

BLUEBIRD STORAGE

SITE PLAN # 17-21

STAFF REPORT

January 19, 2022

SITE: 196-202 Central Street; Tax Map 176 Lot 021-000, 022-000, 023-000

ZONING: Business (B)

PURPOSE OF PLAN: Proposes a 39,338-SF self-storage building with associated parking, drives, utilities, and stormwater ponds.

PLAN UNDER REVIEW: Non-Residential Site Plan, Bluebird Self Storage, Map 176 Lots 21, 22, & 23, 196-202 Central Street, Hudson, New Hampshire; prepared by Keach-Nordstrom Associates, Inc., 10 Commerce Park North, Suite 3B, Bedford, NH 03110; prepared for Bluebird Self Storage LLC, 125 Ocean Road, Greenland, NH 03840; consisting of 21 sheets with an additional cover page and notes 1-39 on Sheet 1; dated December 20, 2021.

ATTACHMENTS:

- A. Zoning Board of Adjustment Case Notice of Decision, Map 176, Lot 021-000, 022-000 & 023-000, Zone B (Business), Case # 176-021/022/023, dated September 9, 2021.
- B. Parking Waiver Case Study, Keach-Nordstrom Associates, Inc, received 1/11/22.
- C. Department Comments
- D. CAP Fee Schedule
- E. Building Rendering & Elevations, elevations by JSN Associates, LLC.
- F. Wildlife Habitat Assessment, Gove Environmental Group (Digitally Only, Hard Copy Upon Request)
- G. Alteration of Terrain Application to NH DES (Digitally Only, Hard Copy Upon Request)

APPLICATION TRACKING:

- September 9, 2021 – The Zoning Board of Adjustment granted a variance to allow the construction of a self-storage facility in the Business Zone (see **Attachment A**).
- December 21, 2021 – Site plan application received.
- January 19, 2022 – Public hearing scheduled.

WAIVER REQUESTS:

1. § 275-8.C.(2)(g), parking requirement for industrial uses.
2. § 276-11.1.(12)(c), buffer between residential use or zoning district and any improved part of the nonresidential development.

COMMENTS & RECOMMENDATIONS:

BACKGROUND

The submitted plan is proposing to consolidate three different lots (Map 178 Lots 21, 22, and 23) into a single lot and construct a 3-story 39,338-SF self-storage building with associated parking, utilities, and stormwater ponds. The lot will be serviced by municipal water and sewer.

There are currently a single-family house and two small sheds on Lot 21, served by a driveway off Central Street. On Lot 23, there are a single-family house and a detached garage served by a driveway off Central Street that passes through Lot 22. There is no existing structure on Lot 22. Aside from the driveways and open lawn areas around the two residences, the lots are fairly wooded. While there is a gentle slope rising from Central Street, the lots are relatively flat, except for an area with steeper terrain at the northeast corner of Lot 23.

The Westview Cemetery abuts the three lots in the north and west.

The applicant had received a variance from the Zoning Board of Adjustment for allowing self-storage use in the Business District, which is otherwise not permitted. The applicant is seeking two waivers from the Planning Board in this application – for the required number of off-street parking and the 100’ residential buffer.

STAFF COMMENTS

1. **Use (§ 334-21, § 334-10):** The proposed use, categorized as “Wholesale, warehouse, self-storage mini-warehouse, or distribution facility, includes parking of recreational vehicles, buses and/or boats” (E.8) is not permitted in the Business District. However, the Applicant had secured a variance from the ZBA to allow such use on this property (see **Attachment A**).
2. **Dimensional Requirements (§ 334-27, § 334-14)::** The submitted plan meets all zoning related dimensional requirements, including the maximum building heights of 38’. Note #31 on Sheet 1 states “Proposed building height is under 38’.” See **Attachment E** for elevations and a rendering of the proposed building.
3. **Waiver to Parking Requirement [§ 275-8.C.(2)(g)]:** Staff acknowledges the Applicant’s argument that the number of required parking spaces (197 spaces), more suitable to other types of industrial uses, would be excessive for the proposed use. See **Attachment B** for a parking case study for similar developments.
4. **Wildlife Habitat Assessment:** TAs part of their Alteration of Terrain (AoT) application, the Applicant has provided a Wildlife Habitat Assessment (digital **Attachment F**) which has identified that “threatened and endangered wildlife and habitat present, HOWEVER, NO threatened or endangered wildlife, habitat, or wildlife corridors likely to be impacted by project activities. No conservation measures are proposed.” This has been submitted

to NH Fish & Game for their review. The site is already disturbed and appears to be outside of any sensitive areas.

5. **Stormwater Management and Erosion Control (Chapter 290):** The scale of the proposed development requires a Stormwater Management and Erosion Control Plan (SMECP). The Applicant had applied for an Alteration of Terrain permit (AoT) from the NH Department of Environmental Services (digital **Attachment G**). The AoT application doubles as the SMECP. The Applicant should address any comments from the Town Engineer and Peer Reviewer after they reviewed the AoT application. Staff understands that the Applicant is currently exploring revisions to their grading and drainage plan and expects a revised submittal.
6. **Revisions to Plan Notes:**
 - a. **Note #21:** Replace “the Town of Hudson Community Development Department” with “the Town Planner”
 - b. **Note #30:** Replace “the Hudson Planning Board” with “the Zoning Administrator”
7. **Waiver to Residential Buffer [§ 276-11.1.(12)(c)]:** The Applicant has provided a letter addressing their perspective on the residential buffer requirement in the application materials. In this letter, the Applicant describes that the site abuts single-family housing, which is not permitted in the Business Zone, thus the buffer (100-feet for commercial) should not apply. Additionally the Applicant suggests there is no purpose, and that screening would provide no benefit to the abutter.

Staff acknowledges the residential presents a challenge for the proposed use but disagrees with the Applicant’s assessment of existing conditions and reasoning:

- A. The site does not abut single-family housing. It abuts multi-family (permitted) to the west and a two-family (pre-existing non-conforming) to the east.
- B. The buffer requirement would be 200-feet as the variance received was for a use that is classified as industrial (E.8).
- C. The entire buffer is not shown on the plans, missing from Map 176 Lot 20.
- D. There are landscaped yards and/or public right-of-way between these residences and current abutting commercial establishments. In the proposed development, t no screening is proposed after the existing vegetation is cleared for the proposed stormwater retention ponds.

- E. The current abutting commercial establishments are architecturally consistent with the residences, whereas the proposed building is vastly different and would present a visual impact.
- F. The landscape plan proposes plantings along the property line in the rear half of the parcel where their benefit seems to be less valuable.
- G. The purpose of the residential buffer is to provide both additional buffer and screening between incompatible land uses. Therefore, it is unreasonable to argue that the residential abutters will not benefit from the buffer.
- H. Without a variance, the Applicant's proposed storage is prohibited in the Business Zone.

Staff recommends the Planning Board conduct a site walk to seek strategies to mitigate the impacts between these land uses.

DEPARTMENT COMMENTS

The Town Engineer identified multiple engineering issues, including entrance slope, sewer profile, stormwater management infrastructure, among others. The Fire Chief identified multiple fire safety issues, including markings for fire apparatus access and fire hydrants. The Zoning Administrator comments on the building height and proximity to the wetlands conservation overlay district.

See **Attachment C** for details.

PEER REVIEW

Peer review of this project is on hold at the request of the Applicant as they anticipate changes to the grading plan.

[DRAFT MOTIONS ON THE FOLLOWING PAGE]

DRAFT MOTIONS

ACCEPT the site plan application:

I move to accept the site plan application for 196-202 Central Street; Tax Map 176 Lot 021-000, 022-000, 023-000.

Motion by: _____ Second: _____ Carried/Failed: _____

SITE WALK

I move to conduct a site walk for the site plan application for 196-202 Central Street, date certain _____.

Motion by: _____ Second: _____ Carried/Failed: _____

GRANT a waiver:

I move to grant a waiver from § 275-8.C.(2)(g), parking requirement for industrial uses, based on the Board’s discussion, the testimony of the Applicant’s representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____

GRANT a waiver:

I move to grant a waiver from § 276-11.1.(12)(c), 200-foot distance between residential use or zoning district and any improved part of an industrial development, based on the Board’s discussion, the testimony of the Applicant’s representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____

CONTINUE the public hearing to a date certain:

I move to continue the public hearing for site plan application for 196-202 Central Street; Tax Map 176 Lot 021-000, 022-000, 023-000 to date certain, _____.

Motion by: _____ Second: _____ Carried/Failed: _____

Send recorded copy to:

TOWN OF HUDSON
ZONING BOARD OF ADJUSTMENT
12 School Street, Hudson, New Hampshire 03051

NOTICE OF DECISION

Map 176, Lot 021-000, 022-000 & 023-000, Zone B (Business), Case # 176-021/022/023

ZBA Decision 09/09/2021

Variance – GRANTED with 2 stipulations

Property Owners & Address: Brian H. Craven, Trustee
Craven Irrevocable Trusts and
Nancy J. Craven Irrevocable Trust
88 Speare Road, Hudson, NH 03051

Applicant: Blue Bird Self Storage, LLC, Bill Goodison, General Manager,
125 Ocean Road, Greenland, NH 03840

Legal Counsel: John G. Cronin, Esq., Cronin, Bisson & Zalinsky, P.C.
722 Chestnut Street, Manchester, NH 03104

Property Locations: 196, 200 & 202 Central Street, Hudson, NH 03051

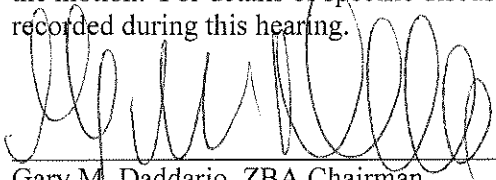
Action sought: a Variance for a proposed 3-lot consolidation of 196, 200 & 202 Central St., Hudson, NH. to allow a proposed 3-story, 40,000 square-foot footprint building for an indoor temperature controlled self-storage warehouse where the use is not permitted in the Business District.

Zoning Ordinance Article: V, Permitted Uses, §334-21, Table of Permitted Principal Uses.


Action granted: After consideration of the testimony; receipt of only supporting public comments; and review of the criteria for the granting of a Variance and determining that the criteria have been satisfied, motion made, seconded and voted 3:1 to grant the Variance with two stipulations:

- (1) that there shall be no outside storage on the premise; and
- (2) that no other business shall operate on/in site while the structure is being used as an indoor storage facility.


NOTE: All representations of fact or intention made by the applicant during testimony before the Zoning Board of Adjustment relative to the obtaining of this relief shall be considered conditions of this approval, regardless of the fact that such facts or intentions may not have been specifically stated as stipulations of the motion. For details of specific discussion relative to this decision, please consult the public minutes recorded during this hearing.



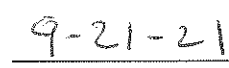
Gary M. Daddario, ZBA Chairman



Date



Bruce Buttrick, Zoning Administrator



Date



January 10, 2022

Brian Groth, Town Planner
Town of Hudson – Community Development Department
12 School Street
Hudson, New Hampshire 03051

Subject: **Bluebird Self Storage**
Map 176 Lots 21, 22 & 23
196-202 Central Street
Hudson, New Hampshire 03051
KNA Project No. 21-0709-3

Mr. Groth:

Keach-Nordstrom Associates, Inc. (KNA) previously performed a parking study of a Bluebird, indoor self-storage facility located in Bedford, New Hampshire, which is similar in size to the development proposed at 196-202 Central Street. The parking study was conducted over the course of three days; Monday March 11th, Wednesday March 13th and Saturday March 15th of 2019 (pre-covid), at various times during each day. The goal was to create a representative sample of the overall parking demand at any given time for an indoor climate controlled self-storage use in southern New Hampshire.

The study site selected features an existing 115,000-sf indoor climate controlled self-storage facility, which is comparable in size to the proposed 118,164-sf facility. The facility is also a Bluebird Self Storage Facility. It is located in Bedford, which has a total population of approximately 21,200 people and is similar in population to Hudson (24,500 residents).

The study was performed by conducting several site visits over the course of each day to identify the total parking demand for the facility. The time of day, weather and vehicle counts were recorded for each visit. Site visits lasted approximately three to five minutes and all vehicles within the parking lot were counted, regardless of whether they were parked, actively loading or unloading, or entering or leaving the site. The total number of vehicles onsite ranged from zero at a minimum to seven at a maximum. The attached document details each site visit as noted herein.

In addition to the parking study, we have gathered information on various Bluebird locations, the total building square footage and the number of parking spaces provided. The details are also provided in attached document. The parking provided at these locations is more than adequate for the operation of the facilities.

We trust that the contents of this letter will provide insight into the proposed development and highlight that self-storage uses are an inherently low intensity use in terms of parking demand and total site visits.

Respectfully,

Bridget E. Souza, E.I.T.
Project Manager
Keach-Nordstrom Associates, Inc.

Civil Engineering

Land Surveying

Landscape Architecture

**March 11, 2019**

8:00 A.M. 37°F Overcast: 0 vehicles

10:00 A.M. 41°F Partly Cloudy: 1 vehicle

12:00 P.M. 46°F Partly Cloudy: 1 vehicle

5:00 P.M. 44°F Clear Skies: 4 vehicles

March 13, 2019

8:00 A.M. 24°F Clear Skies: 0 vehicles

10:00 A.M. 34°F Partly Cloudy: 4 vehicles

12:00 P.M. 43°F Overcast: 3 vehicles

3:00 P.M. 44°F Overcast: 1 vehicle

5:00 P.M. 46°F Clear Skies: 2 vehicles

March 16, 2019

9:55 A.M. 42°F Clear Skies: 5 vehicles

11:55 A.M. 45°F Partly Cloudy: 7 vehicles

2:00 P.M. 43°F Partly Cloudy: 4 vehicles

Scarborough Location

35,088 SF Footprint
103,524 SF Total Area
31 Parking Spaces Provided

Epping Location – Phase I

25,000 SF Footprint
75,000 SF Total Area
14 Parking Spaces Provided

Epping Location – Phase II

25,907 SF Footprint
77,201 SF Total Area
27 Parking Spaces Provided

Londonderry Location

34,371 SF Footprint
103,113 SF Total Area
24 Parking Spaces Provided

Hampstead Location

37,420 SF Footprint
112,260 SF Total Area
25 Parking Spaces Provided

Hooksett Location – Phase I

40,000 SF Footprint
80,000 SF Total Area
20 Parking Spaces Provided

Hooksett Location – Phase II

41,960 SF Footprint
83,920 SF Total Area
18 Parking Spaces Provided

Dubowik, Brooke

From: Dhima, Elvis
Sent: Monday, December 27, 2021 12:58 PM
To: Dubowik, Brooke; Groth, Brian; Caleb Chang
Cc: Kirkland, Donald; StevenReichert
Subject: RE: Dept Sign Off - SP# 17-21 Bluebird Self Storage
Attachments: Sign Sheet.pdf

Brooke

Please see below

1. Applicant shall provide entrance slope, not to exceed 10 %
2. Applicant shall revise sewer profile to eliminate the sumps
3. Applicant shall relocate Sewer Manhole #3 at the property line
4. Applicant shall provide water line size information for domestic and fire protection
5. The soil testing indicate the estimated water table at 4 feet while the proposed detention basin #1 is deeper than that.
Applicant shall provide a liner to eliminate groundwater or increase the size of the basins and reducing the depth
6. Proposed HW # 105 appears to direct water towards the abutting property , not the wetland as intended.

E

Elvis Dhima, P.E.
Town Engineer

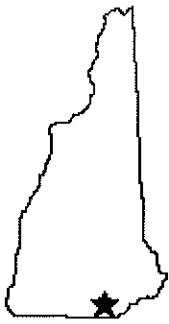
12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286



From: Dubowik, Brooke <bdubowik@hudsonnh.gov>
Sent: Monday, December 27, 2021 11:41 AM
To: Bianchi, Dave <dbianchi@hudsonnh.gov>; Buttrick, Bruce <bbuttrick@hudsonnh.gov>; Buxton, Robert <RBuxton@hudsonnh.gov>; Caleb Chang <calebc@nashuarpc.org>; Dhima, Elvis <edhima@hudsonnh.gov>; Kirkland, Donald <dkirkland@hudsonnh.gov>; Forrence, Jess <jforrence@hudsonnh.gov>; Groth, Brian <bgroth@hudsonnh.gov>; Michaud, Jim <jmichaud@hudsonnh.gov>
Subject: Dept Sign Off - SP# 17-21 Bluebird Self Storage

Good afternoon,
Attached is a sign off for a Site Plan on Central Street.
Please return by 12/31/21.
Have a wonderful Christmas!

Brooke Dubowik



TOWN OF HUDSON

FIRE DEPARTMENT

39 FERRY STREET, HUDSON, NEW HAMPSHIRE 03051



Emergency 911
Business 603-886-6021
Fax 603-594-1164

Robert M. Buxton
Chief of Department

TO: Brian Groth
Town Planner

FR: Robert M. Buxton
Fire Chief

DT: December 29, 2021

RE: Bluebird Self Storage (Map 176, Lots 21,22 &23)

The following is a list of site plan concerns for this project. This review was completed utilizing plans submitted by Keach-Nordstrom Associates dated December 20, 2021.

1. Please provide the markings for fire apparatus access in accordance with **NFPA 1**.
2. The project shall obtain site addressing from the Hudson Fire Department.
3. Two additional fire hydrants shall be located on site. Location of the hydrants shall be located in a location approved by the Hudson Fire Department.
4. The proposed grass fire access lane will need further review. Grasspave2 has several different lines of product. The proposed plan does not call out a specific product line. Additionally, this area will need to be maintained 12 months a year. So a snow removal plan will need to be reviewed.
5. Please make sure that the proposed snow storage area shown on the plan does not impede parking or travel paths.

****The following life safety and fire protection concerns provided are for informational purposes to the applicant and Planning Board for this project. Final determinations on these issues occur after further review of the project.**

- A. The proposed building will require an approved sprinkler system. The Hudson Fire Department upon review of the building plans shall conduct this review. This requirement is in accordance with the **International Building Code (IBC) and Hudson Town Code (HTC), current revision, Chapter 210, Article VI**. Any fire protection system shall be monitored by an approved fire alarm system.
- B. The fire alarm system shall be connected to the Hudson Fire Department's municipal fire alarm system or a substantially equivalent system in accordance with the **Hudson Town Code, Chapter 210**. A site plan detailing the aerial or underground layout to the municipal fire alarm connection must be provided before the utilities are completed for this project.

- C. Any required fire alarm system component must remain accessible and visible at all times.
- D. A blasting permit will be required for any blasting on the site in accordance with the **Hudson Town Code, Chapter 202.**

cc: Project Engineer
File

TOWN OF HUDSON
Land Use Division



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

Zoning Site Plan Review #17-21

17-21-21

December 27, 2021

Re: Map 176 Lots 21,22, & 23
Address: 196-202 Central St
Zoning district: (B) Business
Proposal: Proposed 3 story Self Storage Bldg 39,388 Sqft footprint / 118.164 sqft GFA.

Submitted plans reviewed: 1 of 21 dated December 20, 2021.

1) Verify that the height requirement complies with section §334-14: "...Height is measured from the average elevation of the finished grade within five feet of the structure to the highest point of the roof,....."

2) Applicant to be aware of Wetland Conservation Boundary markers required §334-35:
"E. The entire length of the upland limit of the wetland buffer shall be marked with highly visible construction tape prior to, and maintained for the full duration of, any construction-related activities. The applicant may also be required to place a permanent monument (e.g., iron pin, granite bound) at all points of the lot lines which intersect with the upland limit of the Wetlands Conservation Overlay District prior to such activities. These monuments shall be shown on the site plan submitted with the application. The applicant may also be required to affix tags to trees or other durable objects (e.g., four-inch-by-four-inch wood posts) at fifty-foot intervals along the upland boundary of the Wetlands Conservation Overlay District, and maintain said tags as needed to provide evidence of the upland side buffer boundary. Tags shall be obtained from the municipality at the applicant's cost."

Sincerely,

Bruce Buttrick,

Zoning Administrator/Code Enforcement Officer

cc: B. Groth - Town Planner
file

NOTE: this determination may be appealed to the Hudson Zoning Board of Adjustment within 30 days of the receipt of this letter.



TOWN OF HUDSON

Planning Board

Timothy Malley, Chairman



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

CAP FEE WORKSHEET - 2022

Date: 01-11-22 Zone # 1 Map/Lot: 176/Lots 021, 022, & 023
23 Roosevelt Ave

Project Name: Bluebird Self-Storage

Proposed ITE Use #1: Warehousing

Proposed Building Area (net square footage): 39,338 S.F.

CAP FEES: (ONE CHECK NEEDED)

1.	(Bank 09) 2070-701	Zone 1 (\$0.71 per sf X 39,338 sf)	\$ <u>\$27,929.98</u>
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Check should be made payable to the Town of Hudson.

Thank you,

Brooke Dubowik

Planning Administrative Aide



SP #17-21 - Bluebird Storage - Attachment E

Client:
Bluebird Self Storage
Greenland, NH

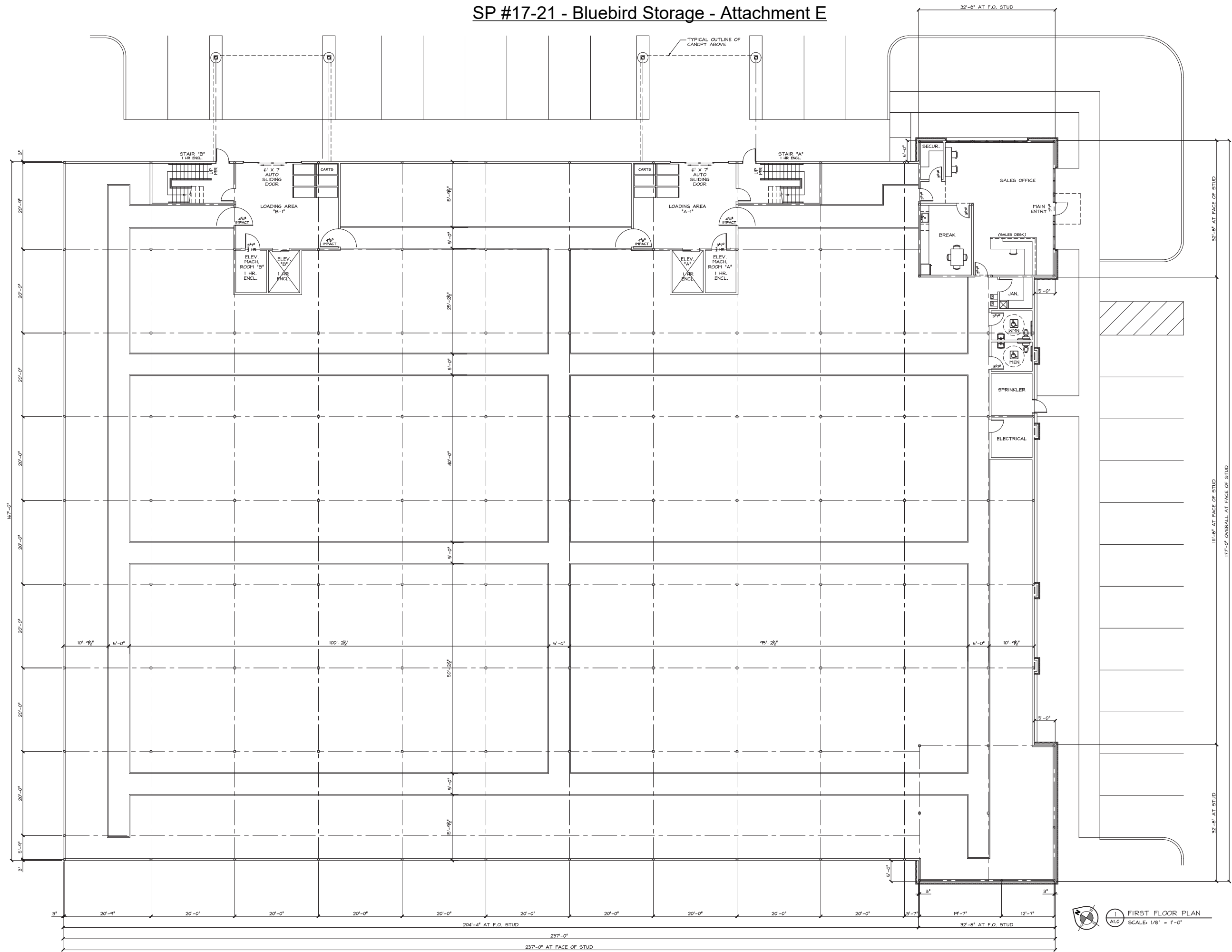
Bluebird Self Storage
Climate Controlled Storage Building
196-202 Central Street
Hudson, NH

Preliminary
Not for Construction
10-25-2021

Date: -
Scale: As Noted
Design By: RVB
Approved By:

Revisions

First Floor Plan
A1.0
Project No: 21-1005



1 FIRST FLOOR PLAN
A1.0 SCALE: 1/8" = 1'-0"

SP #17-21 - Bluebird Storage - Attachment E

Client:
Bluebird Self Storage
Greenland, NH

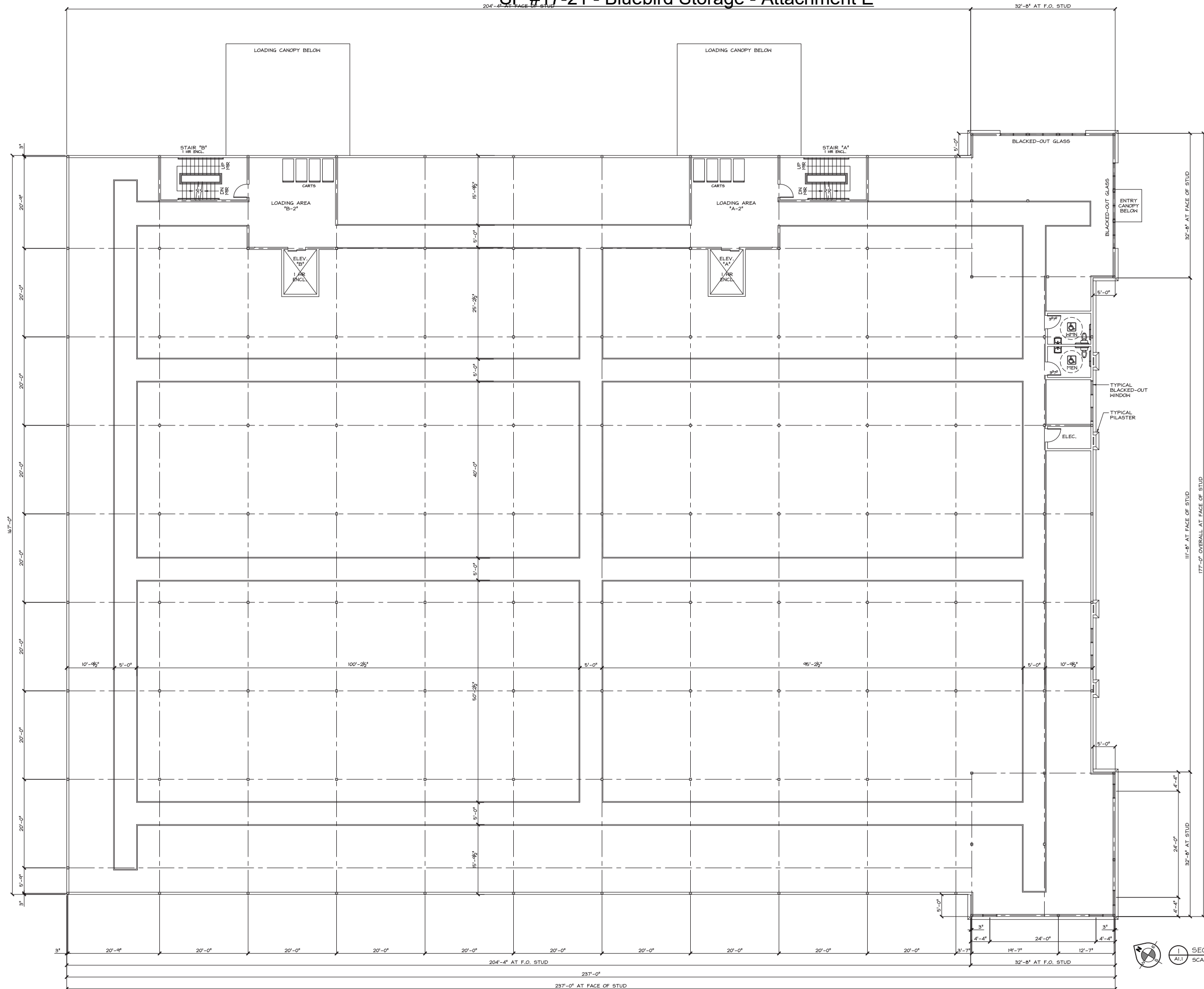
Bluebird Self Storage
Climate Controlled Storage Building
196-202 Central Street
Hudson, NH

Preliminary
Not for Construction
10-25-2021

Date: -
Scale: As Noted
Design By: RVB
Approved By:

Revisions

Second Floor Plan
A1.1
Project No: 21-1005



1 SECOND FLOOR PLAN
A1.1 SCALE: 1/8" = 1'-0"

SP #17-21 - Bluebird Storage - Attachment E

Client:
 Bluebird Self Storage
 Greenland, NH

Bluebird Self Storage
 Climate Controlled Storage Building
 196-202 Central Street
 Hudson, NH

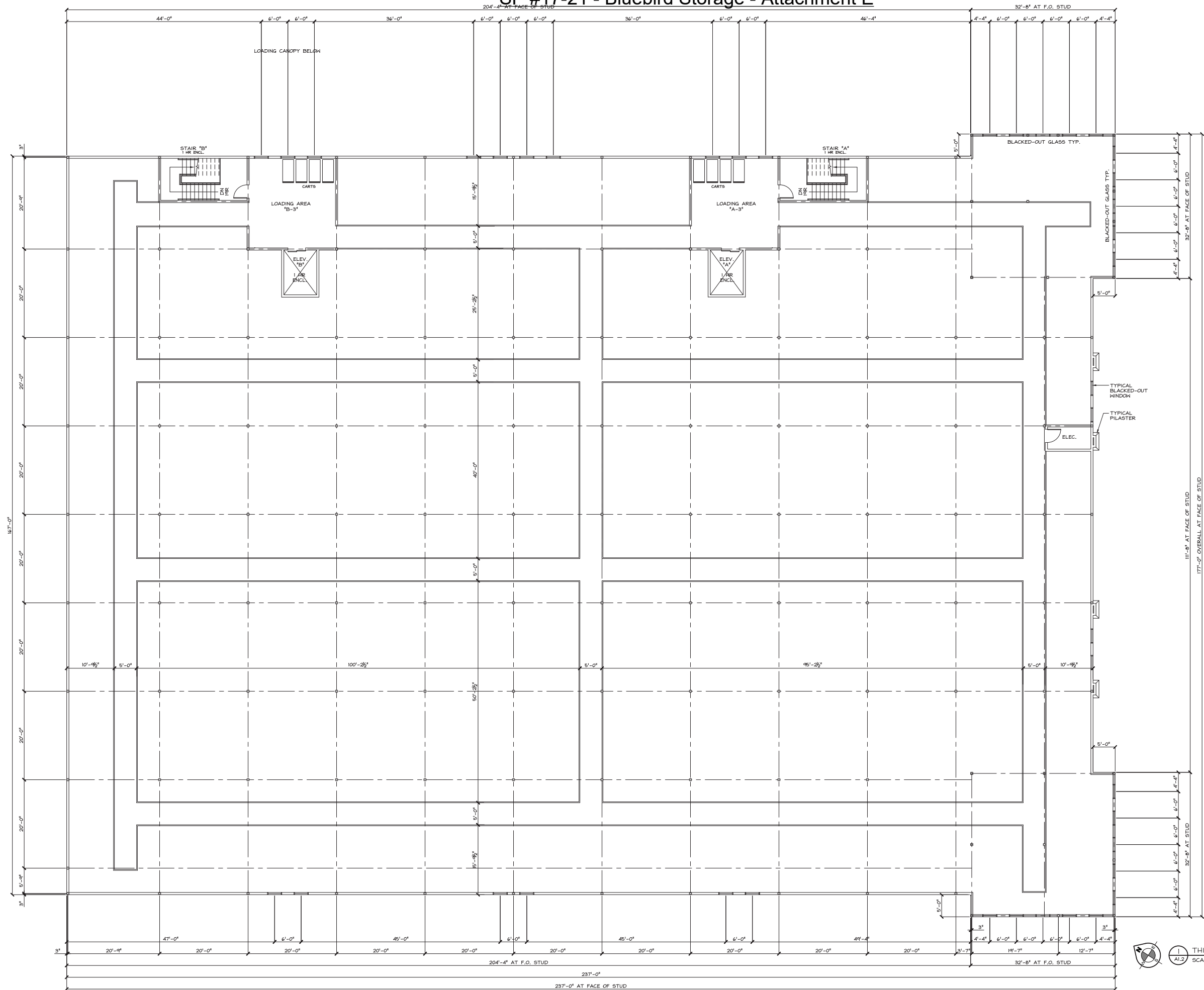
Preliminary
 Not for Construction
 10-25-2021

Date:	Scale:	Design By:	Approved By:
-	As Noted	RVB	

Date:	Scale:	Design By:	Approved By:
-	As Noted	RVB	

Revisions

Third Floor Plan
 Project No: 21-1005

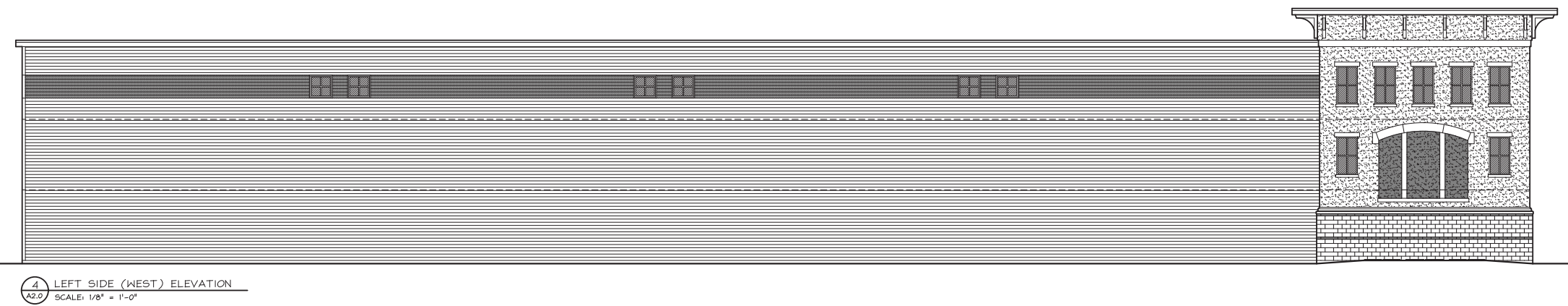
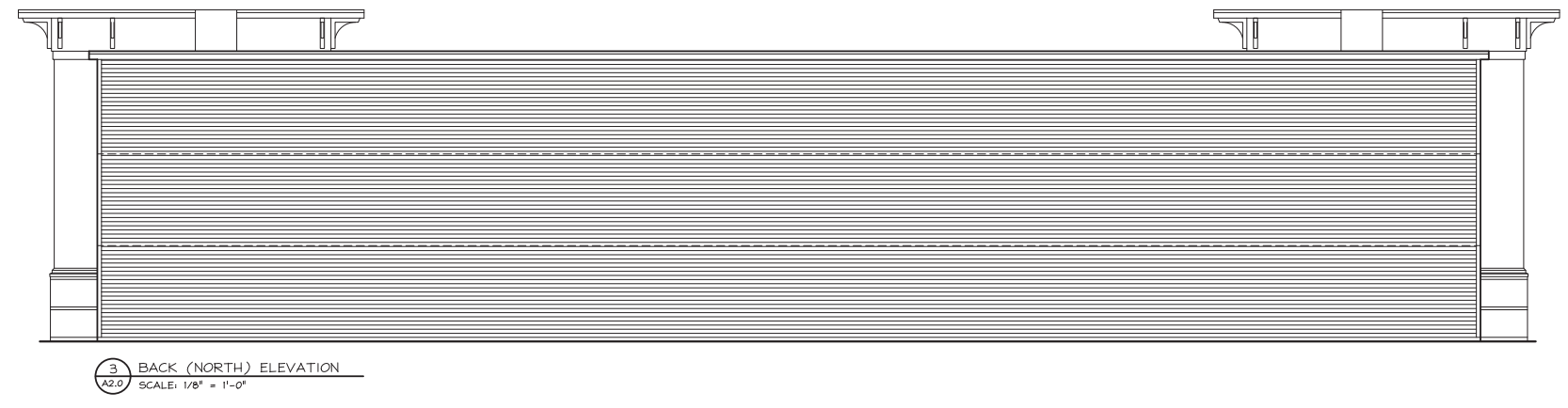
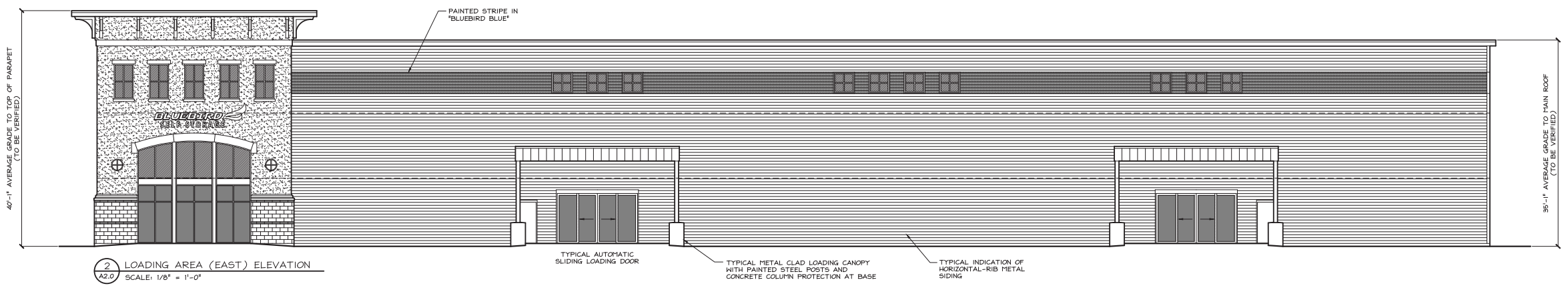
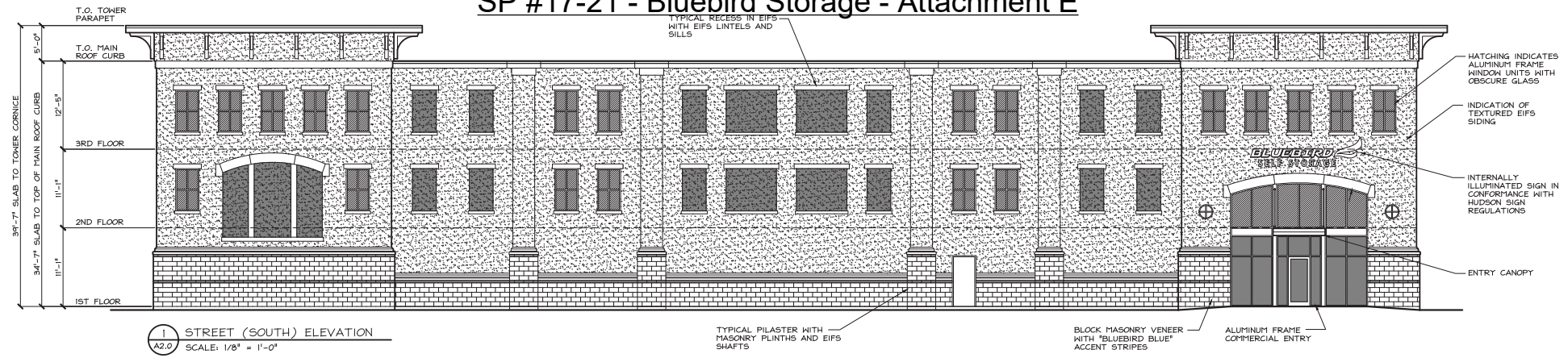


1 THIRD FLOOR PLAN
 2 SCALE: 1/8" = 1'-0"

SP #17-21 - Bluebird Storage - Attachment E

JSN
Associates, LLC
Consulting Structural Engineers
One Autumn Street
Portsmouth, NH 03801
Phone: (603) 433-8639
www.jsneng.com

Client:
Bluebird Self Storage
Greenland, NH



Bluebird Self Storage
Climate Controlled Storage Building
196-202 Central Street
Hudson, NH

Preliminary
Not for Construction
10-25-2021

Date: -
Scale: As Noted
Design By: RVB
Approved By:

Revisions

Exterior Elevations
A2.0
Project No: 21-1005

December 20, 2021

Project Narrative:

Bluebird Self-Storage Facility
196-202 Central Street, Hudson, NH

The properties located at 196-202 Central Street are currently owned by Craven Irrevocable Trust. The parcels are Map 176, Lots 21, 22 & 23. Lots 21 and 23 are currently occupied by single-family homes. The properties also include paved driveways. The paved driveway runs east to west and connects to Roosevelt Avenue. The site is comprised of three separate lots, which are to be combined.

Three existing lots must be combined in order to complete this project. Map 176; Lots 21, 22 and 23 must be combined. The lots are zoned Business. On September 9, 2021, the Hudson Zoning Board of Adjustment granted a variance to allow construction of a self-storage facility in the Business Zone.

Several items must be removed in order to properly prepare the site for construction. The existing single-family buildings must be razed, the paved driveways must be removed, and an existing utility services must be removed.

The proposed site will include a three-story self-storage building with a paved driveway and parking lot. The proposed building will have a 39,338 square foot footprint and 118,164 square foot in gross area. The parking lot will contain 20 total spaces, with two spaces being handicap accessible.

In addition to the building and parking lot, a series of drainage pipes and stormwater ponds must be added to the site. A wet pond, bioretention pond, and two infiltration ponds will help prevent excess runoff into the bordering street or the surrounding properties. One pond will lie in the northern portion of the lot. The other three ponds will lie in the southern portion of the lot bordering the proposed driveway and Central Street.

SITE PLAN APPLICATION

Date of Application: 11/30/2021 Tax Map #: 176 Lot #: 21,22,&23

Site Address: 196-202 Central Street

Name of Project: Bluebird Self Storage

Zoning District: Business General SP#: _____
(For Town Use Only)

Z.B.A. Action: _____

PROPERTY OWNER:

Name: Craven Rev. Tr. - Brian Craven

Address: 88 Speare Road

Address: Hudson, NH 03051

Telephone # 603-888-1231

Email: bcnashuatile@yahoo.com

PROJECT ENGINEER:

Name: Bridget Souza - Keach Nordstrom

Address: 10 Commerce Park N., Suite 3

Address: Bedford, NH 03110

Telephone # 603-627-2881

Email: bsouza@keachnordstrom.com

DEVELOPER:

Bluebird Self Storage LLC - Bill Goodison

125 Ocean Road

Greenland, NH 03840

603-380-9455

bill.goodison@bluebirdstorage.com

SURVEYOR:

Keach-Nordstrom Associates Inc.

10 Commerce Park N., Suite 3

Bedford, NH 03110

603-627-2881

chickey@keachnordstrom.com

PURPOSE OF PLAN:

This project proposes a 39,338 sf self storage building with associated parking, drives, utilities, and stormwater ponds.

