Town of Milton Planning Board
Town Hall Offices
525 Canton Avenue
Milton, MA 02186
617-696-5732

Reserved for the Office of the Town Clerk

FORM SPA
APPLICATION FOR APPROVAL OF A PROPOSED SITE PLAN

Date: Sept. 24, 2021

To the Planning Board of the Town of Milton:

The undersigned, being the applicant, hereby submits for approval a PROPOSED SITE PLAN as amendment to 7.23.20 approved Site plan in accordance with Section VIII.D of the Rules & Regulations of the Milton Planning Board entitled:

"New Goddard School 193 Central Avenue, Milton, Massachusetts"

Plans prepared by: Peter Blaisdell CE Williams + Sparages Dated: 9.7.2021

Parcel(s) Street Address: 193 Central Avenue

The undersigned's title to said land is derived from: B 35749, P 199 Norfolk Registry

Milton Assessor's Map Number(s): E Parcel(s): 28-5 Zoning District: Res. B

Deed of Property Recorded in Norfolk County Registry Book number(s): 39091 page(s): 568

Registered in Norfolk County Registry District of the Land Court, Certificate of Title number(s): —

Number of Proposed Lots: 2 existing Total Acreage: 63,780 sf

Said land is current with regards to taxes and is free of encumbrances except for the following:

—

Owner: Verma Holdings LLC	Applicant: Verma Holdings LLC
Company: c/o Sunny + Simmi Verma	Company: c/o Sunny + Simmi Verma
Address: 21 Coach Rd. N. Attleboro, MA 02760	Address: 21 Coach Rd. N. Attleboro, MA
Phone: 508-736-1200	Phone: 508-736-1200

Signature of Owner: _____ Date: _____

Signature of Applicant (or Agent): Marion V. McEttrick Esq. Date: Sept. 24, 2021

APPLICATION TO AMEND SITE PLAN APPROVAL dated July 23, 2020
193 Central Avenue, Milton

September 24, 2021

APPLICANT:	Verma Holdings LLC c/o Sunny and Simmi Verma 21 Coach Road North Attleboro, MA 02760
OWNER:	Verma Holdings LLC c/o Sunny and Simmi Verma 21 Coach Road North Attleboro, MA 02760
SITE ADDRESS:	193 Central Avenue, Milton
ASSESSORS No:	E-28-5
DEED dated 2.15.2021:	Book 39091, Page 568 Norfolk Registry of Deeds
ZONING DISTRICT:	Residence B
PREVIOUS PRE-EXISTING, NONCONFORMING USE:	Social Club
APPROVED JULY 23, 2020 SITE PLAN:	Pre-school and Daycare Use, Existing Building Renovation (allowed use)
AMENDMENT APPLICATION:	Application to Amend Site Plan for 193 Central Avenue, Milton (New building) dated 9.24.2021
PLAN REFERENCE:	"Plan of Land, 193 Central Avenue, Milton" Plan Book 94, Page 692 (lots A and B only)
SITE PLAN:	"Site Plan, The Goddard School, 193 Central Avenue, Milton, Massachusetts", by Williams & Sparages, 189 North Main Street, Suite 101, Middleton, MA 01949 dated 9.7.2021
CONCEPTUAL ARCHITECTURAL PLANS	Conceptual Building Plan Layout and Elevations by Joseph O'Sullivan Architects, Inc., Reading, MA dated 8.2.2021

SITE PLAN APPLICATION NARRATIVE

Introduction

On July 23, 2020, the Milton Planning Board approved the site plan for a new pre-school and day care facility at 193 Central Avenue in the former "Hoosic Club". The applicants were Sunny and Simmi Verma who had a purchase and sale agreement with the previous owner, contingent upon receiving all approvals required, including a building permit. The inside of the building was to be totally renovated, the exterior was to remain substantially the same, and the site was to be substantially re-designed. Proposed work on the site for the approved site plan application included parking in front and on the rear right side, installation of stormwater drainage structures, a lighting locations and specifications, installation of playground facilities, fencing and landscaping around the building and in back of the rear parking.

The Verma's were committed to this historic re-use project and spent many months working on interior and exterior designs, receiving final site plan approval from the Planning Board, after a public hearing process, on July 23, 2020. Then began a seven-month process of preparing and obtaining approval for the required building permits, in order to begin work.

The school was to be organized as a subchapter "S" corporation holding a franchise from The Goddard School, which has facilities in a number of Massachusetts communities including Watertown, Lexington, Medfield and Braintree.

On February 25, 2021, after a building permit issued, title to the property was conveyed to Verma Holdings, LLC for $2,750,000.00.

Construction work on the location began immediately, including preparing the site, installing the drainage system and excavation.

One month later, on March 22, 2021, in the middle of the night, a devastating fire destroyed the building. Local and state fire officials and the Verma's insurance company conducted investigations for several months. The site was released in July 2021, the cleanup process was initiated shortly after the release and cleanup was completed in early August 2021.

No replacement building plan could be developed until it was clear, with release of the site, that there would not be prolonged claims tying up the property. Upon release of the site in early August, the owners worked with their architect and engineer to come up with building design options. The building layout and parking design you see in this application is the result of feedback from the Building Commissioner to ensure that the building and site design conformed to zoning requirements, feedback from neighbors about the design of the front parking lot, the design of the parking entrance and exit ,and the location of the dumpster as

well as the applicant's requirements that the new building not be generic, but resemble, to the extent possible, the Hoosic building.
Because the Hoosic building was constructed prior to the adoption of the current Zoning Bylaw in 1938, it did not conform to zoning requirements including those for setbacks and parking. The applicant has followed the requirements of the Building Commissioner to design the new building so as to meet the dimensional requirements of the Zoning Bylaw.

These requirements apply for this new building for an allowed use, as long as they do not prevent the use, consistent with Massachusetts appellate decisions about the imposition of zoning requirements on the use exemption for daycare/preschool programs.

Therefore, the objectives for a replacement building and revised site plan are: 1) to provide design features similar to some of those in the Hoosic Building; 2) to locate the building, to the extent possible given zoning requirements, in a similar location to the original building; 3) to build a structure meeting Office for Early Childhood Education regulations for the same program and capacity as in the approved site plan; 4) to design the building and site so as to require no zoning relief.

The following list describes various components of the site plan approval and what changes to the site are requested in this application. Any changes to the Site Plan must be approved by the Planning Board as an Amendment to the July 23, 2020 Site Plan Approval Decision.

1. USE: (no change) Both site plans are designed for daycare/preschool up through the age when a child is ready for kindergarten. This type of use is allowed under M.G.L. Ch. 40A.

2. CAPACITY: (similar) The capacity of the school is expected to be similar or slightly smaller than 165 students. As explained last year, enrollment is never at capacity and fluctuates from year to year. The average enrollment after two years is expected to be around 100 – 120 children. Final center capacity is regulated by the state.

3. NUMBER OF CLASSROOMS: (similar) The number of classrooms is one less, 11 rather than 12.

4. SITE: the same, 63,780 sf site.

5. BUILDING FOOTPRINT: The footprint of the building is slightly larger compared to the approximately 11,400 sf footprint of the Hoosic Club

6. GROSS SQUARE FOOTAGE OF CLASSROOM AND ADMINISTRATIVE SPACE: New building has approximately 1,000 sf less.

7. CLASSROOM LAYOUT: in the new building classrooms are on the ground floor and there is no basement; the Hoosic building renovation plan required that classrooms be located

in the basement, which is not desirable, but was unavoidable in the Hoosic renovation plan. Because in a new building space can be more efficiently arranged, the total program space is less in the new building. There is some additional administrative and activity space on the second floor in the center of the building under the roof, which was also the case in the original plan.

8. THE BUILDING ORIENTATION: The new building is parallel to Central Avenue rather than the Hoosic Club's location which was at an oblique angle to Central Avenue. This orientation provides for conforming lot line setbacks for building and parking on this corner lot.

9. DESIGN: The building is designed to resemble the Club in front with lower wings and a higher portion in the middle, with the same type of shingles, and with some similar window and door designs. The footprint of the new building is shown on this revised site plan and the elevations are provided in the architectural elevation plans. Provided as Exhibit C is a diagram showing features of the Hoosic Building included in the new building design, including windows, doors and shingles.

10. APPEARANCE ON THE SITE: the applicant has provided a color rendering of the building with proposed parking and landscaping from Central Avenue as Exhibit D.

11. EXTERIOR FINISHES: The new building includes the same style of shingles and large ground floor windows which are design elements from the Hoosic building. The color palette is to be grey shingles with white trim.

12. MECHANICALS: As in the previous approved site plan, all mechanicals on the roof are shielded from view, as shown on the elevation plan.

13. PARKING: Last year's site plan had 30 on-site parking spaces, 15 in front facing Central Avenue in the existing parking area and 15 on the side at the rear, accessed by a driveway around the right side of the building. Additional trees and fencing were on last year's plan to shield that back parking lot and a wooded area was to be left as is in back of the parking area.

    Because this plan is for a new building, parking must comply with parking setback requirements; the 15 side rear parking spaces must be moved to the front. The wooded area to the rear still remains as is. The front parking must now be set back 25 feet from the street and within that setback screening must be provided. The front parking area has 31 parking spaces including the required number of handicapped parking spaces.

14. PARKING ACCESS DESIGN: Last year the parking design called for the entrance and exit in one location, on the right as you face the building (with your back to Central Avenue). The circular driveway from Columbine Road remained as additional emergency access.

In this revised plan the applicant proposes a continuous parking area; the circular driveway is not included; and there is a separate entrance and exit for the parking area. This plan reverses an earlier plan after meeting with neighbors, so that now, cars enter closer to Columbine Road and exit on the other side. This layout locates the exit where there is no residence directly across the street.

This plan has been approved by the Fire Department as providing adequate emergency access.

15. ANALYSIS OF PROJECTED TRIP GENERATION: no change; this exhibit (G) for the approved site plan is included in these exhibits.

16. PERIMETER FENCING: same type of material and height as approved last year (6' vinyl but a higher quality type of fencing that looks more like wood). An example of the type of fencing is provided in Exhibit E; same example as last year. The perimeter of the site as required will still be surrounded by this fencing.

17. NEW STONE WALL ON COLUMBINE ROAD SIDE: A wall faced with stone is added to this side from the beginning of the side pathway to the back of the rear playground. This is a code requirement to protect children if a car loses control and goes off the roadway. The design is proposed to be faced with stone and to have fencing matching the perimeter fencing at the top of the wall. The wall will also shield the view and muffle sound towards Columbine Road. Exhibit F shows design suggestions.

18. LIGHTING PLAN: a new lighting plan, specifications, and photometrics have been provided as Exhibit L. The photometric plan showing lighting locations is also included as Sheet 10 in the site plan. As with last year's plan, the lighting is dark sky compliant and shields abutting properties from lighting overspill; all lighting will be on a timer to go off about an hour after school closes at 6 p.m.; and any light poles are no higher than 10 feet. As in the approved site plan, there will be security lighting with adjustable angles on the building for after closing that is activated by motion sensors. The angle of the security lighting can be adjusted to ensure that no lighting shines towards neighboring property.

19. STREET TREES: All new street trees approved last year are still on the plan. No additional trees will be removed from the existing site.

20. SITE LANDSCAPING: some trees were removed during site clearing in March, 2021, as shown on the site plan approved in July, 2020. There is no longer rear parking requiring a row of trees screening that parking. The wooded area at the rear remains as it is, as required last year. There is new screening landscaping 25' in width all along the front on Central Avenue between the entrance and exit, as well as existing rocks and trees that will remain. The front screening landscaping continues around the corner onto Columbine Road, to the end of the parking, as required by the Zoning Bylaw. There

are two new River Birch trees approved last year in front and two more located at the Columbine Road side of the parking area in front.

21. PLAY AREAS: The two larger rear play areas in the approved plan have been replaced with two smaller play areas designed for different age groups and play activities. Two small additional play areas, one of which is an outdoor exploration area, have been located on the right side of the building. This will limit the number of children in any play area at any one time. While the school closely manages playground behavior, and these are very young children, this design does reduce the numbers in each play area and provides more separate locations at any given time, so the play areas are not in use as long. This design is proposed to minimize any playground noise intrusion on neighbors.

22. COLUMBINE ROAD OAK TREE: The revised plan continues to protect the roots of a large oak tree remaining on Columbine Road, which will remain. On the side of the tree facing the new building some trimming of branches may be required. As noted on the plan any oak tree trimming will be reviewed with the STAC in advance.

23. STORMWATER DRAINAGE: a stormwater drainage structure is still shown as located under the land to the rear of the building. This revised stormwater drainage plan for this site plan adds additional structures under the front parking area and is under review by the Town Engineer. Stormwater structures as shown on this revised plan are designed to ensure that no additional stormwater will flow of the site. The Hoosic building had no on-site stormwater receptacles. One sheet in the Site plan depicts the location of stormwater management structures.

    The Stormwater Drainage Analysis has been filed with the Town Engineer and must be approved by the Town Engineer.

    In this plan, stormwater flow off the site will be reduced from existing conditions.

24. UTILITIES: connections to the new building are shown on the revised plan and are subject to approval by the Town Engineer.

25. GRADING: Grading is modified to accommodate the new building as shown on the Grading Plan Sheet.

26. OWNERS OF PROPERTY and MANAGERS OF THE NEW SCHOOL: no change, Sunny and Simmi Verma.

27. FRANCHISE: no change, oversight will continue to be provided by the Goddard Schools, a nationally recognized child care provider, with each location individually owned and operated.

28. ENROLLMENT OPTIONS: no change, the school will still offer half day, full day and part time weekday enrollment options and will provide a pre-school and child care program beginning with ages ranging from infancy until a child is ready for kindergarten.

29. EDUCATIONAL PHILOSOPHY: no change, each school develops its own statement of educational philosophy, consistent with the general Goddard School principles of play-based learning for cognitive and social development.

30. ENERGY EFFICIENCY: no information about energy efficiency was provided for the prior approved site plan. Because this is a new building, the school will meet the required energy conservation levels and will use high performance glazing and high wall and roof R-values.

    Heating, cooling and water systems will use energy saving equipment. Flat roofs will have light colored surfaces to help reflect solar heat gain. Interior sensors will monitor air quality and carbon monoxide levels and fresh air to spaces using energy recovery units and heat exchangers. Interior and exterior lighting will be highly efficient LED lamps. Classrooms will be enabled with multiple light levels and occupancy sensors will be provided in all occupied spaces. All appliances will be high efficiency/low flow. Infrastructure for future use of photovoltaic panels will be installed although it appears that at this time there is too much shade cover for installation to be cost effective.

    The new building will be more energy efficient than the prior proposed renovation.

31. STORAGE OF REFUSE: the refuse storage container is now located on the right side of the parking area (as you face the school) next to the school. This is similar to where the Hoosic Club stored its refuse although that dumpster was not enclosed. The securely covered container will be enclosed by walls higher than the container. Based on experience with similar schools, the applicants expect that there will be trash pick-up twice a week. Because children bring their own meals, there will relatively little food waste generated in this program.

    Pick-up will be as frequent as necessary to control any food odors.

32. SIGNS: signs must be approved separately by the Design Review Committee and the Building Department.

33. CONSTRUCTION MANAGEMENT PLAN: There was no plan submitted last year. We have included one in this amendment application as Exhibit K

34. DEVELOPMENT IMPACT, COMPARISON WITH PRIOR USE: As we explained last year, this use will have a very different impact from the prior club. Used by a social club, this site had large weeknight and weekend events, heavy on-street parking for those events, and

substantial noise from those events, in the evening and on weekends. Events also took place on weekdays.

The school closes at 6 pm weekdays and is not open on weekends. Evenings and weekends the school will generate no traffic.

The school housed in the new building will have no different impact than the school described in the approved plan last year. Estimated trip generation is the same. The student capacity is the same and there is one less classroom. There is as much parking on site as was provided on the approved plan, and the consolidated parking location in front will have significant additional screening to block the view from the street.

The program space is arranged more efficiently and is less than the prior proposal; the additional footprint replaces basement space in the prior design but is contained in a wing on one side to reduce the front width of the building. The building's design incorporates some of the features of the Hoosic building.

All conditions that are part of the Site Plan Approval dated July 23, 2020 shall remain in effect except for those specific amendments described in this application. That includes the requirement that six months after opening the school shall review actual trip distribution in an average week and report on how actual trips compare to the projected trips provided as part of the amended site plan application approved on July 23, 2020.

This application is submitted as an Amendment to the Site Plan Approval Decision by the Planning Board dated July 23, 2020.

While the site layout is subject to site plan review, the use is an allowed use under Massachusetts General Laws, Chapter 40A.

The applicant respectfully requests that the Planning Board approve the modifications to the approved site plan, as described in this application. These modifications to the site plan are reasonably necessary under the circumstances, following the catastrophic fire that destroyed the historic Hoosic Building.

With this application the applicant has provided a site plan by Williams and Sparages, dated September 7, 2021, and a building elevation plan and layout plan dated 8.2.2021 by Joseph Walsh, AIA, LEED AP BD+C, O'Sullivan Architects, Inc., 606 Main Street – Suite 3001, Reading, MA 01867. Separate sheets in the site plan show existing conditions, site layout, public sewer, water and utility connections, finished topography, playground equipment, photometrics from proposed lighting and landscaping. Also included as exhibits are architectural elevation and layout plans, a color rendering of the new building (Exhibit D) and a "lighting plan by "Illuminate" dated 8.24.2021, (Exhibit G) including photometrics, lighting locations, and specifications for lighting.

All documents referenced as part of the July 23, 2020 approved site plan are incorporated by reference into this application for amendment; some of those documents are included again in this application as Exhibits E, H, J, K and L

With this narrative including exhibits a completed Form SPA, a filing fee, and eight paper copies of the site plan, the front view renderings, and the conceptual architectural plans have been provided, for filing with the Town Clerk and the Planning Board.

Exhibits:

A. Site Plan on 13 pages dated 9.7.2021
B. Conceptual Architectural Elevation and Layout plans dated 8.2.2021.
C. Design Changes Due to fire
D. Color Rendering of New Building, Parking and Landscaping from Central Avenue
E. Fencing Specification (typical)
F. Stone Wall Design Concept (design suggestions)
G. Trip Projection Analysis
H. Current Deed
I. Copy of ANR Plan recorded in Plan Book 692, Page 64, Norfolk County Registry of Deeds
J. GIS Map
K. Construction Management Plan
L. Photometric Plan and Specifications (typical)

A Stormwater Drainage Report has been filed with the Town Engineer and must be approved or modified as required by the Town.

ZONING DISTRICT: RESIDENCE B

	REQUIRED/ALLOWED	PROVIDED/PROPOSED
MINIMUM LOT AREA	20,000 s.f.	63,780 s.f.
MINIMUM LOT FRONTAGE	100 ft	197.76 ft.
MINIMUM FRONT SETBACK	25 ft.	90.3 ft.
MINIMUM SIDE SETBACK	35 ft.	41.5 ft.
MINIMUM REAR SETBACK	40 ft.	61.0 ft.
ACCESSORY STRUCTURE SETBACK	10 ft.	15.8 ft. (RET. WALL)
MAXIMUM BUILDING HEIGHT	35 ft.	33.25 ft.
MAXIMUM BUILDING HEIGHT (STORIES)	2.5	2.5
MAXIMUM GROSS FLOOR AREA	40%	34.2% (21,785 s.f.)
OPEN SPACE	50%	58.7%
FRONT SETBACK IMPERVIOUS AREA	40% (4,880 s.f.)	15% (1,800 s.f.)
CORNER LOT PARKING IN SETBACK	30%	12%

FRONT YARD: IN A RESIDENCE B DISTRICT NO BUILDING SHALL BE ERECTED WITHIN 25 FEET OF THE LINE OF THE STREET ON WHICH IT FRONTS PROVIDED THAT NO BUILDING NEED BE SET BACK MORE THAN 25 PERCENT OF THE MEAN DEPTH OF THE LOT NOR MORE THAN THE AVERAGE OF THE SETBACKS OF THE BUILDINGS ON THE LOTS IMMEDIATELY NEXT THERETO ON EITHER SIDE, A VACANT LOT OR A LOT OCCUPIED BY A BUILDING SET BACK MORE THAN 25 FEET BEING COUNTED AS THOUGH OCCUPIED BY A BUILDING SET BACK 25 FEET.

SIDE YARD: RESIDENCE B DISTRICT WITHIN 12 FEET OF A SIDE LOT LINE OR WITHIN 24 FEET OF ANY OTHER BUILDING ON AN ADJACENT.

REAR YARD: NO BUILDING EXCEPT A ONE-STORY BUILDING OF ACCESSORY USE SHALL BE ERECTED OR MAINTAINED WITHIN 30 FEET OF THE REAR LOT LINE, PROVIDED THAT NO BUILDING NEED BE SET BACK FROM THE REAR LOT LINE MORE THAN 30 PERCENT OF THE MEAN DEPTH OF THE LOT.

THE MILTON ZONING BYLAWS – SECTION VII. PARKING REGULATIONS

CATEGORY	REQUIRED	PROVIDED
SECT. VII. PARKING REGS. EDUCATIONAL PURPOSES B.4.a.	3 SPACES/2 INSTRUCTIONAL ROOMS 11 ROOMS/2 x 3 = 17	31 SPACES (3 COMPACT SPACE-16'X8')
HANDICAP	2 SPACES	2 SPACES

SECTION VII. PARKING REGULATIONS.
G. IN RESIDENCE AA, A, B OR C DISTRICT, ANY PARKING AREA FOR MORE THAN 5 AUTOMOBILES SHALL BE SET BACK FROM ANY STREET OR FRONT LOT LINE AT LEAST THE SAME DISTANCE AS A BUILDING IN SUCH DISTRICT MUST BE SET BACK FROM SUCH A STREET PURSUANT TO THE PROVISIONS IN PARAGRAPHS 1, 2 OR 3 OF SECTION VI.

PROJECT NOTES

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PROVIDED BY WILLIAMS & SPARAGES, LLC ON MARCH 17, 2020.
2. ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD88.
3. THE UTILITIES SHOWN ARE THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC AND FROM VARIOUS PLANS ON FILE WITH THE TOWN OF MILTON. NO REPRESENTATION OR WARRANTEE IS MADE AS TO THE ACCURACY OF THE LOCATION OF THE SUBSURFACE UTILITIES DEPICTED OR NOT DEPICTED AND SHOULD BE CONSIDERED APPROXIMATE.
4. ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.
5. IF DURING CONSTRUCTION A CONFLICT SHOULD ARISE BETWEEN AN EXISTING UTILITY AND PROPOSED WORK THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING FOR RESOLUTION OF THE CONFLICT.
6. DIGSAFE NUMBER: 20202015352 **CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (811), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION.** DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.
7. ANY PROPOSED WATER CONNECTIONS ARE TO BE DESIGNED IN ACCORDANCE WITH 248 CMR 10.00: UNIFORM STATE PLUMBING CODE.
8. THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS AND ARCHITECTURAL SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
9. ANY PROPOSED DRAIN PIPES ARE TO BE HDPE OR APPROVED EQUIVALENT UNLESS OTHERWISE SPECIFIED.
10. THE APPLICANT SHALL COORDINATE WITH THE MILTON WATER DEPARTMENT TO ENSURE PROPER DOMESTIC AND FIRE FLOWS PRIOR TO BUILDING PERMIT.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ABUTTING PROPERTIES FROM DAMAGE RESULTING FROM PROPOSED SITE WORK.
13. SITE WORK TO COMPLY TO ADA STANDARDS.
14. SEE DEMOLITION PLAN PRIOR TO CONSTRUCTION.
15. SEE PLANNING BOARD DECISION PRIOR TO CONSTRUCTION.
16. SEE STORMWATER PERMIT PRIOR TO CONSTRUCTION.

LEGEND OF SYMBOLS

EXISTING CONTOUR — 52 —
EXISTING SPOT ELEVATION × 47.74
EXIST. BITUMINOUS BERM BBIT
EXIST. FENCE -o-o-o-
APPROXIMATE WATER — W — W —
APPROXIMATE SEWER — S — S —
APPROX. SEWER SERVICE — SS — SS —
APPROX. STORM DRAIN — SD — SD —
APPROXIMATE GAS — G — G — G —
APPROXIMATE ELECTRIC — E — E — E —
OVERHEAD WIRES — OHW — OHW — OHW —
EXIST. SEWER MANHOLE Ⓢ
EXIST. DRAIN MANHOLE Ⓓ
EXIST. CATCH BASIN
EXIST. HYDRANT
EXIST. WATER GATE
EXIST. GAS GATE
BENCH MARK BM#4 ▲

THE GODDARD SCHOOL®

FOR EARLY CHILDHOOD DEVELOPMENT

Goddard Milton
193 Central Avenue
Milton, MA 02186

TOWN OF MILTON DEPARTMENT CONTACTS:

MILTON TOWN HALL
525 CANTON AVENUE
MILTON, MA 02186
617-898-4800

DEPARTMENT OF PUBLIC WORKS
629 RANDOLPH AVENUE
MILTON, MA 02186
617-898-4900

INSPECTIONAL SERVICES
525 CANTON AVENUE
MILTON, MA 02186
617-898-4925

PLUMBING & GAS
525 CANTON AVENUE
MILTON, MA 02186
617-898-4928

ELECTRIC DEPARTMENT
525 CANTON AVENUE
MILTON, MA 02186
617-898-4927

CODE ENFORCEMENT
525 CANTON AVENUE
MILTON, MA 02186
617-898-4839

ENGINEERING
525 CANTON AVENUE
MILTON, MA 02186
617-898-4973

POLICE DEPARTMENT
40 HIGHLAND STREET
MILTON MA 02186
617-698-3800

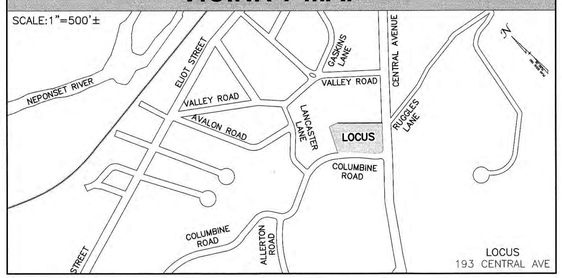
FIRE DEPARTMENT
515 CANTON AVENUE
MILTON, MA 02186
617-898-4901

PLANNING BOARD
525 CANTON AVENUE
MILTON, MA 02186
617-898-4847

PLANNING
525 CANTON AVENUE
MILTON, MA 02186
781-751-4847

HEALTH DEPARTMENT
525 CANTON AVENUE
MILTON, MA 02186
781-751-4886

VICINITY MAP



PROJECT CONTACTS:

APPLICANTS:
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North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

OWNER:
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21 Coach Road
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sunnyverma@hotmail.com

FRANCHISER:
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1016 W. 9TH AVE
KING OF PRUSSIA, PA 19406
PH: 610-265-8510

CIVIL ENGINEER:
WILLIAMS & SPARAGES
189 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
978-539-8088
jtilton@wsengineers.com

ARCHITECT:
O'SULLIVAN ARCHITECTS
606 MAIN STREET
SUITE 3001
READING, MA 01867
jwalsh@osullivanarchitects.com

LIST OF DRAWING SHEETS:

SHEET NUMBER & NAME		SHEET	Milton PB Approval	GSI Rev. #1	GSI Rev. #2	GSI Rev. #3
CIVIL: WILLIAMS & SPARAGES, LLC						
T1.1	TITLE SHEET	1				
C1.0	EXISTING CONDITIONS PLAN	2				
C1.1	SITE PLAN	3				
C1.2	PLAYGROUND DETAILS	4				
C1.3	PLAYGROUND DETAILS	5				
C2.1	GRADING PLAN	6				
C2.2	DRAINAGE PLAN	7				
C2.3	DRAINAGE DETAIL PLAN	8				
C3.1	UTILITY PLAN	9				
	PHOTOMETRIC PLAN (By Others)	10				
C5.1	SITE DETAILS	11				
C5.2	SITE DETAILS	12				
L1.0	LANDSCAPE PLAN	13				
CODE:						
G1.1	CODE STUDY					
ARCHITECTURAL: O'SULLIVAN ARCHITECTS, INC.						
FIRE PROTECTION:			SEE PLANS BY O'SULLIVAN ARCHITECTS, INC. DATED:			
MECHANICAL:						
PLUMBING:						
ELECTRICAL:						

NON-TOWN UTILITY CONTACTS:

DIGSAFE:
811 HTTP://WWW.DIGSAFE.COM
DIGSAFE NUMBER: 20202015352
5/15/2020

EVERSOURCE:
800-592-2000

NATIONAL GRID:
1-800-233-5325

VERIZON:
1-800-837-4966

COMCAST/XFINITY:
1-800-266-2278

Information provided by Town Website & DigSafe

PLAN REFERENCES:

OWNER:
Verma Holdings LLC
21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

SITE ADDRESS:
193 CENTRAL AVE.
MILTON, MA 02186

ASSESSORS MAP:
MAP E
BLOCK 5
LOT 28

MILTON PLANNING BOARD SITE PLAN APPROVAL

_____
_____
_____
_____
_____
DATE:_____

GODDARD PLAN REVIEW:

SIGNATURE: _____ GSI PROJECT DATE:

GSI REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH GSI PROTOTYPE DRAWING AND SPECIFICATIONS. OWNER, DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT THE BUILDING MEETS ALL STATE AND LOCAL ORDINANCES, REGULATIONS, CODES, AND CHILD CARE LICENSING REQUIREMENTS IN EFFECT AT THE TIME OF CONSTRUCTION. ANY DEVIATION FROM THE GSI PROTOTYPE DRAWING AND SPECIFICATIONS MUST BE APPROVED BY THE GSI PM.

