

TOWN OF MILFORD, NH OFFICE OF COMMUNITY DEVELOPMENT

1 UNION SQUARE, MILFORD, NH 03055

TEL: (603)249-0620 WEB: WWW.MILFORD.NH.GOV

Date: August 10, 2022
To: Planning Board

From: Lincoln Daley, Community Development Director

Subject: SP2022-05 30 Wilton Road LLC for the property located at Tax Map 6, Lot 14, 30 Wilton

Road. Public Hearing for a Conditional Use Permit/Major Site Plan Application to construct 3 story, 40 foot tall, 13,950 square foot (41,850 square foot gross floor area) self-storage facility and associated, parking, site and drainage improvements in the Integrated Commercial Industrial

zoning District and West Elm Overlay. (Continued from 7/21/22)

BACKGROUND/PROPOSAL:

The applicant is before the Planning Board for a conditional use permit and major site plan application to construct a 3 story, 40 foot tall, 13,950 square foot (41,850 square foot gross floor area) self-storage facility and associated, parking, site and drainage improvements in the Integrated Commercial Industrial zoning District and West Elm Overlay. Attached please find is the site plan, traffic analysis, parking memorandum, and proposed revised elevations.

This will be the third meeting for the application. The anticipated focus of this meeting will be on the layout and design of the proposed building and the roadway alignment/driveway access and pedestrian improvements.

EXISTING USE/CONDITIONS:

The proposed parcel, Tax Map 6, Lot 14 consists of approximately 6.354 acres (276,773 sq.ft.) with more than 950 linear feet of frontage on Wilton Road. The property is located adjacent to the Pine Valley Mill property to the north, the Pan Am Railway and Souhegan River to the south and east, the General Dollar store to the west, and residential homes to the north and northwest. The property is primarily comprised of the existing multi-building self-storage operation with an open undeveloped field to west and minimal tree coverage around the perimeter.

A small wetland resource area has been delineated along the southern property line, but will not be impacted by the project. The topography for the proposed subdivided lot is primarily flat with a slight upward slope from west to east. The subject area is primarily comprised of open field space.

LOT AREA:

Proposed Tax Map 6, Lot $14 = \pm 6.354$ acres (276,773 sq.ft.)

APPLICATION STATUS:

The application was accepted on July 5, 2022.

NOTICES:

Notices were sent to all property abutters on June 2, 2019.

WAIVERS:

No waivers have been requested.

ZONING DISTRICTS:

The proposed parcel lies within the Integrated Commercial – Industrial "ICI" zoning district. The intent of the Integrated Commercial-Industrial District is to provide an area for sales and service activities, both wholesale

and retail, as well as industrial activities. This District is intended to be the area in which vehicular oriented business can occur. Pursuant to Section 7.13, Self-Service Storage Facilities are permitted in the Integrated Commercial-Industrial District by the granting of a conditional use permit by the Planning Board.

The property also falls within the West Elm Street Gateway Overlay District. The intent of this District is to encourage economic development in the West Elm Street Gateway District by enhancing, preserving and protecting the natural, historic and cultural resources of the Town. The purpose of this Ordinance is to implement the Town of Milford's vision for the future as set forth in the Community Character Chapter of the Master Plan 2007 Update: Goal No. 2: Foster the traditional character of Milford's neighborhoods by encouraging a human scale of development that is similar in setbacks, size and height, and that is comfortable and safe for pedestrians and non-motorized vehicles while allowing for an efficient and safe roadway network.

The property falls within the groundwater protection 2 district and the flood plain management district (proximity to the Souhegan River.

TRAFFIC AND ACCESS MANAGEMENT:

Access and egress from the retail facility will be from a connection to the existing storage facility to the ease and an internal roadway connection to the Dollar General site to the west. The previously proposed 24' wide driveway curb cut on Wilton Road had been modified to only allow access for the owner of the property to the south. The changes/modification were implemented per the discussions with Staff and the Board.

The applicant submitted a traffic analysis memorandum dated 5/23/22 (see attached report). The report concluded that the proposed indoor storage facility use is expected to generate a total of 9 trips in the AM peak hour and 14 trips in the PM peak hour (61 trips in + 61 trip out = 122 total daily trips). This will result in a net increase for the entire site (existing storage buildings and proposed indoor facility) of 5 total trips in the AM peak hour and 5 total trips in the PM peak hour. ITE recommends that traffic impact studies be performed whenever an increase in trips in any peak hour is greater than 100 trips per hour since this is the point where a change in roadway capacity may be found and mitigation may or not be needed.

PARKING:

The project proposes to provide 11 parking spaces (included 1 handicap space) for the indoor storage facility.

DRAINAGE/STORMWATER MANAGEMENT:

The stormwater and drainage design is currently being reviewed by the Town's engineering consultant.

UTILITES:

The proposed retail establishment will access the Milford waste water system while water will be provided by the Town of Wilton. Power to the site will be underground.

INTERDEPARTMENTAL REVIEWS:

Ambulance: No comments **Assessing:** No comments.

Building Department: No comments.

Code Enforcement/ Health: No comments. **Conservation Commission:** No Comments.

Environmental Programs/Stormwater: The final stormwater and drainage design is currently under review by the Town Engineering Consultant, KV Partners.

Fire Department: The building will be required to have a sprinkler system installed. Plans must be provided for review an approval. *Comment Addressed – See 8/9/22 Response Letter*

Heritage Commission: No comments.

Police Department: No comments.

Public Works:

- 1. Project will require a Town Street Opening Permit and Driveway Permit.
- 2. Ensure that all plantings do not impact sight distance for access/egress along Wilton Road.
- 3. The plan should incorporate pedestrian activity along Wilton Road.

Comment Addressed - See 8/9/22 Response Letter

Water/Sewer Utilities:

1. No comments.

Community Development / Planning:

1. Sheet 1 and 4. Please confirm if the proposed internal roadway connecting the existing storage facility with the proposed building conflicts with ability to construct said road over the underground penstock. Will additional access/maintenance easement(s) be required? If yes, please revise the plans accordingly and submit draft easement.

In addition, please explain the reason for not aligning the proposed driveway entrance with North River Road within the existing access easement area?

Comments Addressed - See 8/9/22 Response Letter

2. General Comment - Per the 8/27/16 Planning Board approval for the initial self-storage facility site plan for Map 6, Lot 14, Condition 1.c. states that the

"applicant shall work with the Community Development to finalize the design and location of the future bus stop shelter. Should an easement to accommodate future bus turnouts and shelters may be required, the applicant shall submit an access and maintenance easement to Community Development for review and approval."

Comment Addressed – See 8/9/22 Response Letter. As a conditional of final approval, the applicant should provide a draft easement to allow the creation of a dedicated bus stop and shelter.

3. General Comment - Pedestrian Connectivity. Pursuant to Section 7.03 Sidewalks of the Development Regulations, the Planning Board may require sidewalks for pedestrian traffic to provide a connection between the main entrances of business, housing or industrial establishments, parking areas and along public roadways. Further, the Planning Board may also require sidewalks from the road to the main building entrance or along the road frontage if there is a reasonable expectation pedestrian patrons, residents, neighbors, employees would be traveling to or from the site. Sidewalks and pedestrian connectivity is further emphasized in the West Elm Street Overlay District.

Comment Addressed - See 8/9/22 Response Letter

4. Sheets 1, 4-7. Please revise the plans accordingly to include the location of the underground penstock.

Comment Addressed - See 8/9/22 Response Letter

- 5. Sheet 4. Please explain the reason for locating the proposed propane pad and tank as shown on the plan in close proximity to the building. In addition, it is recommended that protective bollards be installed around concrete pad. *Comment Addressed See 8/9/22 Response Letter*
- 6. Sheet 8. Please revise the plan set to include the engineering and construction details for the lights. Include the manufacturing photographs of each proposed light. *Comment Addressed See 8/9/22 Response Letter*
- 7. General Comment Please explain if LID practices were considered as part of the drainage/stormwater and landscape design. More specifically it would appear that opportunities exist to utilize portions of the landscaped areas for treatment and infiltration of stormwater. In addition, were there considerations to design a functional raingarden in lieu of or in addition to the proposed detention basin? *Comments Addressed See 8/9/22 Response Letter*

- 8. General Comment Proposed Signage. Please include the proposed design, construction, and engineering details associate with the monument sign, directional signage, and wall signage. Comment Partially Addressed See 8/9/22 Response Letter. The Applicant will be required to file a separate sign permit for the proposed wall sign.
- 9. Sheet LA 101 Snow Storage. The plan shows a snow storage location east of the main access drive. Please clarify and describe the anticipated process for snow removal. A note should be added to the plan detailing said removal process. It is recommended that the snow removal company be a certified Green Snow Professional. *Comment Addressed See 8/9/22 Response Letter*
- 10. Sheet LA 101. The proposed landscape design does not currently include any plantings along the building. Pursuant to Section 6.08.6 of the Development Regulations, landscaping shall be provided along all building frontage. A minimum of one (1) shrub for every five (5') feet of building frontage shall be provided. In instances where it is not possible to locate all required shrubs along the building frontage due to doorways, walkways or other impervious surfaces, the required shrubs shall be utilized within the parking lot or landscape buffers. Please revise the plan accordingly or submit a waiver request. Comment Addressed See 8/9/22 Response Letter
- 11. Sheet LA 101. Pursuant to Development Regulations, Section 6.08.8.A of the Development Regulations, please confirm that all plant stock meets the ANSI Z60.1 standard. *Comment Addressed See 8/9/22 Response Letter*
- 12. Sheet LA 101. Please add a note to the plan stating the following, "Any landscape element that dies, or is otherwise removed, shall be promptly replaced with the same, if not similar to, height or texture element as originally intended. In addition, landscaped areas shall be kept free of all debris, rubbish, weeds and overgrown turf grass." *Comment Addressed See 8/9/22 Response Letter*
- 13. Sheet LA 101. Pursuant to the Development Regulations, Section 6.08.5.B.1 A landscaped buffer shall be at least ten (10') feet in width and six (6') feet in height to effectively screen from adjacent properties and may consist of evergreens, berms, mounds, fencing or combinations thereof in conjunction with complimenting shrubs and perennials. The buffer along the westerly property line is less than the required 10' (9' wide green buffer plus 1' cape cod berm) and contains no screening. *Comment Addressed See 8/9/22 Response Letter*
- 14. General Comment Zoning Ordinance, Section 6.07.6.E.2 Building Massing, Form, Height. Pursuant to Section 6.07.06.E.2, to enhance the character of new development and the corridor, the building scale should be reduced introducing small- scaled architectural features, creating an irregular footprint and variations in roof forms and height of roof elements.
 - Please explain how the side elevations of the building meet these design standards and what alternatives were considered. The applicant submitted revised building elevations for Board consideration.
 - See 8/9/22 Response Letter. The Board will need to determine if the building design complies the referenced section of the Ordinance. If no, then the Board should provide additional guidance and recommendations.
- 15. General Comment Zoning Ordinance, Section 6.07.6.E.3 Architectural Features and Materials. Pursuant to Section 6.07.06.E.3, long expanses of repetitive architectural elements and flat unarticulated wall surfaces shall be avoided. Please explain how the side elevations of the building meet this requirement and what alternatives were considered. Please modify the plan in compliance with this section or request a waiver from said section. *The applicant submitted revised building elevations for Board consideration*.
 - See 8/9/22 Response Letter. The Board will need to determine if the building design complies the referenced section of the Ordinance. If no, then the Board should provide additional guidance and recommendations.
- 16. General Comment Zoning Ordinance, Section 6.07.6.E.8 Windows. Consideration should be given to adding windows or other architectural features to the side elevations to break up the walls. *The applicant submitted revised building elevations for Board consideration which include additional windows along the sides of the building.*
 - See 8/9/22 Response Letter. The Board will need to determine if the building design complies the referenced section of the Ordinance. If no, then the Board should provide additional guidance and recommendations.

- 17. General Comment Section 6.07.6.E.11 Screening. Pursuant to Section 6.07.06.E.11, states that all rooftop air conditioning, heating and large mechanical equipment, building accessories, and refuse shall have noise reduction screening and be screened from public view and have noise reduction screening. Please identify on the plans where the anticipated roof mounted units will be located. Further, please provide building design and construction details for sound and visual screening mitigation for all roof mounted mechanical units. *Comment Addressed See 8/9/22 Response Letter*
- 18. General Comments Building Design and Elevations
 - a. Roof Form and Materials Section 6.07.E.7 of the Zoning Ordinance and the Development Regulations, Section 6.04.3 state that rooflines shall be characteristically sloped and articulated with architectural features such as dormers, chimneys, gables, cupolas, etc. Further, flat roofs are strongly discouraged unless the Planning Board finds that a proposal can provide appropriate visual appeal. In addition, rooflines shall not run in continuous planes and shall be broken into appropriately scaled masses. Please explain how the front and side roof lines of building meet these requirements. Further, please discuss what alternative building designs were considered for the location, corridor, and in context with Milford's architectural heritage.

The applicant submitted revised building elevations for Board consideration.

See 8/9/22 Response Letter. The Board will need to determine if the building design complies the referenced section of the Ordinance. If no, then the Board should provide additional guidance and recommendations.

19. General Comment – Zoning Ordinance, Section 6.07.06.F.1 Access Management. Please provide an internal turning radius template analysis showing the turning movements for WB 50 design vehicle.

Comment Addressed – See 8/9/22 Response Letter

STAFF RECOMMENDATIONS:

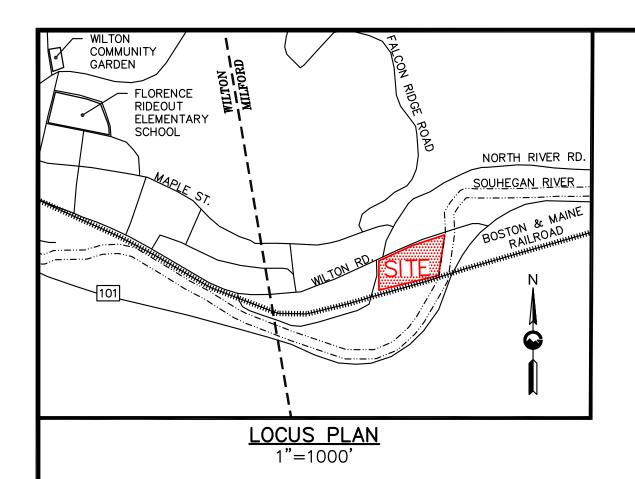
The applicant should be prepared to address the comments raised by the Planning Board, Conservation Commission, Heritage Commission, Town Consultants, Staff, and public pertaining to the Site Plan. The majority of questions and comments have been addressed by the applicant. However, the Planning Board will need to determine if the building layout and design meets the purpose and intent of the overlay district and stated requirements. If the Board move forward with an approval, Staff recommend the following conditions:

- 1. Prior the signing the site plan, the applicant shall submit an easement for review and approval by the Community Development Office to allow the construction of the future bus stop and shelter as depicted on the site plan.
- 2. Final revie and approval of the stormwater drainage design by the town's engineering consultant.

Aerial Photographs of Map 6, Lot 14-1.



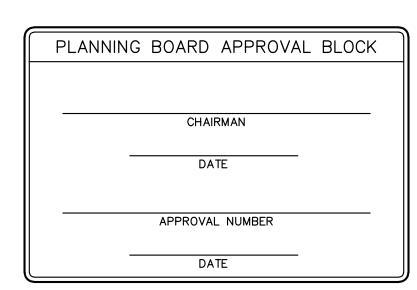




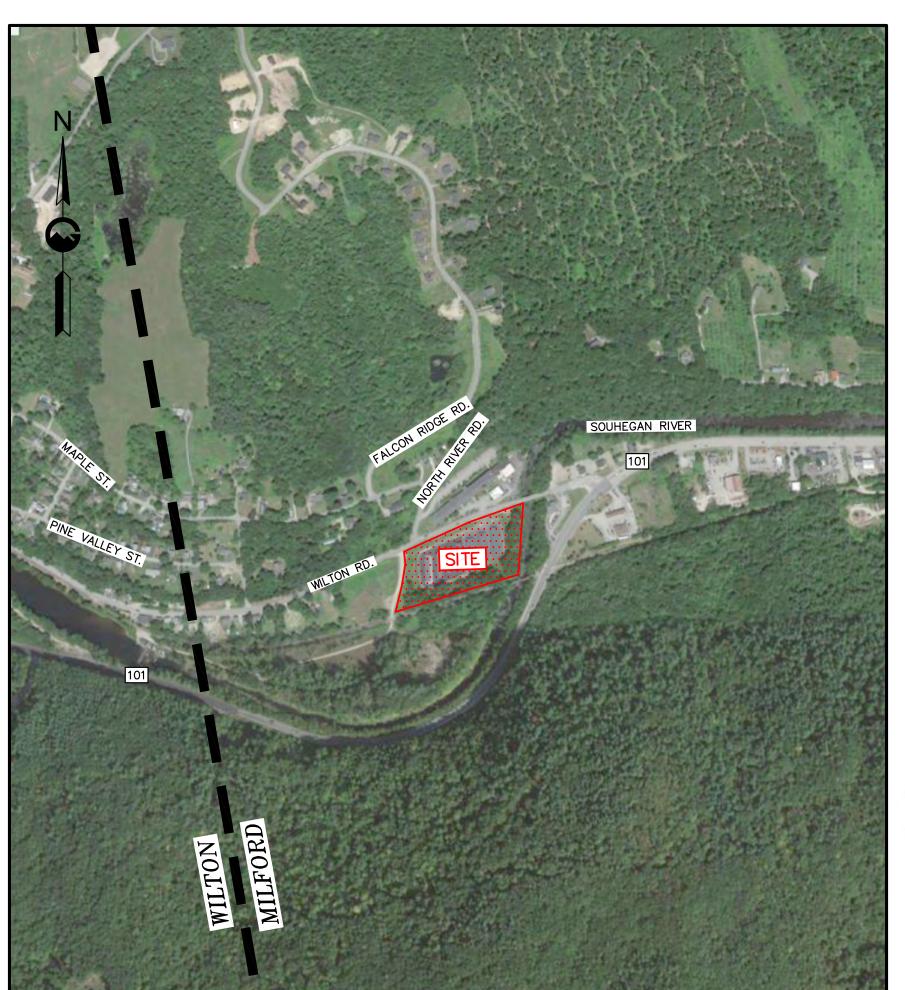
NON-RESIDENTIAL SITE PLAN STORAGE SENSE - MILFORD WEST

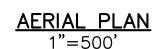
TAX MAP 6 LOT 14 30 WILTON ROAD MILFORD, NEW HAMPSHIRE HILLSBOROUGH COUNTY





SHEET NO.	INDEX OF PLANS
1	OVERVIEW PLAN
2	EXISTING CONDITIONS PLAN
3	REMOVALS PLAN
4	SITE PLAN
5	GRADING AND DRAINAGE PLAN
6	UTILITY PLAN
7	EROSION CONTROL PLAN
8	LIGHTING PLAN
9-11	UTILITY PROFILES
12-18	DETAILS
19	FUTURE OFFSITE IMPROVEMENT PLAN
LA101-LA104	LANDSCAPE PLANS
A101-104, A201-202, X-001	ARCHITECTURAL PLANS





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OWNER & APPLICANT:

30 WILTON ROAD LLC 55 HIGH STREET PITTSFIELD, NH 03263 (603) 941-9041

CIVIL ENGINEER:

GRANITE ENGINEERING, LLC 150 DOW STREET, TOWER 2, SUITE 421 MANCHESTER, NH 03101 (603) 518-8030

SURVEYOR & WETLAND SCIENTIST:

FIELDSTONE LAND CONSULTANTS, PLLC 206 ELM STREET MILFORD, NH 03055 (603) 672-5456

SOIL SCIENTIST:

GOVE ENVIRONMENTAL SERVICES, INC.

8 CONTINENTAL DRIVE

EXETER, NH 03833 (603) 778-0644

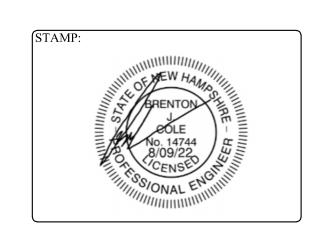


LANDSCAPE ARCHITECT:

WARRENSTREET ARCHITECTS
27 WARREN STREET
CONCORD, NH 03301
(603) 225-0640

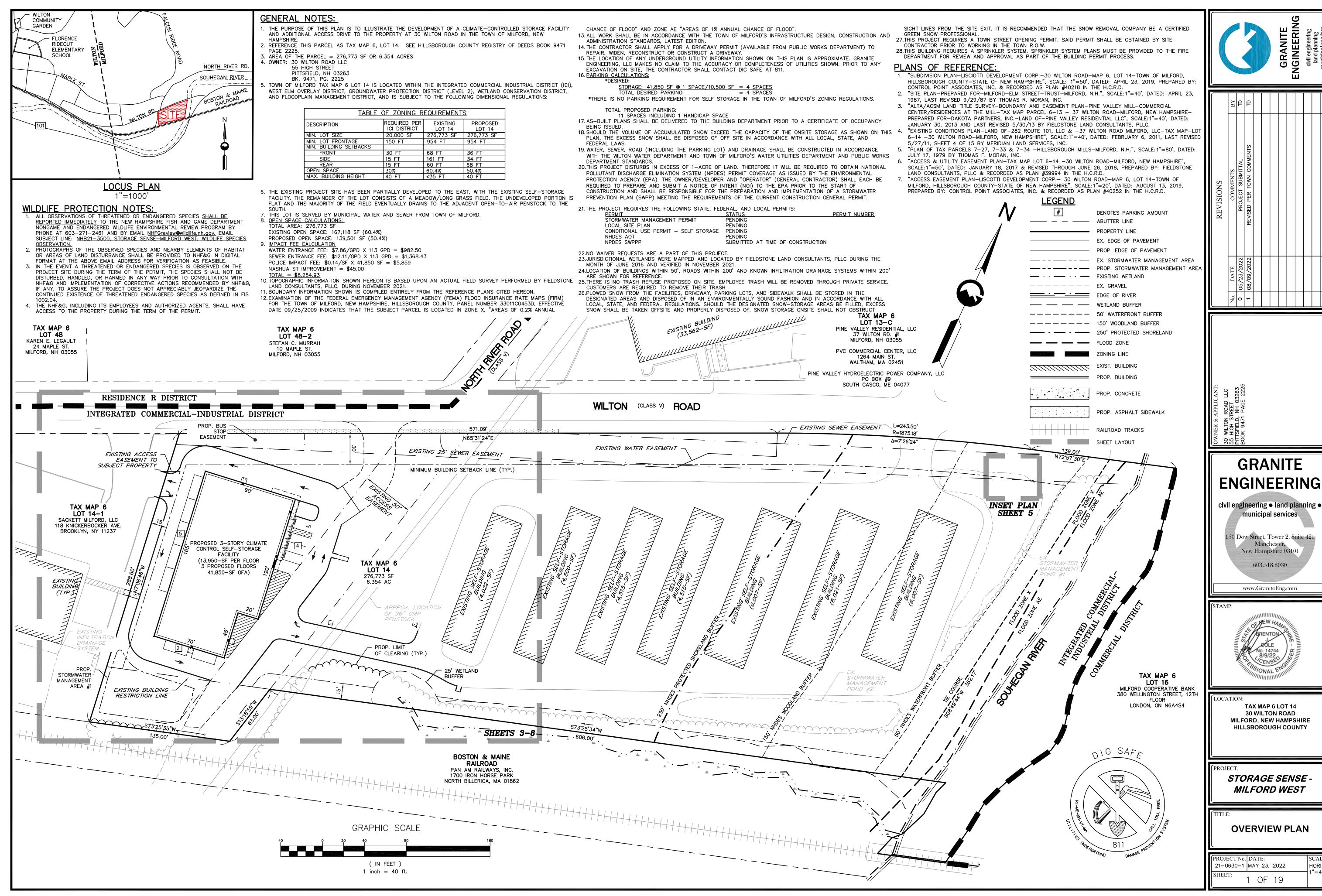
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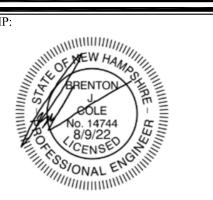
DENNIS MIRES P.A., THE ARCHITECTS
697 UNION STREET
MANCHESTER, NH 03104
(603) 625-4548

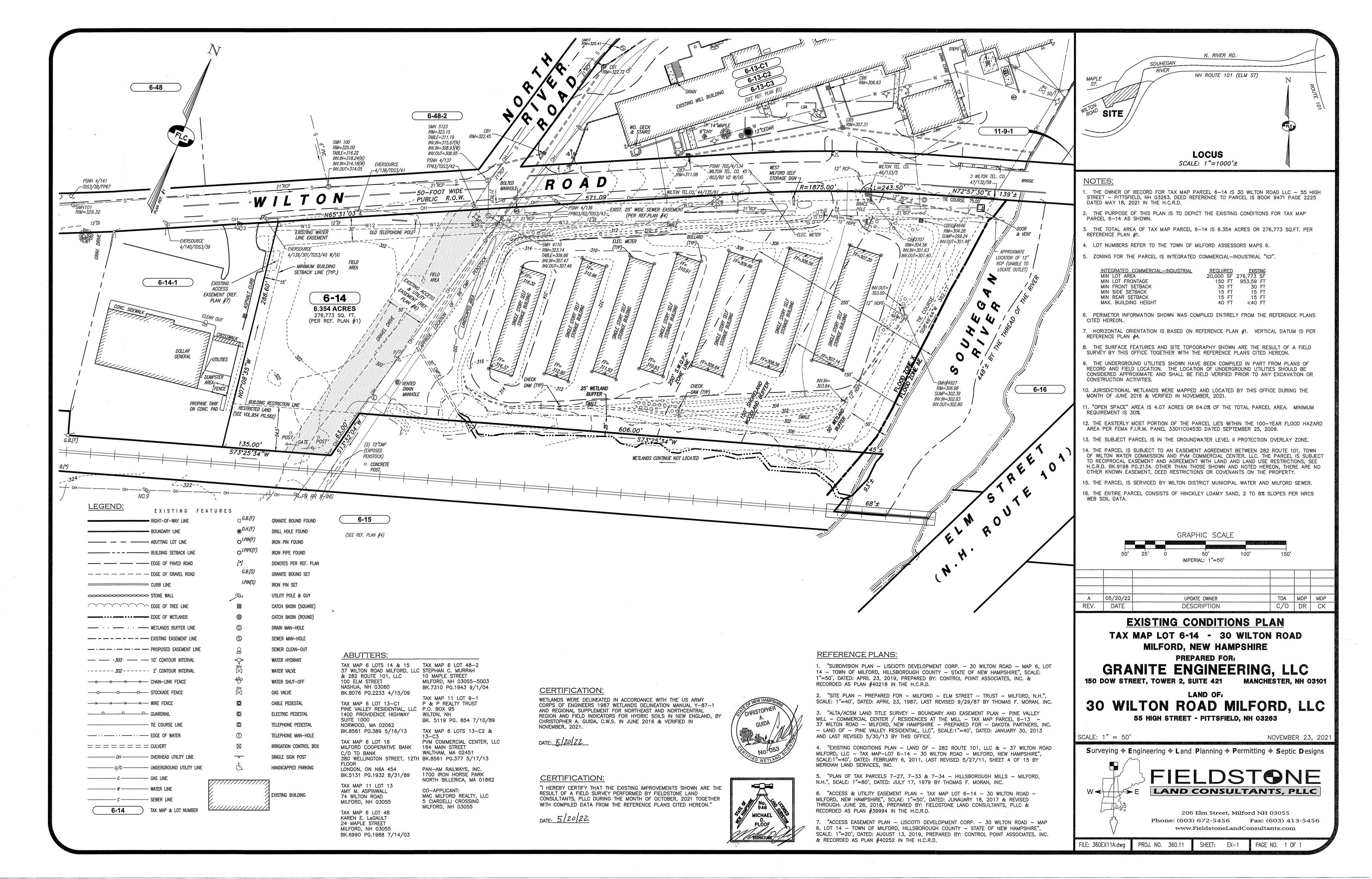


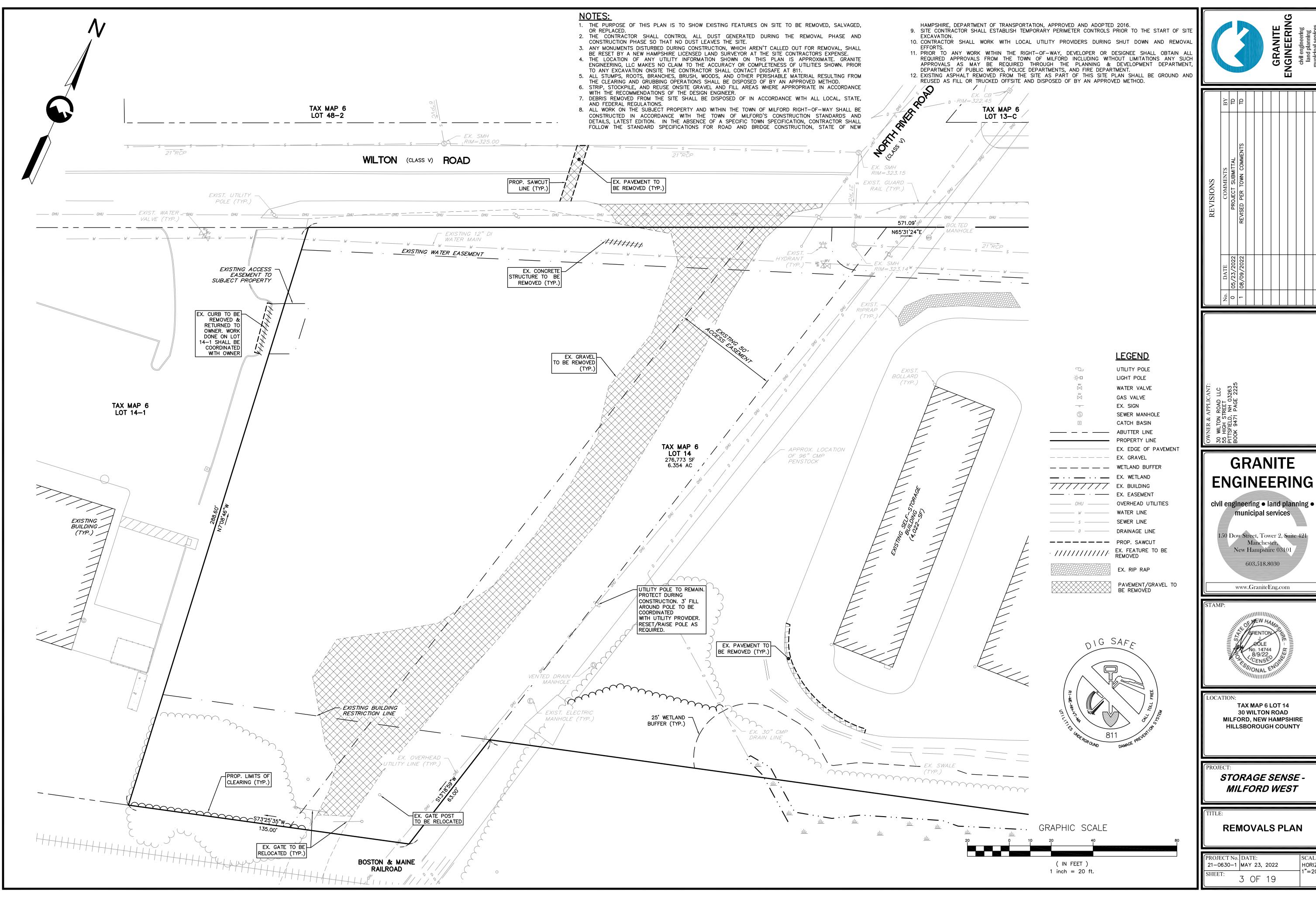
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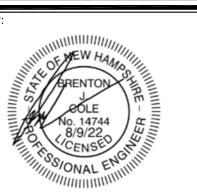


