definitive plan (Form C)
- The subdivision Control Law and the Planning Board's Rules and Regulations Governing this subdivision.
- The certificate of approval and the conditions of approval specified therein, issued by the Planning Board, dated September 22, 2021.
- The definitive plan as approved and as qualified by the certificate of approval.
- Other documents specifying construction to be completed, namely:

However, a mortgagee who acquires title to the mortgaged premises by foreclosure or otherwise and any succeeding owner of the mortgaged premises or part thereof may sell or convey any lot, subject only to that portion of the covenant which provides that no lot be sold or conveyed or shall be built upon until ways and services have been provided to serve said lot.

3. That this covenant shall be binding upon the executors, administrators, devisees, heirs, successors, and assigns of the undersigned and shall constitute a covenant running with the land included in the subdivision and shall operate as a restriction upon the land.
4. That particular lots within the subdivision shall be released from the foregoing conditions upon the recording of a certificate of performance executed by a majority of the Planning Board and enumerating the specific lots to be released; and
5. That nothing herein shall be deemed to prohibit a conveyance by a single deed subject to this covenant, or either the entire parcel of land shown on the subdivision plan or all lots not previously released by the Planning Board.
6. That the undersigned agrees to record this covenant with the Worcester District Registry of Deeds, forthwith, or to pay the necessary recording fee to the Planning Board in the event the Planning Board shall record this agreement forthwith. Reference to this covenant shall be entered upon the definitive subdivision plan as approved.
7. A deed of any part of the subdivision in violation of the covenant shall be voidable by the grantee prior to the release of the covenant; but not later than three (3) years from the date of such deed, as provided in Section 81-U, chapter 41, M.G.L.
8. That this covenant shall be executed before enforcement of the approval of a definitive subdivision plan by the Planning Board and shall take effect upon the endorsement of approval.
9. Upon final completion of the construction of ways and installation of municipal services as specified herein, on or before September 22, 2026, the Planning Board shall release this covenant by an appropriate instrument, duly acknowledged. Failure to complete construction and installation within the time specified herein or such later date as may be specified by the Planning Board with a written concurrence of the applicant, shall result in automatic rescission of the approval of the plan. Upon performance of this covenant by an appropriate instrument duly recorded.
10. Nothing herein shall prohibit the applicant from varying the method of securing the construction of ways and installation of services from time to time or from securing by one, or in part by one and in part by another of the methods described in M.G.L., Chapter 41, Section 81-U, as long as such security is sufficient in the opinion of the Planning Board to secure performance of the construction and installations; and For title see deed from Webster First Credit Union, dated February 1, 2019, recorded in Worcester District Registry of Deeds, Book 60004, Page 48, or registered in Worcester Land Registry District as Document No.____ and noted on Certificate of Title No.____, in Registration Book____, Page_____.

The mortgagee agrees to hold the mortgage subject to the covenants set forth above and agrees that the covenant shall have the same status, force, and effect as though executed and recorded before the taking of the mortgage and further agrees that the mortgage by subordinate to the above covenant.

IN WITNESS WHEREOF we have hereunto set our hands and seals this _____ of _____, 20__.

Majority of the Leicester Planning Board

Matthew Schold, Owner

One acknowledgement must be completed for each of the following: Planning Board representative, Owner or owners, Spouse of the Owner, Mortgagee.

COMMONWEALTH OF MASSACHUSETTS

On this _____ day of _____, 20__, before me the undersigned notary public, personally appeared

representing _____

proved to me through satisfactory evidence of identification, which was

_____, to be the persons whose name(s) are signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

Notary Public

My commission expires _____