WILLIAMS & SPARAGES
CIVIL ENGINEERS & SURVEYORS
189 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 539-8088
FAX: (978) 539-8200
WSENGINEERS.COM

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sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: PMB
Project Manager: JST
Job File Number: MILT-0018A
Drawing File Folder: MILT18

☐ DRAWING ISSUED FOR REVIEW ONLY
☒ DRAWING ISSUED FOR PERMIT
☐ DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

SCALE: AS SHOWN

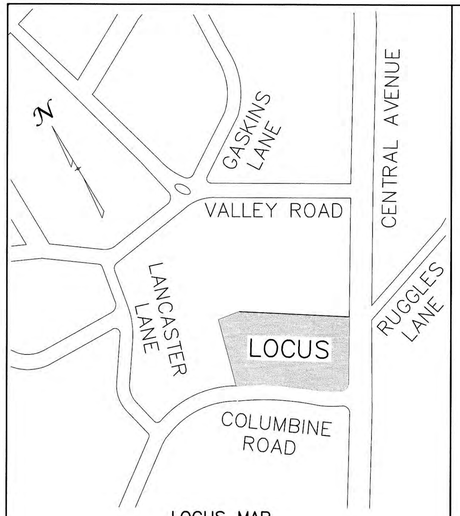
SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 41613

SITE PLAN SET
TITLE SHEET
NEW GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

TITLE SHEET (1 of 13)

T1.1

P:\MILT-0018\193 Central Ave\03Drawings\SP-NEW BUILDING - 193Central Ave_R3.dwg 9/23/2021 9:55:05 AM JST



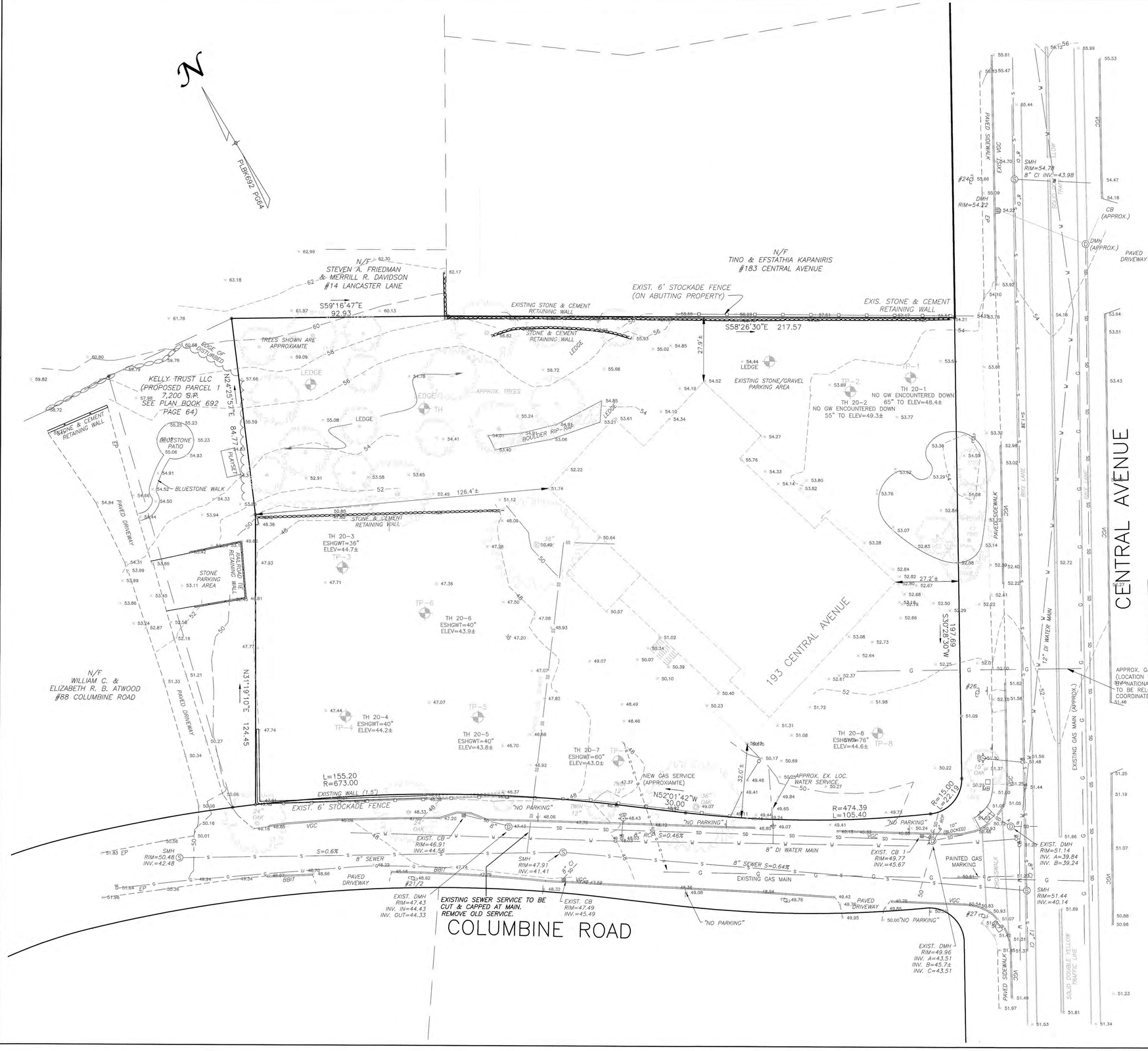
LOCUS MAP
SCALE: 1"=200'

LEGEND OF ABBREVIATIONS & SYMBOLS

EXISTING CONTOUR	52
EXISTING SPOT ELEVATION	× 47.74
EXIST. BITUMINOUS BERM	BBIT
EXIST. FENCE	o—o—o
APPROXIMATE WATER	W
APPROXIMATE SEWER	S
APPROX. SEWER SERVICE	SS
APPROX. STORM DRAIN	SD
APPROXIMATE GAS	G
APPROXIMATE ELECTRIC	E
OVERHEAD WIRES	OHW
EXIST. SEWER MANHOLE	Ⓢ
EXIST. DRAIN MANHOLE	Ⓓ
EXIST. CATCH BASIN	▦
EXIST. HYDRANT	
EXIST. WATER GATE	
EXIST. GAS GATE	
BENCH MARK	BM#4 ▲
EXIST. BOLLARD	•
LIGHT	☼
TRAFFIC FLOW	
SIGN	
TEST PIT	
WALL	
UTILITY POLE	#21/1
PROPOSED CONTOUR	52
PROPOSED SPOT ELEVATION	54.35

NOTES:

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PROVIDED BY WILLIAMS & SPARAGES, LLC ON MARCH 17, 2020.
2. ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD88.
3. THE UTILITIES SHOWN ARE THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC AND FROM VARIOUS PLANS ON FILE WITH THE TOWN OF MILTON. NO REPRESENTATION OR WARRANTEE IS MADE AS TO THE ACCURACY OF THE LOCATION OF THE SUBSURFACE UTILITIES DEPICTED OR NOT DEPICTED AND SHOULD BE CONSIDERED APPROXIMATE.
4. ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.
5. IF DURING CONSTRUCTION A CONFLICT SHOULD ARISE BETWEEN AN EXISTING UTILITY AND PROPOSED WORK THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING FOR RESOLUTION OF THE CONFLICT.
6. DIGSAFE NUMBER: 20202015352 **CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (811), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION.** DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.
7. ANY PROPOSED WATER CONNECTIONS ARE TO BE DESIGNED IN ACCORDANCE WITH 248 CMR 10.00: UNIFORM STATE PLUMBING CODE.
8. THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS AND ARCHITECTURAL SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
9. ANY PROPOSED DRAIN PIPES ARE TO BE HDPE OR APPROVED EQUIVALENT UNLESS OTHERWISE SPECIFIED.
10. THE APPLICANT SHALL COORDINATE WITH THE MILTON WATER DEPARTMENT TO ENSURE PROPER DOMESTIC AND FIRE FLOWS PRIOR TO BUILDING PERMIT.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ABUTTING PROPERTIES FROM DAMAGE RESULTING FROM PROPOSED SITE WORK.
13. SITE WORK TO COMPLY TO ADA STANDARDS.
14. SEE DEMOLITION PLAN PRIOR TO CONSTRUCTION.
15. SEE PLANNING BOARD DECISION PRIOR TO CONSTRUCTION.
16. SEE STORMWATER PERMIT PRIOR TO CONSTRUCTION.
17. NEW BENCHMARKS ARE TO BE SET.



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- ☐ DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

0' 10' 20' 40'
SCALE:1"=20'

SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
41613
REGISTERED PROFESSIONAL ENGINEER

EXISTING CONDITIONS PLAN
NEW GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

EXISTING CONDITIONS (2 of 13)

C1.0

ZONING DISTRICT: RESIDENCE B

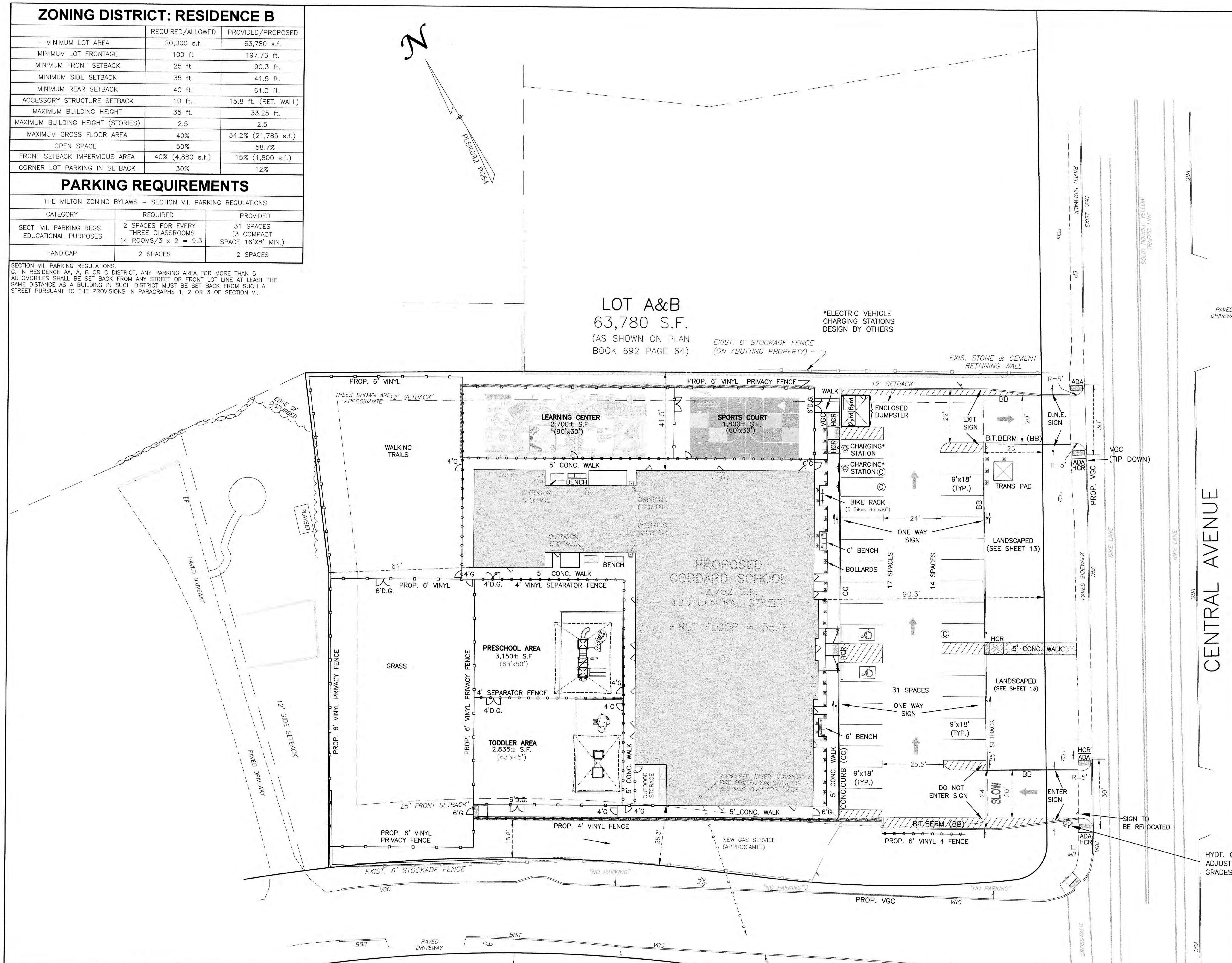
	REQUIRED/ALLOWED	PROVIDED/PROPOSED
MINIMUM LOT AREA	20,000 s.f.	63,780 s.f.
MINIMUM LOT FRONTAGE	100 ft	197.76 ft.
MINIMUM FRONT SETBACK	25 ft.	90.3 ft.
MINIMUM SIDE SETBACK	35 ft.	41.5 ft.
MINIMUM REAR SETBACK	40 ft.	61.0 ft.
ACCESSORY STRUCTURE SETBACK	10 ft.	15.8 ft. (RET. WALL)
MAXIMUM BUILDING HEIGHT	35 ft.	33.25 ft.
MAXIMUM BUILDING HEIGHT (STORIES)	2.5	2.5
MAXIMUM GROSS FLOOR AREA	40%	34.2% (21,785 s.f.)
OPEN SPACE	50%	58.7%
FRONT SETBACK IMPERVIOUS AREA	40% (4,880 s.f.)	15% (1,800 s.f.)
CORNER LOT PARKING IN SETBACK	30%	12%

PARKING REQUIREMENTS

THE MILTON ZONING BYLAWS – SECTION VII. PARKING REGULATIONS

CATEGORY	REQUIRED	PROVIDED
SECT. VII. PARKING REGS. EDUCATIONAL PURPOSES	2 SPACES FOR EVERY THREE CLASSROOMS 14 ROOMS/3 x 2 = 9.3	31 SPACES (3 COMPACT SPACE 16'X8' MIN.)
HANDICAP	2 SPACES	2 SPACES

SECTION VII. PARKING REGULATIONS.
G. IN RESIDENCE AA, A, B OR C DISTRICT, ANY PARKING AREA FOR MORE THAN 5 AUTOMOBILES SHALL BE SET BACK FROM ANY STREET OR FRONT LOT LINE AT LEAST THE SAME DISTANCE AS A BUILDING IN SUCH DISTRICT MUST BE SET BACK FROM SUCH A STREET PURSUANT TO THE PROVISIONS IN PARAGRAPHS 1, 2 OR 3 OF SECTION VI.



FENCE LEGEND

PROP. 6' VINYL PERIMETER FENCE (6'PF)	
PROP. 4' VINYL SEPARATOR FENCE (4'SF)	
PROP. 4' VINYL SECURITY GATE (4'G)	
PROP. 6' VINYL SECURITY GATE (6'G)	
PROP. 4' & 6' DOUBLE GATE (4'DG,6'DG)	

GODDARD SCHOOL GENERAL SITE NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS APPLICABLE.
2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF CURBS, OR OUTSIDE FACE OF BRICK, BLOCK OR BUILDING FASCIA UNLESS OTHERWISE INDICATED.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
4. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
5. WHERE APPLICABLE ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AFTER FINISH GRADING IS COMPLETED UNLESS OTHERWISE NOTED. ALL NEW SEEDED OR SODDED AREAS SHALL HAVE A TOPSOIL LAYER OF 4" MINIMUM. TOP OF TOPSOIL LAYER SHALL BE PLACED 1" BELOW TOPS OF CURBS, WALKS, OR PAVEMENT ELEVATIONS WHERE TOPSOIL ABUTS THOSE AREAS.
6. CONTRACTOR SHALL SUPPLY AND PLACE STRAW MULCH WHEREVER GRASS SEED HAS BEEN PLACED.
7. CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH THE STATES DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WHERE NEW ASPHALT JOINS EXISTING ASPHALT.
8. CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFURBISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL COMPLETELY FILL ALL TRENCHES WITHIN 5 FEET OF PLAYGROUND BOXES. PAVEMENT EDGES WITH GRANULAR BACKFILL.
10. CONTRACTOR TO CONFIRM WITH LOCAL CODES AND BUILDING INSPECTOR FOR SPECIFIC DISABLED PARKING SIZES, STRIPPING AND SIGNAGE REQUIREMENTS.
11. PRIMARY COLORED PLAYGROUND EQUIPMENT WILL BE INSTALLED UNLESS THE LOCAL JURISDICTION, HOA OR COVENANTS AND RESTRICTIONS REQUIRE EARTHTONE.
12. GATES TO BE HARD WIRED, CONNECTED TO SEPARATE ALARM SYSTEM. CHIME BACK AT OFFICE WHEN OPENED. PUSH BARS TO HAVE MINIMUM 12" DEPTH 16 GAUGE EXPANDED METAL BACKING ALONG WIDTH OF GATE WITH LOCKABLE HANDLES ON EXTERIOR.
13. G.C. SHALL INSTALL GSI'S STANDARD 'COMING SOON' TEMPORARY SIGN PER AHJ STANDARDS. RE:02/C5.2. ALL SIGNS TO BE APPROVED SEPARATELY.
14. G.C. TO PROVIDE QTY. 3 MIN. SELF CLOSING HINGE SETS TO ALL EXTERIOR GATES, DUE TO 4FT WIDTH AND TO PREVENT POSSIBLE SAGGING .
15. G.C. TO INSTALL & LOCATE CLEAN OUTS PER PLUMBING PLANS AND SPECIFICATIONS.
17. ALL BOLLARDS ARE TO BE 48" GAP BETWEEN EACH BOLLARD OR 54" ON CENTER – REFER TO SHEET C5.2.
18. BUILDING SIGNS TO BE APPROVED BY ZONING OFFICER PRIOR TO BEING ERECTED.
19. TRAFFIC GUARD BOLLARDS ARE TO BE USED, NO SUBSTITUTIONS UNLESS APPROVED BY GODDARD SCHOOL. SEE SPEC. 32 39 13 MANUFACTURED BOLLARDS (SEE DETAIL).
20. PROPOSED FENCE(S) TO BE APPROVED BY ENGINEER & GODDARD SCHOOL PRIOR TO INSTALLATION.
21. VERIFY UNDERGROUND UTILITIES PRIOR TO INSTALLING BOLLARDS & PLAYGROUND EQUIPMENT.
22. PARCEL 1 NOT TO BE CONSIDERED A SEPARATE BUILDING LOT, BUT TO BE HELD IN COMMON OWNERSHIP WITH ADJOINING LAND.
23. BOLLARDS TO BE 4.5' ON CENTER.
24. VERIFY DUMPSTERS SIZES & NUMBERS WITH OWNER PRIOR TO CONSTRUCTION.
25. CONCRETE CURB TO BE USED AT SIDEWALK. BIT. CURB TO BE USED ELSEWHERE.
26. GODDARD SIGNS TO BE APPROVED SEPARATELY.
27. COMPACT SPACES TO HAVE DESIGNATED SIGNS.
28. COMPACT SPACES & CHARGING STATIONS TO HAVE APPROPRIATE SIGNS.

LEGEND OF ABBREVIATIONS & SYMBOLS

EXISTING CONTOUR	98
EXISTING SPOT ELEVATION	x 53.1
EXIST. BITUMINOUS BERM	BB
EXIST. FENCE	BB
APPROXIMATE WATER	W
APPROXIMATE SEWER	S
APPROX. SEWER SERVICE	SS
APPROX. STORM DRAIN	SD
APPROXIMATE GAS	G
APPROXIMATE ELECTRIC	E
OVERHEAD WIRES	OHW
EXIST./PROP SEWER MANHOLE	
EXIST./PROP. DRAIN MANHOLE	
EXIST. CATCH BASIN	
EXIST. HYDRANT	
EXIST. WATER GATE	
EXIST. GAS GATE	
BENCH MARK	BM#4
LIGHT	
TRAFFIC FLOW	
SIGN	
WALL	
UTILITY POLE	#21/1
PROP. CONTOUR	56
PROP. SPOT GRADE	
DRAINAGE FLOW DIRECTION	
DRAIN CLEANOUT	C.O.
YARD DRAIN	
PROPOSED BOLLARD	
CHARGING STATION	
COMPACT SPACE (8'x16')	©
BENCH (TBD BY OWNER)	
PROPOSED DRAIN	D

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DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

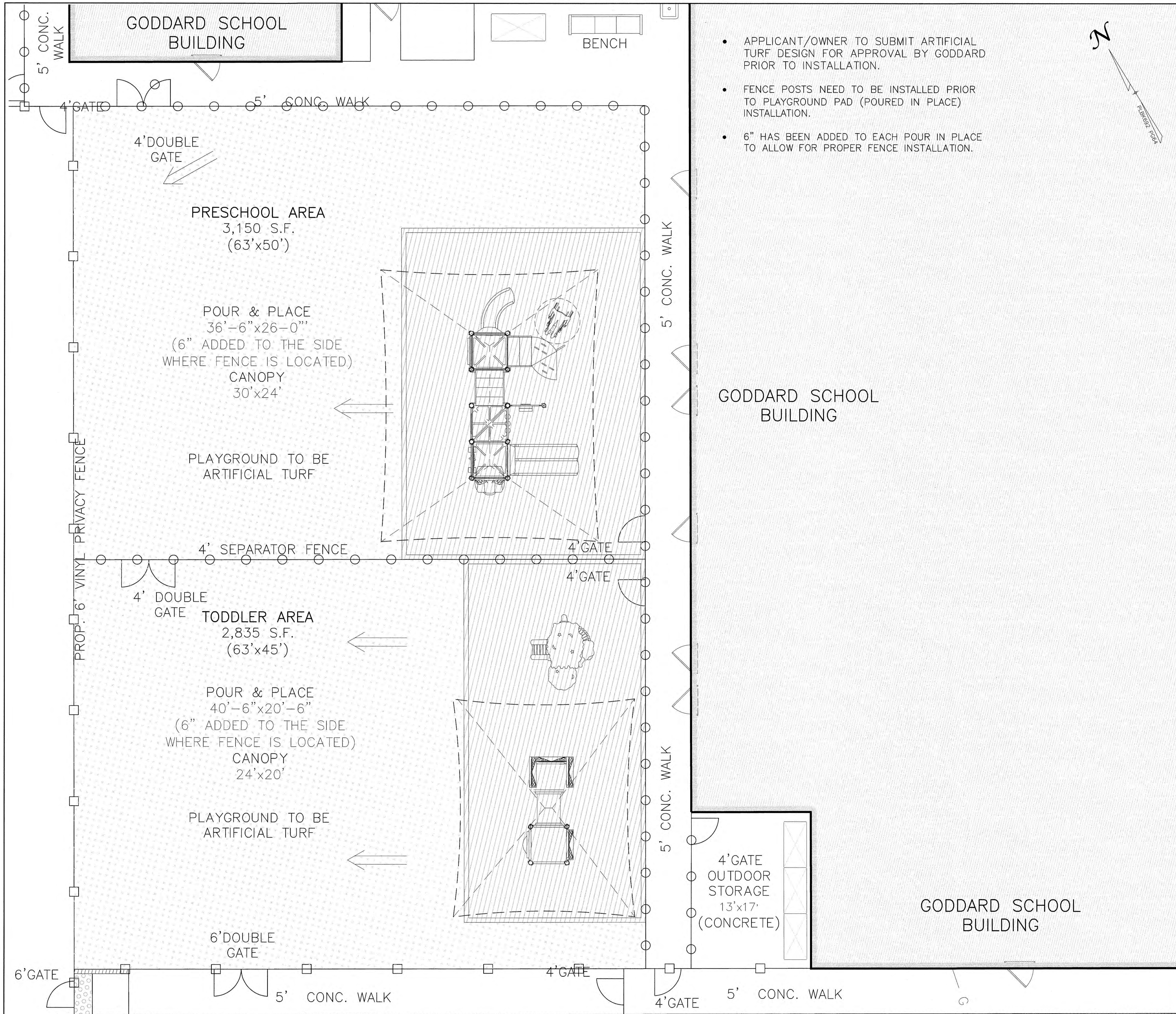
0' 10' 20' 40'
SCALE:1"=20'

PETER M. BLAISDELL, JR. CIVIL No. 41613

SITE PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

SITE PLAN

C1.1



- APPLICANT/OWNER TO SUBMIT ARTIFICIAL TURF DESIGN FOR APPROVAL BY GODDARD PRIOR TO INSTALLATION.
- FENCE POSTS NEED TO BE INSTALLED PRIOR TO PLAYGROUND PAD (POURED IN PLACE) INSTALLATION.
- 6" HAS BEEN ADDED TO EACH POUR IN PLACE TO ALLOW FOR PROPER FENCE INSTALLATION.

PLAYGROUND RESPONSIBILITIES DEVELOPER / GENERAL CONTRACTORS

1. PLAYGROUND STRUCTURE AND SHADE STRUCTURE APPROVALS OR PERMITS IF REQUIRED. APPROVALS AND PERMITTING MAY BE REQUIRED FOR COLOR SCHEME, HEIGHT, MANUFACTURER DESIGN METHODS, ETC.
2. UTILITIES CANNOT BE LOCATED UNDER OR OVER PLAYGROUND BOXES.
3. ELECTRIC AND WATER ARE NEEDED ON SITE, FOR THE PLAYGROUND INSTALLERS USE. IF NOT, OTHER PRIOR ARRANGEMENTS SHALL BE MADE.
4. SOILS WITHIN THE PLAYGROUND BOX DIMENSIONS SHOULD BE SUITABLE FOR SLAB AT GRADE INSTALLATIONS. SOILS SHOULD NOT CONTAIN DEBRIS AND COMPACTED TO 97% IN ACCEPTED INCREMENTS CONTAINING SUITABLE SOIL.
5. PROVIDE GODDARD SYSTEM INC.'S PROJECT MANAGER WITH A TIMELINE FOR PLAYGROUND INSTALLATION. ROUGH GRADE IS REQUIRED AND SIDEWALKS SHALL BE INSTALLED PRIOR TO PLAYGROUND INSTALLATION, SOD, FENCE AND PARKING LOT TOP COAT.
6. LOCATE PLAYGROUND BOXES PER SITE PLAN, EXCAVATED 7" DEEP. PLAYGROUND BOXES CANNOT EXCEED A MAXIMUM 2% GRADE. (DTL. 2/C3.1)
7. SUB-GRADE BACKFILL MUST BE COMPACTED TO AT LEAST 97% AND SHOULD NOT CONTAIN MATERIALS SUCH AS LARGE ROCKS, SCRAP WOOD, CONCRETE SPOILS, ETC. PLAYGROUND INSTALLERS NEED TO DRILL ACCURATE HOLES FOR PLAYGROUND POLE INSTALLATION.
8. INSTALL DRAINAGE SYSTEM TO EXCAVATED PLAYGROUND BOXES PER SITE PLAN. (DTL. 13/C3.1)
9. ENSURE ADEQUATE AREA FOR PLAYGROUND INSTALLERS. STAGING AREA NEEDED TO UNLOAD AND PRE-ASSEMBLE APPROX. 1,000 CUBIC FOOT SHIPMENT OF PLAYGROUND EQUIPMENT. HOLDING AREA NEEDED TO RECEIVE DELIVERY OF APPROXIMATELY 40-50 TONS OF CRUSHED STONE. PARKING AREA NEEDED FOR TWO TRUCKS AND ONE 30' TRAILER OF EXCAVATING EQUIPMENT.
10. IF FENCING IS INSTALLED, LEAVE OUT NECESSARY SECTIONS TO PROVIDE ACCESS TO PLAYGROUND AREA.
11. ONCE COMPACTED CRUSH STONE BASE, BORDER, AND EQUIPMENT ARE IN PLACE, THEY SHOULD NOT BE DRIVEN OR WALKED ON AND SHOULD NOT BE USED FOR STORAGE AREA.
12. PLAYGROUND INSTALLATION DESCRIBED ABOVE SHOULD TAKE APPROXIMATELY ONE TO FIVE DAYS, DEPENDING ON SITE CONDITIONS, WEATHER, INSTALLER CREW SIZE, ETC.
13. INSTALLATION OF POUR-IN-PLACE SURFACING USUALLY TAKES PLACE ONE TO TWO WEEKS AFTER PLAYGROUND IS INSTALLED, DEPENDING MAINLY ON WEATHER CONDITIONS.
14. GENERALLY ONLY THREE OR FOUR PARKING SPACES ARE NEEDED FOR SURFACING INSTALLERS. (ONE OR TWO VEHICLES AND A MIXER STAGING AREA)
15. TYPICALLY, TWO MEN MIX THE SURFACING PRODUCT IN THE PARKING LOT AND TRANSPORT BY WHEELBARROW TO PLAYGROUNDS WHERE IT IS POURED AND TROWELED. THEREFORE, NO SPECIAL ALLOWANCES ARE NECESSARY (FENCING CAN BE INSTALLED AND FINISH LANDSCAPING CAN BE COMPLETED)
16. THIS IS USUALLY A TWO-DAY INSTALLATION, DEPENDING MAINLY ON WEATHER CONDITIONS. IMPACT COURSE APPLIED ON DAY ONE, AND TOPCOAT (COLOR) APPLIED ON DAY TWO.
17. ONCE THE TOPCOAT APPLICATION IS COMPLETE, THE BINDING AGENTS WILL TAKE A MINIMUM 24 HOURS TO CURE. DURING THAT TIME THERE IS TO BE ABSOLUTELY NO WALKING ON, PLACING OBJECTS ON, OR ALLOWING ANY DUST TO ACCUMULATE ON THE TOPCOAT SURFACE.
18. FINISH GRADING AND LANDSCAPING MUST BE THE SAME ELEVATION AT THE PLAYGROUND BORDERS.
19. ENSURE THAT THE SITE IS SECURE AND THAT OTHER CONTRACTORS WILL NOT BE STORING, WORKING, WALKING, ETC. ON FINISHED PLAYGROUNDS, SURFACES OR BORDERS.

GENERAL NOTES:

DEVELOPER/GENERAL CONTRACTOR SHOULD BE IN CONSTANT COMMUNICATION WITH GSI TO SCHEDULE DELIVERY AND INSTALLATION OF THE PLAYGROUND STRUCTURES. PLAYGROUND INSTALLERS TRAVEL LONG DISTANCES AND IT IS IMPERATIVE THE SITE IS PROPERLY PREPARED AS SPECIFIED TO AVOID COSTLY MOBILIZATION, SHIPPING AND STORAGE FEES.