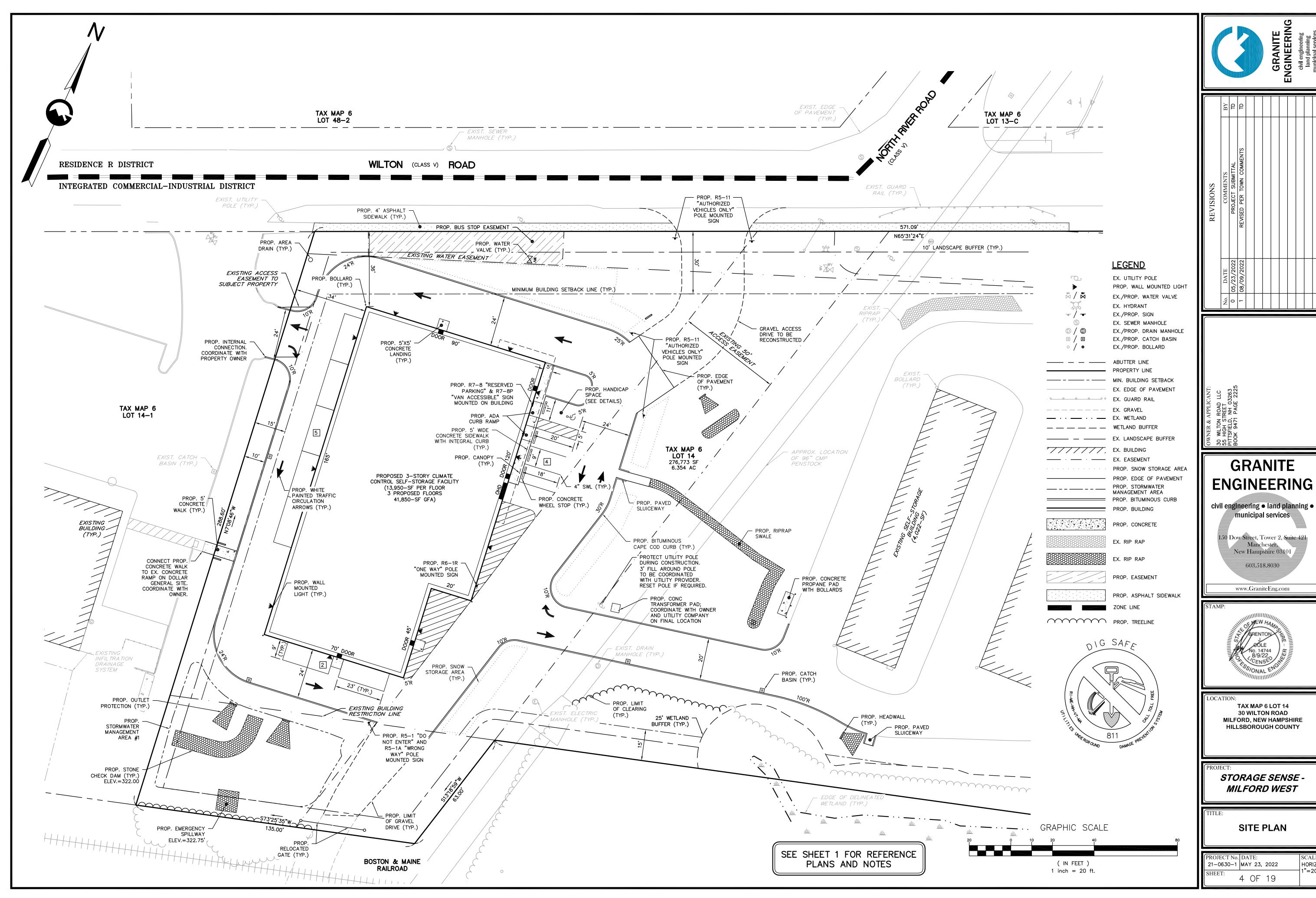








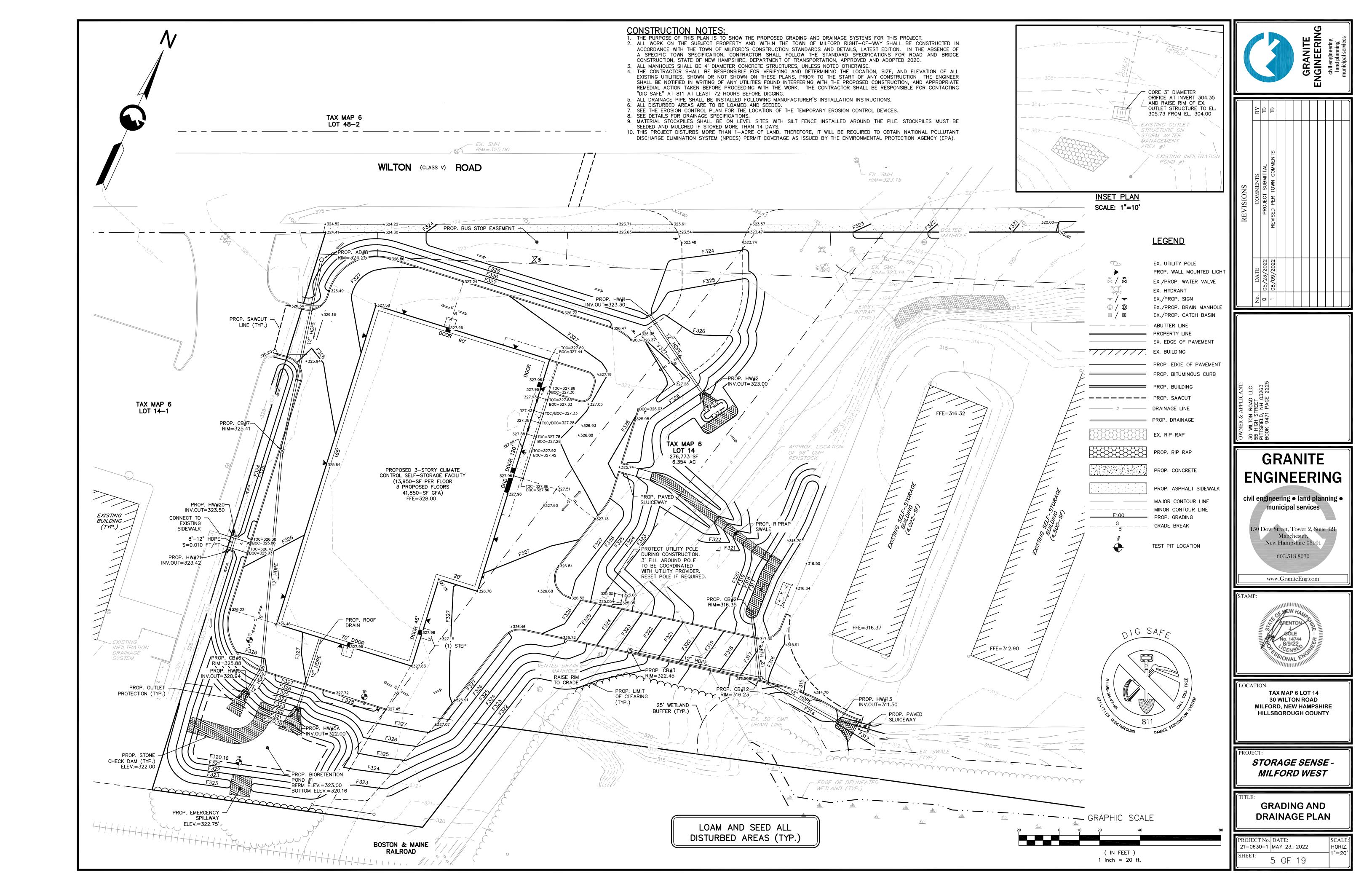


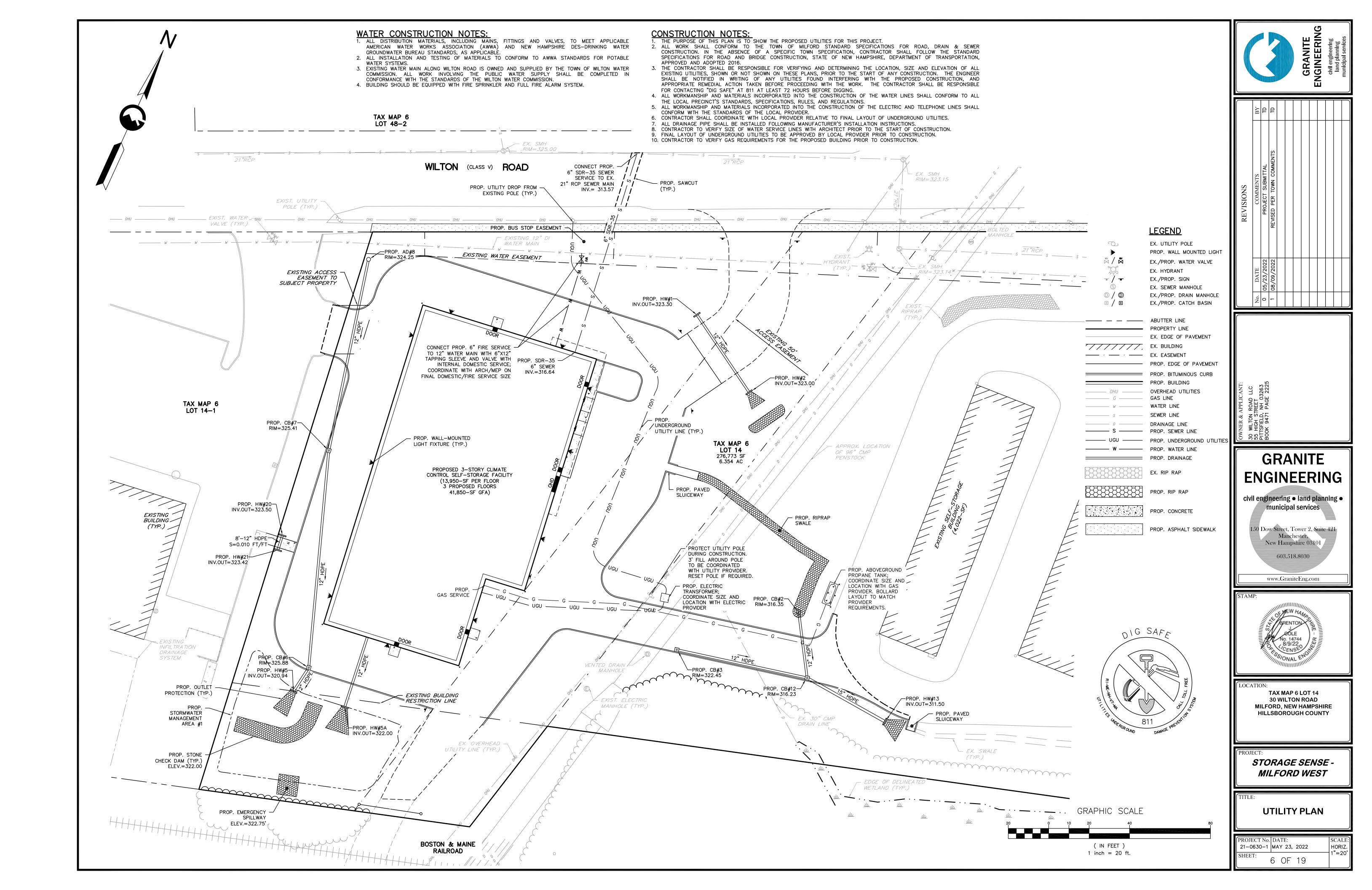


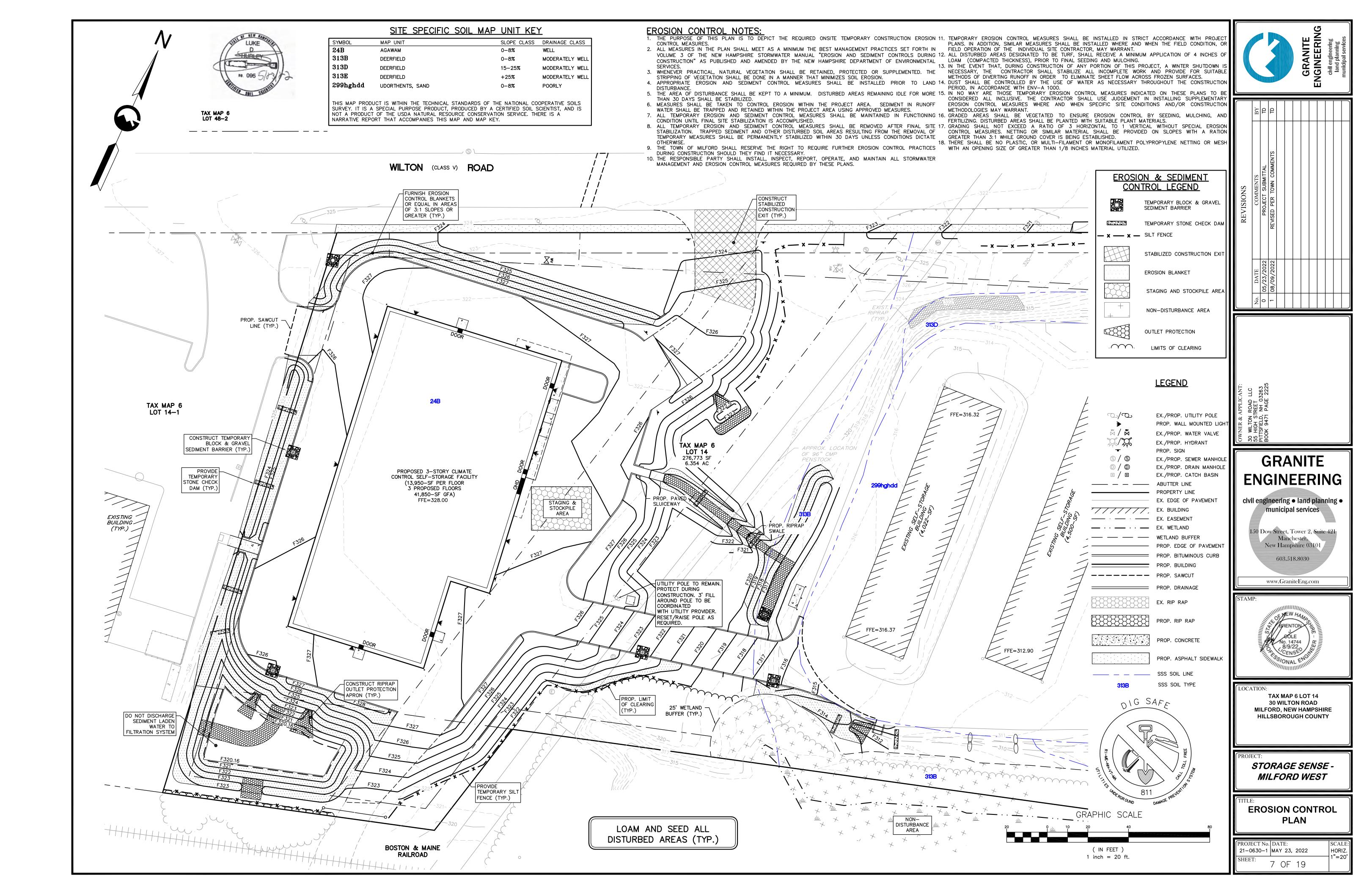


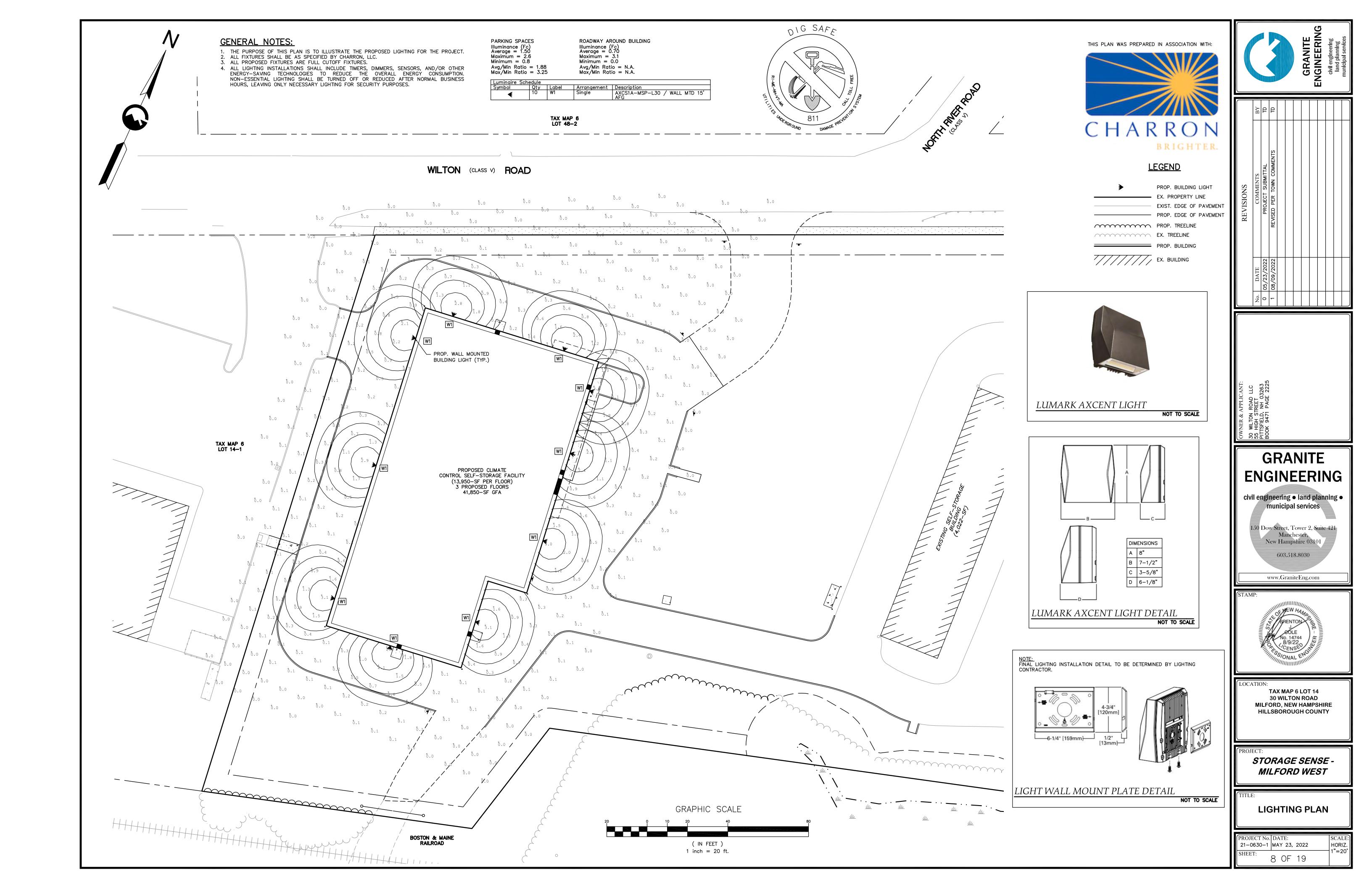
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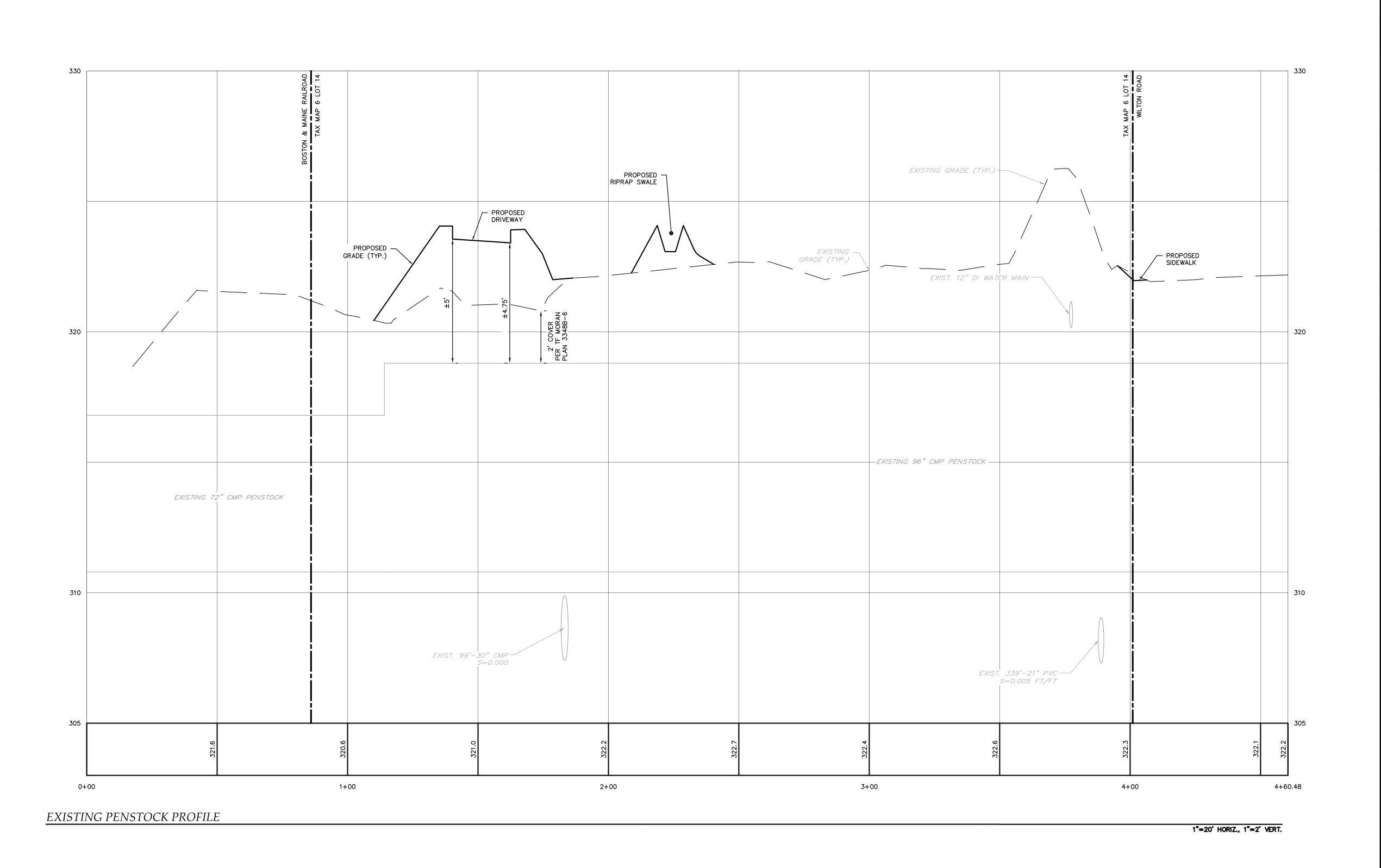
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SHEET:	4 OF 19	HORIZ. 1"=20'











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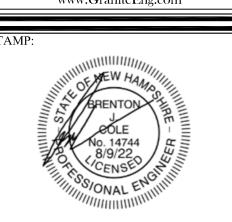
30 WLTON ROAD LLC 55 HIGH STREET PITTSFIELD, NH 03263 BOOK 9471 PAGE 2225

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LOCATION:
TAX MAP 6 LOT 14
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HILLSBOROUGH COUNTY

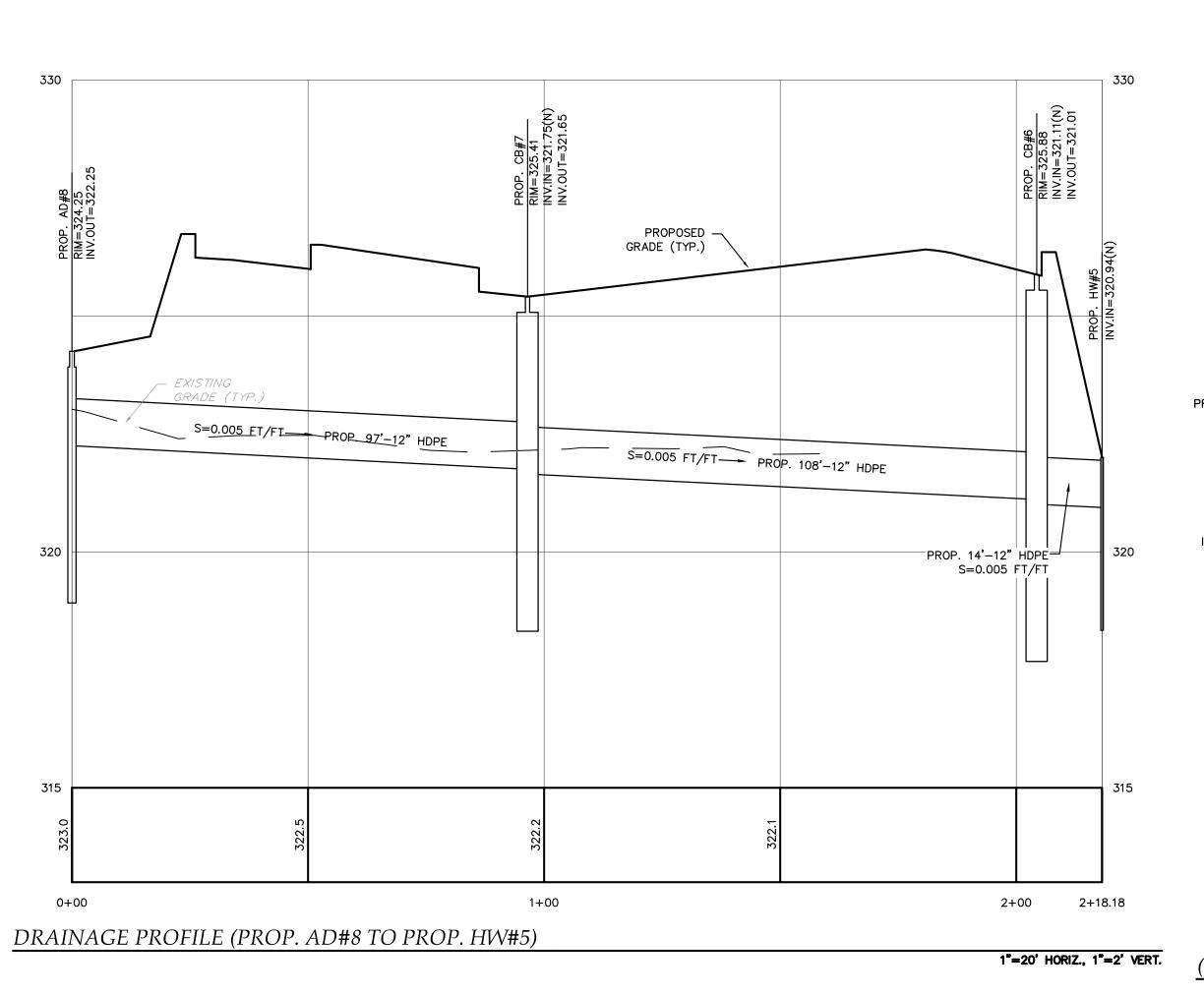
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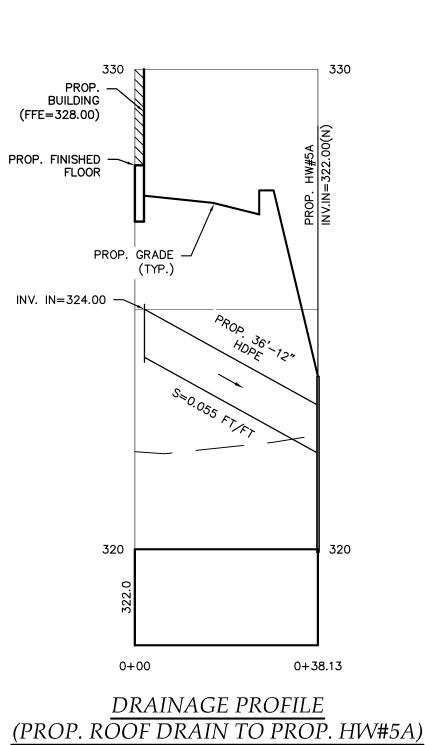
STORAGE SENSE -MILFORD WEST

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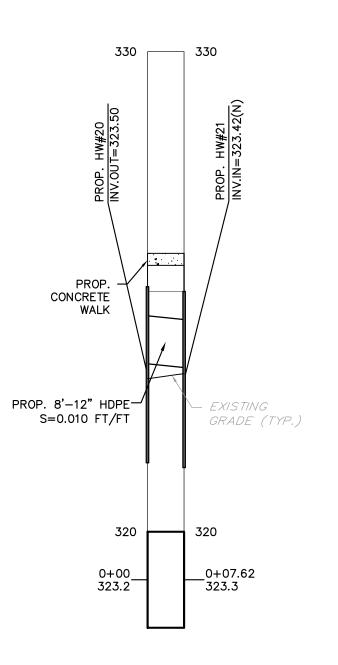
UTILITY PROFILES

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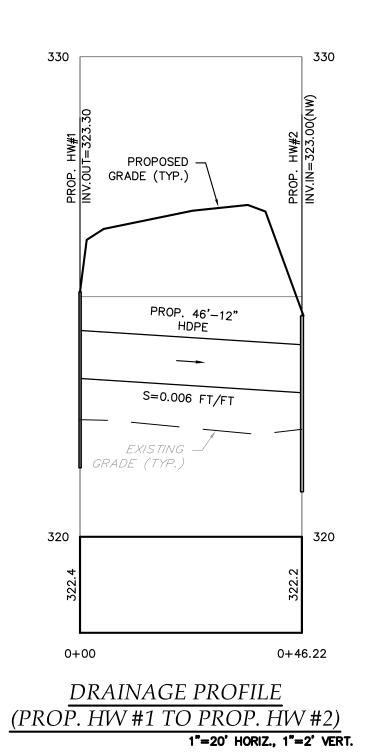


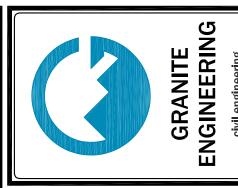


1"=20' HORIZ., 1"=2' VERT.









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OWNER & APPLICANT:

30 WILTON ROAD LLC
55 HIGH STREET
PITTSFIELD, NH 03263
BOOK 9471 PAGE 2225

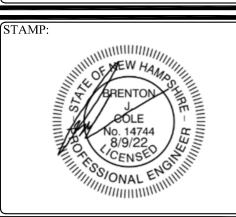
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LOCATION:
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30 WILTON ROAD
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HILLSBOROUGH COUNTY

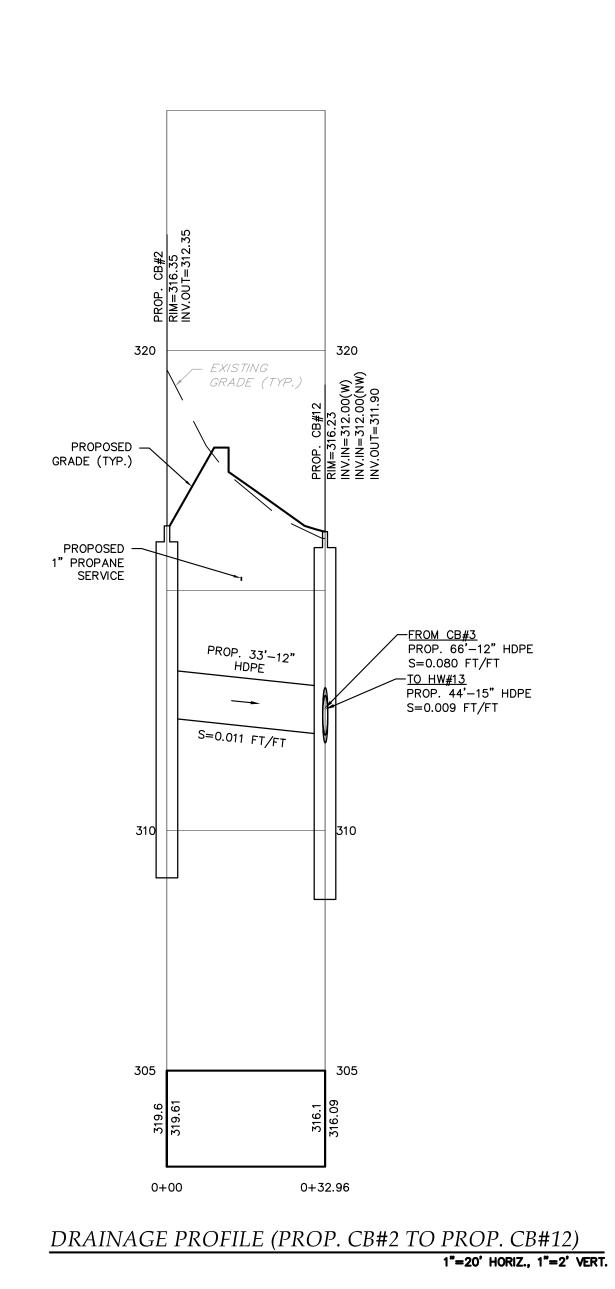
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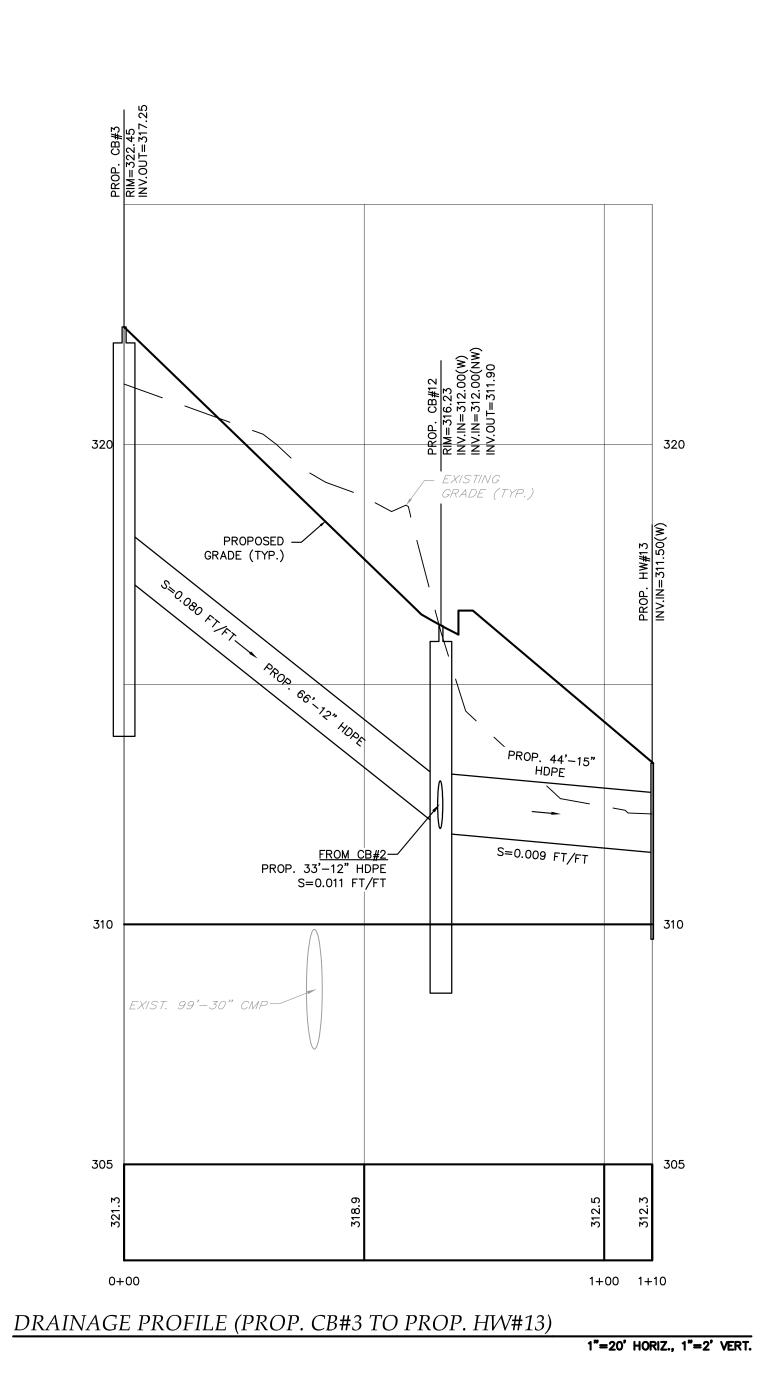
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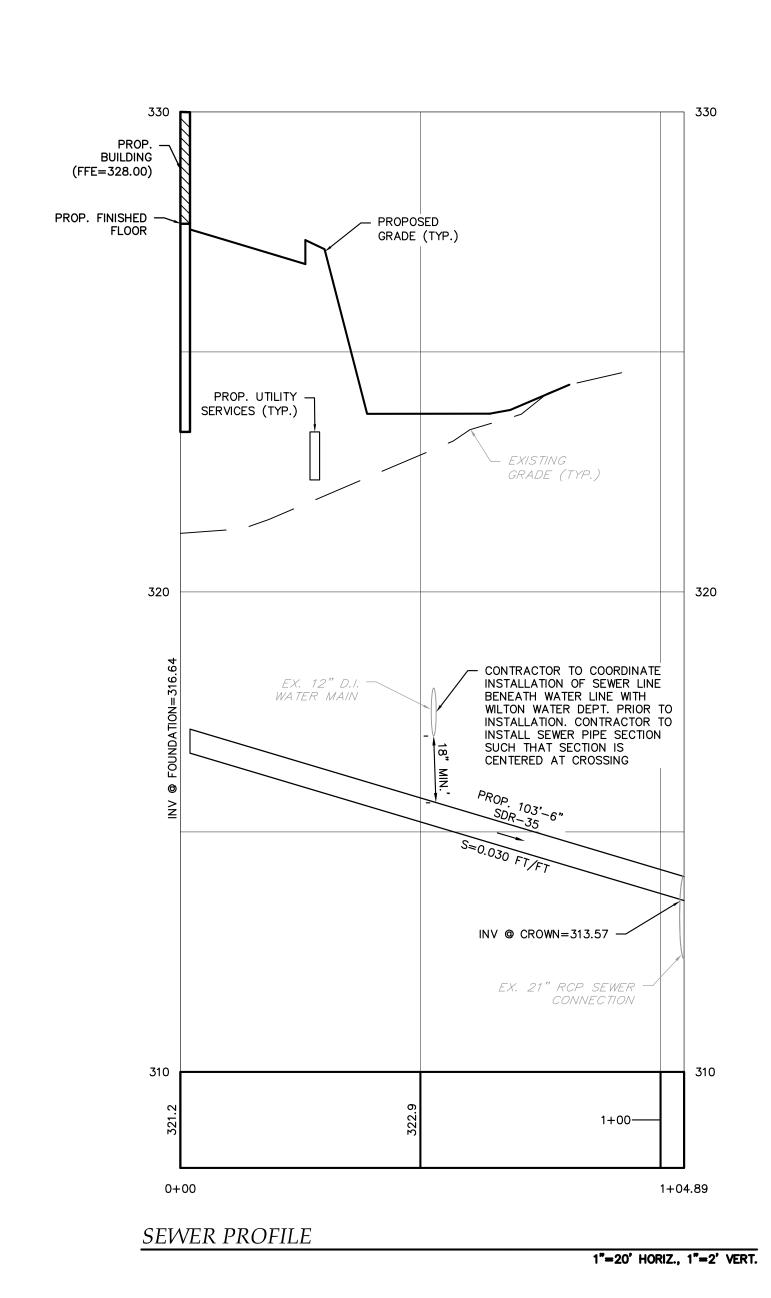
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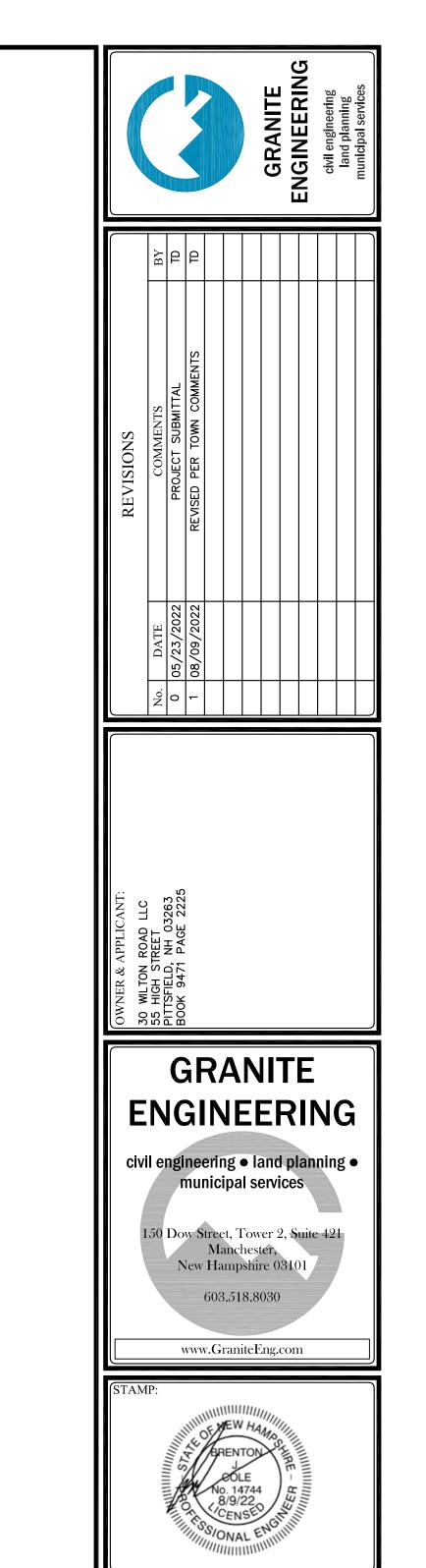
UTILITY PROFILES

PROJECT No. DATE: SCALE: AS SHOWN 10 OF 19









LOCATION:

TAX MAP 6 LOT 14

30 WILTON ROAD

MILFORD, NEW HAMPSHIRE

HILLSBOROUGH COUNTY

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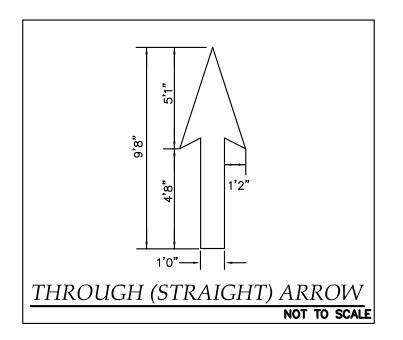
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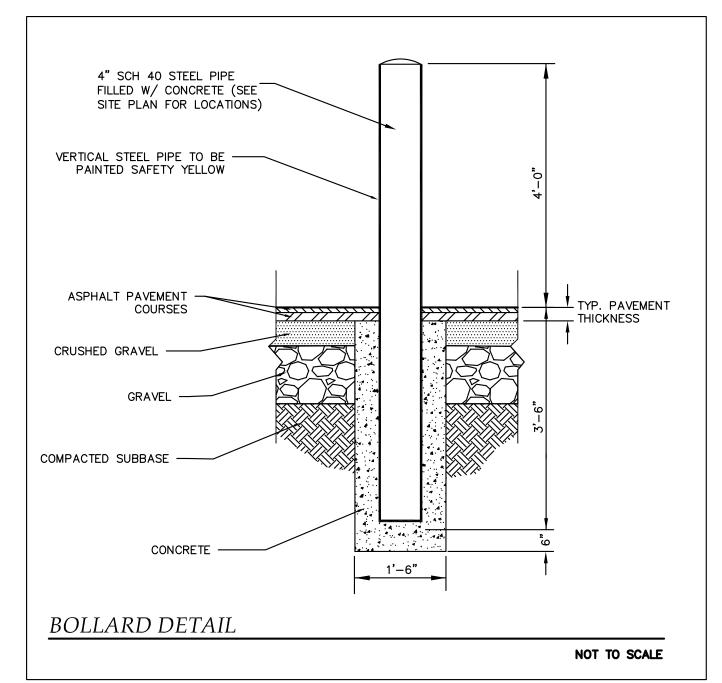
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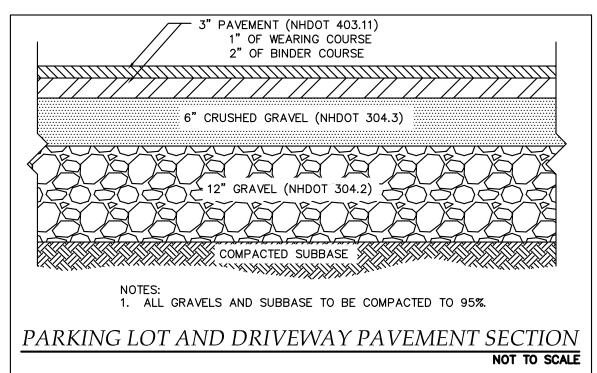
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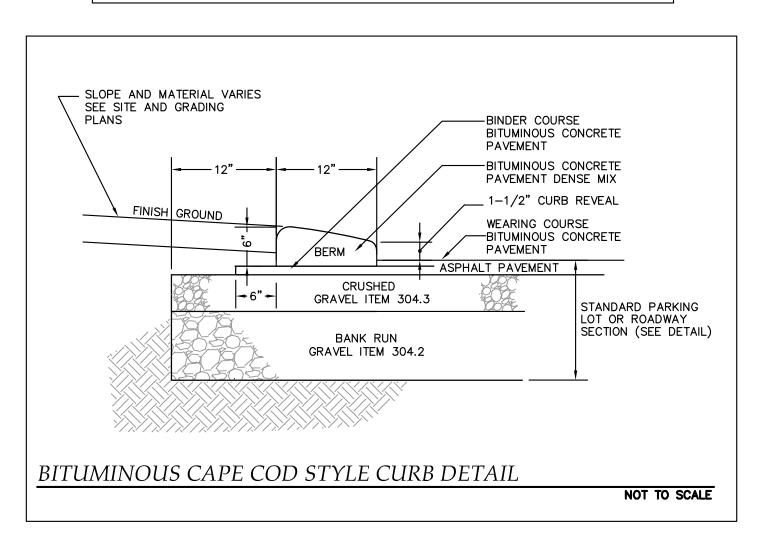


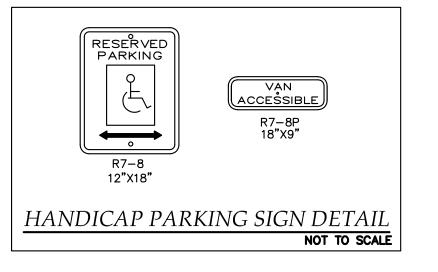
AUTHORIZED VEHICLES ONLY

R5-11 30" × 24" <u>AUTHORIZED VEHICLES ONLY SIGN DETAIL</u> NOT TO SCALE

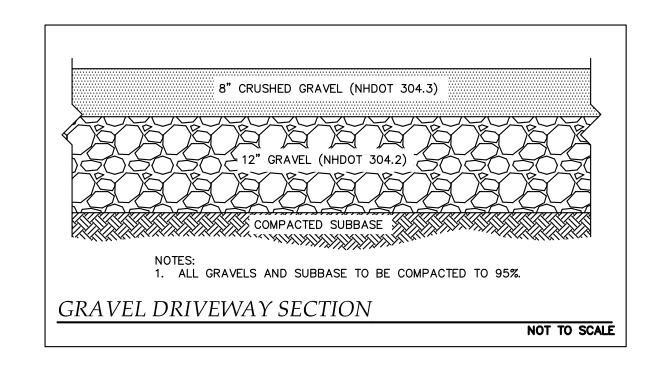


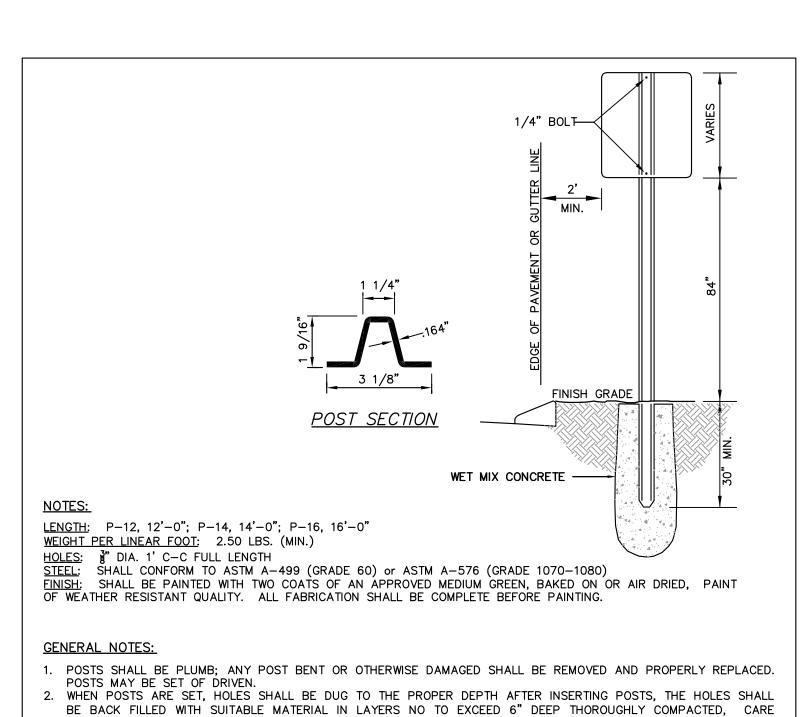












. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST

SHALL HAVE SUBSTANTIALLY THE SAME CROSS-SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED

NOT TO SCALE

BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.

8. ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.

4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.

. WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.

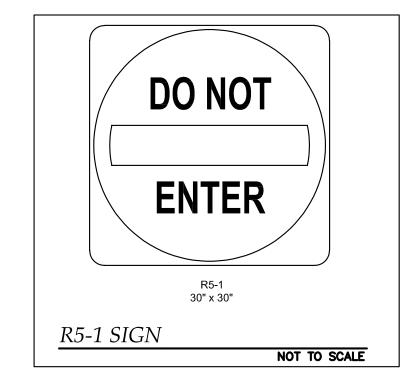
5. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON

HEADS WILL NOT BE ACCEPTED.

DIMENSIONS SHOWN ARE NOMINAL

SIGN POST DETAIL

UNIFORM TRAFFIC CONTROL DEVICES".

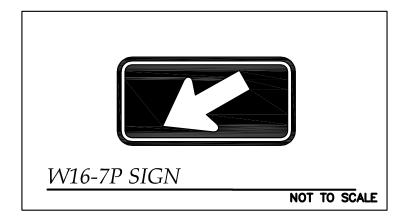


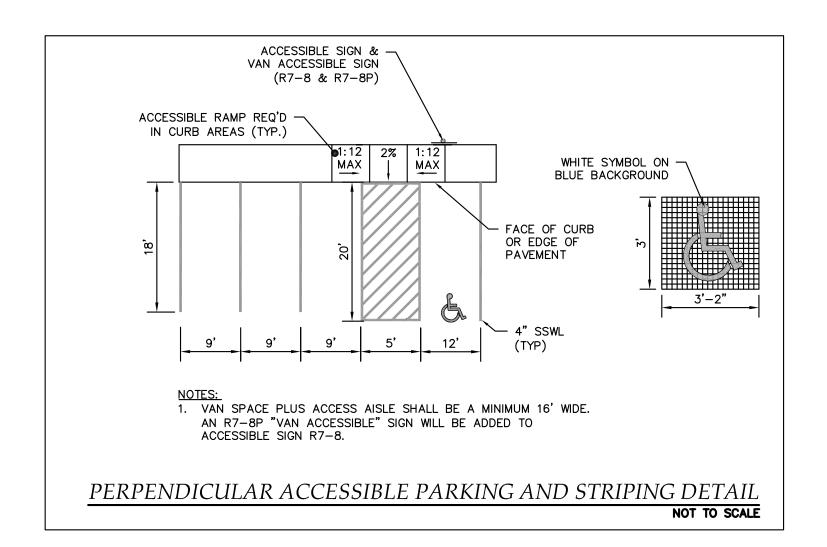


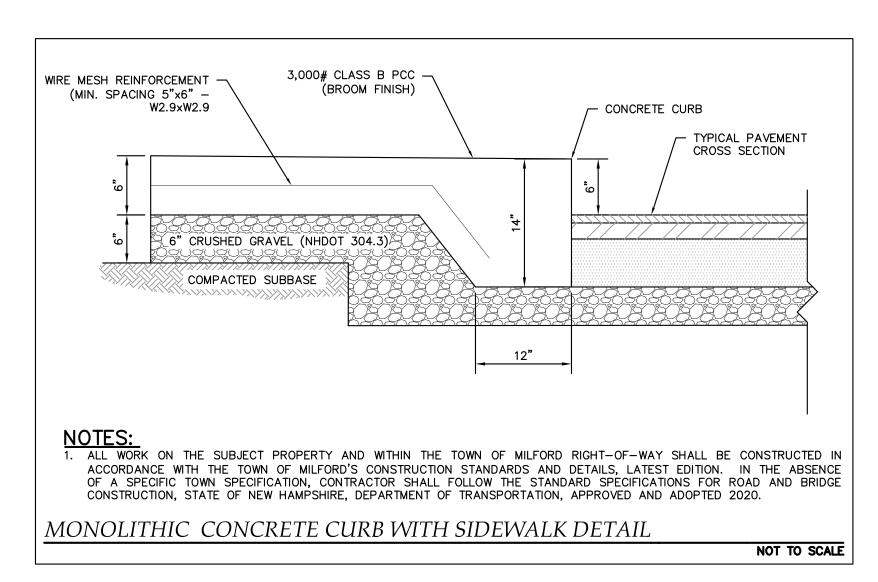


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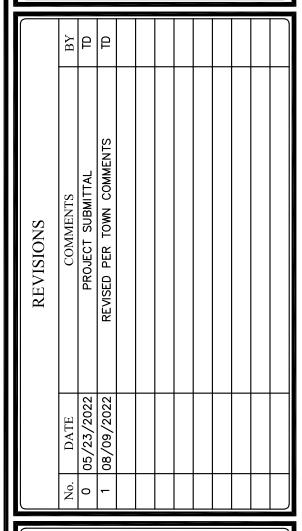












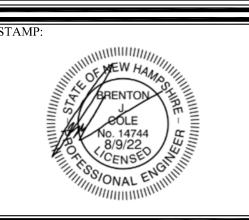
30 WILTON ROAD LLC 55 HIGH STREET PITTSFIELD, NH 03263 BOOK 9471 PAGE 2225

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LOCATION:

TAX MAP 6 LOT 14

30 WILTON ROAD

MILFORD, NEW HAMPSHIRE

HILLSBOROUGH COUNTY

PROJECT:

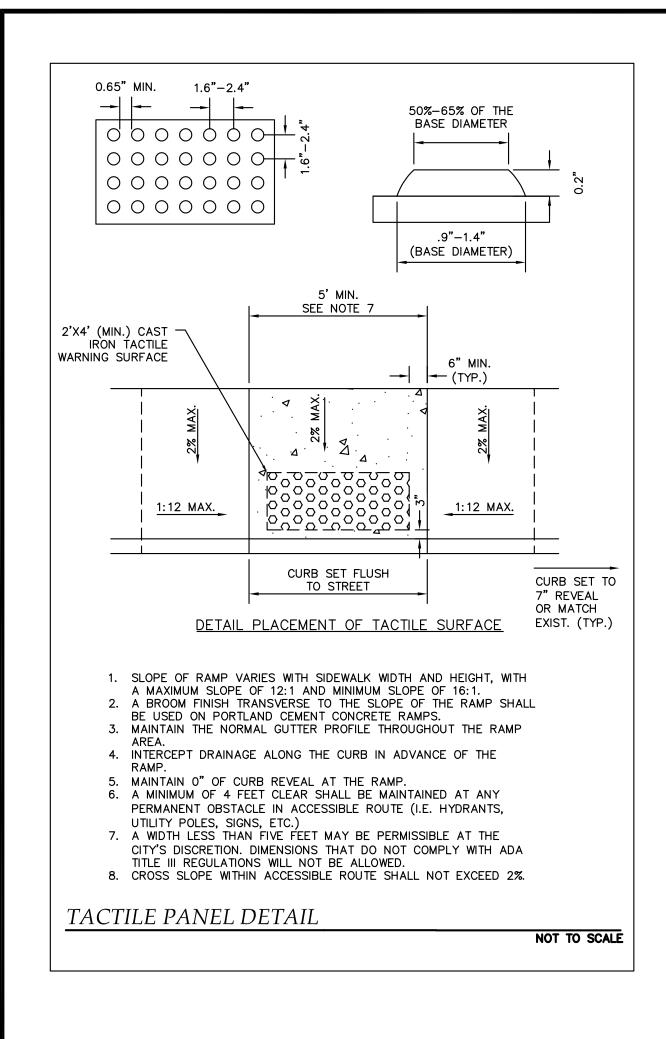
STORAGE SENSE -

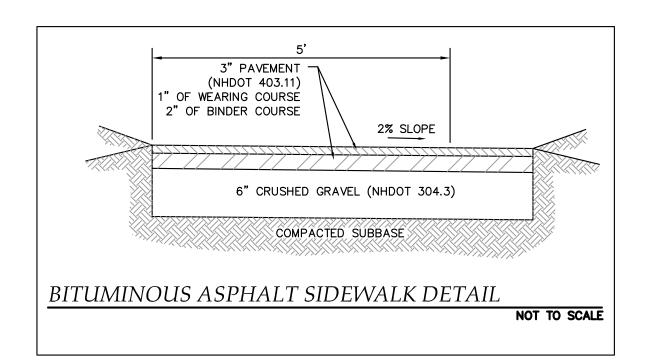
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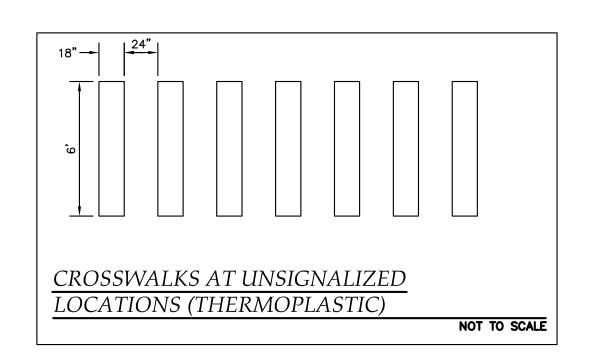
DETAILS

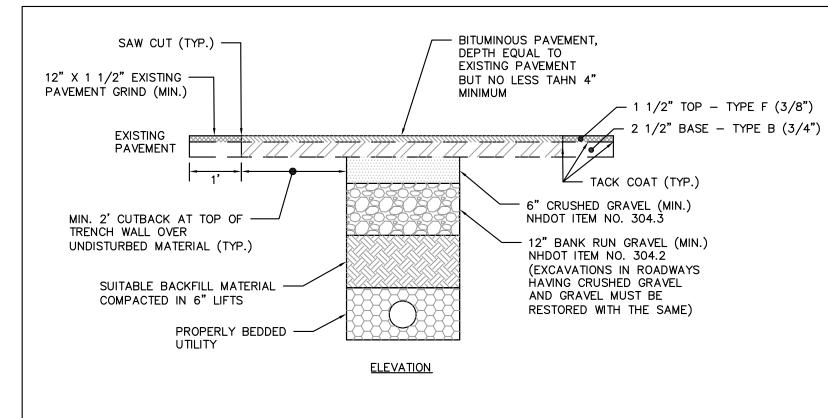
MILFORD WEST

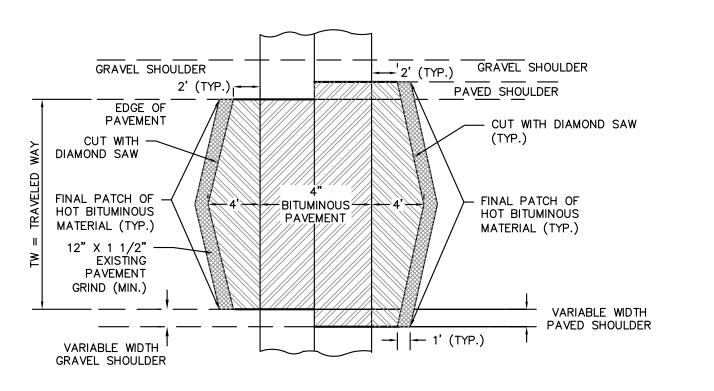
PROJECT No. DATE:
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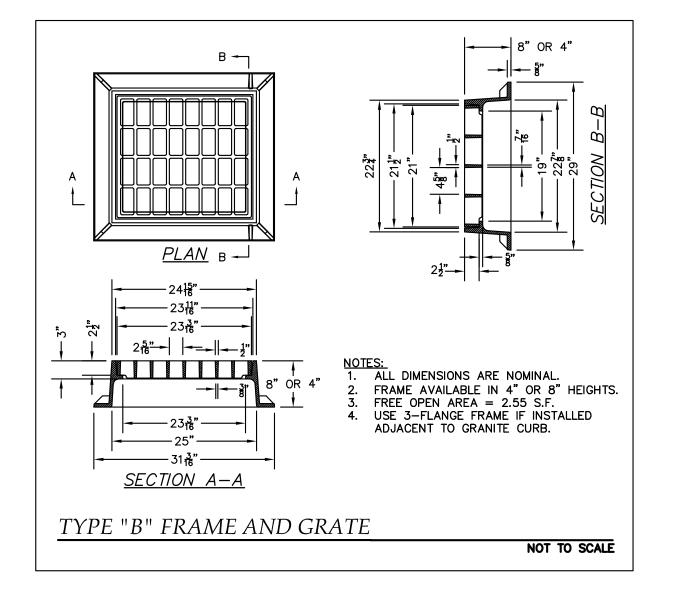


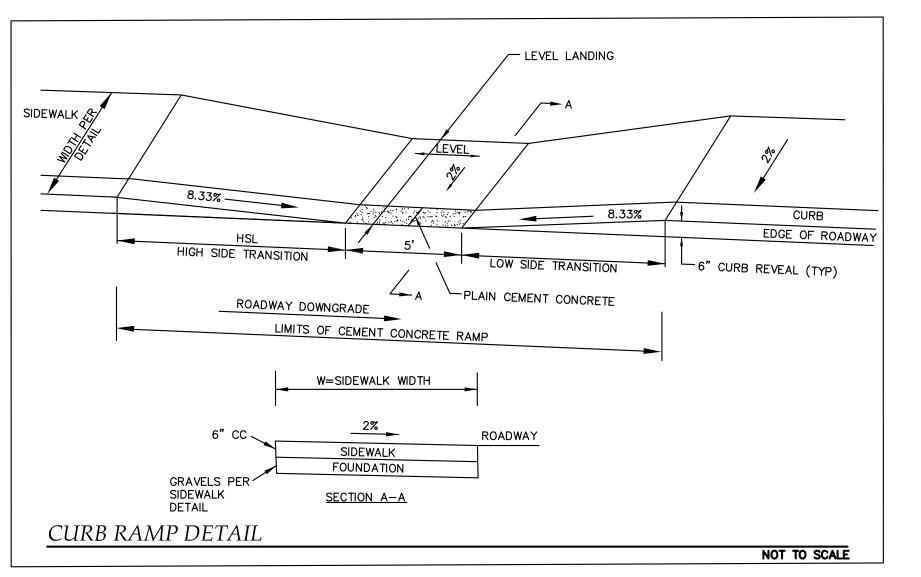
- NOTES:

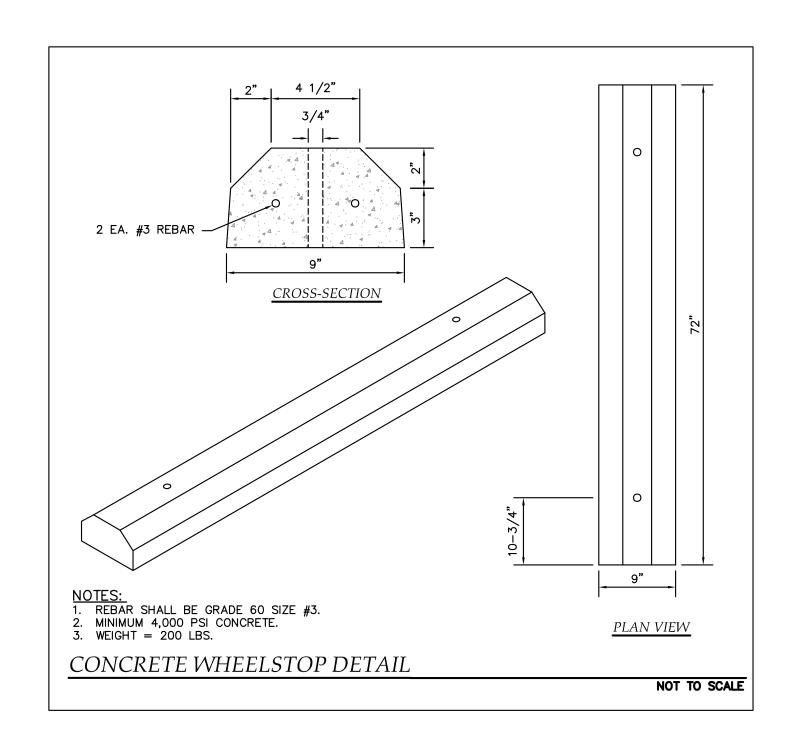
 1. ALL BACKFILL MATERIAL PLACED IN TRENCHES SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 6" (SIX INCHES) IN COMPACTED THICKNESS AT NEAR OPTIMUM MOISTURE CONTENT USING PNEUMATIC TAMPERS, VIBRATORY COMPACTORS OR OTHER APPROVED MEANS. THE MATERIAL SHALL BE COMPACTED TO NO LESS THAN 95% OF AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, METHOD OF TEST T99, METHOD C. WATER SHALL BE UNIFORMLY APPLIED DURING COMPACTION IN THE AMOUNT NECESSARY FOR PAPER CONSOLIDATION, BUT PUDDLING
- WILL NOT BE ALLOWED. 2. WITHIN PAVED AREAS, CLASS A CRUSHED GRAVEL (AS DESCRIBED IN NH STANDARD SPECIFICATIONS) EQUAL TO THE EXISTING GRAVEL COURSE, SHALL BE PLACED IN LAYERS NOT EXCEEDING 9" (NINE INCHES) LOOSE DEPTH AND THOROUGHLY COMPACTED. AN APPROVED BITUMINOUS PLANT MIX MATERIAL SHALL BE PLACED AND CAREFULLY GRADED AND ROLLED TO THE ADJACENT PAVEMENT GRADE AS A TEMPORARY PATCH. JUST BEFORE COMPLETION OF THE PROJECT AND AFTER SUITABLE EXPOSURE OF THE TEMPORARY PATCHES TO TRAFFIC COMPACTION, THE PAVEMENT SHALL BE SAWN ON EITHER SIDE OF THE TRENCH TO PROVIDE A TWO FOOT MINIMUM OVERLAP OF THE FINAL PATCH ON UNDISTURBED MATERIAL. IN THE CASE OF TRANSVERSE OR DIAGONAL TRENCHING, THE PAVEMENT SHALL BE SAWN TO PROVIDE A FLAT DIAMOND SHAPED PATCH WITH A TWO FOOT MINIMUM OVERLAP ON UNDISTURBED MATERIAL THAT WILL PERMIT ONLY ONE WHEEL OF A VEHICLE AT A TIME TO STRIKE THE PATCH AREA. WITHIN THE SAWN LIMITS OF THE FINAL PATCH, THE EXISTING PAVEMENT AND TEMPORARY PATCH MATERIAL SHALL BE REMOVED AND REPLACED WITH AN EQUAL DEPTH OF TYPE 1-1 HOT ASPHALTIC CONCRETE, LAYED AND COMPACTED TO MEET THE EXISTING PAVEMENT EDGE EXACTLY. SAW CUTS FOR FINAL PATCHING SHALL BE AS DIRECTED BY THE DISTRICT ENGINEER.
- 3. SHOULDERS, OTHER THAN PAVED, DISTURBED DURING CONSTRUCTION, SHALL BE RESTORED BY EXCAVATING TO A DEPTH SUFFICIENT TO RECEIVE 3" CRUSHED BANK RUN GRAVEL WHICH SHALL BE GRADED AND COMPACTED ON A SLOPE OF 5/8" PER FOOT AWAY FROM THE PAVEMENT OR AS ORDERED BY THE DISTRICT ENGINEER.
- 4. OTHER THAN HIGHWAY SLOPES AND SHOULDERS DISTURBED SHALL BE REPLACED PER THE RESPECTIVE SUBDIVISIONS OF THIS PERMIT OR INSTRUCTIONS ISSUED BY THE DISTRICT ENGINEER.
- 5. IN OTHER AREAS, THE PRESENT SURFACE TYPE SHALL BE RESTORED BY PLACING SIMILAR MATERIAL INTO THE TRENCH TO A DEPTH EQUAL TO THAT EXISTING BEFORE EXCAVATION. ANY EXISTING GRASS ADDITIONALLY SHALL BE FERTILIZED AND RE—SEEDED. ANY ASPHALT OR CONCRETE SIDEWALKS SHALL HAVE SURFACES OF EQUAL DEPTH, KIND AND QUALITY PLACED.
- 6. TRAFFIC SHALL BE MAINTAINED, CONTROLLED AND PROTECTED BY SUITABLE WARNING AND/OR CHANNELING DEVICES, ADVANCE AND STANDARD WARNING SIGNS AND FLAGS DURING THE PERFORMANCE OF THE WORK AS SHOWN ON THE ATTACHED "WARNING AND SIGN PACKAGE". THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT AND CONNECTING ROADS. THESE DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED OR REMOVED DURING THE PROGRESS OF THE CONSTRUCTION. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL BE PROVIDED FOR THE PROTECTION OF THE PUBLIC WHENEVER TWO WAY TRAFFIC CANNOT BE MAINTAINED AND/OR AT THE REQUEST OF THE DISTRICT ENGINEER.
- 7. THIS TYPICAL DETAIL IS TO BE USED IN CONJUNCTION WITH THE STANDARD TRENCH PERMIT. ALL SAW CUTS FOR THE FINAL PATCH SHALL BE AS DIRECTED BY THE DISTRICT ENGINEER.
- 8. IN ALL CASES, TRENCH IS TO BE FLUSH WITH EXISTING PAVEMENT AT THE END OF EACH WORK DAY.

NOT TO SCALE

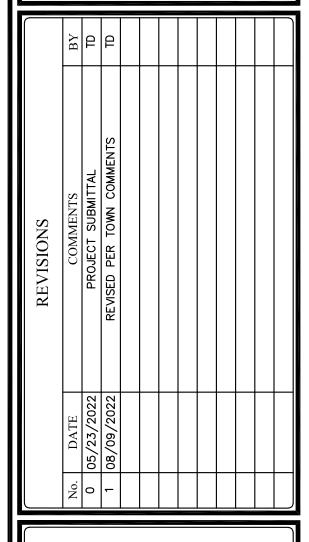
TYPICAL PERMANENT PAVEMENT REPAIR











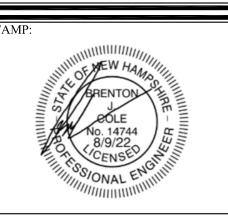
OWNER & APPLICANT:
30 WILTON ROAD LLC
55 HIGH STREET
PITTSFIELD, NH 03263
BOOK 9471 PAGE 2225

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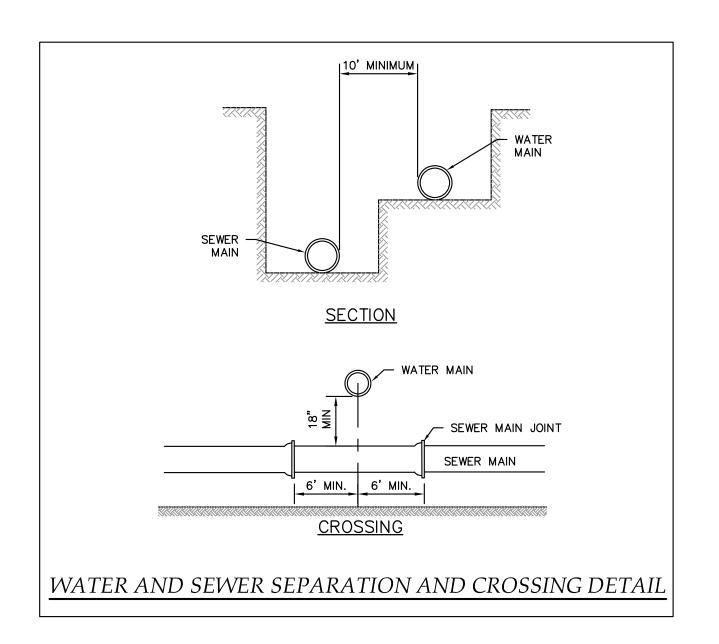
LOCATION:
TAX MAP 6 LOT 14
30 WILTON ROAD
MILFORD, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

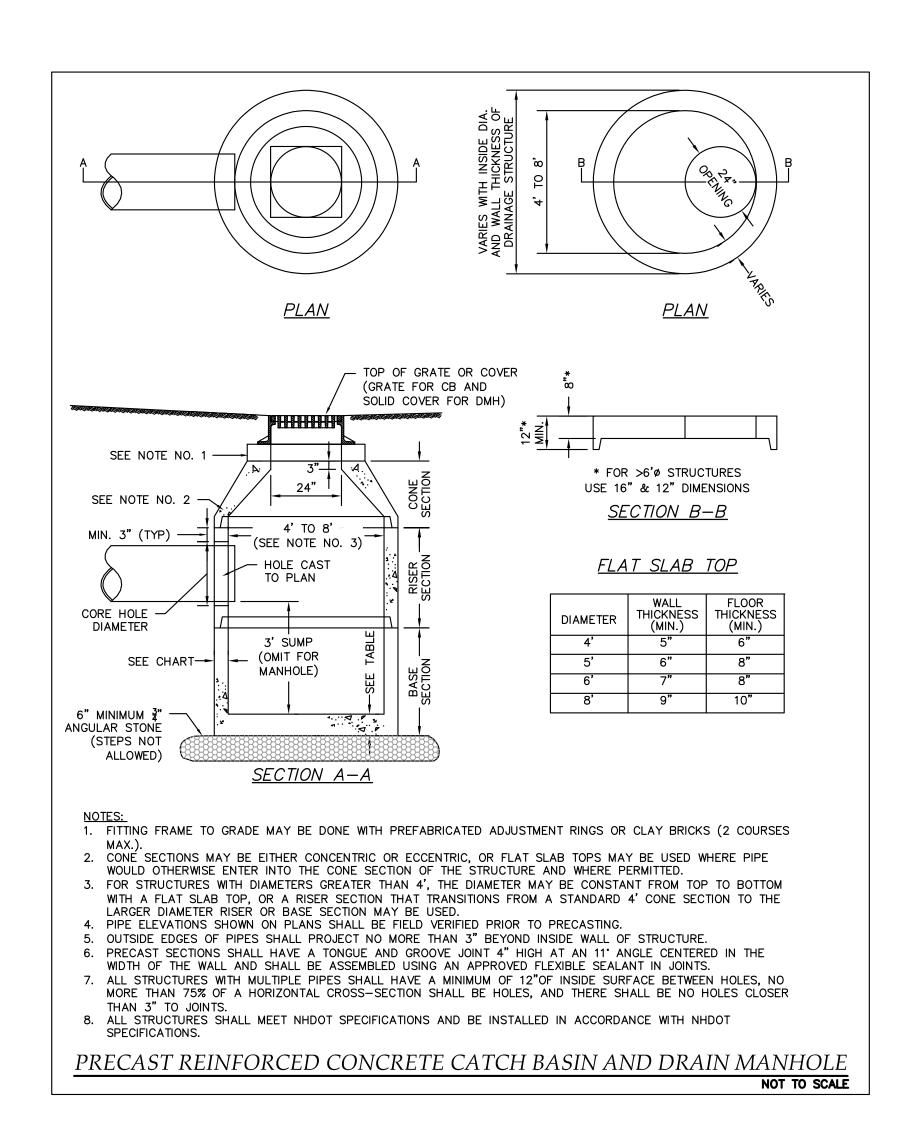
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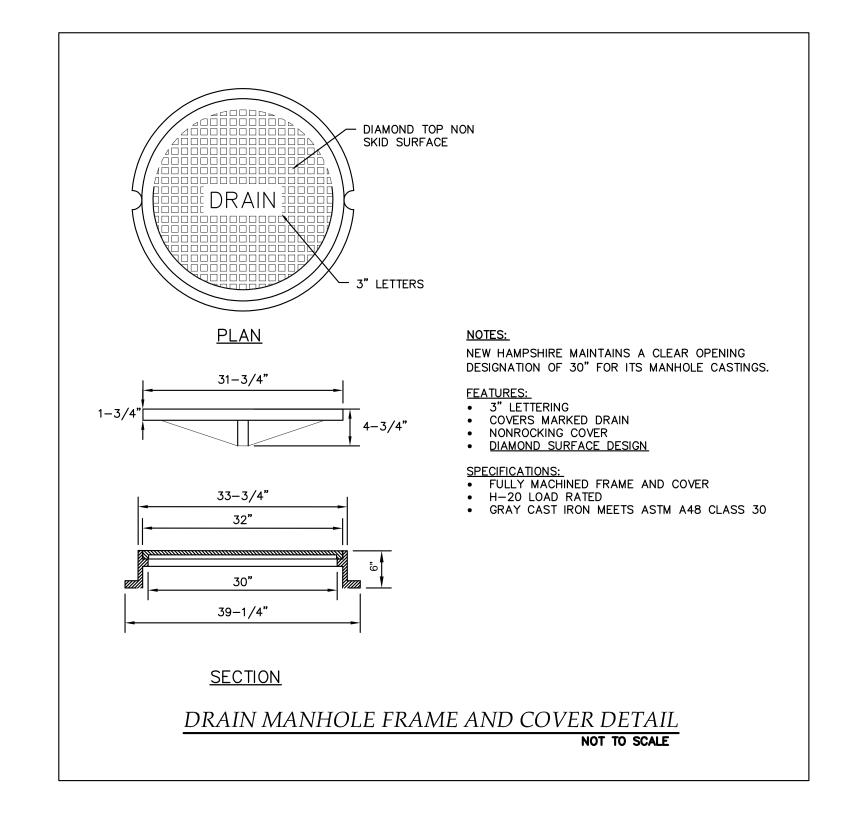
STORAGE SENSE
MILFORD WEST

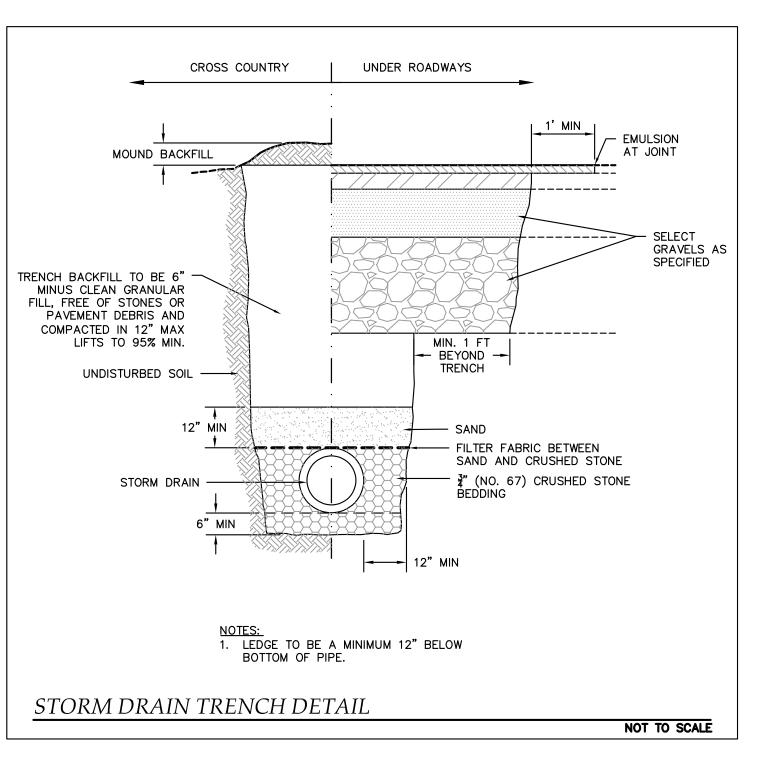
DETAILS

PROJECT No. DATE: SCALE 21-0630-1 MAY 23, 2022 AS SHOWN









SEWER SERVICE CONNECTION NOTES:

1. SERVICE CONNECTIONS SHALL USE SANITARY TEE OR WYE FITTINGS FOR ALL NEW SEWER CONSTRUCTION.

. THE CENTERLINE OF ALL BUILDING CONNECTIONS SHALL ENTER THE TOP HALF OF THE SEWER.

ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 4 FEET MAY HAVE THE SEWER FITTING SET

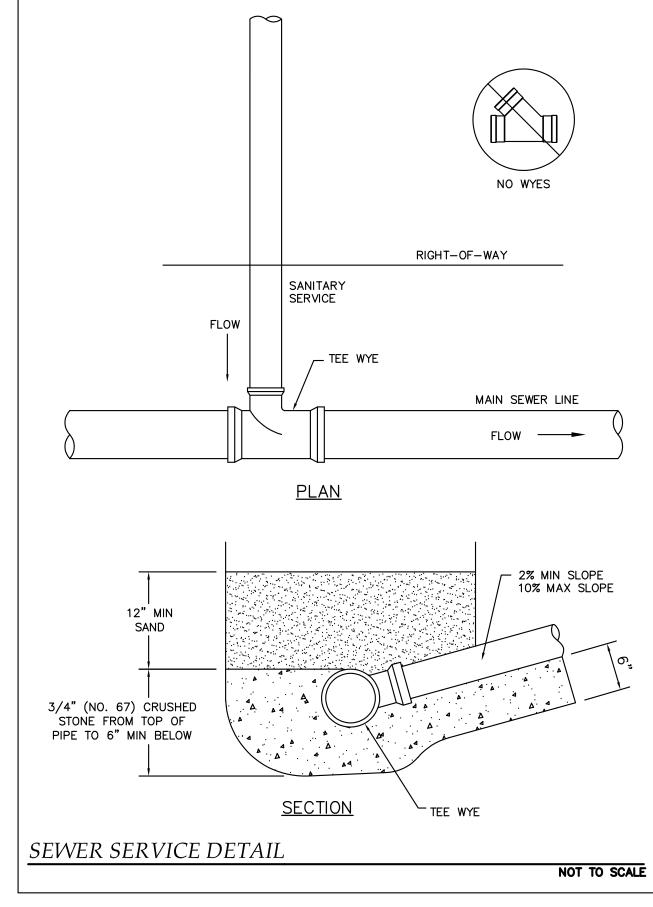
4. ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 12 FEET SHALL EMPLOY NON-ENCASED RISERS THAT PROTECT AGAINST PIPE PENETRATION OR FAILURE AT THE FITTING BY THE USE OF BELL-ON-BELL CONNECTIONS.