(For Town Use Only)

Routing Date: _____ Deadline Date: _____ Meeting Date: _____

_____ I have no comments _____ I have comments (attach to form)

_____ Title: _____ Date: _____

(Initials)

Department: _____

Zoning: ___ Engineering: ___ Assessor: ___ Police: ___ Fire: ___ DPW: ___ Consultant: ___

SITE DATA SHEET

PLAN NAME: Bluebird Self Storage

PLAN TYPE: SITE PLAN

LEGAL DESCRIPTION: MAP 176 LOT 21, 22, & 23

DATE: 11/30/2021

Location by Street: 196-202 Central Street

Zoning: Business

Proposed Land Use: Self Storage

Existing Use: Residential

Surrounding Land Use(s): Residential and Business

Number of Lots Occupied: 3

Existing Area Covered by Building: 3,223 SF

Existing Buildings to be removed: 2 houses and sheds

Proposed Area Covered by Building: 39,338

Open Space Proposed: 43%

Open Space Required: 35%

Total Area: S.F.: 164,773 Acres: 3.783

Area in Wetland: 481 SF Area Steep Slopes: 7,202

Required Lot Size: 30,000 SF

Existing Frontage: 327.19 ft

Required Frontage: 150 ft

Building Setbacks:	<u>Required*</u>	<u>Proposed</u>
Front:	<u>50</u>	<u>131</u>
Side:	<u>15</u>	<u>41</u>
Rear:	<u>15</u>	<u>122</u>

SITE DATA SHEET
(Continued)

Flood Zone Reference: 33000920518D

Width of Driveways: 40 ft

Number of Curb Cuts: 1

Proposed Parking Spaces: 20 spaces

Required Parking Spaces: 197 spaces

Basis of Required Parking (Use): Industrial 1 space/600 sf

Dates/Case #/Description/Stipulations
of ZBA, Conservation Commission,
NH Wetlands Board Actions: ZBA - Variance from Article V,
(Attach stipulations on separate sheet) Permitted Uses. See attached
notice

Waiver Requests

<i>Town Code Reference:</i>	<i>Regulation Description:</i>
<u>Section 275-8.C.(2)(g)</u>	<u>Industrial; one space for each 600 sf of gross floor space</u>
<u>Section 276.11.1(12)(c)</u>	<u>Industrial use abuts a residential use or district, 100 ft buffer required</u>

(For Town Use Only)

Data Sheets Checked By: _____ Date: _____

SITE PLAN APPLICATION AUTHORIZATION

I hereby apply for *Site Plan* Review and acknowledge I will comply with all of the Ordinances of the Town of Hudson, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the items listed under the *Site Plan* specifications or application form are incomplete, the application will be considered rejected.

Pursuant to RSA 674:1-IV, the owner(s) by the filing of this application as indicated above, hereby given permission for any member of the Hudson Planning Board, the Town Planner, the Town Engineer, and such agents or employees of the Town or other persons as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, tests and inspections as may be appropriate. The owner(s) release(s) any claim to or right he/she (they) may now or hereafter possess against any of the above individuals as a result of any examinations, surveys, tests and/or inspections conducted on his/her (their) property in connection with this applications.

Signature of Owner: Brian H. Craven Date: 12-18-21

Print Name of Owner: Brian H. Craven - Trustee

- ❖ If other than an individual, indicate name of organization and its principal owner, partners, or corporate officers.

Signature of Developer: Bill Godison Date: 12-16-21

Print Name of Developer: Bill Godison

- ❖ The developer/individual in charge must have control over all project work and be available to the Code Enforcement Officer/Building Inspector during the construction phase of the project. The individual in charge of the project must notify the Code Enforcement Officer/Building Inspector within two (2) working days of any change.

December 20, 2021

Town of Hudson Planning
12 School Street
Hudson, NH 03051

**Subject: Waiver for 100' Residential Buffer
Bluebird Self Storage Site Plan, 196-202 Central Street
Tax Map 176 Lots 21, 22 & 23**

Hardship reason(s) for granting this waiver:

The Applicant is essentially requesting to reduce the 100-ft residential buffer to the standard side and rear setback distance. The zoning district allows the businesses, and the use is reasonable, given the adjacent businesses along Derry Street. Additionally, the Zoning Board of Adjustments granted a variance to allow the construction of a self-storage facility within the Business Zone. There are multiple abutters with a residential use, or in the Residential R-2 zone. While an adjacent property is a residential use, the property is still within the Business Zone. The residential, single-family use is not an allowed use in the Business Zone, therefore the property should not impose a buffer on the property. The abutting property located within the Residential zone is a cemetery. As the use of the property is not for a family dwelling, the Applicant requests relief from the buffer on the proposed project.

Furthermore, no fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of the provision to the property. The public and neighboring abutter will realize no additional benefit should this waiver not be granted since the existing single-family development abuts multiple retail establishments.

Reason(s) for granting this waiver relative to not being contrary to the spirit and intent of the Land Use Regulations:

The spirit and intent to this Land Use Regulation will not be opposed by granting this waiver. The 25' Cemetery No Disturb Buffer will still maintain a natural, wooded buffer/screening between the cemetery and the proposed project. The northern, rear property line is along an area of land that is not likely to ever be developed due to the abandoned railroad and the close proximity to existing wetlands. In addition, the proposed site is adjacent to various retail establishments and is located on a main roadway. The proposed site layout inhibits vehicle access within the 100' buffer from the residential zone. Therefore the cemetery will not be affected by car lights and any other vehicle issues from the proposed project. For these reasons, this proposal will not be contrary to the spirit and intent of the regulation since the purpose of the regulation is to provide adequate screening and buffering between residential and industrial land uses.

SCHEDULE OF FEES

A. REVIEW FEES:

<u>1. Site Plan Use</u>	<u>Project Size/Fee</u>	
Multi-Family	\$105.00/unit for 3-50 units \$78.50/unit for each additional unit over 50	\$ _____
Commercial/Semi Public/Civic or Recreational	\$157.00/1,000 sq. ft. for first 100,000 sq.ft. (bldg. area): \$78.50/1,000 sq.ft. thereafter.	\$ _____
Industrial 118,164 sq.ft.	\$150.00/1,000 sq.ft for first 100,000 sq.ft. (bldg. area); \$78.50/1,000 sq.ft thereafter.	<u>\$ 16,425.88</u>
No Buildings	\$30.00 per 1,000 sq.ft. of proposed developed area	\$ _____

CONSULTANT REVIEW FEE: (Separate Check)

Total 3.783 acres @ \$600.00 per acre, or \$1,250.00,
whichever is greater. **\$ 2,269.80**

This is an estimate for cost of consultant review. The fee is expected to cover the amount. A complex project may require additional funds. A simple project may result in a refund.

LEGAL FEE:

The applicant shall be charged attorney costs billed to the Town for the Town's attorney review of any application plan set documents.

(continued on next page)

SCHEDULE OF FEES

(Continued)

B. POSTAGE:

<u>7</u> Direct Abutters @\$4.33 (or Current Certified Mail Rate)	\$ <u>30.31</u>
<u>4</u> Indirect Abutters (property owners within 200 feet) @\$0.58 (or Current First Class Rate)	\$ <u>2.32</u>

C. ON SITE SIGNAGE: \$ 15.00

E. TAX MAP UPDATING FEE: (FLAT FEE) \$ 275.00

TOTAL \$ 16,751.51

(For Town Use)	
AMOUNT RECEIVED: \$ _____	DATE RECEIVED: _____
RECEIPT NO.: _____	RECEIVED BY: _____

NOTE: fees below apply only upon plan approval, not collected at time of application.

F. RECORDING FEES:

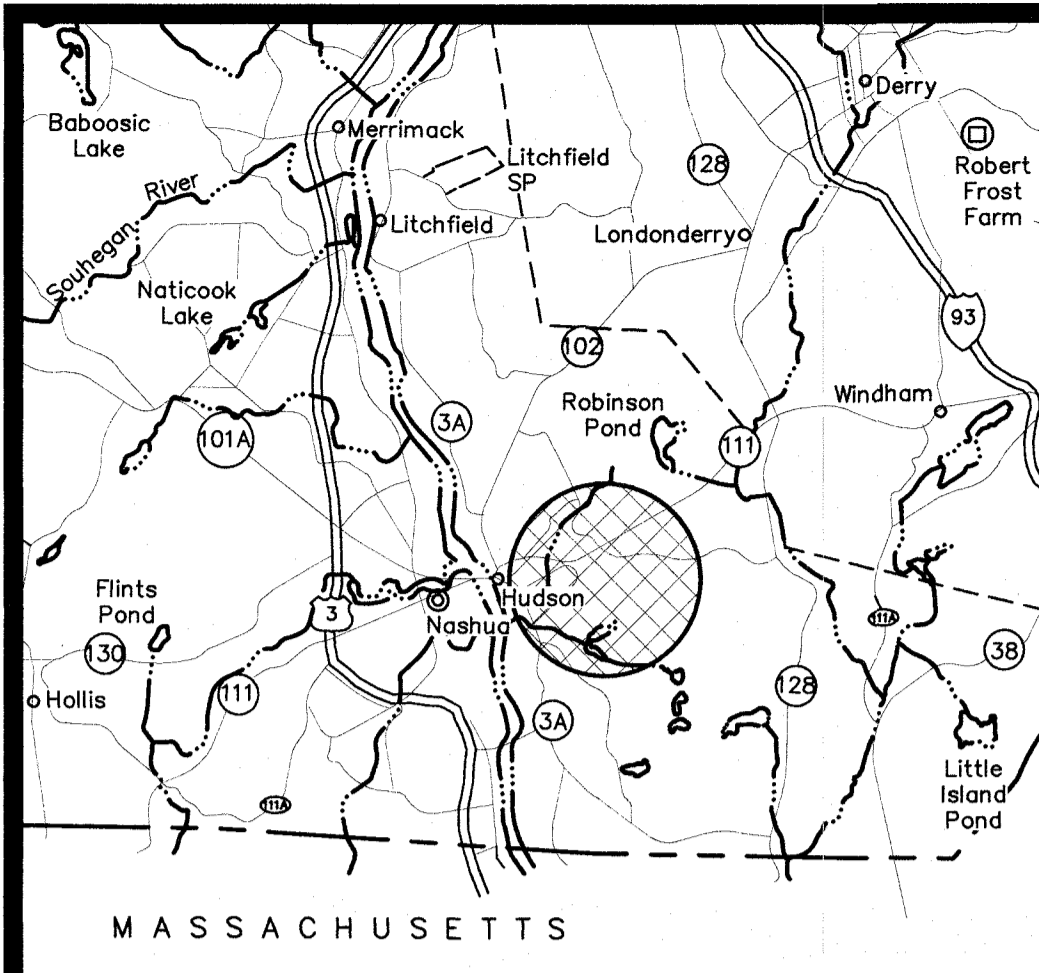
The applicant shall pay the costs of recording the final site plan layout prior to final site plan approval, in accordance with fees established by the County. Recording fees must be paid prior to recording.

Recording of Plan @ \$24.00/sheet + \$2.00/surcharge plan
Land & Community Heritage Investment Program (LCHIP) fee @ \$25.00
Easements/Agreements @\$10.00/first sheet, \$4.00/each sheet thereafter +
\$2.00/surcharge/doc. + First Class return postage rate

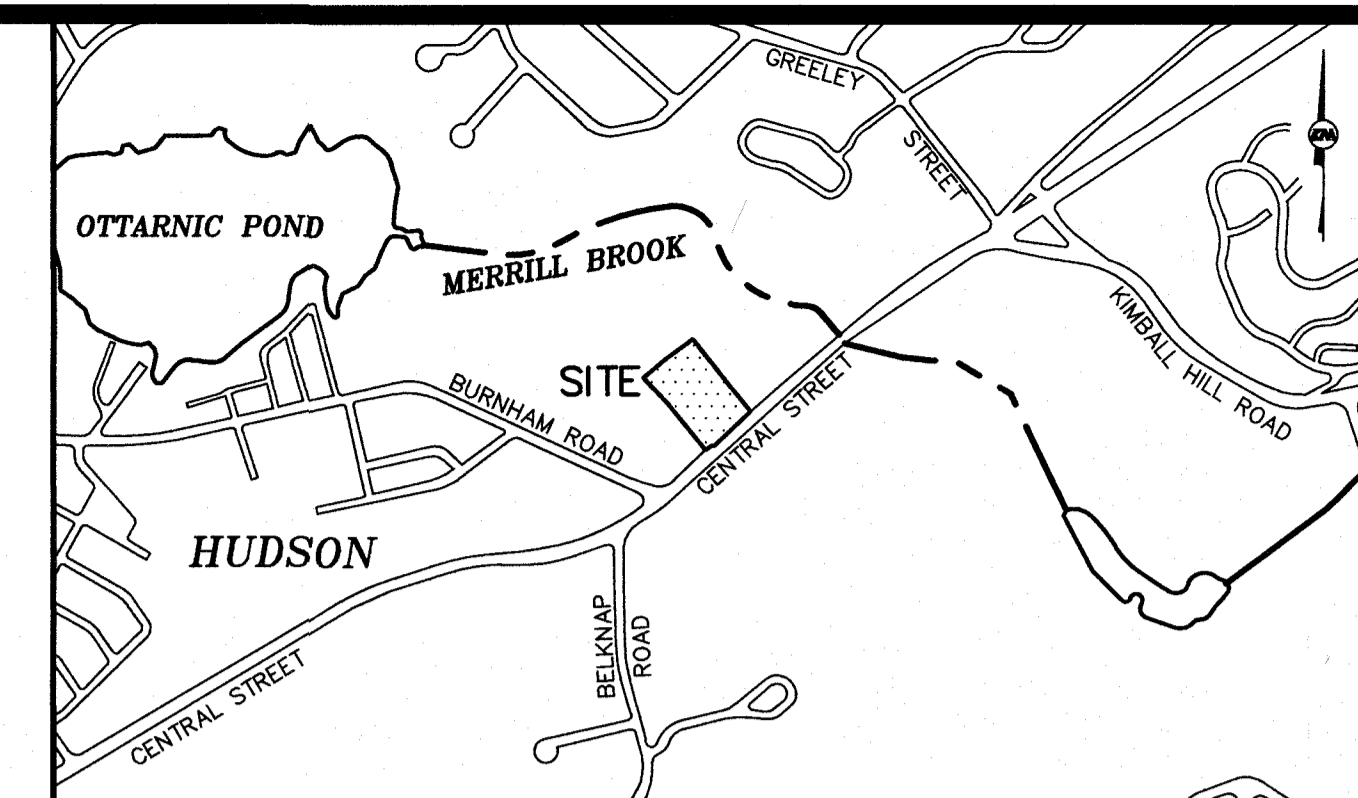
G. COST ALLOCATION PROCEDURE AMOUNT CONTRIBUTION AND OTHER IMPACT FEE PAYMENTS:

To be determined by the Planning Board at time of plan approval and shall be paid by the applicant at the time of submittal of the Certificate of Occupancy Permit requests.

*****The applicant shall be responsible for all fees incurred by the town for processing and review of the applicant's application, plan and related materials.*****



VICINITY PLAN
NOT TO SCALE



LOCUS MAP
SCALE: 1" = 1,000'

NON-RESIDENTIAL SITE PLAN BLUEBIRD SELF STORAGE

MAP 176 LOTS 21,22, & 23 196-202 CENTRAL STREET HUDSON, NEW HAMPSHIRE

APPLICANT:
BLUEBIRD SELF STORAGE
 125 OCEAN ROAD
 GREENLAND, NH 03840

PREPARED BY:
KEACH-NORDSTROM ASSOCIATES, INC.
 10 COMMERCE PARK NORTH, SUITE 3
 BEDFORD, NEW HAMPSHIRE 03110
 (603) 627-2881



KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SHEET TITLE	SHEET No.
MASTER SITE PLAN	1
EXISTING CONDITIONS PLAN	2
REMOVALS/DEMOLITION PLAN	3
NON-RESIDENTIAL SITE PLAN	4
GRADING AND DRAINAGE PLAN	5
SPOT GRADE PLAN	6
UTILITY PLAN	7
EROSION CONTROL PLAN	8
LANDSCAPE PLAN	9
LIGHTING PLAN	10
SIGHT DISTANCE PLAN & PROFILE	11
SEWER PROFILE	12
DRAINAGE PROFILES	13
CONSTRUCTION DETAILS	14-21

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

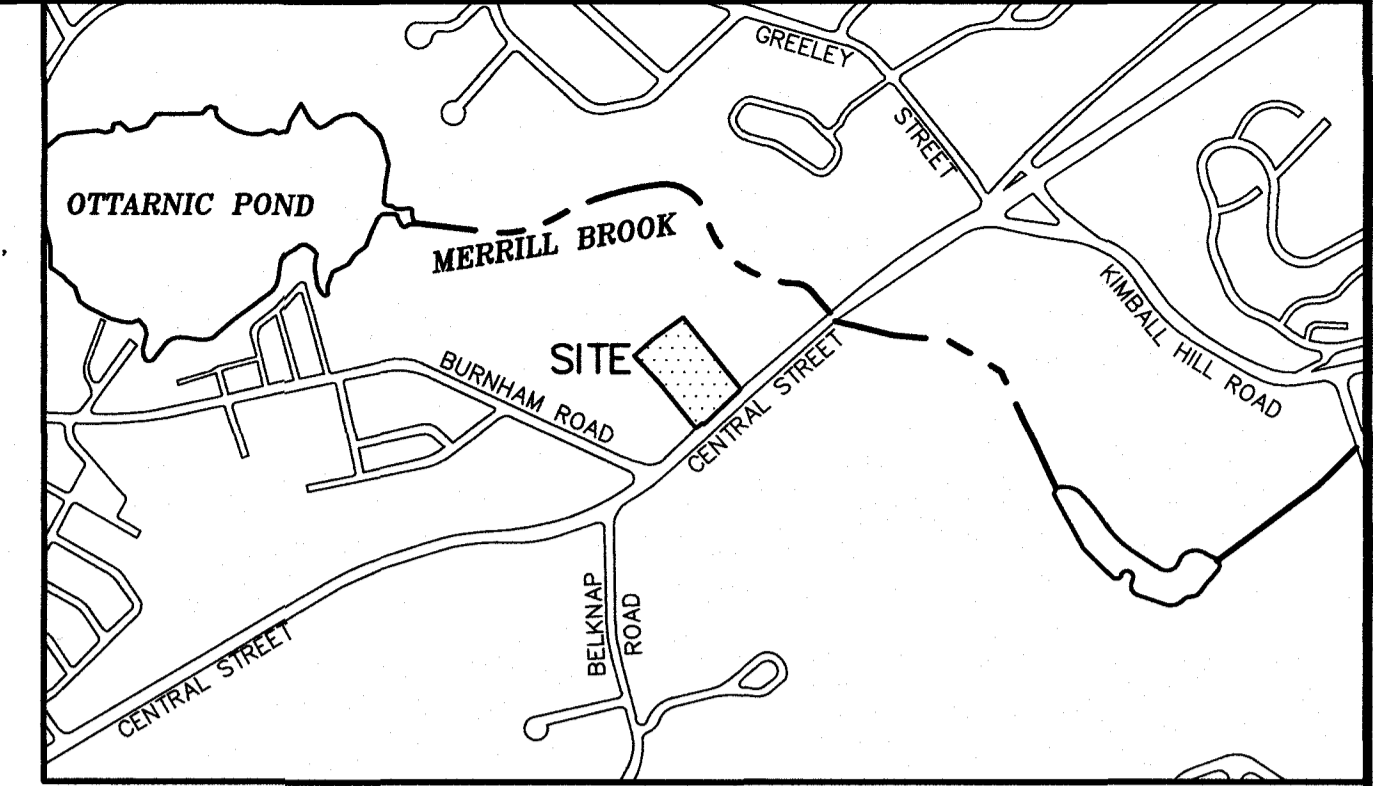
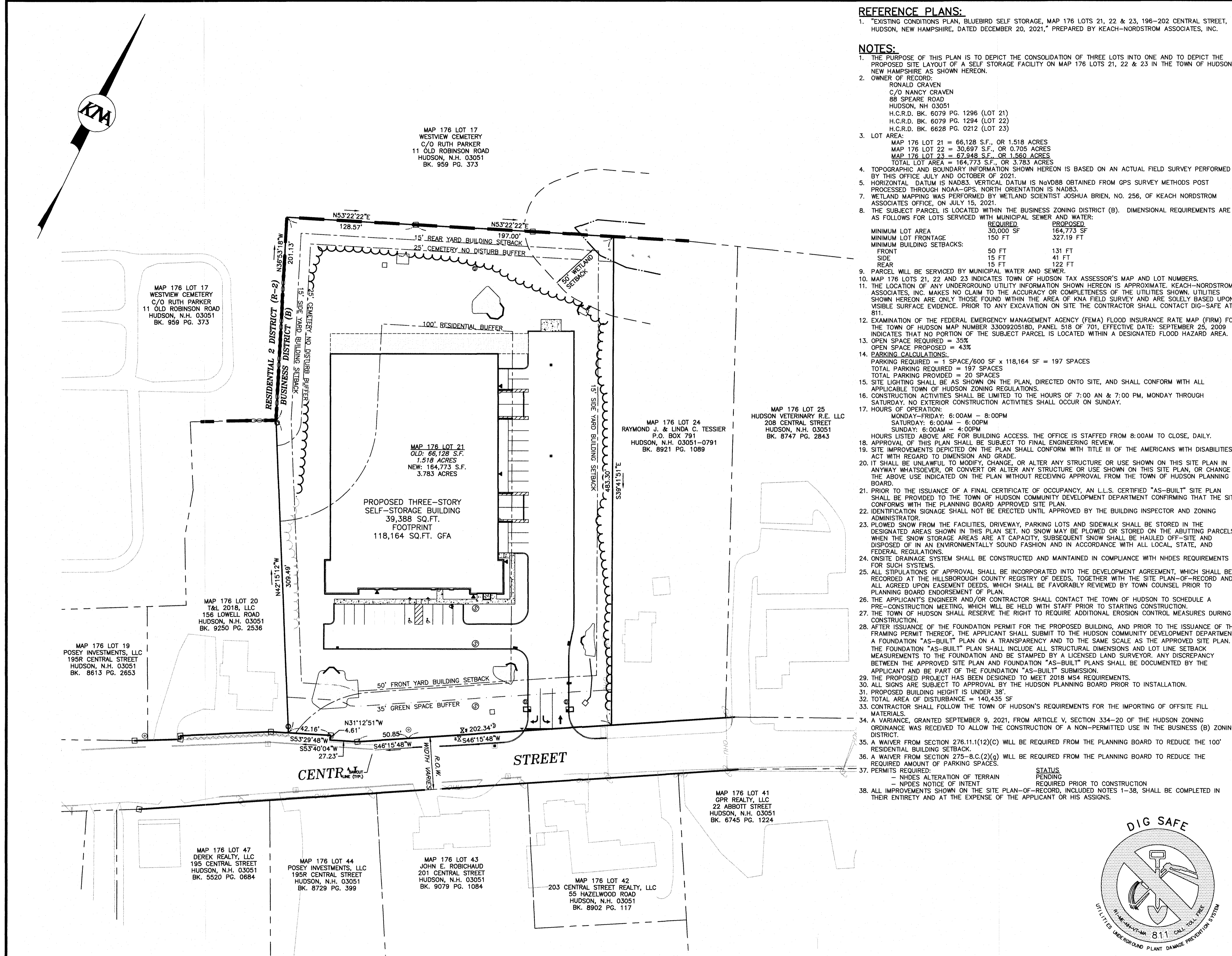
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____

 SIGNATURE DATE: _____

 SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

DECEMBER 20, 2021
 PROJECT NO. 21-0709-3



REFERENCE PLANS:

1. "EXISTING CONDITIONS PLAN, BLUEBIRD SELF STORAGE, MAP 176 LOTS 21, 22 & 23, 196-202 CENTRAL STREET, HUDSON, NEW HAMPSHIRE, DATED DECEMBER 20, 2021," PREPARED BY KEACH-NORDSTROM ASSOCIATES, INC.

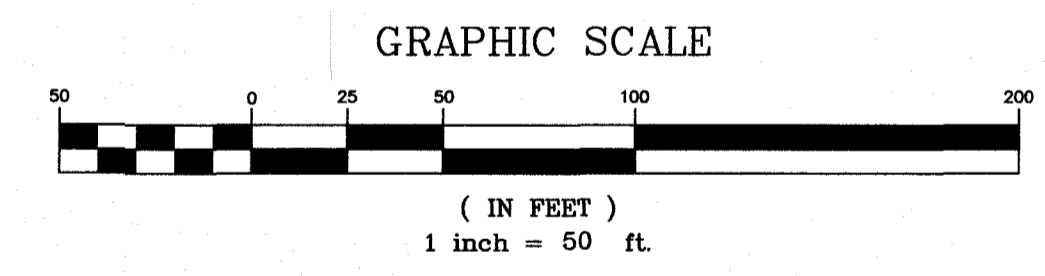
NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE CONSOLIDATION OF THREE LOTS INTO ONE AND TO DEPICT THE PROPOSED SITE LAYOUT OF A SELF STORAGE FACILITY ON MAP 176 LOTS 21, 22 & 23 IN THE TOWN OF HUDSON, NEW HAMPSHIRE AS SHOWN HEREON.
- OWNER OF RECORD:
RONALD CRAVEN
C/O NANCY CRAVEN
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1296 (LOT 21)
H.C.R.D. BK. 6079 PG. 1294 (LOT 22)
H.C.R.D. BK. 6628 PG. 0212 (LOT 23)
- LOT AREA:
MAP 176 LOT 21 = 66,128 S.F., OR 1.518 ACRES
MAP 176 LOT 22 = 30,697 S.F., OR 0.705 ACRES
MAP 176 LOT 23 = 67,948 S.F., OR 1.560 ACRES
TOTAL LOT AREA = 164,773 S.F., OR 3.783 ACRES
- TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE JULY AND OCTOBER OF 2021.
- HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD88 OBTAINED FROM GPS SURVEY METHODS POST PROCESSED THROUGH NOAA-GPS. NORTH ORIENTATION IS NAD83.
- WETLAND MAPPING WAS PERFORMED BY WETLAND SCIENTIST JOSHUA BRIEN, NO. 256, OF KEACH NORDSTROM ASSOCIATES OFFICE, ON JULY 15, 2021.
- THE SUBJECT PARCEL IS LOCATED WITHIN THE BUSINESS ZONING DISTRICT (B). DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS FOR LOTS SERVICED WITH MUNICIPAL SEWER AND WATER:
MINIMUM LOT AREA REQUIRED: 30,000 SF PROPOSED: 164,773 SF
MINIMUM LOT FRONTAGE REQUIRED: 150 FT PROPOSED: 327.19 FT
MINIMUM BUILDING SETBACKS:
FRONT: 50 FT 131 FT
SIDE: 15 FT 41 FT
REAR: 15 FT 122 FT
- PARCEL WILL BE SERVICED BY MUNICIPAL WATER AND SEWER.
- MAP 176 LOTS 21, 22 AND 23 INDICATES TOWN OF HUDSON TAX ASSESSOR'S MAP AND LOT NUMBERS.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF THE UTILITIES SHOWN. UTILITIES SHOWN HEREON ARE ONLY THOSE FOUND WITHIN THE AREA OF KNA FIELD SURVEY AND ARE SOLELY BASED UPON VISIBLE SURFACE EVIDENCE. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG-SAFE AT 811.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON MAP NUMBER 33009205180, PANEL 518 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT NO PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
- OPEN SPACE REQUIRED = 35%
OPEN SPACE PROPOSED = 43%
- PARKING CALCULATIONS:
PARKING REQUIRED = 1 SPACE/600 SF x 118,164 SF = 197 SPACES
TOTAL PARKING REQUIRED = 197 SPACES
TOTAL PARKING PROVIDED = 20 SPACES
- SITE LIGHTING SHALL BE AS SHOWN ON THE PLAN, DIRECTED ONTO SITE, AND SHALL CONFORM WITH ALL APPLICABLE TOWN OF HUDSON ZONING REGULATIONS.
- CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM & 7:00 PM, MONDAY THROUGH SATURDAY. NO EXTERIOR CONSTRUCTION ACTIVITIES SHALL OCCUR ON SUNDAY.
- HOURS OF OPERATION:
MONDAY-FRIDAY: 6:00AM - 8:00PM
SATURDAY: 6:00AM - 6:00PM
SUNDAY: 6:00AM - 4:00PM
HOURS LISTED ABOVE ARE FOR BUILDING ACCESS. THE OFFICE IS STAFFED FROM 8:00AM TO CLOSE, DAILY.
- APPROVAL OF THIS PLAN SHALL BE SUBJECT TO FINAL ENGINEERING REVIEW.
- SITE IMPROVEMENTS DEPICTED ON THE PLAN SHALL CONFORM WITH TITLE III OF THE AMERICANS WITH DISABILITIES ACT WITH REGARD TO DIMENSION AND GRADE.
- IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN IN ANYWAY WHATSOEVER, OR CONVERT OR ALTER ANY STRUCTURE OR USE SHOWN ON THIS SITE PLAN, OR CHANGE THE ABOVE USE INDICATED ON THE PLAN WITHOUT RECEIVING APPROVAL FROM THE TOWN OF HUDSON PLANNING BOARD.
- PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY, AN L.L.S. CERTIFIED "AS-BUILT" SITE PLAN SHALL BE PROVIDED TO THE TOWN OF HUDSON COMMUNITY DEVELOPMENT DEPARTMENT CONFIRMING THAT THE SITE CONFORMS WITH THE PLANNING BOARD APPROVED SITE PLAN.
- IDENTIFICATION SIGNAGE SHALL NOT BE ERRECTED UNTIL APPROVED BY THE BUILDING INSPECTOR AND ZONING ADMINISTRATOR.
- PLOWED SNOW FROM THE FACILITIES, DRIVEWAY, PARKING LOTS AND SIDEWALK SHALL BE STORED IN THE DESIGNATED AREAS SHOWN IN THIS PLAN SET. NO SNOW MAY BE PLOWED OR STORED ON THE ABUTTING PARCELS. WHEN THE SNOW STORAGE AREAS ARE AT CAPACITY, SUBSEQUENT SNOW SHALL BE HAULED OFF-SITE AND DISPOSED OF IN AN ENVIRONMENTALLY SOUND FASHION AND IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- ONSITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH NHDES REQUIREMENTS FOR SUCH SYSTEMS.
- ALL STIPULATIONS OF APPROVAL SHALL BE INCORPORATED INTO THE DEVELOPMENT AGREEMENT, WHICH SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS, TOGETHER WITH THE SITE PLAN-OF-RECORD AND ALL AGREED UPON EASEMENT DEEDS, WHICH SHALL BE FAVORABLY REVIEWED BY TOWN COUNSEL PRIOR TO PLANNING BOARD ENDORSEMENT OF PLAN.
- THE APPLICANT'S ENGINEER AND/OR CONTRACTOR SHALL CONTACT THE TOWN OF HUDSON TO SCHEDULE A PRE-CONSTRUCTION MEETING, WHICH WILL BE HELD WITH STAFF PRIOR TO STARTING CONSTRUCTION.
- THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION.
- AFTER ISSUANCE OF THE FOUNDATION PERMIT FOR THE PROPOSED BUILDING, AND PRIOR TO THE ISSUANCE OF THE FRAMING PERMIT THEREOF, THE APPLICANT SHALL SUBMIT TO THE HUDSON COMMUNITY DEVELOPMENT DEPARTMENT A FOUNDATION "AS-BUILT" PLAN ON A TRANSPARENCY AND TO THE SAME SCALE AS THE APPROVED SITE PLAN. THE FOUNDATION "AS-BUILT" PLAN SHALL INCLUDE ALL STRUCTURAL DIMENSIONS AND LOT LINE SETBACK MEASUREMENTS TO THE FOUNDATION AND BE STAMPED BY A LICENSED LAND SURVEYOR. ANY DISCREPANCY BETWEEN THE APPROVED SITE PLAN AND FOUNDATION "AS-BUILT" PLANS SHALL BE DOCUMENTED BY THE APPLICANT AND BE PART OF THE FOUNDATION "AS-BUILT" SUBMISSION.
- THE PROPOSED PROJECT HAS BEEN DESIGNED TO MEET 2018 NS4 REQUIREMENTS.
- ALL SIGNS ARE SUBJECT TO APPROVAL BY THE HUDSON PLANNING BOARD PRIOR TO INSTALLATION.
- PROPOSED BUILDING HEIGHT IS UNDER 38'.
- TOTAL AREA OF DISTURBANCE = 140,435 SF
- CONTRACTOR SHALL FOLLOW THE TOWN OF HUDSON'S REQUIREMENTS FOR THE IMPORTING OF OFFSITE FILL MATERIALS.
- A VARIANCE, GRANTED SEPTEMBER 9, 2021, FROM ARTICLE V, SECTION 334-20 OF THE HUDSON ZONING ORDINANCE WAS RECEIVED TO ALLOW THE CONSTRUCTION OF A NON-PERMITTED USE IN THE BUSINESS (B) ZONING DISTRICT.
- A WAIVER FROM SECTION 276:11.1(12)(C) WILL BE REQUIRED FROM THE PLANNING BOARD TO REDUCE THE 100' RESIDENTIAL BUILDING SETBACK.
- A WAIVER FROM SECTION 275-8.C.2(g) WILL BE REQUIRED FROM THE PLANNING BOARD TO REDUCE THE REQUIRED AMOUNT OF PARKING SPACES.
- PERMITS REQUIRED:
- NHDES ALTERATION OF TERRAIN STATUS: PENDING
- NHDES NOTICE OF INTENT REQUIRED PRIOR TO CONSTRUCTION
- ALL IMPROVEMENTS SHOWN ON THE SITE PLAN-OF-RECORD, INCLUDED NOTES 1-38, SHALL BE COMPLETED IN THEIR ENTIRETY AND AT THE EXPENSE OF THE APPLICANT OR HIS ASSIGNS.

LEGEND

□ GB-F	GRANITE BOUND FOUND
○ IP-F	IRON PIN FOUND
○ IP-S	IRON PIN SET WITH CAP
○ W/CAP	UTILITY POLE
⊕	STREET LIGHT
⊕	GAS VALVE
⊕	WATER VALVE
⊕	SEWER MANHOLE
⊕	DRAINAGE MANHOLE
⊕	CATCH BASIN
⊕	ABUTTER LINE
⊕	PROPERTY LINE
⊕	OVERHEAD UTILITIES
⊕	DRAINAGE LINE
⊕	TREELINE
⊕	RETAINING WALL
⊕	EDGE OF PAVEMENT
⊕	VERTICAL GRANITE CURB
⊕	SETBACK
⊕	100' RESIDENTIAL BUFFER
⊕	GREEN SPACE BUFFER
⊕	PROPOSED SIGN
⊕	PROPOSED LIGHT
⊕	PROPOSED GAS VALVE
⊕	PROPOSED WATER VALVE
⊕	PROPOSED WOOD GUARDRAIL
⊕	PROPOSED TREELINE
⊕	PROPOSED EDGE OF PAVEMENT
⊕	PROPOSED RETAINING WALL
⊕	PROPOSED VERTICAL GRANITE CURB
⊕	PROPOSED OUTLET STRUCTURE

LOAM & SEED ALL DISTURBED AREAS (TYP.)



MASTER SITE PLAN
BLUEBIRD SELF STORAGE
MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
--	--

KNA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

WETLAND SCIENTIST'S CERTIFICATION:

JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #256 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN JULY OF 2021 USING THE TECHNICAL CRITERIA IN THE CORDES OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

CERTIFIED WETLAND SCIENTIST DATE: _____

CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING JULY AND OCTOBER OF 2021. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1/10,000).

LICENSED LAND SURVEYOR DATE: 12/20/21

DIG SAFE

UTILITIES UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM

811 CALL FOR SERVICE

REVISIONS			
No.	DATE	DESCRIPTION	BY

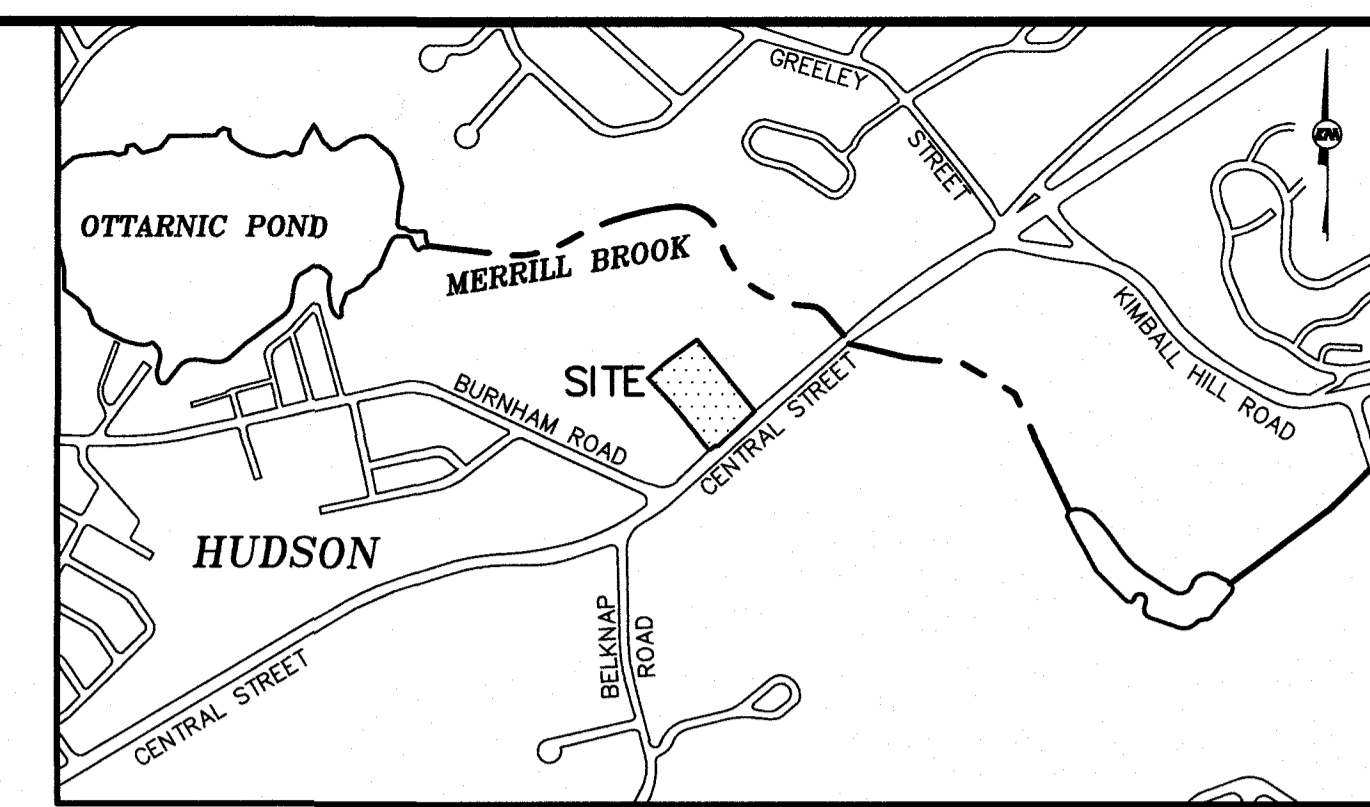
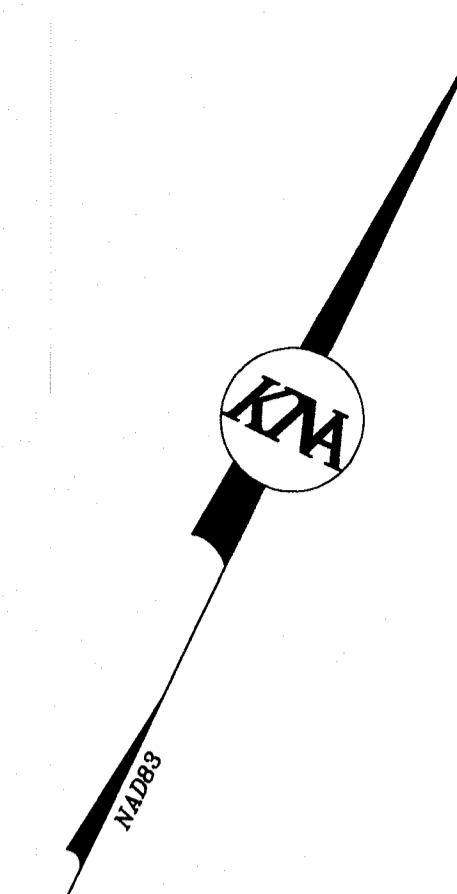
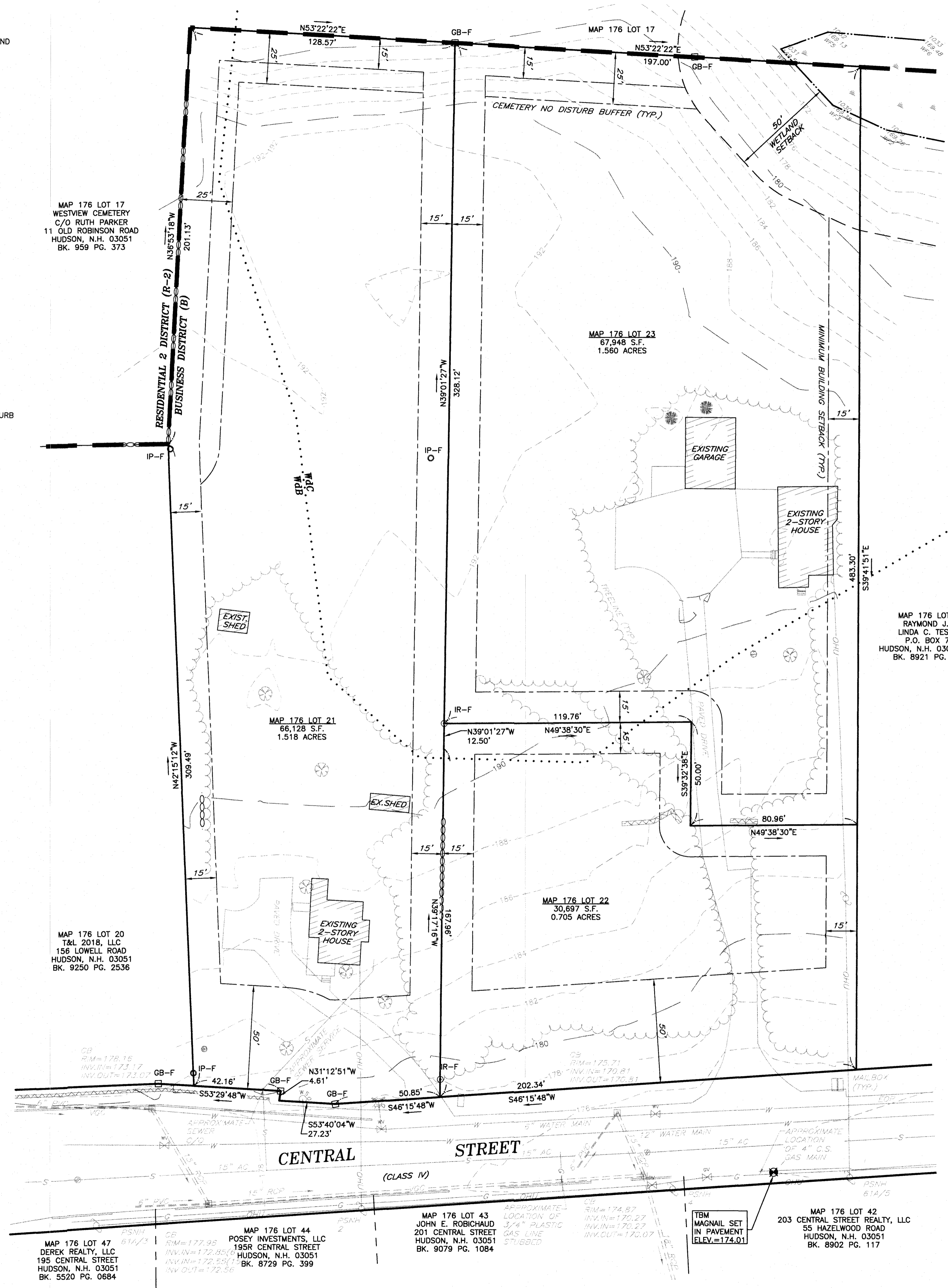
DATE: DECEMBER 20, 2021 SCALE: 1" = 50'
PROJECT NO: 21-0709-3 SHEET 1 OF 21

LEGEND

- GB-F GRANITE BOUND FOUND
- IP-F IRON PIPE FOUND
- IR-F IRON ROD FOUND
- DH-F DRILL HOLE FOUND
- ⊕ BENCHMARK
- ⊕ UTILITY POLE
- ⊕ STREET LIGHT
- ⊕ GAS VALVE
- ⊕ WATER VALVE
- ⊕ HYDRANT
- ⊕ WATER SHUT OFF
- ⊕ WELL
- ⊕ SEWER MANHOLE
- ⊕ CATCH BASIN
- ⊕ ABUTTER LINE
- ⊕ PROPERTY LINE
- ⊕ WETLAND
- ⊕ WETLAND SETBACK
- ⊕ OHU OVERHEAD UTILITIES
- ⊕ GAS LINE
- ⊕ WATER LINE
- ⊕ SEWER LINE
- ⊕ DRAINAGE LINE
- ⊕ TRELLINE
- ⊕ RETAINING WALL
- ⊕ EOP EDGE OF PAVEMENT
- ⊕ VGC VERTICAL GRANITE CURB
- ⊕ 10' CONTOUR
- ⊕ 2' CONTOUR
- ⊕ STONEWALL
- ⊕ SOIL LINE
- ⊕ SETBACK
- ⊕ DISTRICT BOUNDARY
- ⊕ DECIDUOUS TREE
- ⊕ CONIFEROUS TREE
- ⊕ BUSH

SCS SOILS LEGEND

- wdB** WINDSOR LOAMY SAND
3 TO 8 PERCENT SLOPES
 - wdC** WINDSOR LOAMY SAND
8 TO 15 PERCENT SLOPES
- SOURCE: USDA-SCS WEB SOIL SURVEY
HILLSBOROUGH COUNTY

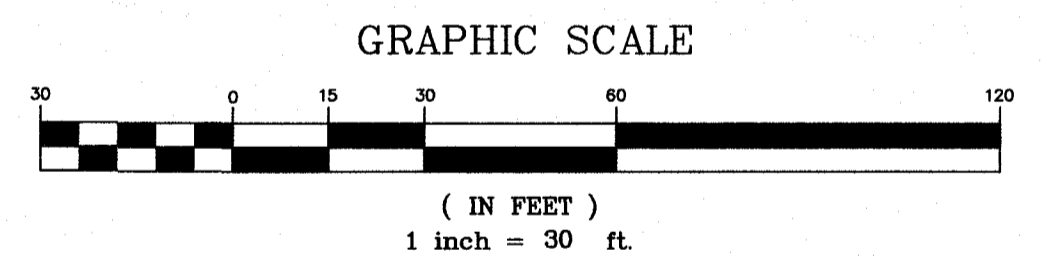


VICINITY MAP
SCALE: 1" = 1,000'

- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS PRESENT ON S MAP 176 LOTS 21, 22, & 23 IN THE TOWN OF HUDSON, NEW HAMPSHIRE AS SHOWN HERON.
 - LOT AREA:
MAP 176 LOT 21 = 66,128 S.F., OR 1.518 ACRES
MAP 176 LOT 22 = 30,697 S.F., OR 0.705 ACRES
MAP 176 LOT 23 = 67,948 S.F., OR 1.560 ACRES
TOTAL LOT AREA = 164,773 S.F., OR 3.783 ACRES
 - OWNER OF RECORD:
RONALD CRAVEN
C/O NANCY CRAVEN
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1296 (LOT 21)
H.C.R.D. BK. 6079 PG. 1294 (LOT 22)
H.C.R.D. BK. 6628 PG. 0212 (LOT 23)
 - THE SUBJECT PARCELS ARE LOCATED WITHIN THE BUSINESS ZONING DISTRICT (B). DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS FOR LOTS SERVICED WITH MUNICIPAL SEWER AND WATER:
- MINIMUM LOT AREA: 30,000 SF
- MINIMUM LOT FRONTAGE: 150 FT
- MINIMUM BUILDING SETBACKS:
 - FRONT: 50
 - SIDE: 15
 - REAR: 15
 - TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY THIS OFFICE JULY AND OCTOBER OF 2021.
 - HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD88 OBTAINED FROM GPS SURVEY METHODS POST PROCESSED THROUGH NOAA-GPS. NORTH ORIENTATION IS NAD83.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON MAP NUMBER 3300920518D, PANEL 518 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT NO PORTION OF THE SUBJECT PARCELS ARE LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
 - WETLAND MAPPING WAS PERFORMED BY JOSHUA BRIEN OF KEACH NORDSTROM ASSOCIATES ON JULY 15, 2021.
 - SITE IS SERVICED BY MUNICIPAL WATER AND SEWER.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF THE UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR OR OWNER SHALL CONTACT DIG-SAFE AT 81.