GSI'S PLAYGROUND INSTALLERS TRAVEL GREAT DISTANCES, INCURRING EXPENSES FOR BOTH TRANSPORTATION AND LODGING. IN ADDITION THEY ARE REQUIRED TO RESERVE RENTAL MACHINERY. IF THEY ARE TURNED AWAY BECAUSE THE SITE IS NOT READY, A TRAVEL CHARGE WILL APPLY. THIS CHARGE COULD BE SIGNIFICANT ($50.00 PER MAN-HOUR FOR A CREW OF FIVE, LODGING AT $175 PER ROOM PER NIGHT, AND EQUIPMENT RENTAL DEPOSITS). THEREFORE, FOLLOWING ALL OF THE ABOVE GUIDELINES, ESPECIALLY WITH RESPECT TO DISCLOSING EXCESSIVELY ROCKY CONDITIONS, PROHIBITING THE USE OF LARGE ROCKS, CEMENT, ETC. IN BACKFILL MATERIALS, AND PROVIDING THE PROJECT MANAGER AN ACCURATE TIMELINE, WILL SAVE BOTH MONEY AND TIME.

FENCE LEGEND

6' VINYL PERIMETER FENCE (6'PF)

4' VINYL SEPARATOR FENCE (4'SF)

4' VINYL SECURITY GATE (4'G)

6' VINYL SECURITY GATE (6'G)

4' & 6' DOUBLE GATE (4'DG,6'DG)

4' SAFETY FENCE - TBD BY OWNER

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DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

0' 5' 10'
SCALE: 1"=5'

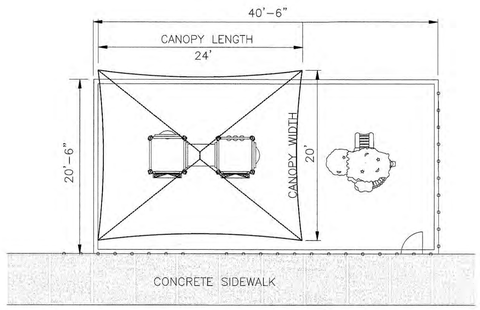
SEAL

PLAYGROUND DETAILS
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

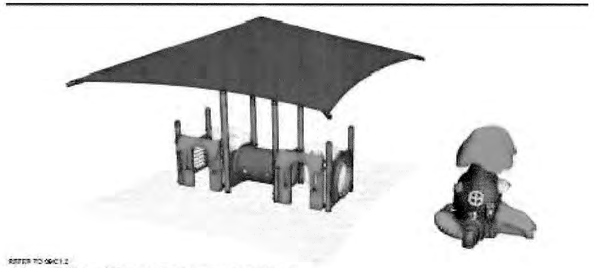
PLAYGROUND DETAILS
(4 of 13)

C1.2

POUR & PLACE
40'–6"x20'–6"
(6" ADDED TO THE SIDE
WHERE FENCE IS LOCATED)
CANOPY
24'x20'



INFANT/TODDLER PLAY STRUCTURE
NOT TO SCALE



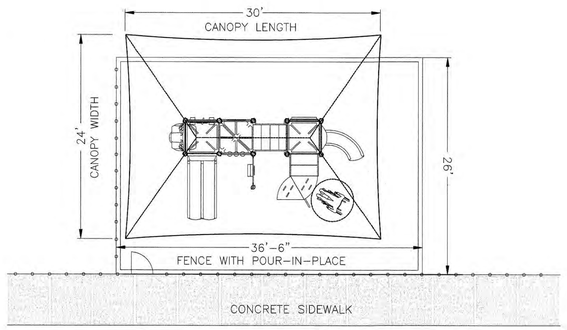
REFER TO 10/C1.2
11 TODDLER PLAYGROUND RENDERING

TODDLER PLAYGROUND RENDERING
NTS

FENCE POSTS NEED TO BE INSTALLED PRIOR TO PLAYGROUND PAD INSTALLATION

WHEN FENCING IS WITHIN THE POUR–IN–PLACE DIMENSIONS THE PLAYBOX SHALL INCREASE BY 6'' ON FENCE SIDE TO ALLOW FOR FENCE LOCATION PER GODDARD REVIEW.

POUR & PLACE
36'–6"x26'
(6" ADDED TO THE SIDE
WHERE FENCE IS LOCATED)
CANOPY
30'x24'



PRESCHOOL PLAY STRUCTURE
NOT TO SCALE

REFER TO 10/C1.2
12 PRESCHOOL PLAYGROUND RENDERING

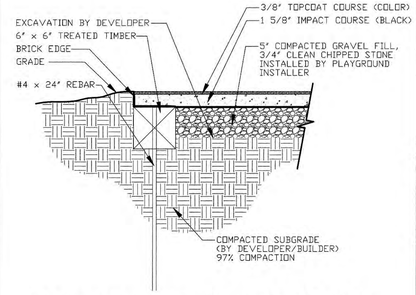
PRESCHOOL PLAYGROUND RENDERING
NTS

PLAYGROUND RESPONSIBILITIES DEVELOPER / GENERAL CONTRACTORS

1. PLAYGROUND STRUCTURE AND SHADE STRUCTURE APPROVALS OR PERMITS IF REQUIRED. APPROVALS AND PERMITTING MAY BE REQUIRED FOR COLOR SCHEME, HEIGHT, MANUFACTURER DESIGN METHODS, ETC.
2. UTILITIES CANNOT BE LOCATED UNDER OR OVER PLAYGROUND BOXES
3. ELECTRIC AND WATER ARE NEEDED ON SITE, FOR THE PLAYGROUND INSTALLERS USE. IF NOT, OTHER PRIOR ARRANGEMENTS SHALL BE MADE.
4. SOILS WITHIN THE PLAYGROUND BOX DIMENSIONS SHOULD BE SUITABLE FOR SLAB AT GRADE INSTALLATIONS. SOILS SHOULD NOT CONTAIN DEBRIS AND COMPACTED TO 97% IN ACCEPTED INCREMENTS CONTAINING SUITABLE SOIL.
5. PROVIDE GODDARD SYSTEM INC.'S PROJECT MANAGER WITH A TIMELINE FOR PLAYGROUND INSTALLATION. ROUGH GRADE IS REQUIRED AND SIDEWALKS SHALL BE INSTALLED PRIOR TO PLAYGROUND INSTALLATION, SOD, FENCE AND PARKING LOT TOP COAT.
6. LOCATE PLAYGROUND BOXES PER SITE PLAN, EXCAVATED 7" DEEP. PLAYGROUND BOXES CANNOT EXCEED A MAXIMUM 2% GRADE. (DTL. 2/C3.1)
7. SUB–GRADE BACKFILL MUST BE COMPACTED TO AT LEAST 97% AND SHOULD NOT CONTAIN MATERIALS SUCH AS LARGE ROCKS, SCRAP WOOD, CONCRETE SPOILS, ETC. PLAYGROUND INSTALLERS NEED TO DRILL ACCURATE HOLES FOR PLAYGROUND POLE INSTALLATION.
8. INSTALL DRAINAGE SYSTEM TO EXCAVATED PLAYGROUND BOXES PER SITE PLAN. (DTL. 13/C3.1)
9. ENSURE ADEQUATE AREA FOR PLAYGROUND INSTALLERS. STAGING AREA NEEDED TO UNLOAD AND PRE–ASSEMBLE APPROX. 1,000 CUBIC FOOT SHIPMENT OF PLAYGROUND EQUIPMENT. HOLDING AREA NEEDED TO RECEIVE DELIVERY OF APPROXIMATELY 40–50 TONS OF CRUSHED STONE. PARKING AREA NEEDED FOR TWO TRUCKS AND ONE 30' TRAILER OF EXCAVATING EQUIPMENT.
10. IF FENCING IS INSTALLED, LEAVE OUT NECESSARY SECTIONS TO PROVIDE ACCESS TO PLAYGROUND AREA.
11. ONCE COMPACTED CRUSH STONE BASE, BORDER, AND EQUIPMENT ARE IN PLACE, THEY SHOULD NOT BE DRIVEN OR WALKED ON AND SHOULD NOT BE USED FOR STORAGE AREA.
12. PLAYGROUND INSTALLATION DESCRIBED ABOVE SHOULD TAKE APPROXIMATELY ONE TO FIVE DAYS, DEPENDING ON SITE CONDITIONS, WEATHER, INSTALLER CREW SIZE, ETC.
13. INSTALLATION OF POUR–IN–PLACE SURFACING USUALLY TAKES PLACE ONE TO TWO WEEKS AFTER PLAYGROUND IS INSTALLED, DEPENDING MAINLY ON WEATHER CONDITIONS.
14. GENERALLY ONLY THREE OR FOUR PARKING SPACES ARE NEEDED FOR SURFACING INSTALLERS. (ONE OR TWO VEHICLES AND A MIXER STAGING AREA)
15. TYPICALLY, TWO MEN MIX THE SURFACING PRODUCT IN THE PARKING LOT AND TRANSPORT BY WHEELBARROW TO PLAYGROUNDS WHERE IT IS POURED AND TROWELED. THEREFORE, NO SPECIAL ALLOWANCES ARE NECESSARY (FENCING CAN BE INSTALLED AND FINISH LANDSCAPING CAN BE COMPLETED)
16. THIS IS USUALLY A TWO–DAY INSTALLATION, DEPENDING MAINLY ON WEATHER CONDITIONS. IMPACT COURSE APPLIED ON DAY ONE, AND TOPCOAT (COLOR) APPLIED ON DAY TWO.
17. ONCE THE TOPCOAT APPLICATION IS COMPLETE, THE BINDING AGENTS WILL TAKE A MINIMUM 24 HOURS TO CURE. DURING THAT TIME THERE IS TO BE ABSOLUTELY NO WALKING ON, PLACING OBJECTS ON, OR ALLOWING ANY DUST TO ACCUMULATE ON THE TOPCOAT SURFACE.
18. FINISH GRADING AND LANDSCAPING MUST BE THE SAME ELEVATION AT THE PLAYGROUND BORDERS.
19. ENSURE THAT THE SITE IS SECURE AND THAT OTHER CONTRACTORS WILL NOT BE STORING, WORKING, WALKING, ETC. ON FINISHED PLAYGROUNDS, SURFACES OR BORDERS.

GENERAL NOTES:
DEVELOPER/GENERAL CONTRACTOR SHOULD BE IN CONSTANT COMMUNICATION WITH GSI TO SCHEDULE DELIVERY AND INSTALLATION OF THE PLAYGROUND STRUCTURES. PLAYGROUND INSTALLERS TRAVEL LONG DISTANCES AND IT IS IMPERATIVE THE SITE IS PROPERLY PREPARED AS SPECIFIED TO AVOID COSTLY MOBILIZATION, SHIPPING AND STORAGE FEES.

GSI'S PLAYGROUND INSTALLERS TRAVEL GREAT DISTANCES, INCURRING EXPENSES FOR BOTH TRANSPORTATION AND LODGING. IN ADDITION THEY ARE REQUIRED TO RESERVE RENTAL MACHINERY. IF THEY ARE TURNED AWAY BECAUSE THE SITE IS NOT READY, A TRAVEL CHARGE WILL APPLY. THIS CHARGE COULD BE SIGNIFICANT ($50.00 PER MAN–HOUR FOR A CREW OF FIVE, LODGING AT $175 PER ROOM PER NIGHT, AND EQUIPMENT RENTAL DEPOSITS). THEREFORE, FOLLOWING ALL OF THE ABOVE GUIDELINES, ESPECIALLY WITH RESPECT TO DISCLOSING EXCESSIVELY ROCKY CONDITIONS, PROHIBITING THE USE OF LARGE ROCKS, CEMENT, ETC. IN BACKFILL MATERIALS, AND PROVIDING THE PROJECT MANAGER AN ACCURATE TIMELINE, WILL SAVE BOTH MONEY AND TIME.



POUR–IN–PLACE PLAY SURFACING
NTS

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Drawn By: JST
Reviewed By: CPS
Project Manager: JST
Job File Number: MILT–0018A
Drawing File Folder: MILT18A

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DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

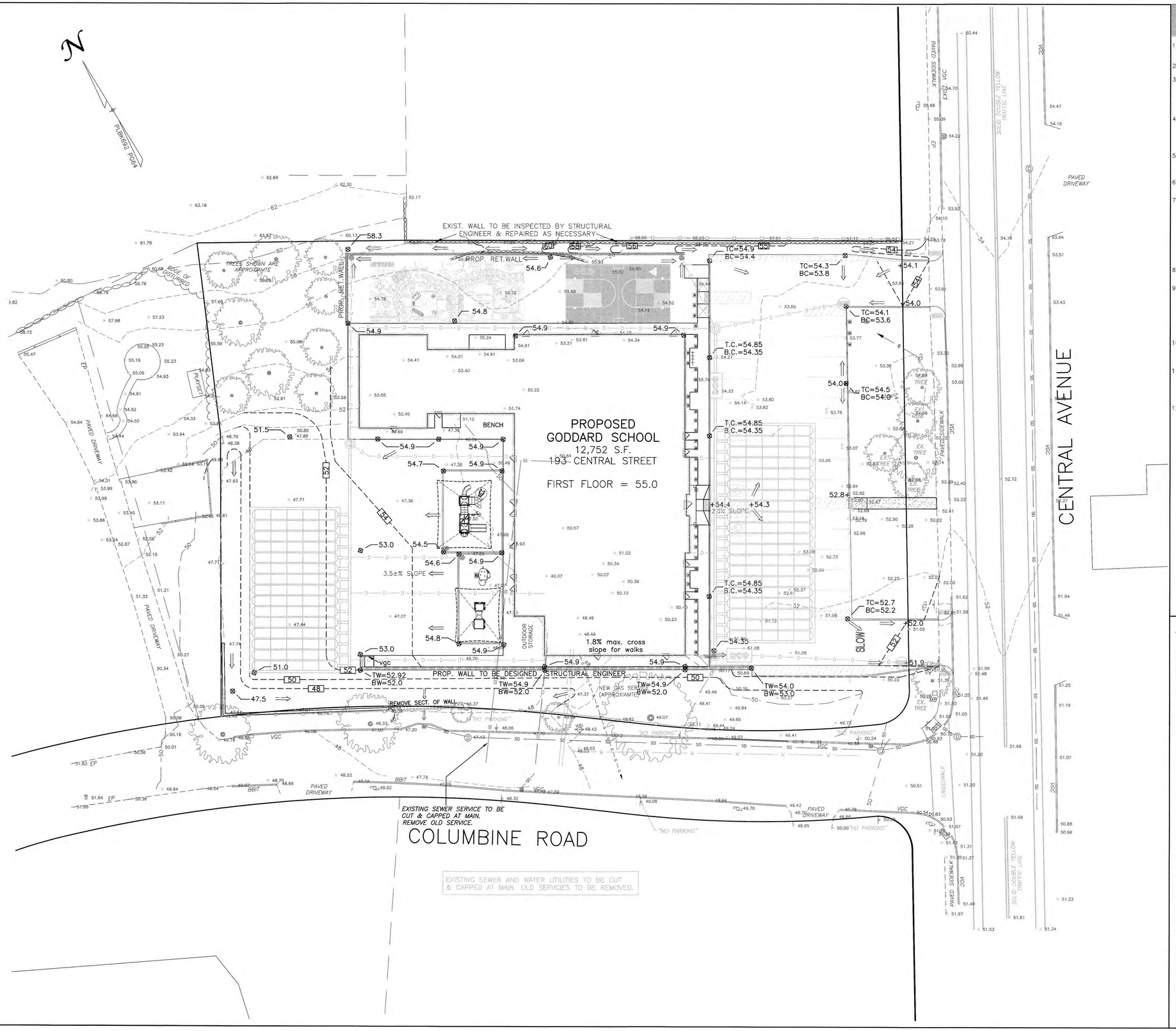
NOT TO SCALE

SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 41613
REGISTERED PROFESSIONAL ENGINEER

PLAYGROUND DETAILS
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

PLAYGROUND DETAILS (5 of 13)

C1.3



GRADING NOTES

1) EXISTING TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES LLC CONDUCTED IN MARCH 2019.
2) ALL ELEVATIONS SHOWN ARE ON THE NAVD 88 DATUM.
3) THE UTILITIES SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC AND FROM VARIOUS PLANS ON FILE WITH THE TOWN OF MILTON. NO REPRESENTATION OR WARRANTEE IS MADE AS TO THE ACCURACY OF THE LOCATION OF THE SUBSURFACE UTILITIES DEPICTED OR NOT DEPICTED AND SHOULD BE CONSIDERED APPROXIMATE.
4) ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.
5) THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ABUTTING PROPERTIES FROM DAMAGE IN RELATION TO ALL PROPOSED IS SITE WORK.
6) SITE WORK TO COMPLY TO ADA STANDARDS.
7) THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
8) FINISH GRADE OF SOD TO MATCH PLAYGROUND PAD.
9) DIGSAFE NUMBER: 20202015352 CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (811), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION. DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.
10) PARCEL 1 NOT TO BE CONSIDERED A SEPARATE BUILDING LOT, BUT TO BE HELD IN COMMON OWNERSHIP WITH ADJOINING LAND.
11) WOOD SKIRT TO BE ADJUSTED WHERE NECESSARY WHERE PROPOSED GRADES REQUIRE ADJUSTMENT. MATERIAL TO BE DETERMINE TO MEET BUILDING CODE.
12) VERIFY ARCHITECTURAL FINISHED FLOOR GRADES TO COORDINATE ADA RAMP COMPLIANCE.

LEGEND OF ABBREVIATIONS & SYMBOLS

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXIST. BITUMINOUS BERM
- EXIST. FENCE
- APPROXIMATE WATER
- APPROXIMATE SEWER
- APPROX. SEWER SERVICE
- APPROX. STORM DRAIN
- APPROXIMATE GAS
- APPROXIMATE ELECTRIC
- OVERHEAD WIRES
- EXIST./PROP SEWER MANHOLE
- EXIST./PROP. DRAIN MANHOLE
- EXIST. CATCH BASIN
- EXIST. HYDRANT
- EXIST. WATER GATE
- EXIST. GAS GATE
- BENCH MARK
- LIGHT
- TRAFFIC FLOW
- SIGN
- WALL
- UTILITY POLE
- PROP. CONTOUR
- PROP. SPOT GRADE
- DRAINAGE FLOW DIRECTION
- DRAIN CLEANOUT
- YARD DRAIN
- PROPOSED BOLLARD
- CHARGING STATION
- COMPACT SPACE (8'x16')
- BENCH (TBD BY OWNER)
- PROPOSED DRAIN
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED UNDERDRAIN
- PROPOSED 4" PERF. PIPE

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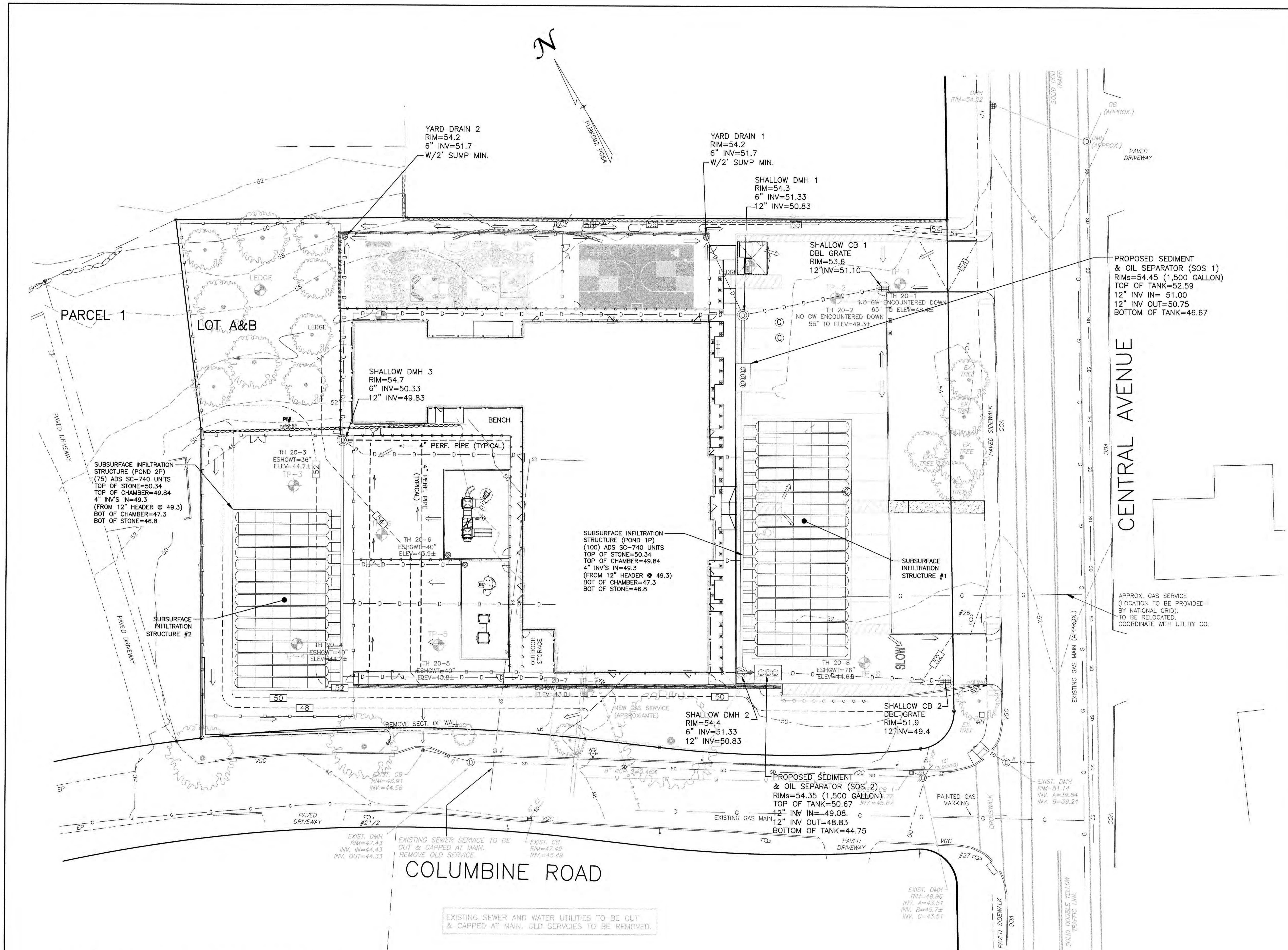
No. 41613

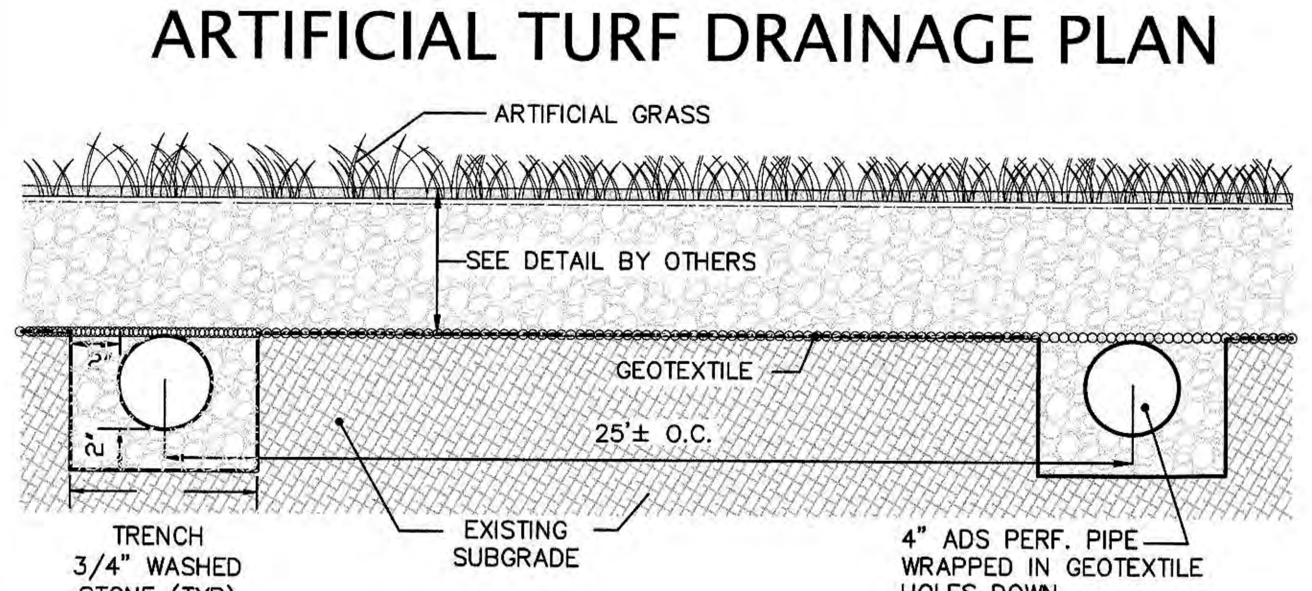
GRADING PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

GRADING PLAN
(6 of 13)

C2.1



ARTIFICIAL TURF DRAINAGE PLAN



NOTES

1. PLANS TO BE REVIEWED AND APPROVED BY PLAYGROUND TURF DESIGN/INSTALLER COMPANY AND THE GODDARD SCHOOL SYSTEMS PRIOR TO CONSTRUCTION.
2. DRAINAGE SYSTEM SHALL BE INSPECTED AND APPROVED BY ENGINEER PRIOR TO BACKFILL.

GRADING NOTES

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10) FOUNDATION DRAIN TO BE DETERMINED, SUMP PUMP REQUIRED.

LEGEND OF ABBREVIATIONS & SYMBOLS

EXISTING CONTOUR
EXISTING SPOT ELEVATION
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DATE: SEPTEMBER 7, 2021

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SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 41513

DRAINAGE PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

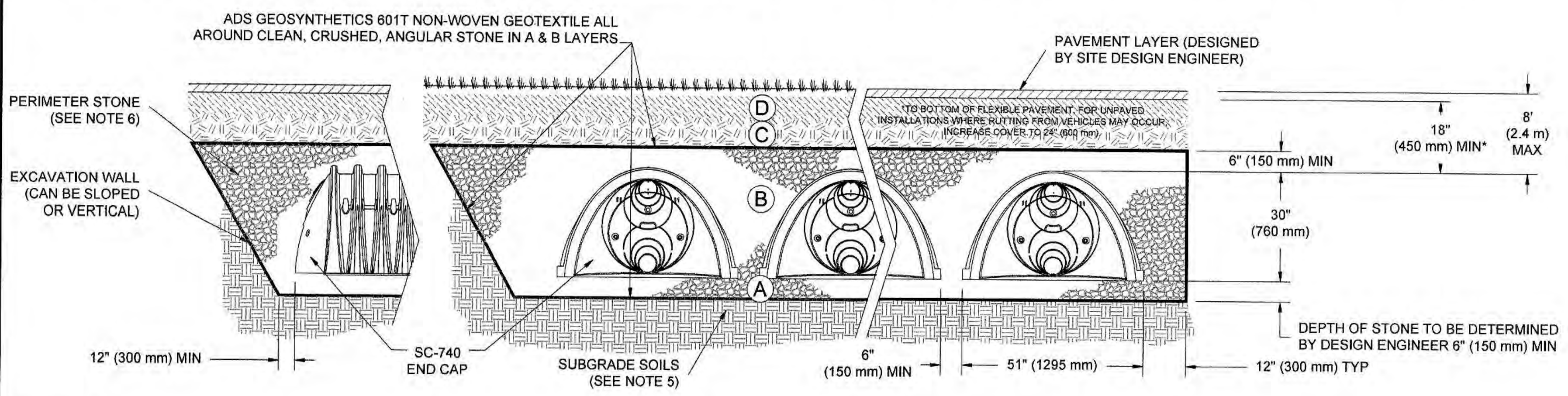
DRAINAGE PLAN
(7 of 13)

C2.2

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

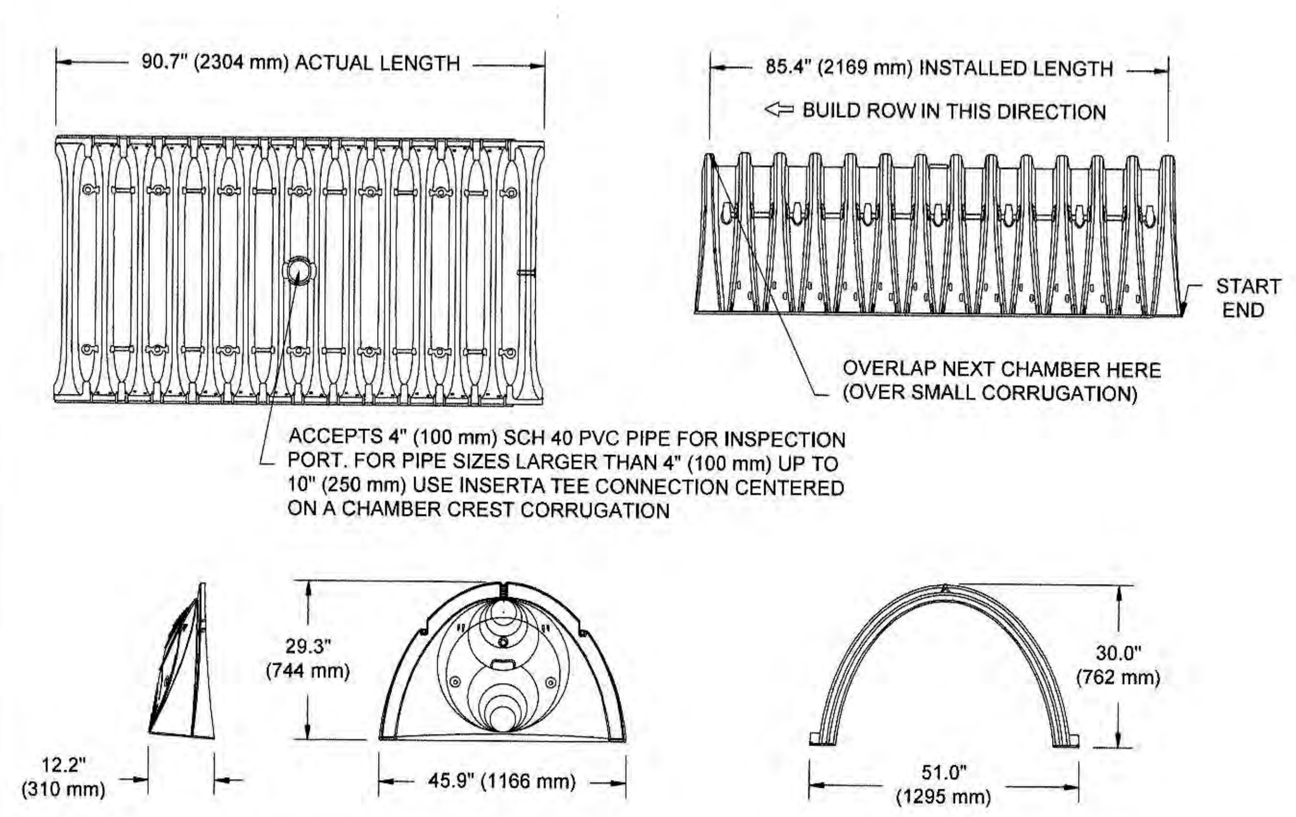


NOTES:

1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

ADVANCED DRAINAGE SYSTEMS, INC.