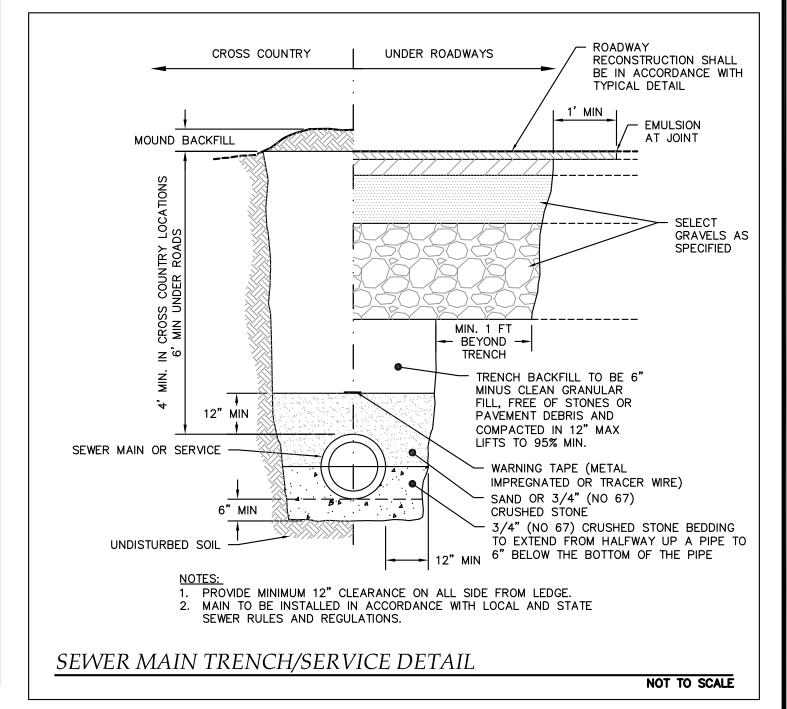
5. FOR EXISTING SEWERS WHERE FITTINGS CANNOT BE INSTALLED, SADDLE CONNECTIONS SHALL BE USED.
6. PRESSURE SEWERAGE SHALL HAVE AN ISOLATION VALVE OR CURB STOP VALVE INSTALLED AT THE PROPERTY LINE. IF A CHECK VALVE IS USED AT THE PROPERTY LINE, THE VALVE SHALL BE INSTALLED

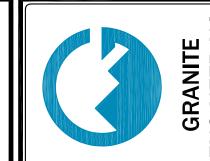
WITHIN A VAULT TO FACILITATE MAINTENANCE. ROOF DOWNSPOUTS, EXTERIOR OR INTERIOR FOUNDATION DRAINS, SUMP PUMPS, OR OTHER SOURCES OF SURFACE WATER RUN-OFF OR GROUNDWATER SHALL NOT BE DIRECTLY OR INDIRECTLY CONNECTED TO A

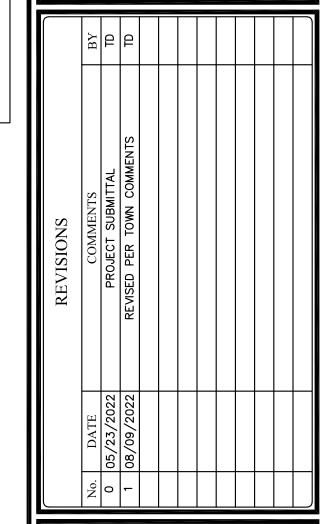
SEWER SERVICE CONNECTION NOTES

NOT TO SCALE









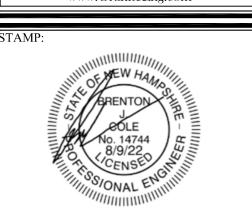
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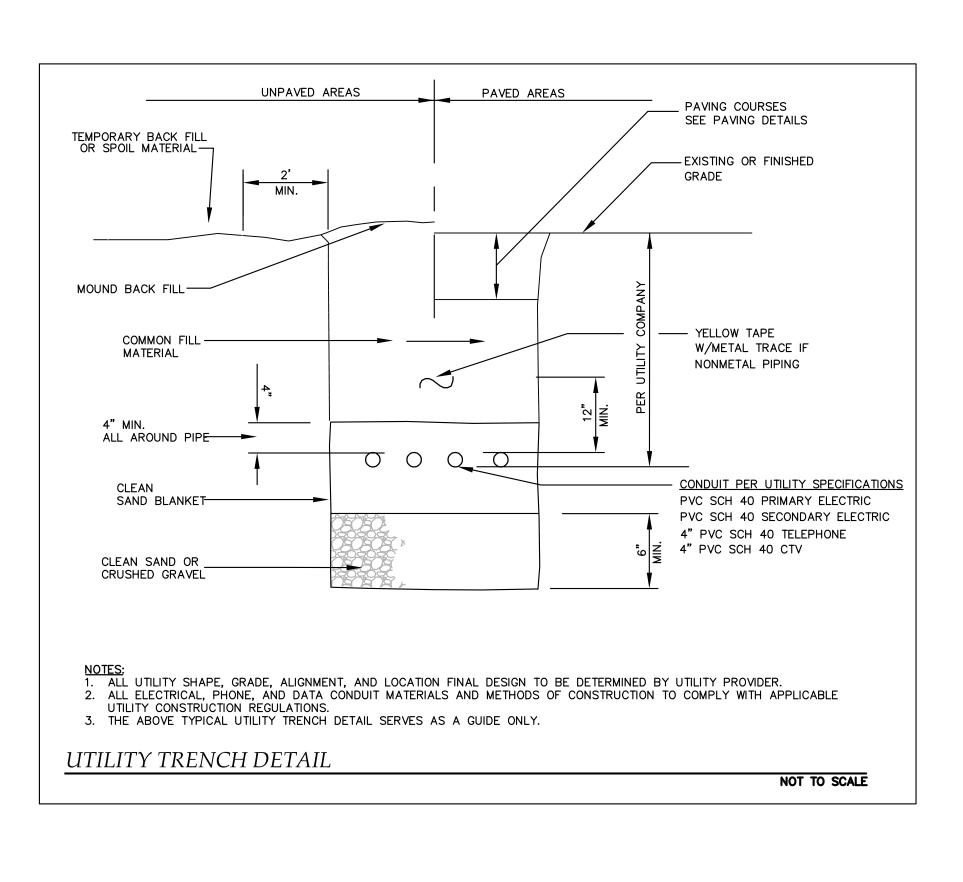
LOCATION: TAX MAP 6 LOT 14 30 WILTON ROAD MILFORD, NEW HAMPSHIRE HILLSBOROUGH COUNTY

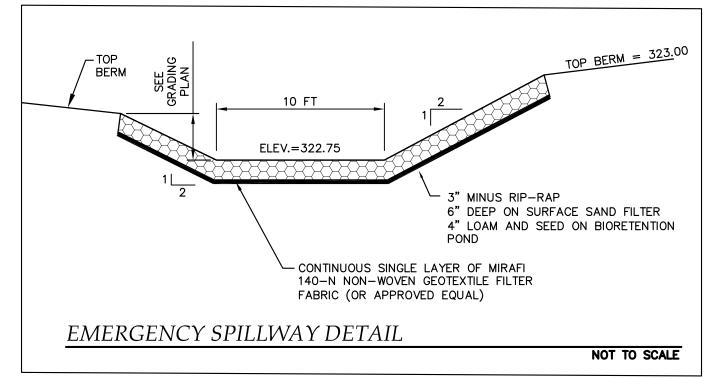
STORAGE SENSE -

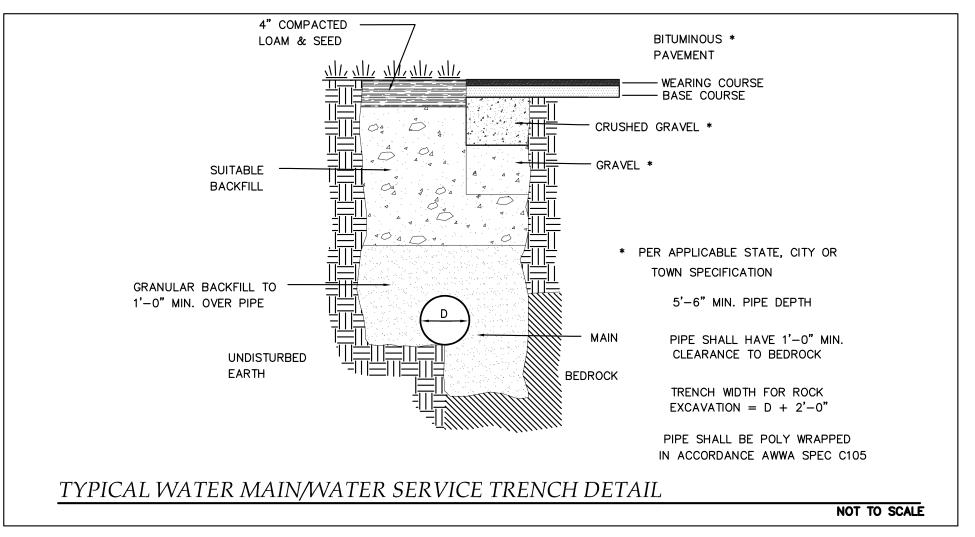
MILFORD WEST

DETAILS

21-0630-1 MAY 23, 2022 SHEET: 14 OF 19



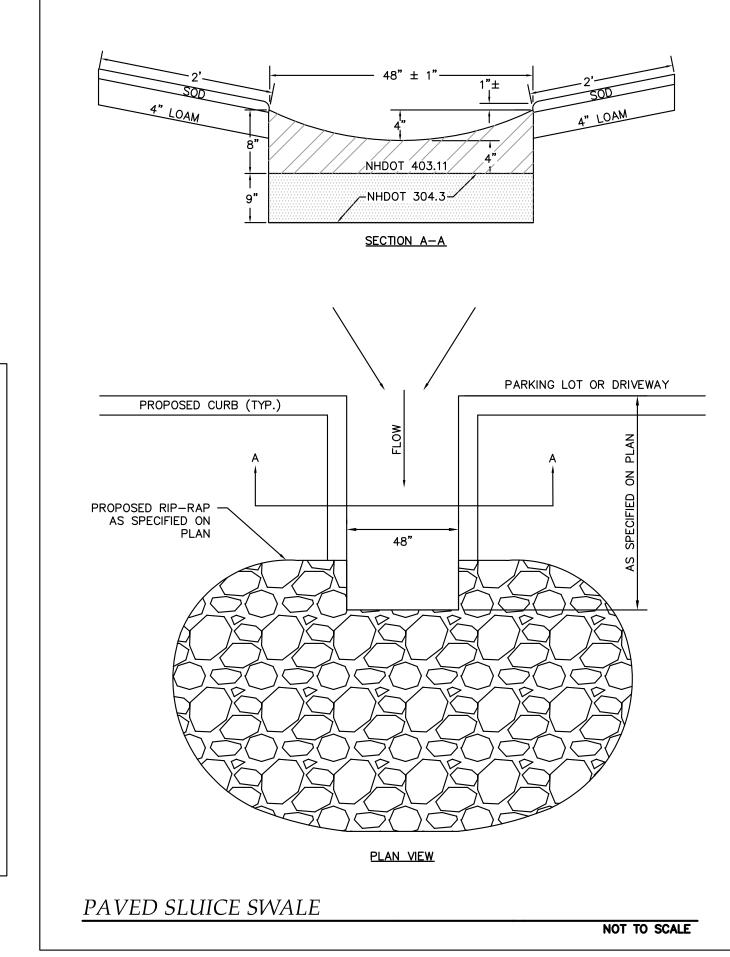


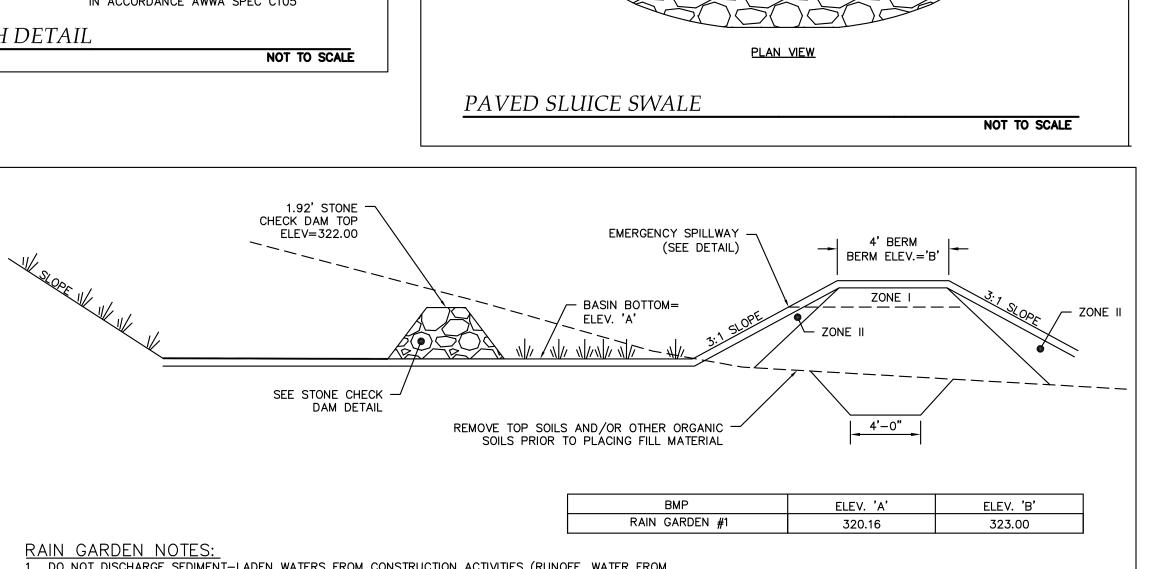


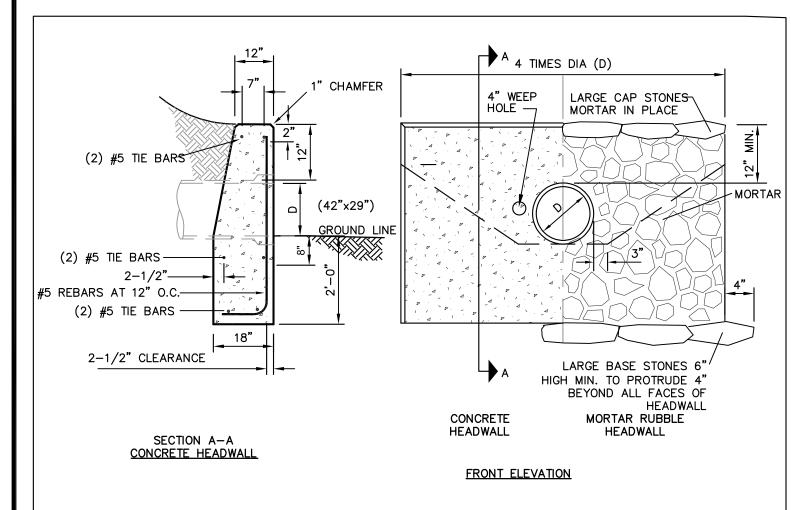
L = APRON LENGTH W = APRON WIDTH

w = CHANNEL WIDTH

D = DEPTH







CLASS B CONCRETE - SCHEDULE FOR REINFORCED CONCRETE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | 54" | 60" PIPE DIAMETER 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 NUMBER

LENGTH OF BARS 3'-0" 3'-0" 3'-0" 3'-0" 4'-0" 4'-0" 5'-0" 5'-0" 6'-0" 6'-0" CLASS B CONCRETE - SCHEDULE FOR REINFORCED CONCRETE

12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | 54" | 60" | CONCRETE QUANTITY (YDS) | 1.0 | 1.3 | 1.8 | 2.7 | 3.5 | 4.9 | 6.4 | 8.0 | 10.0 | 12.3

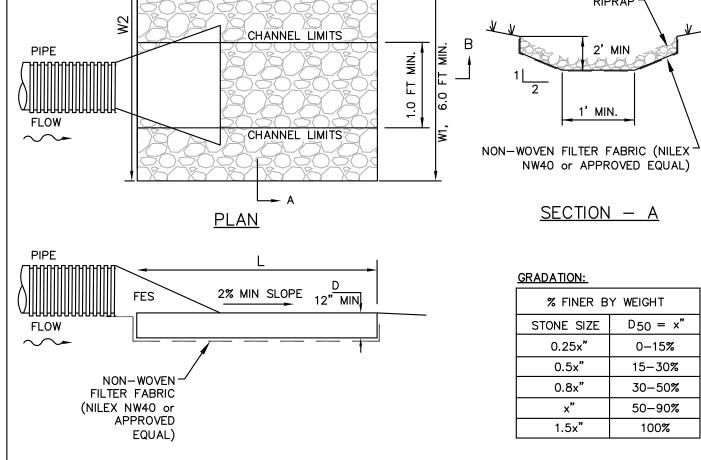
FOR DESCRIPTIONS, MATERIALS AND CONSTRUCTION METHODS, SEE LATEST NHDOT SPECIFICATIONS.

ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM.

THE PLANNING BOARD RESERVES THE RIGHT TO REQUIRE THAT THE DEVELOPER PROVIDE CAST-IN-PLACE CONCRETE HEADWALLS WITH STONE FACING IF THE CAST-IN-PLACE TYPE IS TO BE USED.

TYPICAL CONCRETE HEADWALL DETAIL

NOT TO SCALE



10.0 FT MIN.

SECTION - B

THE APRON SUBGRADE TO BE PREPARED TO THE GRADES SHOWN ON THE APPROVED PLANS. THE FRACTURED ROCK (RIP-RAP) SHALL CONFORM TO THE SPECIFIED GRADATION (D₅=4" MIN.).

GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE

RIP-RAP PLACEMENT. DAMAGED FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS SHALL BE A MINIMUM OF

RIP-RAP PLACEMENT SHALL BE IN ONE CONTINUOUS LIFT TO THE DEPTH SPECIFIED, AVOIDING MATERIAL SEGREGATION.

<u>MAINTENANCE</u>

THE APRON SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT (≥ 3"). IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE VEGETATED CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE PERIODICALLY INSPECTED FOR DEGRADATION. IF DEGRADATION HAS OCCURRED, REPAIR IMMEDIATELY. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS AND SEDIMENT THAT COULD IMPAIR UPSTREAM CHANNEL CHARACTERISTICS. ALL DEBRIS OR SEDIMENT SHOULD BE REMOVED OFF SITE and DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS.

STRUCTURE	LENGTH	W1	W2	D50	DEPTH
	LLIVOIII		-1		
RIPRAP SWALE	9′	12'	3′	4"	10"
HW#2	8'	11'	3'	4"	10"
HW#5	10'	7'	3'	4"	10"
HW#5A	9'	12'	3'	4"	10"
HW#13	12'	15'	4'	4"	10"

OUTLET PROTECTION DETAIL

NOT TO SCALE

1. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM

EXCAVATIONS) TO PERMANENT BIORETENTION BMPS.

2. AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.

IMMEDIATELY AFTER CONSTRUCTING THE BASIN, STABILIZE ITS BOTTOM AND SIDE SLOPES WITH A DENSE TURF OF WATER-TOLERANT GRASS. USE LOW-MAINTENANCE, RAPIDLY GERMINATING GRASSES, SUCH AS

4. DO NOT PLACE BIORETENTION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

NOTES:

1. CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO START OF CONSTRUCTION CLEAR AND CUT THE AREA TO THE NECESSARY EXTENT. CONTRACTOR TO PROPERLY DISPOSE OF ALL DEBRIS. ALL SILTATION AND TEMPORARY EROSION CONTROLS MEASURES SHALL BE INSTALLED AS CALLED FOR ON

PROJECT PLANS PRIOR TO GRUBBING OF CLEARED AREAS. 4. CONTRACTOR TO COMPLETE GRUBBING AND PROPERLY DISPOSE OF ALL DEBRIS. STOCKPILE ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL IN UPLAND AREAS. ALL STOCKPILES TO BE SEEDED AND, IF NECESSARY,

SURROUNDED WITH HAY BALES TO PREVENT LOSSES DUE TO EROSION. 5. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY FOR CONSTRUCTION ACTIVITIES. ALL CROSSINGS TO BE PROTECTED BY HAY BALE BARRIERS TO PREVENT EROSION.

6. CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I). CONSTRUCT OUTLET AND OVERFLOW STRUCTURE, CULVERT, ANTI SEEP COLLARS, HEADWALL, AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS AND DETAILS. 8. CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.

9. CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT 10. APPLY TOPSOIL TO SLOPES AND OTHER AREAS OF DISTURBANCE BY CONSTRUCTION. TOPSOIL MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ALL DELETERIOUS MATERIAL. TOPSOIL SHALL BE A MINIMUM OF 4—INCHES OF COMPACTED THICKNESS. UPON PLACEMENT ON TOPSOIL, FINISHED AREAS ARE TO BE LIMED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ALL PROBLEM AREAS UNTIL GRASS HAS BECOME ESTABLISHED.

CONSTRUCTION ARE HAS BEEN STABILIZED (MINIMUM ONE WINTER). 12. REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES AFTER STABILIZATION. 13. MONITOR CONSTRUCTION ACTIVITIES TO INSURE THEY ARE PERFORMED IN SUCH WAYS AS TO NOT ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL, STRUCTURE, CULVERT AND RIP RAP OUTLET

11. MAINTAIN. REPAIR AND REPLACE TEMPORARY EROSION CONTROL MEASURES AS NECESSARY UNTIL THE WHOLE

BIORETENTION POND #1 DETAIL

MATERIAL TYPE/SPECIFICATIONS

WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONES AND GRADATION AS INDICATED BELOW. PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SCARIFY SURFACE PRIOR TO PLACING SUBSEQUENT LIFT. IN ADDITION

% BY WEIGHT PASSING 6-INCH NO. 4 50-100 NO. 40 30-70

REMOVE ORGANIC SOILS.

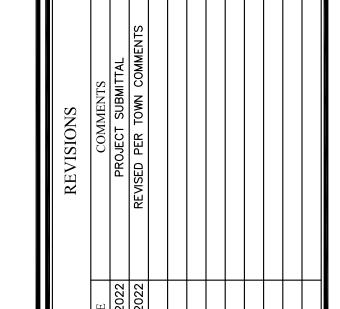
NO. 200

DRAINAGE LAYER: PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX DRY DENSITY IN ACCORDANCE WITH ASTM D1557

NOT TO SCALE

20-40

% BY WEIGHT PASSING 1-INCH NO. 4 70-100 NO. 200 0-12 (IN SAND PORTION ONLY)



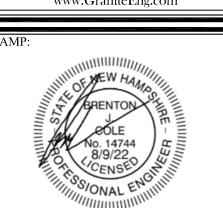
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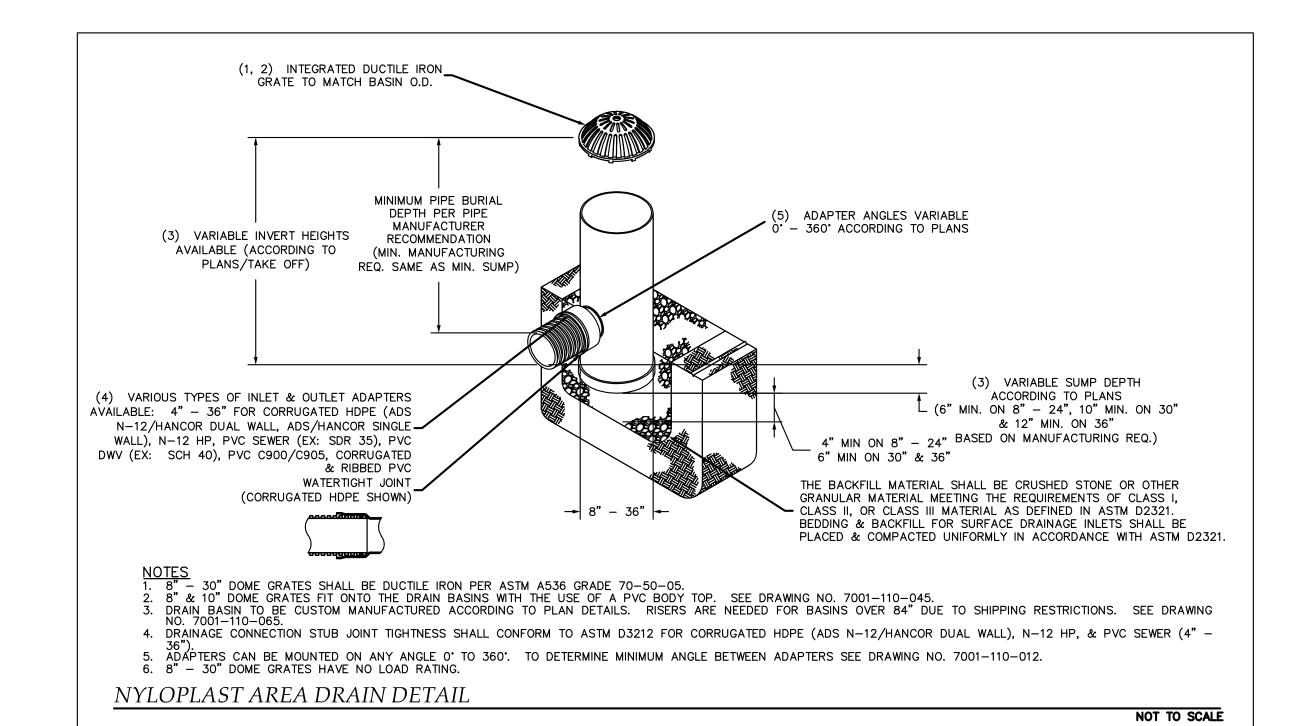


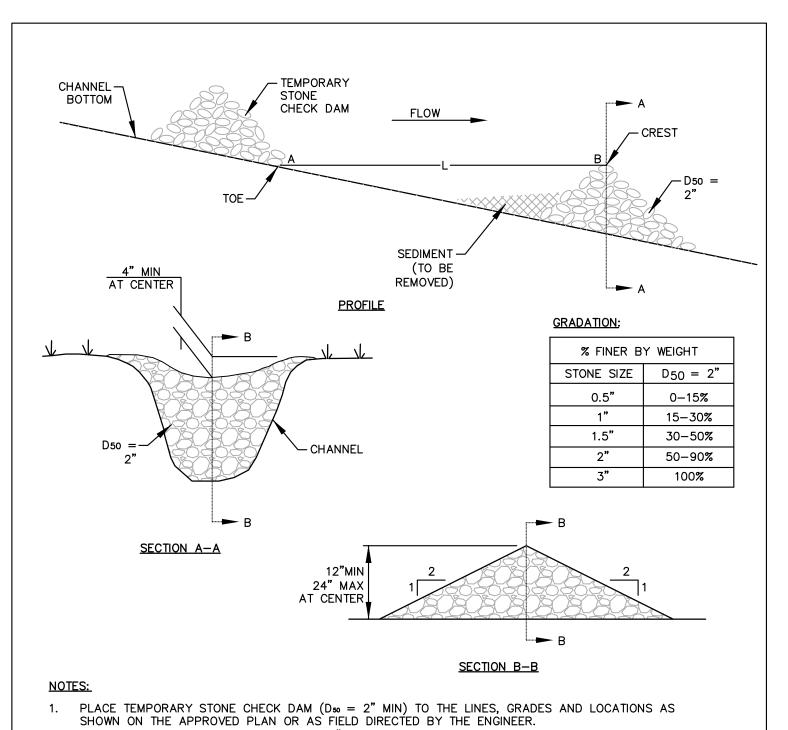
LOCATION: TAX MAP 6 LOT 14 30 WILTON ROAD MILFORD, NEW HAMPSHIRE HILLSBOROUGH COUNTY

STORAGE SENSE -MILFORD WEST

DETAILS

21-0630-1 MAY 23, 2022 15 OF 19





STONE SIZE TO BE INCREASED TO D₅₀ = 4" WHEN GRADES EXCEED 8% OR VELOCITIES EXCEED 6.0

REMOVE STONE CHECK DAM WHEN NO LONGER NEEDED. AFTER BARRIER IS REMOVED, STABILIZE WITH

REMOVE ALL SEDIMENT, REGRADE/VEGETATE AS NECESSARY OR AS FIELD DIRECTED BY THE ENGINEER.

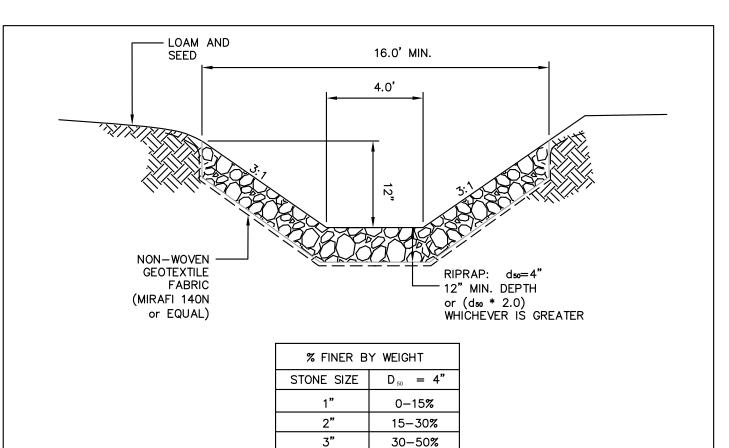
STONE (D₅₀ = 4" MIN) OR LINER (NAG DS-150) AS NEEDED OR DIRECTED BY THE ENGINEER.

THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.

STONE CHECK DAM DETAIL

SET SPACING OF STONE CHECK DAMS SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT

PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH EROSION



50-90%

100%

CONSTRUCTION NOTES:

THE FOUNDATION AREA OF THE SWALE SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY DO NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTION OF THE SWALE.

4"

TO MEET THE DESIGN CRITERIA. PLACEMENT OF THE FILTER FABRIC. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT

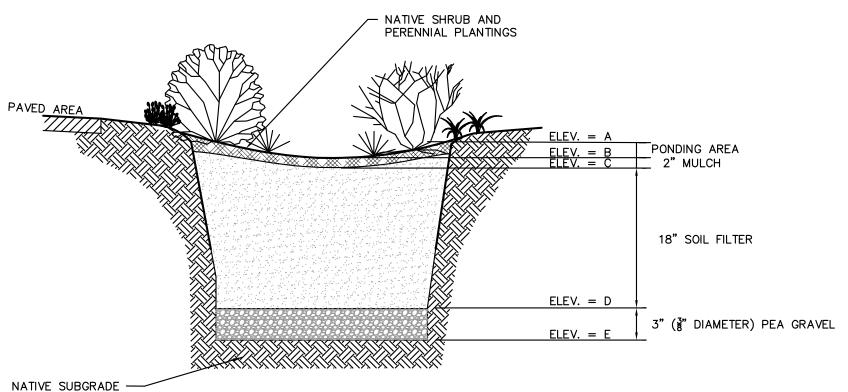
THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED

- UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED WATERWAY.
 PLACE FILTER FABRIC WITH CARE. ALL JOINTS SHALL BE STAPLED AND HAVE A 1.0 FT MIN OVERLAY. STONE PLACEMENT SHALL BE IN ONE CONTINUOUS LIFT TO THE DEPTH SPECIFIED, AVOIDING
- SEGREGATION OF STONE MATERIAL. UNIFORM GRADATION MUST BE MAINTAINED. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE EROSION AND AIR AND WATER POLLUTION. ALL APPROPRIATE STATE AND LOCAL LAWS AND REGULATIONS SHALL BE COMPLIED WITH FOR DESIGN AND INSTALLATION.

MAINTENANCE OF THE RIPRAP ROADSIDE SWALE IS EXTREMELY IMPORTANT IN ORDER TO PREVENT SILTATION, EXCESS GROWTH AND FAILURE OF THE WATERWAY. FREQUENTLY OBSERVATIONS OF THE RIPRAP SHOULD OCCUR TO INSURE THE FUNCTIONALITY OF THE SWALE. SILT DEPOSITS AND ENCROACHMENT OF WEEDS OR WOODY VEGETATION SHOULD BE MONITORED. ROUTINE MAINTENANCE SHOULD REDUCE OR ELIMINATE UNWANTED MATERIAL IN THE SWALE.

RIPRAP SWALE DETAIL

NOT TO SCALE



	PERCENT OF	GRAD	ATION OF MATERIAL
COMPONENT MATERIAL	MIXTURE BY VOLUME	SIEVE NO.	PERCENT BY WEIGHT PASSING STANDARD SIEVE
	FILTER MEDIA	OPTION A	
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
	FILTER MEDIA	OPTION B	
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
	70 TO 80	10	85 TO 100
LOAMY COARSE SAND		20	70 TO 100
		60	15 TO 40
		200	8 TO 15

NOTES:
1. DO NOT PLACE BIORETENTION SYSTEMS INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS

HAVE BEEN FULLY STABILIZED. WHERE ULTIMATE DISCHARGE FROM THE BIORETENTION AREA IS BY INFILTRATION INTO THE SUBSOIL, THE PRESERVATION OF INFILTRATION FUNCTION OF UNDERLYING SOILS REQUIRES CAREFUL CONSIDERATION DURING CONSTRUCTION. TO PREVENT

DEGRADATION OF INFILTRATION FUNCTION: 2.1. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF

CONSTRUCTION. 2.2. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS

WITH A LEVELING DRAG. 4. DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

MAINTENANCE NOTES:

1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.

PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.

3. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION. 4. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.

VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

TYPICAL BIORETENTION POND DETAIL

NOT TO SCALE

30 55 PIT

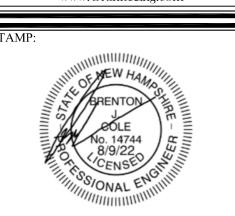
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LOCATION: TAX MAP 6 LOT 14 30 WILTON ROAD MILFORD, NEW HAMPSHIRE

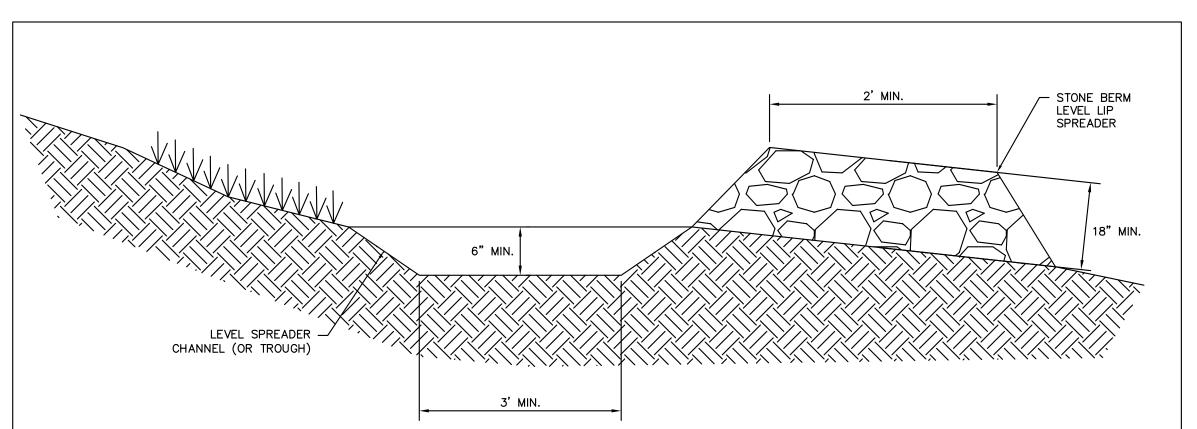
STORAGE SENSE -

MILFORD WEST

HILLSBOROUGH COUNTY

DETAILS

PROJECT No.	DATE:	SCALE:
21-0630-1	MAY 23, 2022	AS SHOWN
SHEET: 1	6 OF 19	SHOWIN



- CONSTRUCTION NOTES:

 1. IT IS CRITICAL TO INSTALL LEVEL SPREADERS AT A ZERO PERCENT GRADE ALONG THE LENGTH OF THE DISCHARGE LIP. FLOW MUST DISCHARGE UNIFORMLY ALONG THE LENGTH OF
- 2. CARE MUST BE EXERCISED IN SITING THE SPREADER, SO THAT IT DISCHARGES ONTO A GENTLY SLOPING GRADE, WHERE RUNOFF EXITING THE SPREADER WILL NOT RE-CONCENTRATE AND CAUSE EROSION. A SLOPE THAT IS CONCAVE IN SHAPE (SUCH AS A SHALLOW SWALE) IS NOT SUITABLE FOR RECEIVING DISCHARGE FROM A LEVEL SPREADER. SUITABLE SLOPES ARE PLANAR OR CONVEX IN SHAPE, SO THAT FLOW WILL CONTINUE AS DISPERSED SHEET FLOW ACROSS THE SITE.
- 3. IT IS ESSENTIAL TO STABILIZE THE OUTLET LIP OF THE SPREADER, AND TO DISCHARGE ONTO A WELL STABILIZED RECEIVING AREA (PREFERABLY UNDISTURBED VEGETATION) TO PREVENT EROSION.

INSPECT AT LEAST ONCE ANNUALLY FOR ACCUMULATION OF SEDIMENT AND DEBRIS AND FOR SIGNS OF EROSION WITHIN APPROACH CHANNEL, SPREADER CHANNEL OR DOWN-SLOPE OF THE SPREADER.

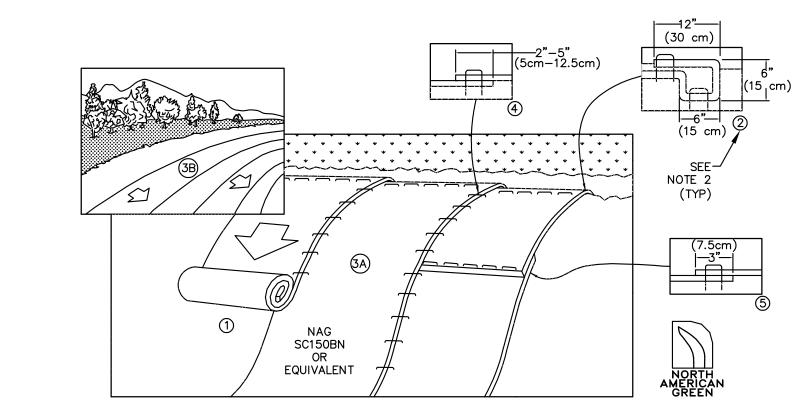
REMOVE DEBRIS WHENEVER OBSERVED DURING INSPECTION.
REMOVE SEDIMENT WHEN ACCUMULATION EXCEEDS 25% OF SPREADER CHANNEL DEPTH.

4. MOW AS REQUIRED BY LANDSCAPING DESIGN. AT A MINIMUM, MOW ANNUALLY TO CONTROL WOODY VEGETATION WITHIN THE SPREADER.

SNOW SHOULD NOT BE STORED WITHIN OR DOWN-SLOPE OF THE LEVEL SPREADER OR ITS APPROACH CHANNEL. REPAIR ANY EROSION AND RE-GRADE OR REPLACE STONE BERM MATERIAL, AS WARRANTED BY INSPECTION.

RECONSTRUCT THE SPREADER IF DOWN-SLOPE CHANNELIZATION INDICATES THAT THE SPREADER IS NOT LEVEL OR THAT DISCHARGE HAS BECOME CONCENTRATED AND CORRECTIONS CANNOT BE MADE THROUGH MINOR RE-GRADING.