REFERENCE PLANS:

- "LAND OF NAPOLEON & JOSEPHINE PELLETIER, HUDSON, N.H. SCALE: 1"=40'. DATED: OCTOBER, 1952. H.C.R.D. PLAN #830
- "PLAN OF LAND OF PERLEY B. SMITH ESTATE, CENTRAL STREET HUDSON, N.H." SCALE: 1"=50'. DATED: JULY 1962. PREPARED BY: NED SPAULDING, CIVIL ENGINEER. H.C.R.D. PLAN #2237
- "STATE OF N.H. D.O.T. R.O.W. PLANS OF PROPOSED FEDERAL AID URBAN SYSTEM PROJECT" M-5229(003), M-5229(005). N.H. PROJECT NO. C-2432-B&D PREPARED BY: HOWARD, NEEDLES, TAMMEN & BERGENDOFF. H.C.R.D. PLAN #19222
- "BOUNDARY PLAN-LOT 16 MAP 20, CENTRAL STREET-HUDSON, N.H." SCALE: 1"=50'. DATED: MAY 24, 1989. PREPARED BY: MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN #23416
- "STATE OF N.H. D.O.T. PLANS OF PROPOSED FEDERAL AID URBAN SYSTEM PROJECT" MG-M-5229(008). N.H. PROJECT NO. C-2432-G. MARK-UPS. PREPARED BY: HOWARD, NEEDLES, TAMMEN & BERGENDOFF. PLAN #C2432D
- "STATE OF N.H. D.O.T. PLANS OF PROPOSED FEDERAL AID URBAN SYSTEM PROJECT" MG-M-5229(008) AS BUILT PLANS. PREPARED BY: HOWARD, NEEDLES, TAMMEN & BERGENDOFF. PLAN #C2432G

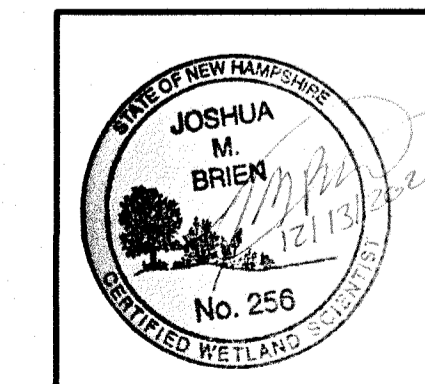


EXISTING CONDITIONS PLAN
BLUEBIRD SELF STORAGE
MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
RONALD CRAVEN TRUST
c/o NANCY CRAVEN TRUST
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1294

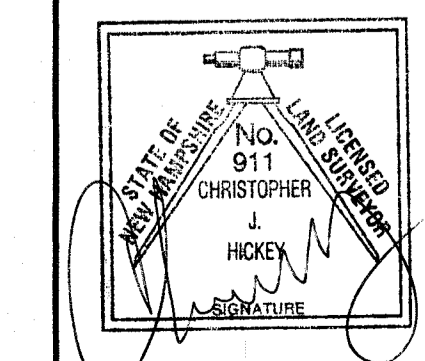
APPLICANT:
BLUEBIRD SELF STORAGE LLC.
125 OCEAN ROAD
GREENLAND, NH 03840

KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881



WETLAND SCIENTIST'S CERTIFICATION:
JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #256 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN JULY OF 2021 USING THE TECHNICAL CRITERIA IN THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

CERTIFIED WETLAND SCIENTIST _____ DATE _____



CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BY THIS OFFICE DURING JULY AND OCTOBER OF 2021. SAID SURVEY HAS AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

LICENSED LAND SURVEYOR

12/20/21
DATE

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
PROJECT NO: 21-0709-3 SHEET 2 OF 21

PURSUANT TO THE REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____

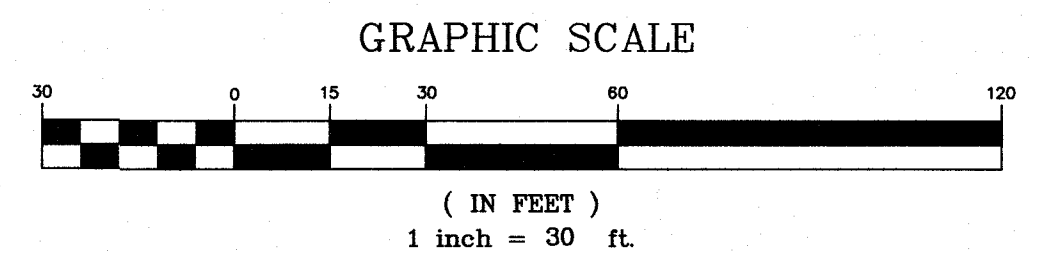
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

REMOVALS/DEMOLITION NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT EXISTING FEATURES ON SITE TO BE REMOVED, SALVAGED OR REPLACED.
2. ALL STUMPS, ROOTS, BRANCHES, BRUSH, WOODS, AND OTHER PERISHABLE MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF BY AN APPROVED METHOD.
3. STRIP, STOCKPILE, AND REUSE ONSITE GRAVEL AND FILL AREAS WHERE APPROPRIATE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE DESIGN ENGINEER.
4. REMOVE ALL ASPHALT, CURBING, CONCRETE, VEGETATION, TREES, SHRUBS, LIGHT POLES, SIGNAGE, AND STRUCTURES WITHIN THE HATCHED AREA, UNLESS OTHERWISE NOTED.
5. DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
6. ALL WORK PERFORMED ON BEHALF OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF HUDSON'S ENGINEERING TECHNICAL GUIDELINES & TYPICAL DETAILS, LATEST EDITION.
7. SITE CONTRACTOR SHALL ESTABLISH TEMPORARY PERIMETER CONTROLS PRIOR TO THE START OF SITE EXCAVATION.
8. CONTRACTOR SHALL WORK WITH LOCAL UTILITY PROVIDERS DURING SHUT DOWN AND REMOVAL EFFORTS.
9. ALL ITEMS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.

LEGEND

- ⊙ GB-F GRANITE BOUND FOUND
- ⊙ IPIN-F IRON PIN FOUND
- ⊙ DH-F DRILL HOLE FOUND
- ⊙ IPP-F IRON PIPE FOUND
- ⊙ UTILITY POLE
- ⊙ SIGN
- ⊙ LIGHT
- ⊙ GAS VALVE
- ⊙ WATER VALVE
- ⊙ HYDRANT
- ⊙ WATER SHUT OFF
- ⊙ WELL
- ⊙ SEWER MANHOLE
- ⊙ DRAINAGE MANHOLE
- ⊙ CATCH BASIN
- ⊙ FLARED END SECTION
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- OVERHEAD UTILITIES
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- SLOPED GRANITE CURB
- BITUMINOUS CURB
- STONEWALL
- EASEMENT
- ZONE LINE

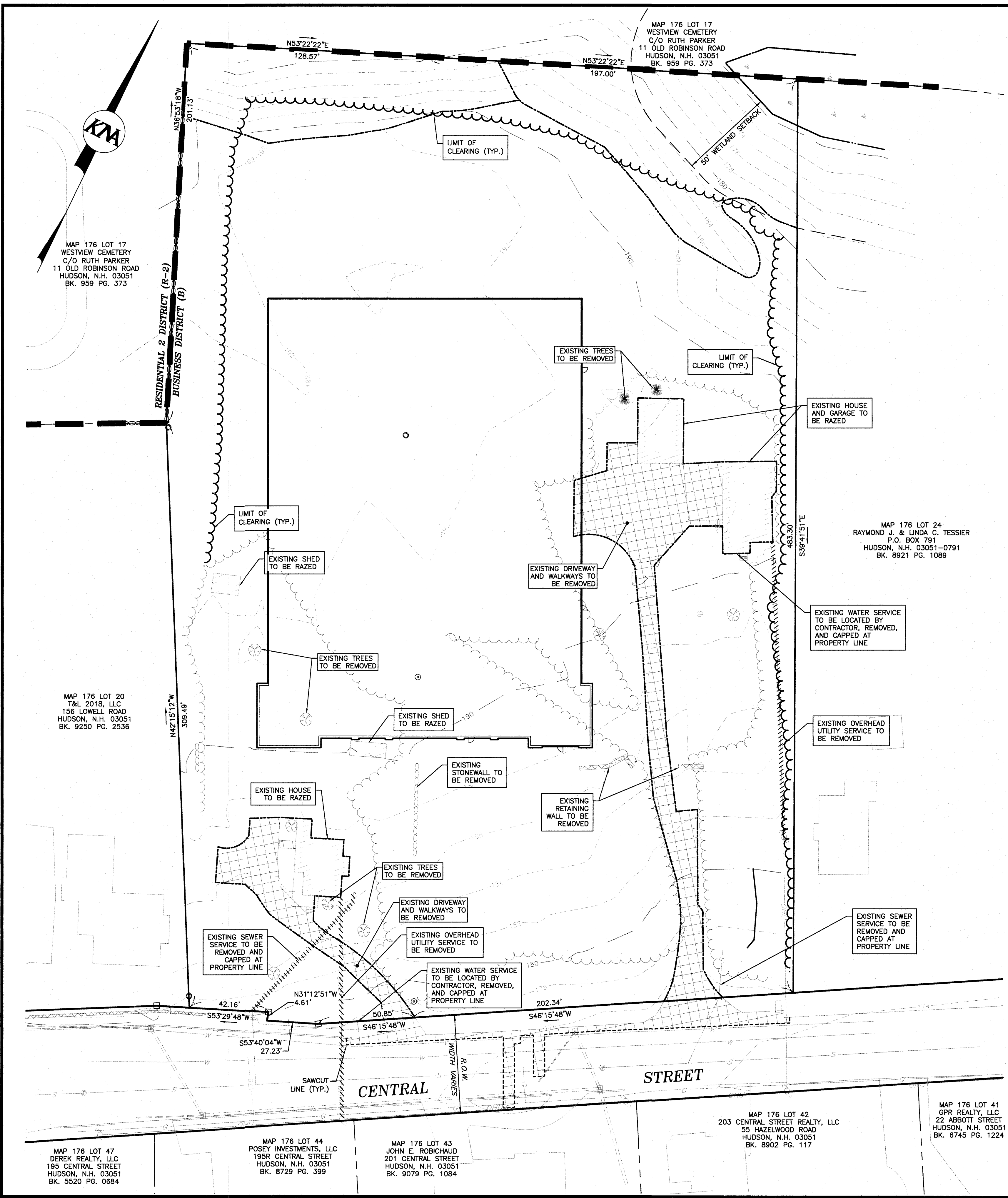


NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.



REMOVALS/DEMOLITION PLAN
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
--	--

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

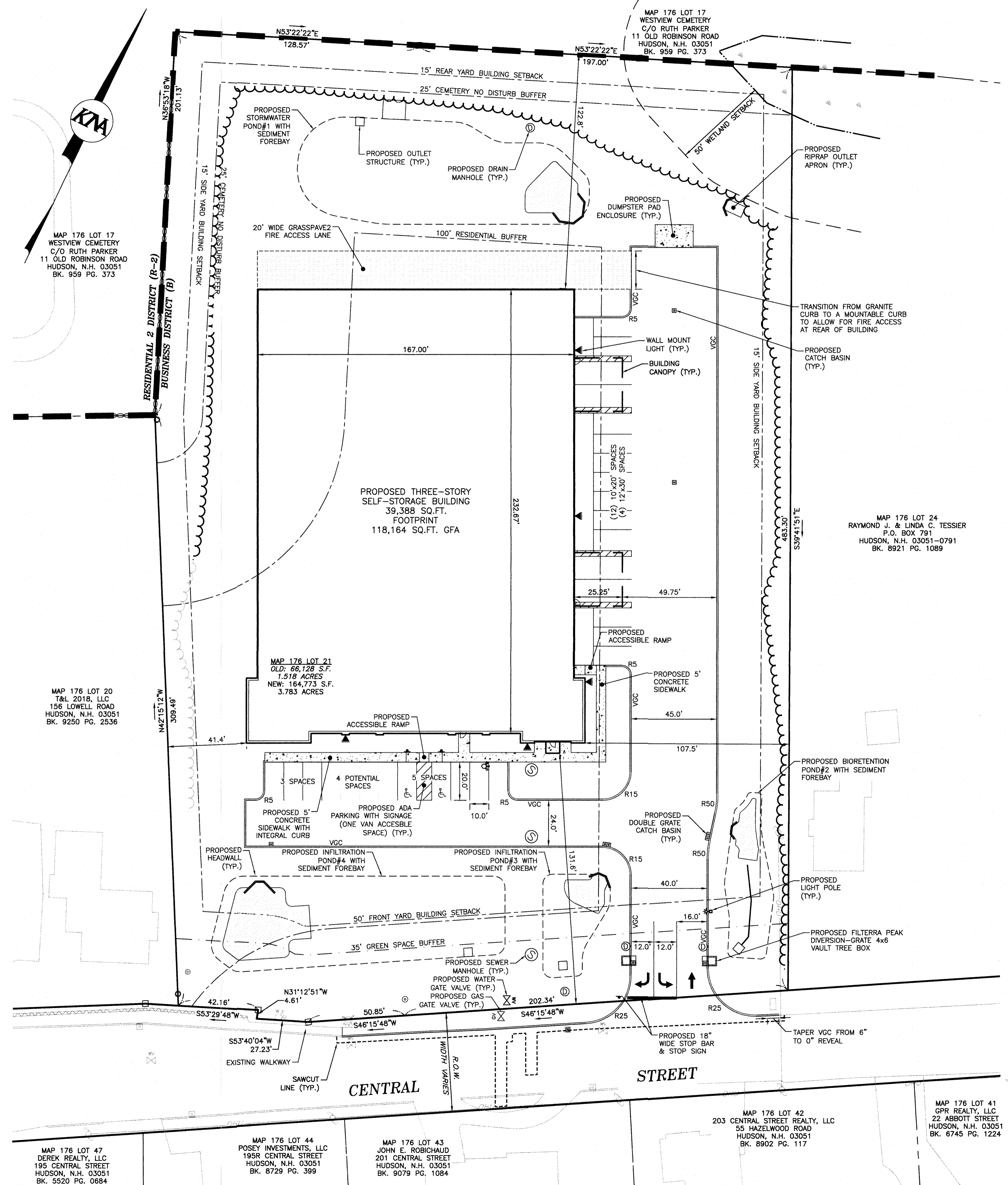
REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
 PROJECT NO: 21-0709-3 SHEET 3 OF 21

PURSUANT TO THE REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____

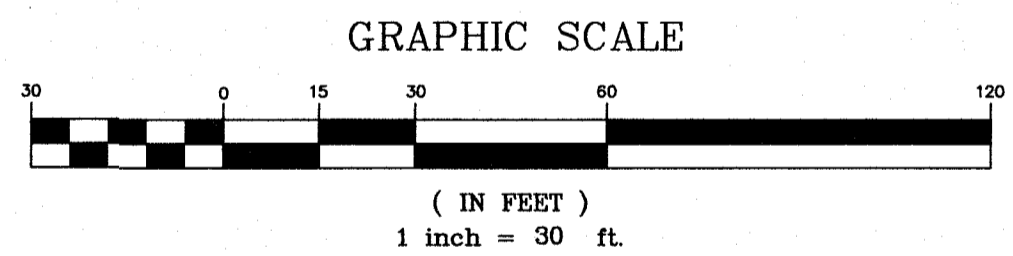
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



- LEGEND**
- GB-F GRANITE BOUND FOUND
 - IPIN-F IRON PIN FOUND
 - ⊙ DH-F DRILL HOLE FOUND
 - UTILITY POLE
 - ▼ PROPOSED SIGN
 - ⊙* PROPOSED LIGHT
 - ⊙* PROPOSED HYDRANT
 - ⊙ PROPOSED WELL
 - ⊙ PROPOSED SEWER MANHOLE
 - ⊙ PROPOSED DRAINAGE MANHOLE
 - ⊙ PROPOSED CATCH BASIN
 - PROPOSED OUTLET STRUCTURE
 - ABUTTER LINE
 - PROPERTY LINE
 - OVERHEAD UTILITIES
 - TREELINE
 - EDGE OF PAVEMENT
 - STONEWALL
 - BUILDING SETBACK
 - ZONE LINE
 - PROPOSED TREELINE
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED VERTICAL GRANITE CURB
 - PROPOSED SWALE
 - EASEMENT
 - ⊙* SITE LIGHTING
 - ▲ BUILDING WALL PACK LIGHTING

SEE SHEET 1 FOR NOTES & REFERENCE PLANS

LOAM & SEED ALL DISTURBED AREAS (TYP.)



NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

UTILITY NOTE

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NON RESIDENTIAL SITE PLAN
BLUEBIRD SELF STORAGE
 MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

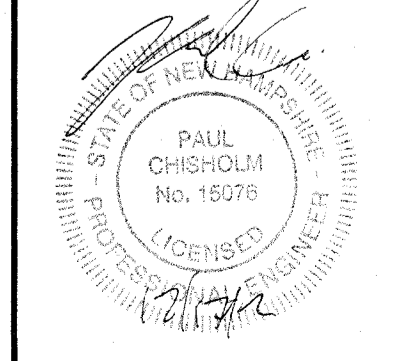
OWNER OF RECORD:
 RONALD CRAVEN TRUST
 c/o NANCY CRAVEN TRUST
 88 SPEARE ROAD
 HUDSON, NH 03051
 H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
 BLUEBIRD SELF STORAGE LLC.
 125 OCEAN ROAD
 GREENLAND, NH 03840

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
 PROJECT NO: 21-0709-3 SHEET 4 OF 21



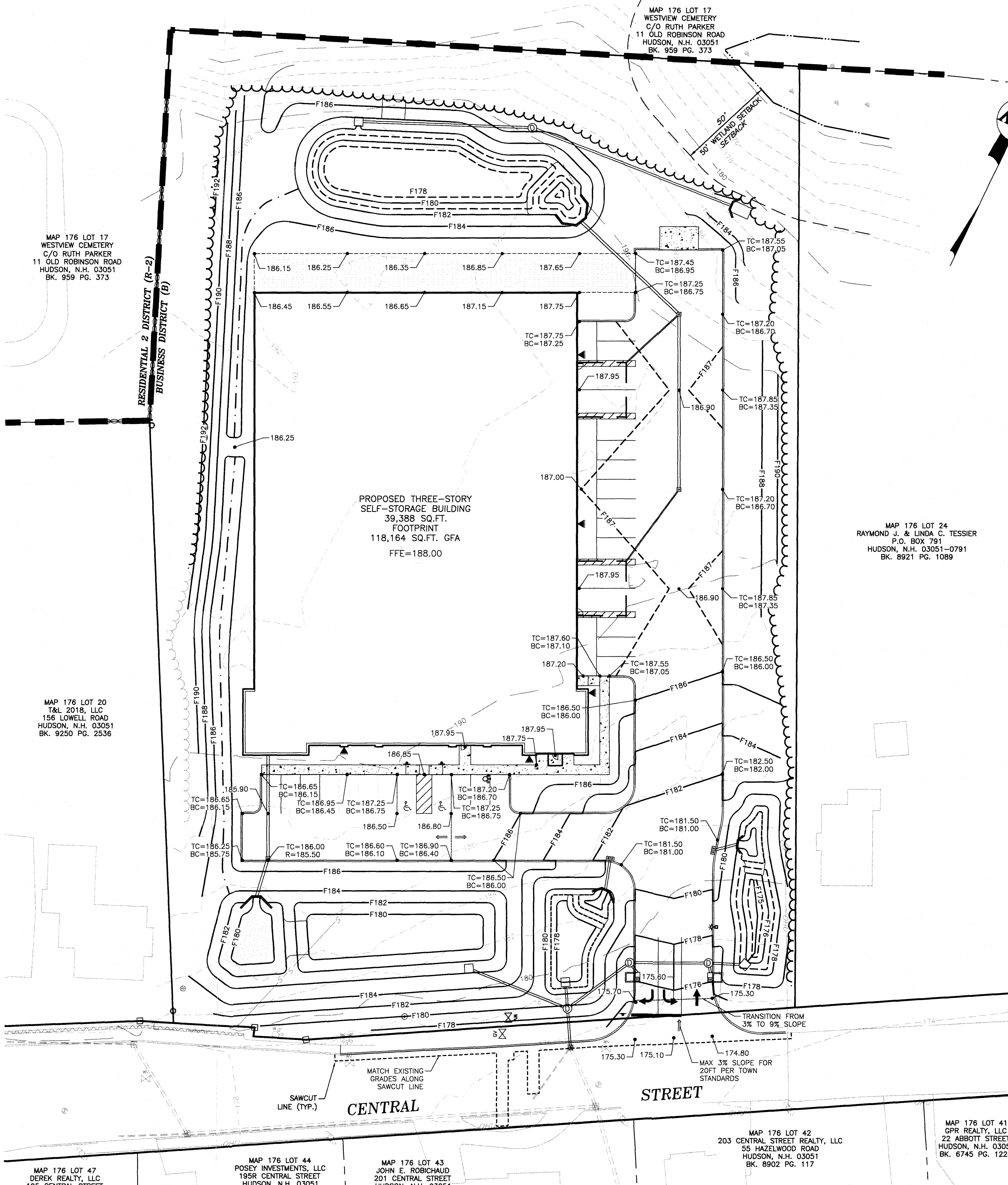
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE: _____ DATE: _____
 SIGNATURE: _____ DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

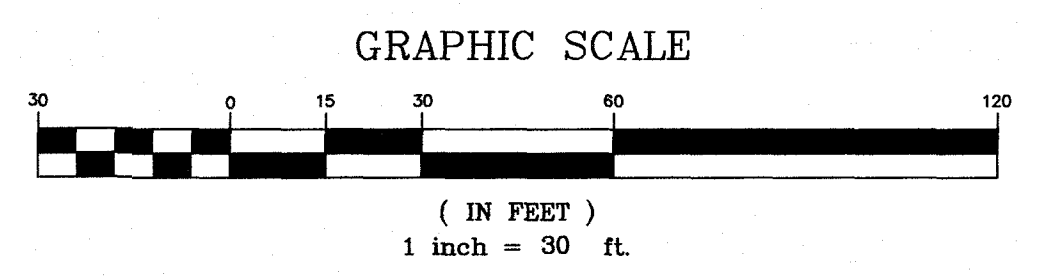
LEGEND

□ CB-F	GRANITE BOUND FOUND	— — — — —	PROPOSED CHAIN LINK FENCE
● IPIN-F	IRON PIN FOUND	— — — — —	PROPOSED STOCKADE FENCE
⊙ DH-F	DRILL HOLE FOUND	— — — — —	PROPOSED POST & RAIL FENCE
⊙	UTILITY POLE	— — — — —	PROPOSED BARBED WIRE FENCE
⊙	PROPOSED SIGN	— — — — —	PROPOSED GUARDRAIL
⊙	PROPOSED LIGHT	— — — — —	PROPOSED OVERHEAD UTILITIES
⊙	PROPOSED HYDRANT	— — — — —	PROPOSED UNDERGROUND UTILITIES
⊙	PROPOSED WELL	— — — — —	PROPOSED GAS LINE
⊙	PROPOSED SEWER MANHOLE	— — — — —	PROPOSED WATER LINE
⊙	PROPOSED DRAINAGE MANHOLE	— — — — —	PROPOSED SEWER LINE
⊙	PROPOSED CATCH BASIN	— — — — —	PROPOSED DRAINAGE LINE
⊙	PROPOSED OUTLET STRUCTURE	— — — — —	PROPOSED TREETLINE
— — — — —	ABUTTER LINE	— — — — —	PROPOSED EDGE OF PAVEMENT
— — — — —	PROPERTY LINE	— — — — —	PROPOSED VERTICAL GRANITE CURB
— — — — —	WETLAND	— — — — —	PROPOSED SLOPED GRANITE CURB
— — — — —	GUARDRAIL	— — — — —	PROPOSED 2' CONTOUR
— — — — —	OVERHEAD UTILITIES	— — — — —	PROPOSED SWALE
— — — — —	DRAINAGE LINE	— — — — —	PROPOSED RETAINING WALL
— — — — —	TREETLINE	— — — — —	PROPOSED STONEWALL
— — — — —	EDGE OF PAVEMENT	— — — — —	EASEMENT
— — — — —	STONEWALL	— — — — —	SITE LIGHTING
— — — — —	BUILDING SETBACK	— — — — —	BUILDING WALL PACK LIGHTING
— — — — —	ZONE LINE	— — — — —	TP-1
— — — — —	10' CONTOUR	— — — — —	TEST PIT
— — — — —	2' CONTOUR	— — — — —	



SEE SHEET 1 FOR NOTES & REFERENCE PLANS

LOAM & SEED ALL DISTURBED AREAS (TYP.)



NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND, THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

UTILITY NOTE

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SPOT GRADE PLAN
BLUEBIRD SELF STORAGE
 MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
--	--

KM KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
 PROJECT NO: 21-0709-3 SHEET 6 OF 21

MAP 176 LOT 47
DEREK REALTY, LLC
195 CENTRAL STREET
HUDSON, N.H. 03051
BK. 5520 PG. 0684

MAP 176 LOT 44
POSEY INVESTMENTS, LLC
196R CENTRAL STREET
HUDSON, N.H. 03051
BK. 8729 PG. 399

MAP 176 LOT 43
JOHN E. ROBICHAUD
201 CENTRAL STREET
HUDSON, N.H. 03051
BK. 9079 PG. 1084

MAP 176 LOT 42
203 CENTRAL STREET REALTY, LLC
55 HAZELWOOD ROAD
HUDSON, N.H. 03051
BK. 8902 PG. 117

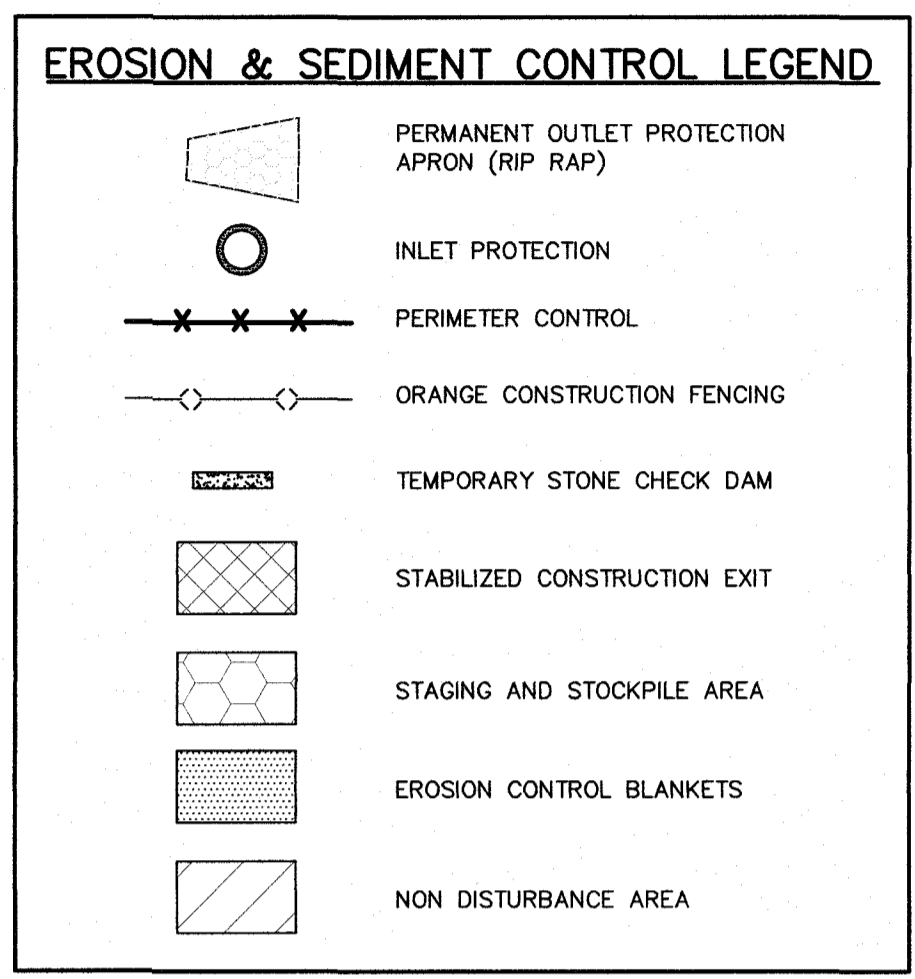
MAP 176 LOT 41
GPR REALTY, LLC
22 ABBOTT STREET
HUDSON, N.H. 03051
BK. 6745 PG. 1224

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

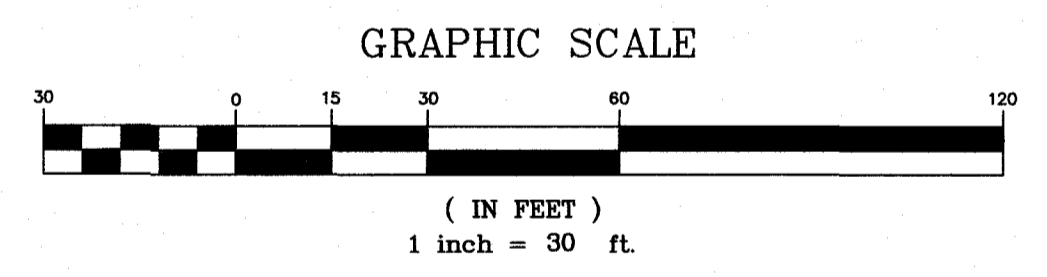
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

- EROSION CONTROL NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
 2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2010, AS AMENDED FROM TIME TO TIME.
 3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 10. THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 11. INFILTRATION AREAS ARE TO BE PROTECTED FROM OVER-COMPACTION DURING CONSTRUCTION.
 12. SLOPES OVER 2:1 TO BE DESIGNED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.



LOAM & SEED ALL DISTURBED AREAS (TYP.)



EROSION CONTROL PLAN
BLUEBIRD SELF STORAGE
 MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 RONALD CRAVEN TRUST
 c/o NANCY CRAVEN TRUST
 88 SPEARE ROAD
 HUDSON, NH 03051
 H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
 BLUEBIRD SELF STORAGE LLC.
 125 OCEAN ROAD
 GREENLAND, NH 03840

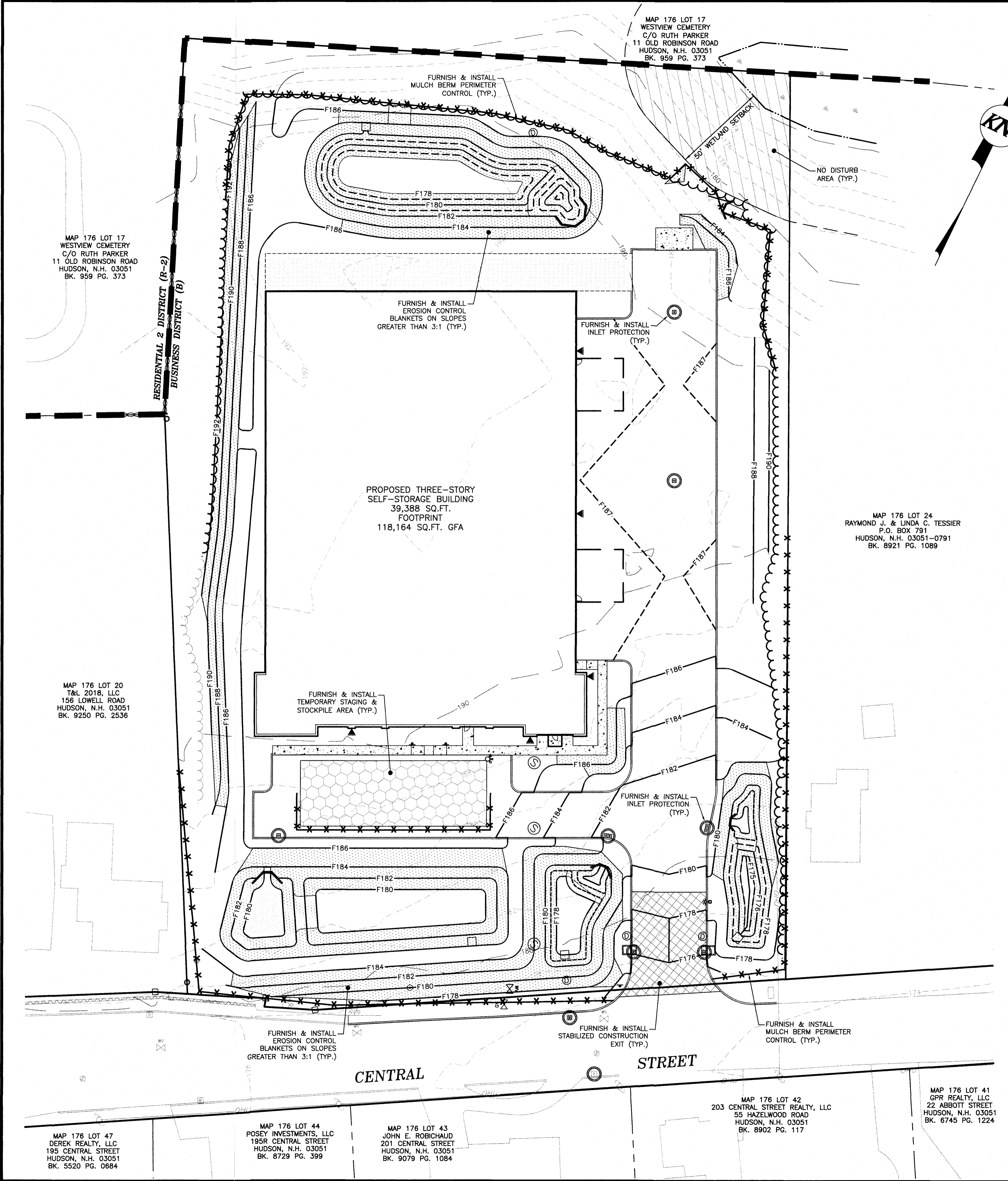


NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
 PROJECT NO: 21-0709-3 SHEET 8 OF 21



MAP 176 LOT 17
 WESTVIEW CEMETERY
 C/O RUTH PARKER
 11 OLD ROBINSON ROAD
 HUDSON, N.H. 03051
 BK. 959 PG. 373

MAP 176 LOT 17
 WESTVIEW CEMETERY
 C/O RUTH PARKER
 11 OLD ROBINSON ROAD
 HUDSON, N.H. 03051
 BK. 959 PG. 373

MAP 176 LOT 24
 RAYMOND J. & LINDA C. TESSIER
 P.O. BOX 791
 HUDSON, N.H. 03051-0791
 BK. 8921 PG. 1089

MAP 176 LOT 20
 T&L 2018, LLC
 156 LOWELL ROAD
 HUDSON, N.H. 03051
 BK. 9250 PG. 2536

MAP 176 LOT 47
 DEREK REALTY, LLC
 195 CENTRAL STREET
 HUDSON, N.H. 03051
 BK. 5520 PG. 0684

MAP 176 LOT 44
 POSEY INVESTMENTS, LLC
 195R CENTRAL STREET
 HUDSON, N.H. 03051
 BK. 8729 PG. 399

MAP 176 LOT 43
 JOHN E. ROBICHAUD
 201 CENTRAL STREET
 HUDSON, N.H. 03051
 BK. 9079 PG. 1084

MAP 176 LOT 42
 203 CENTRAL STREET REALTY, LLC
 55 HAZELWOOD ROAD
 HUDSON, N.H. 03051
 BK. 8902 PG. 117

MAP 176 LOT 41
 GPR REALTY, LLC
 22 ABBOTT STREET
 HUDSON, N.H. 03051
 BK. 6745 PG. 1224

LIGHTING NOTES:

1. ALL LIGHTS/FIXTURES SHALL BE AS SPECIFIED BY CHARRON LIGHTING.
2. ALL PROPOSED LIGHTS/FIXTURES ARE TO BE FULL CUTOFF.
3. FIXTURES SHALL BE MOUNTED AS HEIGHTS AS SPECIFIED IN TABLE.
4. PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ELECTRICIAN FOR THE EXACT LOCATION, LAYOUT, CONDUIT SIZE AND CIRCUITS ASSOCIATED WITH THE SITE LIGHTING.
5. LIGHTING WILL BE ON AT ALL TIMES TO PROVIDE SECURITY AND SAFETY FOR THE FACILITY.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

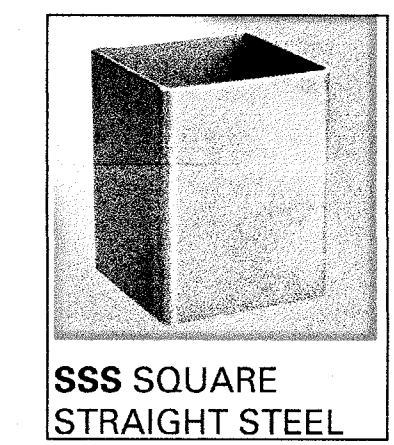
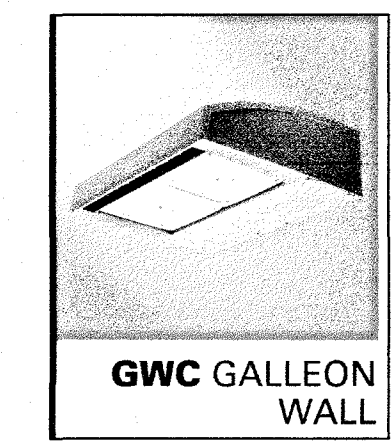
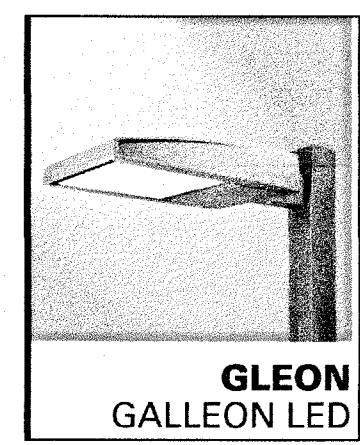
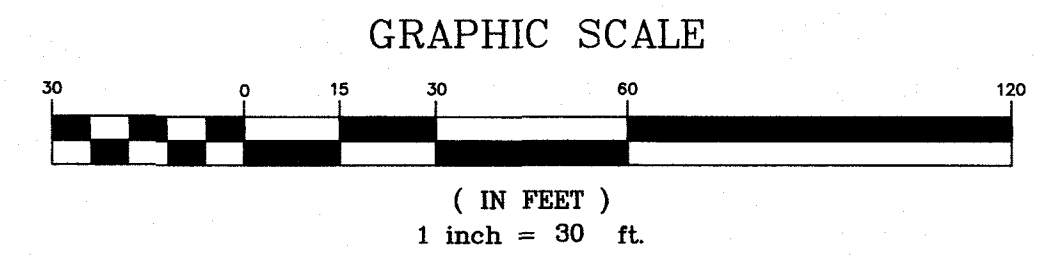
APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 _____ SIGNATURE DATE: _____
 _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- ⊙ DH-F DRILL HOLE FOUND
- ⊙ UTILITY POLE
- ▽ PROPOSED SIGN
- ⊙* PROPOSED LIGHT
- ⊙** PROPOSED HYDRANT
- ⊙ PROPOSED WELL
- ⊙ PROPOSED SEWER MANHOLE
- ⊙ PROPOSED DRAINAGE MANHOLE
- ⊙ PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- ABUTTER LINE
- PROPERTY LINE
- OHU OVERHEAD UTILITIES
- TREELINE
- EDGE OF PAVEMENT
- STONEWALL
- BUILDING SETBACK
- ZONE LINE
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED SWALE
- EASEMENT
- ⊙* SITE LIGHTING
- ⊙* BUILDING WALL PACK LIGHTING

SEE SHEET 1 FOR NOTES & REFERENCE PLANS



LUMINAIRE SCHEDULE				
SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
⊙*	1	SS	SINGLE	GLEON-SA1C-740-U-SL3-HSS/ SSS4A20SFN1 (20' AFG)
⊙*	5	W	SINGLE	GWC-SA1C-740-U-SL4/ WALL MTD 18' AFG

STATAREA_1
 FRONT PARKING LOT AREA
 ILLUMINANCE (FC)
 AVERAGE = 0.66
 MAXIMUM = 1.8
 MINIMUM = 0.2
 AVG/MIN RATIO = 3.30
 MAX/MIN RATIO = 9.00

STATAREA_2
 SIDE PARKING LOT AREA
 ILLUMINANCE (FC)
 AVERAGE = 0.77
 MAXIMUM = 3.0
 MINIMUM = 0.2
 AVG/MIN RATIO = 3.85
 MAX/MIN RATIO = 15.00



IN ASSOCIATION WITH:

CHARRON
 BRIGHTER.