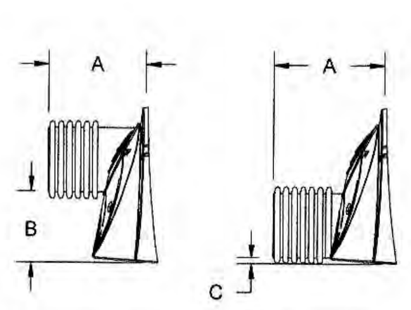
STORMTECH SC-740 CROSS SECTION
(NOT TO SCALE)



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

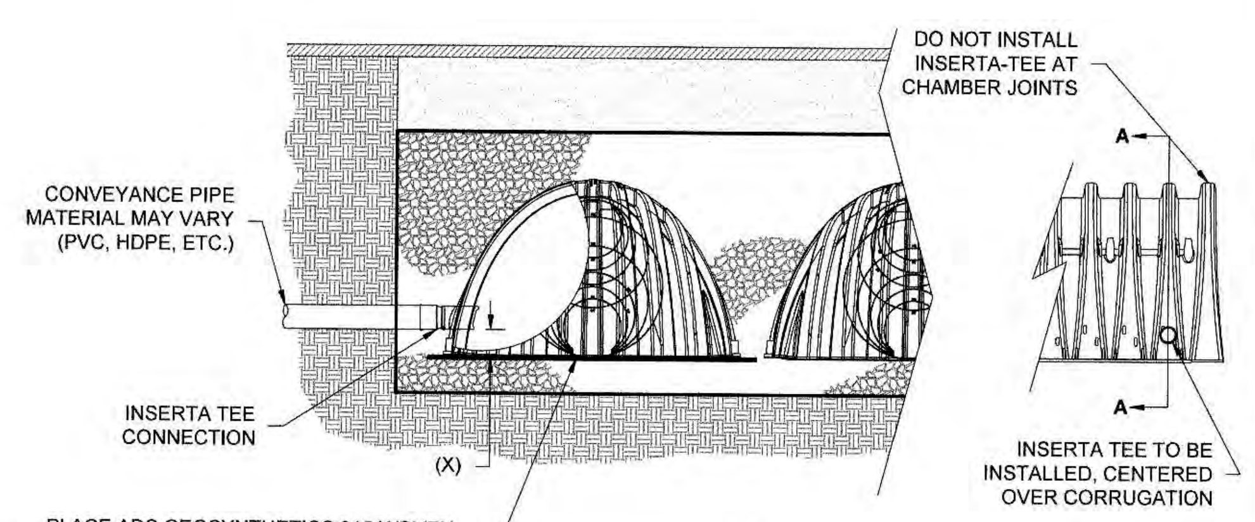
PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

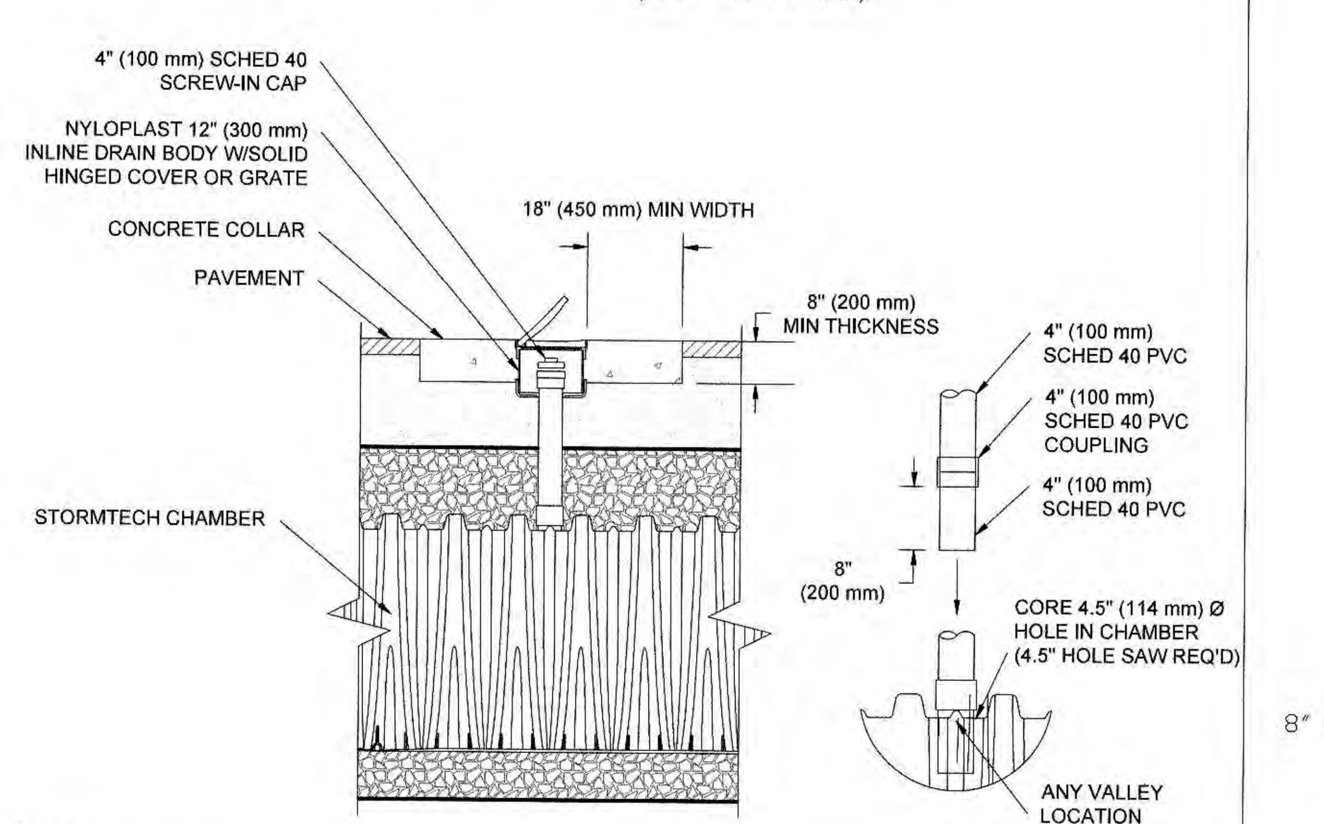
STORMTECH SC-740 TECHNICAL SPECIFICATIONS
(NOT TO SCALE)



CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

NOTE:
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS.
CONTACT STORMTECH FOR MORE INFORMATION.

INSERTA TEE DETAIL
(NOT TO SCALE)

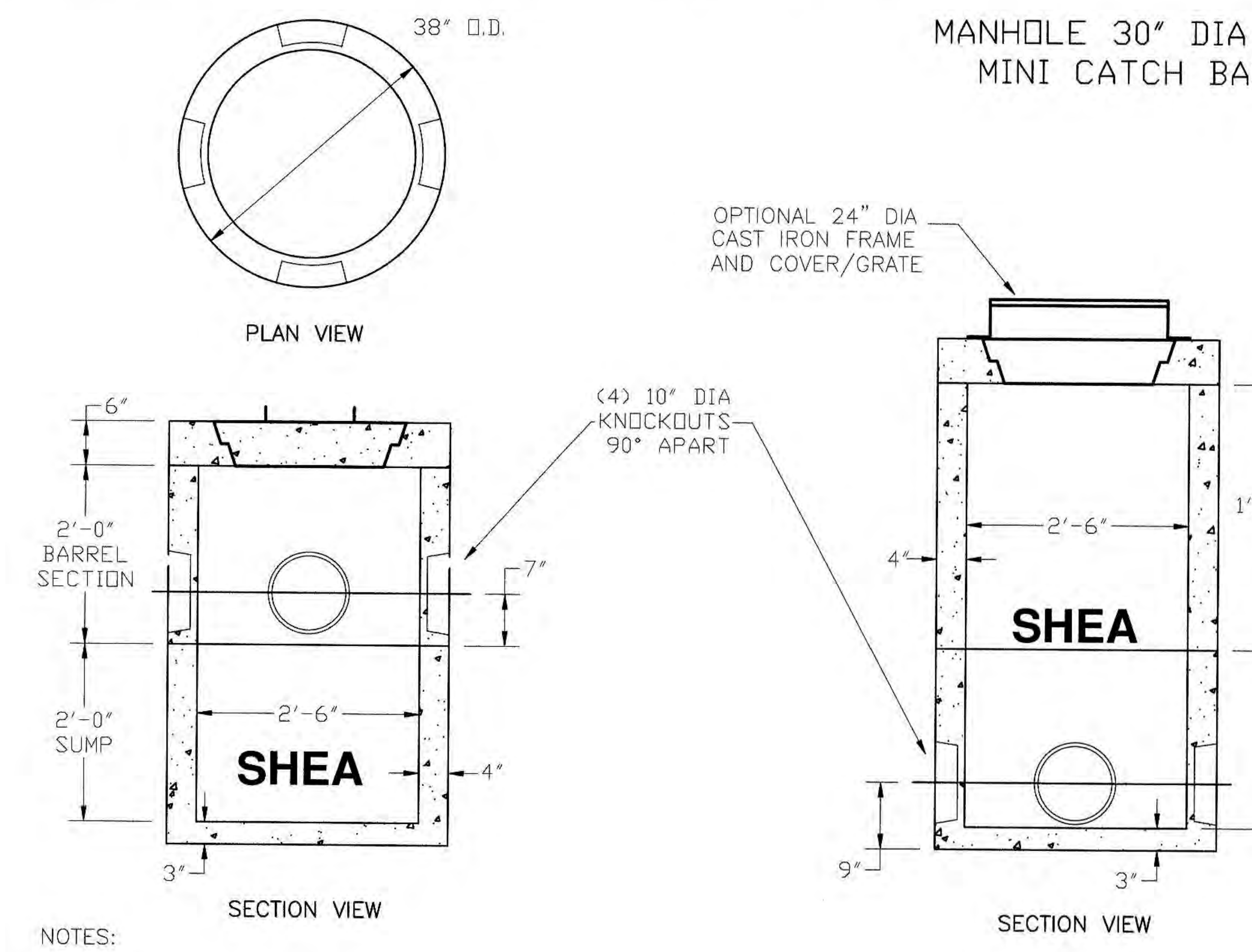


NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.

INSPECTION PORT
(NOT TO SCALE)

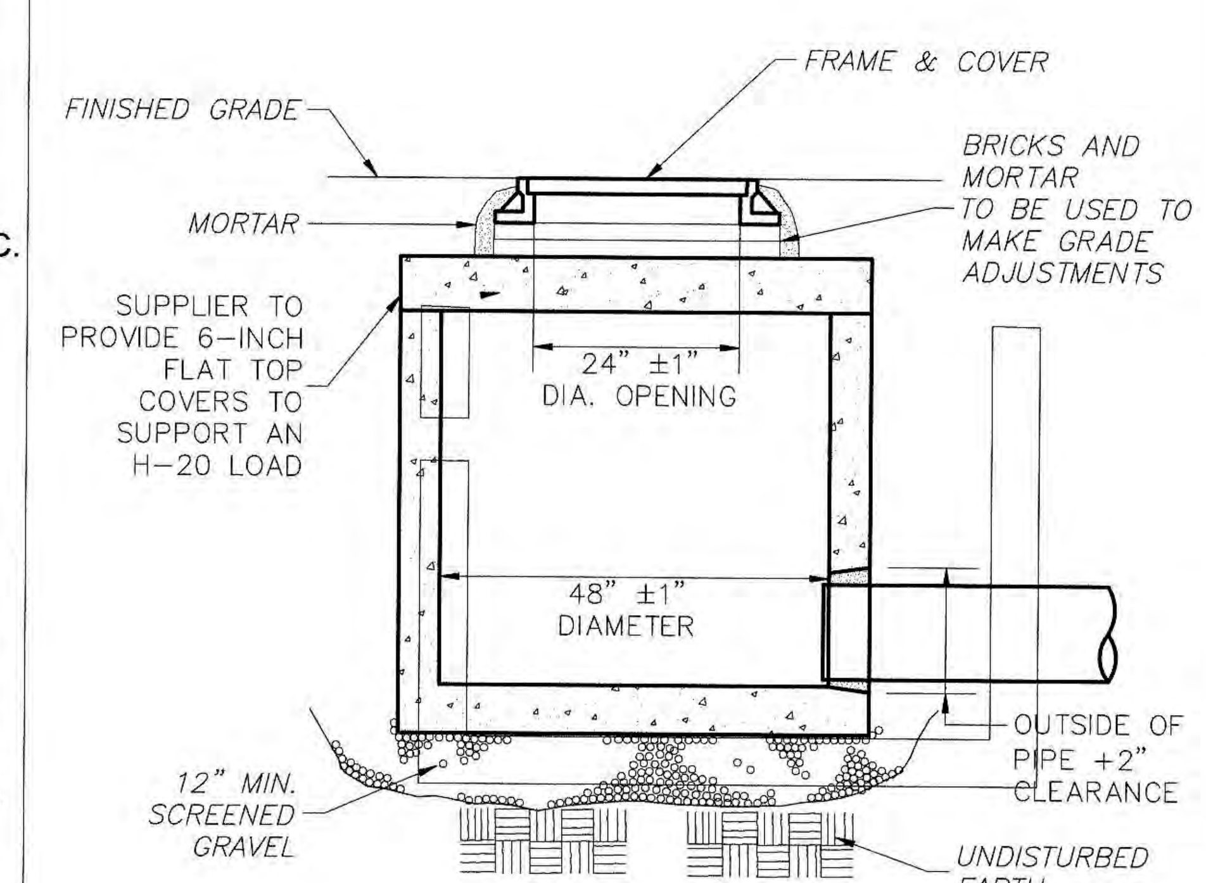
MODEL SHOWN MAY BE SUBSTITUTED WITH A SUITABLE EQUIVALENT

MANHOLE 30" DIA H-20 MINI CATCH BASIN

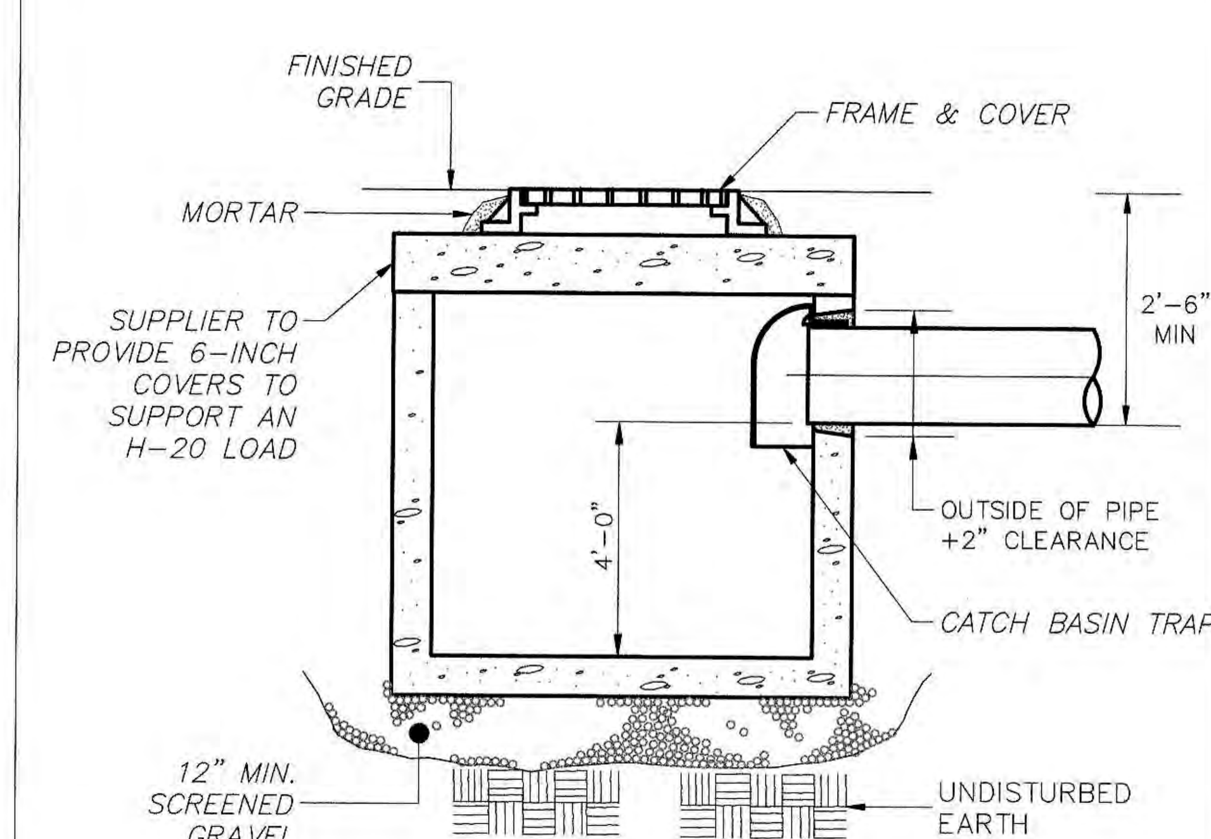


NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR H-20 LOADING.

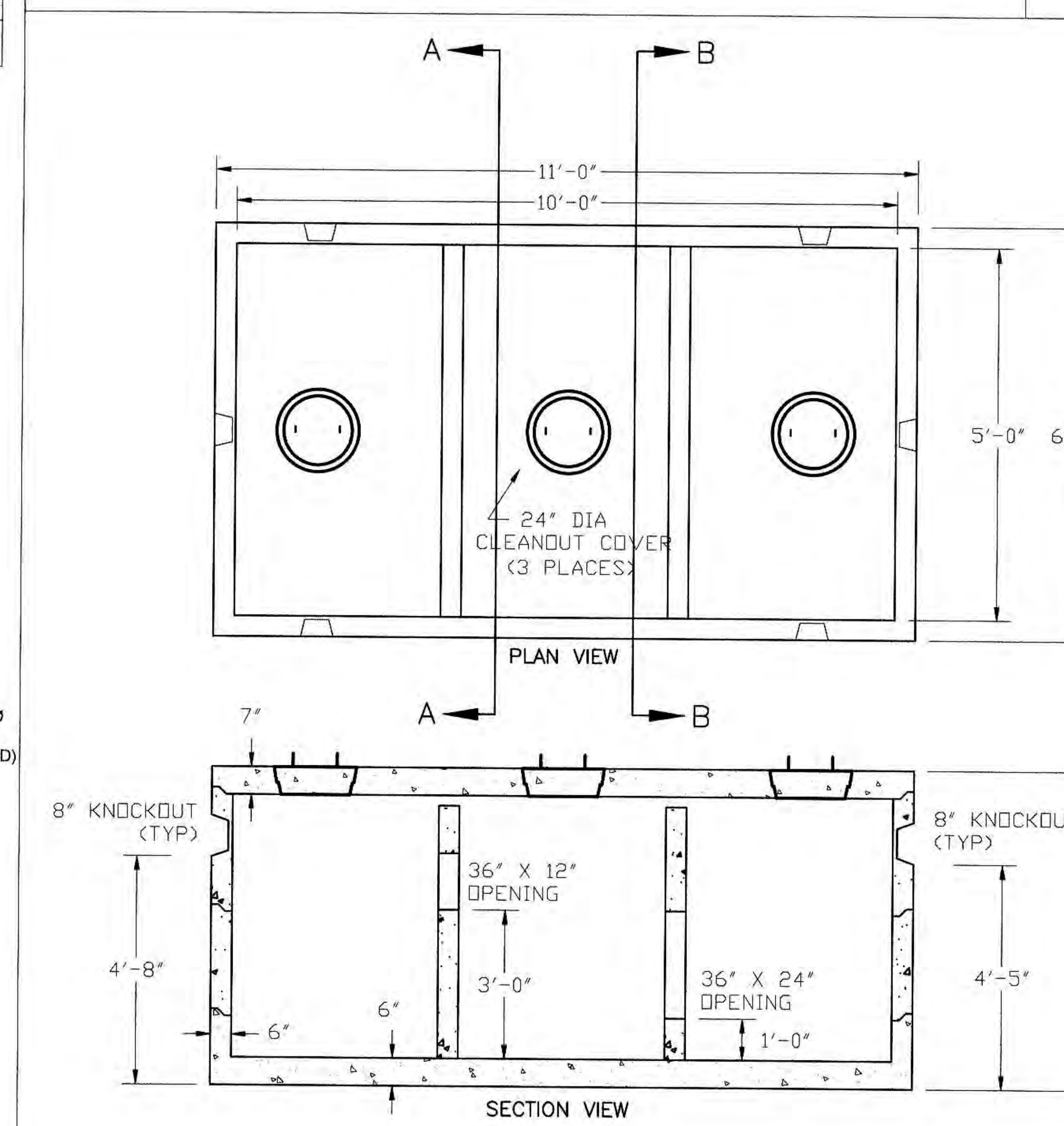
SECTIONS	ITEM NO	WEIGHT
1'-0" RISER	MC-MCB12RH	440#
2'-0" RISER	MC-MCB24RH	880#
3'-0" RISER	MC-MCB36RH	1320#
2'-0" BASE	MC-MCB24SH	1175#
2'-0" BARREL	MC-MCB24BSH	880#
38" COVER	MC-MCB38CH	585#

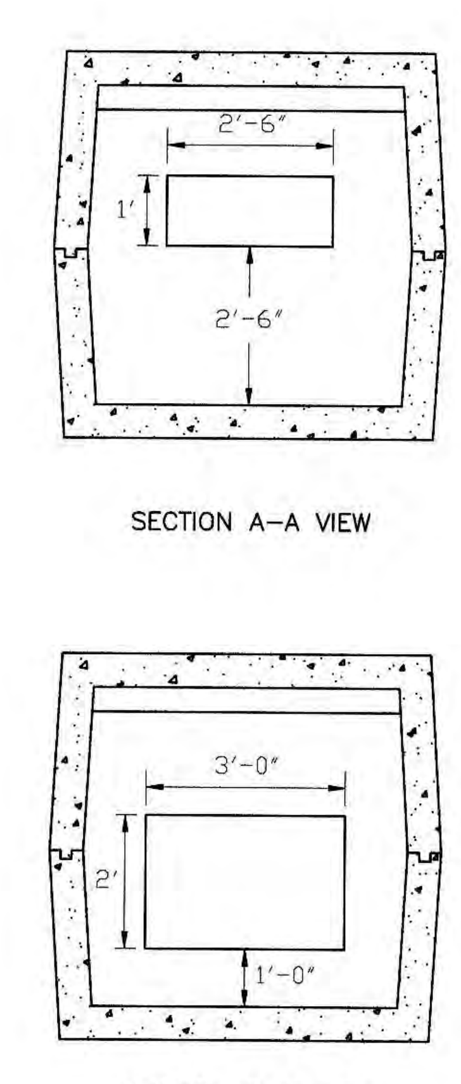


PRECAST SHALLOW DRAIN MANHOLE
(NOT TO SCALE)



PRECAST SHALLOW CATCH BASIN
(NOT TO SCALE)





SEDIMENT AND OIL SEPARATOR DETAIL
(NOT TO SCALE)

NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR H-20 LOADING. ALSO AVAILABLE IN H-10 LOADING WITH 3" WALL.
3. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN.

WILLIAMS & SPARAGES
ENGINEERS | PLANNERS | SURVEYORS
189 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 539-8088
FAX: (978) 539-8200
WSENGINEERS.COM

Owner/Applicant:
Verma Holdings LLC
21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: CPS
Project Manager: JST
Job File Number: MILT-0018A
Drawing File Folder: MILT18A

- [ ] DRAWING ISSUED FOR REVIEW ONLY
- [x] DRAWING ISSUED FOR PERMIT
- [ ] DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

NO SCALE

SEAL

COMMONWEALTH OF MASSACHUSETTS PETER M. BLAISDELL, JR. CIVIL No. 41613 REGISTERED

DRAIANGE DETAIL PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

DRAINGE DETAIL PLAN
(8 of 13)

C2.3

ADDITIONAL UTILITY NOTES:

1. CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS INCLUDING UTILITIES PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES AND / OR CONFLICTS.

ALL WATER FITTINGS SHALL BE APPROVED BY TOWN ENGINEER PRIOR TO INSTALLATION. TESTING, FLUSHING, AND INSPECTION OF NEW WATER SERVICES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MILTON.

A MASSACHUSETTS APPROVED TESTABLE DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER SHALL BE INSTALLED ON NEW FIRE SERVICES.

2. UNDERGROUND ELECTRIC, TELEPHONE, CABLE AND GAS SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.

5. WATER AND SEWER SHALL BE CONSTRUCTED WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET. A MINIMUM VERTICAL SEPARATION OF 18 INCHES SHALL BE MAINTAINED WHERE WATER AND SEWER FACILITIES CROSS. IF EITHER OF THESES CONDITIONS CANNOT BE MET, THE SEWER SHALL BE ENCASED IN A SLEEVE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE AREA WHERE THE REQUIRED CONDITIONS ARE NOT MET.

6. ALL NEW SEWER MAINS AND SERVICES SHALL BE SDR 35 PVC PIPE CONFORMING TO ASTM D3034. SEWER PIPE WITHIN 10 FEET OF THE BUILDING SHALL CONFORM TO THE STATE PLUMBING CODE. TESTING OF SEWER SERVICES SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF THE TOWN OF MILTON.

7. UTILITY SERVICES ARE APPROXIMATE AND SIZES SHALL BE DETERMINED BY ARCHITECT AND MECHANICAL ENGINEER. WATER SERVICES TO BE APPROVED BY FIRE PROTECTION ENGINEER.

8. ALL PROPOSED SEWER MANHOLES WITH RIMS LOWER THAN ELEVATION 10.0 SHALL BE PROVIDED WITH WATERTIGHT COVERS.

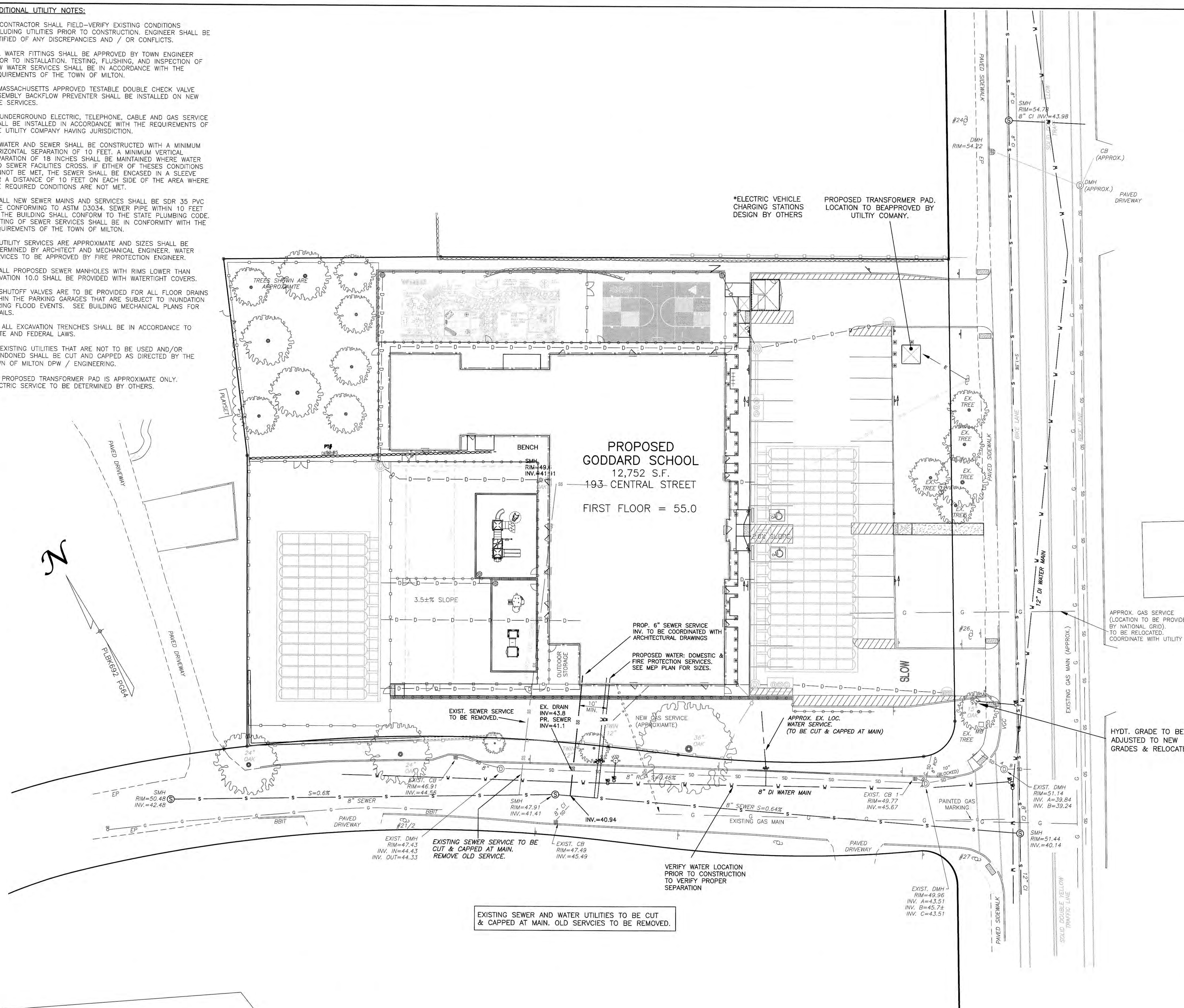
9. SHUTOFF VALVES ARE TO BE PROVIDED FOR ALL FLOOR DRAINS WITHIN THE PARKING GARAGES THAT ARE SUBJECT TO INUNDATION DURING FLOOD EVENTS. SEE BUILDING MECHANICAL PLANS FOR DETAILS.