LEVEL SPREADER DETAIL



NOTES:

NOTE: CONSTRUCT SEDIMENT

RUNOFF TO SEDIMENT

TRAPPING DEVICE

BARRIER AND CHANNELIZE

RUNOFF WATER

BLOCK AND GRAVEL SEDIMENT BARRIER DETAIL

WITH SEDIMENT

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME,
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm)
 WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH.
 ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH.
 BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION
 OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES
 SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A) DOWN or (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/ STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING. TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm)
 OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING
 BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"
- PROPERLY SECURE THE BLANKETS.

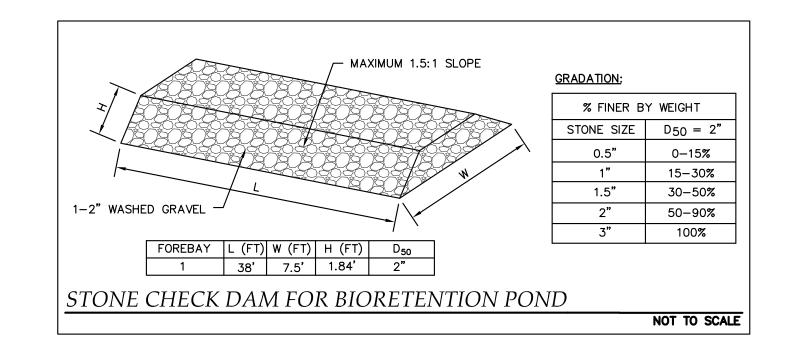
 6. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED.

(7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO

EROSION CONTROL BLANKET DETAIL

NOT TO SCALE



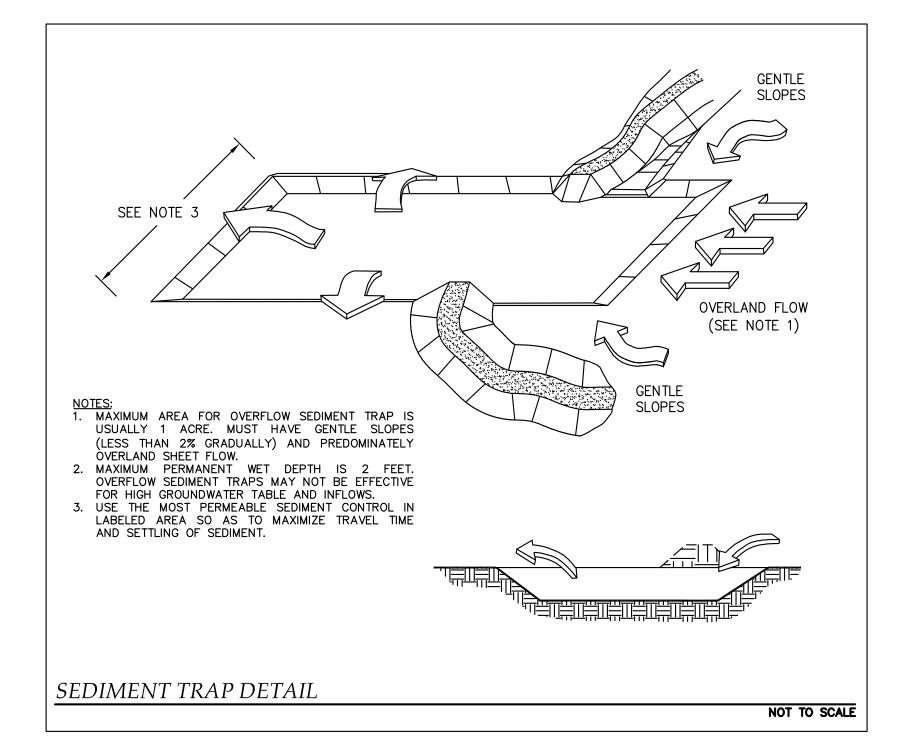
GRAVEL FILTER

WIRE SCREEN

— FILTERED WATER

WITH GRATE

NOT TO SCALE



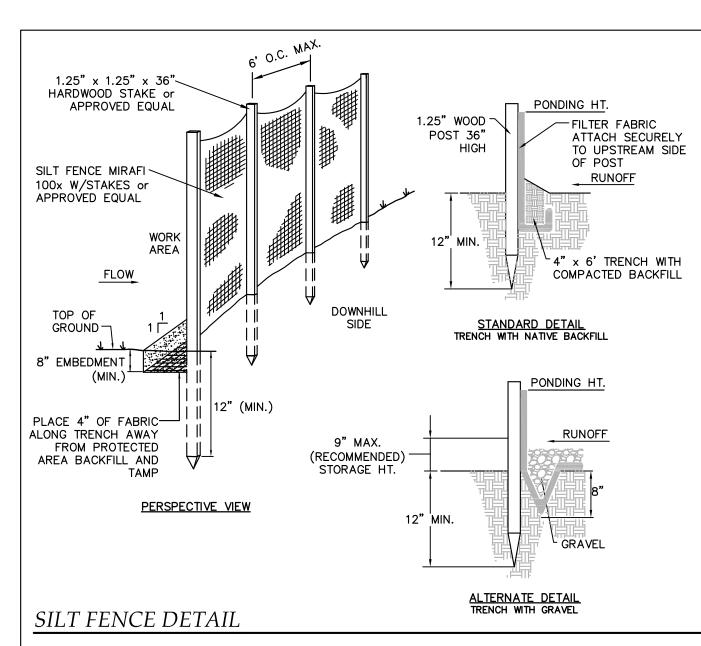
- THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES CONTROL.
 EARTHWORK SHALL BE LIMITED TO THE AREAS WITHIN THE LIMITS OF CLEARING AS SHOWN ON THE PLAN. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRTY
- (30) CALENDAR DAYS.
 3. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
 EROSION CONTROL MEASURES USED SHALL BE INSPECTED AT LEAST WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. ALL DEFICIENCIES SHALL BE FIXED IN ORDER TO KEEP OPERATION EFFECTIVE.
- THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.

 6. TEMPORARY WATER DIVERSIONS (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL AREAS ARE
- 6. TEMPORARY WATER DIVERSIONS (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL AREAS ARE STABILIZED.
- 7. PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE).
- ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTION RUNOFF TO THEM.
 PERIODIC INSPECTION AND MAINTENANCE TO MAINTAIN DESIGN INTENT IS REQUIRED.
 ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE THE REQUIRED AMOUNT OF LOAM (COMPACTED THICKNESS). PRIOR TO FINAL SEEDING AND MULCHING.
- II. IF DURING CONSTRUCTION A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- 12. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED: OR
- D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

 13. ALL DUST SHALL BE CONTROLLED BY THE USE OF WATER IN ACCORDANCE WITH ENV—A 1000.

 14. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT
- 15. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" ON ALL 3:1 SLOPES OR GREATER.
- 16. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS.
 17. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS.

EROSION CONTROL NOTES



CONSTRUCTION NOTES:

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.

2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8

- INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.

 3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE
- THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE
 NOTED OR AS DIRECTED BY DESIGN ENGINEER.

 4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE
 WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES
- AT THE TOP, MIDSECTION AND BOTTOM.

 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
- 6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.

 7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND
- MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- MAINTENANCE NOTES:

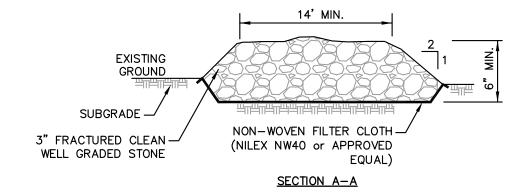
 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

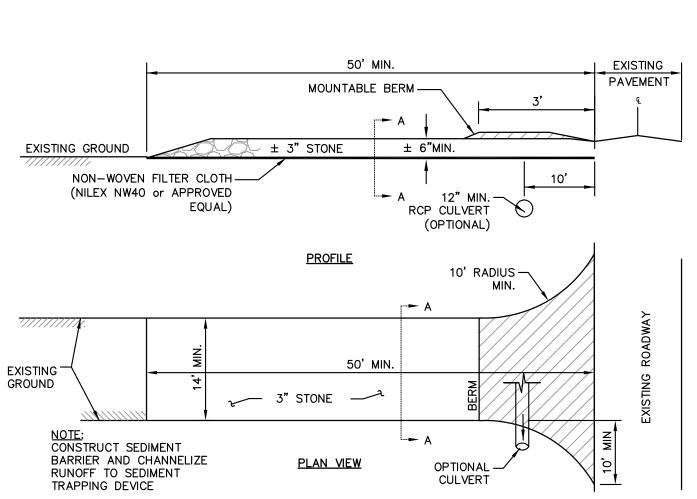
 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE—HALF THE
- HEIGHT OF THE BARRIER.

 4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.
- NHF&G WILDLIFE PROTECTION NOTES:

 1. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED.

NOT TO SCALE





NOTES:

1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.

2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE

- RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.

 3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.

 4. THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR
- EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.

 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.

7. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF

- SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

 8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION EXIT DETAIL

NOT TO SCALE

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT BE DONE OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3).

WINTER CONSTRUCTION NOTES

- CONTACT DIG SAFE AT LEAST 72 HOURS BEFORE ANY EXCAVATION WORK.
- C. CUT AND CLEAR TREES AND BRUSH WITHIN LIMITS OF CLEARING SHOWN ON PLAN.

 INSTALL ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES PRIOR PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS. THE STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE
- 4. REMOVE STUMPS FROM THE SITE FOR SITE GRADING TO COMMENCE. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR UNLESS A STUMP DUMP IS NOTED ON THE PLAN. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTIONS ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED BY PERIMETER CONTROLS TO PREVENT
- 5. COMMENCE EARTHWORK OPERATIONS. ALL PERMANENT EROSION CONTROL MEASURES AND DETENTION FACILITIES SHOULD BE INSTALLED PRIOR TO GRADING FOR PROJECT.
 6. ALL DRAINAGE SYSTEMS AND OTHER UTILITIES SHOULD BE CONSTRUCTED FROM LOW GRADE TO HIGH GRADE. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF PERIMETER CONTROLS UNTIL THE
- SITE HAS BECOME FULLY STABILIZED.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

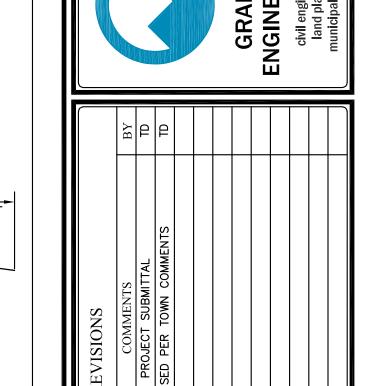
 A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 8. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY DEVICES OR CONSULT WITH THE ENGINEER.
- ALL STORMWATER FLOWS SHALL NOT BE DIRECTED TO THE STORMWATER MEASURES UNTIL ALL CONTRIBUTING AREA HAVE BEEN DEEMED STABLE.
- AREA HAVE BEEN DEEMED STABLE.

 10. BEGIN THE CONSTRUCTION OF GRAVEL AND CRUSHED GRAVEL COURSES OVER PROPOSED DRIVEWAY, WALKS,
 AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS AND COMPACTION RATES.

 11. COMPLETE GRADING ACTIVITIES AND WHEN COMPLETE, BEGIN TOPSOILING PROPOSED TURF AREAS USING
- STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE THE SPECIFIED THICKNESS.

 12. FINE GRADE ALL TURF AREAS AND COMPLETE PERMANENT SEEDING AND LANDSCAPING BY HYDROSEEDING WITH
 THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE
 STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- 13. INSTALL THE FINAL BINDER COURSE OF PAVEMENT.14. INSTALL THE FINAL WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.15. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE, AND OTHER SITE AMENITIES.
- 16. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE ESTABLISHED THEMSELVES.

CONSTRUCTION SEQUENCE



30 WILTON ROAD LLC 55 HIGH STREET PITTSFIELD, NH 03263 BOOK 9471 PAGE 2225

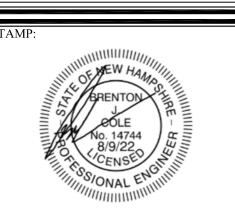
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LOCATION:
TAX MAP 6 LOT 14
30 WILTON ROAD
MILFORD, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

PROJECT:

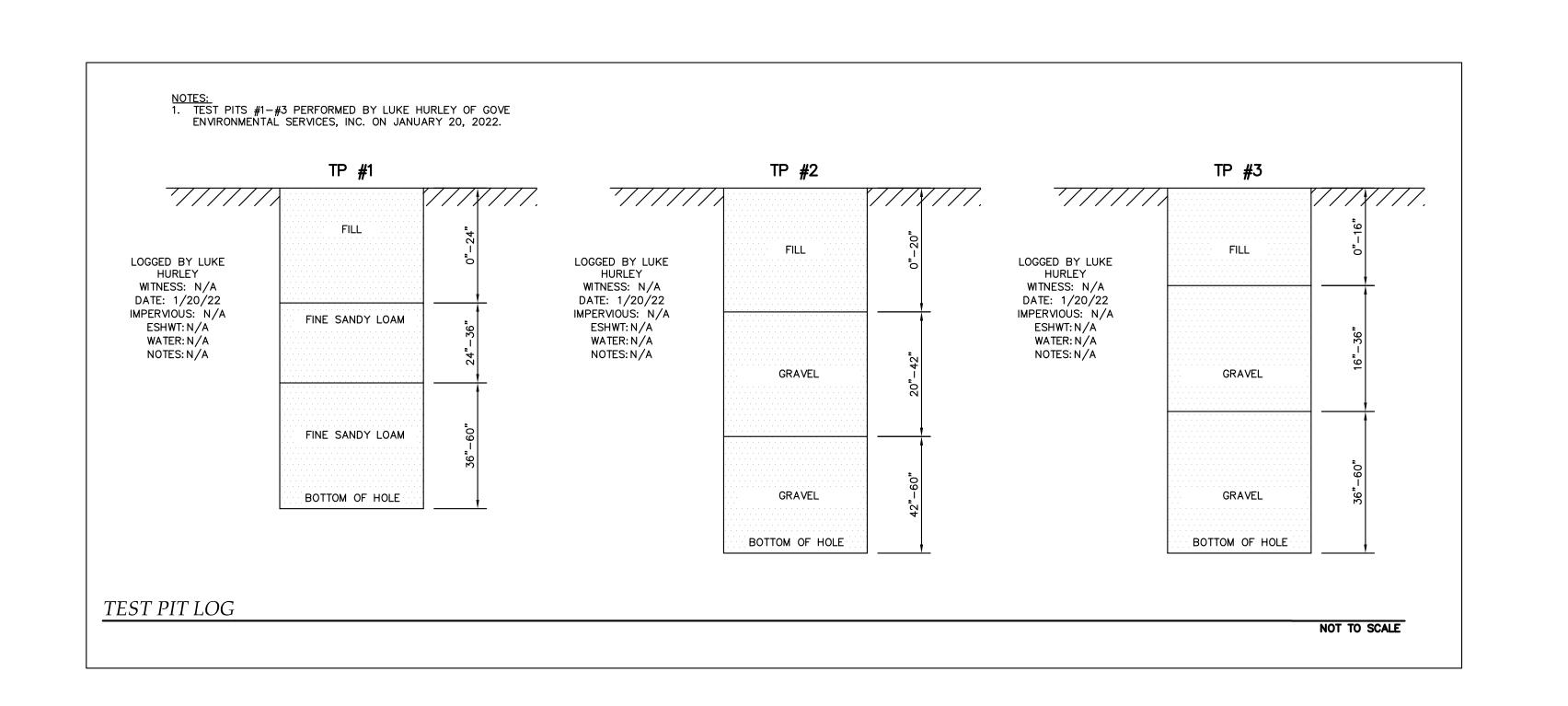
STORAGE SENSE -

MILFORD WEST

DETAILS

ITLE:

PROJECT No. DATE: 21-0630-1 MAY 23, 2022 SHEET: 17 OF 19





		REVISIONS	
No.	DATE	COMMENTS	BY
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-	08/09/2022	REVISED PER TOWN COMMENTS	П

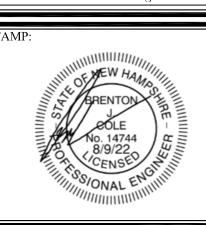
OWNER & APPLICANT:
30 WILTON ROAD LLC
55 HIGH STREET
PITTSFIELD, NH 03263
BOOK 9471 PAGE 2225

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TAX MAP 6 LOT 14

30 WILTON ROAD

MILFORD, NEW HAMPSHIRE

HILLSBOROUGH COUNTY

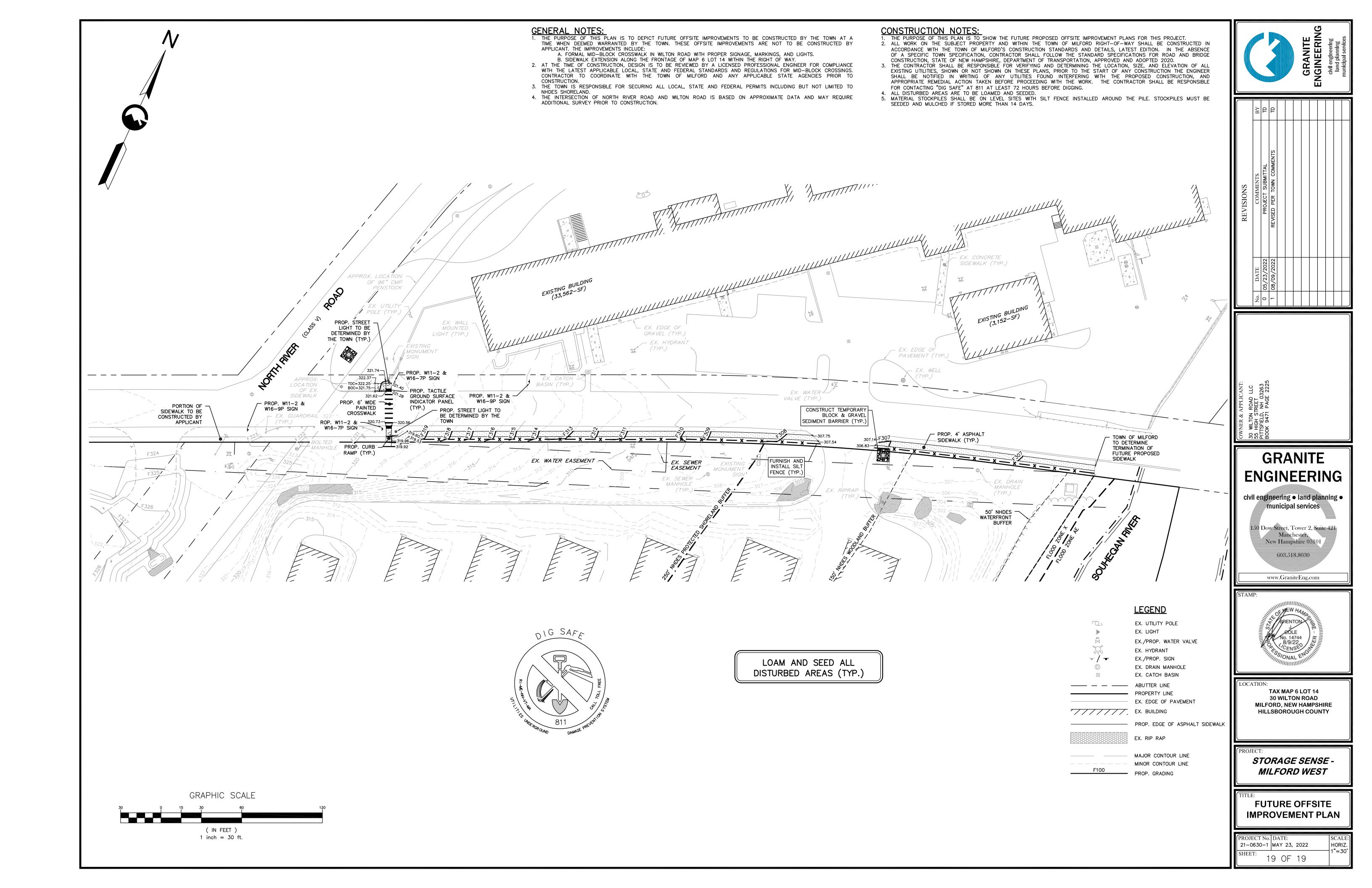
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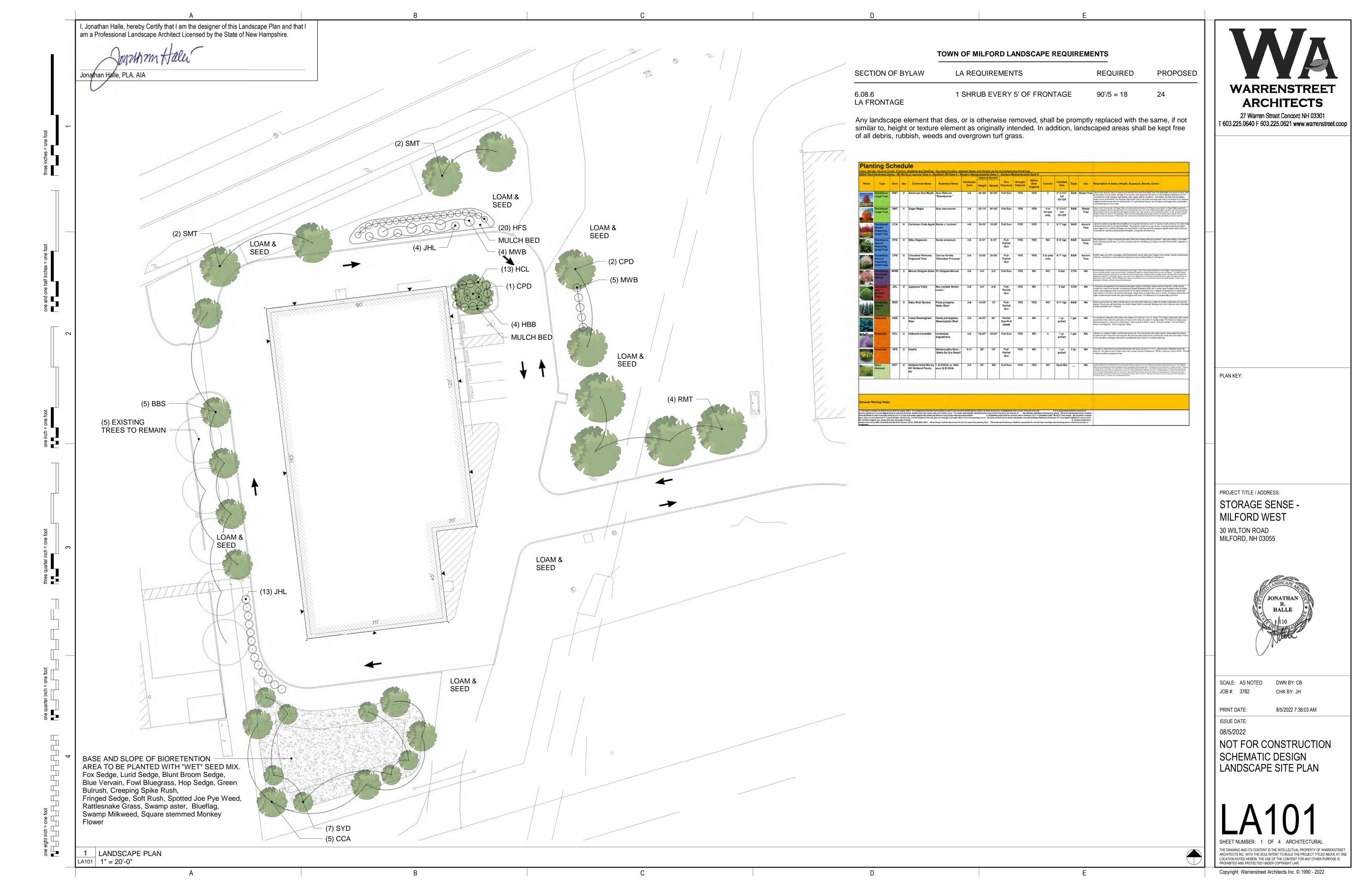
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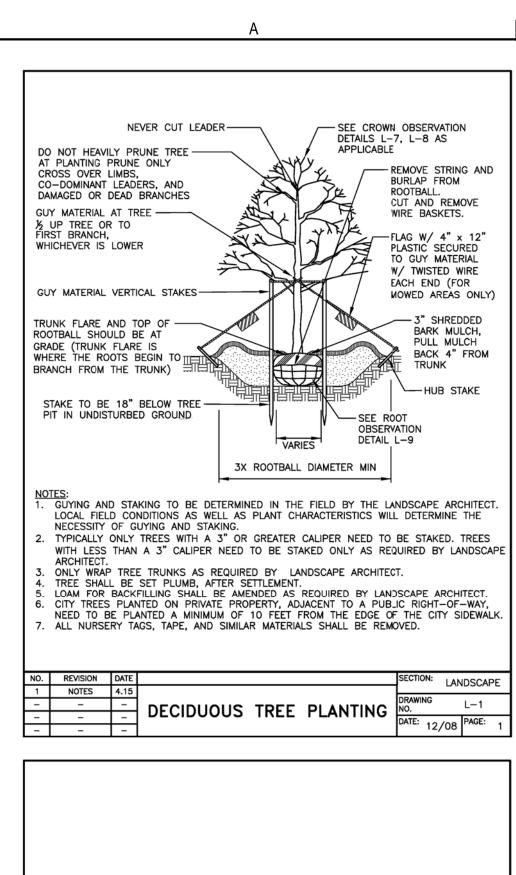
MILFORD WEST

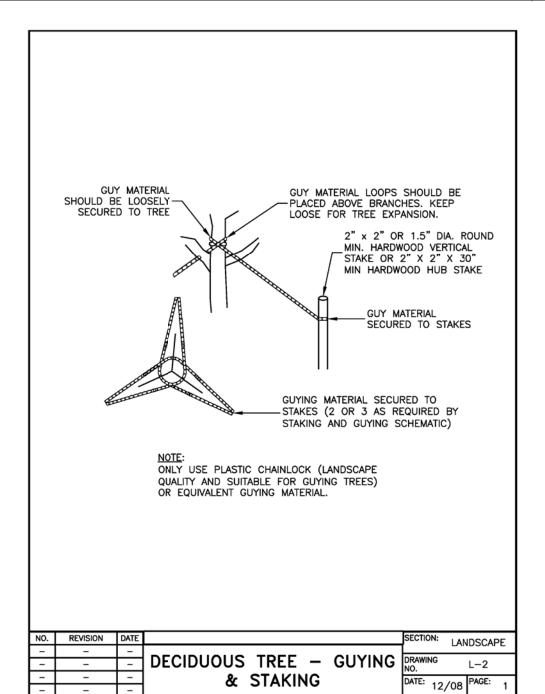
DETAILS

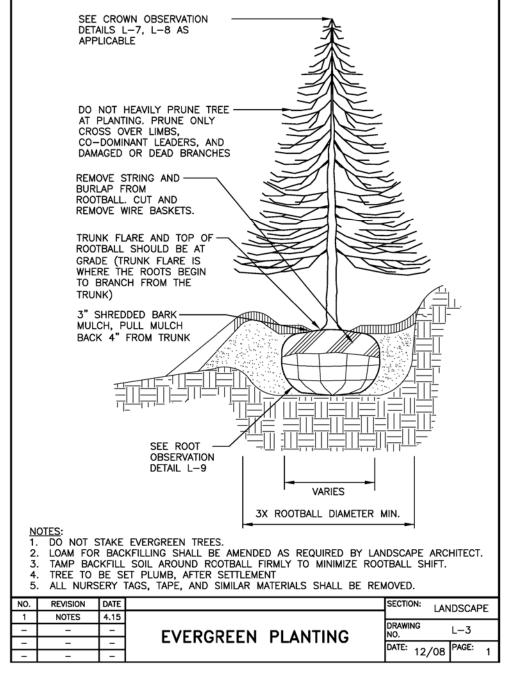
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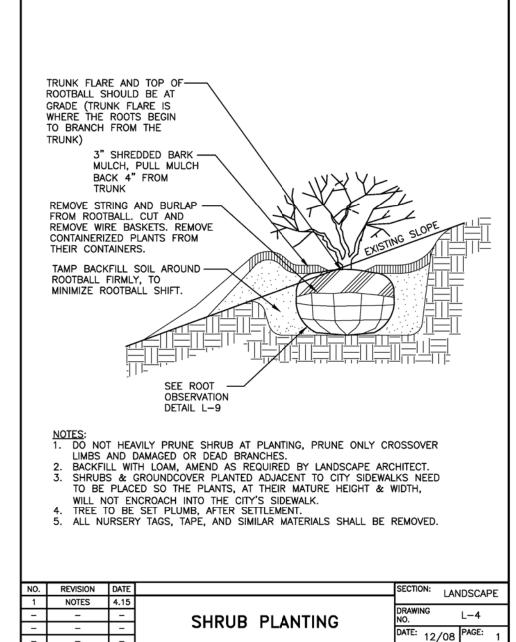


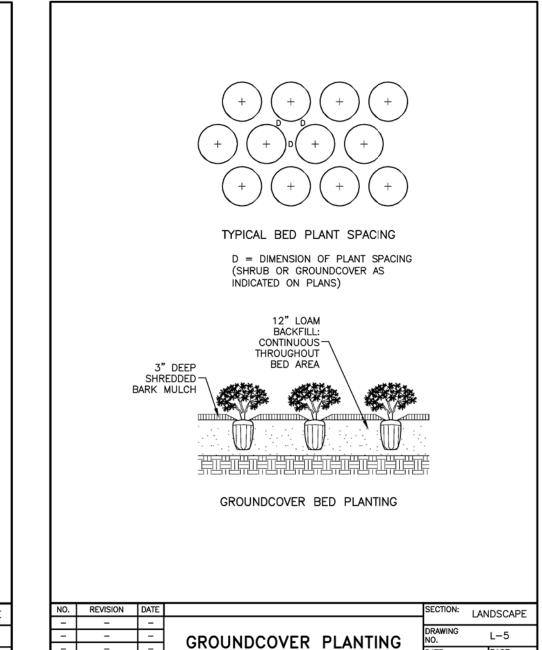


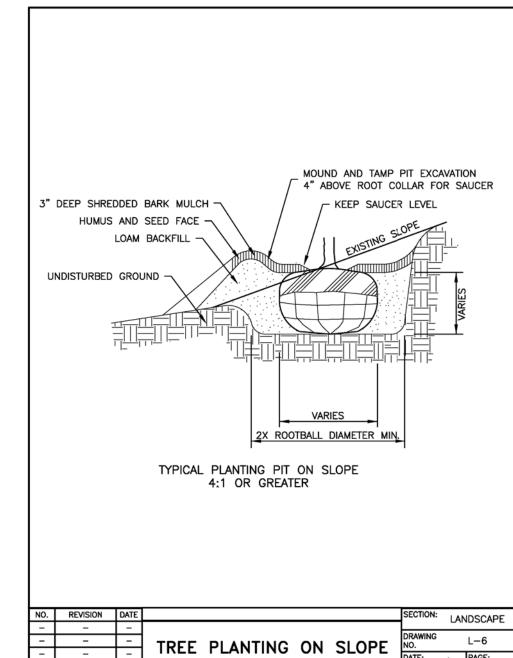


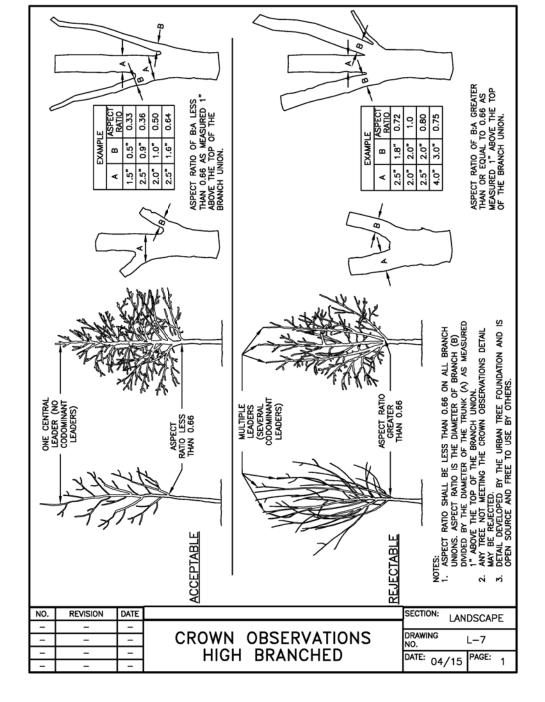


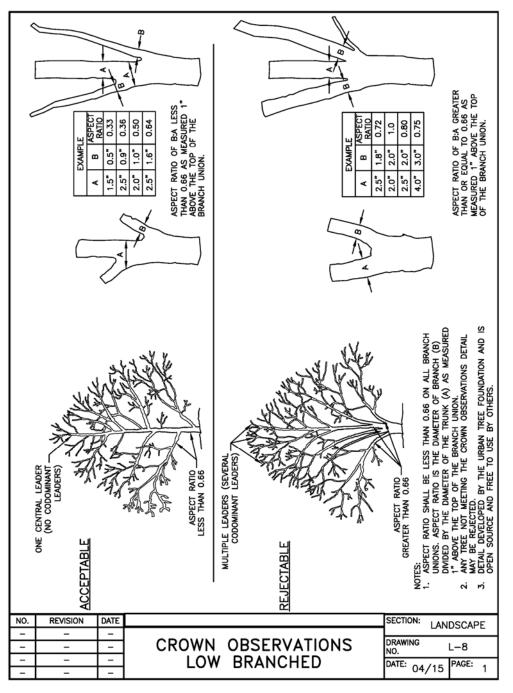


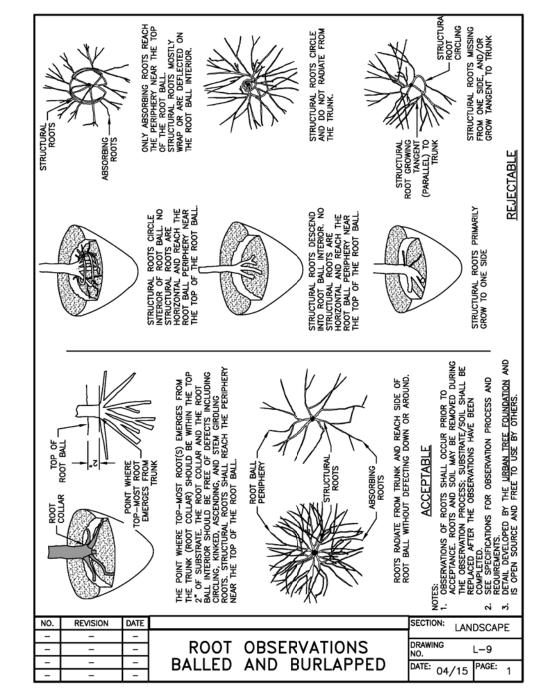












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PLAN KEY:

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PART 1: GENERAL

- A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL CONDITIONS AND DIVISION I SPECIFICATION SECTIONS APPLY TO THIS SECTION. B. EXAMINE ALL OTHER SECTIONS OF THE SPECIFICATIONS FOR REQUIREMENTS WHICH AFFECT WORK OF THIS SECTION WHETHER OR NOT SUCH WORK IS SPECIFICALLY
- MENTIONED IN THIS SECTION. SEE DRAWINGS FOR LOCATIONS AND DETAILS.
- C. COORDINATE WORK WITH THAT OF ALL OTHER TRADES AFFECTING, OR AFFECTED BY WORK OF THIS SECTION. COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF ALL WORK UNDER THE CONTRACT.

A. THIS SECTION INCLUDES THE FOLLOWING:

- 1. FURNISHING ALL PLANTS, MATERIALS, SUPPLIES, LABOR, EQUIPMENT, AND PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING AND PLACEMENT OF TOPSOIL AND PLANTING MIXTURE, PLANTING OF ALL TREES, SHRUBS AND PERENNIAL GROUND COVERS, PRUNING/MULCHING/WATERING OF PLANTS, MAINTENANCE,
- GUARANTEE AND FINAL CLEAN-UP B. RELATED SECTIONS: THE FOLLOWING SECTIONS CONTAIN REQUIREMENTS THAT RELATE TO THIS SECTION:
 - SECTION 02300 "EARTHWORK"
 - SECTION 02930 "SEEDING AND SODDING" LOCAL GOVERNING AUTHORITY AND CODE REQUIREMENTS.

ALL NECESSARY CONSTRUCTION PERMITS. 1.3 SUBMITTALS

- A. SAMPLES: BEFORE ANY BARK MULCH IS DELIVERED TO THE JOB SITE, SUBMIT A SAMPLE TO THE LANDSCAPE ARCHITECT FOR THEIR APPROVAL.
- B. MATERIALS LIST: . BEFORE ANY PLANTING MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE LANDSCAPE ARCHITECT A COMPLETE LIST OF ALL PLANTS AND OTHER ITEMS
 - PROPOSED TO BE INSTALLED
- INCLUDE COMPLETE DATA ON SOURCE, SIZE, AND QUALITY. DEMONSTRATE COMPLETE CONFORMANCE WITH THE REQUIREMENTS OF THIS SECTION. THIS SHALL IN NO WAY BE CONSTRUED AS PERMITTING SUBSTITUTION FOR SPECIFIC ITEMS DESCRIBED IN THE PLANS OR THESE SPECIFICATIONS UNLESS THE SUBSTITUTION HAS BEEN APPROVED IN ADVANCE BY THE LANDSCAPE ARCHITECT.
- C. AS-BUILT DRAWINGS: DURING THE COURSE OF THE INSTALLATION, CAREFULLY RECORD IN RED LINE ON A PRINT OF THE PLANTING PLANS ALL CHANGES MADE TO THE PLANTING LAYOUT DURING INSTALLATION
- D. CERTIFICATES: ALL CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY SHIPMENTS. UPON COMPLETION OF THE INSTALLATION, DELIVER ALL CERTIFICATES TO THE
- LANDSCAPE ARCHITECT
- A. INSTALLER QUALIFICATIONS: PROVIDE AT LEAST ONE PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED
- B. MATERIAL STANDARDS 1. ALL PLANTS AND PLANTING MATERIAL SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND COUNTY LAWS REQUIRING INSPECTION FOR PLANT
- DISEASE AND INSECT CONTROL 2. QUALITY AND SIZE SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF CURRENT EDITION OF ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK.
- FOR NUMBER ONE GRADE NURSERY STOCK AS ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

3. ALL PLANTS SHALL BE TRUE TO NAME AND ONE OF EACH BUNDLE OR LOT SHALL BE TAGGED WITH THE NAME AND SIZE OF THE PLANTS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE OF THE AMERICAN ASSOCIATION OF NURSERYMEN. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES.