P.O. BOX 4550
 MANCHESTER, NH 03108
 (603) 624-4827
 FAX (603) 624-9764
 SALES@CHARRONING.COM

LIGHTING PLAN
BLUEBIRD SELF STORAGE
 MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

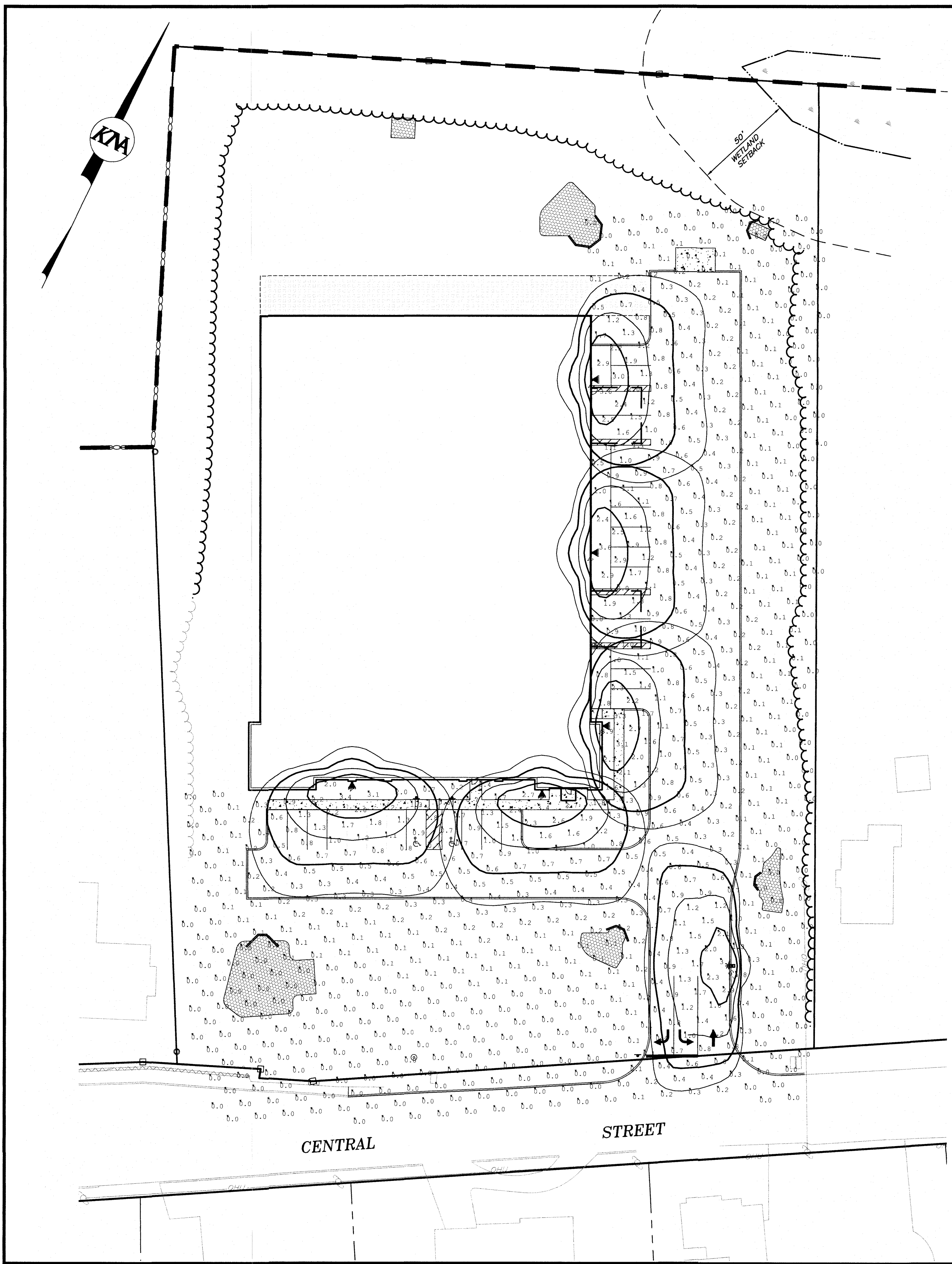
OWNER OF RECORD:
 RONALD CRAVEN TRUST
 c/o NANCY CRAVEN TRUST
 88 SPEARE ROAD
 HUDSON, NH 03051
 H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
 BLUEBIRD SELF STORAGE LLC.
 125 OCEAN ROAD
 GREENLAND, NH 03840

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

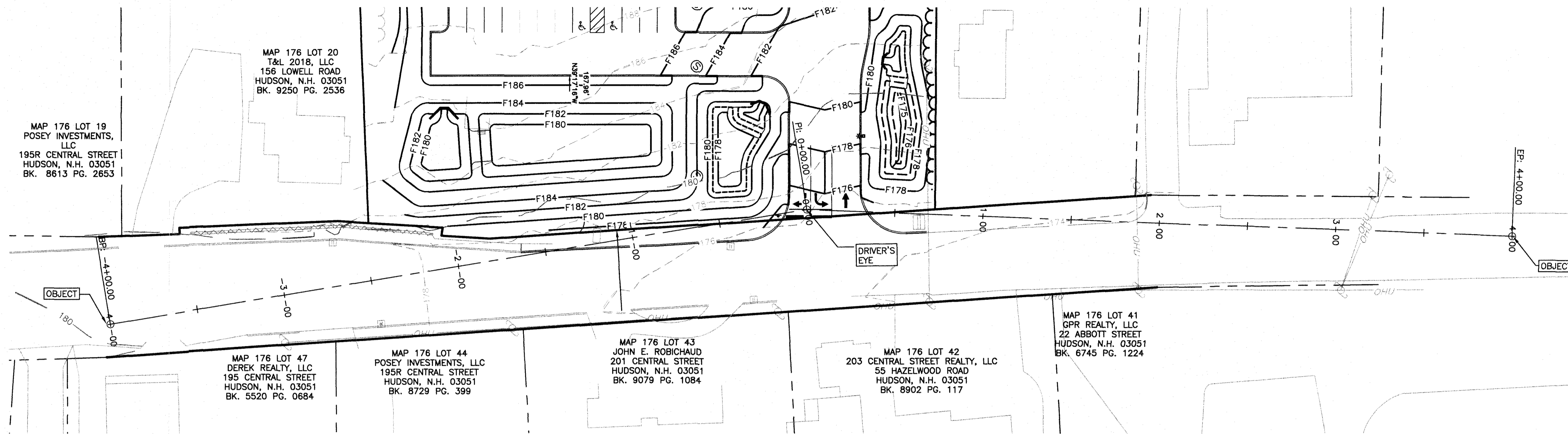
REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 30'
 PROJECT NO: 21-0709-3 SHEET 10 OF 21

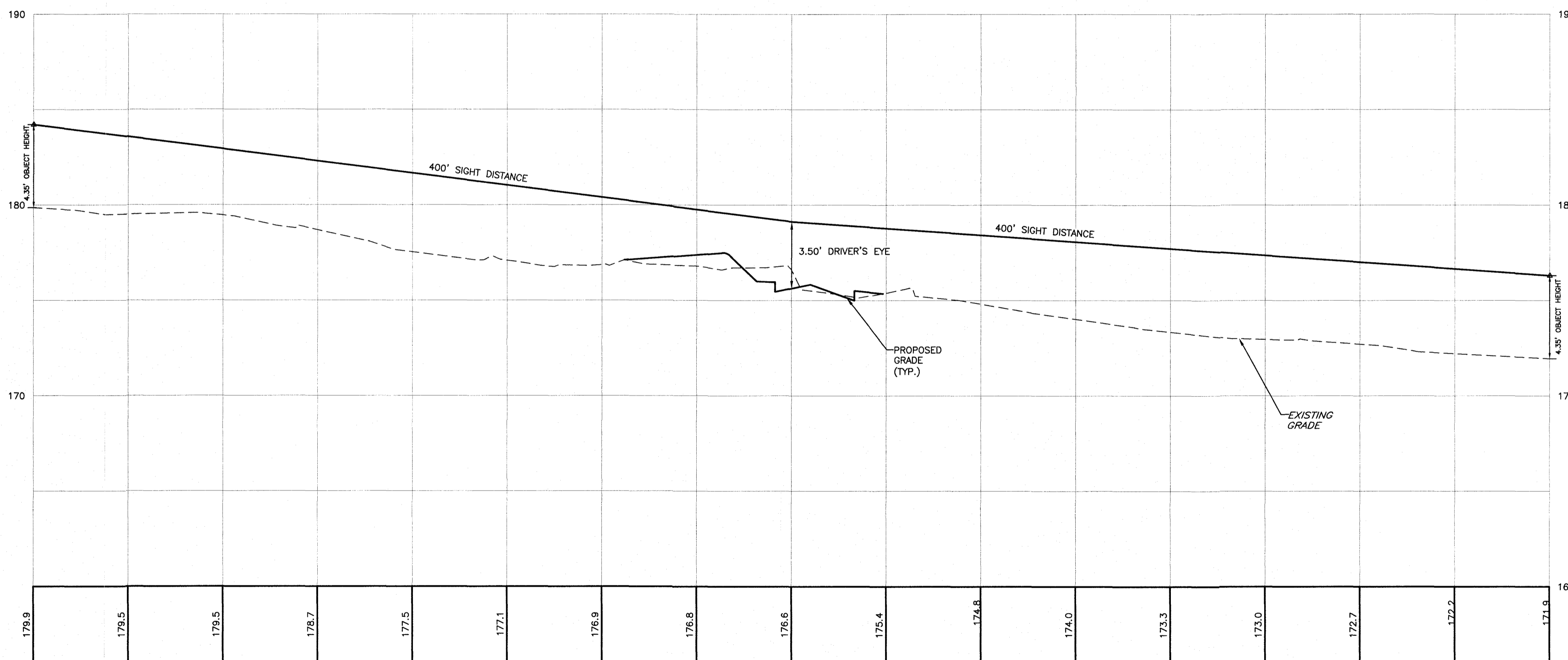


CENTRAL STREET



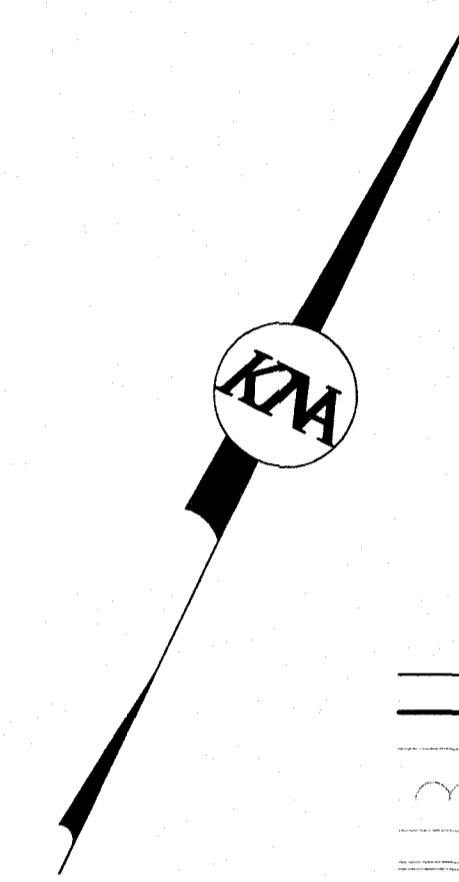


SIGHT DISTANCE PLAN
SCALE: 1" = 40'



SIGHT DISTANCE PROFILE
SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)

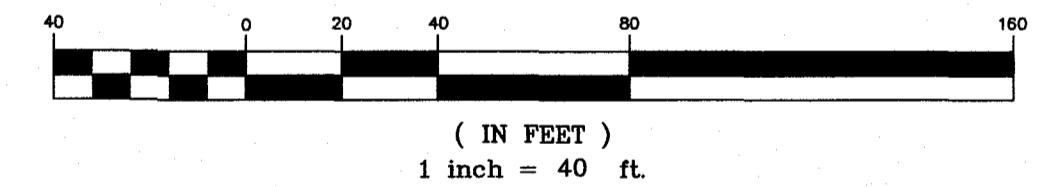
NOTES:
1. SIGHT DISTANCE WAS CALCULATED USING TABLE 3-2 (STOPPING SIGHT DISTANCE ON GRADES) FOUND IN AASHTO'S, "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS 2018 7TH EDITION" AS REQUIRED BY HTC-193-10(E).



LEGEND

- UTILITY POLE
- ABUTTER LINE
- PROPERTY LINE
- OVERHEAD UTILITIES
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- BITUMINOUS CURB
- 10' CONTOUR
- 2' CONTOUR
- BUILDING SETBACK
- PROPOSED SIGN
- PROPOSED LIGHT
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED 2' CONTOUR
- PROPOSED SWALE
- SITE LIGHTING

GRAPHIC SCALE



SIGHT DISTANCE PLAN & PROFILE
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
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c/o NANCY CRAVEN TRUST
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HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
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125 OCEAN ROAD
GREENLAND, NH 03840

KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



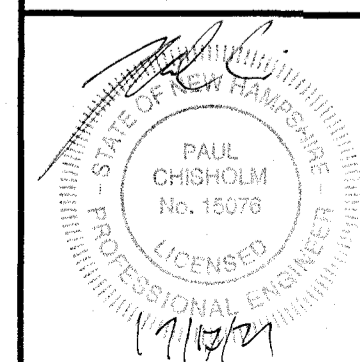
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

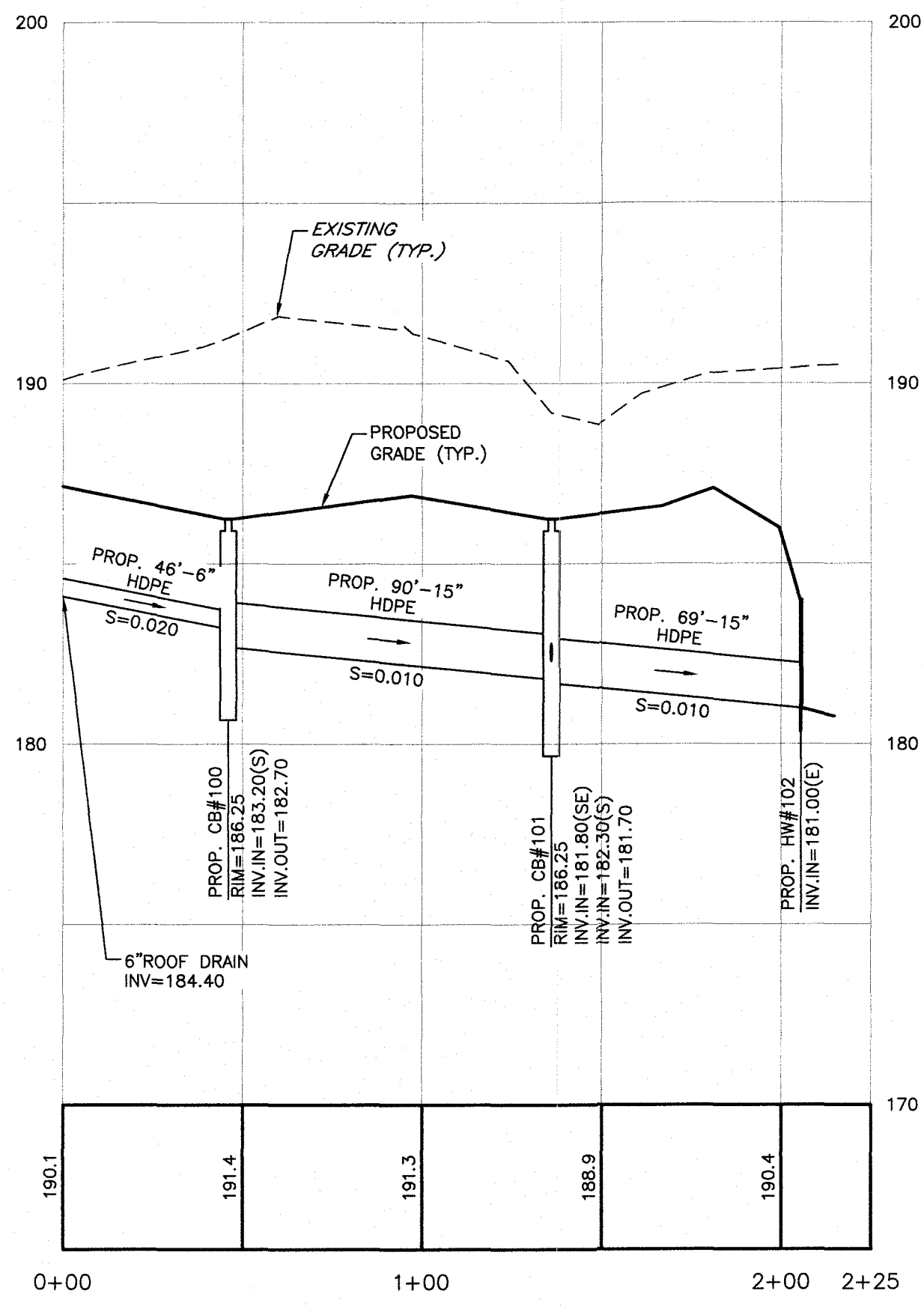
SIGNATURE DATE: _____

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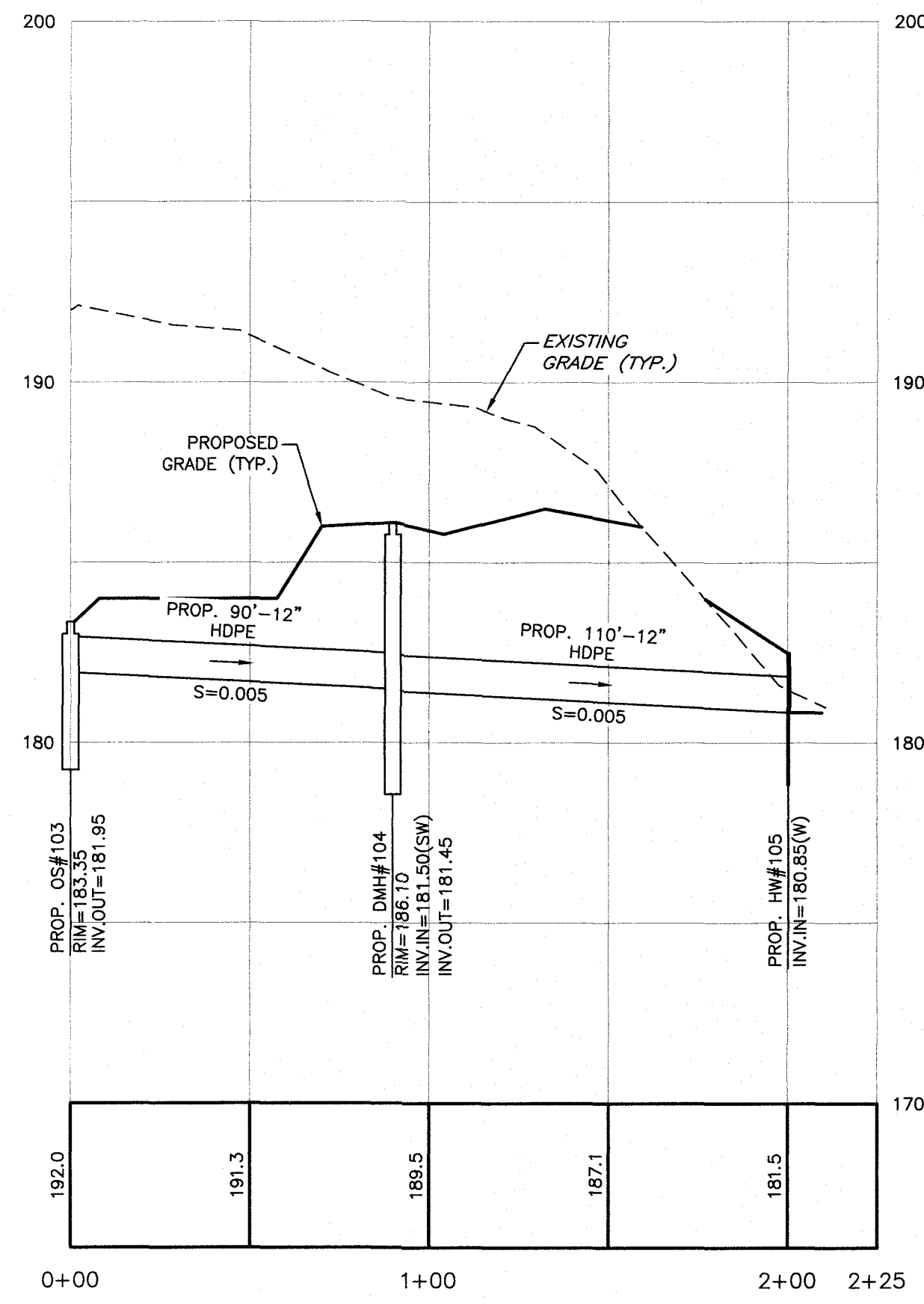
REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: 1" = 40'
PROJECT NO: 21-0709-3 SHEET 11 OF 21



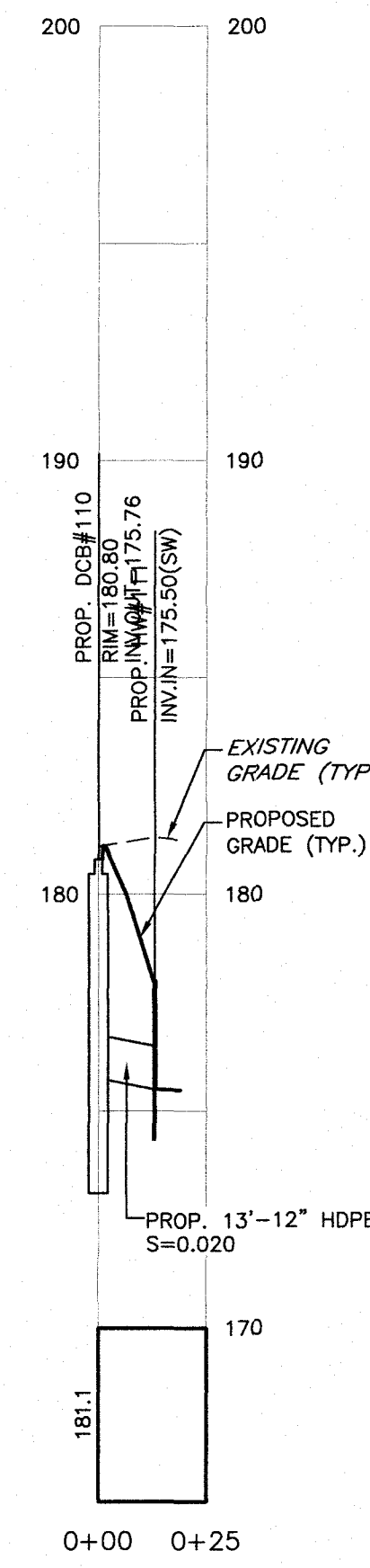
DRAINAGE PROFILE -- AWNING ROOF DRAIN TO HW#102

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



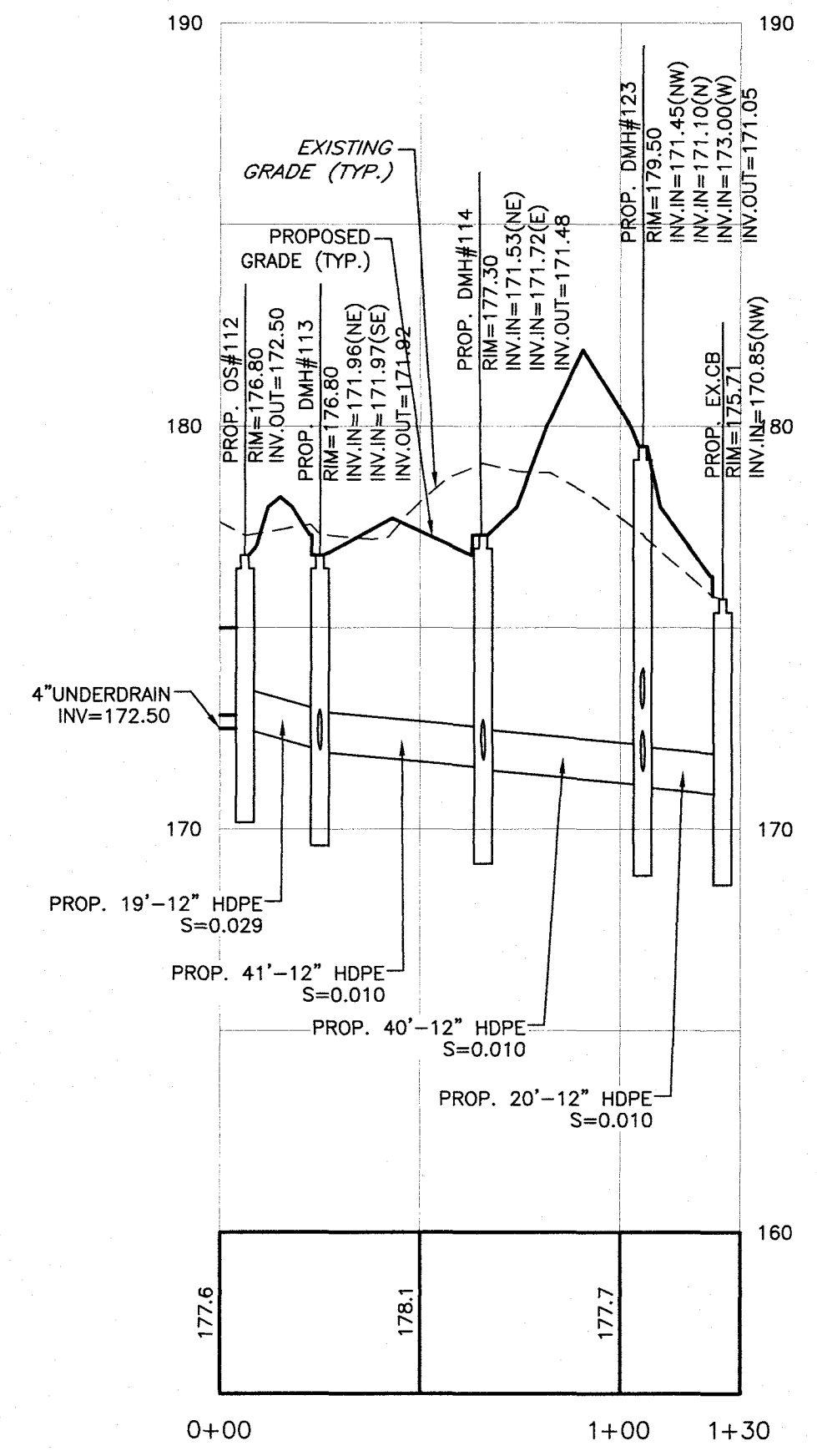
DRAINAGE PROFILE -- OS#103 TO HW#105

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



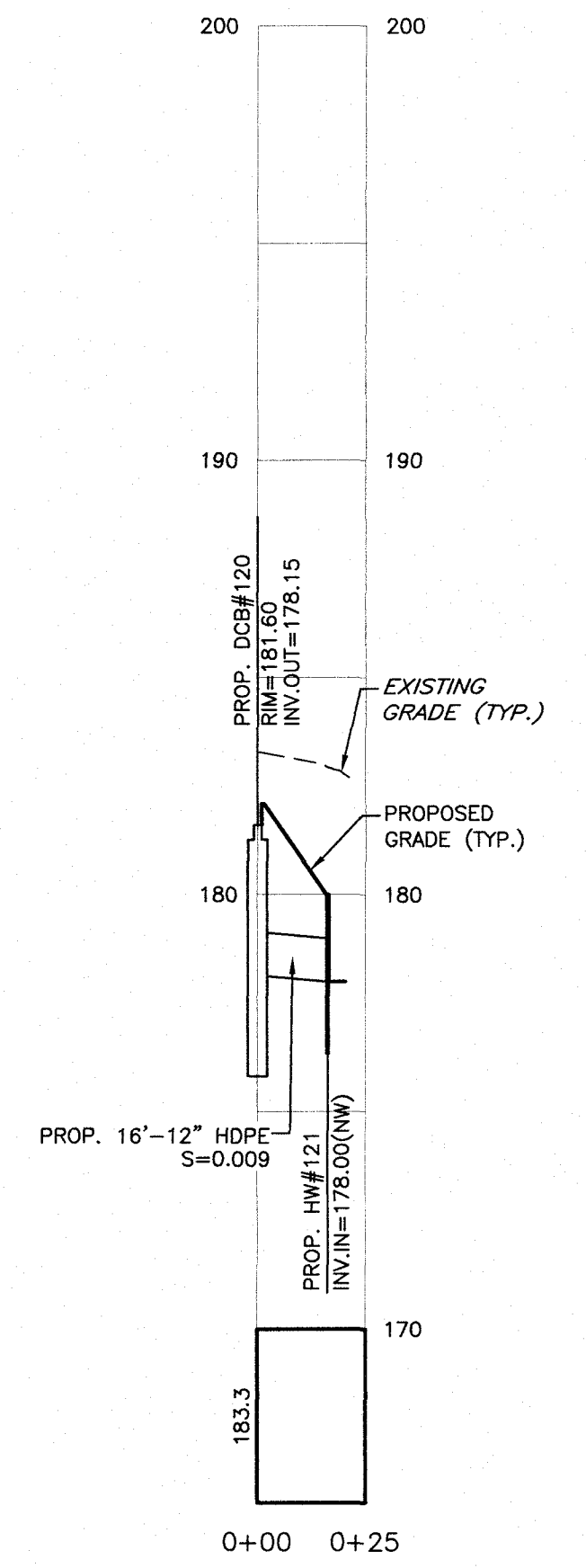
DRAINAGE PROFILE CB#110 TO HW#111

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



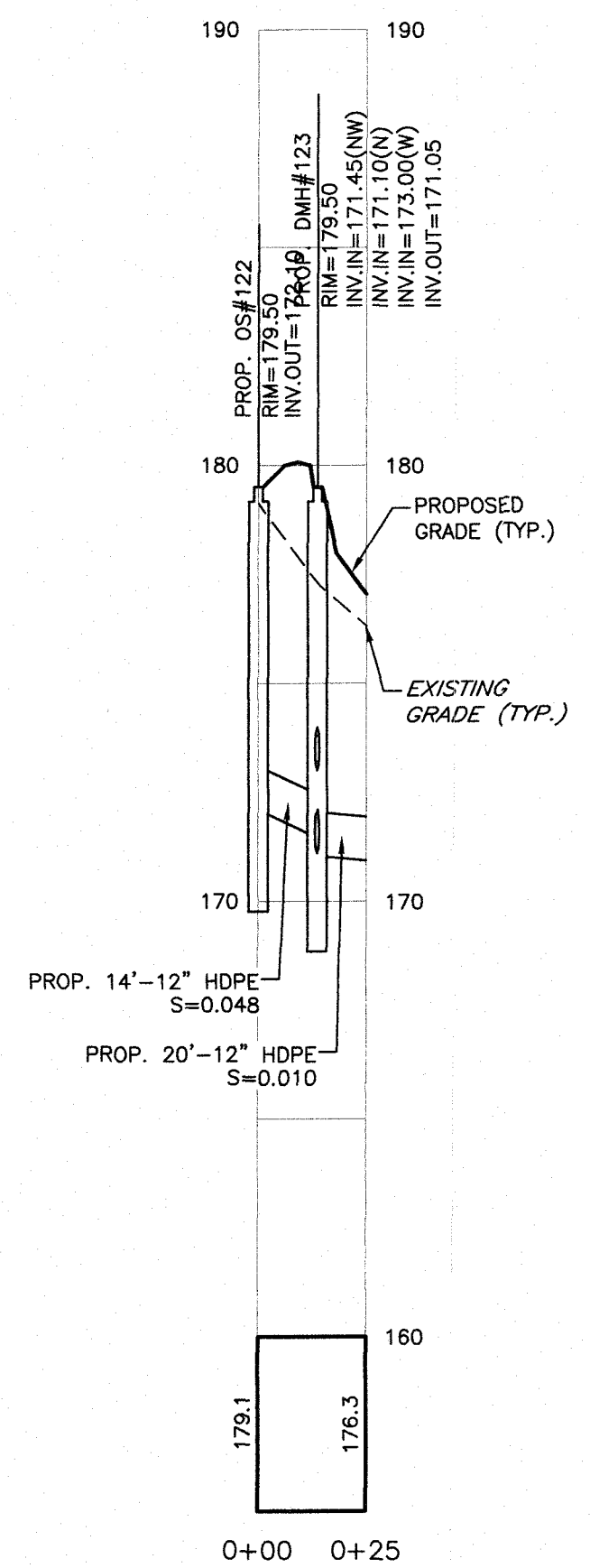
DRAINAGE PROFILE OS#112 TO EXIST. CB

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



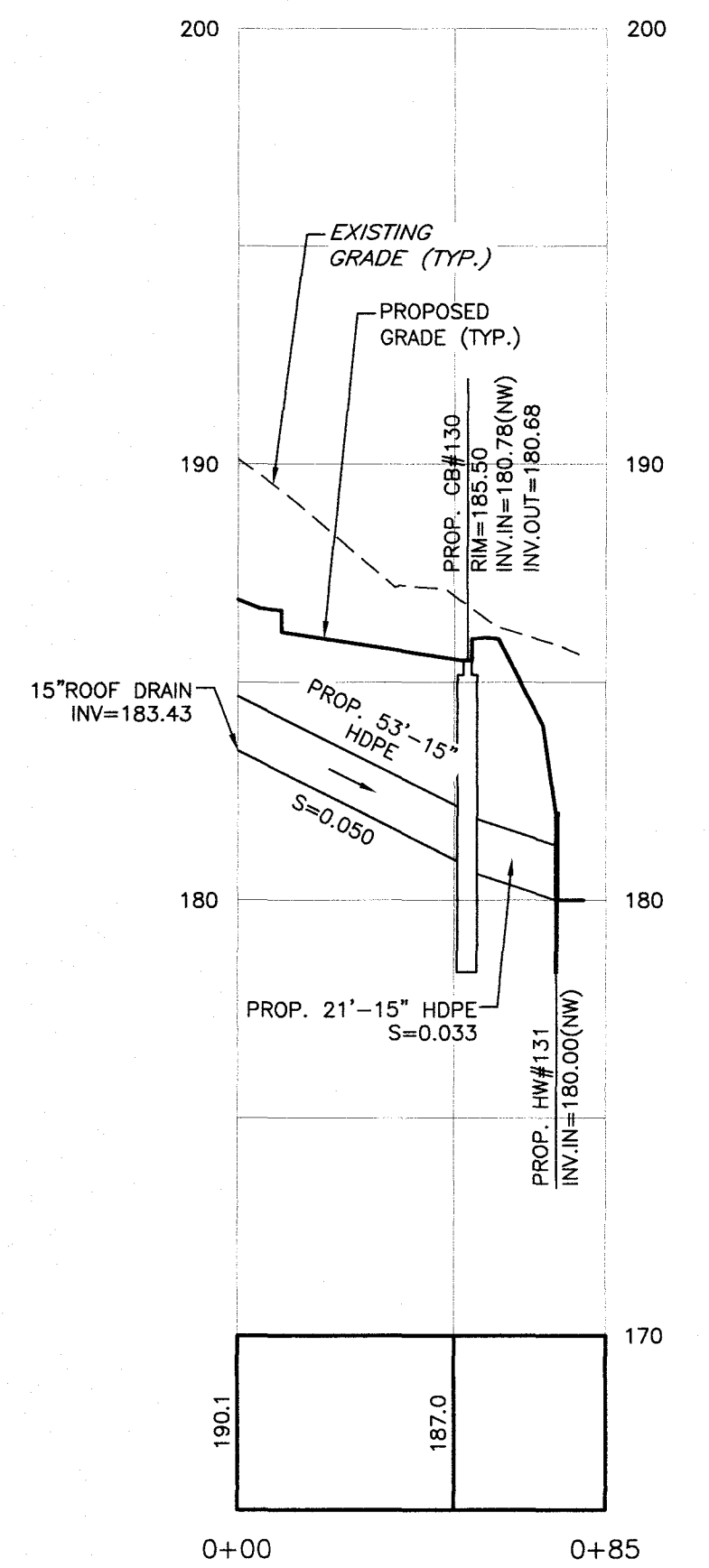
DRAINAGE PROFILE CB#120 TO HW#121

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



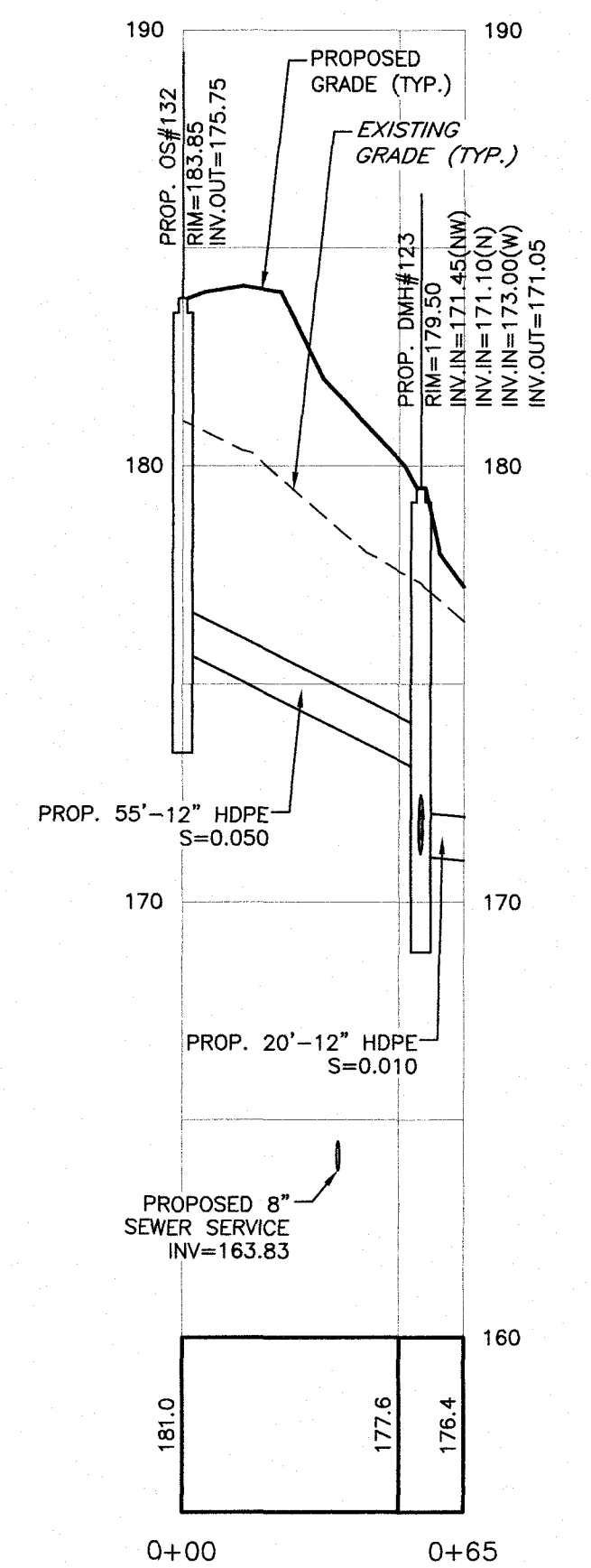
DRAINAGE PROFILE OS#122 TO EXIST. CB

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



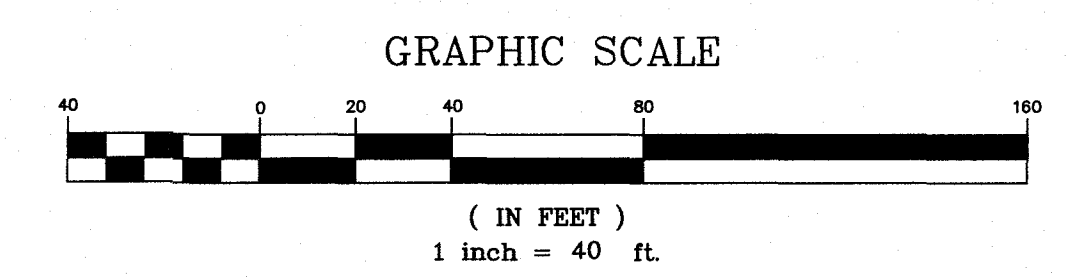
DRAINAGE PROFILE ROOF DRAIN TO HW#131

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



DRAINAGE PROFILE OS#132 TO EXIST. CB

SCALE: 1" = 40'(HORIZ.)
1" = 4'(VERT.)