10. ALL EXCAVATION TRENCHES SHALL BE IN ACCORDANCE TO STATE AND FEDERAL LAWS.

11 EXISTING UTILITIES THAT ARE NOT TO BE USED AND/OR ABANDONED SHALL BE CUT AND CAPPED AS DIRECTED BY THE TOWN OF MILTON DPW / ENGINEERING.

12. PROPOSED TRANSFORMER PAD IS APPROXIMATE ONLY. ELECTRIC SERVICE TO BE DETERMINED BY OTHERS.

13.



UTILITY NOTES

1) EXISTING TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES LLC CONDUCTED IN MARCH 2019.

2) ALL ELEVATIONS SHOWN ARE ON THE NAVD 88 DATUM.

3) THE UTILITIES SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC AND FROM VARIOUS PLANS ON FILE WITH THE TOWN OF MILTON. NO REPRESENTATION OR WARRANTEE IS MADE AS TO THE ACCURACY OF THE LOCATION OF THE SUBSURFACE UTILITIES DEPICTED OR NOT DEPICTED AND SHOULD BE CONSIDERED APPROXIMATE.

4) ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.

5) THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ABUTTING PROPERTIES FROM DAMAGE IN RELATION TO ALL PROPOSED IS SITE WORK.

6) SITE WORK TO COMPLY TO ADA STANDARDS.

7) THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.

8) FINISH GRADE OF SOD TO MATCH PLAYGROUND PAD.

9) DIGSAFE NUMBER: 20202015352 CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (811), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION. DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.

10) EXISTING SEWER SERVICE LOCATION FROM THE TOWN OF MILTON ENGINEERING SEWER CARD #763. VERIFY LOCATION PRIOR TO CONSTRUCTION.

11) EXISTING WATER SERVICE LOCATION FROM THE TOWN OF MILTON ENGINEERING SEWER CARD #1093. VERIFY LOCATION PRIOR TO CONSTRUCTION.

12) PROPOSED DRINKING FOUNTAINS IS TO COORDINATED WITH CONTRACTOR AND PLUMBER INSTALLER. WATER AND DRAIN TO MEET PLUMBING CODE. COORDIANTE WITH MEP FOR DOMESTIC WATER SIZE AND DRAIN LINE.

13) GAS MAIN SHOWN FROM NATIONAL GRID, LOCATION TO BE VERIFIED. SERVICE TO EXISTING BUILDING IS APPROXIMATE. NEW SERVICE MAY BE REQUIRED BY NATIONAL GRID & IF EXISTING SERVICE IS LOCATED IN PROPOSED INFILTRATION POND (P1).

LEGEND OF ABBREVIATIONS & SYMBOLS

- EXISTING CONTOUR — 98
- EXISTING SPOT ELEVATION — × 53.1
- EXIST. BITUMINOUS BERM — BB
- EXIST. FENCE
- APPROXIMATE WATER — W
- APPROXIMATE SEWER
- APPROX. SEWER SERVICE — SS
- APPROX. STORM DRAIN — SD
- APPROXIMATE GAS — G
- APPROXIMATE ELECTRIC — E
- OVERHEAD WIRES — OHW
- EXIST./PROP SEWER MANHOLE
- EXIST./PROP. DRAIN MANHOLE
- EXIST. CATCH BASIN
- EXIST. HYDRANT
- EXIST. WATER GATE
- EXIST. GAS GATE
- BENCH MARK — BM#4
- LIGHT
- TRAFFIC FLOW
- SIGN
- WALL
- UTILITY POLE — #21/1
- PROP. CONTOUR — 56
- PROP. SPOT GRADE
- DRAINAGE FLOW DIRECTION
- DRAIN CLEANOUT — C.O.
- YARD DRAIN
- PROPOSED BOLLARD

BENCHMARKS

BM#4 MAG NAIL - ELEVATION = 55.23
BM#5 DRILL HOLE - ELEVATION = 55.23
BM#6 S/N SET - ELEVATION = 47.53
(TO BE VERIFIED BY WS ENGINEERS PRIOR TO CONSTRUCTION)
DATUM IS NAVD88

MILTON TOWN DEPARTMENTS

DEPARTMENT OF PUBLIC WORKS
629 RANDOLPH AVENUE
MILTON, MA 02186
617-898-4900

INSPECTIONAL SERVICES
525 CANTON AVENUE
MILTON, MA 02186
617-898-4925

PLUMBING & GAS
525 CANTON AVENUE
MILTON, MA 02186
617-898-4928

ELECTRIC DEPARTMENT
525 CANTON AVENUE
MILTON, MA 02186
617-898-4927

ENGINEERING
525 CANTON AVENUE
MILTON, MA 02186
617-898-4973

FIRE DEPARTMENT
515 CANTON AVENUE
MILTON, MA 02186
617-898-4901

PRIVATE UTILITY COMPANIES

DIGSAFE:
811 http://www.digsafe.com
DIGSAFE NUMBER:

RCN:
1-800-746-4726

EVERSOURCE:
800-592-2000

VERIZON
1-800-837-4966

NATIONAL GRID:
1-800-233-5325

COMCAST/XFINITY
1-800-266-2278

Information provided by Town Website

WILLIAMS & SPARAGES
ENGINEERS | PLANNERS | SURVEYORS
189 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 539-8088
FAX: (978) 539-8200
WSENGINEERS.COM

Owner/Applicant:
Verma Holdings LLC
21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: CPS
Project Manager: JST
Job File Number: MILT-0018A
Drawing File Folder: MILT18A

- [ ] DRAWING ISSUED FOR REVIEW ONLY
- [x] DRAWING ISSUED FOR PERMIT
- [ ] DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

0' 10' 20' 40'
SCALE:1"=20'

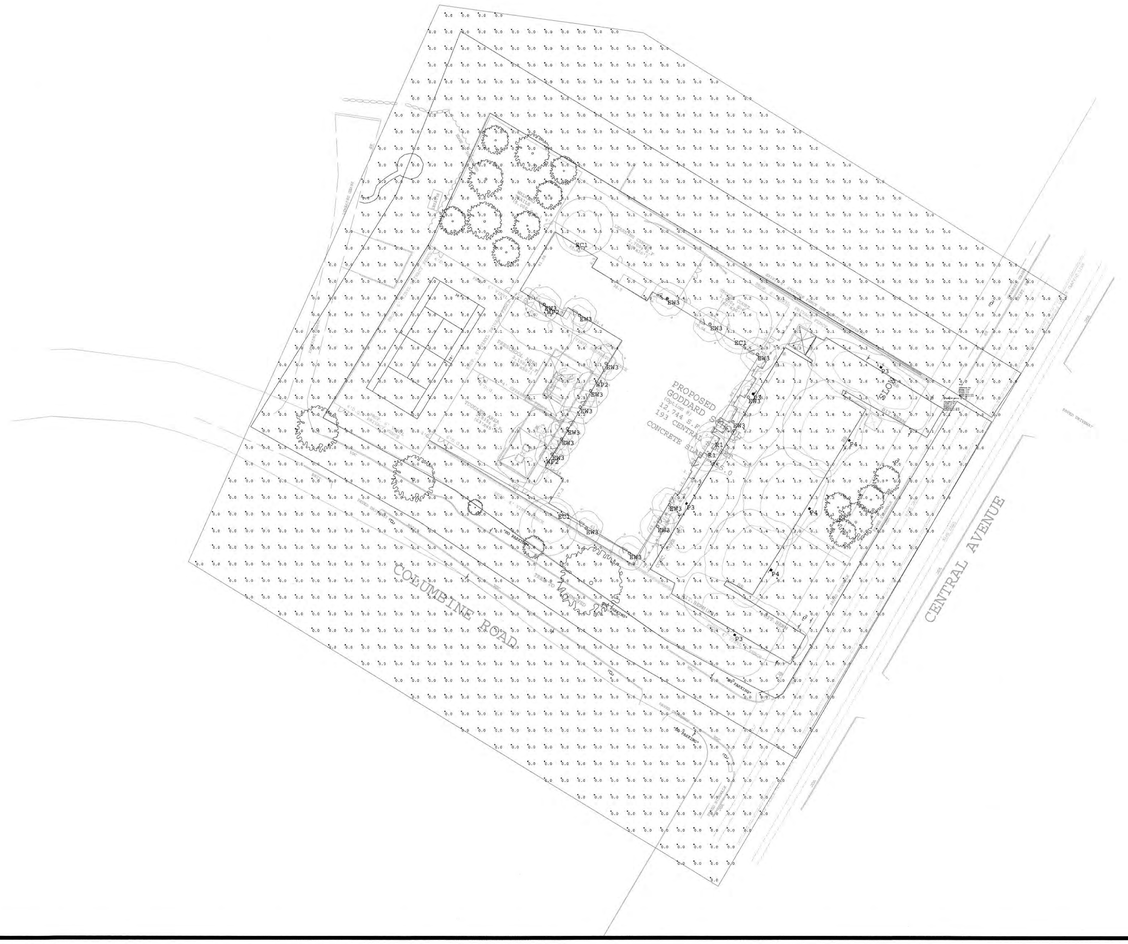
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 41613

SEAL

UTILITY PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

UTILITY PLAN
(9 of 13)

C3.1



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
▫	4	P3	SINGLE	N.A.	0.500	BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS
▫	3	P4	SINGLE	N.A.	0.500	BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS
▯	3	WP2	SINGLE	N.A.	1.000	HUBBELL LNC-5LU-3K-4 BLT PCU
⊙	2	R1	SINGLE	N.A.	1.000	LITON LCMPD5RW-UE-D10 T30
⊙	17	EW3	SINGLE	466.23	1.000	MODERN FORMSWS-28516-BK
⊙	3	EC1	SINGLE	N.A.	2.000	HUBBELL ML-2L3K-1 WH

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Object_1_Planar	Illuminance	Fc	0.21	7.5	0.0	N.A.	N.A.
Driveway and parking	Illuminance	Fc	1.48	5.0	0.1	14.80	50.00
Spill	Illuminance	Fc	0.00	0.1	0.0	N.A.	N.A.

illuminate

#	Date	Comments

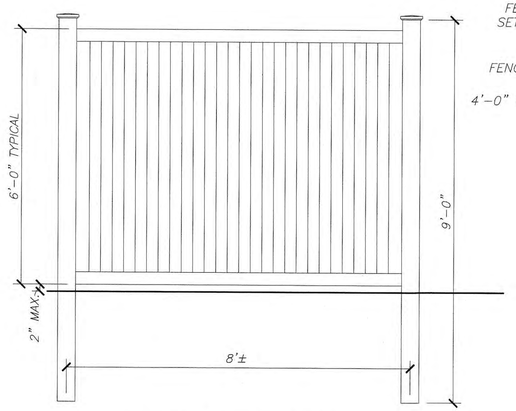
Revisions

Drawn By:RK
Checked By:
Date:8/24/2021
Scale:

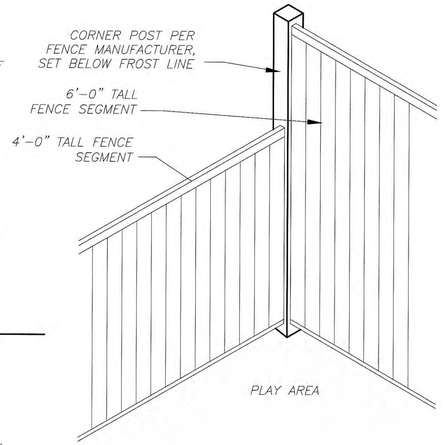
GODDARD SCHOOL

PARKING

NOTE: GSI SPECIFICATION MANUAL INDICATES VINYL FENCING.

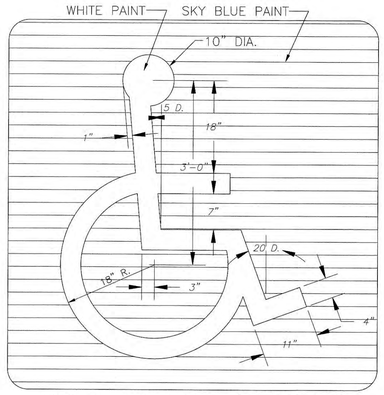


VINYL FENCE DETAIL
(NOT TO SCALE)



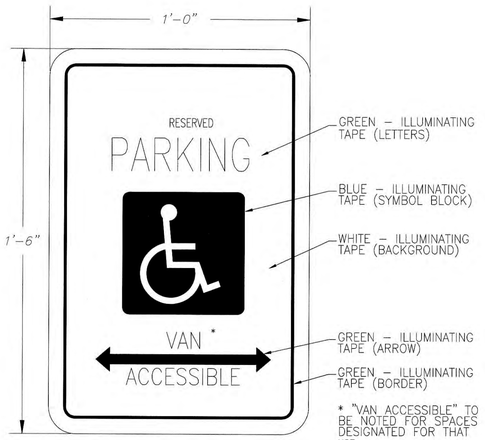
VINYL FENCE TRANSITION DETAIL
(NOT TO SCALE)

ALL FENCE TO BE VINYL
PRIVACY FENCE



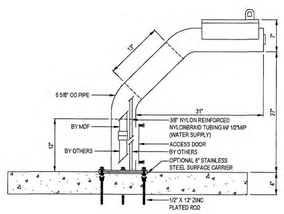
NOTE: ALL STRIPES TO BE 4" PAINTED WHITE

PAINTED HANDICAP
SYMBOL DETAIL
(NOT TO SCALE)



HANDICAP PARKING
SIGNAGE DETAIL
(NOT TO SCALE)

MOST DEPENDABLE FOUNTAINS, INC.
5705 COMMANDER DR. P.O. BOX 567
ARLINGTON, TN 38002-0567
TOLL FREE: 1-800-552-6331
PHONE: (901) 867-0339
FAX: (901) 867-2159
www.mostdependable.com



NOTES:
1. MEETS ADA REGULATIONS.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3564.7

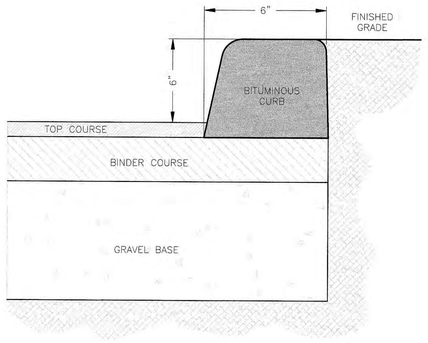
910 SM
SHOWN W/ OPTIONAL 8" SS SURFACE CARRIER

DRINKING FOUNTAIN

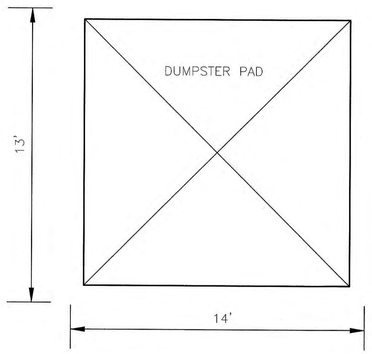
3564.7

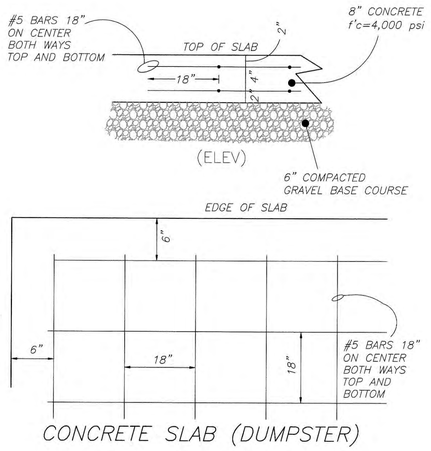
REVISION DATE 12/23/2014

ALTERNATIVE CAN BE USED, TO BE APPROVED BY OWNER



BITUMINOUS CURB
NOT TO SCALE





CONCRETE SLAB (DUMPSTER)

TRASH ENCLOSURE DETAILS
(NOT TO SCALE)

WILLIAMS & SPARAGES
ENGINEERS & SURVEYORS
100 WEST MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 339-8088
FAX: (978) 339-8200
WSENGINEERS.COM

Owner/Applicant:
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21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: CPS
Project Manager: JST
Job File Number: MILT-0018A
Drawing File Folder: MILT18A

☐ DRAWING ISSUED FOR REVIEW ONLY
☒ DRAWING ISSUED FOR PERMIT
☐ DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

NOT TO SCALE

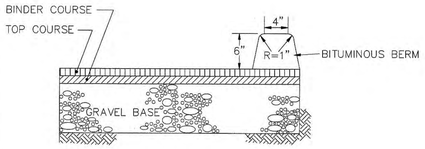
SEAL

SITE DETAILS
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

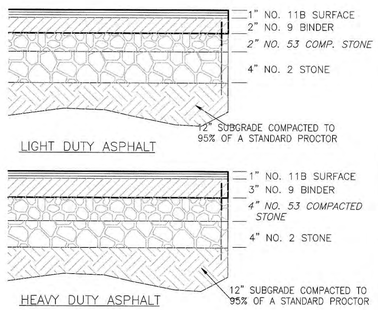
SITE DETAILS
(11 of 13)

C5.1

P:\MILT-0018\193 Central Ave\Drawings\SP-NEW BUILDING - 193Centralave_2R3.dwg, 8/23/2021 6:55:53 AM, JST



BITUMINOUS BERM DETAIL
(NOT TO SCALE)



PAVEMENT DETAILS
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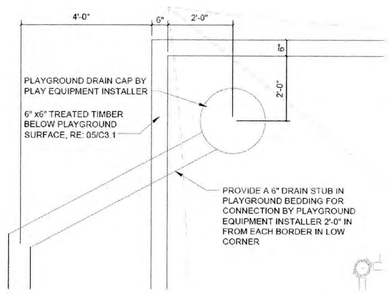
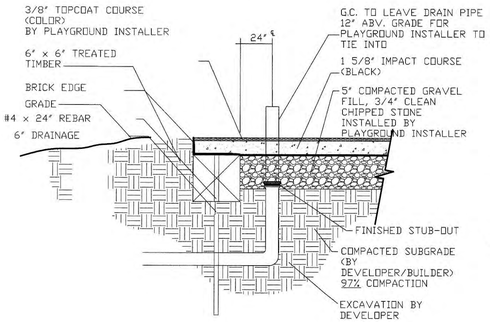
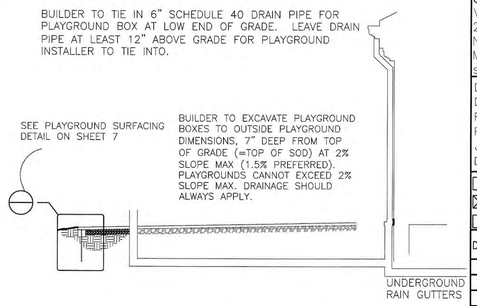


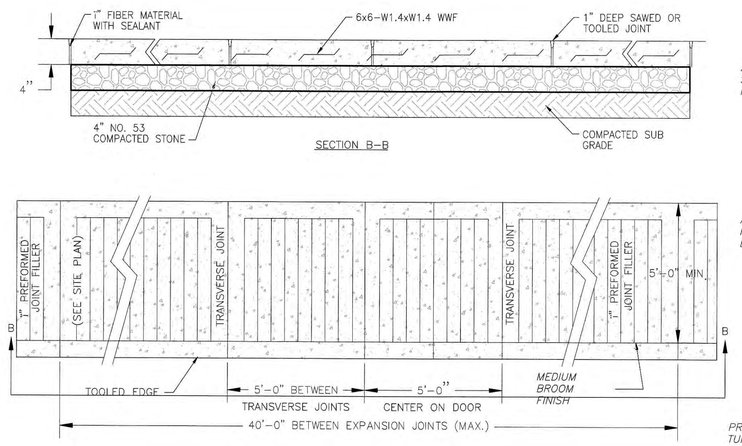
PLAYGROUND DRAIN DETAIL
(NOT TO SCALE)



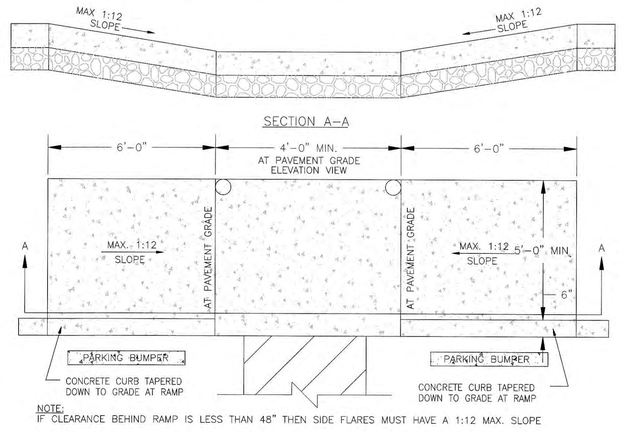
PLAYGROUND DRAINAGE DETAIL
(NOT TO SCALE)



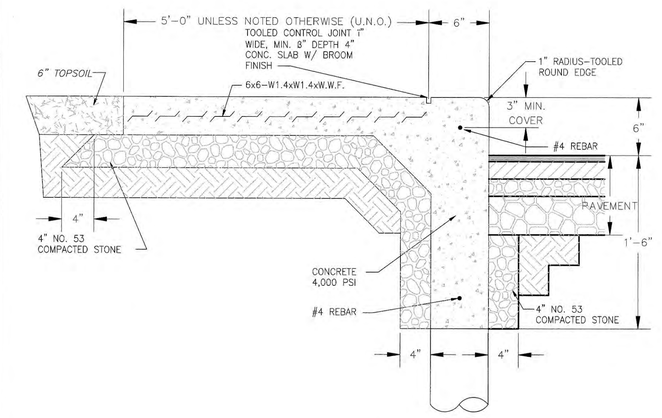
PLAYGROUND GRADING & DRAINAGE DETAIL
(NOT TO SCALE)



SIDEWALK DETAIL
(NOT TO SCALE)

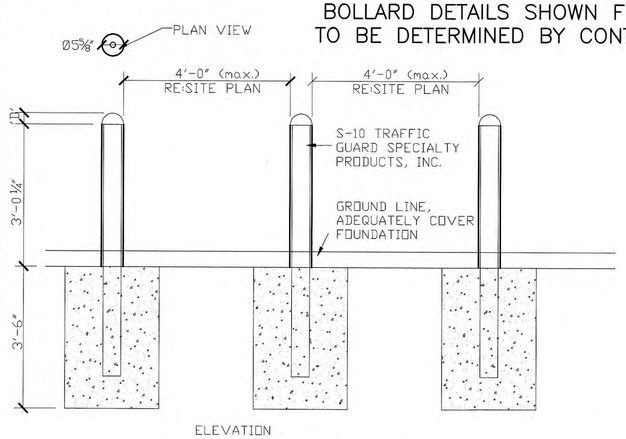


HANDICAP RAMP DETAIL
(NOT TO SCALE)



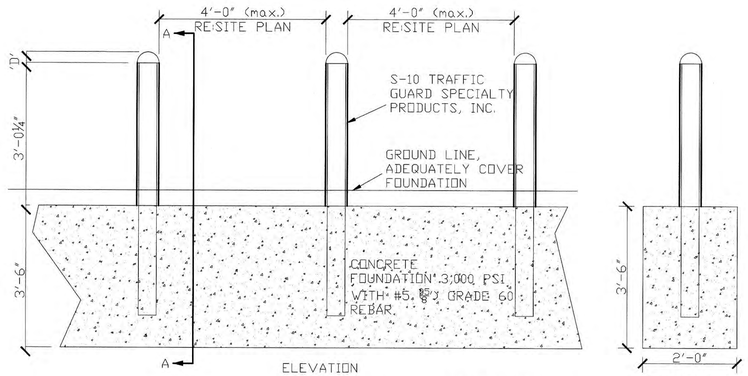
CURB/WALK DETAIL
(NOT TO SCALE)

BOLLARD DETAILS SHOWN FROM GODDARD SCHOOL AND ARE NOT FINAL
TO BE DETERMINED BY CONTRACTOR & APPROVED BY GODDARD SCHOOL



CONCRETE FOUNDATION 3,000 PSI WITH #5 (⅝") GRADE 60 REBAR

SHAFT FOOTING BOLLARD A



TRENCH FOOTING BOLLARD

REFER TO PRODUCT SPECS: S-10 BY TRAFFIC GUARD SPECIALTY PRODUCTS, INC.

WILLIAMS & SPARAGES
LAND SURVEYING & PLANNING CONSULTANTS
180 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 539-8068
FAX: (978) 539-8220
WSENGINEERS.COM

Owner/Applicant:
Verma Holdings LLC
21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: CPS
Project Manager: JST
Job File Number: MILT-0018A
Drawing File Folder: MILT18A

☐ DRAWING ISSUED FOR REVIEW ONLY
☒ DRAWING ISSUED FOR PERMIT
☐ DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

NOT TO SCALE

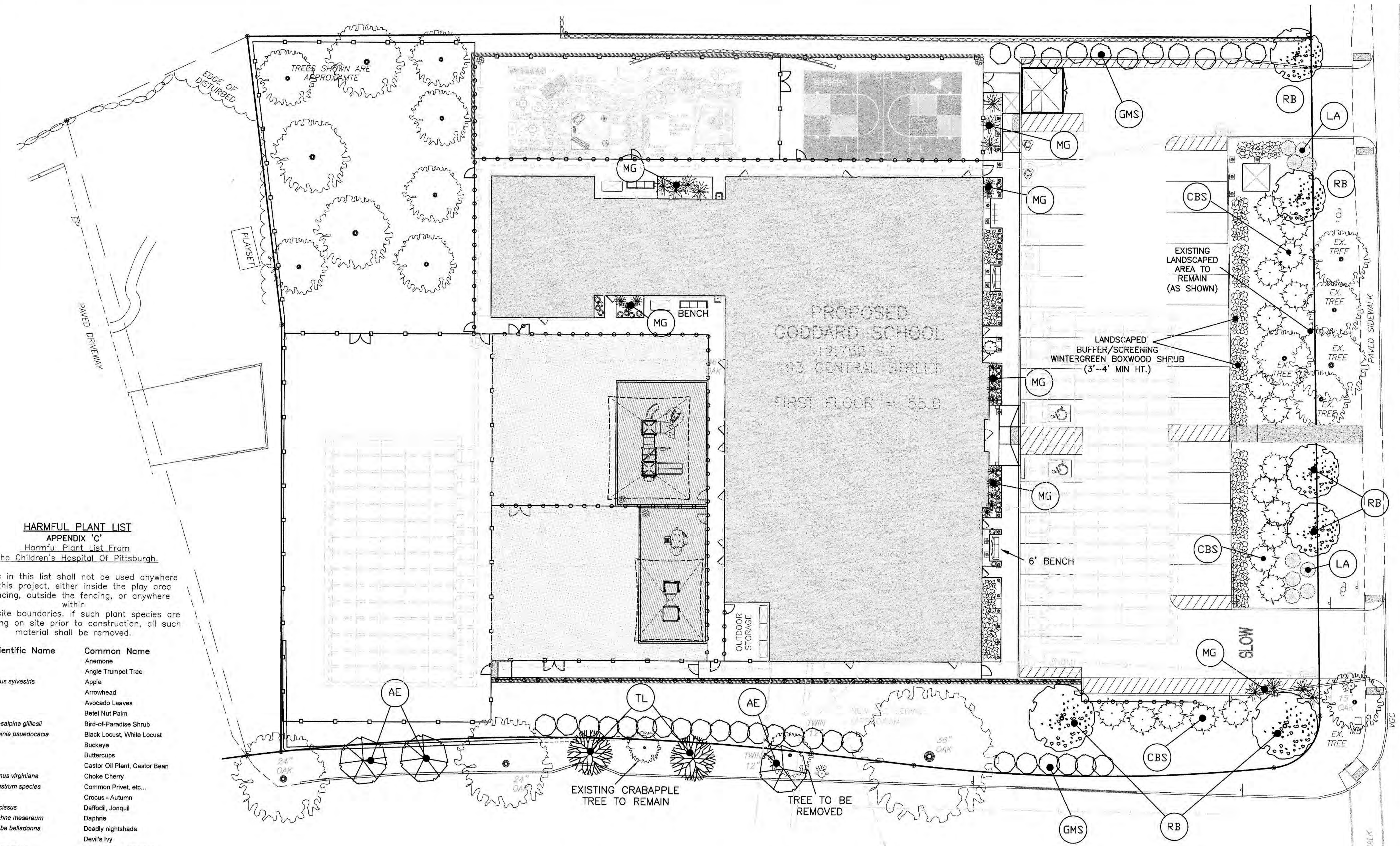
SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 51613
REGISTERED PROFESSIONAL ENGINEER

SITE DETAILS
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

SITE DETAILS
(12 of 13)

C5.2

P:\MILT-0018\193 Central Ave\Drawings\SP-NEW BUILDING - 193Central Ave_R3.dwg, 9/22/2021 9:55:09 AM, JST



MILTON SHADE TREE ADVISORY COMMITTEE (STAC) SHALL BE CONTACTED PRIOR TO TREE REMOVAL/TRIMMMING & TREE PLANTING.

HARMFUL PLANT LIST

APPENDIX 'C'

Harmful Plant List From The Children's Hospital Of Pittsburgh.

Plants in this list shall not be used anywhere on this project, either inside the play area fencing, outside the fencing, or anywhere within the site boundaries. If such plant species are existing on site prior to construction, all such material shall be removed.