1.5 DELIVERY, STORAGE, HANDLING A. DELIVERY AND STORAGE:

UNDER THIS SECTION.

- . DELIVER ALL ITEMS TO THE SITE IN THEIR ORIGINAL CONTAINERS WITH ALL LABELS INTACT AND LEGIBLE AT TIME OF LANDSCAPE ARCHITECT INSPECTION.
- . IMMEDIATELY REMOVE FROM THE SITE ALL PLANTS WHICH ARE NOT TRUE TO NAME AND ALL MATERIALS WHICH DO NOT COMPLY WITH THE PROVISIONS OF THIS SECTION OF THESE SPECIFICATIONS. 3 ROOT PROTECTION

ITS CONTAINER.

- a. HANDLE PLANTS AT ALL TIMES IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICES SO THAT THE ROOTS OR BALLS ARE ADEQUATELY PROTECTED FROM THE SUN AND DRYING WINDS. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT WOULD DAMAGE THE BARK, BREAK THE BRANCHES,
- HANDLING: a. LIFT AND HANDLE PLANTS FORM THE BOTTOM OF THE BALL OR CONTAINER ONLY. PLANTS HANDLED OTHERWISE WILL BE SUBJECT TO REJECTION. PLANT NO
- BALLED AND BURLAPPED PLANT WHICH HAS THE BALL CRACKED OR BROKEN WILL BE ACCEPTED. NO BALLED AND BURLAPPED PLANTS USING PLASTIC/POLYESTER BURLAP WILL BE ACCEPTED. PLANT NO CONTAINERIZED OR TUBE-PAK PLANT WHOSE ROOT SYSTEM HAS SEPARATED FROM THE SOIL IN
- PROTECTION DURING DELIVERY. a. TRANSPORT PLANT MATERIAL IN CLOSED VEHICLES OR IN OPEN VEHICLES WITH THE ENTIRE LOAD PROPERLY COVERED FOR PROTECTION FROM DRYING
- WINDS
- 6. PROTECTION AFTER DELIVERY a. PLANT TREES AND SHRUBS AS SOON AS POSSIBLE AFTER DELIVERY. PLANTS THAT CANNOT BE PLANTED IMMEDIATELY SHALL HAVE THEIR ROOTS KEPT MOIST
- AND ADEQUATELY PROTECTED UNTIL PLANTED. b. COVER THE BALLS OF BALLED AND BURLAPPED, CONTAINERIZED, AND TUBE-PAK PLANTS WITH TOPSOIL OR AN APPROVED MULCH, AND KEEP CONSTANTLY
- MOIST UNTIL PLANTED c. STORE ALL PLANTS IN THE SHADE, OUT OF DIRECT SUNLIGHT AND DRYING WIND.
- d. OWNER'S REPRESENTATIVE WILL SELECT STORAGE OR HOLDING AREA AND UPON DELIVERY OF PLANTS, DESIGNATE WHERE CONTRACTOR CAN PROTECT AND MAINTAIN THESE PLANT MATERIALS UNTIL THEY ARE PLANTED.

1.6 SCHEDULES A. PLANTING SEASON:

- a. PLANTING OPERATIONS FOR DECIDUOUS MATERIALS SHALL TAKE PLACE DURING MARCH 15 TO JUNE 30 FOR SPRING PLANTING AND AUGUST 15TH TO OCTOBER 1 OR UNTIL GROUND FREEZES FOR FALL PLANTING. BARE ROOT DECIDUOUS PLANTINGS SHALL BE LIMITED TO PLANTING BETWEEN MARCH 15 TO MAY 1.
- b. PLANTING OPERATIONS FOR EVERGREEN MATERIAL SHALL BE DURING MARCH 1 THROUGH JUNE 30 FOR SPRING PLANTING AND AUGUST 1 THROUGH SEPTEMBER 15 FOR FALL PLANTING. 1.7 INSPECTION

- A. INSPECTION OF PLANTS: 1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH AND UPON DELIVERY FOR CONFORMITY TO SPECIFIED QUALITY, SIZE, AND
 - VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION UPON DELIVERY AT THE SITE OR WHILE WORK IS IN PROGRESS. THE CONTRACTOR WILL INFORM THE LANDSCAPE ARCHITECT THREE BUSINESS DAYS (3) PRIOR TO THE PROPOSED ARRIVAL OF PLANT MATERIAL ON THE JOB SITE. 3. DURING THE TIME PLANT MATERIAL IS BEING INSPECTED, THE CONTRACTOR SHALL PROVIDE A COMPLETE STAKED LAYOUT AND HAVE MANPOWER AND EQUIPMENT

AVAILABLE TO UNLOAD, OPEN AND HANDLE PLANT MATERIAL DURING INSPECTION. PART 2: MATERIALS

- 1. PLANT MATERIALS SHALL MEAN TREES AND PLANTS OF ALL DESCRIPTIONS REQUIRED TO BE FURNISHED FOR THE PROJECT, IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL PLANT MATERIAL MUST BE TRUE TO NAME, WHICH SHALL CONFORM TO STANDARDIZED PLANT NAMES OF THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, AND SHALL BE LEGIBLY TAGGED WITH THE NAME AND SIZE OF THE MATERIAL ACCORDING TO THE GENERAL NURSERY PRACTICE AS
- RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. 2. ALL PLANTS SHALL BE FIRST-CLASS REPRESENTATIVES OF THEIR NORMAL SPECIES OR VARIETIES. PLANTS SHALL BE SOUND, HEALTHY, AND VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. UNLESS OTHERWISE SPECIFIED, PLANTS SHALL HAVE AVERAGE OR NORMALLY DEVELOPED BRANCH SYSTEMS AND VIGOROUS ROOT SYSTEMS. PLANTS SHALL BE FREE FROM SCALE, DISFIGURING KNOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, OR OTHER OBJECTIONABLE BLEMISHES. WEAK PLANTS WILL NOT BE ACCEPTED. PLANTS MUST SHOW APPEARANCE OF NORMAL HEALTH AND VIGOR IN STRICT ACCORDANCE
- WITH THESE SPECIFICATIONS. ALL STOCK SHALL BE NURSERY GROWN. 3. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE GROWN IN THE CONTAINER FOR AT LEAST ONE (1) GROWING SEASON. CONTAINERS SHALL BE OF A SIZE LARGE ENOUGH TO PROVIDE AN EARTH-ROOT MASS OF ADEQUATE DIAMETER AND DEPTH OF THE STEM DIAMETER AND PLANT HEIGHTS OR SPREAD, AS ESTABLISHED BY ACCEPTED NURSERY PRACTICE. PLANTS, OVER ESTABLISHED IN THE CONTAINER, AS EVIDENCED BY POT BOUND ROOT ENDS, WILL NOT BE ACCEPTED. BARE ROOT MATERIAL WILL BE ACCEPTED ONLY FOR SPRING PLANTING. BARE ROOT STOCK SHALL BE HANDLED ACCORDING TO STANDARD HORTICULTURAL PRACTICE WITH SPECIAL ATTENTION BEING PAID TO PREVENTING PLANT ROOTS FROM DRYING AND PLANTS BEING APPROPRIATELY STORED.
- 4. PLANTS LARGER THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE LANDSCAPE ARCHITECT 5. THE HEIGHT OF TREES, MEASURED FROM THE CROWN OF THE ROOTS TO THE TOP OF THE TOP BRANCH, AND CALIPER OF THE TRUNK SHALL BE TAKEN 6 INCHES ABOVE THE GROUND UP TO AND INCLUDING 4 INCH CALIPER SIZE, AND 12 INCHES ABOVE THE GROUND FOR LARGER SIZES, AND SHALL NOT BE LESS THAN THE MINIMUM SPECIFIED ON THE PLANT LIST. EXCEPT WHEN A CLUMP IS DESIGNATED, THE TRUNK OF EACH TREE SHALL BE A SINGLE TRUNK GROWING FROM A SINGLE UNMUTILATED CROWN OF ROOTS. NO PART OF THE TRUNK SHALL BE CONSPICUOUSLY CROOKED AS COMPARED TO NORMAL TREES OF THE SAME VARIETY. THE TRUNK SHALL BE FREE FROM SUN SCALD, FROST CRACKS OR WOUNDS RESULTING FROM ABRASIONS, FIRE, OR OTHER CAUSES. NO PRUNING WOUNDS SHALL BE PRESENT HAVING A DIAMETER OF MORE THAN TWO (2") INCHES AND SUCH WOUNDS MUST SHOW VIGOROUS BARK ON ALL EDGES. EVERGREEN TREES SHALL BE
- BRANCHED TO WITHIN ONE FOOT OF THE GROUND. 6. SHRUBS AND PERENNIALS SHALL COMPLY WITH THE SPECIFIED SPREAD, HEIGHT OR CONTAINER SIZE AS SPECIFIED ON THE PLANT LIST. THE MEASUREMENTS FOR HEIGHT ARE TO BE TAKEN FROM THE GROUND LEVEL TO THE AVERAGE HEIGHT OF THE TOP OF THE SHRUB AND NOT THE LONGEST BRANCH. THE THICKNESS OF EACH SHRUB SHALL CORRESPOND TO THE TRADE CLASSIFICATION "NO. 1". SINGLE STEMMED OR THIN PLANTS WILL NOT BE ACCEPTED. THE SIDE BRANCHES MUST BE GENEROUS, WELL-TWIGGED, AND THE PLANT AS A WHOLE WELL-BRANCHED TO THE GROUND. THE PLANTS MUST BE IN A MOIST VIGOROUS CONDITION, FREE FROM
- DEAD WOOD, BRUISES OR OTHER ROOT OR BRANCH INJURIES. 7. ALL PLANT MATERIAL SHALL COMPLY WITH STATE AND FEDERAL LAWS WITH RESPECT TO INSPECTION FOR PLANT DISEASE AND INFECTION. ANY INSPECTION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT, INVOICE, OR ORDER OF STOCK.
- 8. ALL PLANT MATERIAL IS SUBJECT TO LANDSCAPE ARCHITECT'S APPROVAL AND INSPECTION AT ANY PLACE, BEFORE DURING AND/OR AFTER PLANTING. ANY PLANT
- MATERIAL NOT APPROVED BY THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FOR THE SITE. 9. NO PLANT MATERIAL SHALL BE ACCEPTED WITH LOOSE OR BROKEN BALLS, BROKEN CONTAINERS OR TUBE-PAKS

A. BARK MULCH: ALL BARK MULCH SHALL BE SHREDDED PINE BARK AS LOCALLY OR REGIONALLY MANUFACTURED, OR AN EQUAL APPROVED IN ADVANCE BY THE LANDSCAPE

.4 PLANTING MIXTURE

- A. TOPSOIL: MOST TOPSOIL REQUIRED SHALL BE OBTAINED FROM ON-SITE STOCKPILED MATERIAL. SHOULD ADDITIONAL TOPSOIL BE NEEDED, IT SHALL BE IMPORTED MATERIAL FROM A LOCALLY APPROVED SOURCE. ITSHALL BE LOOSE, FRIABLE, AND SHALL CONTAIN ORDINARY AMOUNT OF HUMUS. IT SHALL CONTAIN NO LUMPS OF SOIL, ROCKS LARGER THAN 1 INCH, OR STOCKS, OR ROOTS, AND OTHER DEBRIS. IT SHALL BE SUFFICIENTLY FERTILE TO SUSTAIN NORMAL HEALTHY PLANT GROWTH AND SHALL NOT HAVE A PH VALUE HIGHER THAN 7.0 OR LOWER THAN 6.5. THE TOPSOIL SHALL BE DELIVERED IN AN UNFROZEN AND NON-MUDDY CONDITION AND MUST MEET THE APPROVAL OF THE
- LANDSCAPE ARCHITECT B. PEAT: PEAT SHALL BE SPHAGNUM PEAT, SEDGE PEAT MOSS. FURNISH AIR-DRIED, FINELY SHREDDED, ORPH BETWEEN 5.5 AND 6.5, CONTAINING NO MORE THAN THIRTY-FIVE
- (35%) PERCENT MOISTURE BY WEIGHT. C. COMPOSTED BARK MULCH:COMPOSTED BARK MULCH SHALL BE 1/4" MINUS, FINE TEXTURED AND WELL COMPOSTED MULCH SUITABLE FOR USE AS A PLANTING MIX
- AMENDMENT. IT SHALL BE LOCALLY OR REGIONALLY MANUFACTURED, OR AN EQUAL APPROVED IN ADVANCE BY THE LANDSCAPE ARCHITECT. . TREES/SHRUB PLANTING MIX: TOPSOIL USED AS FILL AROUND PLANTS SHALL BE MIXED WITH PEAT MOSS AT THE RATE OF THREE PARTS TOPSOIL TO ONE PART PEAT PERENNIAL/GROUND COVER PLANTING MIX: TOPSOIL USED AS FILL AROUND THESE PLANTS SHALL BE MIXED WITH PEAT MOSS AND COMPOSTED BARK MULCH AT THE RATE OF
- TWO PARTS TOPSOIL TO ONE PART PEAT TO ONE PART COMPOSTED BARK MULCH. THE ABOVE MIXTURE IS MIXED WITH MAG AMP (W. R. GRACE AND COMPANY, P.O. BOX 338, WEST CHICAGO, ILLINOIS) AT THE RATE OF 10 OUNCES PER CUBIC YARD OF PLANTING MIX. F. "ROOTS" - ROOT GROWTH ENHANCER: THIS PRODUCT SHALL BE A NATURAL, ORGANIC BIOSTIMULANT THAT PROMOTES ROOT GROWTH AND STRESS TOLERANCE IN PLANTS.
- APPLY TO ALL TREES, SHRUBS, AND PERENNIALS PER MANUFACTURER'S RECOMMENDATIONS. G. SUPERSORB C - WATER ABSORBENT GRANULES: THIS PRODUCT SHALL BE A COPOLYMER WATER ABSORBENT IN GRANULAR FORM TO BE INCORPORATED IN THE SPECIFIED PLANTING MIXES FOR BOTH TREE/SHRUBS AND PERENNIALS. IT'S PURPOSE IS TO IMPROVE THE TOPSOIL'S WATER HOLDING CAPACITY.
- H. AGRIFORM FERTILIZER TABLETS: TREES AND SHRUBS SHALL BE FERTILIZED WITH TWO (2) FERTILIZER TABLETS PER PLANTING HOLE. TABLETS SHALL BE 21 GRAM SIZE, OF 20-10-5 ANALYSIS AS MANUFACTURED BY AGRIFORM.

2.5 MISCELLANEOUS MATERIALS

ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- A. WOOD STAKES: STAKES FOR TREE SUPPORT SHALL BE 2" X 2" X 8'0", WOOD STAKES.
- B. GUYING WIRE: WIRE SHALL BE NUMBER 12 GAUGE GALVANIZED SOFT STEEL WIRE. C. HOSE: HOSE FOR COVERING WIRE SHALL BE NEW OR USED TWO PLY RUBBER HOSE NOT LESS THAN 1/2 INCH INSIDE DIAMETER. (PLASTIC 'CINCH-TIES' OR EQUIVALENT
- FASTENING DEVICE MAY BE AN ACCEPTABLE GUY WIRE AND HOSE PROTECTOR SUBSTITUTE) TREE PAINT: TREE PAINT SHALL BE WATERPROOF, ASPHALT BASE PAINT WITH ANTISEPTIC PROPERTIES. MANUFACTURED FOR USE ON TREE WOUNDS: R.I.W. TREE SURGERY
- PAINT BY TOCH BROS., NEW YORK; SHERWIN WILLIAMS PRUNING COMPOUND OR APPROVED EQUAL.
- E. ANTI-DESSICAT: ANTI-DESSICANT SHALL BE AN EMULSION PERMEABLE ENOUGH TO PERMIT TRANSPIRATION, AND WILL BE USED TO RETARD EXCESS WATER LOSS. MIX IN
- F. TREE WRAPPING PAPER SHALL BE WATERPROOFED CREPE TREE WRAPPING PAPER, AT LEAST 2-1/2 INCHES IN WIDTH, MADE UP OF TWO LAYERS OF CREPE KRAFT PAPER, WEIGHING NOT LESS THAN 30 POUNDS PER REAM, CEMENTED TOGETHER WITH ASPHALT. G. TWINE: WRAPPING TWINE USED IN TREE WRAPPING SHALL BE COMPOSED OF A MINIMUM OF TWO PLY JUTE MATERIAL. SYNTHETIC MATERIALS SUCH AS NYLON OR PLASTIC
- WILL NOT BE PERMITTED.

PART 3: EXECUTION

- A. INSPECTION: PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO ANY INSTALLEDUTILITIES.
- B. LOCATION: 1. VERIFY THAT PLANTING MAY BE COMPLETED IN ACCORDANCE WITH THE ORIGINAL DESIGN AND THE REFERENCED STANDARDS. STAKE OUT LOCATIONS OF ALL
- 2. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, LEDGE, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY THE LANDSCAPE ARCHITECT BEFORE PLANTING.
- C. DISCREPANCIES: 1. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT.

ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS.

PLANTS AND SECURE THE LANDSCAPE ARCHITECT APPROVAL BEFORE EXCAVATING PLANT PITS.

2. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

3.2 TREE PROTECTION AND REMOVAL

- A. REMOVAL OF TREES: 1. TREE REMOVAL UNDER THIS CONTRACT SHALL BE ACCOMPLISHED AS REQUIRED TO ACCOMODATE THE SCOPE OF WORK AS INDICATED ON THE SITE PLANS AS PREPARED BY SHERMAN, GREINER, HALLE', LTD. AND PROVAN & LORBER, INC. SITE GRADING AND GRUBBING WILL BE ACCOMPLISHED AS DIRECTED IN SECTION 02212 "SITE GRADING". ALL TREES AND STUMPS SHALL BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE NEW PLAYFILEDS, ROADS, SURFACED AREAS AND PLANTED AREAS. REMOVAL OF TREES OUTSIDE THESE AREAS SHALL ONLY BE THOSE AS NOTED, MARKED AND APPROVED BY THE LANDSCAPE ARCHITECT. 2. NO OTHER TREES MAY BE CUT EXCEPT BY PERMISSION OF THE LANDSCAPE ARCHITECT. ALL STUMPS SHALL BE REMOVED.
- B. PROTECTION OF TREES 1. GENERAL PROTECTION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF TOPS, TRUNKS, AND ROOTS OF EXISTING TREES ON THE SITE THAT ARE TO REMAIN. EXISTING TREES SUBJECT TO CONSTRUCTION DAMAGE SHALL BE BOXED, FENCED OR OTHERWISE PROTECTED BEFORE ANY WORK IS STARTED; REMOVE BOXING WHEN DIRECTED. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD. REMOVE INTERFERING BRANCHES WITHOUT INJURY TO TRUNKS AND COVER SCARS WITH TREE PAINT
- 2. GRADING AROUND TREES: WHERE EXCAVATION, FILL OR GRADING IS REQUIRED WITHIN THE BRANCH SPREAD OF TREES THAT ARE TO REMAIN, THE WORK SHALL BE
- D. RAISING GRADES: WHEN THE EXISTING GRADE AT TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 12 INCHES IS REQUIRED, CLEAN WASHED GRAVEL GRADED FROM 1 INCH TO 2 INCH SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES AND FINISH APPROXIMATELY 2 INCHES ABOVE THE FINISHED GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNKS OF ANY TREES REQUIRING FILL.
- E. TREES MARKED FOR PRESERVATION THAT ARE BURIED IN FILLS OVER 12" DEEP SHALL HAVE AN OPEN DRY WELL OF DURABLE MASONRY (WITHOUT MORTAR SITUATED AT LEAST 24" FROM THE TREE TRUNK. ALL WELLS ARE TO BE PROPERLY DRAINED. BEFORE FILLS OF OVER 12" ARE MADE UPON THE TREE ROOT AREAS, IT IS ADVISABLE TO SPREAD AT LEAST A 6" LAYER OF BROKEN STONE OR COARSE GRAVEL COVERED BY INVERTED SODS TO FACILITATE PROPER DRAINAGE AND AERATION
- LOWERING GRADES: EXISTING TREES IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE REGRADING WORK DONE BY HAND TO ELEVATION AS INDICATED. ROOTS AS REQUIRED SHALL BE CUT CLEANLY 3 INCHES BELOW FINISHED GRADE AND SCARS ARE COVERED WITH TREE PAINT. TREES MARKED FOR PRESERVATION THAT ARE LOCATED MORE THAN 6" ABOVE PROPOSED GRADES SHALL STAND ON BROAD ROUNDED MOUNDS AND BE GRADED SMOOTHLY INTO THE LOWER LEVEL. EXPOSED OR BROKEN ROOTS SHALL BE CUT CLEAN AND COVERED WITH TOPSOIL.

3.3 PLANTING TREES, SHRUBS AND GROUND COVERS

- 1. PLANT NURSERY STOCK IMMEDIATELY UPON DELIVERY TO THE SITE AND APPROVAL BY THE LANDSCAPE ARCHITECT EXCEPT THAT, IF THIS IS NOT FEASIBLE, HEAL-IN ALL BALLED MATERIAL WITH DAMP SOIL AND PROTECT FROM SUN AND WIND.
- REGULARLY WATER ALL NURSERY STOCK IN CONTAINERS AND TUBE-PAKS AND PLACE THEM IN A COOL AREA PROTECTED FROM SUN AND DRYING WINDS. 1. TREE PITS SHALL HAVE SUBSTANTIALLY VERTICAL SIDES AND HORIZONTAL BOTTOMS. DEPTH OF PIT BELOW FINISH GRADE SHALL BE AT LEAST 9 INCHES (FOR TREES) AND 6 INCHES (FOR SHRUBS) GREATER THAN THE DEPTH OF THE BALL. IN NO CASE SHALL DEPTH OF TREE PITS BE LESS THAN 24 INCHES BELOW FINISHED GRADE.
- DIAMETER OF PITS FOR ALL TREES SHALL BE AT LEAST 9 INCHES GREATER THAN THE MAXIMUM DIAMETER OF THE TREE BALL OR ROOT SYSTEM AND FOR SHRUBS 6 2. PLANTING POCKETS FOR TUBE-PAK, ONE GALLON CONTAINER SHRUBS, CONTAINERIZED PERENNIAL PLANTS & 1" CALIPER TREES INTENDED FOR "NATURALIZING" FILL
- AND DISTURBED SLOPES, SHALL BE EXCAVATED SIMILAR AS DESCRIBED ABOVE, BUT TO A DEPTH OF 6" BELOW THE BOTTOM OF THE TUBE-PAK OR CONTAINER AND A MINIMUM OF 12" IN DIAMETER. C. PLANTING OPERATION
- TREES AND SHRUBS SHALL BE SUPPLIED IN SIZES SHOWN ON THE PLANTING PLANS WITH ALL PLANTS BALLED AND BURLAPPED, CONTAINERIZED, OR IN TUBE-PAKS.
- DURING PLANTING OPERATIONS, THE NURSERY STOCK SHALL NOT BE EXPOSED TO THE SUN, DRYING WINDS, OR WINTER FREEZING. THE SOIL IN THE BOTTOM OF THE HOLE, WHICH HAS BEEN EXCAVATED TO THE PRESCRIBED REQUIREMENTS, SHALL BE LOOSENED TO A DEPTH OF 3 INCHES AND MIXED WITH AN EQUAL AMOUNT OF TOPSOIL. A COMPACTED MOUND OF SOIL SHALL BE FORMED IN THE CENTER OF THE HOLE TO SUPPORT THE ROOTS OF THE PLANT. THE PLANT SHALL BE PLACED ON THIS MOUND OF SOIL AND HELD IN A VERTICAL POSITION. THE PLANT SHALL BE SO SET, BY ADJUSTING THE ELEVATION OF
- THE MOLIND. THAT AFTER SETTLEMENT THE PLANT WILL STAND AT APPROXIMATELY THE SAME DEPTH IT STOOD IN THE NURSERY OR FIELD. 4. THE PLANT HOLE SHALL BE BACKFILLED WITH TOPSOIL, PEAT AND MAG AMP MIXTURE PLACED IN LAYERS AROUND THE ROOTS. EACH LAYER SHALL BE CAREFULLY
- TAMPED TO FILL ALL VOIDS AND PLACED IN MANNER TO AVOID INJURY TO THE TREE OR DISTURBING THE POSITION OF THE PLANT. 5. ALL BURLAP, ROPES OR WIRES SHALL BE REMOVED FROM THE UPPER THIRD OF BALLS. TREES WITH WIRE BASKETS SHALL HAVE THE TOP 12" OF THE WIRE BASKET COMPLETELY REMOVED IF PRACTICAL. REMOVAL OF BASKET WIRE SHALL BE DONE WITH BOLT CUTTER OR SIMILAR DEVICE AND NOT BEFORE THE BOTTOM HALF OF PLANT HOLE HAS BEEN BACKFILLED AND TAMPED SO AS TO PREVENT THE BALL FROM BREAKING APART OR LOOSENING DURING THIS OPERATION. UNTIE AND REMOVE ALL ROPES AROUND TRUNK.
- 6. WHEN APPROXIMATELY TWO-THIRDS OF THE PLANT HOLE HAS BEEN BACKFILLED, THE HOLE SHALL BE FILLED WITH WATER AND THE SOIL ALLOWED TO SETTLE AROUND THE ROOTS. AFTER THE WATER HAS BEEN ABSORBED, THE PLANT HOLE SHALL BE FILLED WITH TOPSOIL AND TAMPED LIGHTLY TO GRADE. ANY SETTLEMENT SHALL BE BROUGHT TO GRADE WITH TOPSOIL.
- 7. ALL PLANTS SHALL BE SET PLUMB AND STRAIGHT, AND AT SUCH A LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP OF THE TRUNK CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. PLANTS SHALL BE LOCATED IN THE CENTER OF THE PIT. THE SURFACE ABOUT THE PLANT SHALL BE SMOOTH AND FORMED TO A CUP-SHAPED DEPRESSION ABOUT THE STEM OR TRUNK SO AS TO HOLD WATER. ONCE THIS CUP-SHAPED DEPRESSION HAS BEEN FORMED, THEN APPLY THE "ROOTS" GROWTH ENHANCER/BIOSTIMULANT, PER MANUFACTURER'S RECOMMENDATIONS, TO ALL TREES, SHRUBS AND PERENNIALS
- PRIOR TO MULCHING. UPON COMPLETION OF THE PLANTING, ALL SURPLUS SUBSOIL AND WASTE MATERIALS SHALL BE REMOVED. 8. FOR PLANTS ON LEVEL GROUND OR SLIGHT SLOPES, THE CONTRACTOR SHALL FORM AND LEAVE A SHALLOW BASIN A LITTLE LARGER THAN THE DIAMETER OF THE PLANT AROUND EACH PLANT. AFTER PLANTING, CULTIVATE THE SOIL IN THE SHRUB BED BETWEEN TREE/SHRUB PITS, RAKE SMOOTH AND OUTLINE AS PER PLANS. 9. IN CASE OF PLANTING IN THE OPEN ON HOT DAYS, SHORTEN THE TIME BETWEEN PLANTING AND WATERING.

3.4 SEED BED PREPARATION

A. SUB GRADE PREPARATION: SEED BED PREPARATION SHALL PERTAIN TO THE PREPARATION OF THE SURFACE OF THE GROUND TO RECEIVE THE SEED. THE GROUND SHALL BE HAND OR MACHINE RAKED SO AS TO REMOVE ALL DEBRIS, CLODS, STONES, OR OTHER FOREIGN MATTER LARGER THAN 1 INCH, TO A DEPTH OF 4 INCHES. PRIOR TO DUMPING AND SPREADING OF TOPSOIL, THE SURFACE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 2 INCHES TO FACILITATE BONDING OF TOPSOIL TO SUB GRADE SOIL. WHERE SUB GRADES HAVE BEEN COMPACTED ARTIFICIALLY SCARIFY TO A DEPTH OF 6 INCHES. PRIOR TO SPREADING TOPSOIL, ALL SUB GRADES SHALL BE GRADED EVENLY ACCORDING TO THE CONTRACT DOCUMENTS. SUCH DEBRIS, CLODS, ROCKS, AND OTHER MATERIAL SO REMOVED SHALL BE DISPOSED OF AS APPROVED BY THE LANDSCAPE ARCHITECT/OWNER'S REPRESENTATIVE. SEED BED PREPARATION SHALL NOT COMMENCE UNTIL THE MOISTURE CONDITIONS MAKE THE GROUND AREA AND SOIL FRIABLE. B. PREPARING UNDISTURBED AREAS: AREAS TO BE SEEDED, WHICH HAVE NOT BEEN DISTURBED BY SITE GRADING OR TOPSOIL STRIPPING OPERATIONS, SHALL BE MOWED AND

3.5 TOPSOIL PLACEMENT

A. SPREADING: TOPSOIL SHALL BE SPREAD EVENLY ON THE PREPARED AREAS TO A MINIMUM DEPTH OF 6 INCHES AFTER MACHINE COMPACTION. SPREADING SHALL NOT BE DONE WHEN THE GROUND OR TOPSOIL IS FROZEN OR EXCESSIVELY WET. AFTER SPREADING, ANY LARGE, STIFF CLODS OR HARD LUMPS SHALL BE BROKEN UP AND THE GROUND SHALL BE HAND OR MACHINE RAKED TO REMOVE ALL DEBRIS, STONES, AND FOREIGN MATTER LARGER THAN 1 INCH TO A DEPTH OF 4 INCHES.

RAKED PRIOR TO TILLING AND TOP SOILING OPERATIONS. TILLAGE OF THE EXISTING VEGETATION INTO THE GROUND WILL NOT BE ACCEPTED.

- B. FINISH GRADING: GRADE THE AREAS TO FINISH GRADES FILLING AS NEEDED OR REMOVING SURPLUS DIRT AND FLOATING AREAS TO A SMOOTH UNIFORM GRADE. ALL LAWN AREAS SHALL SLOPE TO DRAIN. WHERE NO GRADES ARE SHOWN, AREAS SHALL HAVE A SMOOTH AND CONTINUAL GRADE BETWEEN EXISTING OR FIXED CONTROLS (SUCH AS WALKS, CURBS, OR WALLS). RAKE AND LEVEL AS NECESSARY TO OBTAIN TRUE EVEN LAWN SURFACES. ALL FINISH GRADES SHALL MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE SEED IS SOWN OR SOD IS PLACED.
- C. SEED BED PREPARATION: AFTER FINISH GRADING AND JUST BEFORE SEEDING, THE AREAS TO BE SEEDED SHALL BE LOOSENED TO PROVIDE A ROUGH, FIRM BUT FINELY PULVERIZED SEED BED. THE INTENT IS A TEXTURE CAPABLE OF RETAINING WATER, SEED, AND FERTILIZER WHILE REMAINING STABLE AND ALLOWING SEED TIME TO GERMINATE. SEED SHALL BE APPLIED TO THE CONDITIONED SEED BED NOT MORE THAN 48 HOURS AFTER THE SEED BED HAS BEEN PREPARED
- D. WATER: IF THERE HAS BEEN A TIME LAPSE BETWEEN THE PLACEMENT OF TOPSOIL AND SEEDING OPERATIONS TO ALLOW IT TO BECOME SETTLED AND COMPACTED ON THE SURFACE, THE AREA TO BE PLANTED WITH SEED SHALL BE THOROUGHLY HARROWED, WORKED TO A DEPTH OF 4 INCHES SO AS TO PROVIDE A SURFACE OF SUCH CONDITION THAT IT WILL ALLOW HAND RAKING AND APPLICATION OF THE SEED IN COMPLIANCE WITH THESE SPECIFICATIONS. E. FERTILIZER/SOIL AMENDMENTS: APPLICATION OF FERTILIZER WILL BE IN 2 STAGES. TWO WEEKS PRIOR TO APPLICATION OF SEED, FERTILIZER SHALL BE APPLIED AT THE RATE
- INTO THE SOIL TO A MINIMUM DEPTH OF 2 INCHES AND MAY BE INCORPORATED AS PART OF THE TOPSOIL PLACEMENT AND SEED BED PREPARATION OPERATIONS. SPRINKLE IMMEDIATELY AFTER INITIAL APPLICATION OF THE FERTILIZER WITH A FINE SPRAY UNTIL GROUND IS THOROUGHLY SATURATED, WITH PARTICULAR CARE TO AVOID RUNOFF ON
- 1. THE 2ND APPLICATION WILL FOLLOW THE FOLLOWING SEASON WITHIN THE SPECIFIED WARRANTY PERIOD AT A RATE DETERMINED BY SOIL TEST RESULTS FOR BOTH TURF AND NATIVE GRASS/ WILDFLOWER AREAS.
- APPLICATION OF SUPERPHOSPHATE AND GROUND LIMESTONE SHALL BE APPLIED AT RATES DETERMINED BY SOILS TEST RESULTS 3. SEEDING: IMMEDIATELY PRIOR TO THE APPLICATION OF THE SEED, THE SOIL SHALL BE LOOSE TO A DEPTH OF AT LEAST 1 INCH AND FREE FROM ALL MATERIAL AS SPECIFIED. IF SOIL IS TOO LOOSE OR DRY FOR GOOD HANDLING, IT SHOULD BE MOISTENED AND ROLLED LIGHTLY.

OR IN THE FALL FROM AUGUST 16TH TO OCTOBER 1ST.

APPROPRIATE MECHANICAL MEANS.

- 4. SEEDING SHALL BE DONE WITHIN THE SPECIFIED TIME PERIODS AND AT THE FOLLOWING RATES: a. FINE LAWN SEED SHALL BE SOWN AT A RATE OF 3.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL LST TO MAY 30TH OR IN THE FALL FROM AUGUST 16TH TO OCTOBER 1ST. b. NATIVE SEED MIX SHALL BE SOWN AT A RATE OF 5.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL LST TO MAY 30TH
- SEEDING SHALL NOT BE USED DURING ADVERSE WEATHER. AREAS SOWN BY HYDRAULIC OR BROADCAST METHODS WILL BE VISUALLY INSPECTED FOR UNIFORMITY OF APPLICATION. AREAS WHICH FAIL TO REVEAL AN AVERAGE OF TWO SEEDS PER SQUARE INCH WILL BE RE-SOWN AT NO ADDITIONAL EXPENSE TO THE OWNER. THE APPLIED SEED, REGARDLESS OF APPLICATION, SHALL NOT BE COVERED BY A SOIL THICKNESS NO GREATER THAN 1/2 INCH a. SEEDING BY DRILL: SEEDING EQUIPMENT USED FOR APPLYING GRASS SEED MUST BE DESIGNED, MODIFIED, OR EQUIPPED TO REGULATE THE APPLICATION RATE AND PLANTING DEPTH OF GRASS SEED. SEED MUST BE UNIFORMLY DISTRIBUTED IN THE DRILL HOPPER DURING THE DRILLING OPERATION. ALL GRASS

5. METHODS: SEEDING BY DRILL IS PREFERABLE, HOWEVER, HYDRAULIC SEEDING OR BROADCASTING WILL BE PERMITTED. BROADCAST SEEDING AND HYDRAULIC

WHICH IT IS TO OPERATE. THE ROWS OF PLANTED SEEDS SHALL BE A MAXIMUM OF 8 INCHES APART AND SHALL BE AT RIGHT ANGLES TO THE FINISHED b. BROADCAST SEEDING: WHEN SEED IS SOWN BY BROADCASTING, EXERCISE GREAT CARE THAT A UNIFORM DISTRIBUTION OF SEED IS OBTAINED. SEEDING SHALL BE DONE ON A STILL DAY USING A HOPPER TYPE SEEDER WITH ONE HALF OF THE SEED FOR EACH AREA BEING SOWN AT RIGHT ANGLES TO THE OTHER HALF. SEED DISTRIBUTION BY BROADCASTING SHALL BE COVERED WITH 1/4 TO 1/2 INCH OF SOIL. THE SEED MAY BE COVERED BY RAKING, DRAGGING, OR BY

ESTABLISHMENT EQUIPMENT SHALL BE OPERATED PERPENDICULAR TO THE SLOPE DRAINAGE. A DRILL SHALL BE NO WIDER THAN THE WIDTH OF THE AREA

c. HYDRAULIC SEEDING: WHEN HYDRAULIC SEED IS USED, SEED AND MULCH SHALL BE APPLIED IN SEPARATE AND DISTINCT OPERATIONS EXCEPT FOR THE FOLLOWING SEED PREPARATION: 6. THE CONTRACTOR MUST PROVIDE ONE POUND OF MULCH PER EACH THREE GALLONS OF WATER IN THE HYDROSEEDER AS A CUSHION AGAINST SEED DAMAGE. THE MULCH USED AS A CUSHION MAY BE PART OF THE TOTAL REQUIRED MULCH WITH THE REMAINDER APPLIED AFTER THE SEED IS METERING DURING APPLICATION.