**DRAINAGE PROFILES
BLUEBIRD SELF STORAGE**
MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
RONALD CRAVEN TRUST
c/o NANCY CRAVEN TRUST
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
BLUEBIRD SELF STORAGE LLC.
125 OCEAN ROAD
GREENLAND, NH 03840

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

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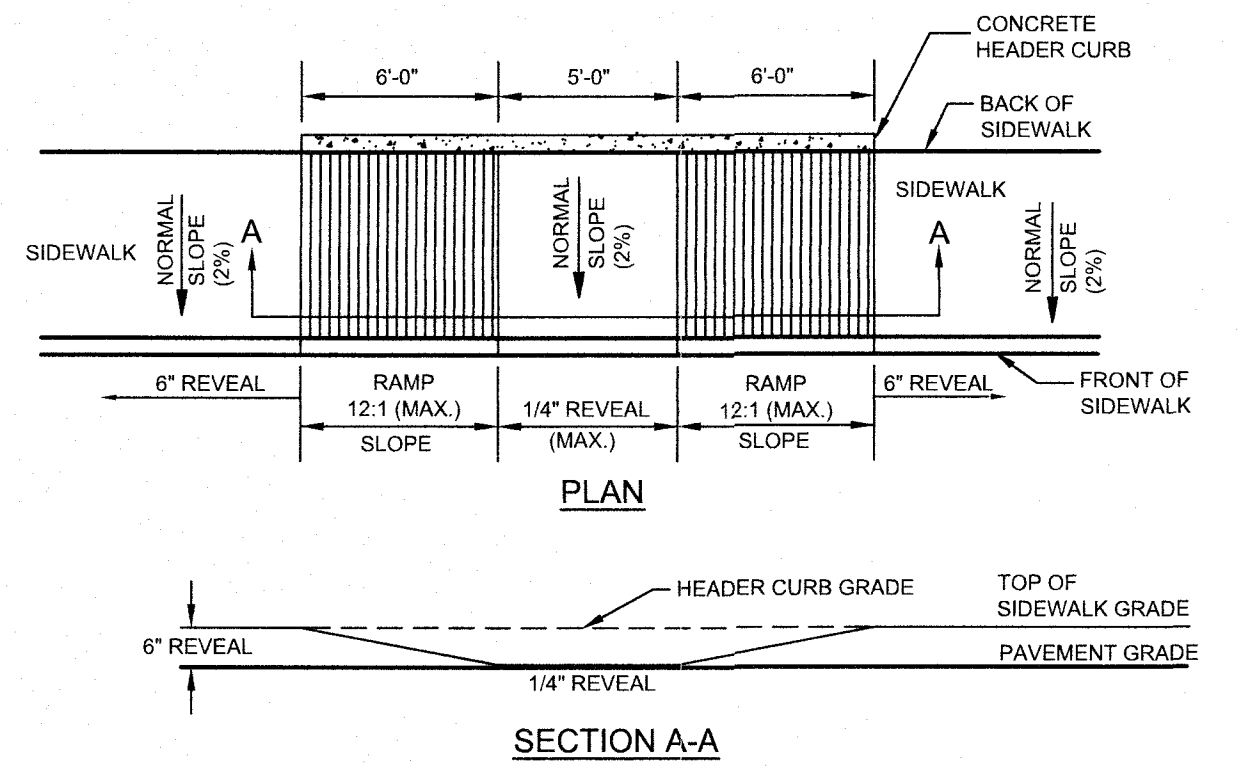
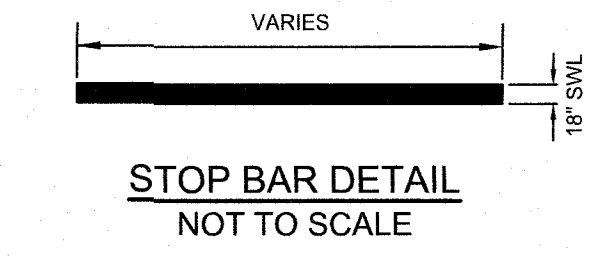
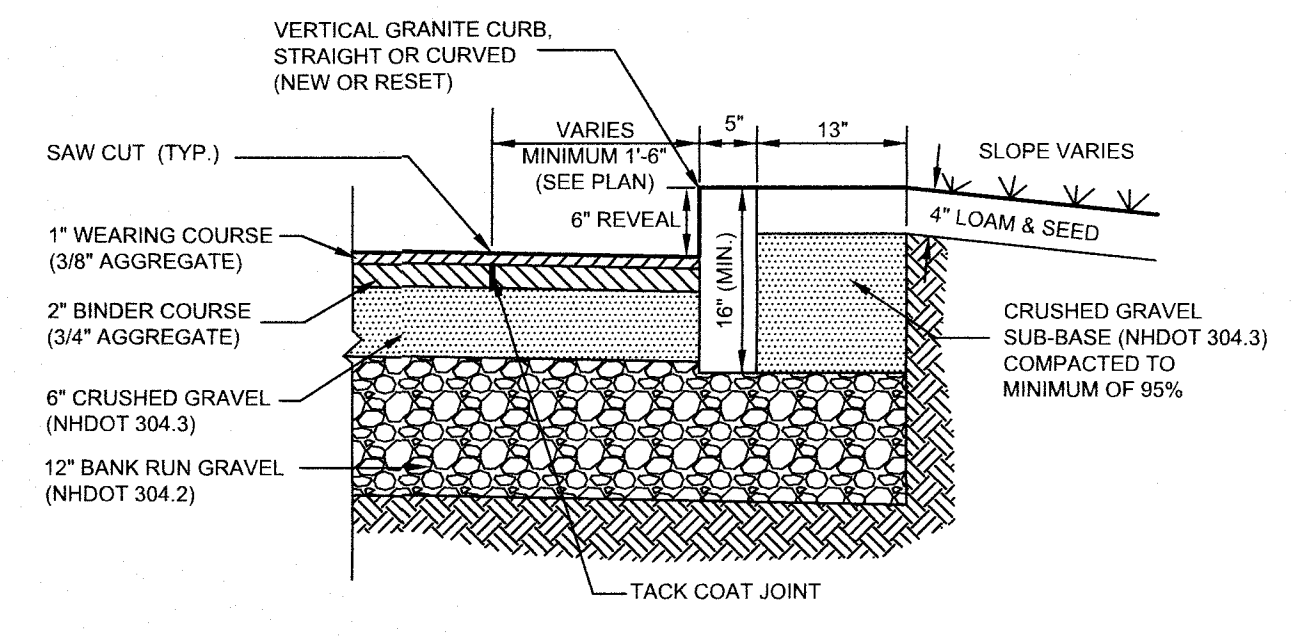
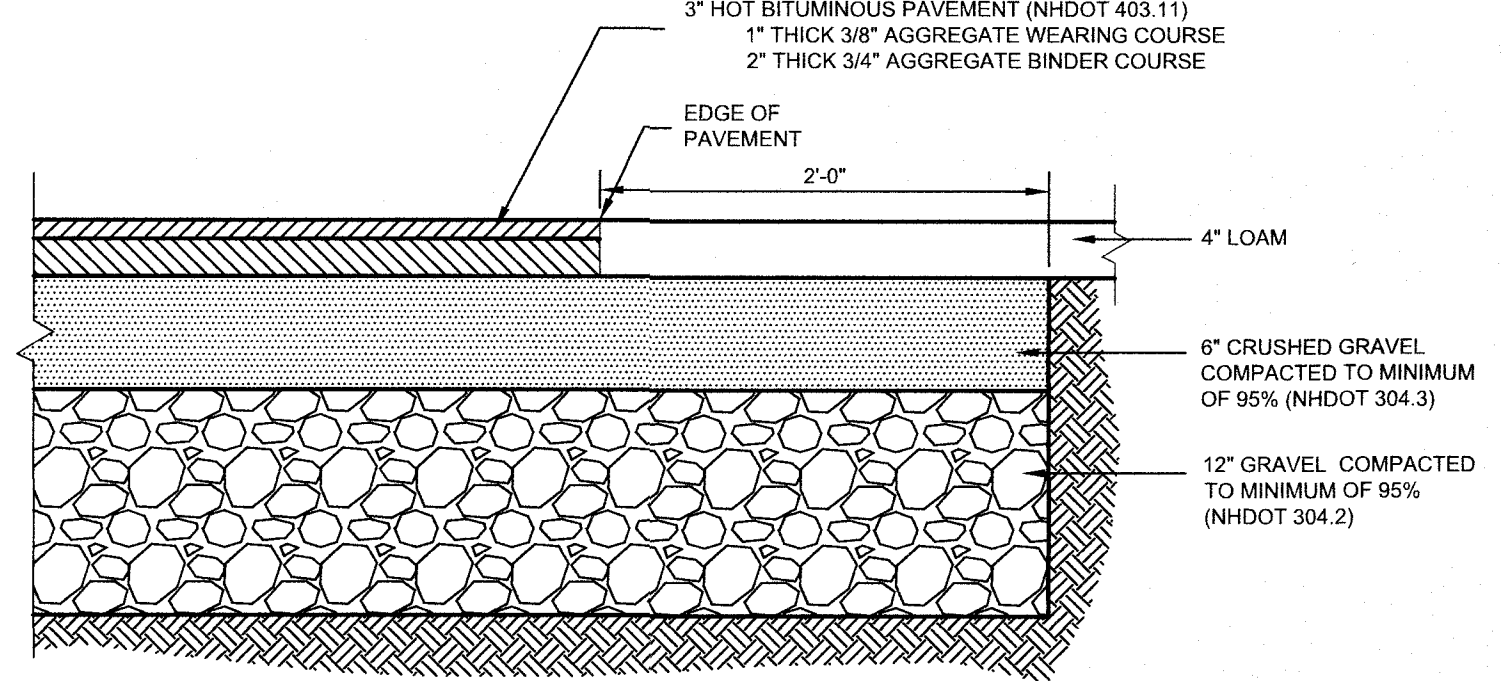
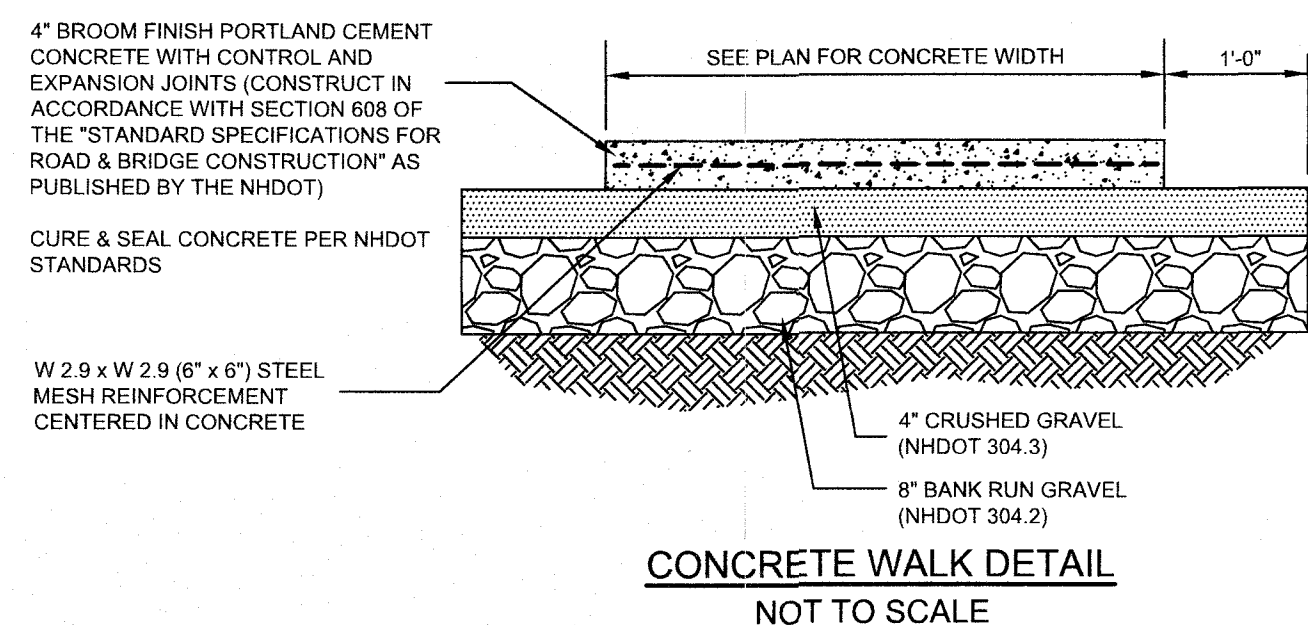
SIGNATURE DATE: _____

SIGNATURE DATE: _____

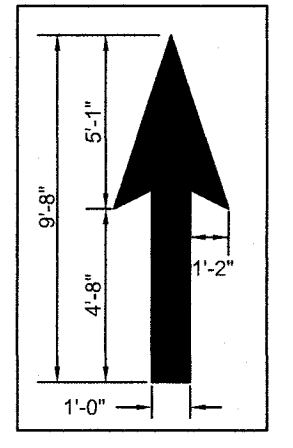
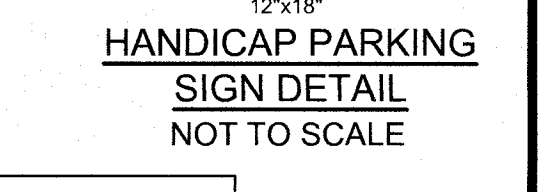
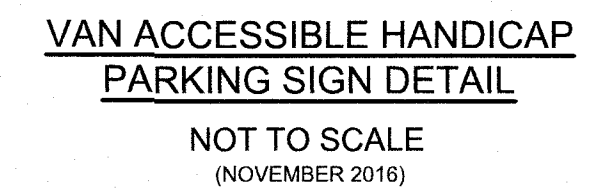
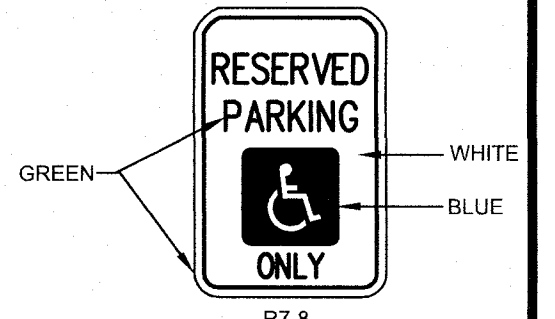
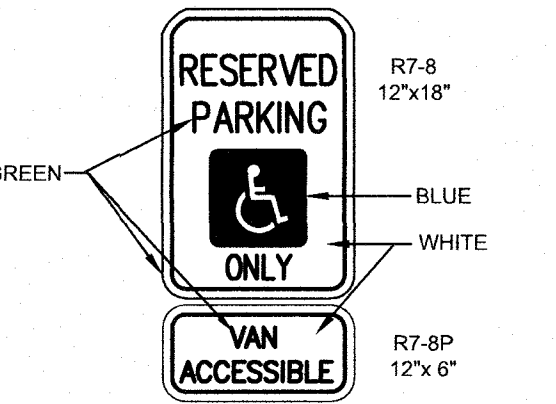
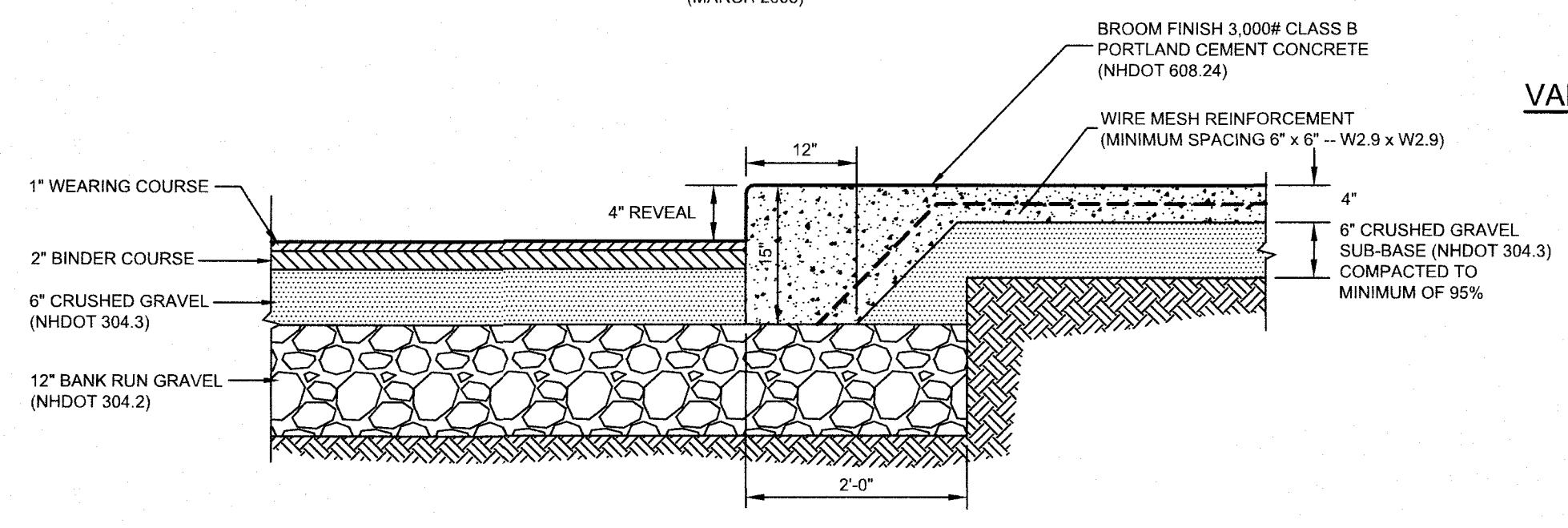
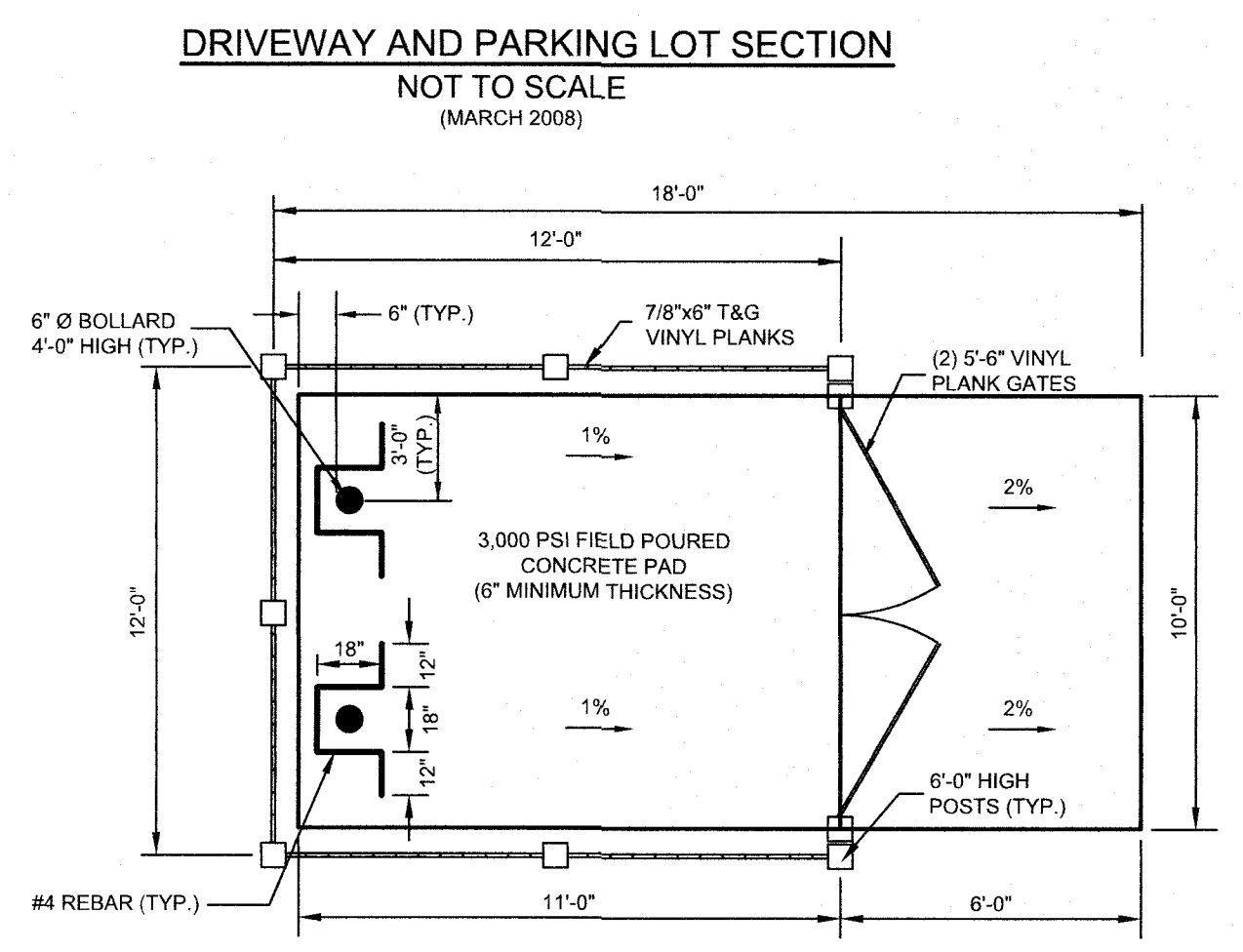
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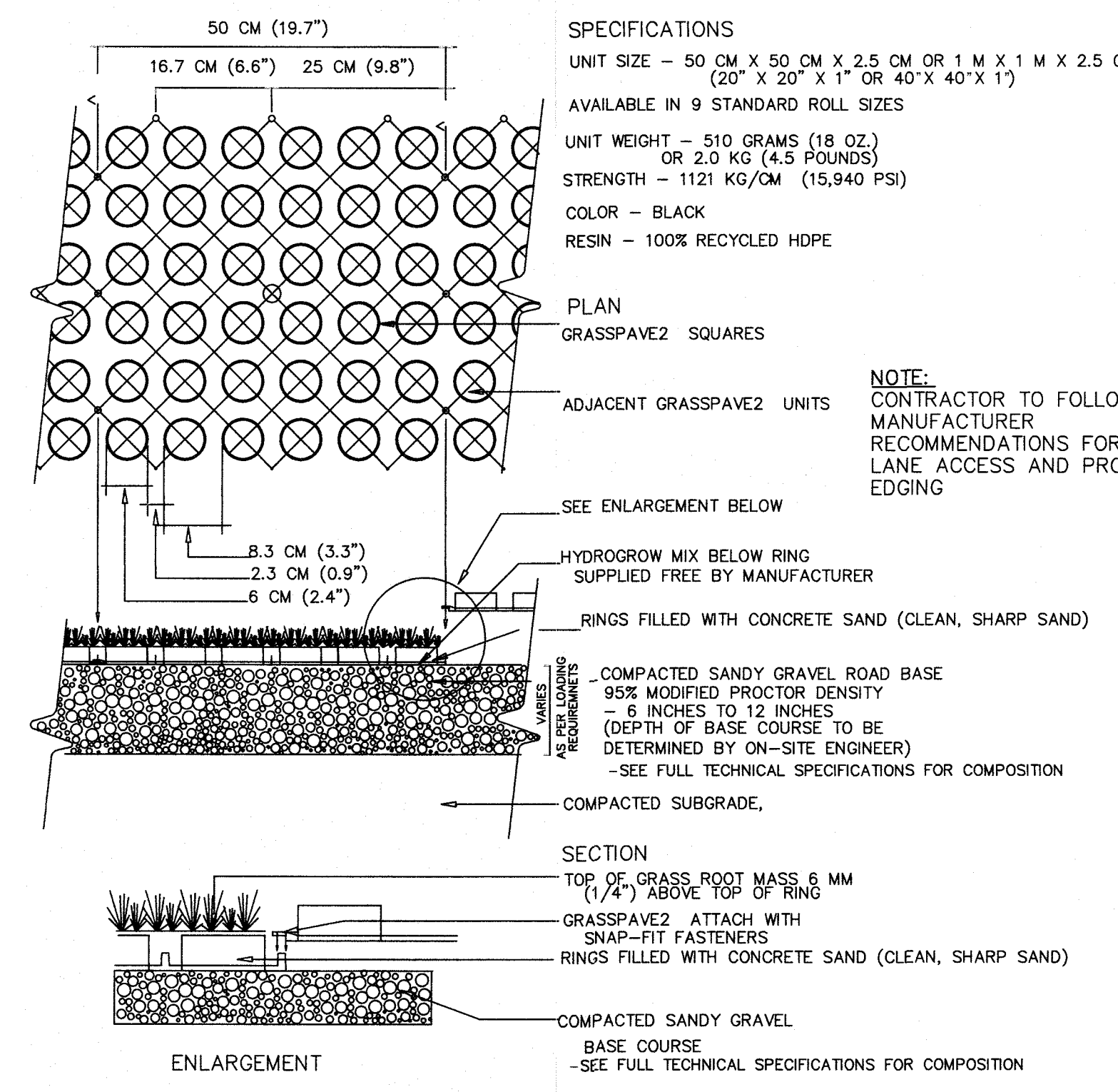
DATE: DECEMBER 20, 2021 SCALE: AS SHOWN
PROJECT NO: 21-0709-3 SHEET 13 OF 21



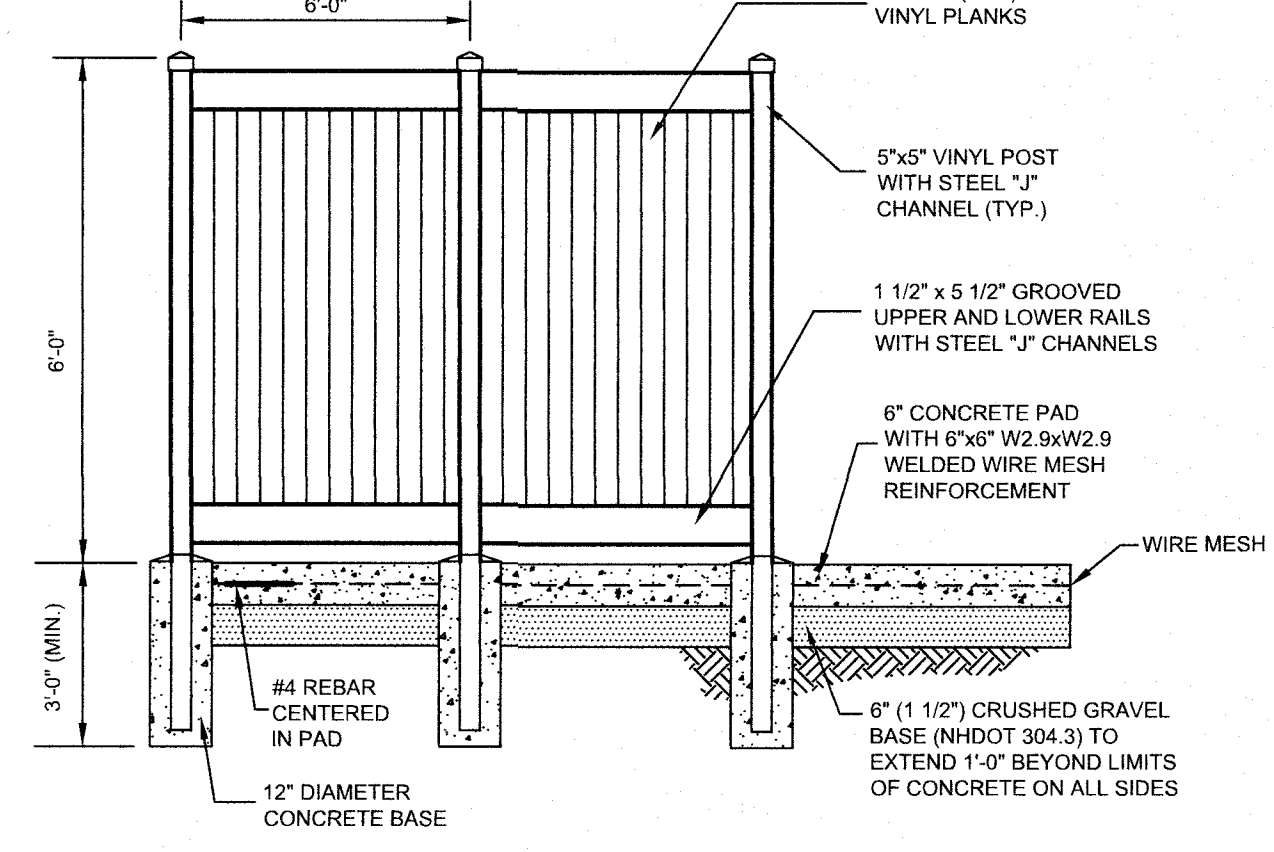
- NOTES:**
- A broom finish transverse to the slope of the ramp shall be used on portland cement concrete ramps.
 - Maintain the normal pavement profile throughout the ramp area.
 - Maintain a maximum 1/4 inch of curb reveal at the ramp, see section A-A.



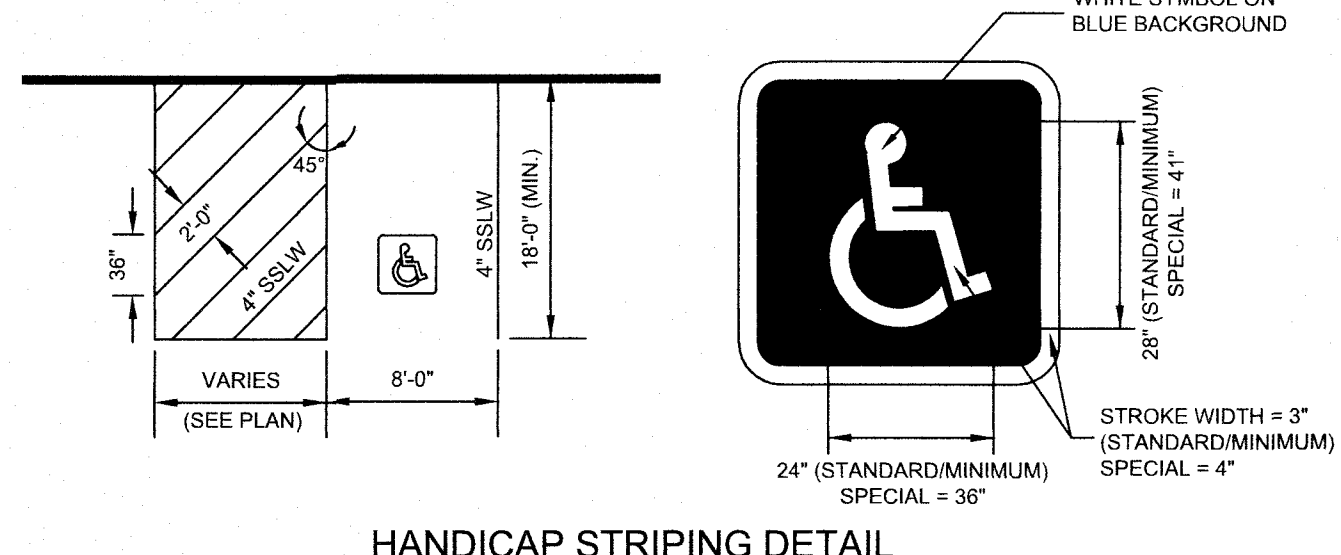
THROUGH (STRAIGHT) ARROW DETAIL NOT TO SCALE



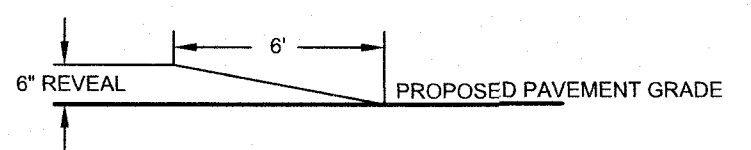
- SPECIFICATIONS**
- UNIT SIZE - 50 CM X 50 CM X 2.5 CM OR 1 M X 1 M X 2.5 CM (20" X 20" X 1" OR 40" X 40" X 1")
- AVAILABLE IN 9 STANDARD ROLL SIZES
- UNIT WEIGHT - 510 GRAMS (18 OZ.) OR 2.0 KG (4.5 POUNDS)
- STRENGTH - 1121 KG/CM (15,940 PSI)
- COLOR - BLACK
- RESIN - 100% RECYCLED HDPE
- NOTE:** CONTRACTOR TO FOLLOW MANUFACTURER RECOMMENDATIONS FOR FILLER ACCESS AND PROPER EDGING



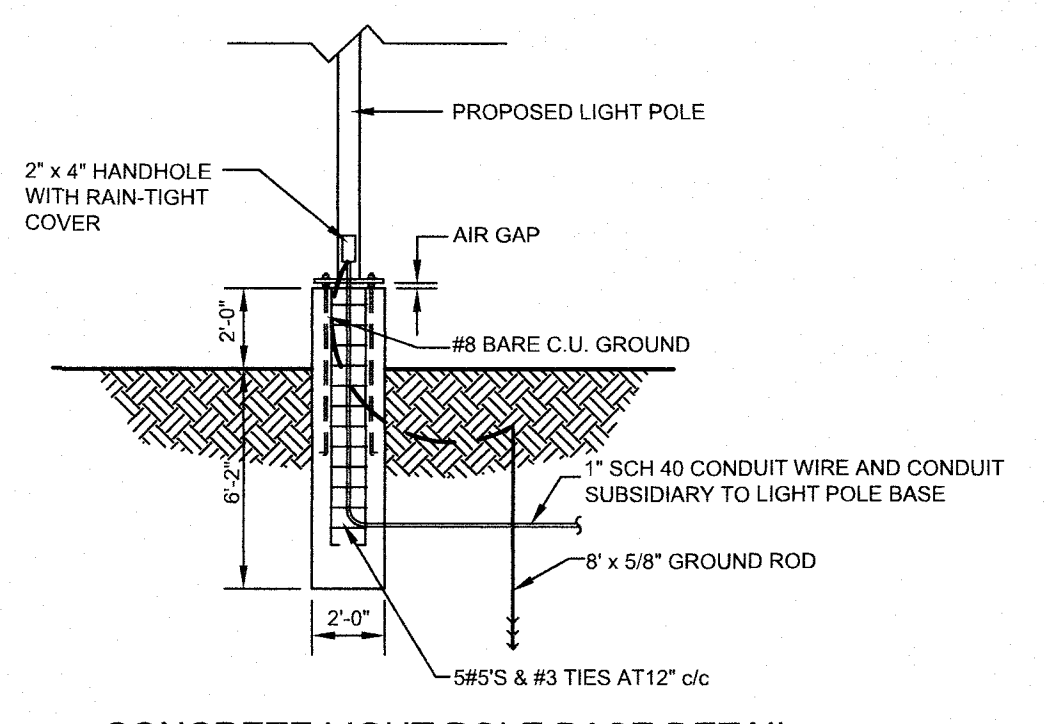
VINYL TRASH ENCLOSURE DETAIL NOT TO SCALE (MARCH 2008)



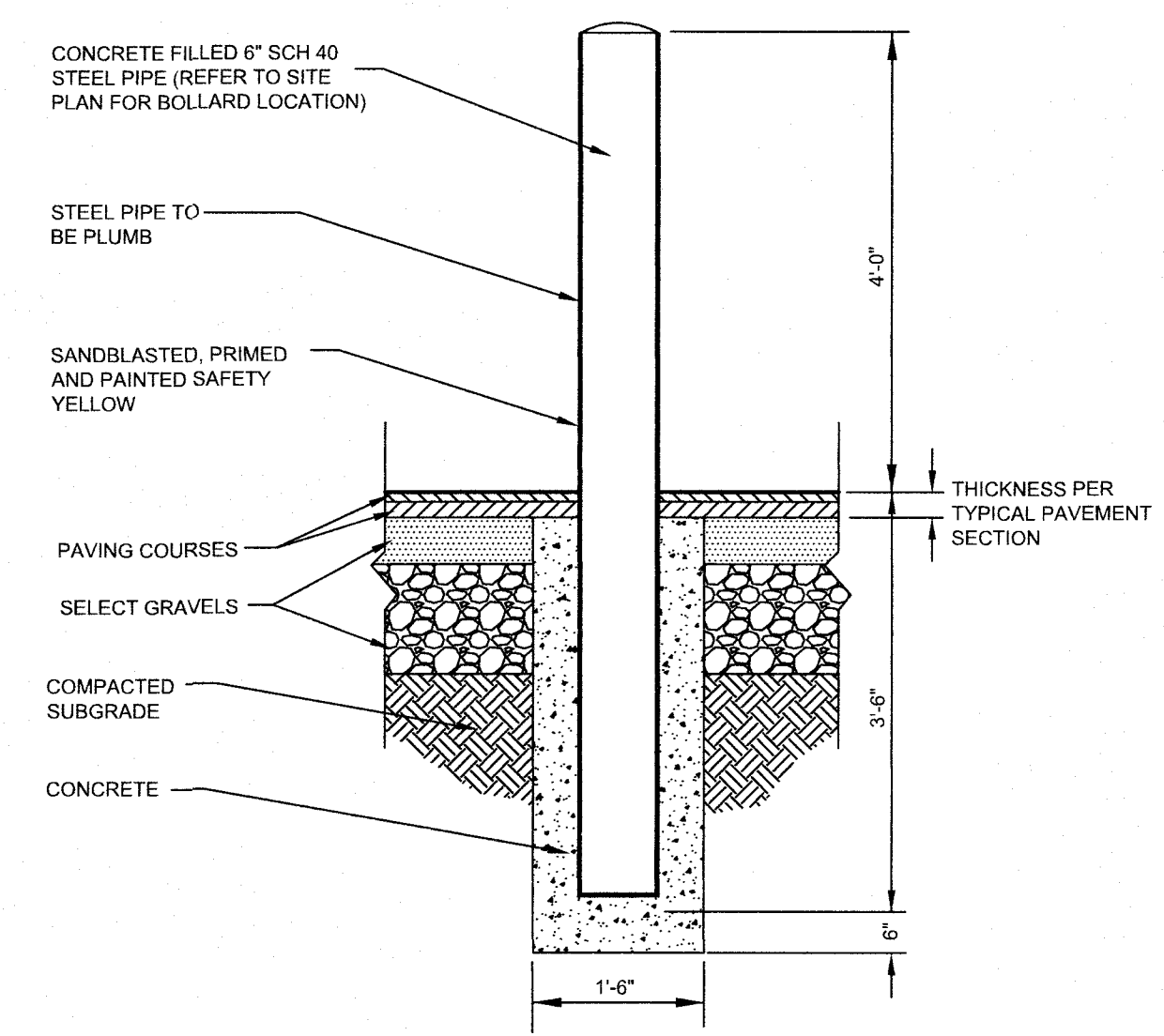
HANDICAP STRIPING DETAIL NOT TO SCALE



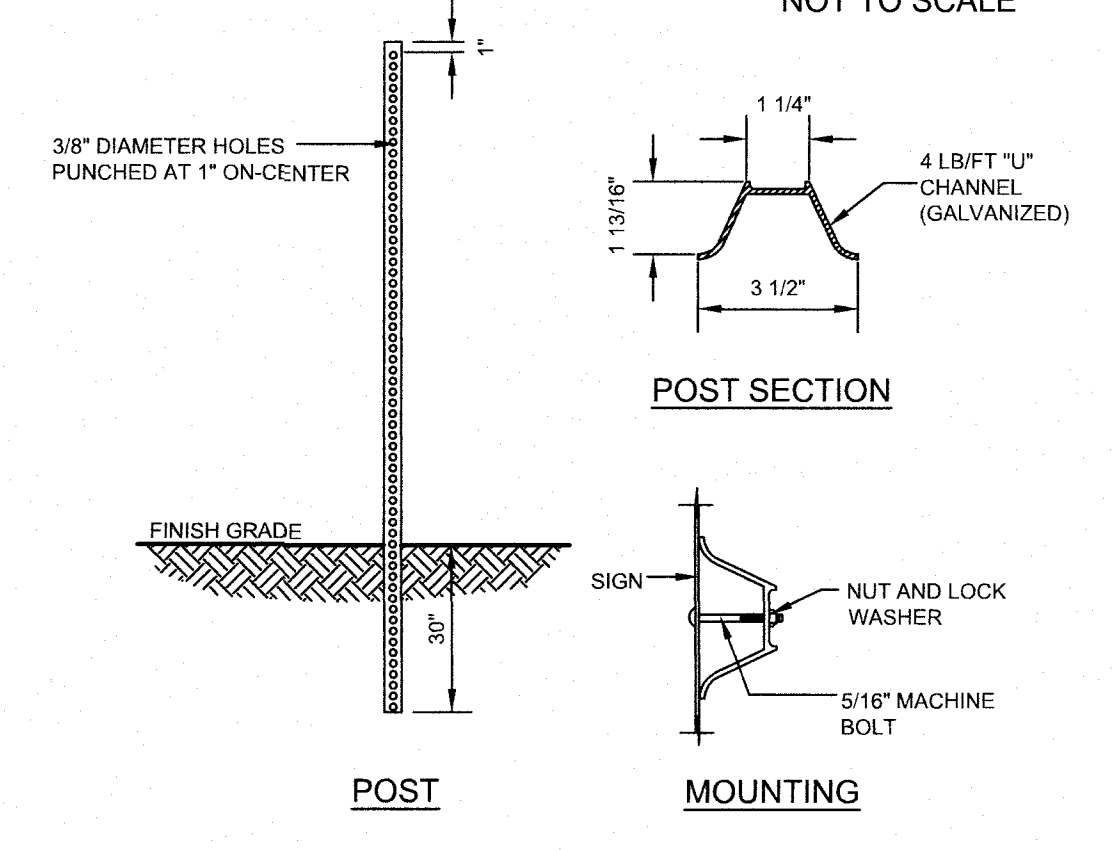
CURB TIP DOWN NOT TO SCALE



CONCRETE LIGHT POLE BASE DETAIL NOT TO SCALE (MARCH 2008)



BOLLARD DETAIL NOT TO SCALE (MARCH 2008)



STEEL SIGN POST DETAIL NOT TO SCALE (MARCH 2008)

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE
 MAP 176 LOTS 21, 22 & 23
 196-202 CENTRAL STREET
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD:
 RONALD CRAVEN TRUST
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 88 SPEARE ROAD
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APPLICANT:
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 125 OCEAN ROAD
 GREENLAND, NH 03840

KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: N.T.S.
 PROJECT NO: 21-0709-3 SHEET 14 OF 21

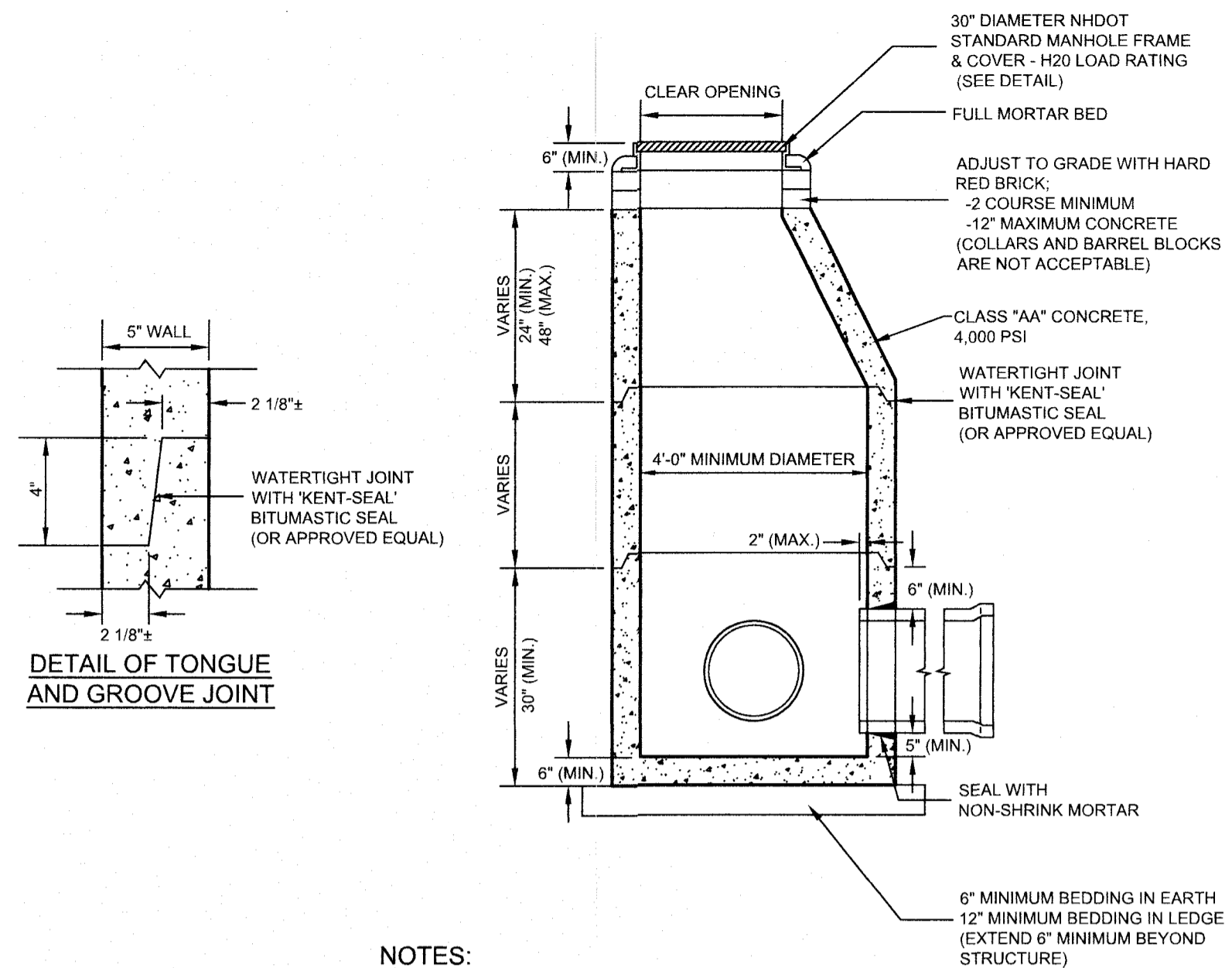
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____

 SIGNATURE DATE: _____

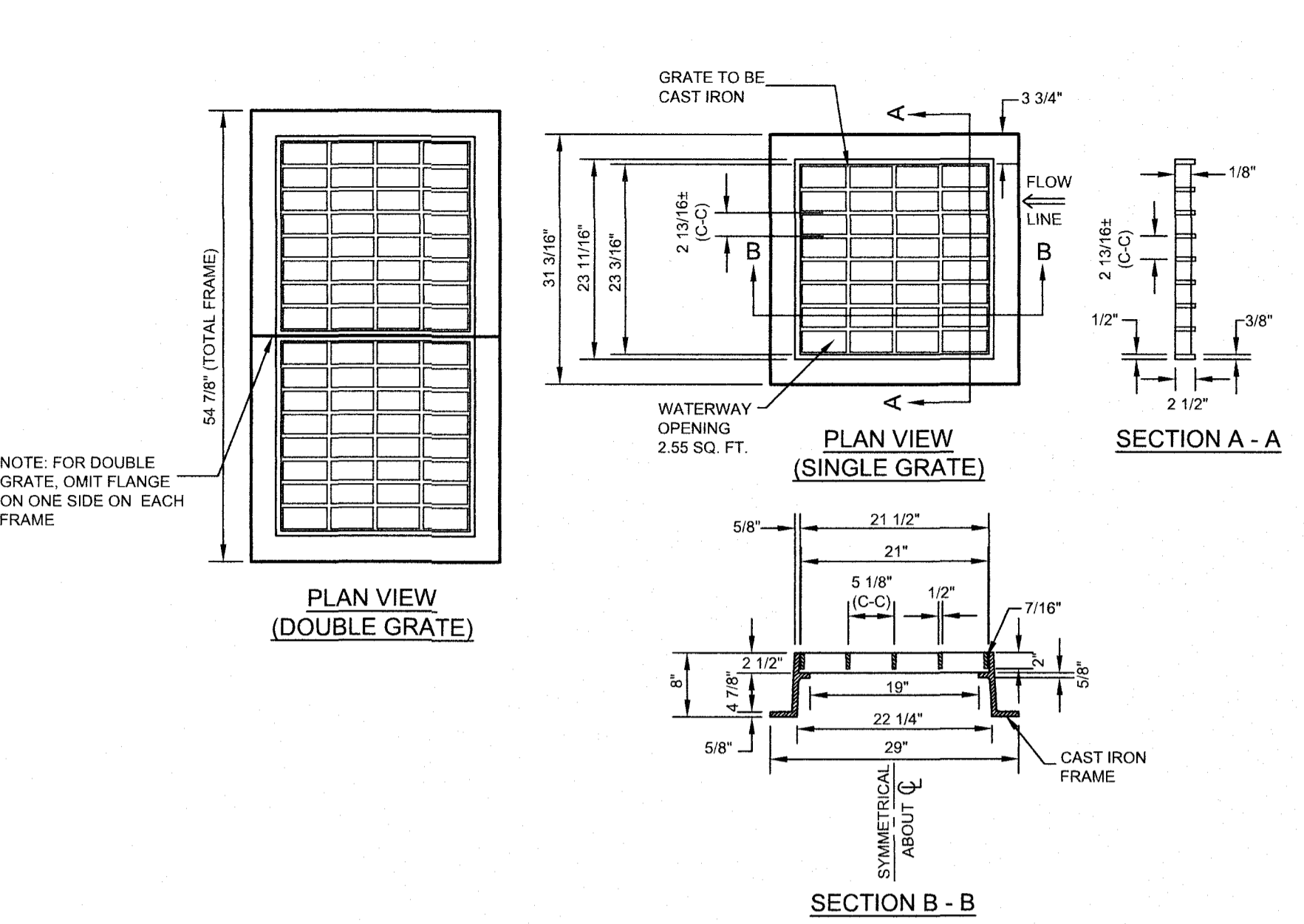
 SIGNATURE DATE: _____

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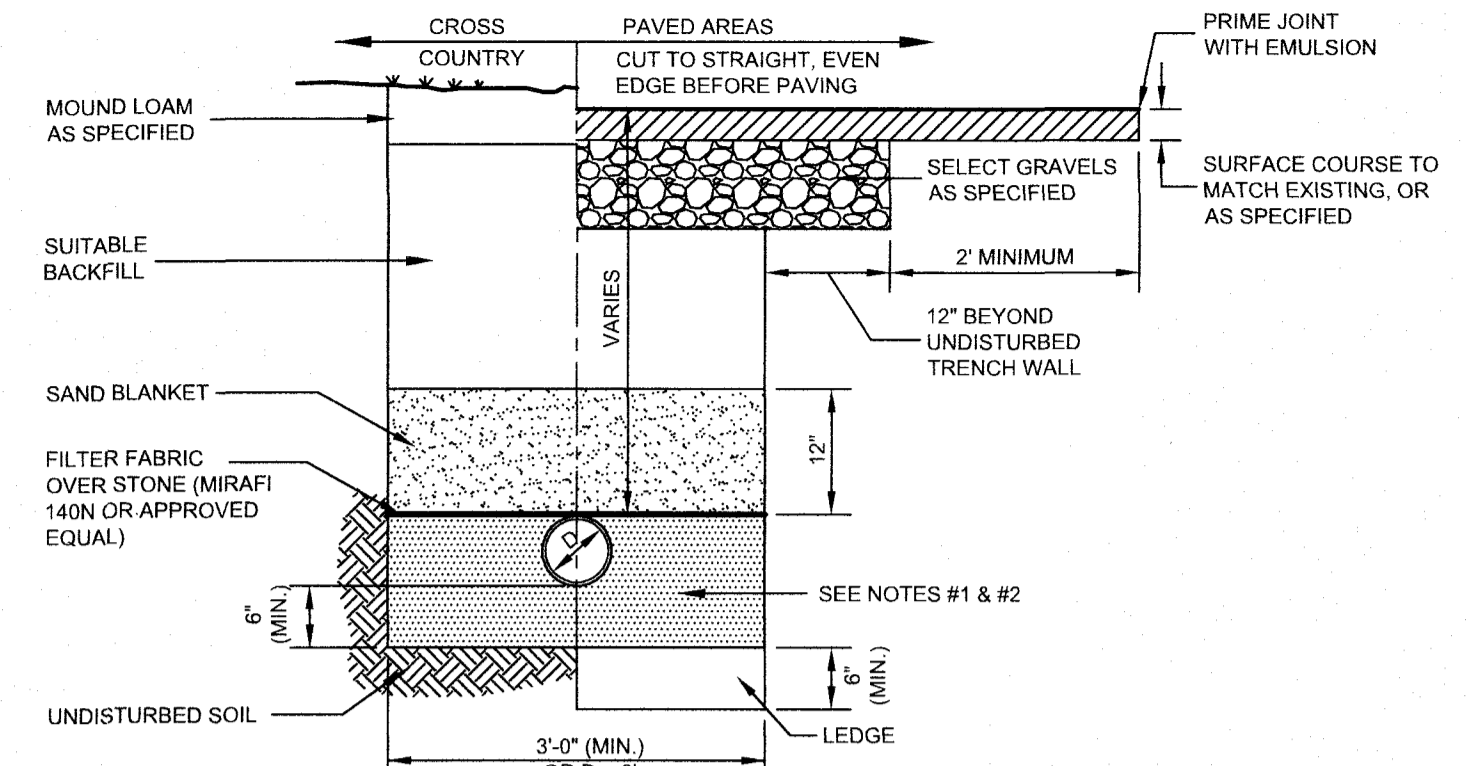


- NOTES:**
- STEPS ARE NOT ALLOWED.
 - ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
 - THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
 - MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.