Scientific Name	Common Name
	Anemone
	Angle Trumpet Tree
Malus sylvestris	Apple
	Arrowhead
	Avocado Leaves
	Betel Nut Palm
Caesalpina gilliesii	Bird-of-Paradise Shrub
Robinia psuedocacia	Black Locust, White Locust
	Buckeye
	Buttercups
	Castor Oil Plant, Castor Bean
Prunus virginiana	Choke Cherry
Lingstrum species	Common Privet, etc...
	Crocus - Autumn
Narcissus	Daffodil, Jonquil
Daphne mesereum	Daphne
Alroba belladonna	Deadly nightshade
	Devil's Ivy
Dieffenbachia	Dumb cane, Elephant ear
	Elderberry
Colacasia	Elephant Ear
Philodendron	Elephant Ear
Hedera Helix	English Ivy
Solanum dulcamara	European Bittersweet, Deadly Nightshade
Caladium	Fancy-leaf Caladium
	Four O'Clock
Digitalis	Foxglove
Ilex species	Holly, etc...
	Horsetail Reed
Hyacinthus orientalis	Hyacinth
Hydrangea macrophylia	Hydrangea
Iris	Iris
	Ivy...Boston, English, etc...
Arisaema tryphyllum	Jack-in-the-Pulpit
	Jasmine, Jessamine
	Jequirity Bean
Solanum pseudocapsicum	Jerusalem Cherry
Datura stramonium	Jimsonweed, Thorn Apple, Angel's Trumpet
Lantana	Lantana, Bunchberry, Red Sage
Delphinium	Larkspur, Crowfoot
	Laurels
Convallaria majalis	Lily of the Valley
	Lobelia
	Marijuana
Podophyllum peltatum	Mayapple, Mandrake, Ground Lemon
	Mistletoe
	Monkshood
Datura meteloides	Moonflower, Angel's Trumpet, Locoweed
	Moonseed
Ipomoea violacea	Morning Glory
Nerum oleander	Oleander
Prunus species	Peach, Plum, Cherry, Apricot
	Periwinkle
	Peyote (mescal)
	Philodendron
Conium maculatum	Poison Hemlock, False Parsley
	Poison Ivy
	Poison Oak
Phytolacca americana	Pokeweed, Inkberry
	Poppy (California Poppy exempt)
	Potato Sprouts
	Primrose
	Ranunculus
Rhododendron	Rhododendron, Azalea
Rheum rhabarbarum	Rhubarb
	Star of Bethlehem
Lathyrus odoratus	Sweet Pea
Monstera	Swiss Cheese Plant, Ceriman
	Tobacco
	Tomato Vines
	Tulip
Parthenocissus quinquefolia	Virginia Creeper, American Ivy
Cicuta maculata	Water Hemlock, Spotted Cowbane
Wisteria species	Wisteria
Gelsemium sempervirens	Yellow jJessamine, Carolina Jessamine
Taxus	Yew (Japanese)

TOWN OF MILTON STREET/SHADE TREE INFORMATION

TREES MUST BE SELECTED ONLY FROM THE ATTACHED LIST PREPARED BY THE MILTON SHADE TREE ADVISORY COMMITTEE. TREES UNDER THIS PROGRAM ARE ONLY PLANTED DURING THE MONTHS OF SEPTEMBER, OCTOBER, NOVEMBER, AND DECEMBER SO LONG AS WEATHER PERMITS.

MILTON STAC RECOMMENDED TREE LIST IS BASED ON THE FOLLOWING CRITERIA:

ABILITY TO SURVIVE IN DIFFICULT URBAN CONDITIONS.
NATIVE SPECIES (TO ATTRACT NATIVE BIRDS AND BUTTERFLIES)
ATTRACTIVE
PROVIDES APPROPRIATE LEVEL OF VISIBILITY FOR WALKERS AND DRIVERS
DECIDUOUS TREES (NO EVERGREENS INCLUDED DUE TO VISIBILITY AND OTHER ISSUES)
AVAILABILITY IN MASSACHUSETTS NURSERIES

SOURCES: ARBOR DAY FOUNDATION, THE LADY BIRD JOHNSON WILDFLOWER CENTER, UMASS URBAN FORESTRY PROGRAM, BOSTON PARKS DEPARTMENT, BROOKLYN BOTANICAL GARDENS, DIRR'S HANDBOOK OF WOODY PLANTS, NYC STREET TREE GUIDE, CORNELL UNIVERSITY HORTICULTURE DEPARTMENT, VARIOUS SHADE TREE COMMITTEES FROM ACROSS MASSACHUSETTS

PLANTING LIST

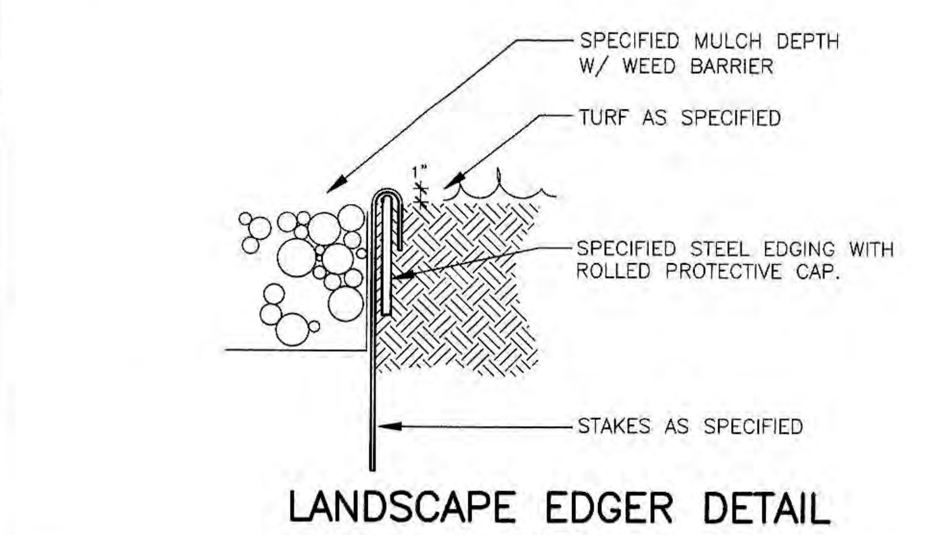
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	NOTES	SYMBOL
TL	2	LIRIODENDRON TULIPIFERA L.	TULIP	2.5–3" CALIPER	
AE	3	ULMUS AMERICANA	AMERICAN ELM (VALLEY FORGE OR PRINCETON ELM)	2.5–3" CALIPER	
RB	6	BETULIA NIGRA	RIVER BIRCH	8'–10' HEIGHT	
GMS	AS SHOWN	SPIRAEA JAPONICA 'GOLDMOUND'	GOLDMOUND SPIREA	#5	
CBS	AS SHOWN	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	8'–10' HEIGHT	
CIB	AS SHOWN	BUXUS MICROPHYLLA INSULARIS	GREEN VELVET BOXWOOD	#5	
MG	AS SHOWN	MISCANTHUS GRACILLIMUS	MAIDEN GRASS	–	
LA	AS SHOWN	LAVANDULA ANGUSTIFOLIA	LAVENDER	TBD	
WG	AS SHOWN	BUXUS MICROPHYLLA	WINTERGREEN BOXWOOD SHRUB	#5	

PLANT GOLDEN SPIREA 3' APART. SPIREA TOTAL SHOWN ARE APPROXIMATE
LOAM & SEED ALL DISTURBED AREAS. MULCH IN AND AROUND FLOWER & SHRUBS
ANNUAL FLOWERS TO BE DETERMINED

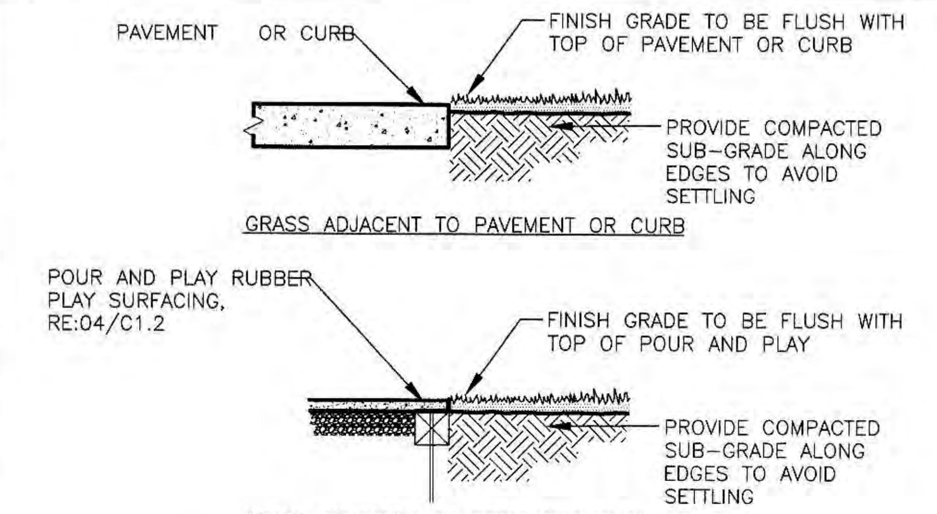
LANDSCAPER RESPONSIBILITIES

1. *ALL LANDSCAPING WILL BE IRRIGATED WITH AN UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM WHERE APPLICABLE. TREES AND SHRUBS (DRIP/BUBBLER) SHALL BE IRRIGATED BY A SEPARATE ZONE FROM SOD/GRASS (SPRAY). THIS INCLUDES TREES PLANTED IN SOD/GRASS AREA. THE SYSTEM IS TO HAVE A RAIN SENSOR SHUT-OFF REQUIRED.*
2. *SOIL AMENDMENT FOR SODDED AREAS SHALL BE 4 C.Y. OF COMPOSTED ORGANIC MATTER PER 1,000 S.F. THE TOP 5" SHALL BE TOPSOIL AND SOIL AMENDMENT MIXTURE TILLED TO A MIN. DEPTH OF 12".*
3. *IN ALL PLANTER BED AREAS THE BACKFILLED SOIL SHALL BE REMOVED TO A DEPTH OF 24" AND REPLACED WITH A MIXTURE OF 1/2 TOPSOIL WITH AMENDMENT AND 1/2 NATIVE SOIL COMPACTED TO 85% STD. DENSITY.*
4. *IN BED AREAS HOLD TOP OF SUBGRADE 3–4" BELOW ADJACENT IMPROVEMENTS FOR MULCHING.*
5. *ALL SHRUB BEDS SHALL RECEIVE WATER-PERMEABLE WEED BARRIER FABRIC. FABRIC SHALL BE 3 OZ. SPUNBONDED POLYPROPYLENE WITH UV INHIBITORS TYPAR #3301 OR APPROVED EQUAL. PERENNIAL AND ORNAMENTAL GRASS AREAS SHALL NOT RECEIVE THE FABRIC.*
6. *ALL SHRUB BEDS SHALL BE MULCHED WITH 3–4" DEPTH SHREDDED CEDAR– NATURAL COLOR. SUBMIT SAMPLES FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.*
7. *VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO DIGGING, EXCAVATION OR TRENCHING. DAMAGE TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR WITH NO EXPENSE TO THE OWNER.*
8. *PLANTS SHALL MEET THE MINIMUM STANDARDS OUTLINED IN THE "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1 AND THE STATE NURSERY ACT AND ACCOMPANYING RULES & STANDARDS. ALL PLANT MATERIALS ARE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PLANTS NOT MEETING THE SET STANDARDS WILL BE REJECTED.*
9. *ALL TREES IN SODDED AREAS WILL HAVE A MULCH RING WITH NATURAL CEDAR FIBER MULCH AT 3–4" DEPTH AND AT LEAST 3–4' IN DIAMETER. KEEP MULCH 4–6" AWAY FROM TRUNKS.*
10. *PLANT SPECIES AND LOCATIONS SHOULD FOLLOW APPROVED PLAN. IF SITE CONDITIONS OR PLANT AVAILABILITY REQUIRE CHANGES TO THE PLAN, CONTACT THE LANDSCAPE ARCHITECT AND GSI REPRESENTATIVE FOR CLARIFICATION.*
11. *ALL PLANT MATERIAL SHALL CARRY A WARRANTY FOR A PERIOD OF NOT LESS THAN 3 YEARS AFTER ACCEPTANCE OF THE PROJECT BY THE OWNER. WARRANTY SHALL BE A ONE-TIME REPLACEMENT THAT INCLUDES PLANT MATERIAL AND LABOR COSTS.*
12. *IRRIGATED TURF SHALL BE APPROVED REGIONAL GRASS BLEND, WITH 3 VARIETY BLEND MIN. (G.C. CONFIRM WITH LOCAL CODE FOR REQUIREMENTS).*
13. *CONTRACTOR SHALL VERIFY LOCATIONS OF ALL PERTINENT SITE IMPROVEMENTS ALREADY INSTALLED PRIOR TO BEGINNING WORK. NOTIFY OWNER OF ANY CONFLICTS OR DISCREPANCIES WITH INFORMATION STATED IN THESE PLANS. DO NOT PROCEED WITH CONSTRUCTION IF DISCREPANCIES EXIST WITHOUT OWNER APPROVAL.*
14. *REFER TO GRADING DRAWINGS FOR TOPO/ELEVATIONS. ENSURE POSITIVE DRAINAGE (2% MIN. PREFERRED) IN ALL LANDSCAPE/TURF AREAS. SURFACES SHALL DRAIN AWAY FROM BUILDING FOUNDATIONS (5% MIN.) AND TO THE STREETS AND ALLEY. NOTIFY OWNER IF ROUGH GRADING CONDITIONS WILL CREATE PONDING ON SITE OR FLOW TOWARD FOUNDATIONS. ROUGH GRADES SHALL BE REVIEWED AND ACCEPTED BY THE OWNER PRIOR TO SOIL PREPARATION OPERATIONS.*
15. *PROPOSED TREES IN THE R.O.W. SHALL BE PRE-APPROVED BY THE TOWN ARBOR AND SHALL BE A MINIMUM OF 20' FROM PROPERTY CORNERS AT INTERSECTIONS, 25' FROM STREET LIGHTS AND 10' FROM EDGE OF DRIVEWAYS, OR PER LOCAL CODE REQUIREMENTS.*
16. *THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL FIELD INSTALLATIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD DELIVERIES TO GSI'S REPRESENTATIVE IMMEDIATELY. THE G.C. IS TO CONFIRM ALL QUANTITIES AFTER INSTALLATION. THAT ALL PLANTS AND MATERIALS ARE INSTALLED PER SPECIFICATIONS AND LANDSCAPE PLANS.*
17. *LANDSCAPE ARCHITECT IS TO COORDINATE/PRODUCE AND SUBMIT IRRIGATION SPRINKLER DRAWINGS FOR REVIEW AND APPROVAL ONCE LANDSCAPE PLAN HAS BEEN REVIEWED AND APPROVED BY ARCHITECT AND GSI REPRESENTATIVE.*

NOTES:
1. SET ALL EDGING 1" ABOVE FINISH GRADE AS SHOWN.
2. EDGING SHALL ABUT ALL CONCRETE CURBS AND WALKS PERPENDICULAR, AND FLUSH W/ GRADES OF CONCRETE.
3. ALL JOINTS TO BE SECURELY STAKED.

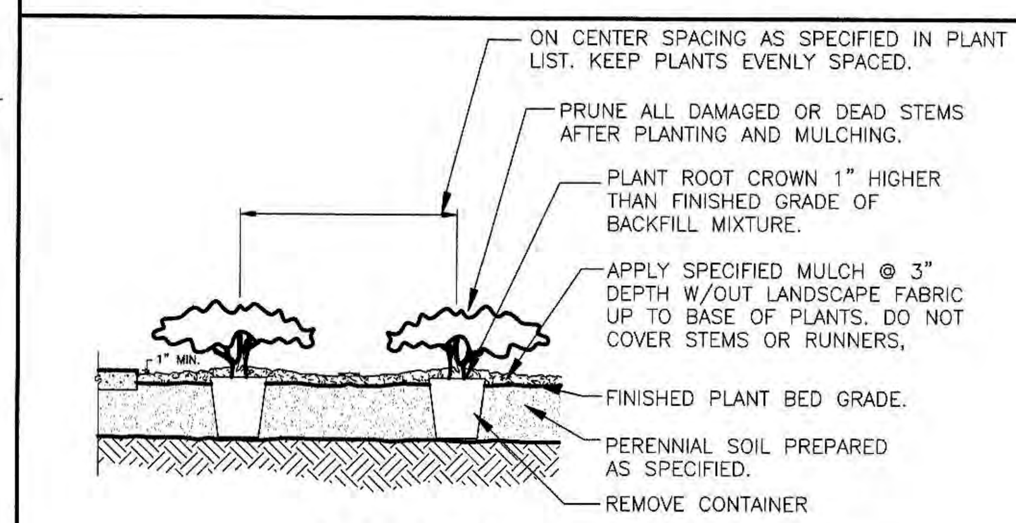


LANDSCAPE EDGER DETAIL
NTS



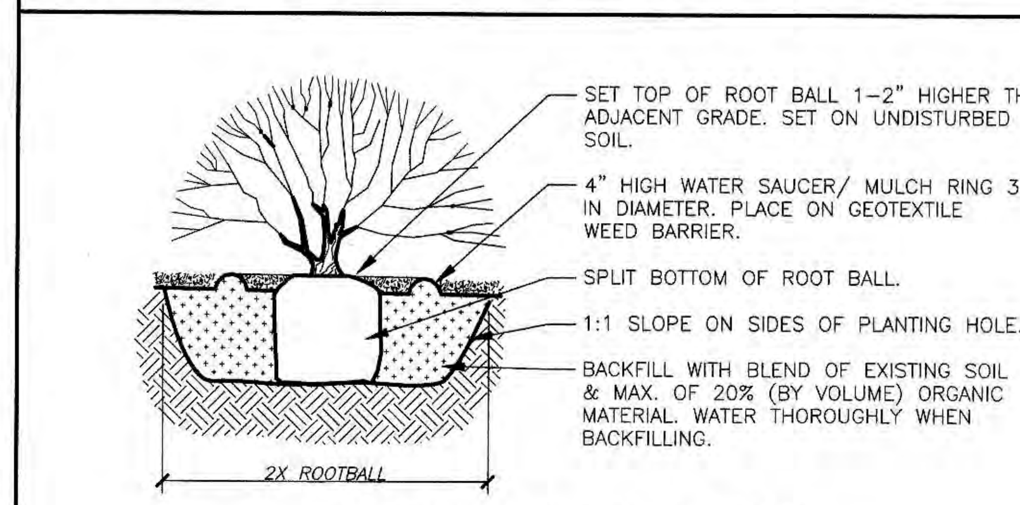
TYPICAL CONSTRUCTION EDGES
NTS

NOTES:
1. HOLD MULCH GRADE 1" BELOW EDGE OF WALK, EDGING, OR CURB
2. HOLD BACK PLANTS 12" FROM EDGES.

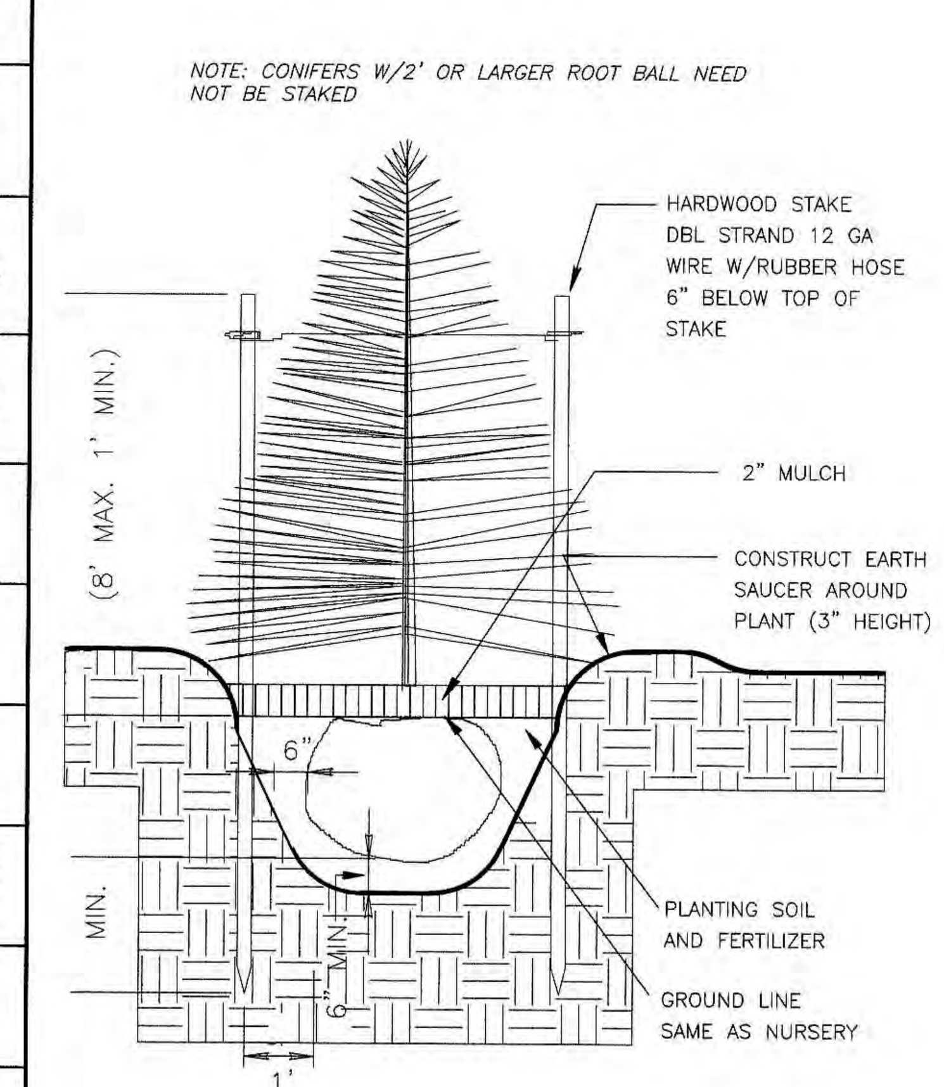


PERENNIAL PLANTING DETAIL
NTS

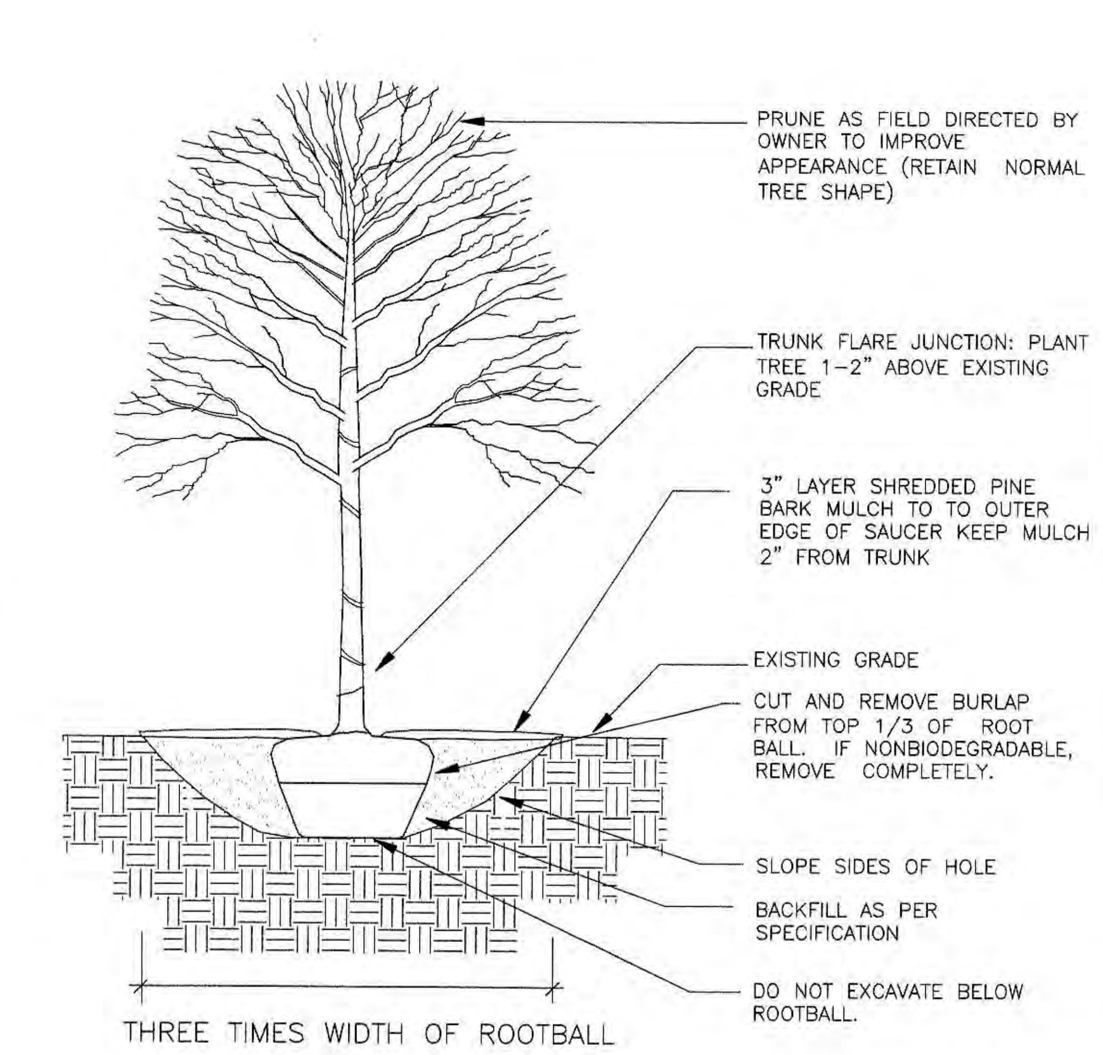
NOTES:
1. *DO NOT HEAVILY PRUNE SHRUBS AT PLANTING. PRUNE ONLY DEAD OR BROKEN BRANCHES. IF FORM IS COMPROMISED BY PLANTING, REPLACE SHRUB.*
2. *REMOVE CONTAINER (INCLUDING FIBER CONTAINERS), BASKETS, WIRE, ETC. FROM THE ROOTBALL. BREAK-UP ENCIRCLING ROOTS WITH SHARP KNIFE OR SPADE.*
3. *PLACEMENT NOTES, SET SHRUB PLUMB. SPACE PLANTS AND PLACE FOR BEST AFFECT.*



TYPICAL SHRUB DETAIL
NTS



CONIFEROUS TREE PLANTING
(NOT TO SCALE)



DECIDUOUS TREE PLANTING
(NOT TO SCALE)

WILLIAMS & SPARAGES
ENGINEERS | PLANNERS | SURVEYORS
189 NORTH MAIN STREET
SUITE 101
MIDDLETON, MA 01949
PHONE: (978) 539-8088
FAX: (978) 539-8200
WSENGINEERS.COM

Owner/Applicant:
Verma Holdings LLC
21 Coach Road
North Attleboro, MA 02760
Mobile: 508-736-1200
sunnyverma@hotmail.com

Designed By: JST
Drawn By: JST
Reviewed By: CPS
Project Manager: JST

Job File Number: MILT-0018A
Drawing File Folder: MILT18A

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☐ DRAWING ISSUED FOR CONSTRUCTION

DATE: SEPTEMBER 7, 2021

DATE	REVISIONS

0' 10' 20' 40'
SCALE: 1"=20'

SEAL
COMMONWEALTH OF MASSACHUSETTS
PETER M. BLAISDELL, JR.
CIVIL
No. 41613

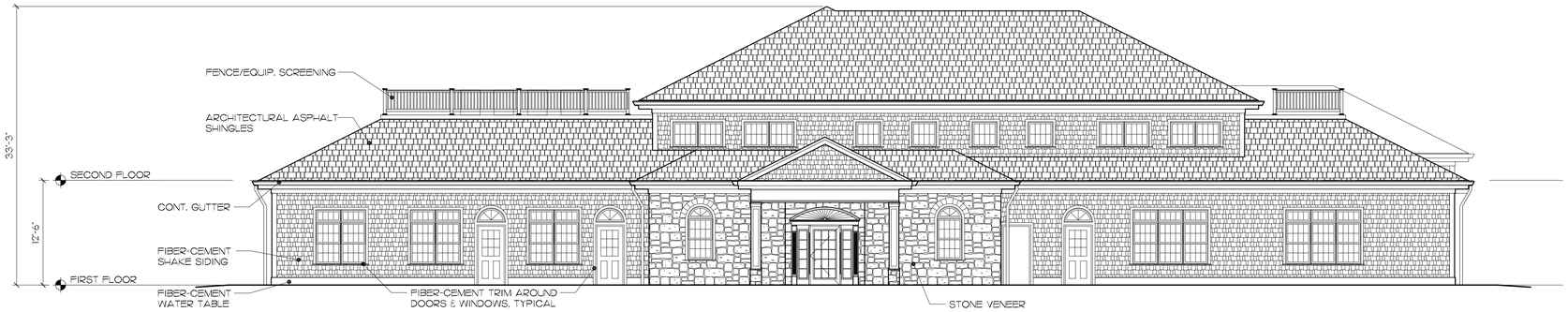
LANDSCAPE PLAN
THE GODDARD SCHOOL
193 CENTRAL AVENUE
MILTON, MASSACHUSETTS

LANDSCAPE PLAN
(13 of 13)