- 7. THE CONTRACTOR MAY APPLY MULCH AND LAWN SEED MIX HYDRAULICALLY IN A SINGLE APPLICATION, PROVIDING ONE HALF OF THE SEED HAS BEEN SOWED BY
- BROADCAST OR DRILL METHODS AS AN INITIAL APPLICATION AND THE RATE OF APPLICATION OF LAWN SEED MIX INCREASED BY 4 POUNDS PER 1000 SQUARE FEET. 8. THE APPLICATION OF THE SEED SLURRY SHALL BE MADE WITH EQUIPMENT HAVING A BUILT-IN AGITATION SYSTEM AND OPERATING CAPACITY SUFFICIENT TO AGITATE. SUSPEND AND HOMOGENEOUSLY MIX A SLURRY CONTAINING WATER, SEED, AND MULCH OF SEED. THE SLURRY SHALL BE SPRAYED OVER THE SOIL IN A UNIFORM
- COAT. ALL HYDRAULICALLY SEED AREAS SHALL BE HYDROMULCHED UPON COMPLETION. F. WATERING: WATERING IMMEDIATELY AFTER SEEDING OR MULCHING WITH A FINE SPRAY TO A DEPTH OF 6 INCHES. AVOID RUNOFF ON SLOPING AREAS. THE SURFACE LAYER OF THE SOIL MUST BE KEPT DAMP BY FREQUENT LIGHT WATERING DURING THE GERMINATION PERIOD AND UNTIL PLANTS ARE FIRMLY ROOTED.
- G. PROTECTION: PROTECT ALL SEEDED AREAS BY ERECTING TEMPORARY FENCES, BARRIERS, SIGNS, ETC. AS NECESSARY TO PREVENT TRAMPLING. THEY SHALL REMAIN IN PLACE FOR AT LEAST SIX WEEKS UNLESS OTHER ARRANGEMENTS ARE MADE WITH THE LANDSCAPE ARCHITECT. H. MULCHING
- 1. MULCH ALL HYDROSEEDED AREAS, DRAINAGE SWALES, SLOPES 4:1 OR STEEPER, AND ANY AREAS WHERE LIKELY HAZARD OF EROSION EXISTS. TOPSOIL OR SEED WHICH WASHES OUT FOR REASONS ATTRIBUTABLE TO THE CONTRACTOR'S ACTIVITIES OR FAILURE TO TAKE PROPER PRECAUTIONS, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE
- a. ALL STRUCTURES SHALL BE PROTECTED FROM HYDRAULIC APPLICATION OF MULCH MATERIAL AND MATERIAL DEPOSITED ON FACILITIES SHALL BE REMOVED.
- b. MULCH SHALL NOT BE APPLIED IN THE PRESENCE OF FREE SURFACE WATER, BUT MAY BE APPLIED ON DAMP GROUND. 2 APPLICATION OF ORGANIC MULCH
- a. WET APPLICATION: ORGANIC MULCH SHALL BE MIXED WITH WATER AT A RATE OF ONE POUND MULCH (DRY WEIGHT) TO ONE GALLON OF WATER HYDRAULICALLY APPLIED AS PER MANUFACTURERS RECOMMENDATIONS AT A MINIMUM RATE OF 2000 POUNDS PER ACRE.
- DRY APPLICATION: ORGANIC MULCH SHALL BE BROADCAST AT A MINIMUM RATE OF 2000 POUNDS PER ACRE, AND SHALL BE ROLLED LIGHTLY TO SET FIRMLY INTO THE SOIL

3.6 MULCHING A. MULCHING:

- 1. ALL TREES AND SHRUB BEDS WILL BE CULTIVATED FOLLOWING THE GENERAL SHAPE OF THE BEDS AS INDICATED ON THE PLANS. FORM A SAUCER AROUND THE TOP OF THE PLANTING PIT TO HELP HOLD WATER DURING WATERING AND FORM THE OUTLINE FOR MULCHING.
- 2. APPLY THE SHREDDED BARK MULCH TO A DEPTH OF 4", EVENLY SPREAD OVER THE ENTIRE AREA OF EACH PLANTING PIT 3. THOROUGHLY SOAK ALL MULCH AREAS. AFTER WATERING, RAKE MULCHED AREAS AND LEAVE IN A COMPLETED AND FINISHED CONDITION.THOROUGHLY SOAK ALL MULCH AREAS. AFTER WATERING, RAKE MULCHED AREAS AND LEAVE IN A COMPLETED AND FINISHED CONDITION.

3.7 STAKING, GUYING, AND WRAPPING

- A. STAKING AND GUYING: 1. TREES, GREATER THAN 1-1/2" IN CALIPER, SHALL BE STAKED IMMEDIATELY AFTER PLANTING. GUY WIRES SHALL BE ENCASED IN HOSE TO PREVENT DIRECT CONTACT WITH BARK OF THE TREE OR IT SHALL BE PLACED AROUND THE TRUNK IN A SINGLE LOOP. WIRES SHALL BE TIGHTENED AND KEPT TAUNT BY TWISTING THE STRANDS
- 2. WRAP TREES IMMEDIATELY AFTER PLANTING, BUT NOT BEFORE THE CONDITION OF THE TRUNKS HAS BEEN INSPECTED AND APPROVED. CAREFULLY WRAP THE TRUNKS OF DECIDUOUS TREES WITH TREE WRAPPING PAPER. BEGIN THE WRAPPER AT THE BASE OF THE TRUNK JUST ABOVE THE ROOTS AND BELOW THE NORMAL GROUND LINE, AND EXTEND WRAPPING UPWARD IN SPIRAL MANNER WITH AN OVERLAP OF ONE-HALF (1/2) THE WIDTH OF THE PAPER STRIP. COVER WITH SOIL THE PORTION OF THE WRAPPING BELOW THE FINISHED GRADE. THE PAPER SHALL BE HELD IN PLACE WITH APPROVED TWINE OR TAPE. TIE THE TWINE AROUND THE TREE IN AT LEAST THREE PLACES, IN ADDITION TO THE TOP AND BOTTOM.
- 3. TREE GUYING AND STAKING SHALL BE AS DETAILED AS PER PROJECT PLANS AND COMPLETED IMMEDIATELY AFTER PLANTING.

TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT BUT THE TRENCH SHALL BE TUNNELED UNDER AND AROUND THE 3.8

- A. GENERAL: 1. EACH TREE SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. THE OBJECTIVE IS TO PRESERVE A SHAPE AND FORM REPRESENTATIVE OF THE SPECIES. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
- 1. ALL DEAD WOOD, SUCKERS, BADLY BRUISED OR BROKEN BRANCHES SHALL BE REMOVED. THE TOPS OF DECIDUOUS PLANTS SHALL BE PRUNED EITHER BEFORE OR AFTER PLANTING TO BALANCE ROOT LOSS DUE TO TRANSPLANTING. THIS SHALL CONSIST OF REMOVING ONE-FORTH OF THE CROWN BY THINNING OUT AND/OR HEADING BACK THE STEMS AND TOP BRANCHES, AND SHALL BE DONE SO THAT THE PLANT RETAINS ITS NATURAL FORM. EXCEPT WHEN HEADING BACK, ALL CUTS

3. TREES THAT HAVE BEEN SO BADLY PRUNED AS TO SPOIL THEIR REPRESENTATIVE FORM AND USEFULNESS SHALL BE REMOVED AND REPLACED

SHALL BE MADE FLUSH WITH THE TRUNK OR BRANCH, NEVER CUT A LEADER 2. CUTS OVER 1/2 INCH IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT. PAINT SHALL COVER ALL EXPOSED CAMBIUM AS WELL AS OTHER EXPOSED LIVING TISSUE. PAINT SHALL BE WATERPROOF, ADHESIVE AND ELASTIC, ANTISEPTIC, FREE FROM KEROSENE, COAL TAR CREOSOTE OR ANY OTHER MATERIAL INJURIOUS TO THE LIFE OF THE TREE AND SHALL BE APPROVED BEFORE IT IS USED. USE "WOODTAR" OR APPROVED EQUAL

3.9 WATERING

TOGETHER OR WITH TURNBUCKLES.

A. ALL PLANTS SHALL BE WATERED TWICE WITHIN THE FIRST 24 HOURS OF THE TIME OF PLANTING, AND ALL PLANTS DURING THE MAINTENANCE PERIOD SHALL BE WATERED AT LEAST TWICE EACH WEEK. AT EACH WATERING THE SOIL AROUND EACH TREE OR SHRUB SHALL BE THOROUGHLY SATURATED. IF SUFFICIENT MOISTURE IS RETAINED IN THE SOIL, AS DETERMINED BY THE LANDSCAPE ARCHITECT, THE REQUIRED WATERING MAY BE REDUCED.

3.10 INSPECTION FOR ACCEPTANCE AND CLEAN-UP

- A. INSPECTION: 1. IN ADDITION TO THE NORMAL PROGRESS INSPECTIONS, SCHEDULE AND CONDUCT THE FOLLOWING FORMAL INSPECTIONS, GIVING THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS PRIOR NOTICE OF READINESS FOR INSPECTION.
 - INSPECTION OF PLANTS IN CONTAINERS PRIOR TO PLANTING. 3. INSPECTION OF PLANT LOCATIONS, TO VERIFY COMPLIANCE WITH THE PLANS.
 - 4. FINAL INSPECTION AFTER COMPLETION OF PLANTING. SCHEDULE THIS INSPECTION SUFFICIENTLY IN ADVANCE, AND IN COOPERATION WITH THE LANDSCAPE ARCHITECT SO THAT FINAL INSPECTION MAY BE CONDUCTED WITHIN 24 HOURS AFTER COMPLETION OF PLANTING.
 - FINAL INSPECTION AT THE END OF THE MAINTENANCE PERIOD, PROVIDED THAT ALL PREVIOUS DEFICIENCIES HAVE BEEN CORRECTED. THE LANDSCAPE ARCHITECT WILL INSPECT ALL WORK FOR ACCEPTANCE UPON WRITTEN REQUEST OF THIS SUBCONTRACTOR ACCEPTANCE OF LAWNS SHALL BE GRANTED FOR THE WORK IN ITS ENTIRETY. NO PARTIAL ACCEPTANCE SHALL BE GIVEN.
 - 8 SOD AND FINE LAWNS SHALL EXHIBIT A UNIFORM THICK WELL-DEVELOPED STAND OF GRASS WHICH HAS RECEIVED A MINIMUM OF THREE CUTTINGS. LAWN AREAS SHALL HAVE NO BARE SPOTS IN EXCESS OF FOUR (4") INCHES IN DIAMETER AND BARE SPOTS SHALL COMPRISE NO MORE THAN TWO PERCENT (2%) OF THE TOTAL AREA
- 9. NATIVE GRASS AREAS SHALL EXHIBIT A UNIFORM, THICK, WELL DEVELOPED STAND OF GRASS WHICH HAS RECEIVED A MINIMUM OF THREE CUTTINGS. NATIVE GRASS AREAS SHALL HAVE NO BARE SPOTS IN EXCESS OF FOUR (4") INCHES IN DIAMETER AND BARE SPOTS SHALL COMPRISE NO MORE THAN TWO PERCENT (2%) OF THE TOTAL AREA OF THE LAWN.
- 10. NO LAWN AREAS SHALL EXHIBIT SIGNS OF DAMAGE FROM EROSION, WASHOUTS, GULLIES OR OTHER CAUSES. 11. BUILDING AND PAVEMENT SURFACES ADJACENT TO LAWN AREAS SHALL BE CLEAN AND FREE OF SPILLS OR OVERSPRAY FROM PLACING OR HANDLING OF TOPSOIL AND
 - SEEDING OPERATIONS. 1. UPON WRITTEN REQUEST OF THE CONTRACTOR, THE LANDSCAPE ARCHITECT SHALL INSPECT ALL LAWN AREAS TO DETERMINE COMPLETION OF THE CONTRACT WORK. THIS REQUEST MUST BE SUBMITTED AT LEAST FIVE (5) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE AND AFTER THE THIRD MOWING OF FINE LAWNS.
- PERIOD AS NECESSARY FOR THE COMPLETION OF WORK. THE CONTRACTOR SHALL BE REQUIRED TO REQUEST A SECOND INSPECTION OF THE LAWNS AS DESCRIBED ABOVE. THIS INSPECTION SHALL NOT TAKE PLACE UNTIL THE LAWN AREA IN QUESTION HAS RECEIVED AT LEAST ONE ADDITIONAL CUTTING. THIS PROCESS SHALL BE REPEATED UNTIL THE TOTAL AREA OF THE LAWN BEING INSPECTED IS ACCEPTABLE. 3. IF THE LAWN AREAS ARE ACCEPTABLE TO THE LANDSCAPE ARCHITECT, HE SHALL ARRANGE A MEETING OF THE CONTRACTOR AND THE OWNER TO ACCEPT THE LAWN WORK. A FINAL INSPECTION SHALL BE PART OF THIS MEETING TO INSURE ACCEPTABILITY. AT THIS MEETING, THE CONTRACTOR SHALL BE FURNISHED WITH A WRITTEN ACCEPTANCE FOR THE LAWN SECTION BEING APPROVED. THE CONTRACTOR SHALL HAND OVER MAINTENANCE OF THE LAWN TO THE OWNER AT THIS MEETING, AND
- SHALL PROVIDE THE OWNER WITH THREE COPIES OF THE MAINTENANCE MANUAL FOR THE LAWN AS DESCRIBED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND CORRECTIVE WORK UNTIL THE CONCLUSION OF THIS MEETING. 1. FOLLOWING THE ACCEPTANCE OF LAWNS, THE CONTRACTOR SHALL IMMEDIATELY REMOVE FROM THE SITE ALL MATERIALS AND EQUIPMENT NOT REQUIRED FOR

OTHER PLANTING OR MAINTENANCE WORK. MATERIALS AND EQUIPMENT REMAINING ON THE SITE SHALL BE STORED IN LOCATIONS WHICH DO NOT INTERFERE WITH

THE OWNER'S MAINTENANCE OF ACCEPTED LAWNS OR OTHER OPERATIONS. SECTION 02930 - SEEDING AND SODDING

PART 1: GENERAL

- GENERAL REQUIREMENTS
- A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS APPLY TO THIS SECTION B. EXAMINE ALL OTHER SECTIONS OF THE SPECIFICATIONS FOR REQUIREMENTS WHICH AFFECT WORK OF THIS SECTION WHETHER OR NOT SUCH WORK IS SPECIFICALLY
- MENTIONED IN THIS SECTION. SEE DRAWINGS FOR LOCATIONS AND DETAILS. C. COORDINATE WORK WITH THAT OF ALL OTHER TRADES AFFECTING, OR AFFECTED BY WORK OF THIS SECTION. COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF ALL WORK UNDER THE CONTRACT.

1. FURNISHING ALL MATERIALS, SUPPLIES, LABOR, EQUIPMENT AND PERFORMING ALL OPERATIONS IN CONNECTION WITH FINISH GRADING OF TOPSOIL, AND

A. WORK IN THIS SECTION INCLUDES THE FOLLOWING:

SELECTION AND APPROVAL IN ACCORDANCE WITH THE REQUIREMENTS OF GENERAL CONDITIONS.

- PREPARATION THEREOF FOR SEEDING, LAYING OF SOD, FERTILIZING, LIMING, HYDRO-MULCHING, EROSION CONTROL, MAINTENANCE AND PROTECTION OF ALL PLANTED AND PAVED AREAS AND CLEAN-UP.
- B. RELATED SECTIONS (AS MAY BE PROVIDED BY CIVIL ENGINEER):
- SECTION 02300 "EARTHWORK"

- 1. CERTIFICATES ATTESTING THAT THE FOLLOWING MATERIAL MEET THE REQUIREMENTS SPECIFIED, SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR THEIR
 - b. FERTILIZEF
- 2. MANUFACTURER'S LITERATURE/PRODUCT DATA MANUFACTURER'S LITERATURE ON THE FOLLOWING MATERIALS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT.
- A. QUALIFICATIONS OF WORKMEN:

FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER

A. SEED: SEED SHALL BE DELIVERED IN ORIGINAL SEALED PACKAGES BEARING THE PRODUCER'S GUARANTEED ANALYSIS FOR PERCENTAGES OF MIXTURES, PURITY, GERMINATION, WEED SEED CONTENT, AND INERT MATERIAL. SEED SHALL BE LABELED IN CONFORMANCE WITH THE U.S. DEPARTMENT OF AGRICULTURAL RULES AND REGULATIONS AND APPLICABLE STATE SEED LAWS. SEED THAT HAS BECOME WET, MOLDY, OR DAMAGED, WILL NOT BE ACCEPTABLE.

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SECTION 02955 "TREES, SHRUBS AND GROUND COVERS" OF 3 LBS/1000 S.F. FOR TURF AREAS. FERTILIZER SHALL BE APPLIED BY BROADCASTING OR DRILL METHODS; IT SHALL BE APPLIED SEPARATELY FROM THE SEED AND MIXED LOCAL GOVERNING AUTHORITY AND CODE REQUIREMENTS. ALL NECESSARY CONSTRUCTION PERMITS.

A. SAMPLES & CERTIFICATES

a. MULCH b. HYDROMULCH BINDER c. EROSION CONTROL FABRIC

1.4 QUALITY ASSURANCE

1. PROVIDE AT LEAST ONE PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY

1.5 DELIVERY, STORAGE, HANDLING

SCIENTIFIC NAME	NH INVASIVE SPECIES WATCH LIST SYNONYMS	COMMON NAME
ABUTILON THEOPHRASTI MEDIK.	JINONI III J	VELVETLEAF INDIAN-MALLOW
ACER GINNALA MAXIM.		AMUR MAPLE
AGROSTEMMA GITHAGO L. VAR. GITHAGO	LYCHNIS GITHAGO (L.) SCOP.	COMMON CORNCOCKLE
AIRA CARYOPHYLLEA L.	ASPRIS CARYOPHYLLEA (L.) NASH	COMMON SILVER-HAIRGRASS
ALLIUM VINEALE L.		CROW GARLIC
AMORPHA FRUTICOSA L.	AMORPHA FRUTICOSA L. VAR. ANGUSTIFOLIA PURSH; A. FRUTICOSA L. VAR. OBLONGIFOLIA PALMER;	FALSE INDIGO-BUSH
ARALIA ELATA (MIQ.) SEEM.	A. FRUTICOSA L. VAR. TENNESSEENSIS (SHUTTLW. EX KUNZE) PALMER DIMORPHANTHUS ELATUS MIQ.	JAPANESE ANGELICA-TREE
BARBAREA VULGARIS AIT. F.	BARBAREA ARCUATA (OPIZ EX J. & K. PRESL) REICHENB.; B. STRICTA, OF AUTHORS NOT ANDRZ.; B. VULGARIS VAR. ARCUATA (OPIZ EX J. & K. PRESL) FRIES; CAMPE BARBAREA (L.) W. WIGHT EX PIPER; C.	
BRASSICA JUNCEA (L.) CZERN.	STRICTA, OF AUTHORS NOT (ANDRZ.) W. WIGHT ÉX PIPER; ERYSIMUM BARBARÉA L. BRASSICA JUNCEA (L.) CZERN. VAR. CRISPIFOLIA BAILEY; SINAPIS JUNCEA L.	CHINESE MUSTARD
BRASSICA JUNCEA (L.) UZERN. BRASSICA NIGRA (L.) W.D.J. KOCH	SINAPIS NIGRA L.	BLACK MUSTARD
BROMUS TECTORUM L.	ANISANTHA TECTORUM (L.) NEVSKI	CHEAT BROME
CARDAMINE IMPATIENS L.	ANISANTTIA TECTOROW (L.) NEVSKI	NARROW-LEAVED BITTER-CRESS
CENTAUREA JACEA L.	CENTAUREA DEBEAUXII GREN. & GODR. SSP. THUILLIERI DOSTÁL; C. JACEA L. SSP. DECIPIENS (THUILL.) ČELAK.; C. JACEA L. SSP. PRATENSIS ČELAK.; C. PRATENSIS THUILL.; C. THUILLIERI (DOSTÁL) J. DUVIGN. & LAMBINON; CYANUS JACEA (L.) P. GAERTN.; JACEA PRATENSIS LAM.	BROWN KNAPWEED
CENTAUREA NIGRA L.	JACEA NIGRA (L.) HILL	BLACK KNAPWEED
CHELIDONIUM MAJUS L.	CHELIDONIUM MAJUS L. VAR. LACINIATUM (P. MILL.) SYME; C. MAJUS L. VAR. PLENUM WEHRHAHN	GREATER CELANDINE
CIRSIUM PALUSTRE (L.) SCOP.	CARDUUS PALUSTRIS L.	MARSH THISTLE
CIRSIUM VULGARE (SAVI) TEN.	CARDUUS LANCEOLATUS L.; C. VULGARIS SAVI; CIRSIUM LANCEOLATUM (L.) SCOP.	COMMON THISTLE
CONVOLVULUS ARVENSIS L.	STROPHOCAULOS ARVENSIS (L.) SMALL	FIELD BINDWEED
CYTISUS SCOPARIUS (L.) LINK	SPARTIUM SCOPARIUM L.	SCOTCH BROOM
DIGITARIA SANGUINALIS (L.) SCOP.	PANICUM SANGUINALE L.	HAIRY CRABGRASS
EICHHORNIA CRASSIPES (MART.)	EICHHORNIA SPECIOSA KUNTH; PIAROPUS CRASSIPES (MART.) RAF.	COMMON WATER-HYACINTH
SOLMS-LAUBACH	, , , , , , , , , , , , , , , , , , , ,	
ELYMUS REPENS (L.) GOULD	AGROPYRON REPENS (L.) GOULD; ELYTRIGIA REPENS (L.) DESV. EX B.D. JACKSON; TRITICUM REPENS L.	CREEPING WILD-RYE
EPILOBIUM HIRSUTUM L.		HAIRY WILLOW-HERB
EPIPACTIS HELLEBORINE (L.) CRANTZ	EPIPACTIS LATIFOLIA (L.) ALL.; SERAPIAS HELLEBORINE L.	BROAD-LEAVED HELLEBORINE
EUONYMUS EUROPAEUS L.		EUROPEAN SPINDLE-TREE
EUONYMUS FORTUNEI (TURCZ.) HANDMAZZ	EUONYMUS FORTUNEI (TURCZ.) HANDMAZZ VAR. RADICANS (SIEB. EX MIQ.) REHD.; E. FORTUNEI (TURCZ.) HANDMAZZ VAR. VEGETUS (REHD.) REHD.; E. RADICANS SIEB. EX MIQ.; E. RADICANS SIEB. EX MIQ. VAR. VEGETUS REHD.	CLIMBING SPINDLE-TREE
FESTUCA FILIFORMIS POURRET	FESTUCA CAPILLATA LAM.; F. OVINA L. VAR. CAPILLATA (LAM.) ALEF.; F. TENUIFOLIA SIBTHORP	FINE-LEAVED SHEEP FESCUE
FICARIA VERNA HUDS. SSP. FERTILIS	FICARIA VERNA HUDS. SSP. BULBIFERA A. & D. LÖVE; RANUNCULUS FICARIA L. SSP. BULBILIFER	
(LAWRALRÉE EX LAEGAARD) STACE	LAMBINON; R. FICARIA L. SSP. BULBIFERA (MARSDEN-JONES) LAWALREE, AN ILLEGITIMATE NAME; R. FICARIA VAR. BULBIFERA MARSDEN-JONES	FIG-CROWFOOT
FROELICHIA GRACILIS (HOOK.) MOQ.	OPLOTHECA GRACILIS MOQ.	SLENDER COTTON-WEED
GALIUM MOLLUGO L.		WHORLED BEDSTRAW
GLECHOMA HEDERACEA L.	GLECHOMA HEDERACEA L. VAR. MICRANTHA MORIC.; G. HEDERACEA L. VAR. PARVIFLORA (BENTH.)	GILL-OVER-THE-GROUND
	HOUSE; NEPETA HEDERACEA (L.) TREVISAN	
HYLOTELEPHIUM TELEPHIUM (L.) H. OHBA	SEDUM PURPUREUM (L.) J.A. SCHULTES; S. PURPURASCENS W.D.J. KOCH; S. TELEPHIUM L. BASSIA SCOPARIA (L.) A.J. SCOTT; CHENOPODIUM SCOPARIUM L.; KOCHIA SCOPARIA (L.) SCHRAD.	PURPLE ORPINE
KOCHIA SCOPARIA (L.) SCHRAD.	VAR. PUBESCENS FENZL; K. SCOPARIA (L.) SCHRAD. VAR. SUBVILLOSA MOQ.	SUMMER-CYPRESS
LAMIUM AMPLEXICAULE L. VAR. AMPLEXICAULE		COMMON HENBIT
LAMIUM PURPUREUM L.	LAMIUM DISSECTUM WITH.; L. HYBRIDUM, OF AUTHORS NOT VILL.	RED HENBIT
LONICERA XYLOSTEUM L.	EAMION BIOGESTON WITH, E. ITT BIODON, OF ACTIONO NOT VILE.	FLY HONEYSUCKLE
LUPINUS POLYPHYLLUS LINDL. VAR.	LUPINUS PALLIDIPES HELLER; L. POLYPHYLLUS LINDL. VAR. ALBIFLORUS L.H. BAILEY; L. POLYPHYLLUS	BLUE LUPINE
POLYPHYLLUS	LINDL. VAR. PALLIDIPES (HELLER) C.P. SM.	DLUE LUPINE
LYCHNIS FLOS-CUCULI L. SSP. FLOS-CUCULI	CORONARIA FLOS-CUCULI (L.) A. BRAUN; SILENE FLOS-CUCULI (L.) CLAIRVILLE	RAGGED ROBIN LYCHNIS
LYSIMACHIA ARVENSIS (L.) U. MANNS & A.	ANAGALLIS ARVENSIS L.; A. ARVENSIS L. VAR. CAERULEA (SCHREB.) GREN. & GODR.; A. CAERULEA	SCARLET PIMPERNEL
ANDERB. LYSIMACHIA VULGARIS L.	SCHREB.	GARDEN YELLOW-LOOSESTRIFE
MISCANTHUS SINENSIS ANDERSS.	MISCANTHUS SINENSIS ANDERSS. VAR. GRACILLIMUS A.S. HITCHC.	CHINESE SILVERGRASS
MYCELIS MURALIS (L.) DUMORT.	LACTUCA MURALIS (L.) FRESEN.	WALL-LETTUCE
MYOSOTIS SCORPIOIDES L.	MYOSOTIS PALUSTRIS (L.) HILL	WATER FORGET-ME-NOT
NASTURTIUM MICROPHYLLUM BOENN. EX	NASTURTIUM OFFICINALE AIT. F. VAR. MICROPHYLLUM (BOENN. EX REICHENB.) THELLUNG; RORIPPA	
REICHENB.	MICROPHYLLA (BOENN. EX REICHENB.) HYL. EX A. & D. LÖVE	ONE-ROWED WATER-CRESS
NASTURTIUM OFFICINALE AIT. F.	BAEUMERTA NASTURTIUM-AQUATICUM (L.) HAYEK; RORIPPA NASTURTIUM AQUATICUM (L.) HAYEK; SISYMBRIUM NASTURTIUM-AQUATICUM L.	TWO-ROWED WATER-CRESS
OENANTHE JAVANICA (BLUME) DC	OIO FRIDITION INDO FUICITION FAQUATIOUN L.	JAVA WATER DROPWORT
PERSICARIA LONGISETA (BRUIJN)	PERSICARIA CAESPITOSA (BLUME) NAKAI VAR. LONGISETA (BRUIJN) REED; POLYGONUM	
KITAGAWA	CAESPITOSUM BLUME VAR. LONGÍSETUM (BRUIJN) STEWARD; P. LÓNGISETUM BRUIJN	ORIENTAL LADY'S-THUMB SMARTWEED
PHELLODENDRON AMURENSE RUPR.	PHELLODENDRON AMURENSE RUPR. VAR. SACHALINENSE F. SCHMIDT; P. JAPONICUM MAXIM.; P. SACHALINENSE (F. SCHMIDT) SARG.	AMUR CORKTREE
POA COMPRESSA L.	S. C. J. Eliteroe (1. Opinio 1/ Orito.	FLAT-STEMMED BLUE GRASS
POA NEMORALIS L.		WOOD BLUE GRASS
POPULUS ALBA L.	POPULUS ALBA L. VAR. BOLLEANA LAUCHE	WHITE POPLAR
RANUNCULUS REPENS L.	RANUNCULUS REPENS L. VAR. DEGENERATES SCHUR; R. REPENS L. VAR. ERECTUS DC.; R. REPENS L. VAR. GLABRATUS DC.; R. REPENS L. VAR. PLENIFLORUS FERN.; R. REPENS L. VAR. VILLOSUS LAMOTTE	SPOT-LEAVED CROWFOOT
RAPHANUS RAPHANISTRUM L. SSP.		MII D DYDIGH
RAPHANISTRUM	DUINANTURE ODICTA CALLE IN DADT. D. ODICTA CALLE VAD EALLAY (WINNED & COLD VERYCE D	WILD RADISH
RHINANTHUS MINOR L. SSP. MINOR	RHINANTHUS CRISTA-GALLI L., IN PART; R. CRISTA-GALLI L. VAR. FALLAX (WIMMER & GRAB.) DRUCE; R. STENOPHYLLUS (SCHUR) SCHINZ & THELLUNG	LITTLE YELLOW-RATTLE
RUMEX ACETOSELLA L. SSP. PYRENAICUS (POURRET EX LAPEYR.) AKEROYD	ACETOSELLA VULGARIS (KOCH) FOURR. SSP. PYRENAICA (POURRET EX LAPEYR.) Á. LÖVE; RUMEX ACETOSELLA L. VAR. PYRENAICUS (POURRET EX LAPEYR.) TIMBAL-LAGRAVE; R. PYRENAICUS POURRET EX LAPEYR.	SHEEP DOCK
SECURIGERA VARIA (L.) LASSEN	CORONILLA VARIA L.	PURPLE CROWN-VETCH
SILPHIUM PERFOLIATUM L.		CUP-PLANT ROSINWEED
SINAPIS ARVENSIS L.	BRASSICA ARVENSIS RABENH.; B. KABER (DC.) L.C. WHEELER; B. KABER (DC.) L.C. WHEELER VAR.	CORN CHARLOCK
	PINNATIFIDA (STOKES) L.C. WHEELER	
SOLANUM CAROLINENSE L. VAR. CAROLINENSE		CAROLINA NIGHTSHADE
SOLANUM DULCAMARA L.		CLIMBING NIGHTSHADE
SONCHUS ARVENSIS L.	SONCHUS ARVENSIS L. SSP. ULIGINOSUS (BIEB.) NYMAN; S. ULIGINOSUS BIEB.	FIELD SOW-THISTLE
SORBARIA SORBIFOLIA (L.) A. BRAUN	SCHIZONOTUS SORBIFOLIUS (L.) LINDL.; SPIRAEA SORBIFOLIA L.	FALSE SPIRAEA
TANACETUM VULGARE L.	CHRYSANTHEMUM ULIGINOSUM PERS.; C. VULGARE (L.) BERNH.	COMMON TANSY
TUSSILAGO FARFARA L.		COLTSFOOT
TYPHA ×GLAUCA GODR.		HYBRID CATTAIL
VALERIANA OFFICINALIS L.		COMMON VALERIAN
VINCA MINOR L.		LESSER PERIWINKLE

ARCHITECTS

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27 Warren Street Concord NH 0330

PROJECT TITLE / ADDRESS: STORAGE SENSE **MILFORD WEST**

30 WILTON ROAD

MILFORD, NH 03055

PLAN KEY:



DWN BY: CB

SCALE: AS NOTED JOB #: 3782

CHK BY: JH

PRINT DATE: 8/5/2022 7:38:07 AM

ISSUE DATE:

SCHEMATIC DESIGN

08/5/2022

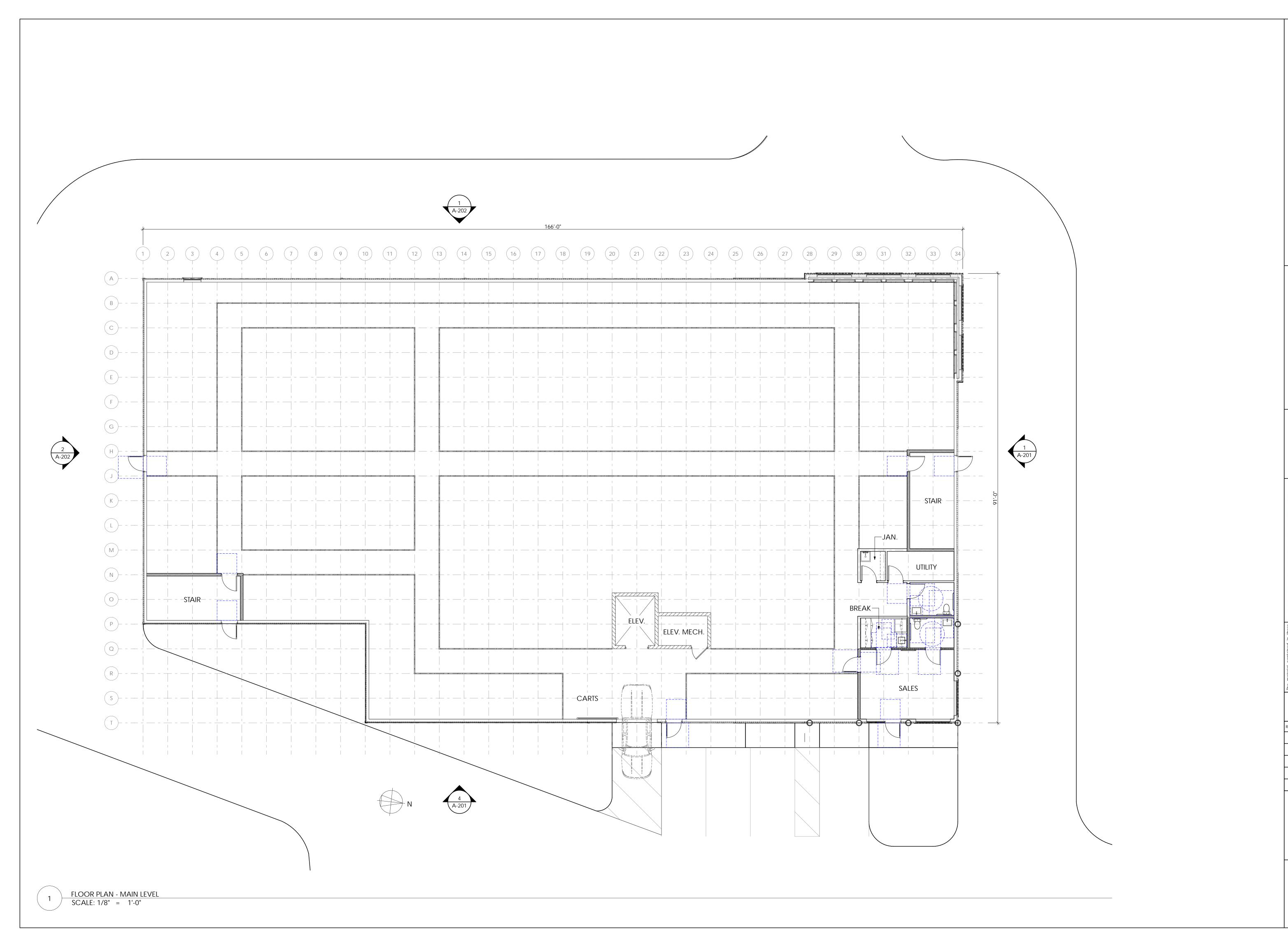
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LANDSCAPE SPECIFICATIONS, CONT. &

INVASIVE SPECIES LIST

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DENNIS MIRES, P.A.