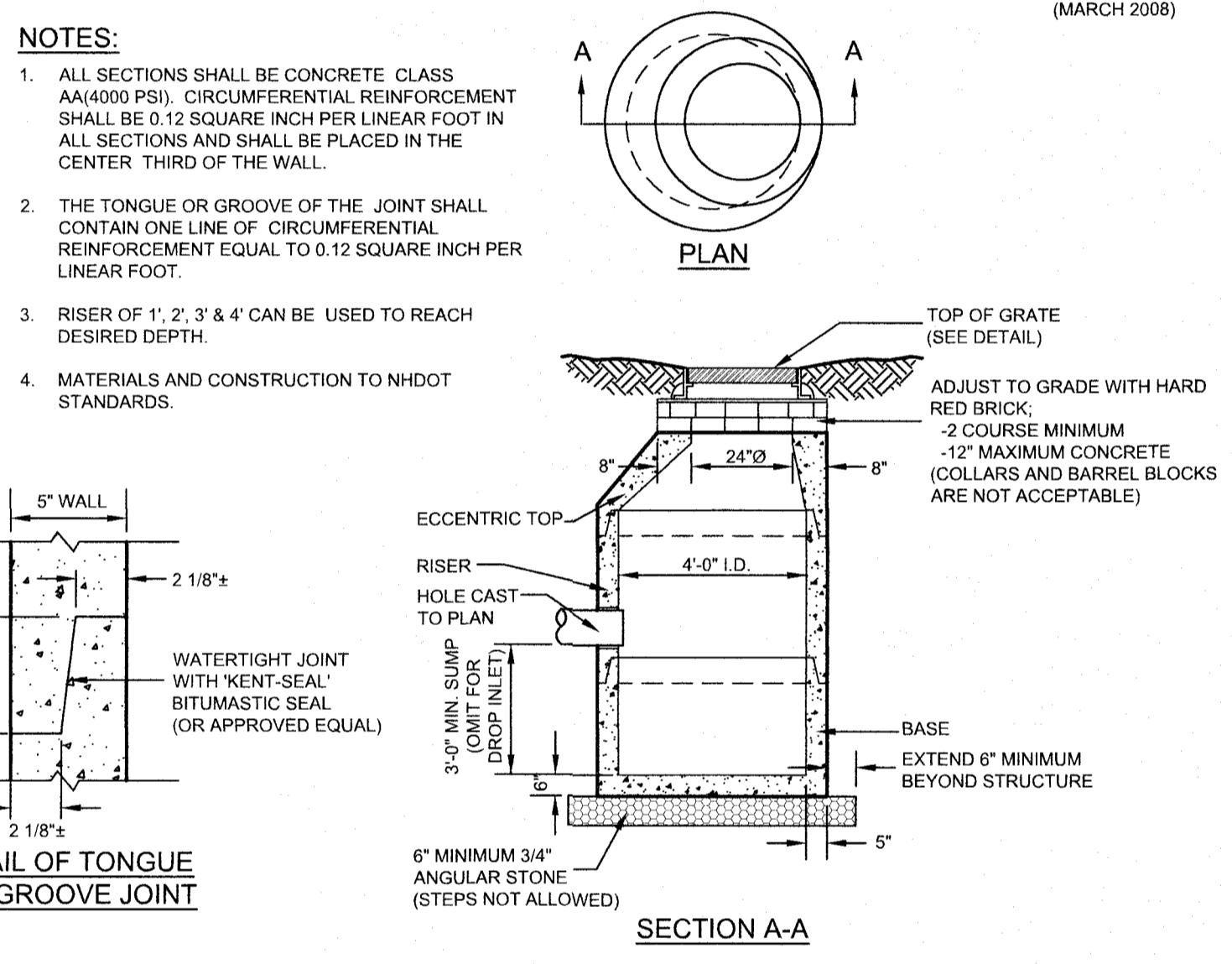
PRECAST REINFORCED DRAIN MANHOLE DETAIL
NOT TO SCALE
(MARCH 2008)



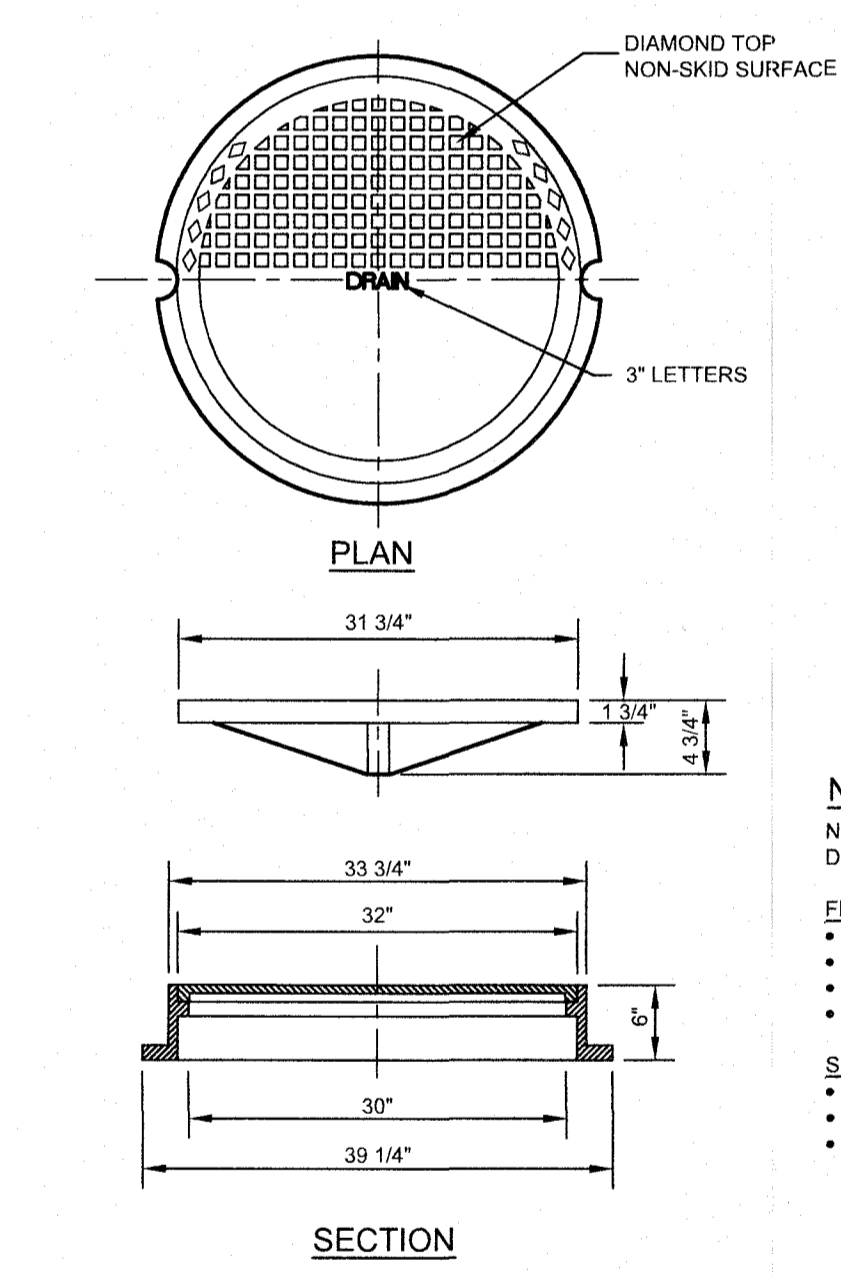
TYPE B FRAME & GRATE DETAIL
NOT TO SCALE
(MARCH 2008)



- NOTES**
- THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
 - FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4\"/>
- STORM DRAINAGE TRENCH DETAIL**
NOT TO SCALE
(MARCH 2008)



PRECAST REINFORCED CATCH BASIN
NOT TO SCALE
(MAY 2012)



- NOTES:**
- NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30\"/>

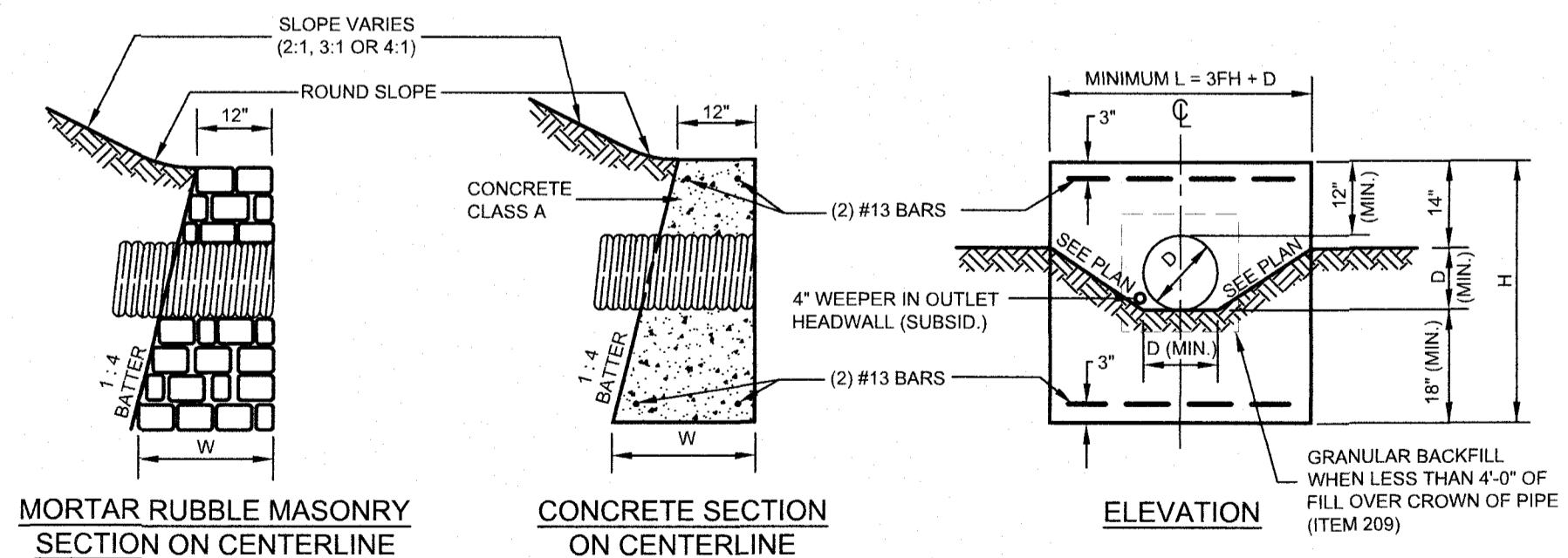
FEATURES:

 - 3\"/>

SPECIFICATIONS:

 - FULLY MACHINED FRAME AND COVER
 - H20 LOAD RATED
 - GRAY CAST IRON MEETS ASTM A48 CLASS 30

DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
(JANUARY 2012)



NOTE:
DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. FT.)	MASONRY PER STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1' DEPTH 1' LENGTH (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	1\"/>		
													MASONRY IN CORNER FRUSTRUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	
12"	0.79	0.186	1.08	0.61	9	3'-2"	0.111	0.788	0.30	3'-6"	3'-6"	10"	1'-10 1/2"	0.28	1.057
15"	1.23	0.202	1.73	0.85	11	3'-10"	0.120	0.947	0.35	4'-6"	3'-9"	1'-1"	1'-11 1/4"	0.31	1.232
18"	1.77	0.222	2.52	1.13	14	5'-2"	0.130	1.111	0.39	5'-6"	4'-0"	1'-4"	2'-0"	0.35	1.406
24"	3.14	0.260	4.71	1.78	20	7'-2"	0.148	1.451	0.48	7'-8"	4'-6"	1'-10"	2'-1 1/2"	0.42	1.776
30"	4.91	0.301	7.67	2.58	25	9'-2"	0.185	1.810	0.65	9'-6"	5'-0"	2'-4"	2'-3"	0.51	2.164

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS
NOT TO SCALE

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
--	--

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

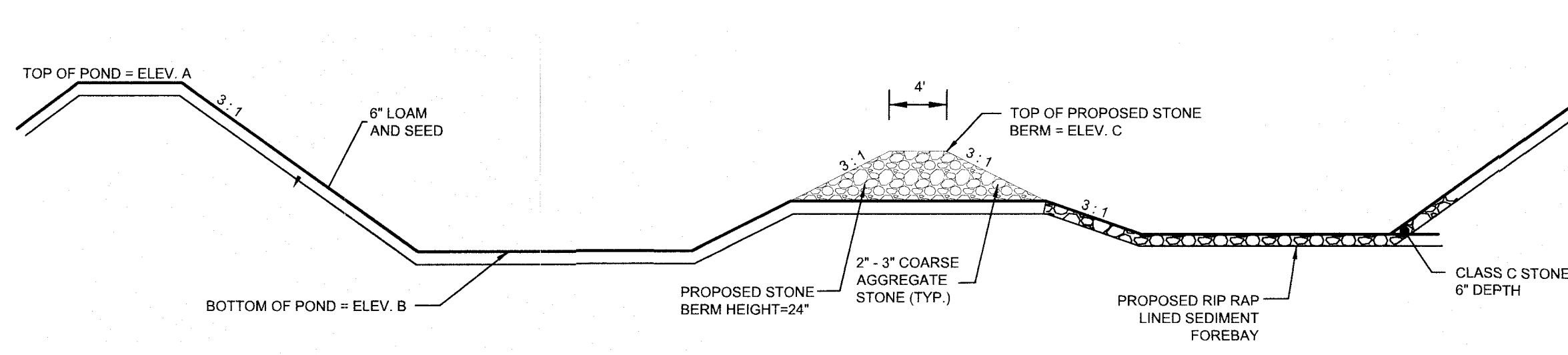
SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: N.T.S.
PROJECT NO: 21-0709-3 SHEET 15 OF 21



TYPICAL INFILTRATION POND SECTION - WITH FOREBAY
NOT TO SCALE

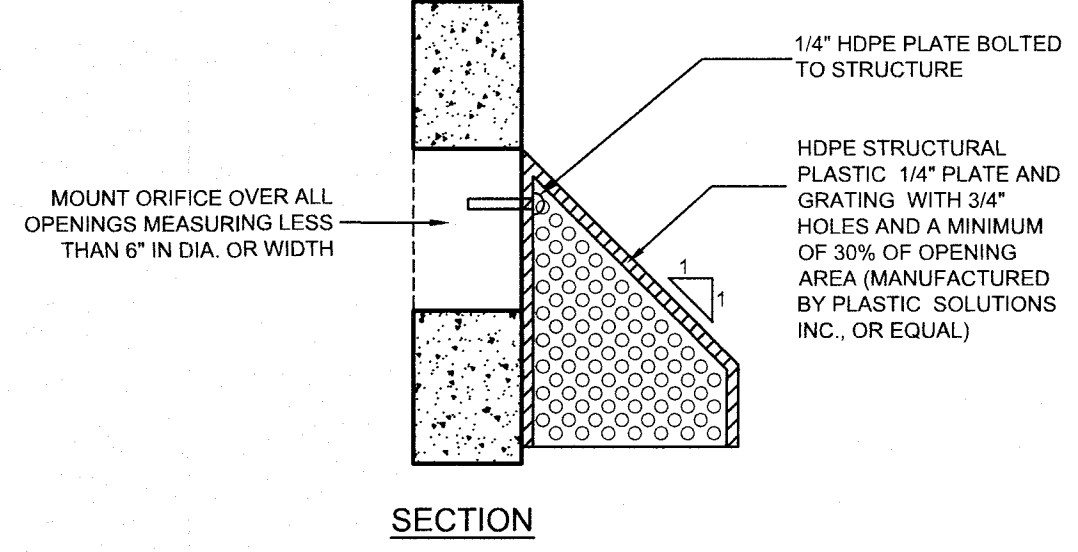
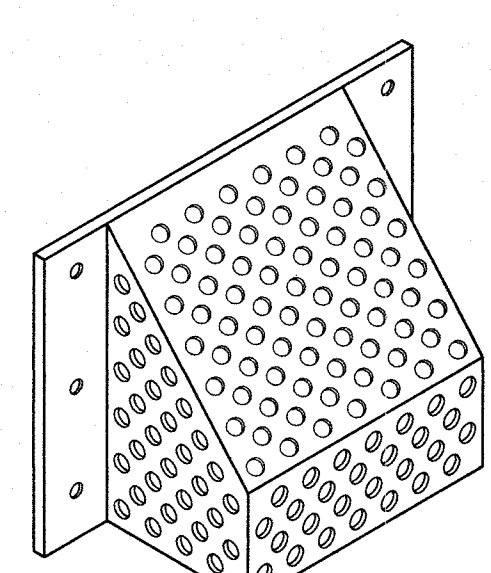
POND NUMBER	ELEV. A	ELEV. B	ELEV. C
3	178.00	180.25	179.00
4	180.00	184.25	182.00

MAINTENANCE REQUIREMENTS:

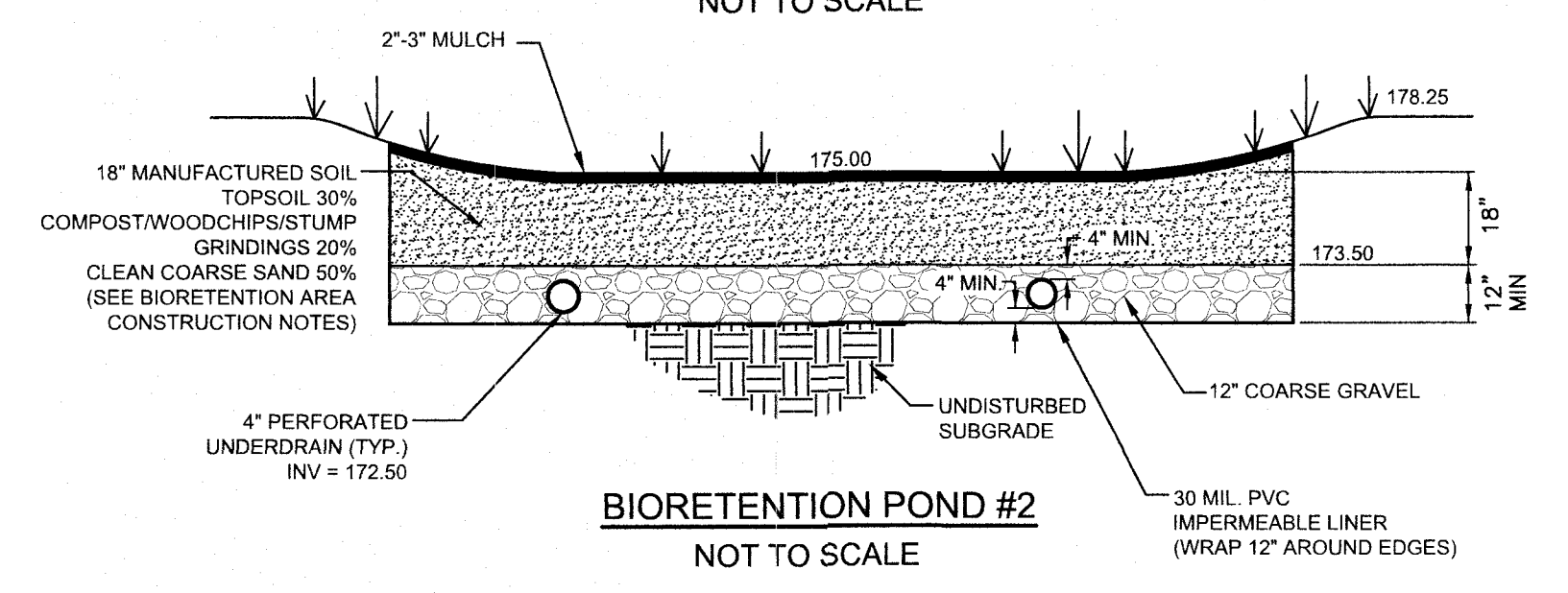
- SEDIMENT FOREBAYS:**
- INSPECT AT LEAST ANNUALLY;
 - CONDUCT PERIODIC MOWING OF EMBANKMENTS (GENERALLY TWO TIMES PER YEAR) TO CONTROL GROWTH OF WOODY VEGETATION ON EMBANKMENTS;
 - REMOVE DEBRIS FROM OUTLET STRUCTURES AT LEAST ONCE ANNUALLY;
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION;
 - INSTALL AND MAINTAIN A STAFF GAGE OR OTHER MEASURING DEVICE, TO INDICATE DEPTH OF SEDIMENT ACCUMULATION AND LEVEL AT WHICH CLEAN-OUT IS REQUIRED.
- INFILTRATION:**
- REMOVAL OF DEBRIS FROM INLET AND OUTLET STRUCTURES;
 - REMOVAL OF ACCUMULATED SEDIMENT;
 - INSPECTION AND REPAIR OF OUTLET STRUCTURES AND APPURTENANCES;
 - INSPECTION OF INFILTRATION COMPONENTS 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;
 - INSPECTION OF PRETREATMENT MEASURES AT LEAST TWICE ANNUALLY, AND REMOVAL OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY;
 - PERIODIC MOWING OF EMBANKMENTS;
 - REMOVAL OF WOODY VEGETATION FROM EMBANKMENTS;
 - INSPECTION AND REPAIR OF EMBANKMENTS AND SPILLWAYS;
 - IF AN INFILTRATION 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 INFILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION TRENCH.

CONSTRUCTION PRACTICE REQUIREMENTS:

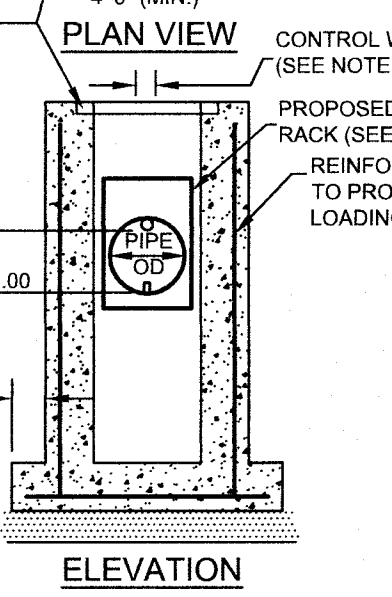
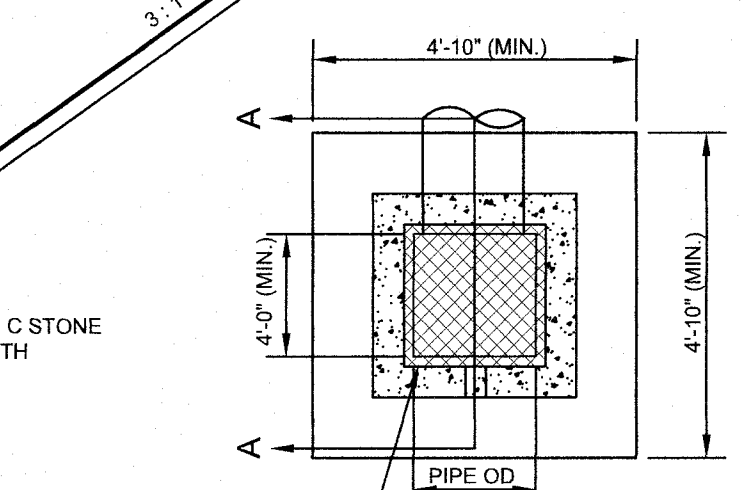
- STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING TO SITE.
- RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPs ARE STABILIZED.
- STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
- AFTER THE INFILTRATION SYSTEM AREA 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.
- DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- INFILTRATION BASIN FLOOR PREPARATION WILL INCLUDE GRASS TURF THAT CAN BE INUNDATED FOR UP TO 72 HOURS.
- INFILTRATION AREAS ARE TO BE PROTECTED FROM OVER-COMPACTION DURING CONSTRUCTION.



TRASH RACK DETAIL
NOT TO SCALE

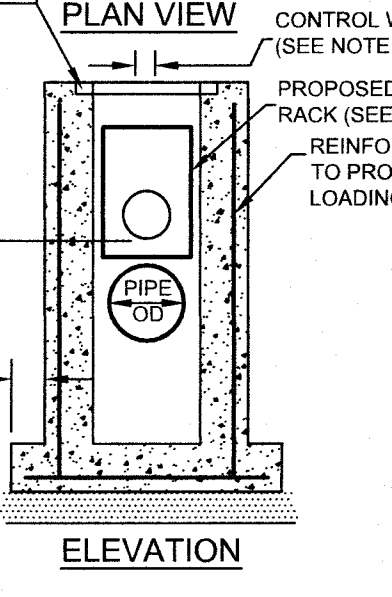
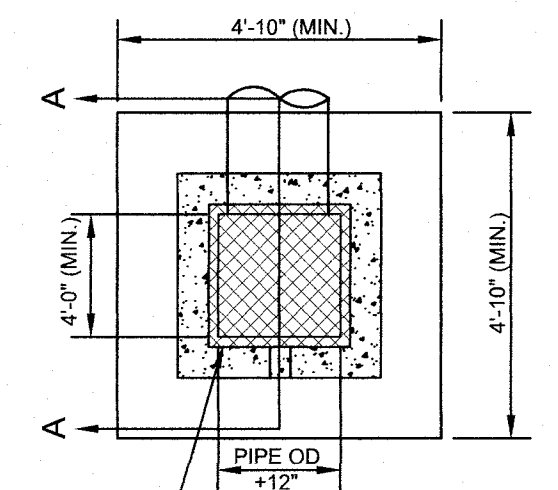


BIORETENTION POND #2
NOT TO SCALE



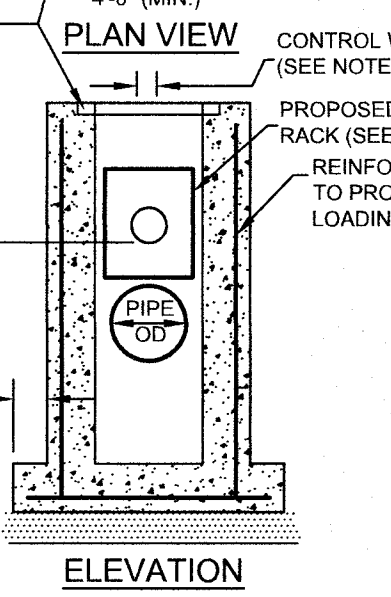
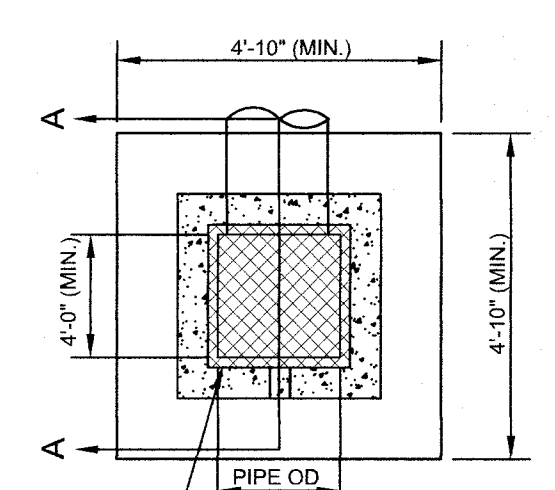
OUTLET STRUCTURE #103 AT STORMWATER POND #1
NOT TO SCALE

- NOTES**
- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15\"/>



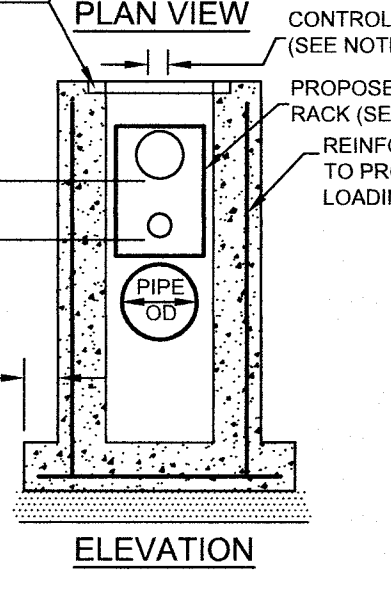
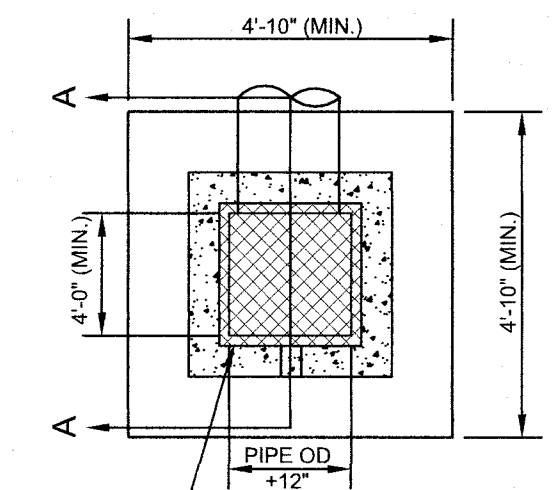
OUTLET STRUCTURE #122 AT INFILTRATION POND #3
NOT TO SCALE

- NOTES**
- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15\"/>



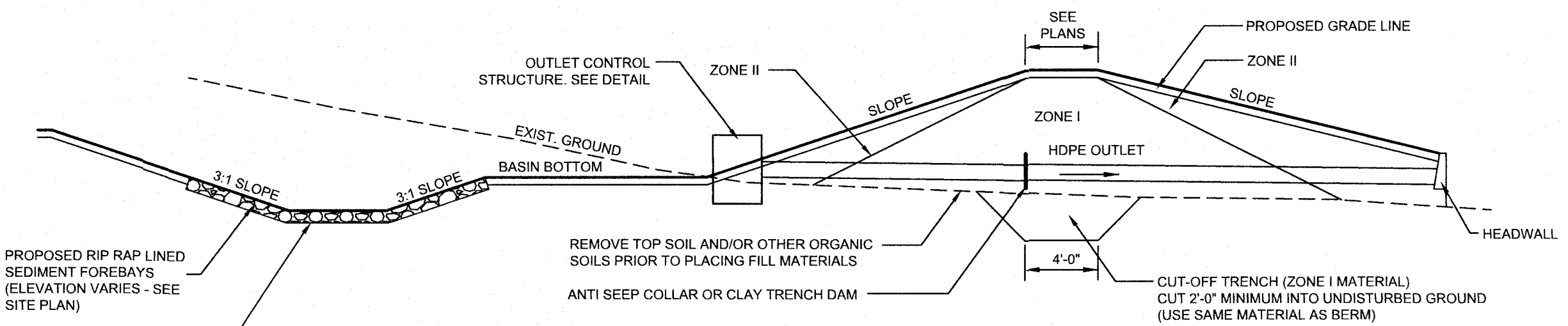
OUTLET STRUCTURE #112 AT BIORETENTION POND #2
NOT TO SCALE

- NOTES**
- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15\"/>



OUTLET STRUCTURE #132 AT INFILTRATION POND #4
NOT TO SCALE

- NOTES**
- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15\"/>



STORMWATER PONDS CONSTRUCTION SEQUENCE

- CONTRACTOR TO NOTIFY DIS-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- 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.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.

MATERIAL TYPE/SPECIFICATIONS

- ZONE I**
WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONE AND GEADATION 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, REMOVE ORGANIC SOILS.
- | SIZE | PERCENT BY WEIGHT PASSING |
|---------|---------------------------|
| 6-INCH | 100 |
| NO. 4 | 50 TO 100 |
| NO. 40 | 30 TO 70 |
| NO. 200 | 20 TO 40 |
- ZONE II**
DRAINAGE LAYER: PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557.
- | SIZE | PERCENT BY WEIGHT PASSING |
|---------|-----------------------------|
| 1-INCH | 100 |
| NO. 4 | 70-100 |
| NO. 200 | 0-12 (IN SAND PORTION ONLY) |

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021
PROJECT NO: 21-0709-3
SCALE: N.T.S.
SHEET 16 OF 21

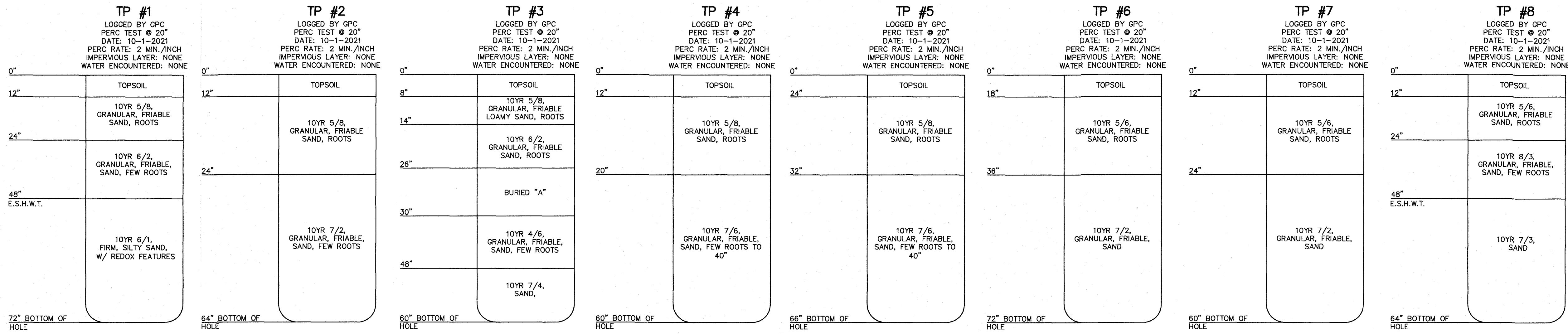
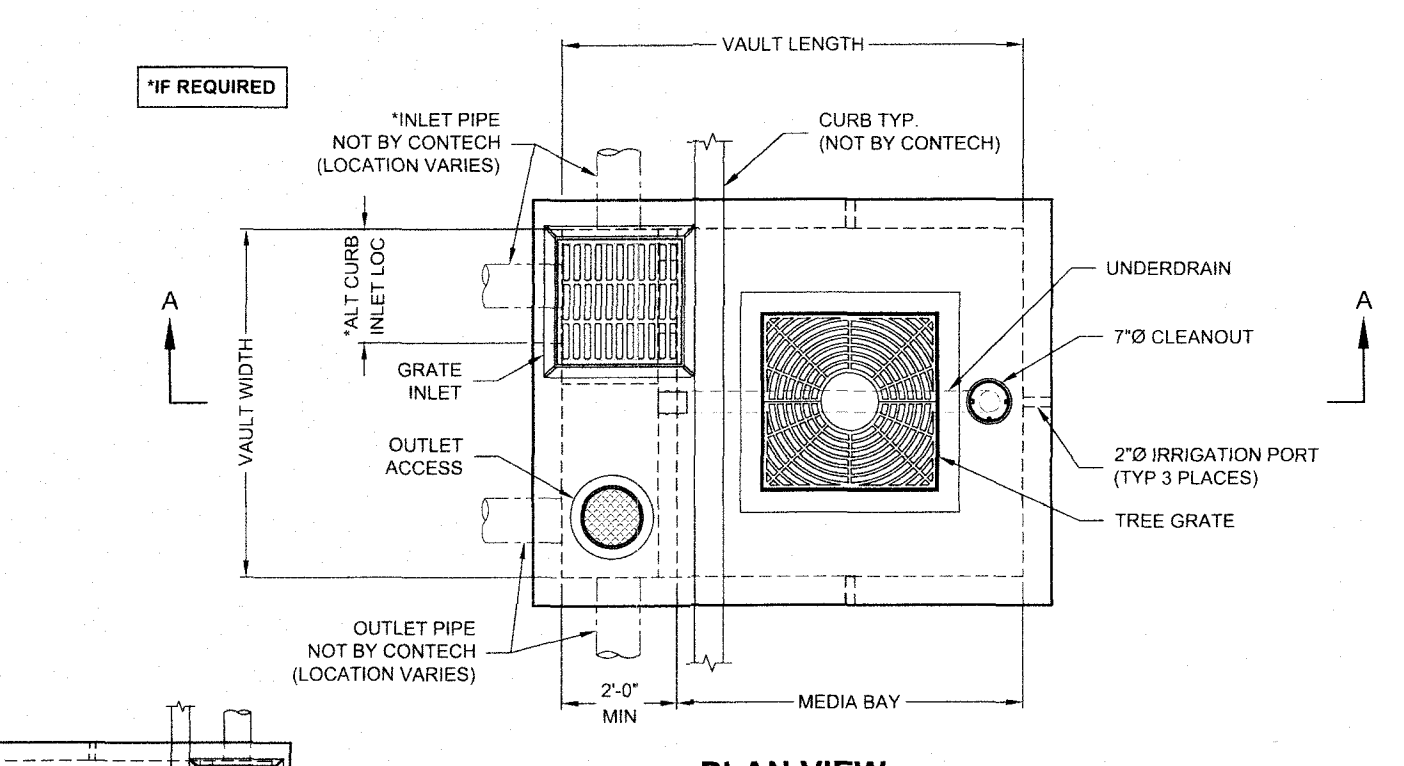


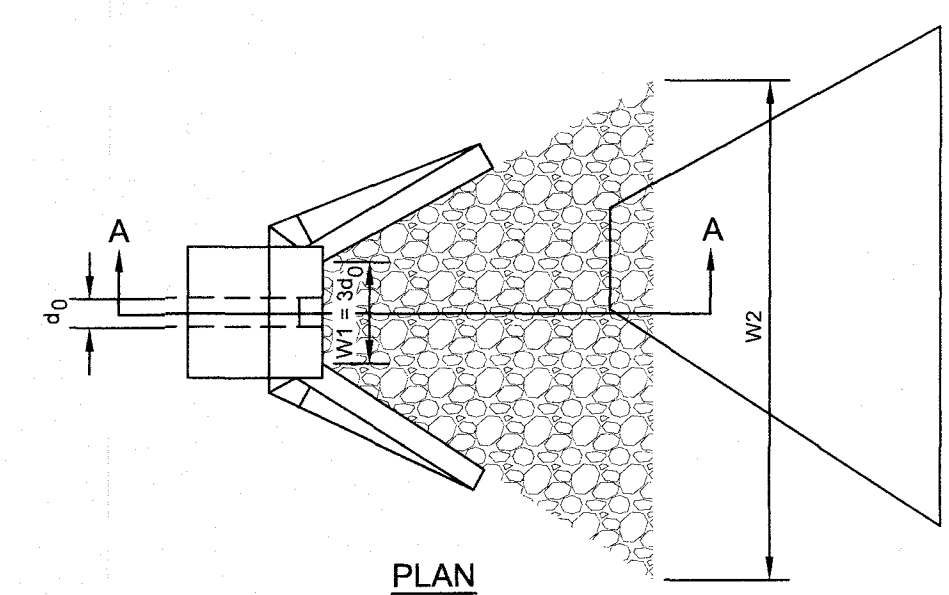
TABLE 7-24 -- RECOMMENDED RIP RAP GRADATION RANGES

PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 #50
85%	1.3 TO 1.8 #50
50%	1.0 TO 1.5 #50
15%	0.3 TO 0.5 #50