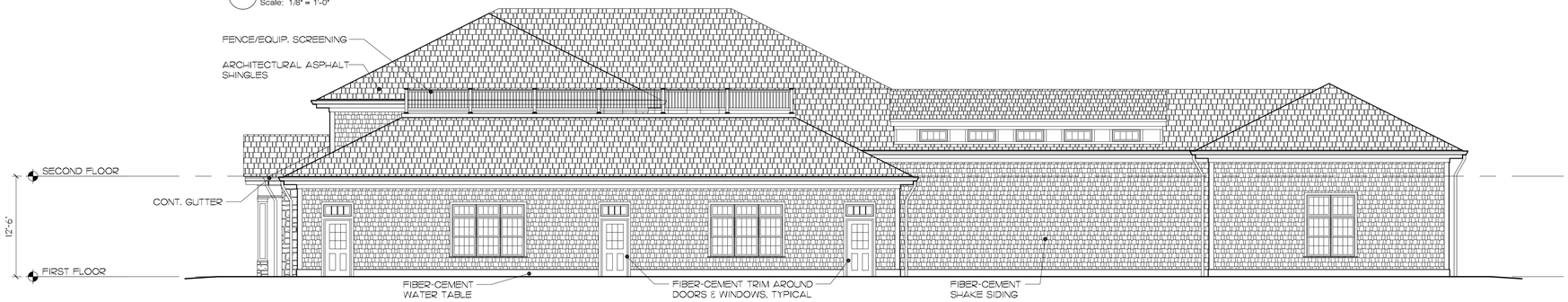
L1.0

EXHIBIT B

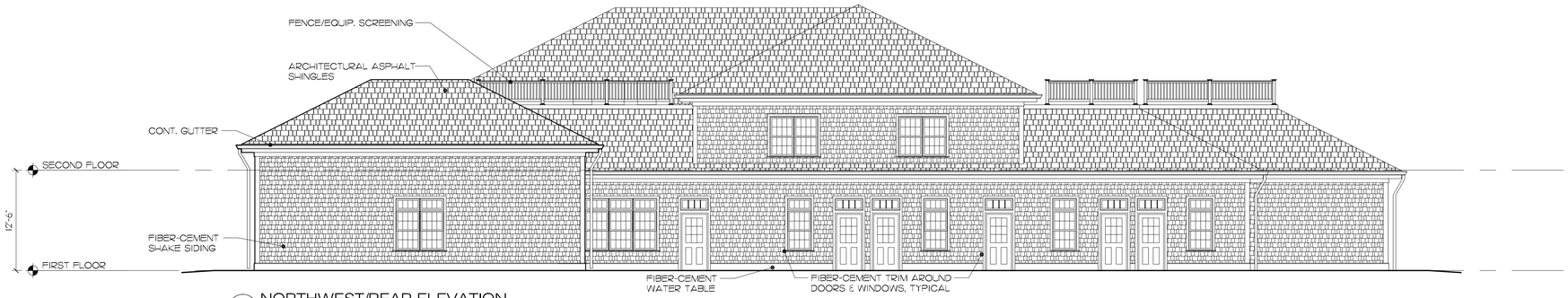
ELEVATIONS AND LAYOUT



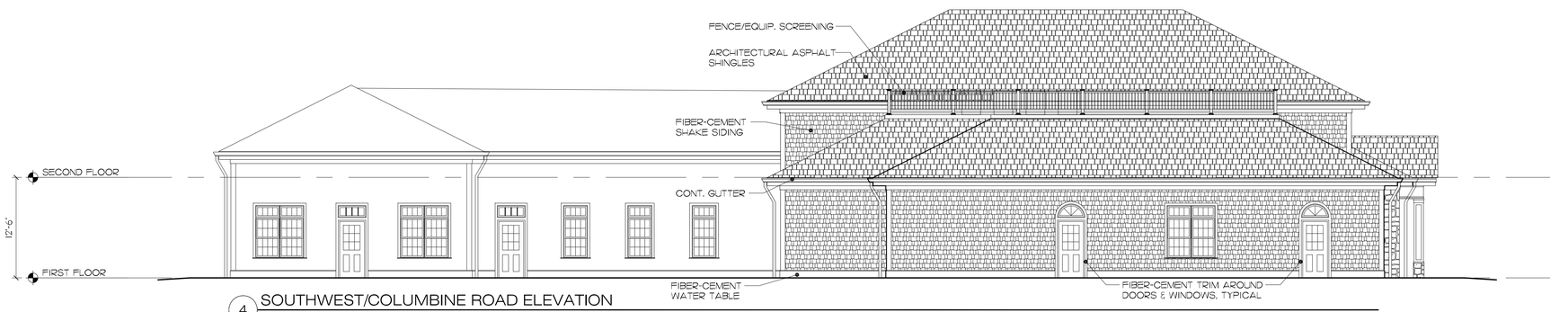
1 SOUTHEAST/CENTRAL AVENUE ELEVATION
Scale: 1/8" = 1'-0"



2 NORTHEAST/RIGHT SIDE ELEVATION
Scale: 1/8" = 1'-0"



3 NORTHWEST/REAR ELEVATION
Scale: 1/8" = 1'-0"



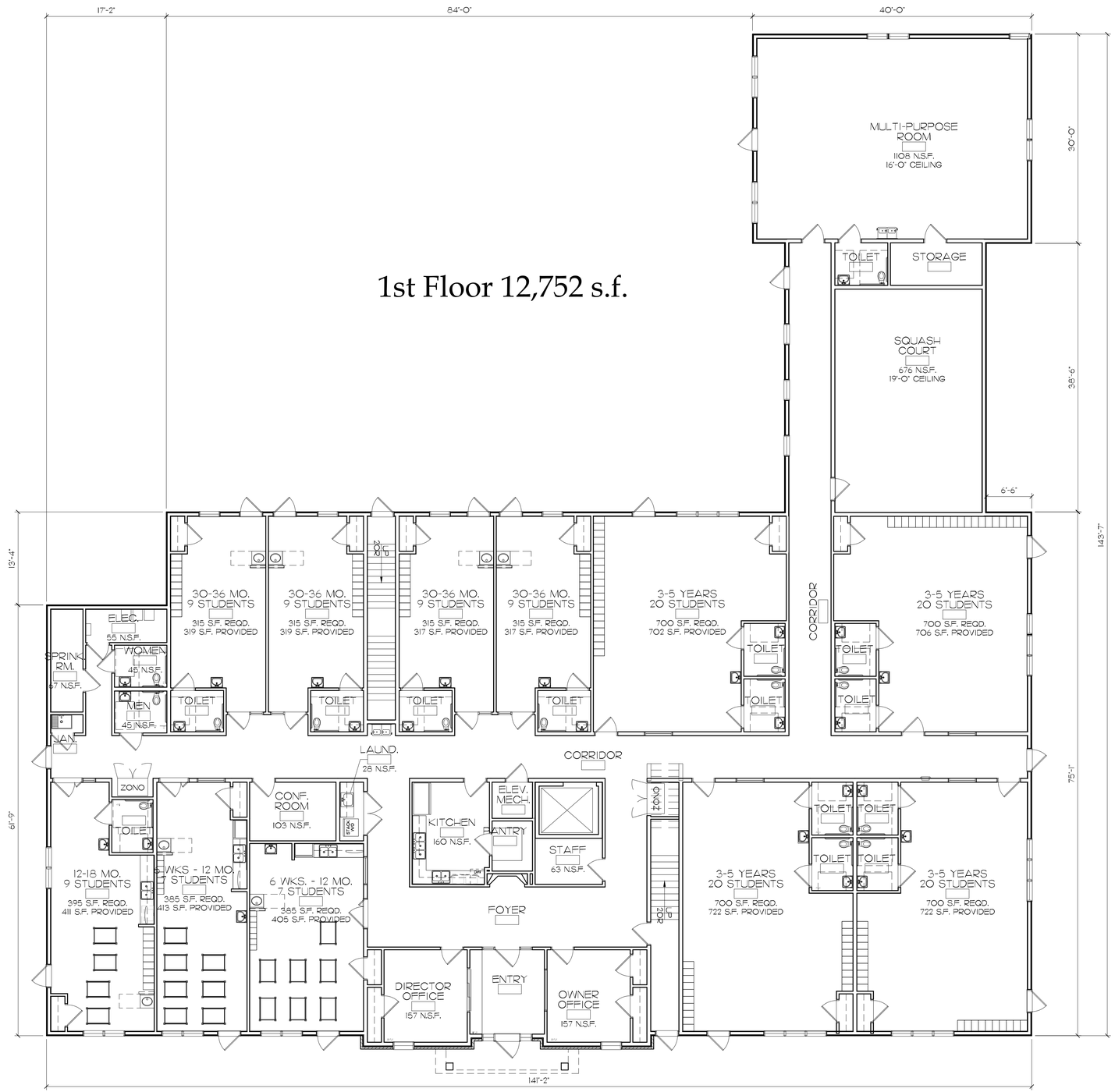
4 SOUTHWEST/COLUMBINE ROAD ELEVATION
Scale: 1/8" = 1'-0"

The Goddard School
Central Avenue - Milton, MA

O'SULLIVAN ARCHITECTS, INC.
ARCHITECTURE ▪ INTERIORS ▪ PLANNING
606 MAIN STREET, SUITE 3001 ▪ READING, MA 01867
Tel: (781) 439-6166 ▪ Fax: (781) 439-6170 ▪ www.osullivanarchitects.com

ISSUED
August 2, 2021
REVISED / REVISED BY

SHEET NUMBER
3
JOB NO:
21008



1st Floor 12,752 s.f.

1 Proposed Floor Plan
Scale: 1/8" = 1'-0"

The Goddard School
Central Avenue - Milton, MA

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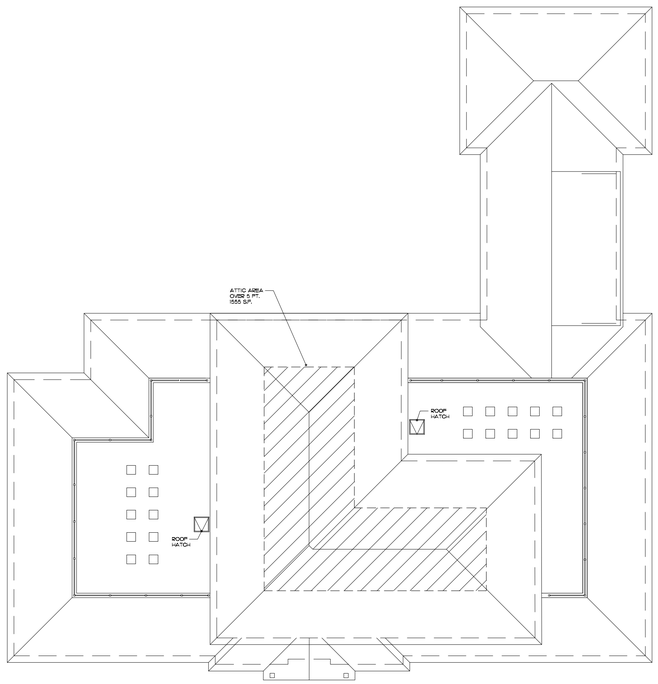
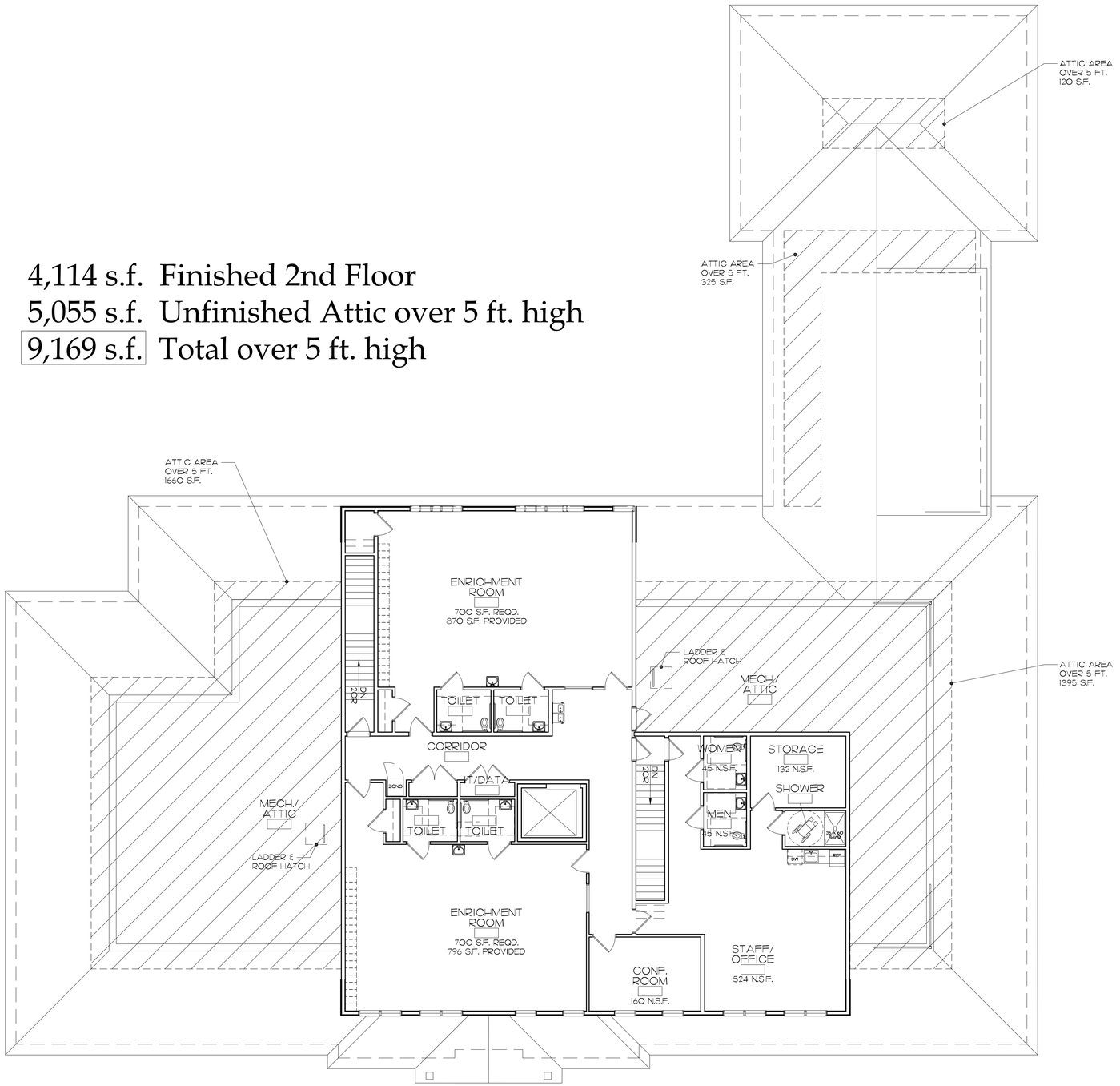
ISSUED	SHEET NUMBER
August 2, 2021	1
REVISED / REVISED BY	JOB NO:
	21008

4,114 s.f. Finished 2nd Floor
5,055 s.f. Unfinished Attic over 5 ft. high
9,169 s.f. Total over 5 ft. high



3 Proposed Roof Plan
Scale: 1/8" = 1'-0"



2 Proposed Second Floor/Attic Plan
Scale: 1/8" = 1'-0"

The Goddard School
Central Avenue - Milton, MA

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606 MAIN STREET, SUITE 3001 ▪ READING, MA 01867
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ISSUED	SHEET NUMBER
August 2, 2021	2
REVISED / REVISED BY	JOB NO: 21008

EXHIBIT C

DESIGN CHANGES

Key Facts and Figures

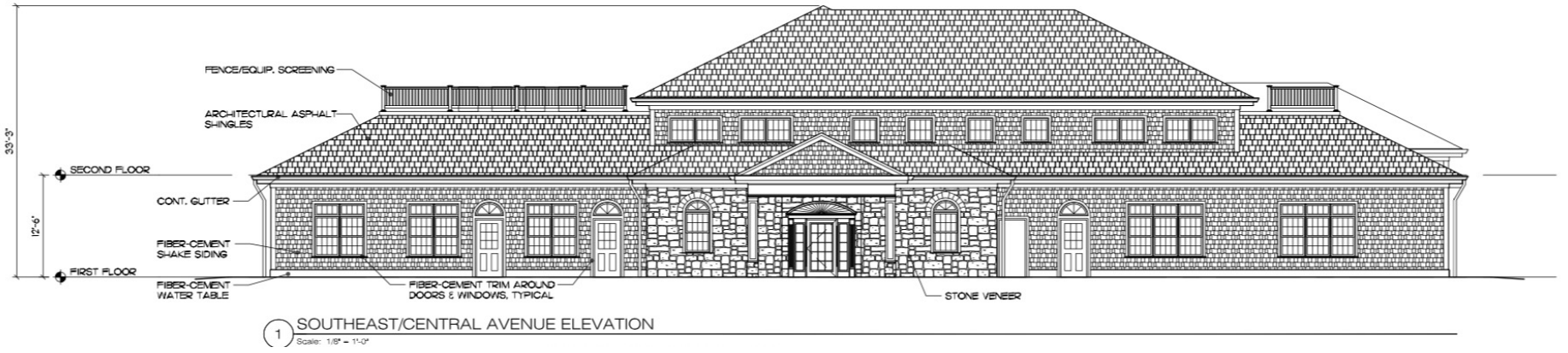
- The old Hoosic Club fire was a devastating loss for the town, neighborhood and us personally
- Construction for Goddard School Milton kicked off end of February 2021 and the building was totally destroyed on 3-23-21
- The loss has put us in a financial hole of approx. $2M after the insurance settlement
- The school was scheduled to open in October 2021
- The project will see close to a year in delay

Summary of Design Changes due to the fire

Design Feature	Old Building*	New Building	Comment
Footprint	11,400 SF	12,752 SF	We added an indoor toddler playroom
Floor	2.5	1.5	No basement in new design
Parking Location	Front and side	Front	Old building had parking in the front only; rear parking was to be added to meet zoning requirements
Parking Spaces	30	31	Old design parking includes spaces added on the side
Classrooms	12	11 + enrichment in attic	Capacity is similar
Landscaping	Per town/tree commission	Same plus front parking	Added landscaping to front to mask parking/cars visibility
Access	From Central Ave only	From Central Ave only	Better traffic flow

* Per approved site and design plan of the previously designed school

The new school design is not like typical Goddard Buildings



1 SOUTHEAST/CENTRAL AVENUE ELEVATION
Scale: 1/8" = 1'-0"

EXHIBIT D

BUILDING FRONT VIEW RENDERING

EXHIBIT E

FENCING

COLOR OPTIONS

GRAND ILLUSIONS

VINYL WOODBOND

WOODGRAIN VINYL FENCE

The Most Authentic Vinyl Woodgrain in the Fence Industry!

"No other product even comes close..."

With the unmatched detail of real wood and the low maintenance advantage of vinyl, you are sure to fall in love with Grand Illusions Vinyl Woodbond woodgrain vinyl fence. It looks just like 5 gorgeous flavors of pre-stained wood fence with a low gloss matte finish. Your friends will be knocking on it asking if it's real.

You can even Mix 'n' Match™ Grand Illusions Vinyl WoodBond with any other Grand Illusions colors or woodgrains to create your own unique fencing creations. No other product even comes close to this versatility.

Mahogany | Walnut | Rosewood | Eastern White Cedar | Driftwood

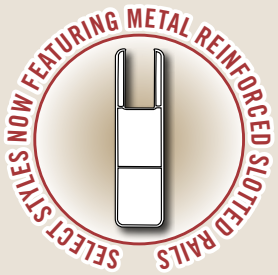
All Grand Illusions Vinyl WoodBond Grains Are Available in V300-6 QuickShip™

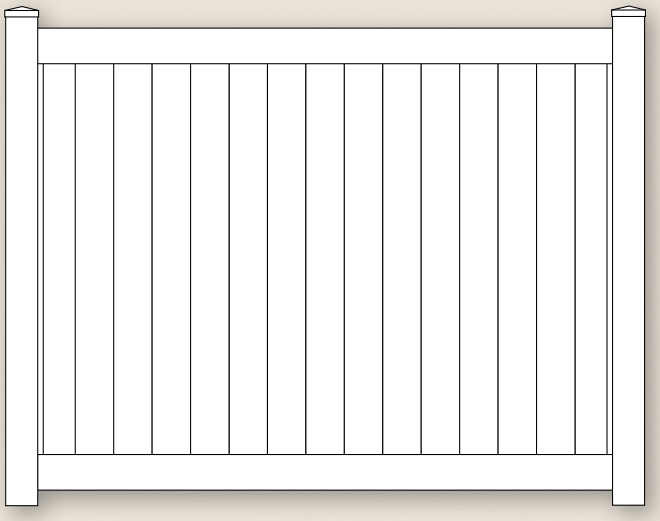
ALL COLOR SWATCHES SHOWN ARE APPROXIMATE. SEE PHYSICAL SAMPLE FOR ACTUAL COLOR.

QuickShip™ V300-6 6' Height shown in Grand Illusions Vinyl WoodBond Eastern White Cedar with French Gothic (V55FG) post caps

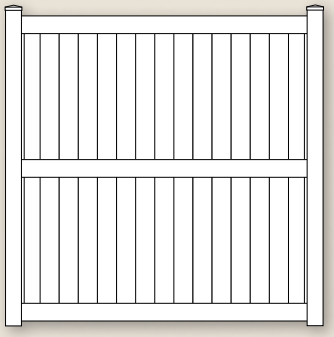
Solid Privacy Fence

"The most popular fence in the industry." Illusions tongue and groove privacy fence panels have 7/8" x 6" boards, 1-1/2" x 5-1/2" top and bottom horizontal rails, a metal reinforcement channel in the bottom rail, and 7/8" x 1" U-Channel edgings to add a unique and attractive aesthetic.

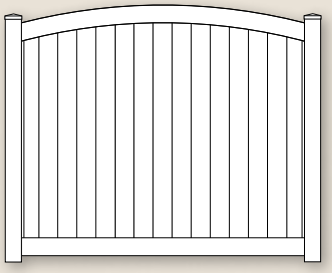




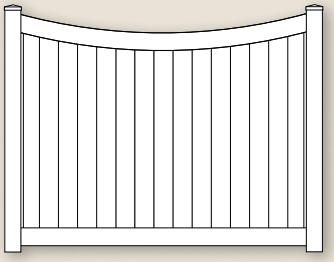
V300
Tongue & Groove Privacy Fence



V300-8
8' High T&G Privacy Fence
(7' high and up have mid-rail)



VBF300
Tongue & Groove Privacy Fence
With Crowned "F" Rail



VBG300
Tongue & Groove Privacy Fence
With Scalloped "G" Rail

Illusions® Vinyl Fence

www.illusionsfence.com

V300 SERIES QuickShip STYLES AVAILABLE: Classic White V300-4, Classic White V300-5, Classic White V300-6, Classic White V300-8, Classic Beige V300-6BG, Classic Gray V300-6GY, Classic Beige Boards with Classic White Rails V300-6BW, Classic Gray Boards with Classic White Rails V300-6GW, Black V300-6, Brown V300-6, Hunter Green V300-6, Slate Gray V300-6, Mahogany V300-6, Walnut V300-6, Rosewood V300-6, Eastern White Cedar V300-6, and Driftwood V300-6. All with matching 4' and 5' wide gates.

Illusions®
Vinyl Fence

Cap Options

FLAT | NEW ENGLAND | FRENCH GOTHIC | PALACE SOLAR | SOLAR | BALL | COACHMAN | TEARDROP

QuickShip V300-6 **"The most popular fence in the industry." Illusions Classic White tongue and groove privacy panels have 7/8" x 6" boards, 1-1/2" x 5-1/2" top and bottom horizontal rails, a metal reinforcement channel in the bottom rail, and 7/8" x 1" U-Channel edgings to add a unique and attractive aesthetic. Shown with a VBG4-46SQ crowned square lattice topped gate.**

V300 Privacy Fence

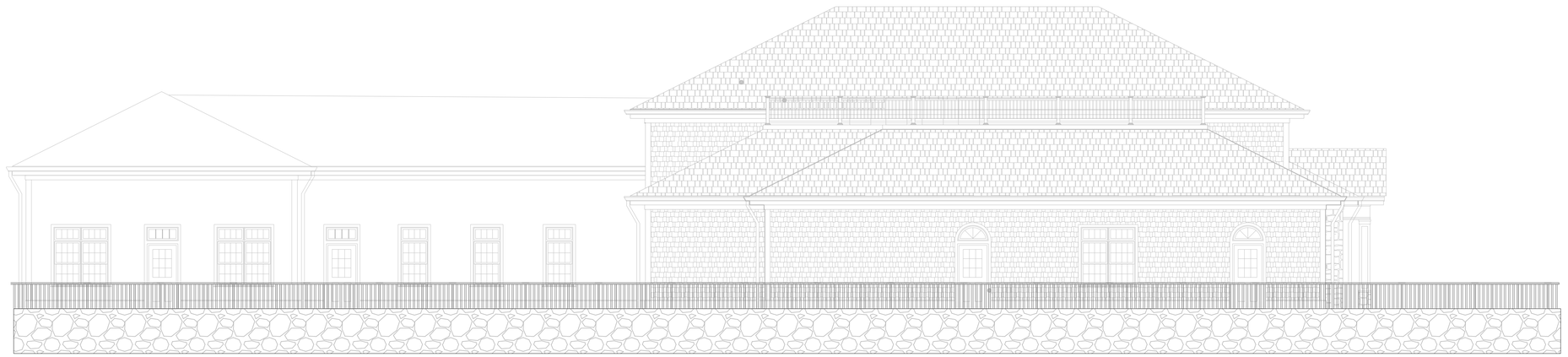
A tongue and groove pool-friendly good-neighbor fence style that is available in all colors and wood grains.

SEE MORE GREAT IMAGES AT WWW.ILLUSIONSFENCE.COM

QuickShip V300-6 6' height vinyl privacy fence with 6" wide tongue and groove boards and 1-1/2" x 5-1/2" top and bottom rails. Shown in Grand Illusions Vinyl WoodBond Rosewood.

EXHIBIT F

STONE WALL CONCEPT



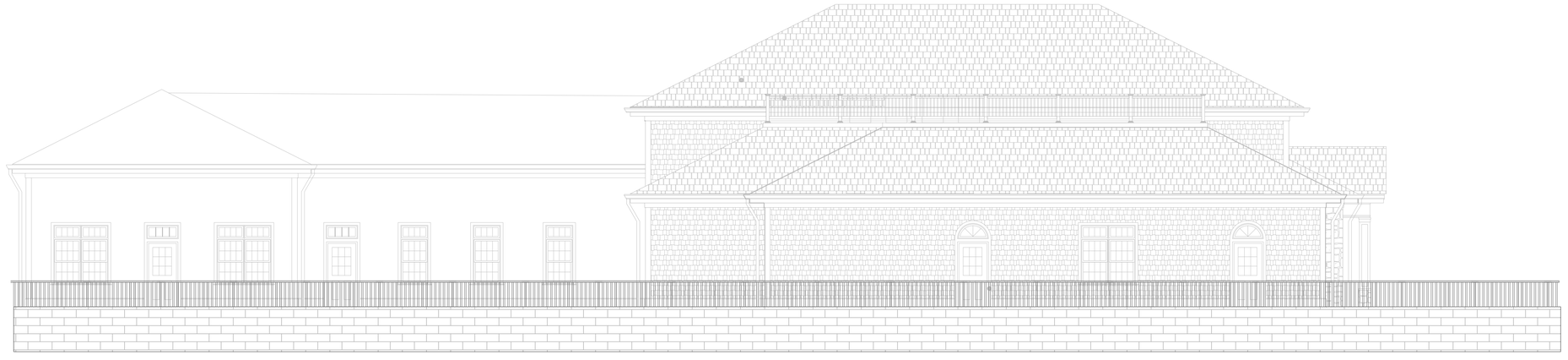


EXHIBIT G

TRIP PROJECTION ANALYSIS

Marion V. McEttrick
Attorney at Law
10 Crown Street
Milton, MA 02186
617-696-5569
Fax 617-696-0552
mmcettrick@gmail.com

TO: Milton Planning Board
FROM: Marion McEttrick
RE: Goddard School Milton - Trip Generation and Traffic
DATE: July 8, 2020

In the Site Plan Application for the Goddard School I provided a table showing the distribution of morning trips at four Goddard Schools ranging in size from 127 students to 157 students. In order to provide a more complete profile of the frequency of trips to and from this school, we requested trip generation tables for a full day, from Goddard corporate, for other Goddard Schools. With this memo I have provide the four tables from Erin Witt, Site Development Manager for Goddard Systems, Inc., two from schools in Massachusetts, and two from schools in other states. The tables show the number of trips in ten minute intervals during morning and evening rush hours and longer intervals in between. These are actual statistics, from a pre-COVID day, not a holiday, for each of the four schools, all of which are larger than the anticipated enrollment for this school.

In addition to these actual trip generation tables, which are better information than standard trip generation table from a manual, the applicants have experience at their Watertown School which is also a bit larger this one. It has been their experience that at most ten parents will be parked at any one time during the busiest intervals. At the Watertown school, only a few parents pick up as late as six p.m.; most prefer to pick up between 4 and 5:30 p.m.

The updated, reduced capacity and expected average enrollment and the information in this memo and in these tables supports the conclusion that the school traffic will be manageable at this location, because the trips are spread out over a two hour+ period, in the morning and afternoon, the numbers are further reduced by the fact that some cars carry multiple students (siblings), and traffic entering and leaving the site will come from and exit in predictable directions dictated by how heavy the traffic is.

Attached is a letter from Erin Witt, the Site Development Manager for The Goddard School Corporation, describing the trip patterns generally for Goddard Schools which all are operated with the drop off systems described in her letter, and which will apply to the school at 193

Central Avenue. Typical time for drop off is ten minutes. Parents must park and walk into the school with their children.

The program at this school will be available beginning at 7 a.m. There is no set start time for students at this school. Parents bring their children to the school, according to their own schedules. The four bar graphs illustrate the pattern, showing that – and arrivals are distributed, allowing a parking space to be used quite a few times between 7 a.m. and 10 a.m., and again between 4 p.m. and 6 p.m. when the school will close.

This school will not add traffic to the street, since parents generally drop off their children on the way to work. They are already on the road. During the busiest times there will be multiple turns into and out of the site. Even without turn restrictions, parents will quickly learn the more convenient approach and exit direction to use, so that they do not have to wait a long time to try to cross a lane of traffic.

Parents exiting this site will always find it easier to turn right rather than crossing a lane of traffic. When traffic in the opposing lane is light, they may be able to cross, but during the heaviest commuter AM times, they are going to want to turn right. This turn will be relatively easy to make, although there will be more waiting time in the PM when the flow may be heavier towards Brook Road. This turn should be relatively easy to make, and there are many ways after turning right, for parents to set off in the direction of their travels.

The Traffic Commission could recommend to the Select Board that a "right turn only during certain hours" sign should be installed at the school entrance/exit. The school could decide to install its own sign on their site, if necessary. After opening, this school will have maintain trip statistics, as is required at all Goddard Schools, and any such measures can be implemented if they are recommended by the police department.