THE ARCHITECTS

697 UNION STREET, MANCHESTER, NH

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SCHEMATIC

REV. # DESCRIPTION DAT

FLOOR PLAN - MAIN LEVEL

ISSUED: 8/3/22 PROJECT #: 2022.007

A-101

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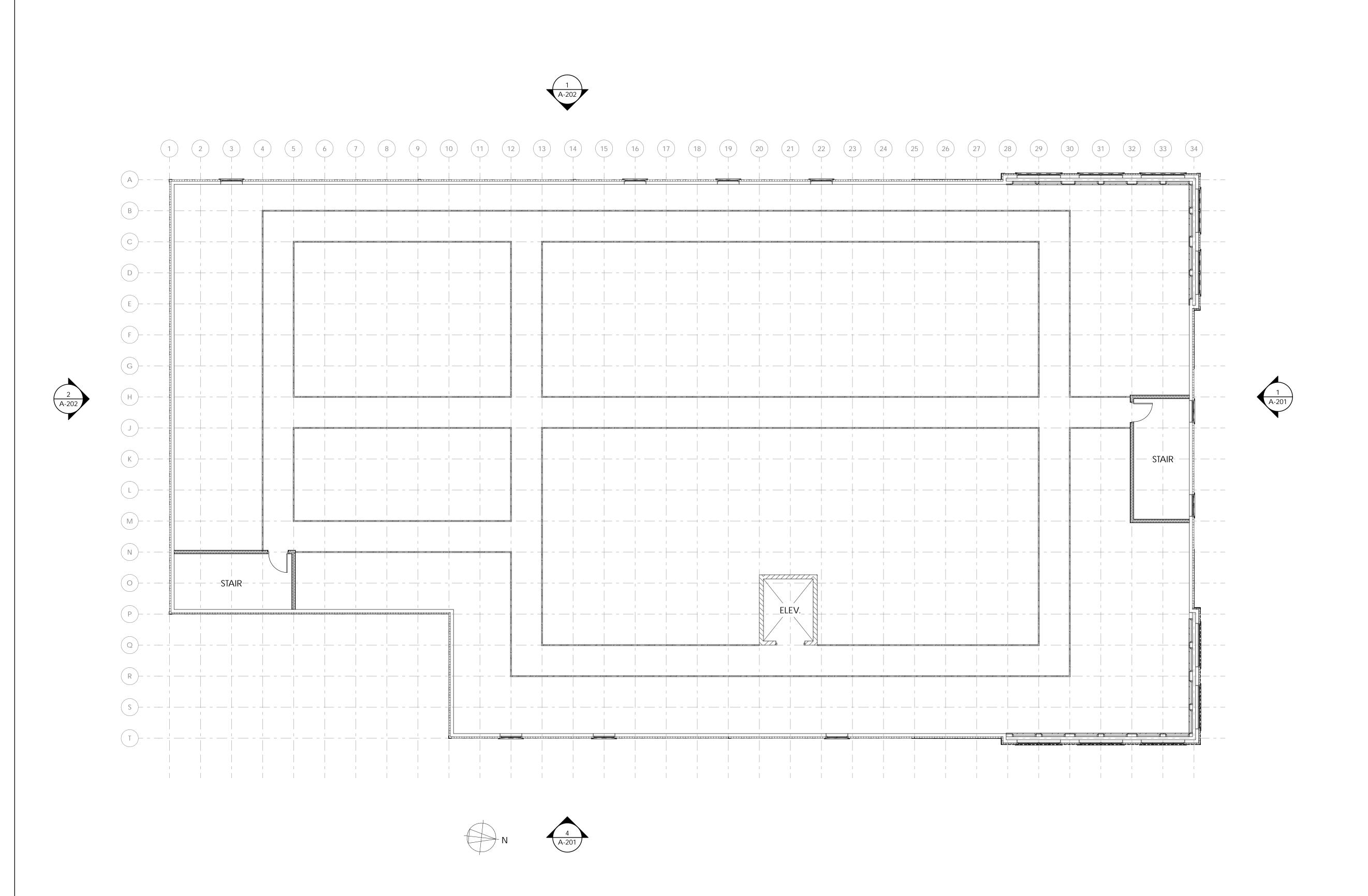
SCHEMATIC

REV. # DESCRIPTION DATE

FLOOR PLAN -SECOND LEVEL

ISSUED: 8/3/22 PROJECT #: 2022.007

A-102



1 FLOOR PLAN - SECOND LEVEL SCALE: 1/8" = 1'-0"

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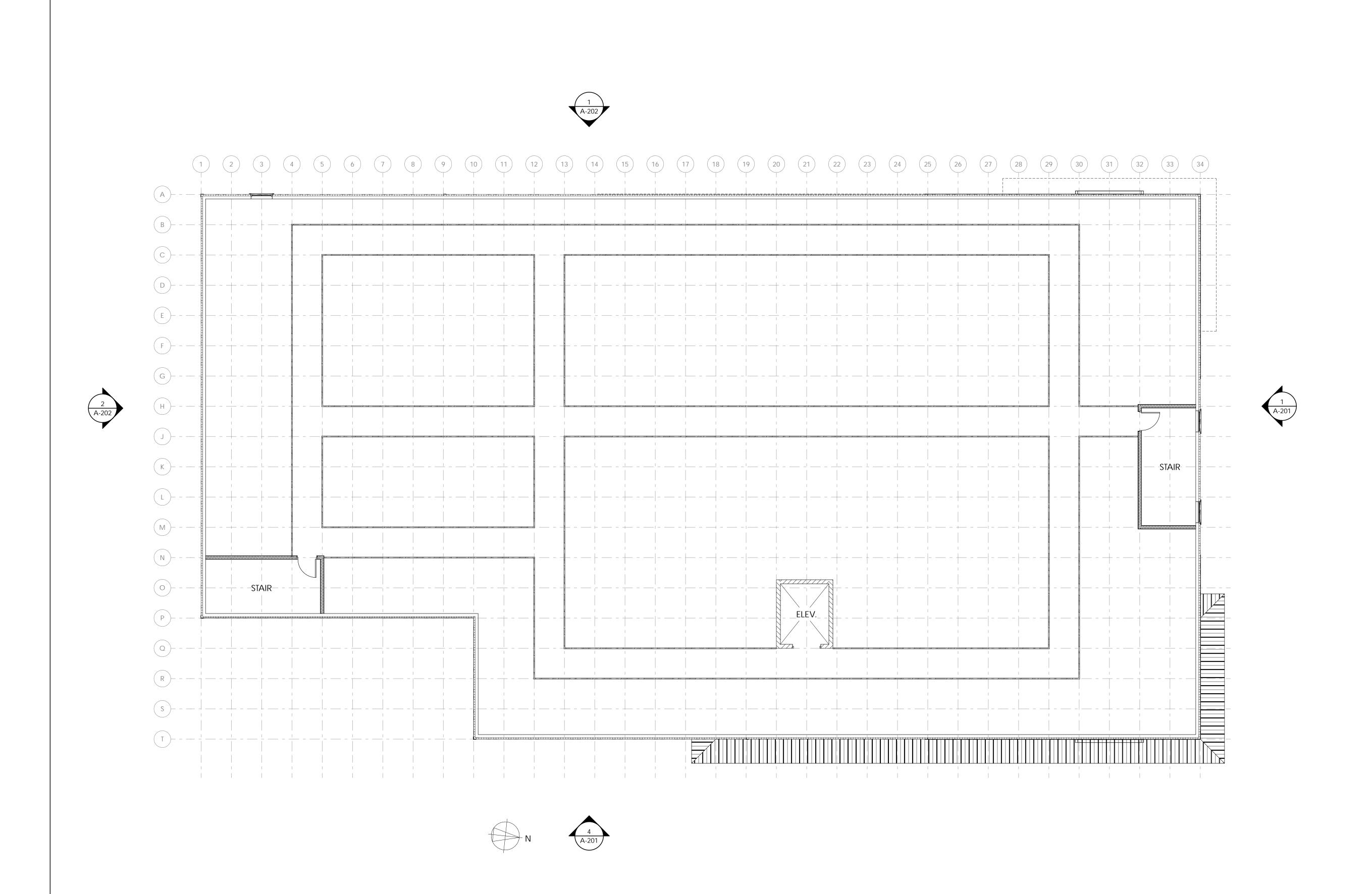
SCHEMATIC

REV. # DESCRIPTION D

<u>FLOOR PLAN -</u> <u>THIRD LEVEL</u>

ISSUED: 8/3/22 PROJECT #: 2022.007

A-103



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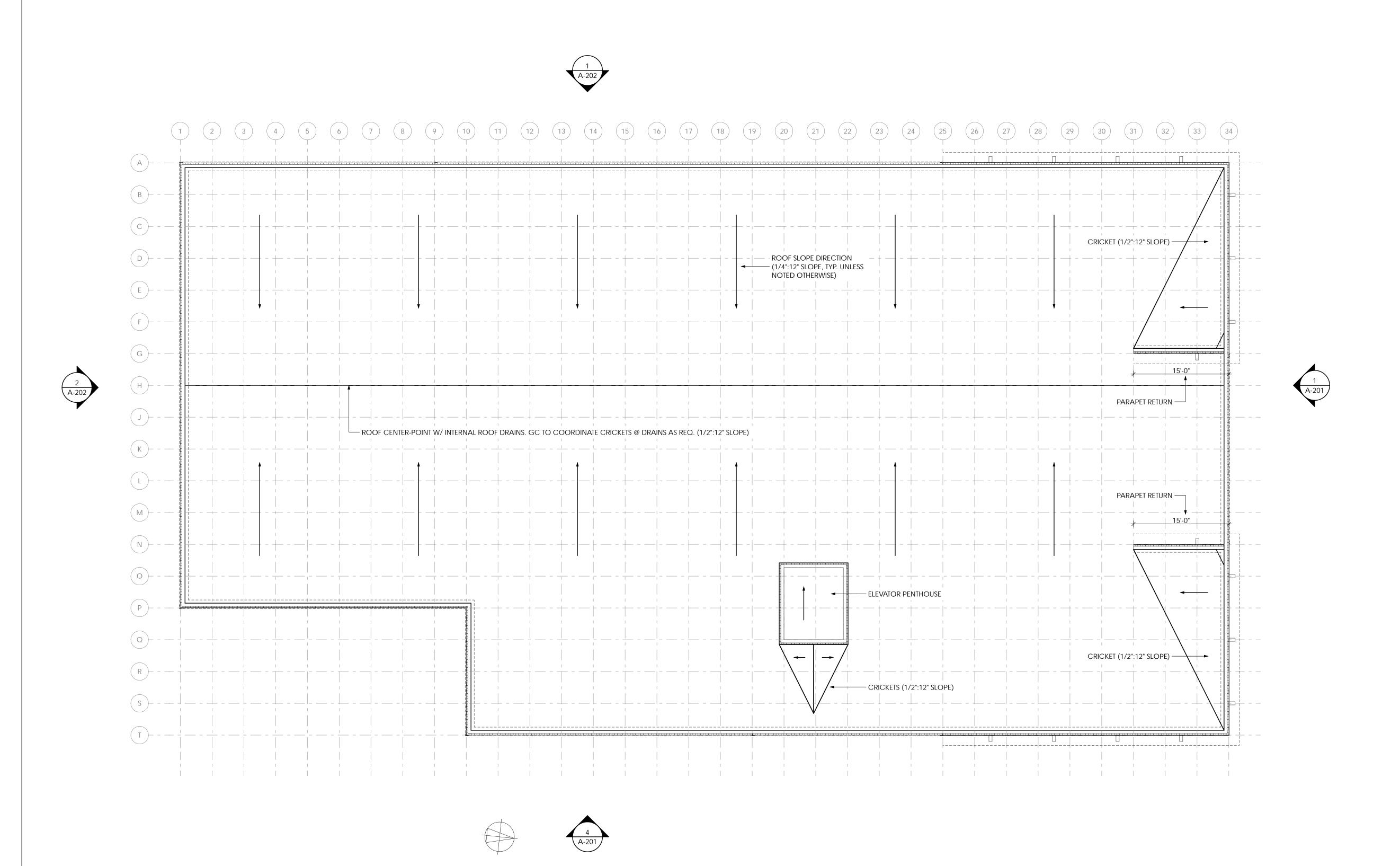
SCHEMATIC

REV. # DESCRIPTION D

ROOF PLAN

ISSUED: 8/3/22 PROJECT #: 2022.007

A-104



ROOF PLAN

SCALE: 1/8" = 1'-0"

603 STORAGE

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SCHEMATIC

EV. # DESCRIPTION DATE

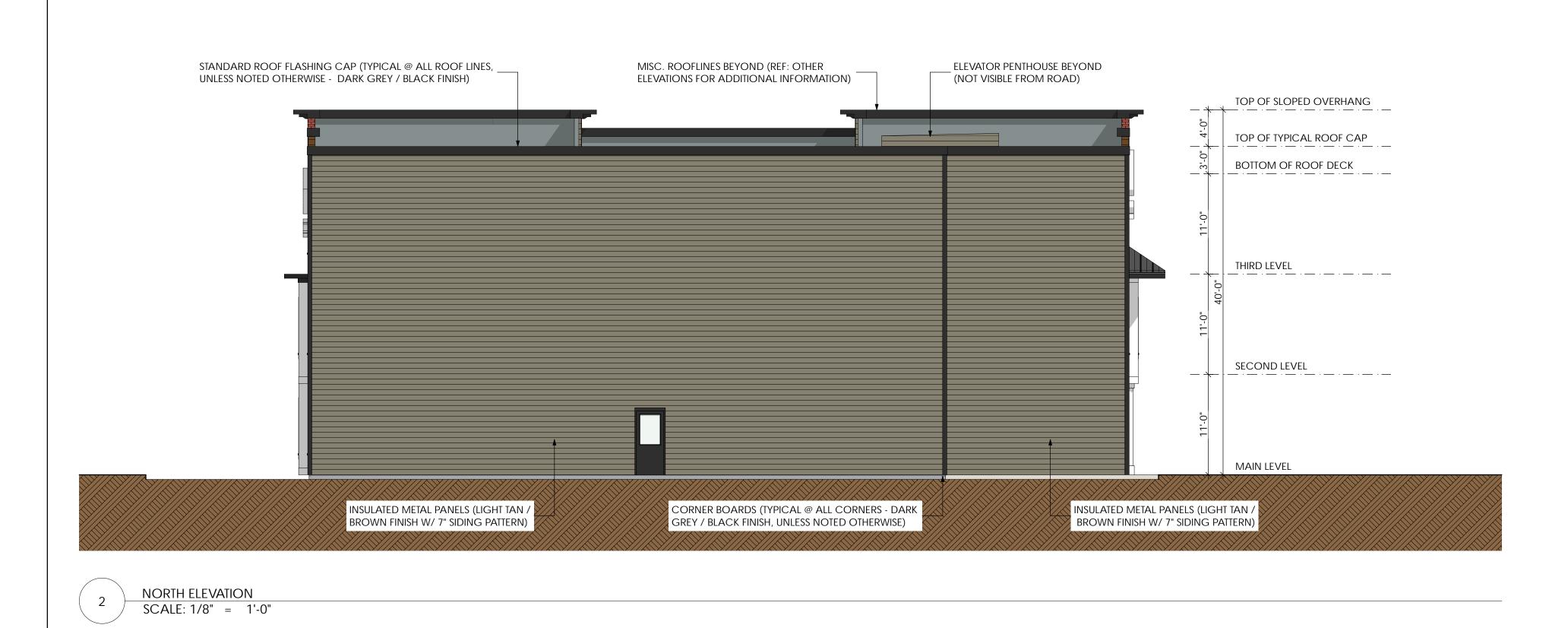
<u>ELEVATIONS</u>

ISSUED: 8/3/22 PROJECT #: 2022.007

A-201







ROOF OVERHANG W/ CORBELS TO MIMIC EXISTING MILL BUILDING ACROSS FROM STREET (DARK GREY / BLACK FINISH) Faux window (Qty. of 3) W/ Sashes & Traditional ____ STANDARD ROOF FLASHING CAP (TYPICAL @ ALL ROOF LINES, ____ FIXED WINDOWS (QTY. OF 6) W/ SASHES & TRADITIONAL WINDOW TRIM (DARK GREY / BLACK FINISH) UNLESS NOTED OTHERWISE - DARK GREY / BLACK FINISH) INSULATED METAL PANELS (LIGHT TAN / WINDOW TRIM (DARK GREY / BLACK FINISH) ROOF OVERHANG W/ CORBELS TO MIMIC EXISTING MILL Brown Finish W/ 7" Siding Pattern) BUILDING ACROSS FROM STREET (DARK GREY / BLACK FINISH) Insulated metal panels (dark tan / TRADITIONAL TRIM (TYPICAL @ ALL MATERIAL FAUX WINDOWS (QTY. OF 3) W/ TRANSITIONS - DARK GREY / BLACK FINISH) BROWN FINISH W/ 7" SIDING PATTERN) TOP OF SLOPED OVERHANG SASHES & TRADITIONAL WINDOW TRIM (DARK GREY / BLACK FINISH) TOP OF TYPICAL ROOF CAP BOTTOM OF ROOF DECK THIRD LEVEL Un-insulated metal panel bump-outs (WHITE FINISH W/ 7" SIDING PATTERN) SECOND LEVEL TRADITIONAL TRIM DETAILING (PVC CORNER BOARDS, BASE TRIM & ETC. - WHITE FINISH) MAIN LEVEL INSULATED METAL PANELS W/ BRICK VENEER (INSTALLED OVER PANELS) Insulated metal panels (Light tan / Brown finish w/ 7" Siding Pattern) CORNER BOARDS (TYPICAL @ ALL CORNERS - DARK GREY / BLACK FINISH, UNLESS NOTED OTHERWISE)

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REV. # DESCRIPTION

ELEVATIONS

ISSUED: 8/3/22 PROJECT #: 2022.007

A-202





4 PERSPECTIVE





2 PERSPECTIVI

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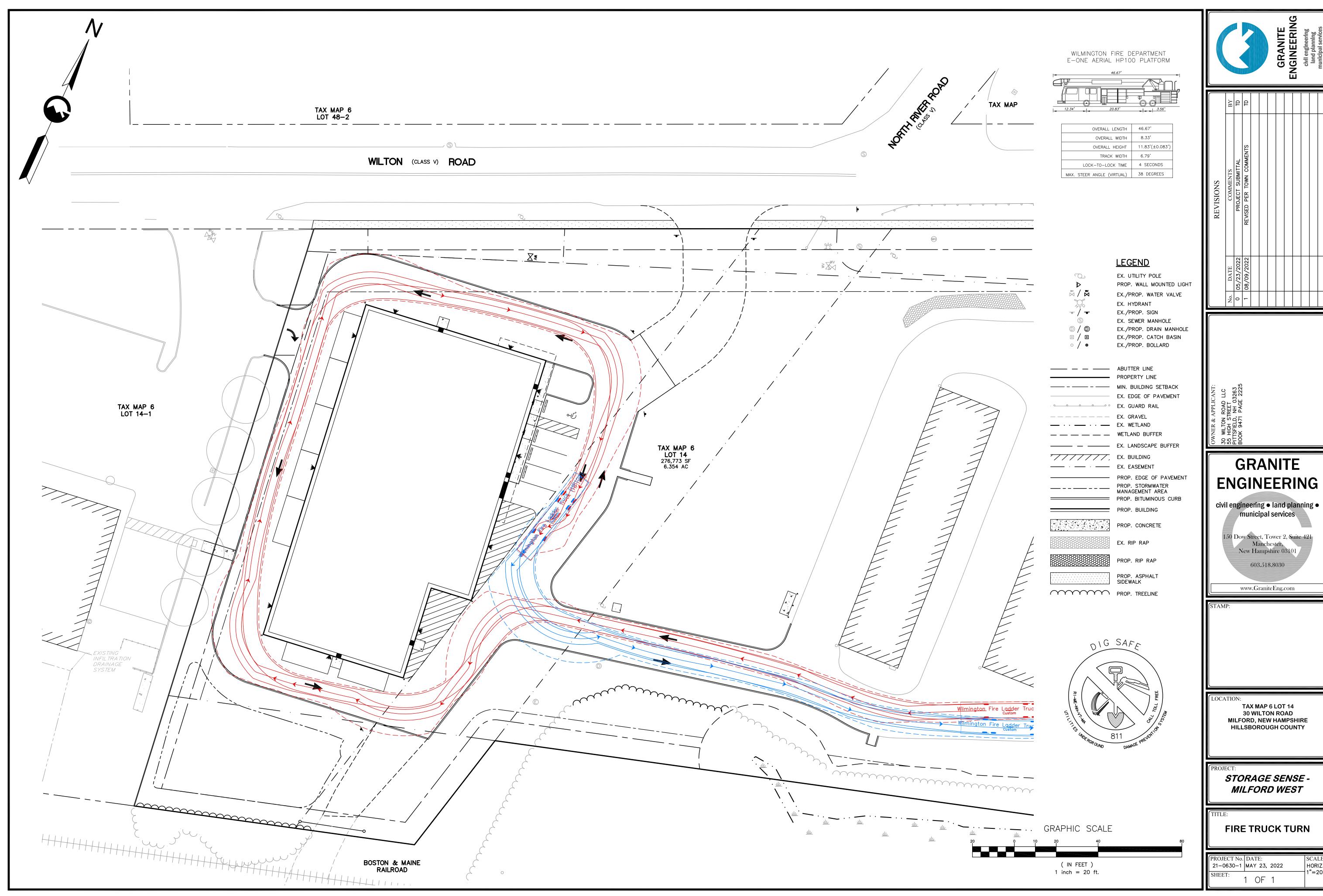
SCHEMATIC

DESCRIPTION DATE

PERSPECTIVES

ISSUED: 8/3/22 PROJECT #: 2022.007

X-001



ROJECT No.		SCALE:
21-0630-1	MAY 23, 2022	HORIZ. 1"=20"
HEET:		1"=20'
	1 OF 1	



August 9th, 2022

Milford Planning Department 1 Union Square Milford, New Hampshire 03055

RE: Storage Sense – Milford West Tax Map 6 Lot 14 30 Wilton Road Milford, New Hampshire GE Project No. 2106301

Dear Mr. Daley,

We are in receipt of your review letter to the Planning Board, dated June 16, 2022. The message contains comments relative to the review of the site plan application for Storage Sense – Milford West, located at 30 Wilton Road. In response to the comments made by the various departments in Milford, we offer the following explanations and/or responses:

Town Engineering Consultant (KV Partners)

1. Existing Infiltration Basin #1 has different outlet structure openings and basin dimensions indicated in the hydraulic analysis from pre vs. post construction conditions, however, no modifications to the existing outlet structure or basin were found on the plans. Also, the existing outlet structure inverts do not match the existing conditions plan. Please clarify.

The HydroCAD analysis has been revised in both pre- and post-construction conditions to match the existing conditions plan with regards to inverts and basin dimensions. Additionally, the plans proposed a change to the rim elevation of the outlet structure and the coring of a new orifice at the outlet control structure of Existing Infiltration Basin #1, see Sheets #1 & #5.

Fire Department

1. The building will be required to have a sprinkler system installed. Plans must be provided for review and approval.

Noted. Plans will be provided.

Public Works

1. Project will require a Town Street Opening Permit.

Noted.

2. Ensure that all plantings do not impact sight distance for access/egress along Wilton Road.

Plantings have been located set back from the edge of Wilton Road as to not impair any sight distance for vehicles entering/exiting the site.

3. The plan should incorporate pedestrian activity along Wilton Road.

Pedestrian connectivity has been provided in coordination with the Planning Board and town staff. The project is proposing to extend the sidewalk from Dollar General to the approximate area where a crosswalk across Wilton Road will be constructed in the future, when pedestrian demand merits development. The project also provides layouts and designs for future improvements, including the crosswalk and a sidewalk extension to the bridge to the east of the property on Wilton Road. These improvements are to be constructed when pedestrian demand necessitates the additional infrastructure, at which time the design will need to be reevaluated to meet current local, state, and federal pedestrian standards and guidelines.

Community Development/Planning

Sheet 1 and 4. Please confirm if the proposed internal roadway connecting the
existing storage facility with the proposed building conflicts with ability to construct
said road over the underground penstock. Will additional access/maintenance
easement(s) be required? If yes, please revise the plans accordingly and submit
draft easement.

The proposed internal roadway has been graded to remain above the existing grade in the area, which allows the road to be constructed over the existing penstock without impact. The proponent is currently coordinating with the neighboring property owner to evaluate the best way to update/maintain the existing access/utility easement. The proponent will update the town and Planning Board as progress is made.

2. Sheet 1 and 4. Please explain the reason for not aligning the proposed driveway entrance with North River Road within the existing access easement area?

Based on subsequent discussions with town staff, the town engineering consultant and the Planning Board, the alignment of the proposed driveway across from North River Road would create an unsafe situation for turning movements and could impact other areas of the existing storage facility given the significant grade change. Additionally, there are significant utilities in the area, including the 96" CMP penstock, that could be impacted by the desired alignment.

The current resubmission package includes an alternative option, which omits the proposed paved driveway near the North River Road intersection. Based on discussions with the town and the 2nd Planning Board hearing for this project, the project will provide a gravel access road near the intersection to maintain the current access conditions for the neighbor to the rear, similar to what they use today. The public will not use this gravel entrance, and they will enter the subject property through the existing storage facility to the driveway to the east or use the Dollar General driveway and existing access easement to enter the property.

3. General Comment – Per the 8/27/16 Planning Board approval for the initial self-storage facility site plan for Map 6, Lot 14, Condition 1.c. states that the "applicant shall work with the Community Development to finalize the design and location of future bus stop shelter. Should an easement to accommodate future bus turnouts and shelters may be required, the applicant shall submit an access and maintenance easement to Community Development for review and approval."

This has yet to be completed and would appear to be an opportunity to incorporate said bus shelter and potential bus turn out into the proposed site to provide multi-modal transportation for residents to access goods/services (e.g. storage facilities, Dollar General, and Mill Building) and residences (Mill Building Apartments).

In subsequent discussions with town staff, the project is proposing to create an easement to allow the future construction of a bus stop and shelter going eastbound on Wilton Road. This proposed easement has been shown on the revised plans and has been sized to provide room for a bus pullout, shelter and required regrading of the area.

4. General Comment – Pedestrian Connectivity. Pursuant to Section 7.03 Sidewalks of the Development Regulations, the Planning Board may require sidewalks for pedestrian traffic to provide a connection between the main entrances of business, housing or industrial establishments, parking areas and along public roadways. Further, the Planning Board may also require sidewalks from the road to the main building entrance or along the road frontage if there is a reasonable expectation that pedestrian patrons, residents, neighbors, employees would be traveling to or from the site. Sidewalks and pedestrian connectivity is further emphasized in the West Elm Street Overlay District.

The project is proposing the construction of sidewalks along the Wilton Road frontage in order to extend what Dollar General has constructed to date. The project also provides layouts and designs for future improvements, including the crosswalk and a sidewalk extension to the bridge to the east of the property on Wilton Road. These improvements are to be constructed when pedestrian demand necessitates the additional infrastructure, at which time the design will need to be reevaluated to meet current local, state, and federal pedestrian standards and guidelines.

5. Sheets 1, 4-7. Please revise the plans accordingly to include the location of the underground penstock.

Plans have been updated.

6. Sheet 4. Please explain the reason for locating the proposed propane pad and tank as shown on the plan in close proximity to the building. In addition, it is recommended that protective bollards be installed around concrete pad.

Plans have been updated to show the propane tank in a different location away from the building. Bollards will be added as protection.

7. Sheet 8. Please revise the plan set to include the engineering and construction details for the lights. Include the manufacturing photographs of each proposed light.

Plans have been updated, see Sheet 9.

8. General Comment – Please explain if LID practices were considered as part of the drainage/stormwater and landscape design. More specifically it would appear that opportunities exist to utilize portions of the landscaped areas for treatment and infiltration of stormwater. In addition, were there considerations to design a functional raingarden in lieu of or in addition to the proposed detention basin?

Due to the presence of the existing 96" CMP penstock and limited space for the development, the project proposed to use a surface sand filter to maximize infiltration possibility for stormwater on the site. The surface sand filter has been converted to a rain garden to provide a more vegetated LID solution.

9. General Comment – Proposed Signage. Please include the proposed design, construction, and engineering details associated with the monument sign, directional signage and wall signage.

Noted. Plans have been updated to include any directional or navigational signage details. There are no new monument signs proposed on the site,

the site will continue to use the existing sign on the eastern side of the property.

10. Sheet LA 101 – Snow Storage. The plans show a snow storage location east of the main access drive. Please clarify and describe the anticipated process for snow removal. A note should be added to the plan detailing said removal process. It is recommended that the snow removal company be a Certified Green Snow Professional.

Snow Storage areas have been shown on Sheet 4, along with a note describing the procedure for snow removal and recommended a Certified Green Snow Professional.

11. Sheet LA 101. The proposed landscape design does not currently include any plantings along the building. Pursuant to Section 6.08.6 of the Development Regulations, landscaping shall be provided along all building frontage. A minimum of one (1) shrub for every five (5') feet of building frontage shall be provided. In instances where it is not possible to locate all required shrubs along the building frontage due to doorways, walkways or other impervious surfaces, the required shrubs shall be utilized within the parking lot or landscape buffers. Please revise the plan accordingly or submit a waiver request.

Plans have been updated and shrub plantings have been provided where possible on the site. See Sheet LA 101.

12. Sheet LA 101. Pursuant to Development Regulations, Section 6.08.8.A of the Development Regulations, please confirm that all plant stock meets the ANSI Z60.1 standard.

See Sheet LA 103, note 1.4.B.2, all plant stock meets ANSI Z60.1.

13. Sheet LA 101. Please add a note to the plan stating the following, "Any landscape element that dies, or is otherwise removed, shall be promptly replaced with the same, if not similar to, height or texture element as originally intended. In addition, landscaped areas shall be kept free of all debris, rubbish, weeds and overgrown turf grass."

Note has been added. See Sheet LA 101.

14. Sheet LA 101. Pursuant to the Development Regulations, Section 6.08.5.B.1, a landscaped buffer shall be at least ten (10') feet in width and six (6') feet in height to effectively screen from adjacent properties and may consist of evergreens, berms, mounds, fencing or combinations thereof in conjunction with complimenting shrubs and perennials. The buffer along the westerly property line is less than the required 10; (9' wide green buffer plus 1' cape cod berm) and contains no

screening. The plan should be revised to comply with said section or request a waiver.

Noted. Plans have been updated.

15. General Comment – Zoning Ordinance, Section 6.07.6.E.2 Building Massing, Form, Height. Pursuant to Section 6.07.06.E.2, to enhance the character of new development and the corridor, the building scale should be reduced introducing small-scaled architectural features, creating an irregular footprint and variations in roof forms and height of roof elements.

Please explain how the side elevations of the building meet these design standards and what alternatives were considered.

Through two Planning Board hearings, the building massing and shape has undergone several changes based on suggestions from the Planning Board. The design utilizes canopies, changes in color, and stepping along the roof to create an irregular footprint and showing variations in the roof features.

16. General Comment – Zoning Ordinance, Section 6.07.6.E.3 Architectural Features and Materials. Pursuant to Section 6.07.06.E.3, long expanses of repetitive architectural elements and flat unarticulated wall surfaces shall be avoided. Please explain how the side elevations of the building meet this requirement and what alternatives were considered. Please modify the plan in compliance with this section or request a waiver from said section.

Based on suggestions from the Planning Board through two hearings, the design utilizes canopies, changes in color, and stepping along the roof to create an irregular footprint and showing variations in the roof features. This helps to avoid long expanses of repetitive architectural elements along the side elevations of the structure.

17. General Comment – Zoning Ordinance, Section 6.07.6.E.8 Windows. Consideration should be given to adding windows or other architectural features to the side elevations to break up the walls.

The structure has added true windows where possible along the front and sides of the building and has included faux windows in other locations to increase to amount of window features on the structure.

18. General Comments – Section 6.07.6.E.11 Screening. Pursuant to Section 6.07.06.E.11, states that all rooftop air conditioning, heating and large mechanical equipment, building accessories, and refuse shall have noise reduction screening and be screened from public view and have noise reduction screening. Please identify on the plans where the anticipated roof mounted units will be located.

Further, please provide building design and construction details for sound and visual screening mitigation for all roof mounted mechanical units.

The rooftop overhangs will shield any rooftop equipment from view from the roadway. HVAC equipment and the elevator penthouse are shielded.

- 19. General Comments Building Design and Elevations
 - a. Roof Form and Materials Section 6.07.E.7 of the Zoning Ordinance and the Development Regulations, Section 6.04.3 state that rooflines shall be characteristically sloped and articulated with architectural features such as dormers, chimneys, gables, cupolas, etc. Further, flat roofs are strongly discouraged unless the Planning Board finds that a proposal can provide appropriate visual appear. In addition, rooflines shall not run in continuous planes and shall be broken into appropriately scaled masses. Please explain how the front and side roof lines of building meet these requirements. Further, please discuss what alternative building designs were considered for the location, corridor, and in context with Milford's architectural heritage.

The project team has worked with the Planning Board to modify the original proposal and now includes a roof with stepped levels. In addition to having steps, the roof aligns with a change in materials and color along the building siding at each step. This creates a more pleasant appeal, and closely aligns with the materials found on buildings in the project area (like the existing mill building across Wilton Road). The building also utilizes lower level canopies to provide more sloped and terraced architectural features to better fit in with the typical style found in Milford.

20. General comment – Zoning Ordinance, Section 6.07.06.F.1 Access Management. Please provide an internal turning radius template analysis showing the turning movements for WB-50 design vehicle.

Based on subsequent discussions with town staff, the project utilized an oversized ladder truck for vehicle movements around the property. A WB-50 truck was modeled for rear property access via the proposed gravel driveway. Please see the attached vehicle turn exhibits.

We trust the noted plan revisions and/or explanations will adequately address the conditions listed above. Should you have any further questions or comments, please do not hesitate to contact this office.

Best Regards,

Brenton Cole, P.E. *Principal Engineer*



Storage Sense – Milford West | 30 Wilton Road Narrative in Support of Conditional Use Permit for Self-Storage Use in ICI District

West Milford Self-Storage is an existing self-storage facility in Milford, located at 30 Wilton Road. The subject property, Milford Tax Assessor's Map 6 Lot 14, is approximately 6.35 acres in area and is situated in the Integrated Commercial-Industrial District (ICI). The existing site includes several buildings of self-storage units, and the proposal includes the construction of a climate-controlled self-storage facility on the remainder of the parcel. 30 Wilton Road, LLC, the applicant and owner of the parcel, proposes this addition that will maintain the use that currently exists on site. The Milford Zoning Ordinance, Section 7.13, states that self-storage facilities are permitted in the ICI District through the Conditional Use Permit process. The Applicant is submitting this application with the Major Site Plan Application and Stormwater Management Permit Application, in accordance with the Milford Zoning Ordinance. The following requirements in Section 7.13.4 have been listed below and the proponent offers the following statements of compliance with each item:

 The use of the premises shall be limited to storage only, and shall not be used to manufacture, fabricate, or process goods; service or repair vehicles or boats, trailers, small engines or electrical equipment, or to conduct similar repair activities;

The property will not be used for any other purpose than storage.

No auctions, garage sales or retail sales of any kind, with the exception of the property owner liquidating abandoned contents of a storage unit, shall be allowed on site;

The property will not be used for any other purpose than storage.

3. No commercial or industrial activity other than that which pertains to the operation and maintenance of the facility shall be allowed on the site;

The property will not be used for any other purpose than storage.

 An individual self-service storage unit or private postal boxes within a selfservice storage facility shall not be considered premises for the purpose of assigning a legal or business address;

The self-storage units will not have associated private postal boxes or operate as a legal or business address.

Electrical service to storage units shall be for lighting and climate control only. No electrical outlets are permitted inside individual storage units. Lighting fixtures and switches shall be of a secure design that will not allow tapping the fixtures for other purposes;

Electrical outlets will not be designed in the storage units and fixtures will be secured to prevent tapping.

6. Exterior light fixtures shall comply with Section 6.06 of the Milford Development Regulations;

Exterior lighting complies with the Milford regulations.

 If the facility abuts residentially zoned property, the facility loading bays, docks or doors shall have appropriate permanent visual mitigation to as to not be visible from the residential property or from public rights-of-way;

The facility has been situated such that the loading doors are oriented away from residentially zoned properties.

 In order to promote visual compatibility with commercial development allowed in commercial and industrial zones, Self-Storage Facility buildings shall incorporate appropriate landscaping/screening and architectural design features, such as: massing, proportion; façade modulation; exterior building materials and detailing; varied roofline; pedestrian scale; etc.;

Enclosed in our plan set are architectural plans and landscaping designs that we feel are compatible with surrounding properties.

9. All outdoor storage of merchandise or commodities (including motor vehicles) shall be screened from any lot which is in a residence district by a strip at least four (4) feet wide, densely planted with shrubs or trees which are of a type that may be expected to form a year-round dense screen at least six (6) feet high within three (3) years, or by an opaque wall, barrier or uniform fence at least six (6) feet high above finished grade. Such screening shall be maintained in good condition at all times. Such screening or barrier may be interrupted by normal entrances or exits, and shall have no signs hung or attached thereto other than those permitted in the district. As a part of the Site Plan approval, the Planning Board may require additional screening beyond that set forth in Section 6.08 of the Milford Development Regulations if it determines that additional Screening is necessary or appropriate;

The proposal does not include any outdoor storage.

 Self-storage facilities shall utilize building materials and architectural features which fit into the context of the surrounding properties; Enclosed in our plan set are architectural plans that we feel are compatible with surrounding properties.

- 11. Except as provided herein, all property storage on the premises shall be entirely within an enclosed building. Open storage of recreation vehicles, boats and storage pods is permitted, subject to the following:
 - Storage shall occur only in a designated area which is clearly delineated for open storage;
 - b. Such areas shall not exceed 10 percent of the lot or parcel area;
 - Such areas shall be screened from view from property zoned for detached single family residential use and public property, including the public right-of-way;
 - Storage shall not occur in required parking spaces, drives, parking lanes nor within required building setback areas;
 - e. No vehicle maintenance, washing or repair shall be permitted;

The proposal does not include any outdoor or open storage. Proposed storage units are all within the proposed climate-controlled facility.

12. Vehicle and trailer rental may be permitted on the premises as an accessory use by the Self-Storage Facility owner, subject to review and approval as part of Site Plan Approval. Rental vehicles shall not be parked in required parking spaces, drives or parking lanes.

The development is not proposing vehicle or trailer rental on the premises as part of this application.

Enclosed in our plan set are architectural plans that we feel are compatible with surrounding properties.

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The development is not proposing vehicle or trailer rental on the premises as part of this application.



TRAFFIC IMPACT MEMORANDUM

To:

Town of Milford, Department of Planning & Community Development

From:

Thomas D'Aguiar, P.E.

Date:

May 23, 2022

Re:

30 Wilton Road (Storage Sense - Milford West)

This memorandum summarizes the trip generation and distribution analysis performed for the new building at 30 Wilton Road development. This analysis is provided in accordance with the regulations outlined for the West Elm Street Gateway zoning district in the Town's Zoning Ordinance. This memorandum serves to compare the expected traffic flows in and out of the site in the existing condition versus the proposed condition.

Project Description

The project proposes the construction of a climate-controlled storage facility to supplement the existing storage facility on the same property. The subject property is located at 30 Wilton Road, Tax Map 6 Lot 14.

The subject property is currently occupied by the existing self-storage facility, which was constructed in 2017. The proposed development will provide a new driveway connection to Wilton Road, and will also connect internal roadways to the existing self-storage and the adjacent Dollar General to the west of the subject parcel.

Existing Street Network

The property includes frontage on Wilton Road to the north, and the parcel is abutting some residential properties north of Wilton Road. On all other sides of the property, it is abutted by commercial properties in the Integrated Commercial-Industrial zone. The property is also enclosed to the east by the Souhegan River.

Wilton Road

Wilton Road near the subject property is an east-west running two-lane roadway, with one lane in each direction. The posted speed limit is 25 mph in the vicinity of the site, and the nearest intersection is approximately 600 feet to the east (Wilton Road, Elm Street & NH 101). Driveway access is directly from Wilton Road.

Sight Distance

The project proposes a new 24' wide driveway on Wilton Road, located to the west side of the site. There is an existing 30'-wide driveway on the eastern side of the site. Sight distance at the proposed driveway meets or exceeds AASHTO stopping sight distance for a 25-mph roadway and Milford Driveway Regulations of 200'.

Trip Generation

Site generated trip projections were developed for the site based upon the methodologies of the Institute of Transportation Engineers (ITE), Trip Generation Manual (10th Edition, 2017). The ITE Manual is a nationally recognized and locally accepted method for forecasting trip generation for a range of commercial, retail, and residential land uses. The methodological assumptions are developed based upon the observed traffic conditions of other similar developments located throughout the United States. The layout of the proposed site is shown in the attached exhibit. Trip generation was determined for the typical weekday, AM peak hour, and PM peak hour based upon ITE Land Use 151 for Mini-Warehouse. Trip generation was calculated using rates that correlate trip generation to the square footage of storage units within the development. A summary of trip generation is provided within Table 1 for the existing self-storage facility and Table 2 for the additional storage area provided by the new facility, and Table 3 for the net new trips during the typical weekday, and weekday AM and PM peak hours of the adjacent street traffic.

Table 1 - Existing Conditions Trip Generation Summary

Time Period	Net Trips (LUC 151 for 38,460 SF)			
	Rate/Unit1	In	Out	Total
Weekday Daily ² (24 hour period)	1.51	29	30	59
Weekday AM Peak Hour ³ (one hour between 7 and 9 a.m.)	0.10	3	1	4
Weekday PM Peak Hour ⁴ (one hour between 4 and 6 p.m.)	0.17	3	4	7

¹ Unit is 1000 SF of use area

² Average rate of 1.51 with direction distribution of 50% entering and 50% exiting

³ Average rate of 0.10 with direction distribution of 60% entering and 40% exiting

^{*} Average rate of 0.17 with direction distribution of 47% entering and 53% exiting

Table 2 - Proposed Condition Trip Generation Summary

Time Period	Net Trips (LUC 151 for 80,310 SF)			
	Rate/Unit1	In	Out	Total
Weekday Daily ² (24 hour period)	1.51	61	61	122
Weekday AM Peak Hour ³ (one hour between 7 and 9 a.m.)	0.10	6	3	9
Weekday PM Peak Hour ⁴ (one hour between 4 and 6 p.m.)	0.17	6	8	14

¹¹ Unit is 1000 SF of use area

Table 3 - Net New Trip Generation Summary

		Ne	t New Trips
Time Period	In	Out	Total
Weekday Daily (24 hour period)	32	31	63
Weekday AM Peak Hour (one hour between 7 and 9 a.m.)	3	2	5
Weekday PM Peak Hour (one hour between 4 and 6 p.m.)	3	2	5

Summary and Conclusion

The project proposes the construction of a new, climate-controlled storage facility on the existing self-storage lot at 30 Wilton Road, Milford, NH. The new building will produce an estimated 32 trips in and 31 trips out of the site, when compared to the existing use. The use is not heavily influenced by the weekday peak hours, since there are not many commuters driving to the property when they would normally be driving to and from work.

²Average rate of 1.51 with direction distribution of 50% entering and 50% exiting

³ Average rate of 0.10 with direction distribution of 60% entering and 40% exiting

Average rate of 0.17 with direction distribution of 47% entering and 53% exiting