FTPD-G STANDARD HEIGHT CONFIGURATION

DESIGNATION (OPTIONS: -P)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	GRATE INLET/ OUTLET ACCESS SIZE	TREE GRATE QTY & SIZE
FTPD0404-G	N/A CA	4 x 4	4 x 6	1'-8"	1.4	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0405-G	CA ONLY	4 x 4.5	4 x 6.5	1'-8"	1.4	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0406-G	N/A MID-ATL	4 x 6	4 x 8	1'-8"	1.4	12"SQ/12"Ø	(1) 3' x 3'
FTPD040508-G	MID-ATL ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	1.4	12"SQ/12"Ø	(1) 3' x 3'
FTPD0604-G	ALL	6 x 4	6 x 6	1'-8"	1.4	24"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0606-G	ALL	6 x 6	6 x 8	1'-8"	1.4	24"SQ/12"Ø	(1) 3' x 3'
FTPD0608-G	ALL	6 x 8	6 x 10	1'-8"	1.4	24"SQ/12"Ø	(1) 4' x 4'
FTPD0610-G	ALL	6 x 10	6 x 12	1'-8"	1.4	24"SQ/12"Ø	(1) 4' x 4'
FTPD0710-G	ALL	7 x 10	7 x 13	2'-6"	2.1	24"SQ/24"Ø	(1) 4' x 4'
FTPD08105-G	ALL	8 x 10.5	8 x 14	3'-0"	2.5	24"SQ/24"Ø	(1) 4' x 4'
FTPD08125-G	ALL	8 x 12.5	8 x 16	3'-0"	2.5	24"SQ/24"Ø	(2) 4' x 4'



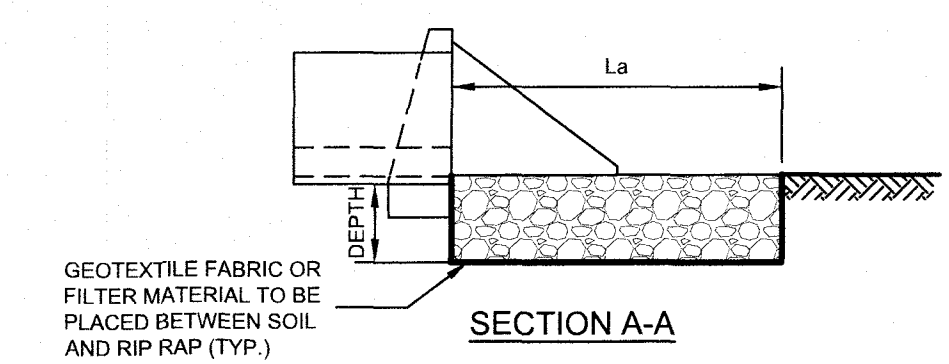
- CONSTRUCTION SPECIFICATIONS:
- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
 - THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 - STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

MAINTENANCE:

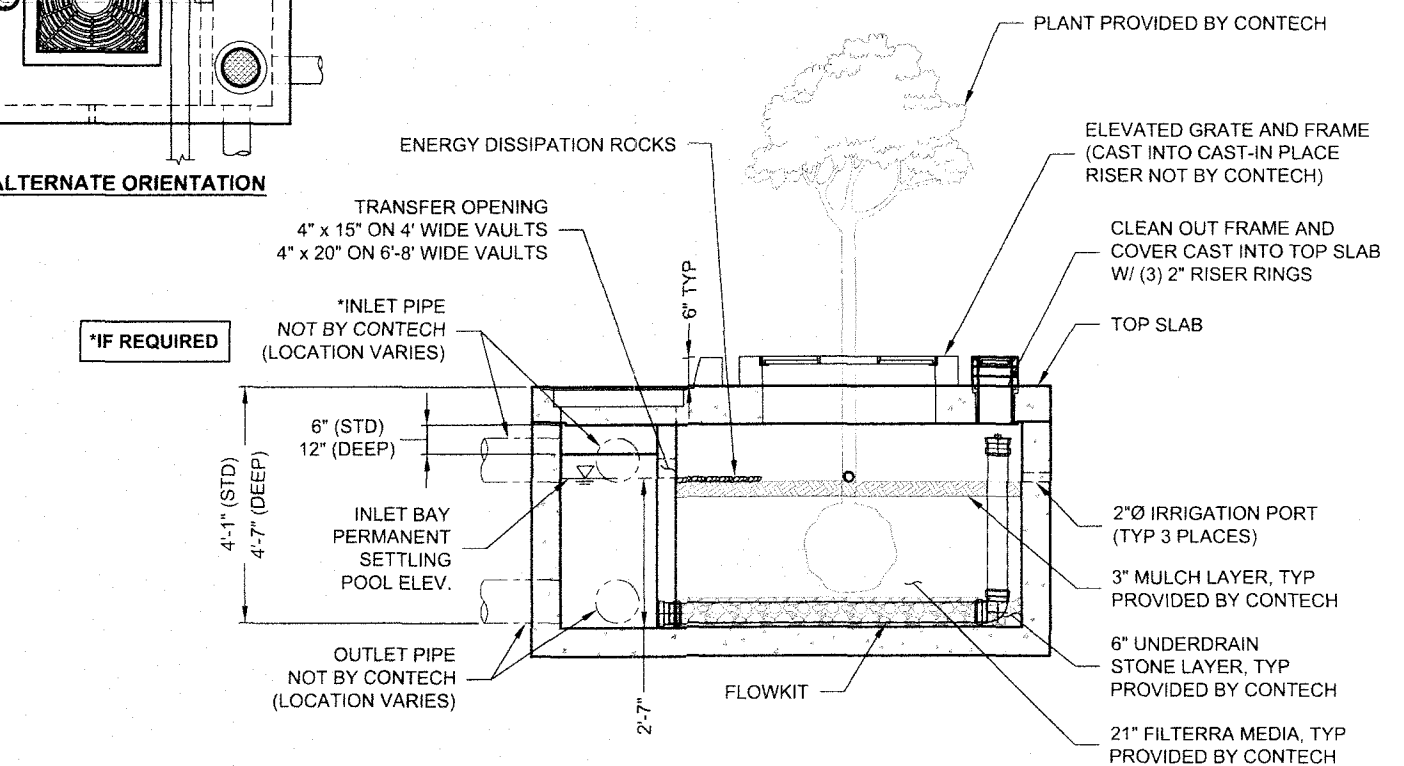
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAIL WATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

FTPD-GD DEEP OPTION CONFIGURATION

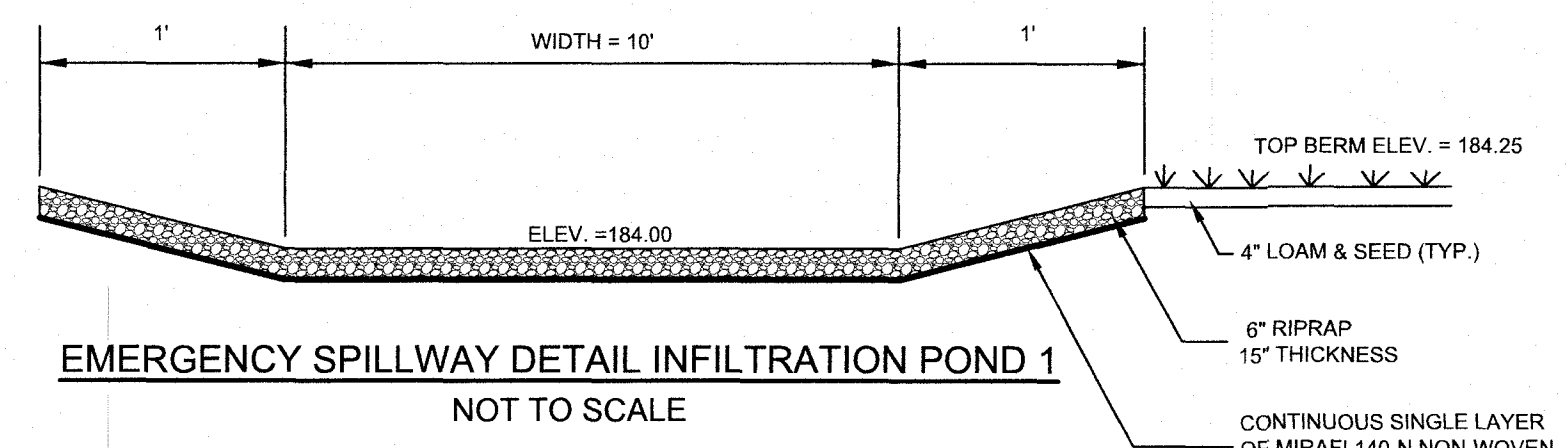
DESIGNATION (OPTIONS: -P)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	GRATE INLET/ OUTLET ACCESS SIZE	TREE GRATE QTY & SIZE
FTPD0404-GD	N/A CA	4 x 4	4 x 6	1'-8"	4.6	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0405-GD	CA ONLY	4 x 4.5	4 x 6.5	1'-8"	4.6	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0406-GD	N/A MID-ATL	4 x 6	4 x 8	1'-8"	4.6	12"SQ/12"Ø	(1) 3' x 3'
FTPD040508-GD	MID-ATL ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	4.6	12"SQ/12"Ø	(1) 3' x 3'
FTPD0604-GD	ALL	6 x 4	6 x 6	1'-8"	4.6	24"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0606-GD	ALL	6 x 6	6 x 8	1'-8"	4.6	24"SQ/12"Ø	(1) 3' x 3'
FTPD0608-GD	ALL	6 x 8	6 x 10	1'-8"	4.6	24"SQ/12"Ø	(1) 4' x 4'
FTPD0610-GD	ALL	6 x 10	6 x 12	1'-8"	4.6	24"SQ/12"Ø	(1) 4' x 4'
FTPD0710-GD	ALL	7 x 10	7 x 13	2'-6"	6.8	24"SQ/24"Ø	(1) 4' x 4'
FTPD08105-GD	ALL	8 x 10.5	8 x 14	3'-0"	8.2	24"SQ/24"Ø	(1) 4' x 4'
FTPD08125-GD	ALL	8 x 12.5	8 x 16	3'-0"	8.2	24"SQ/24"Ø	(2) 4' x 4'



LOCATION	La	W1	W2	W3	W4	DEPTH
HW#102	13'	4'	9'	6"	18"	
HW#105	7'	3'	6'	3"	9"	
HW#111	10'	3'	7'	3"	9"	
HW#121	8'	3'	6'	3"	9"	
HW#131	21'	4'	12'	9"	24"	



TREE BOX - FILTERRA PEAK DIVERSION - GRATE (FTPD-G)
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL INFILTRATION POND 1
NOT TO SCALE

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	APPLICANT: BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840
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KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: N.T.S.
PROJECT NO: 21-0709-3 SHEET 17 OF 21

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

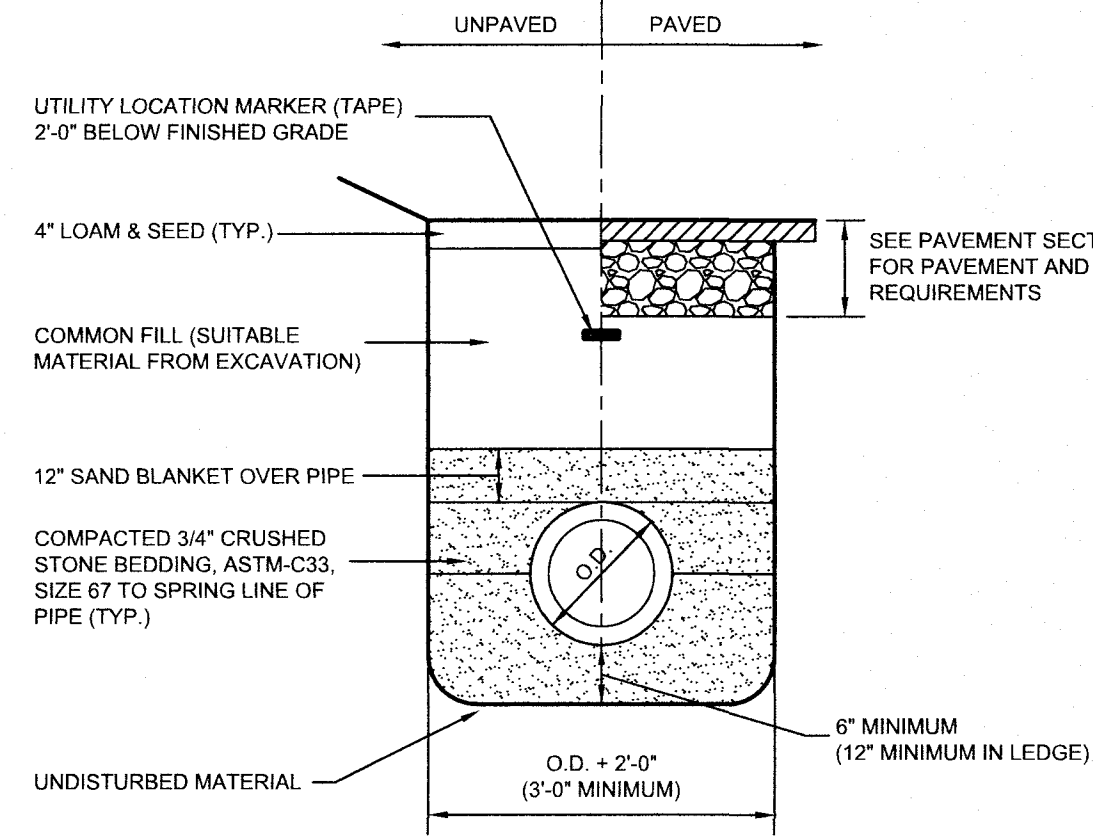
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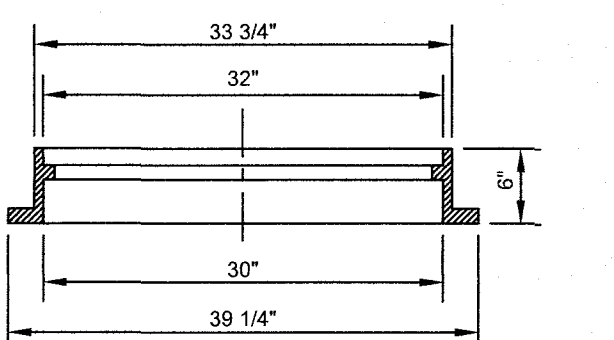
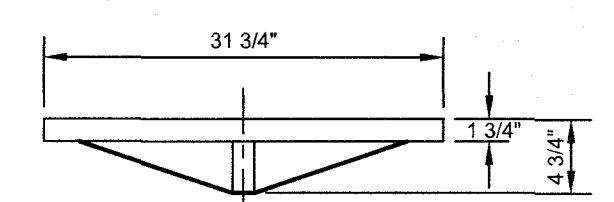
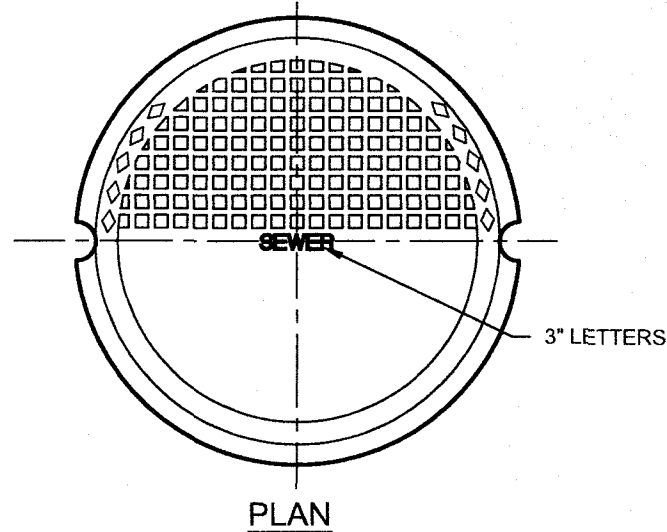
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

NOTES:

- MINIMUM SIZE PIPE FOR HOUSE SERVICE SHALL BE 4 INCHES. MINIMUM SIZE FOR STREET SEWER LINES SHALL BE 8 INCHES.
- PIPE AND JOINT MATERIALS:**
 - DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA):
 - AWWA C151/A21.51-02 - FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL OR SAND-LINED MOLDS, FOR WATER OR OTHER LIQUIDS.
 - AWWA C150/A21.50-02 - FOR THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A536-84 (2004) DUCTILE IRON CASTINGS.
 - JOINTS SHALL BE MECHANICAL, PUSH-ON OR BALL-AND-SOCKET TYPE.
 - PLASTIC GRAVITY SEWER PIPE AND FITTINGS SHALL COMPLY WITH THE FOLLOWING STANDARDS:
 - ASTM D3034-04A - PVC, SOLID WALL.
 - AT LEAST 46 PSI AT 5% PIPE DIAMETER DEFLECTION, AS MEASURED IN ACCORDANCE WITH ASTM D2414-02 DURING MANUFACTURING; AND
 - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D3212-96A(2003)E1 AND SHALL BE PUSH-ON OR BELL-AND-SPIGOT TYPE.
 - DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
 - JOINTS SHALL BE DEPENDENT UPON PROPER MATERIALS (SEE NOTE #2) FOR WATER TIGHTNESS, AND ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
 - SERVICE CONNECTIONS SHALL USE SANITARY TEE OR WYE FITTINGS FOR ALL NEW 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 VERTICALLY. 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. FOR EXISTING SEWER WHERE FITTINGS CANNOT BE INSTALLED, SADDLE CONNECTIONS SHALL BE USED. 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 SOURCE OF SURFACE WATER RUN-OFF OR GROUND WATER SHALL NOT BE DIRECTLY OR INDIRECTLY CONNECTED TO A PUBLIC SEWER.
 - PIPE INSTALLATION:**
 - THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER.
 - PIPES SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL.
 - BEDDING AND RE-FILL, FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE, SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH THE APPROPRIATE MECHANICAL DEVICES.
 - THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 1/8 INCH PER FOOT.
 - PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

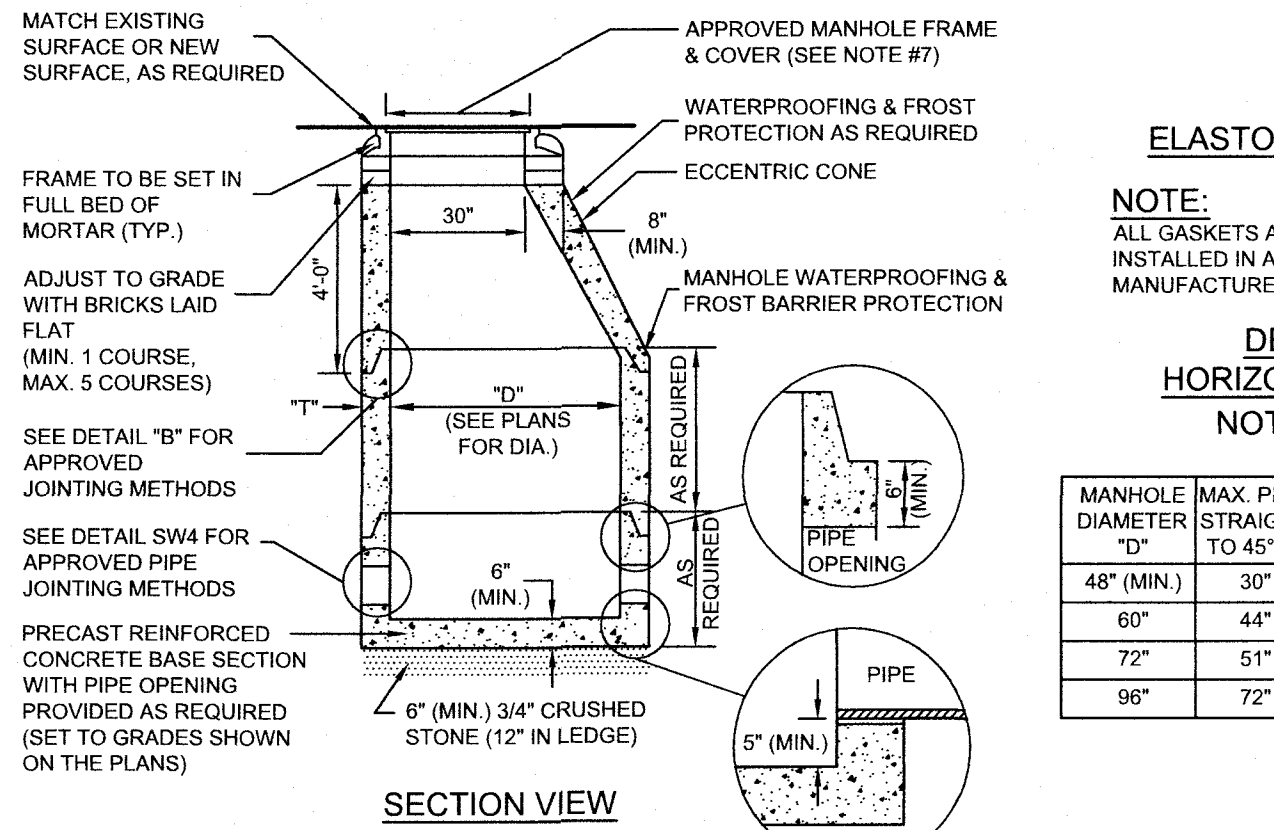
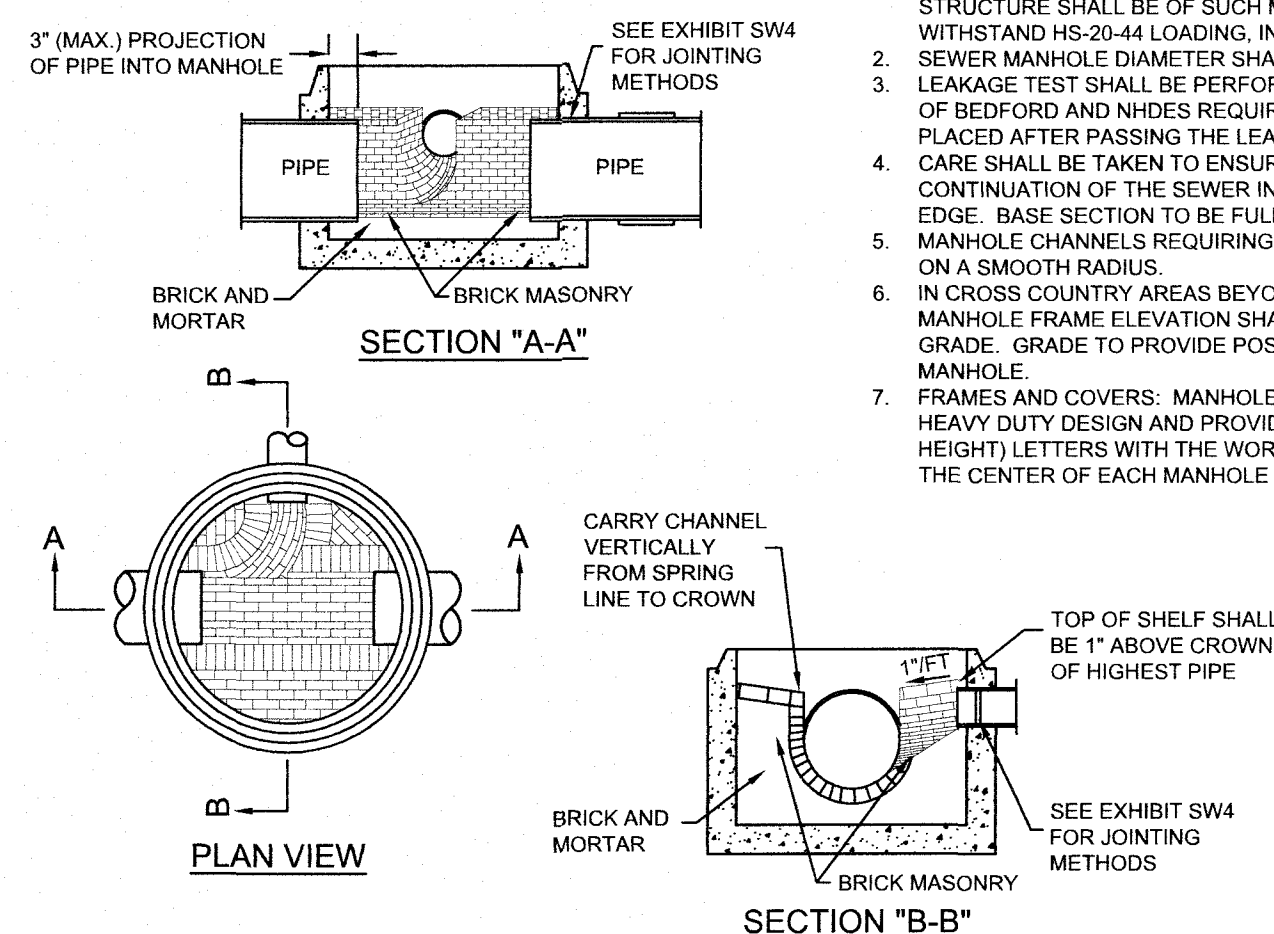


TYPICAL SEWER SERVICE PIPE TRENCH
NOT TO SCALE
EXHIBIT SW1



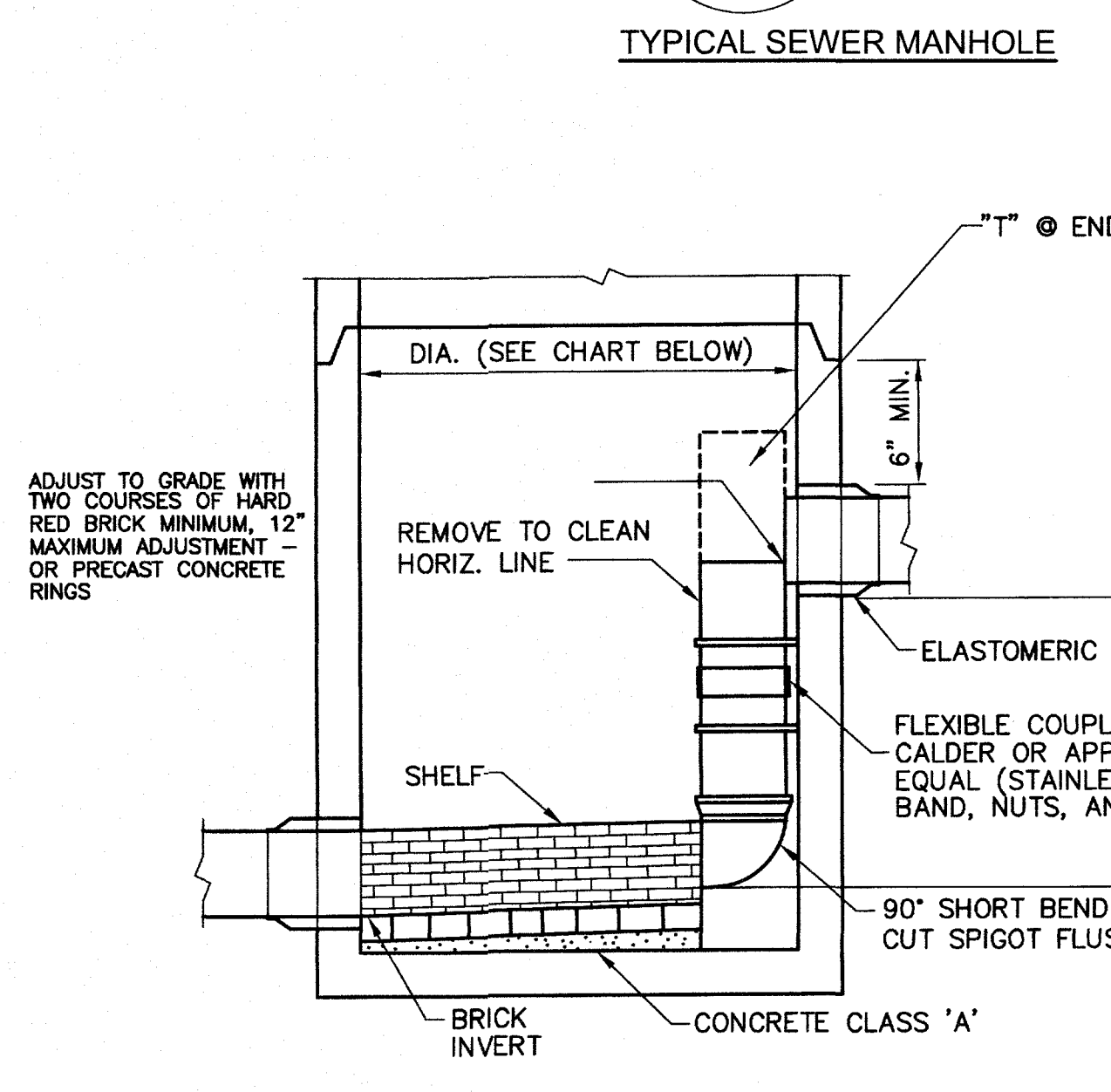
SEWER MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
(MARCH 2008)

- TESTING:** THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)
 - AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF THE TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEAN OUT WITH A FLASHLIGHT.
 - DRY FLOUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWNSTREAM MANHOLE.
 - LEAKAGE OBSERVED IN ANY OF THE ABOVE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP, IF NECESSARY, AND RE-LAID SO AS TO ASSURE WATER-TIGHTNESS.
- ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY, ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE OR GROUND WATER, SHALL NOT BE PERMITTED.
- WATER SERVICE SHALL NOT BE LAID IN THE SAME TRENCH AS THE SEWER SERVICE, UNLESS NECESSARY AND APPROVED BY THE A.H.J. WHEN NECESSARY, THE WATER SERVICE SHALL BE PLACED ABOVE AND TO ONE SIDE OF THE SEWER SERVICE, AS SHOWN.
- LOCATION:** THE LOCATION OF THE WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS MATERIAL, ROD OR PIPE SHALL BE PLACED OVER THE WYE TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPE FINDER.
- CHIMNEY CONNECTIONS ARE ONLY PERMITTED IF ALLOWED BY THE A.H.J. ANY VERTICAL RISE GREATER THAN 4 FEET SHALL BE PROVIDED WITH ADDED SUPPORT BY ENCASED THE FITTING AND RISER IN A PRECAST CONCRETE CHIMNEY. UP TO 12 FEET OF VERTICAL RISE CAN ALSO BE SECURED BY PROPER MEANS AS LONG AS IT CONSISTS OF A BELL-ON-BELL CONNECTION PROPERLY PROTECTED AGAINST PIPE PENETRATION AND IF IT IS ALLOWED BY THE A.H.J.
- UNLESS OTHERWISE NOTED, ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" MAXIMUM LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR TEST DENSITY.



DETAIL "B" HORIZONTAL JOINTS NOT TO SCALE

MANHOLE DIAMETER "D"	MAX PIPE DIAMETER STRAIGHT THROUGH TO 45° DEFLECTION	WALL THICKNESS "T"
48" (MIN)	30" OD (MAX)	
60"	44" OD (MAX)	
72"	51" OD (MAX)	
96"	72" OD (MAX)	



MAN HOLE SIZE CHART

ONE 8" DROP	USE 4' DIA.
ONE 10" DROP	USE 4' DIA.
TWO 8" DROP	USE 5' DIA.
TWO 10" DROP	USE 5' DIA.
ONE 12" DROP	USE 5' DIA.
ONE 15" DROP	USE 5' DIA.
ONE 18" DROP	USE 6' DIA.
ONE 24" DROP	USE 6' DIA.

HUDSON INTERNAL DROP SEWER MANHOLE

- NOTES:**
- IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND HS-20-44 LOADING, INCLUDING THE FRAME AND COVER.
 - SEWER MANHOLE DIAMETER SHALL BE AS INDICATED ON THE PLANS.
 - LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF BEDFORD AND NHDES REQUIREMENTS. INVERT AND SHELF TO BE PLACED AFTER PASSING THE LEAKAGE TEST.
 - CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON EDGE. BASE SECTION TO BE FULL.
 - MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT ARE TO BE BUILT ON A SMOOTH RADIUS.
 - IN CROSS COUNTRY AREAS BEYOND ROADWAY RIGHT-OF-WAYS, THE MANHOLE FRAME ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINISHED GRADE. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE.
 - FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30" CLEAR OPENING. 3" (MINIMUM HEIGHT) LETTERS WITH THE WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH MANHOLE COVER.

- ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
- MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
- MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.
- BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C478.
- BEDDING: CRUSHED STONE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 100% PASSING 1 INCH SCREEN 90% PASSING 3/4 INCH SCREEN 20-55% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
- BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
- PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - ELASTOMERIC RUBBER SLEEVE WITH WATER-TIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;
 - CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS;
 - ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON SURFACE OF PIPE BY COMPRESSION OF THE RING; AND
 - NON-SHRINK GROUTED JOINTS WHERE WATER-TIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
- MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
- ALL PRECAST SECTIONS AND BASES SHALL HAVE THE TRADE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDUBLY MARKED ON THE INSIDE WALL.
- ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
- MANHOLES WITH A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING.
- MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
 - CONCRETE FOR PRECAST BASES OR GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - REINFORCING FOR PRECAST CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM C478.
 - THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING; THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE.
 - THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS;
 - CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
 - CASTINGS SHALL BE EQUAL TO CLASS 30, BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM A48/48M.
 - BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM C32, CLAY OR SHALE, FOR GRADE SS HARD BRICK.
 - MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
 - 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 - 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME.
 - CEMENT SHALL BE TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150/C150M.
 - HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY".
 - SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES".
 - CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - WITHIN 48-INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND
 - WITHIN 60-INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER;
 - NO FLEXIBLE JOINT SHALL BE REQUIRED FOR D.I. PIPE OR FOR PVC PIPE UP THROUGH 15-INCH DIAMETER; AND
 - WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU OF A CONE SECTION PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF SUPPORTING H-20 LOADS.
- MANHOLE TESTING:
 - MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.
 - THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg; AND
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH Hg PRESSURE DROP TO 9 INCH Hg SHALL BE:
 - NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
 - NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
 - THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE.
 - INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
 - FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENTS TO GRADE.

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE
MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:	APPLICANT:
RONALD CRAVEN TRUST c/o NANCY CRAVEN TRUST 88 SPEARE ROAD HUDSON, NH 03051 H.C.R.D. BK. 6079 PG. 1294	BLUEBIRD SELF STORAGE LLC. 125 OCEAN ROAD GREENLAND, NH 03840

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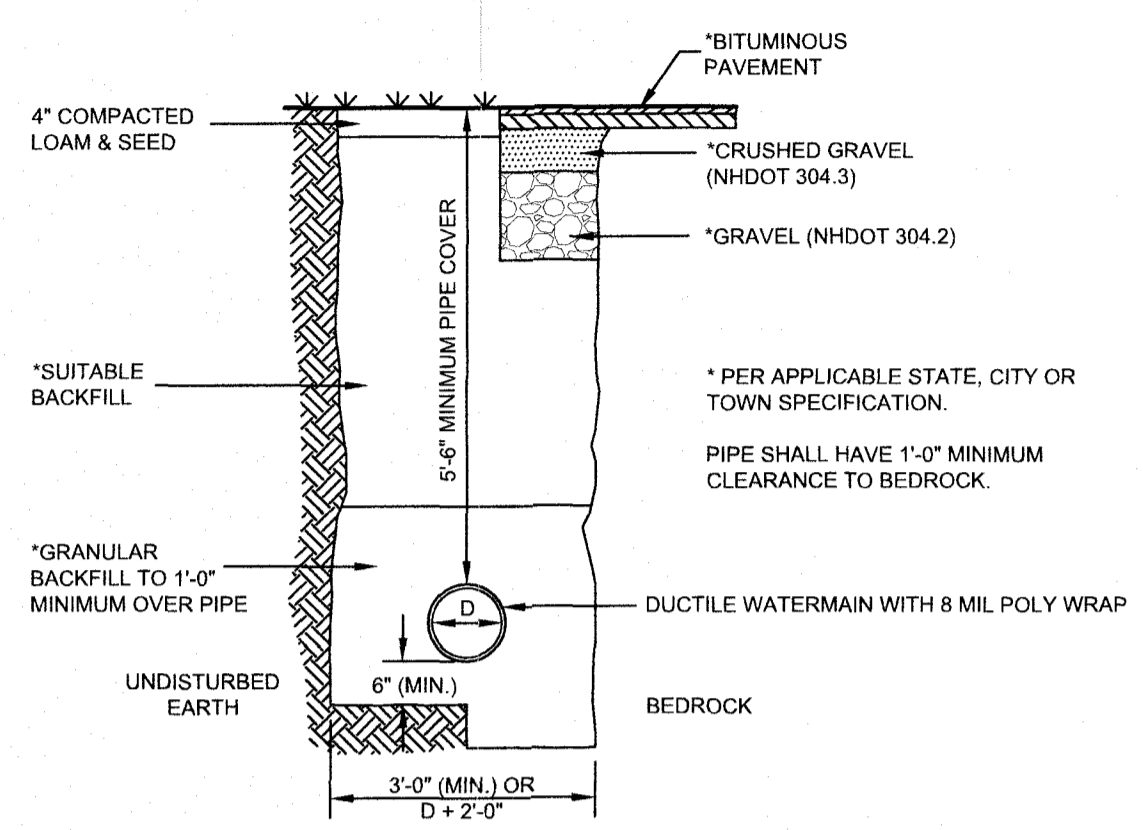
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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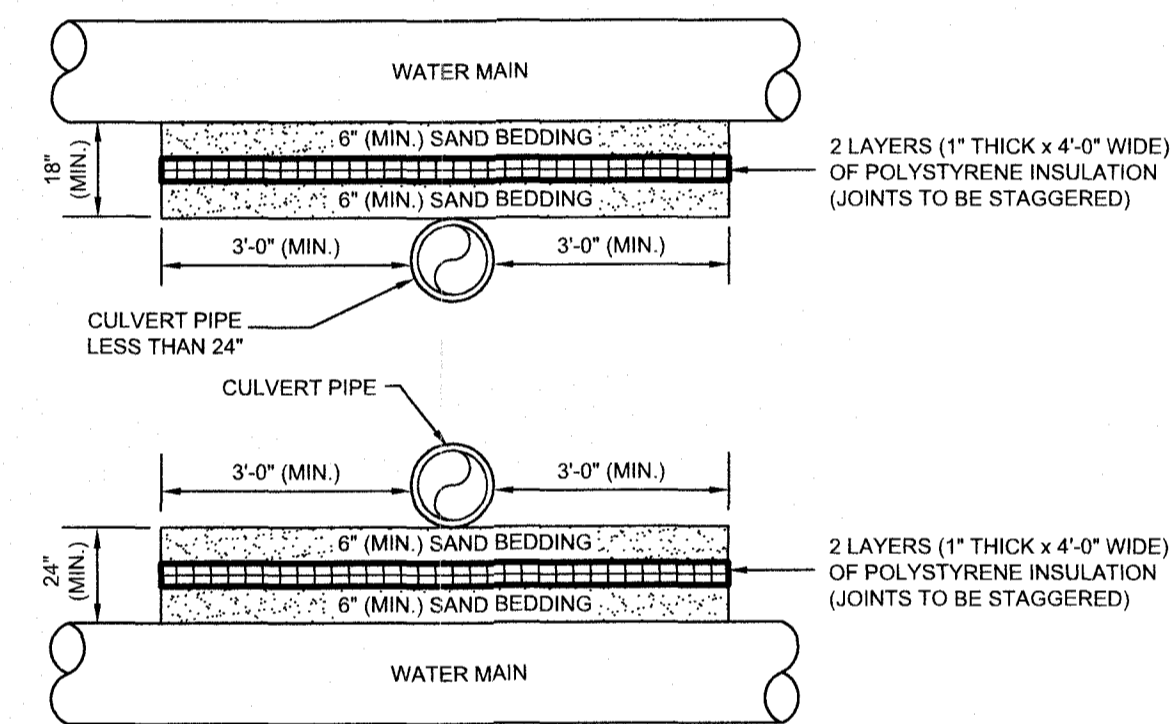
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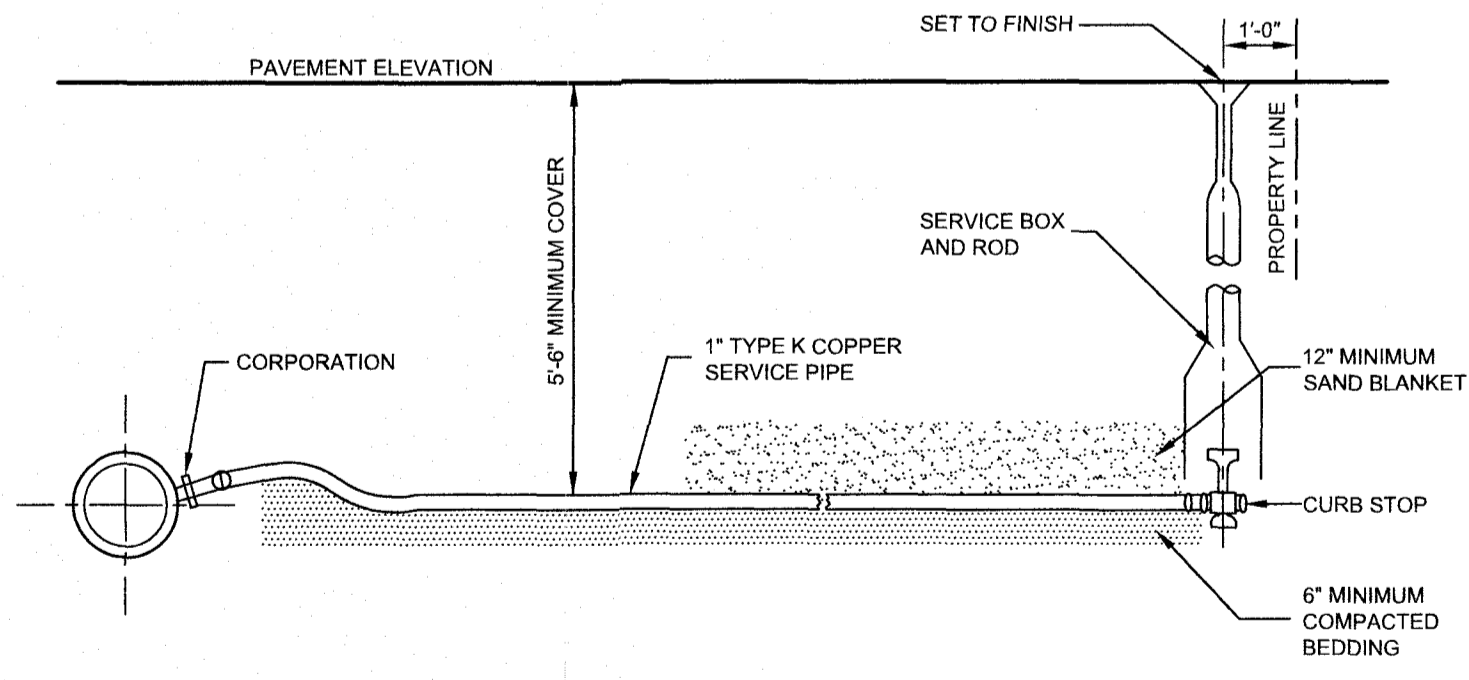
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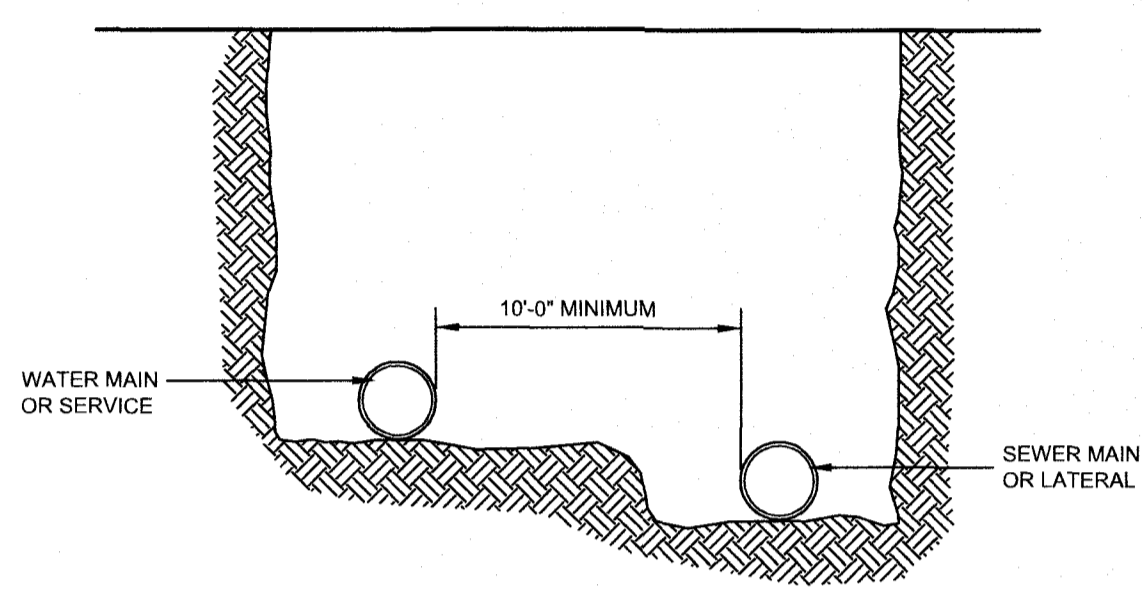
WATER LINE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



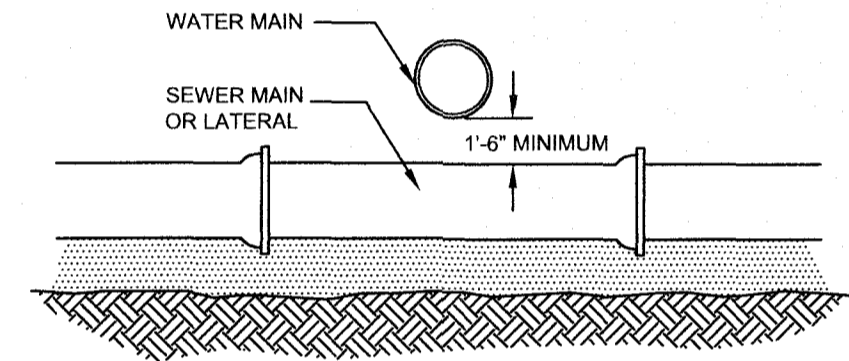
WATER PIPE CROSSING INSULATION DETAIL
NOT TO SCALE
(JUNE 2012)



WATER SERVICE CONNECTION
NOT TO SCALE
(MARCH 2008)

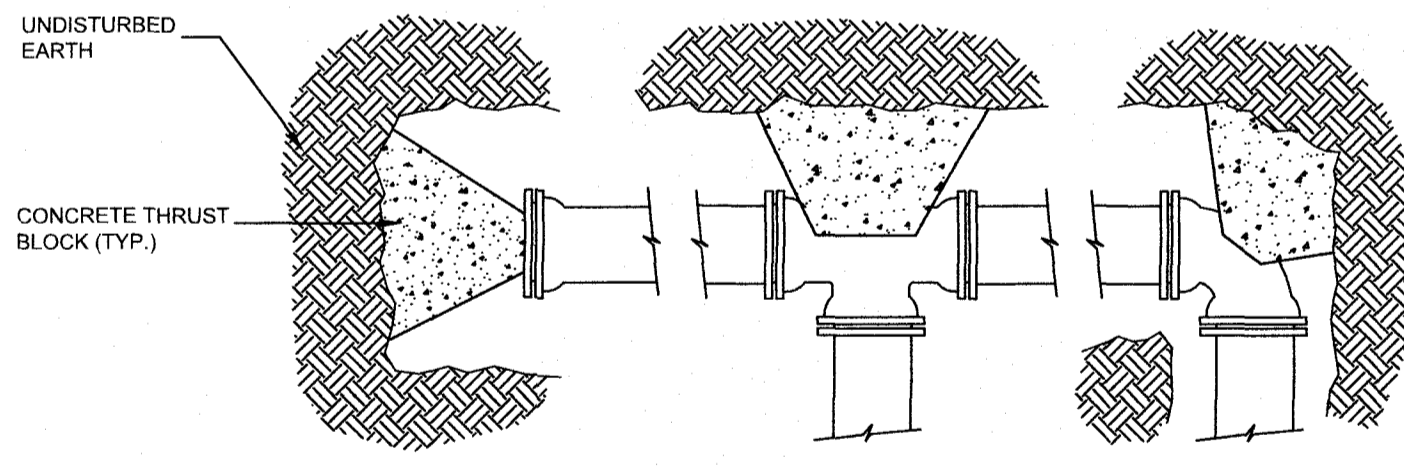


PARALLEL INSTALLATION

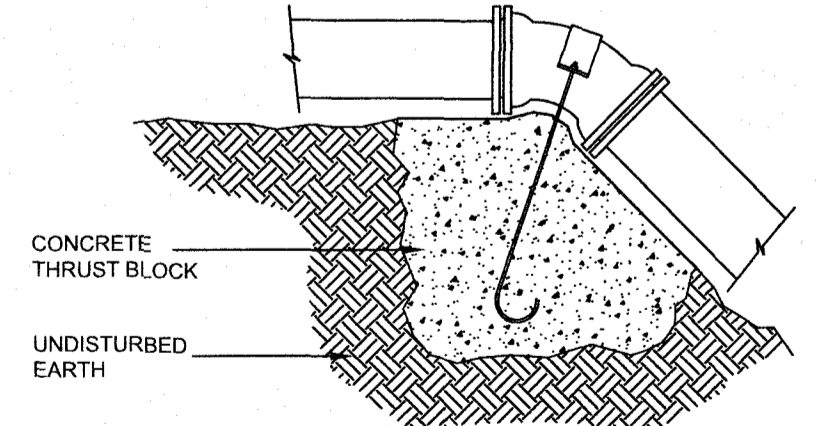


MAIN CROSSINGS

WATER MAIN/SEWER MAIN SEPARATION
NOT TO SCALE
(AUGUST 2011)



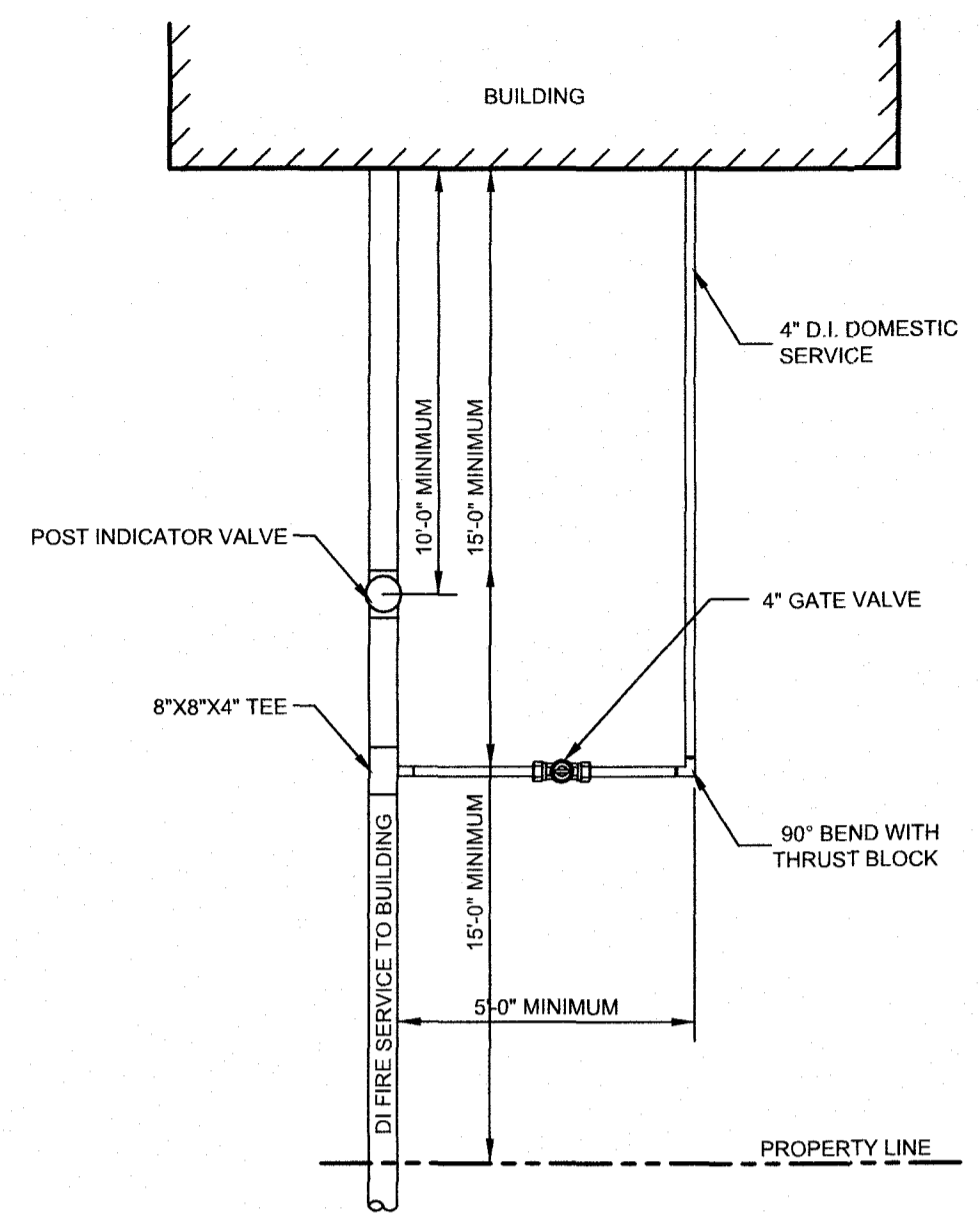
PLAN - HORIZONTAL BENDS, TEES AND PLUGS



ELEVATION - VERTICAL BENDS

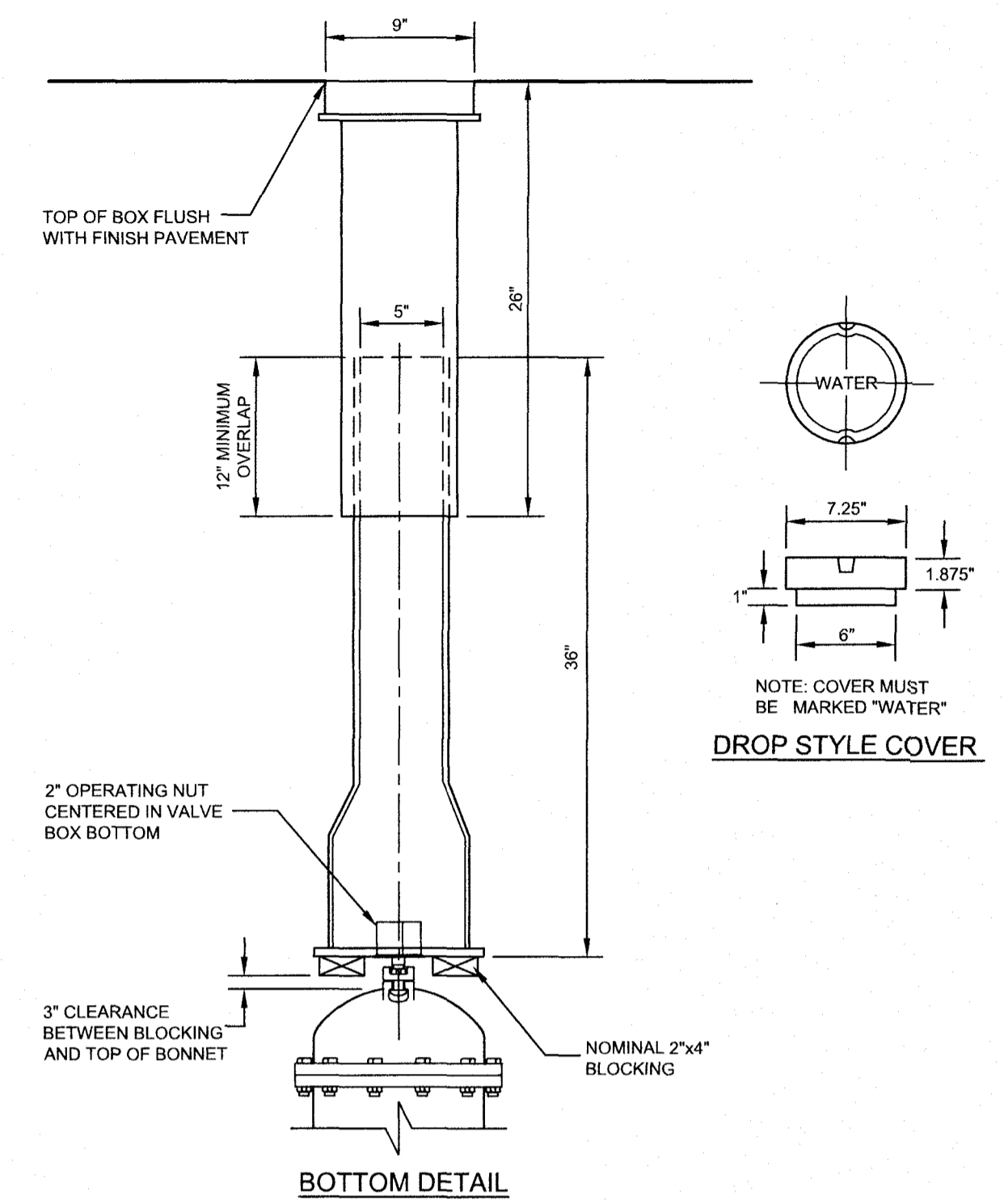
- NOTES:**
1. THRUST BLOCK DIMENSIONS TO BE DETERMINED IN FIELD BY ENGINEER BASED ON PIPE SIZE, WATER PRESSURE AND SOIL TYPE.
 2. STONE BACKING MAY BE SUBSTITUTED FOR CONCRETE THRUST BLOCKS PROVIDED THE STONE(S) ARE OF EQUAL SIZE AND BEAR ON UNDISTURBED EARTH.
 3. USE OF JOINT RESTRAINT SYSTEMS SHALL NOT ELIMINATE THRUST BLOCK REQUIREMENTS (WHERE POSSIBLE).

THRUST BLOCKS
NOT TO SCALE
(MARCH 2008)



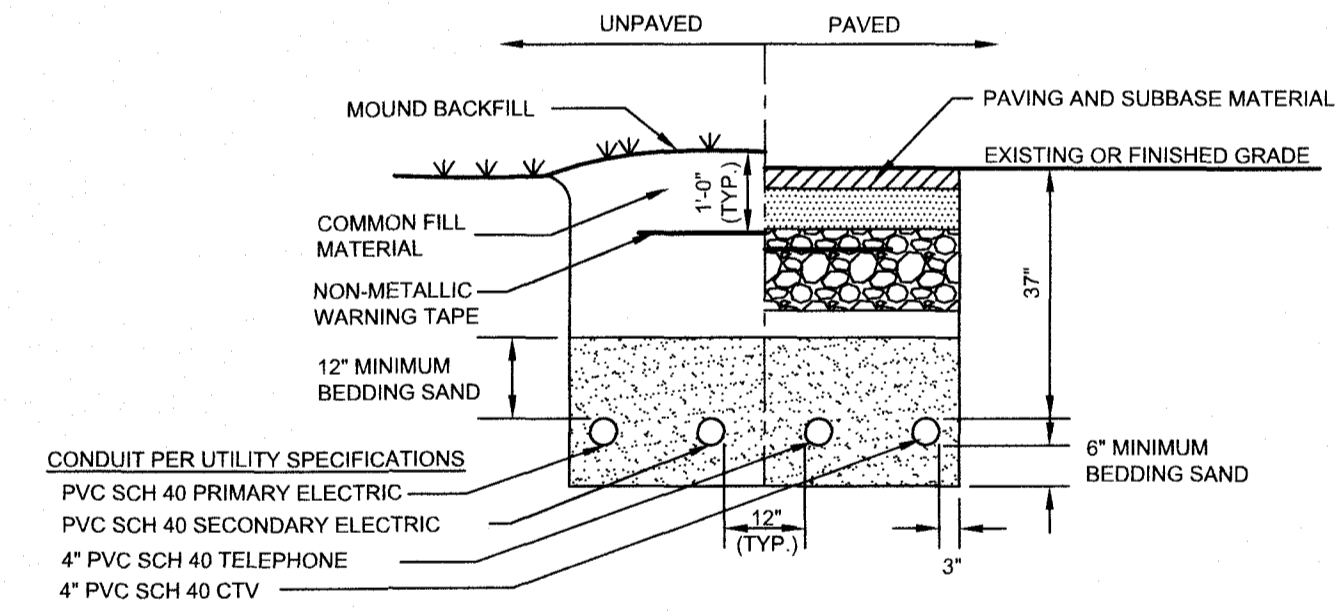
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO MANCHESTER WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-6" FROM TOP OF PIPE TO FINISH GRADE.
 3. SEE DETAIL FOR SERVICE AND VALVE BOX INSTALLATION DETAIL.
 4. SEE DETAIL A-11 FOR OUTSIDE SERVICE ENTRANCE PLAN VIEW.

DOMESTIC SERVICE TAPPED OFF FIRE SERVICE
(A-24)
NOT TO SCALE
(MARCH 2008)



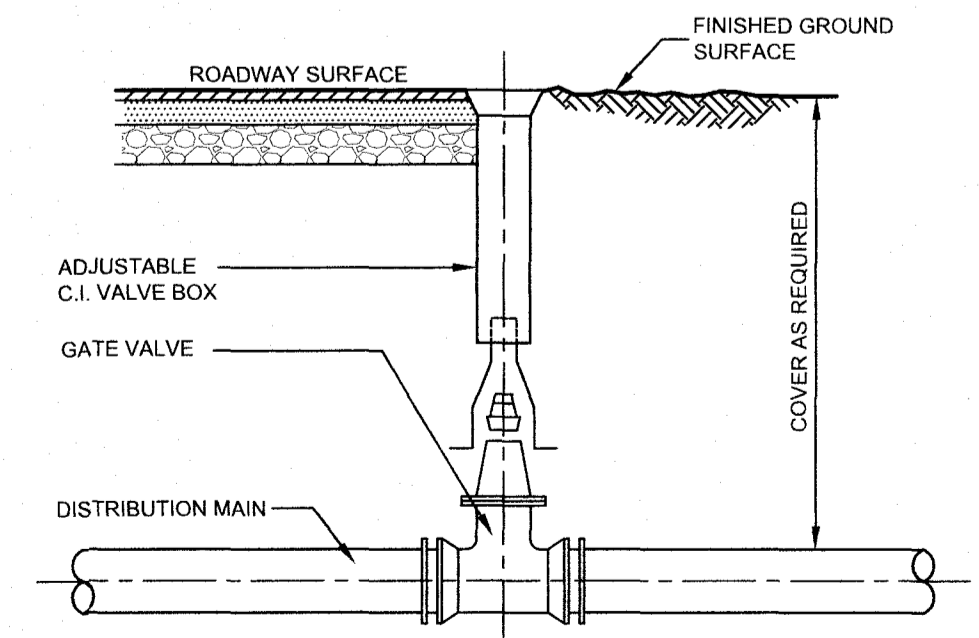
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

VALVE BOX DETAIL
(A-09)
NOT TO SCALE
(MARCH 2008)



- NOTES:**
1. INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.
 2. COORDINATE WITH UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION.

UTILITY TRENCH DETAIL
NOT TO SCALE



WATER AND GAS GATE VALVE
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
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c/o NANCY CRAVEN TRUST
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PROJECT NO: 21-0709-3 SHEET 19 OF 21

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

TURF ESTABLISHMENT SCHEDULE

PURPOSE:

TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

1. RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDING TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
2. PLACE LOAM OVER AREAS TO BE SEEDING AND SPREAD.
3. FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
4. APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
5. APPLY NO PHOSPHATE, SLOW RELEASE FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDING BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
7. SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNTILLABLE.
8. WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDING.
10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

ALL SEEDING AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDING AREA. MAINTAIN SEEDING AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY VEHICLES.

APPLICATION RATES:

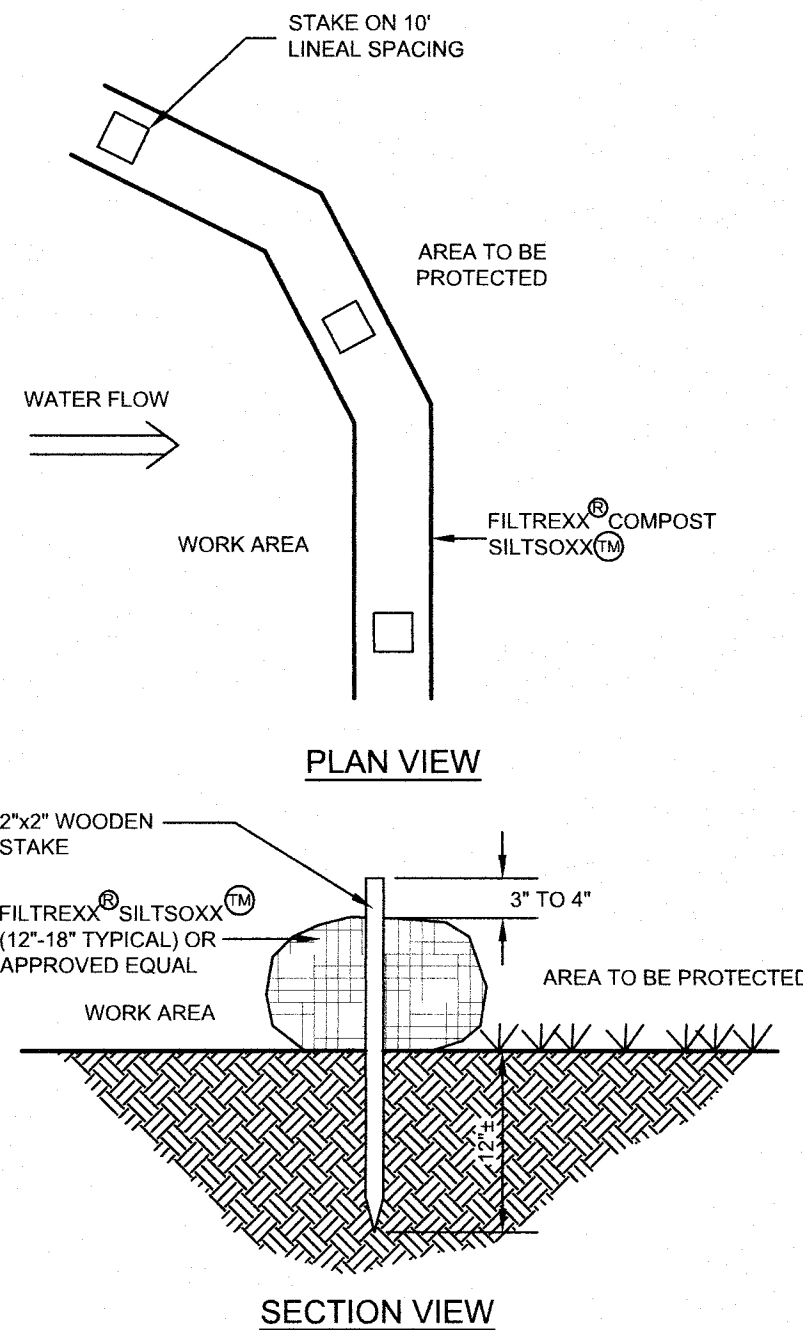
1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
2. LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
3. FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
5. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
8. MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.

MATERIALS:

1. LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
2. LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
3. FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.
4. SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
 - 25% CREEPING RED FESCUE
 - 25% KENTUCKY BLUEGRASS
 - 25% REDTOP
 - 25% MANHATTAN PERENNIAL RYEGRASS
5. TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
 - 15% BLACKWELL OR SHELTER SWITCHGRASS
 - 30% NIAGRA OR KAW BIG BLUESTEM
 - 30% CAMPER OR BLAZE LITTLESTEM
 - 15% NE-27 OR BLAZE SAND LOVEGRASS
 - 10% VIKING BIRDSFOOT TREFLOIL

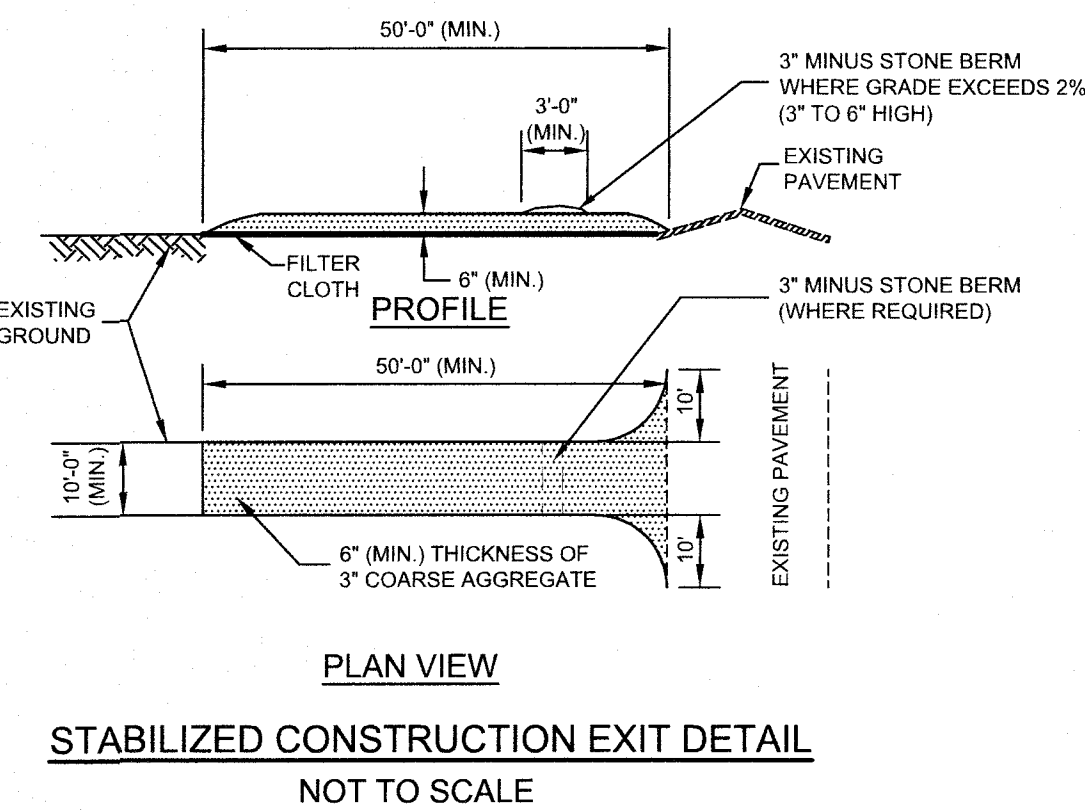
INOCULUM SPECIFIC TO BIRDSFOOT TREFLOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.
6. SEED MIXTURE FOR SLOPE AREAS SHALL BE 99% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
 - 30% CREEPING RED FESCUE
 - 40% PERENNIAL RYE GRASS
 - 15% REDTOP
 - 15% BIRDSFOOT TREFLOIL

*IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
7. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:
 - 25% CREEPING RED FESCUE
 - 15% SWITCH GRASS
 - 15% FOX SEDGE
 - 15% CREEPING BENTGRASS
 - 10% FLATPEA
 - 20% WILDFLOWER VARIETY
8. STRAW USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.
9. NATIVE PLANTINGS SHOULD BE USED FOR ALL NEW GREENSCAPES.
10. ALL WILDFLOWER SEEDING MIXES SHOULD BE FREE OF INVASIVE SPECIES.



- NOTES:**
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
 2. SILTOSOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
 3. SILTOSOXX DEPICTED IS FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
 4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® SILTOSOXX® DETAIL
NOT TO SCALE
(AUGUST 2011)



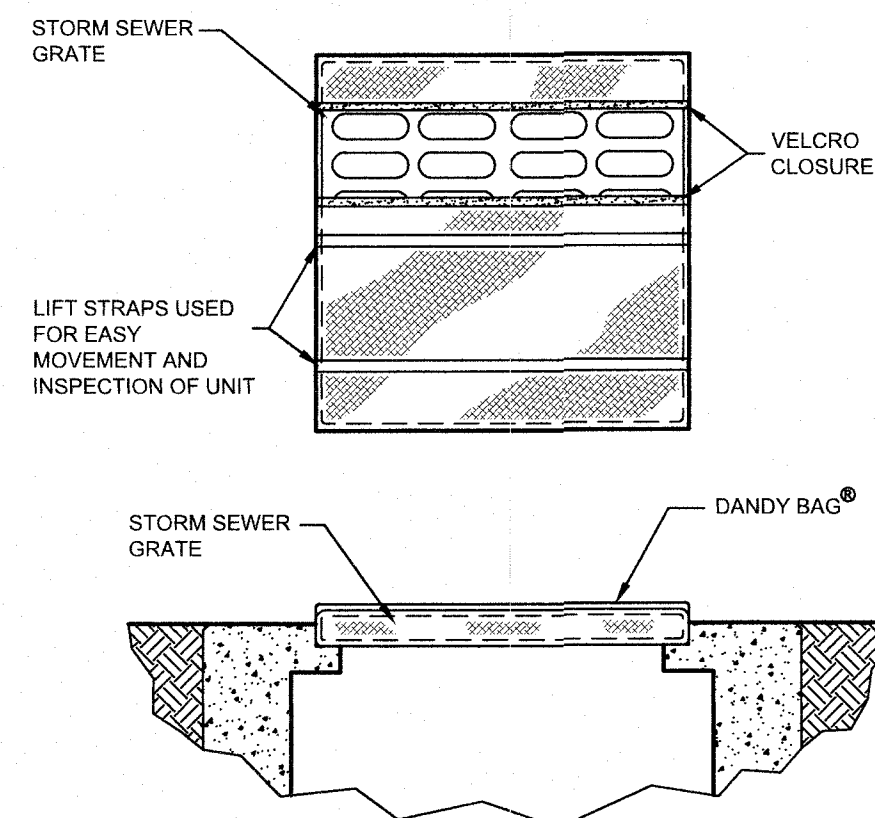
STABILIZED CONSTRUCTION EXIT DETAIL
NOT TO SCALE

MAINTENANCE:

1. MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
2. IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

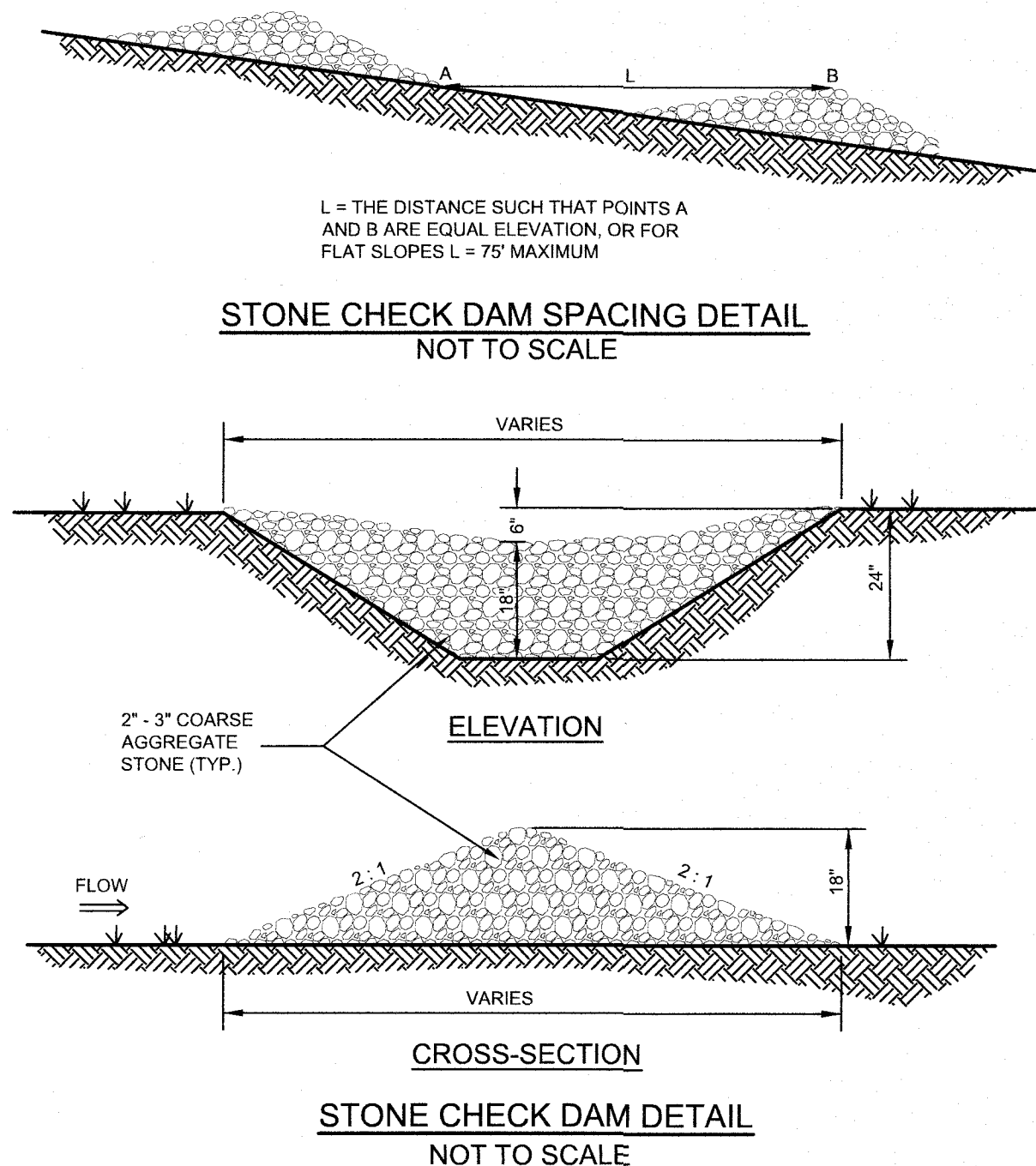
1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH MINIMUM STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3 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. 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.
9. THE MOUNTABLE BERM IS REQUIRED FOR 50' LONG EXITS.



HI-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	kN (lbs)	1.62 (365) x 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 x 10
PUNCTURE STRENGTH	ASTM D 4833	kN (lbs)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	kN (lbs)	0.51 (115) x 0.33 (75)
UV RESISTANCE	ASTM D 4355	%	50
APPARENT OPENING SIZE	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
FLOW RATE	ASTM D 4491	1/min/m ² (gal/min/ft ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	Sec ⁻¹	2.1

DANDY BAG®
NOT TO SCALE
(APRIL 2010)

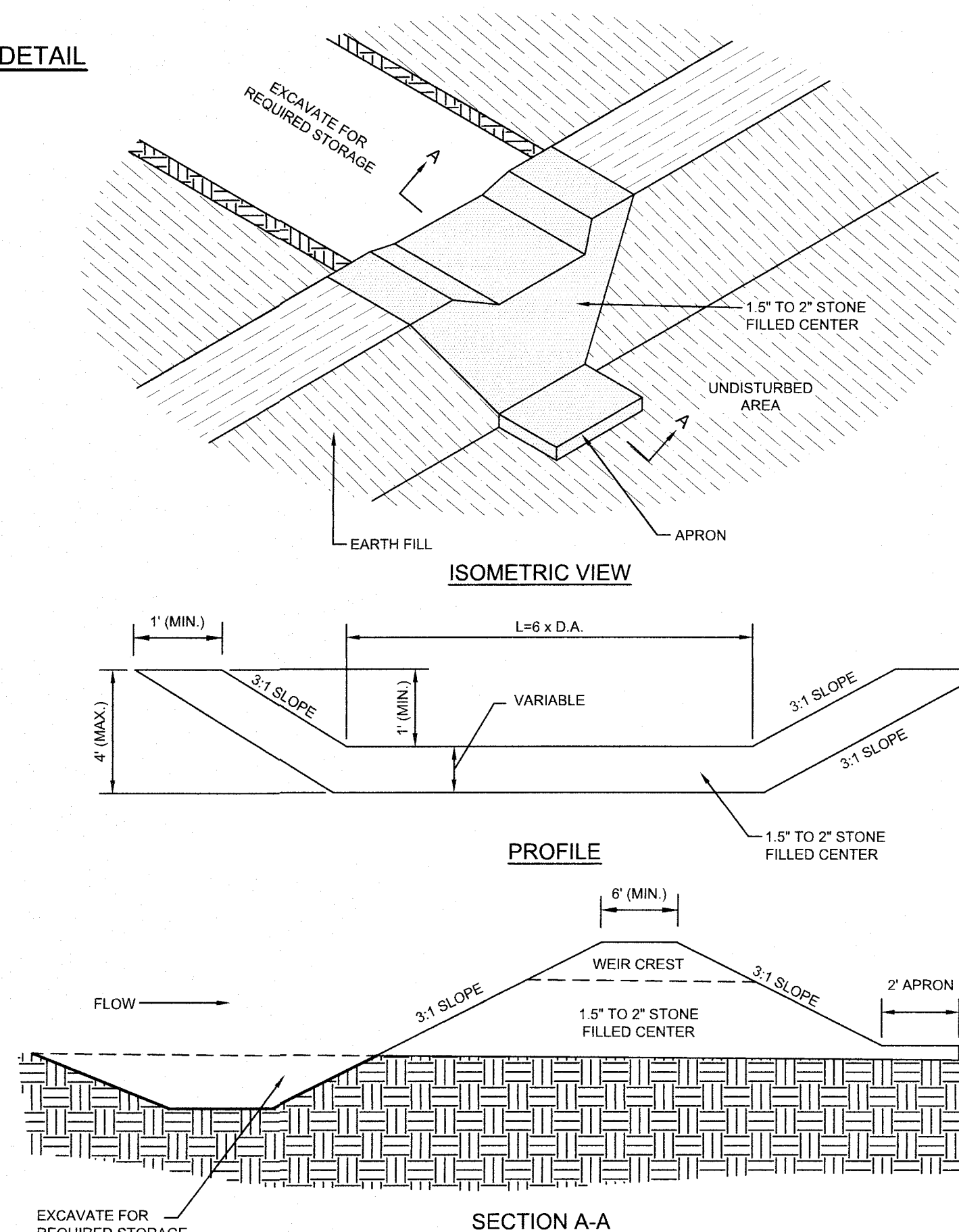


STONE CHECK DAM SPACING DETAIL
NOT TO SCALE

ELEVATION

CROSS-SECTION

STONE CHECK DAM DETAIL
NOT TO SCALE



ISOMETRIC VIEW

PROFILE

SECTION A-A

- NOTES:**
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
 2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
 3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
 4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
 5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
 6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
 7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
 8. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED.

TEMPORARY SEDIMENT TRAP DETAIL
NOT TO SCALE

CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
196-202 CENTRAL STREET
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
RONALD CRAVEN TRUST
c/o NANCY CRAVEN TRUST
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
BLUEBIRD SELF STORAGE LLC.
125 OCEAN ROAD
GREENLAND, NH 03840

KA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021
PROJECT NO: 21-0709-3
SCALE: N.T.S.
SHEET 20 OF 21

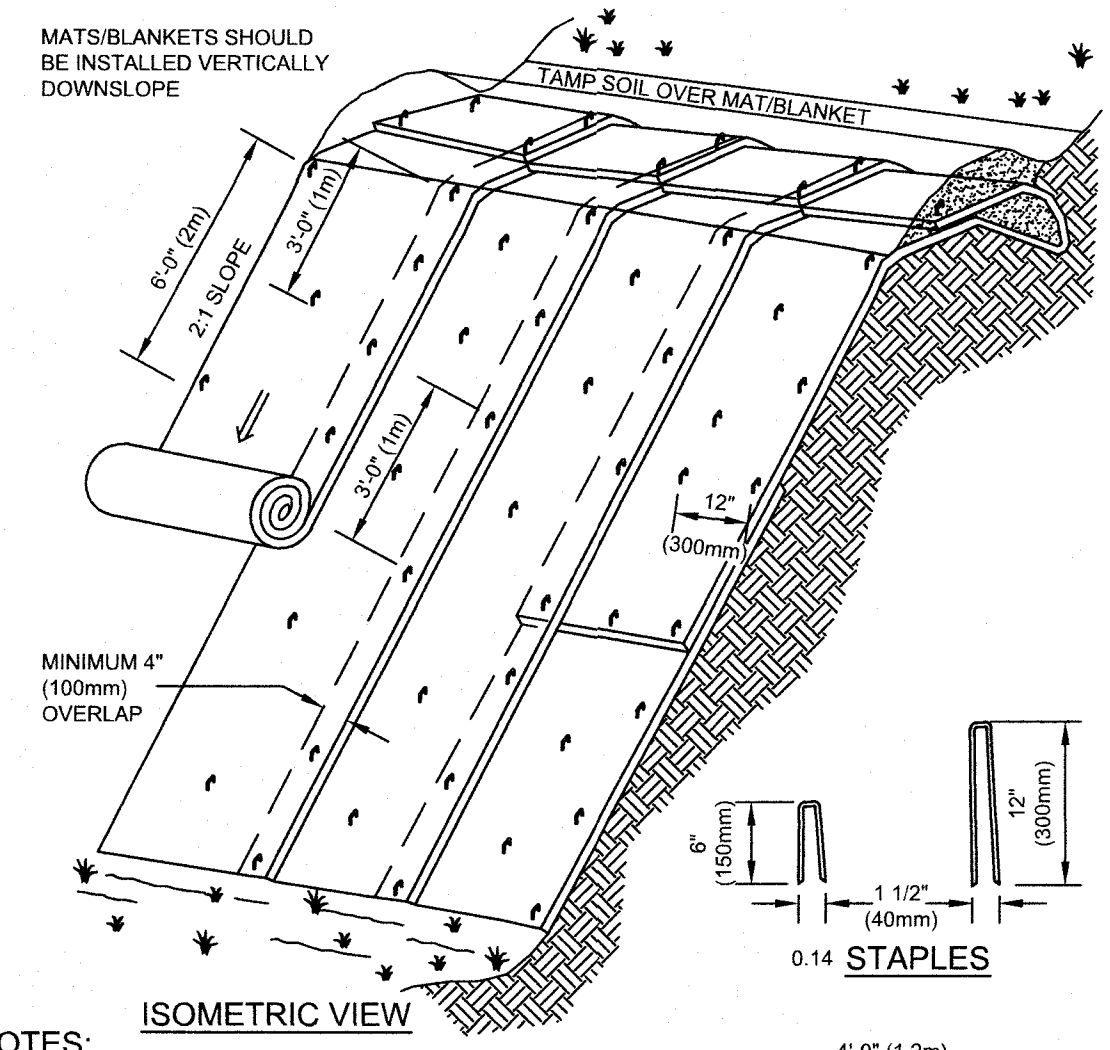
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.



- NOTES:**
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 - APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 - LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 - EROSION BLANKETS TO BE A BCN150 OR AN APPROVED ALTERNATIVE WHICH MUST CONSIST OF ALL NATURAL FIBERS.

EROSION CONTROL BLANKETS - SLOPE INSTALLATION
NOT TO SCALE
(AUGUST 2011)

CONSTRUCTION SEQUENCE

- THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME.
- FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS, ALL APPLICABLE TEMPORARY EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER SILTATION FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
- BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADIENT STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY EARTHEN DIKES OR EXCAVATED SWALES.
- ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED.
- DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
- INSTALL DRAINAGE SWALE SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED BY A PASS WITH A LEVELING DRAG.
- PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS.
- COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY, TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LOAM.
- FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
- CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
- INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

EROSION CONTROL NOTES

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL MONITOR IS EMPLOYED THROUGHOUT THE DURATION OF CONSTRUCTION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- EROSION CONTROL AND STABILIZATION SHALL BE IN ACCORDANCE WITH HILLSBOROUGH COUNTY CONSERVATION DISTRICT-VEGETATIVE STANDARD AND SPECIFICATIONS FOR SEEDING GRASSES AND LEGUMES FOR LONG-TERM COVER ON EXCAVATED AREAS.
- ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
- IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, 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.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - 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.
- DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENV-A 1000.
- IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
- THE TOWN RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION.
- AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. 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.
- DETENTION BASINS/SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
- ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

WINTER CONSTRUCTION NOTES:

- 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 4:1, 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 OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 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.
- AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - 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.

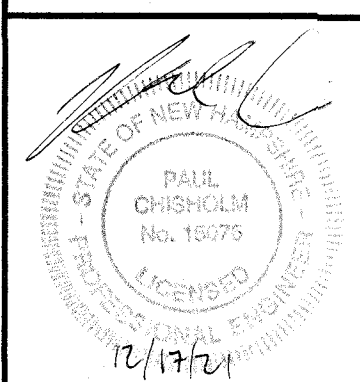
CONSTRUCTION DETAILS
BLUEBIRD SELF STORAGE

MAP 176 LOTS 21, 22 & 23
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HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
RONALD CRAVEN TRUST
c/o NANCY CRAVEN TRUST
88 SPEARE ROAD
HUDSON, NH 03051
H.C.R.D. BK. 6079 PG. 1294

APPLICANT:
BLUEBIRD SELF STORAGE LLC.
125 OCEAN ROAD
GREENLAND, NH 03840

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: DECEMBER 20, 2021 SCALE: N.T.S.
PROJECT NO: 21-0709-3 SHEET 21 OF 21

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.