Parents entering the site will find it easier to do so from the same side of the street, for the same reasons, and will choose an access route that puts them on the right side of Central Avenue towards Brook Road. Parents from the Columbine neighborhood will find it best to choose a route that puts them on Central Avenue towards and on the same side as the school. The circular driveway entrance on Columbine Road will not be open to parents.

In meeting with neighbors, a concern was expressed that in general commuters are parking on Central Avenue all day, away from the Eliot Street intersection and beyond the two hour parking restricted areas, and then walking to the MBTA stop. The Traffic Commission could recommend restricting parking further along on Central Avenue, if residents who live in those locations do not object.

The entrance and exit area on the site plan is wide enough to allow passage in two directions with proper turning widths. The traffic flow, morning and evening, as illustrated by the bar graphs, is spread out over a three hour period.

The school does intend to provide incentives for employees to use public transportation, walk or ride a bike, and could do so for parents. It is expected that after the COVID restrictions are lifted, more parents may be able to work from home than previously, and in that case, walking or biking children to the school from the immediate neighborhood may be preferred because those parents are not rushing to get going on their commute. These trends could further reduce the number of car trips to the school.

Finally, as stated in the Site Plan Application, Central Avenue is a wide street where, if necessary, parents could park for brief periods of time, on the same side as the school. This is not preferred by The Goddard School because it is safer for parents to park on site, and walk into the school in a protected are. But while subject to significant commuter traffic like all main routes in Milton, this street does have space for a car to park if absolutely necessary. For many years, when the building was an event facility, many cars would park on Central Avenue for every event.

GODDARD SYSTEMS, INC.
FRANCHISOR OF THE GODDARD SCHOOL

Member, International Franchise Association

Goddard Systems, Inc., 1016 West Ninth Avenue, King of Prussia, PA 19406 | 610-265-8510 • Fax: 610-265-8867 | GoddardSystems.com

To whom it may concern:

The Goddard Schools nationally see a peak volume from 7-9:30am for student drop off, and then it is spread across 2-6pm for student pickup. This is because the Goddard Schools do not have a "start" time for the day rather it is when the parents find it convenient to drop off/pickup and align to their individual work schedules. Our drop off lasts approximately 5-10 minutes and this is because each parent is required to walk their child inside and sign them in to the school. They then walk them to their individual classroom and then the parents can leave. Pickup is handled in much the same way; the parent picks their child up from their classroom and signs them out of the school. This process is much safer to practice as parents pickup children directly from the classroom vs. kids waiting in the parking lot or by the sidewalk.

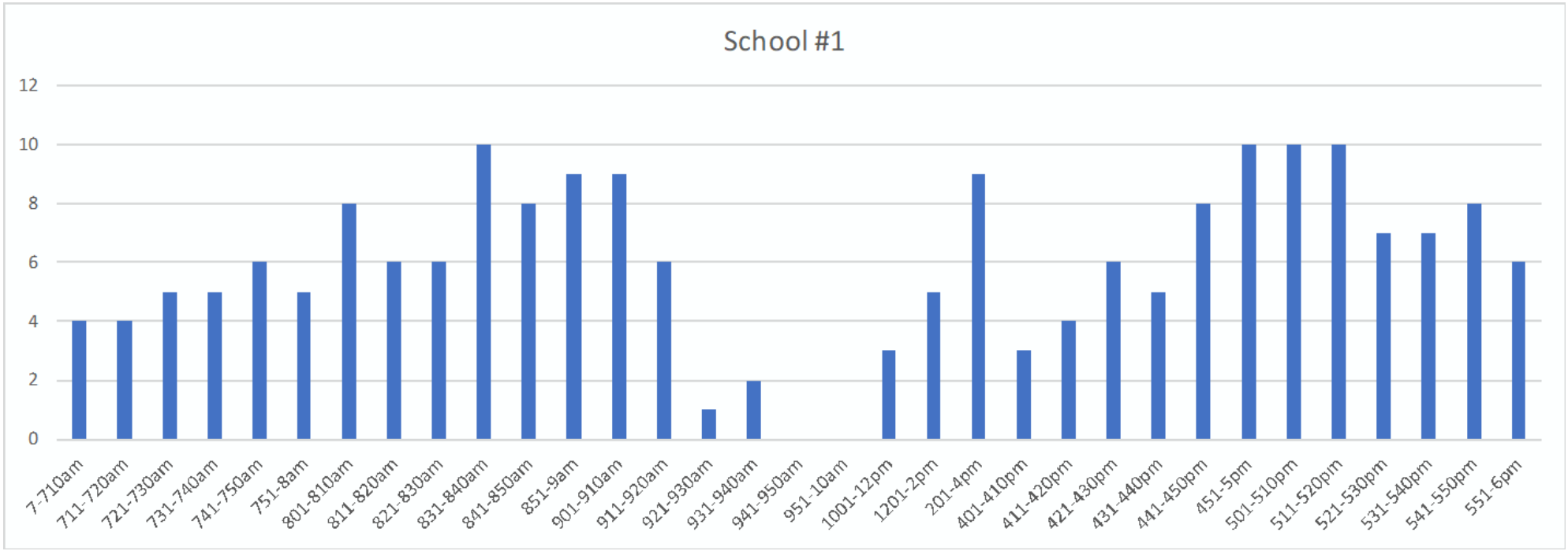
Our teachers arrive in staggered schedules, depending on need within the school. The highest peak of teachers is from approximately 10am-4pm. The staff coming to support the school for lunch coverage will come between 11-3. Teachers will be required to use parking spaces further away from the building entrance, leaving those spaces for parent drop-off and pickup.

We also know that with our schools across the country, approximately 10-25% of our teachers will take public transportation or get dropped off by someone else.

If you have any further questions regarding our national parking averages or our required procedures for drop off and pickup, please feel free to contact me.

Sincerely,

Erin Witt
Site Development Manager



School #1 Information:

Total cars during morning drop off: 97

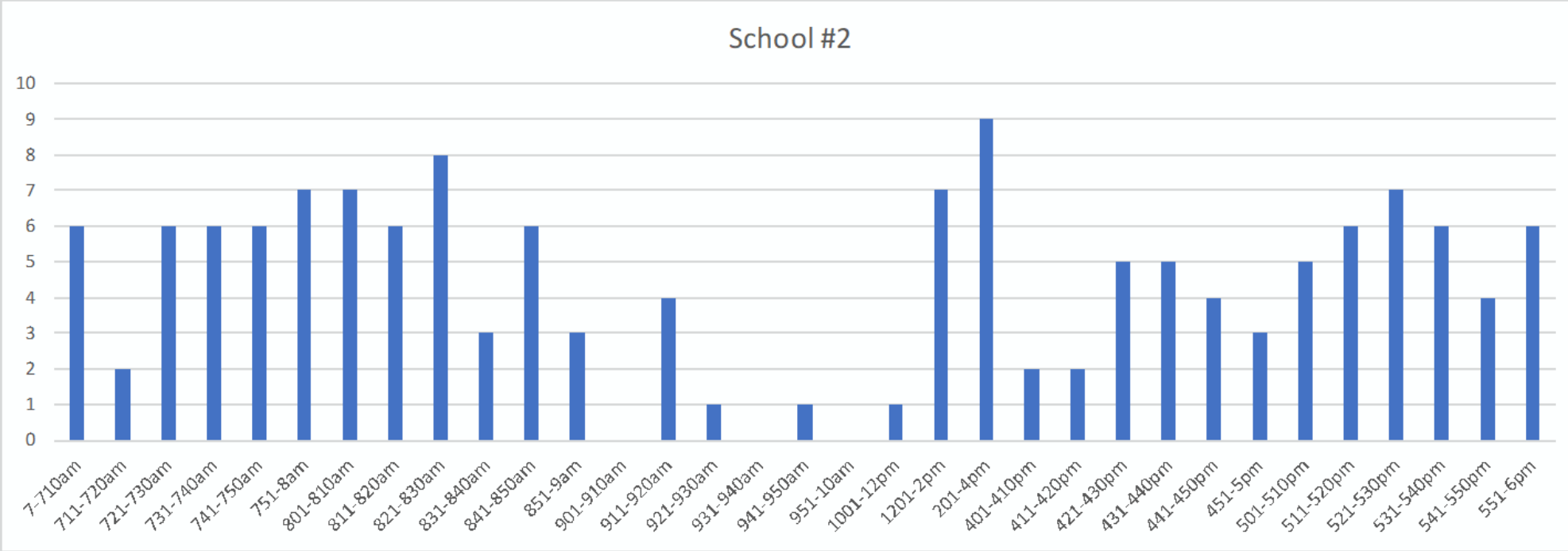
Total cars during afternoon pickup: 98

Total number of children enrolled in school: 180

Number of sets of siblings: 48

Number of children absent: 34

Maximum number of staff: 24



School #2 Information:

Total cars during morning drop off: 73

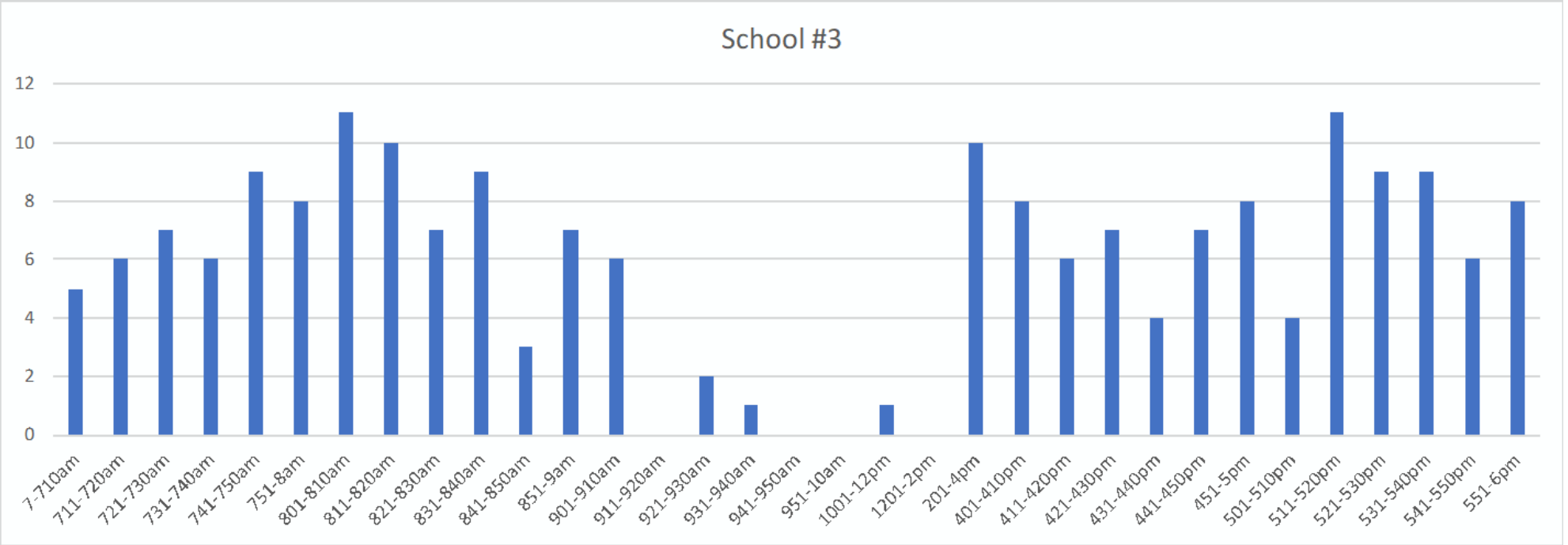
Total cars during afternoon pickup: 71

Total number of children enrolled in school: 128

Number of sets of siblings: 28

Number of children absent: 28

Maximum number of staff: 21



School #3 Information:

Total cars during morning drop off: 98

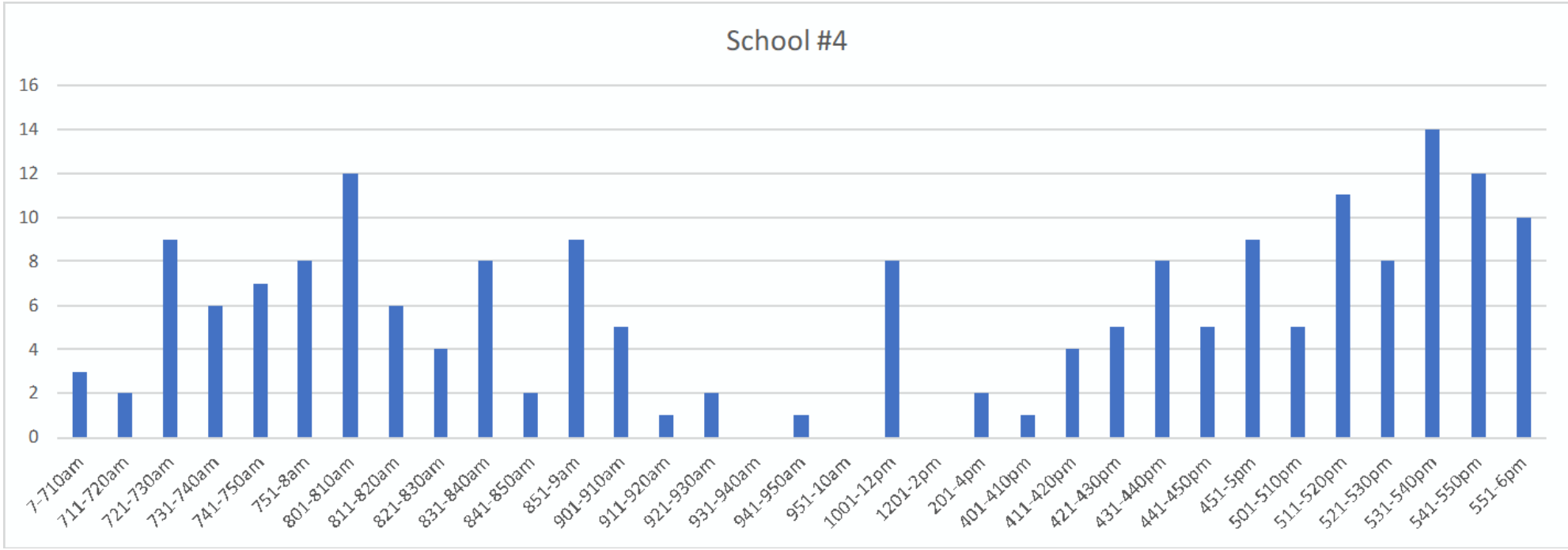
Total cars during afternoon pickup: 97

Total number of children enrolled in school: 163

Number of sets of siblings: 38

Number of children absent: 26

Maximum number of staff: 24



School #4 Information:

Total cars during morning drop off: 93

Total cars during afternoon pickup: 94

Total number of children enrolled in school: 137

Number of sets of siblings: 19

Number of children absent: 20

Maximum number of staff: 21

EXHIBIT H

DEED

Bk 39091 Pg568 #28847
03-05-2021 @ 09:09a

Quitclaim Deed

Kelly Trust, LLC, a Massachusetts limited liability company, with a principal address of 11 Maitland Street, Milton, Massachusetts,

for consideration paid, and in full consideration of Two Million Seven Hundred Fifty Thousand and 00/100 dollars ($2,750,000.00)

grants to Verma Holdings, LLC, a Massachusetts Company with a principal address of 21 Coach Road, North Attleboro, Massachusetts,

with ***QUITCLAIM COVENANTS***

Lot A and Lot B as shown on a "Plan of Land, 193 Central Avenue, Milton, Massachusetts 02186 prepared for Kelly Trust LLC, 193 Central Avenue, Milton, MA by DeCelle-Burke-Sale & Associates, Inc dated June 10, 2020 and recorded at the Norfolk County Registry of Deeds at Plan Book 692, Page 64 on June 11, 2020.

Grantor certifies that Grantor is not treated as a corporation for federal income tax purposes.

Being a portion of the premises conveyed to the Grantor by Deed recorded at the Norfolk County Registry of Deeds at Book 35749, Page 199.

Property Address: 193 Central Avenue Milton MA

SIGNATURE PAGE TO FOLLOW

MASSACHUSETTS STATE EXCISE TAX
Norfolk Registry of Deeds
Date: 03-05-2021 @ 09:09am
Ctl#: 146 Doc#: 28847
Fee: $12,540.00 Cons: $2,750,000.00

WILLIAM P. O'DONNELL, REGISTER
NORFOLK COUNTY REGISTRY OF DEEDS
RECEIVED & RECORDED ELECTRONICALLY

WITNESS our hand and seal this 25 day of February, 2021.

Kelly Trust LLC

By its Manager: Peter Kelly

Kelly Trust LLC

By its Manager: Rosemary Kelly

COMMONWEALTH OF MASSACHUSETTS

Norfolk, ss

On this 25 day of February, 2021, before me, the undersigned notary public, personally appeared Peter Kelly, Manager as aforesaid, and proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the foregoing document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of Kelly Trust, LLC.

SHAWNA M. O'NEIL
Notary Public, Commonwealth of Massachusetts
My Commission Expires JULY 29, 2027

Notary Public
My Commission Expires:

COMMONWEALTH OF MASSACHUSETTS

Norfolk, ss

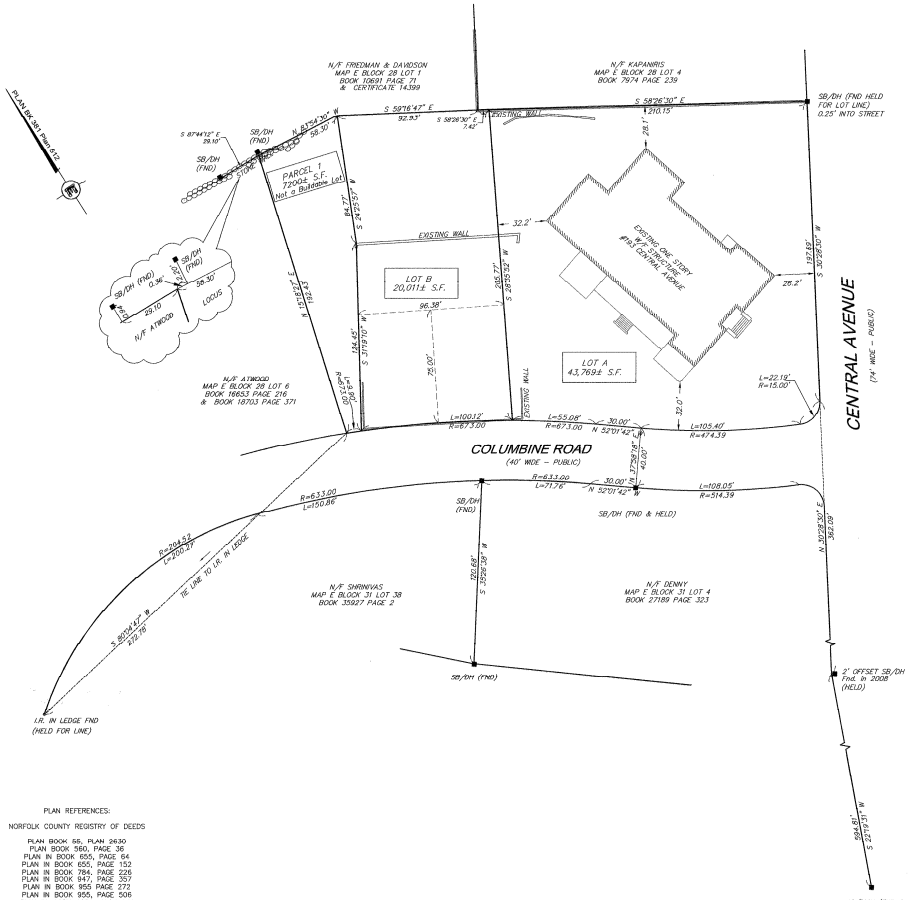
On this 25 day of February, 2021, before me, the undersigned notary public, personally appeared Rosemary Kelly, Manager as aforesaid, and proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the foregoing document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of Kelly Trust, LLC.

SHAWNA M. O'NEIL
Notary Public, Commonwealth of Massachusetts
My Commission Expires JULY 29, 2027

Notary Public
My Commission Expires:

EXHIBIT I

ANR PLAN

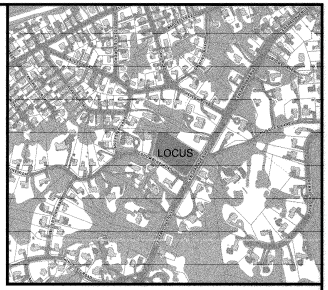


PLAN REFERENCES:

NORFOLK COUNTY REGISTRY OF DEEDS

PLAN BOOK 55, PLAN 2630
PLAN BOOK 560, PAGE 36
PLAN IN BOOK 655, PAGE 64
PLAN IN BOOK 655, PAGE 152
PLAN IN BOOK 784, PAGE 226
PLAN IN BOOK 947, PAGE 357
PLAN IN BOOK 955, PAGE 272
PLAN IN BOOK 955, PAGE 506
PLAN IN BOOK 4352, PAGE 676
PLAN IN BOOK 4705 PAGE 413
PLAN IN BOOK 4731, PAGE 38

PLAN OF TURNER'S POND MILTON, MASS.
DATED MARCH 30, 2006
BY NORFOLK COUNTY ENGINEERING DEPT



LOCUS MAP

Norfolk Registry of Deeds
Dedham, Mass.
Received June 11, 2020
With
Filed as Page 64
Pl. Bk. 692
Attest: William P. O'Donnell
Register

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN THE COMMONWEALTH OF MASSACHUSETTS

Claudio Sala 6/10/2020
REGISTERED LAND SURVEYOR DATE

APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED

For the
Town of Milton
Planning Board

William F. Clark

6-10-2020
MILTON PLANNING BOARD DATE

Planning Board Endorsement does not reflect compliance with applicable zoning requirements. No determination of wetlands has been made or intended by Planning Board endorsement.

DeCELLE-BURKE-SALA
& Associates, Inc.
1266 Furnace Brook Parkway, Suite 401 Quincy, MA 02169
(617) 405-5100 (O) (617) 405-5101 (F)

COMMONWEALTH OF MASSACHUSETTS
CLAUDIO SALA
No. 38391
REGISTERED PROFESSIONAL LAND SURVEYOR

Claudio Sala
CLAUDIO SALA, PLS

GENERAL NOTES:

1. LOCUS: ASSESSORS ID E – 28 – 5

RECORD OWNER: KELLY TRUST, LLC
DEED REFERENCE: BOOK 35749 PAGE 159
PLAN REFERENCE: BOOK 955 PAGE 272
BOOK 1031 PAGE 154

2. THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY THIS OFFICE IN APRIL OF 2017

3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE.

DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 40D AT TEL. 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

4. THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25021C0084F, DATED 6/9/14.

5. PARCEL IS ZONED RESIDENCE B.

MIN. LOT AREA = 20,000 S.F.
MIN. FRONTAGE = 100 FT.
MIN. FRONT YARD = 25 FT.
MIN. SIDE YARD = 12 FT.
MIN. REAR YARD = 30 FT.
MAX. STORIES = 2.5

6. PARCEL 1 IS TO BE COMBINED WITH LAND OF ATWOOD AND IS NOT TO BE CONSIDERED A BUILDABLE LOT.

PROJECT TITLE & LOCATION:

PLAN OF LAND
193 CENTRAL AVE
MILTON, MA 02186

PLAN TITLE:

REDIVISION OF LAND

PREPARED FOR:

KELLY TRUST, LLC
193 CENTRAL AVENUE
MILTON, MA 02186

DATE: FEBRUARY 8, 2018
REVISED:

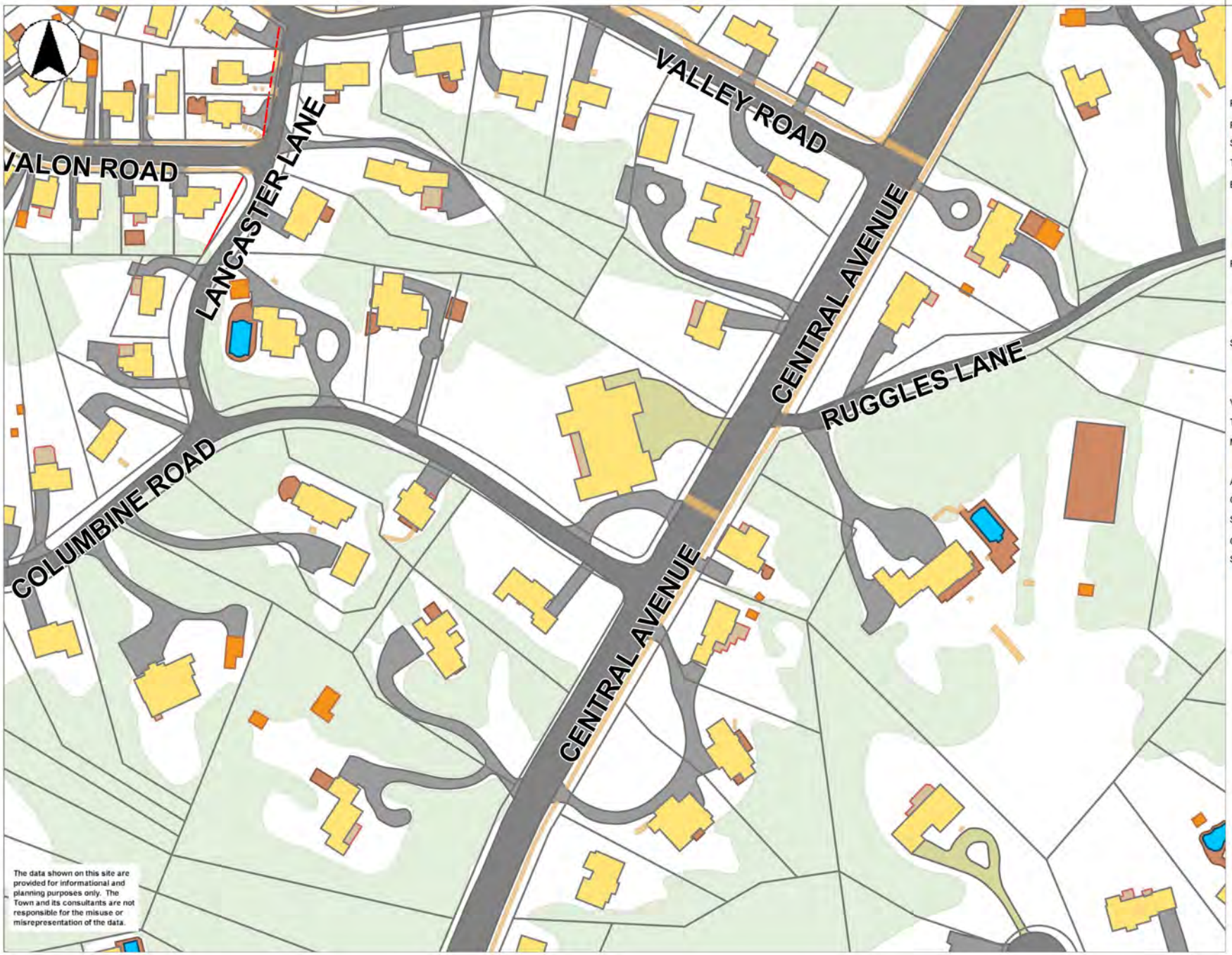
JOB NUMBER: 17.017 SHEET 1 OF 1

30 15 0 30 60
SCALE: 1"=30'

652-64-2020

EXHIBIT J

GIS MAP



0 210 420 ft

Printed on 04/27/2020 at 04:39 PM

MapsOnline Site

EXHIBIT K

CONSTRUCTION MANAGEMENT PLAN

Construction Management Plan

for

193 Central Avenue

Prepared for:
Milton Planning Board
Amendment to July 23, 2020 Site Plan Approval
193 Central Avenue (Goddard School)

DRAFT

Date: August 12, 2021

General

This Construction Management Plan ("CMP") has been prepared for the construction of a new building, site grading, installation of drainage, parking area, play areas and landscaping at 193 Central Avenue.

Site clearing from a fire which destroyed the Hoosic Club building on this site is underway.

The components of the project are site preparation including grading, installation of utilities, preparation of parking area and sidewalks, and building construction. The building will not have a basement and will consist of ground floor classroom and second floor administrative space and some program space.

The site contains 63,780 sf of land and is located in a Residence B District. It abuts residential lots on Columbine road and on Central Avenue.

The order of work will be: site preparation of grading including any required removal of trees; installation of drainage structures; construction of building foundation, preparation of front parking area and sidewalks and pavement binder; framing of building; finishing interior and exterior of building, finish landscaping and second coat of pavement.

The construction is expected to take approximately one year.

The Applicant and any successors in interest, the site contractor and individual subcontractors shall be required to adhere to the following requirements as they pertain to all aspects of construction activities to be performed at the site. These requirements shall be implemented for the duration of site construction and building.

Construction of this project shall be managed so as to minimize as much as reasonably possible impacts to the community, abutting property owners and local resource areas. The project will be subject to and adhere to the requirements of the approved site plan as well as any other applicable laws and regulations including the Town of Milton bylaw governing new construction.

This construction management plan is part of the terms of the site plan approval decision by the Milton Planning Board.

1. **Responsible Person**

   While construction is underway the applicant shall be the contact, or shall designate an agent or employee with authority to issue any necessary directives to construction workers regarding construction activities. The Town's Building Commissioner shall have

contact information with respect to that responsible person. That representative shall be generally responsible for all construction activities, whether underway, or contemplated and shall be Applicant's liaison to the Town and to abutting property owners. The name and contact information of the representative shall be made available to the Building Commissioner, to the Town Planner, the Town's DPW Director, the Town Engineer and the Police Department. The representative shall deal promptly with any complaints with respect to these construction activities.

Applicant's representative shall notify the Town Planner of the expected start date for work.

The owner is Verma Holdings LLC whose manager is Sunny Verma.

The owner's project contractor shall be readily available by phone and this contact information will be provided on the Planning Board website and to the Town Departments listed above.

2. Start Work Notice

48 hours prior to the commencement of construction, the contractor shall provide written notice of the approximate start date to the Town's Building Department, Engineering and Public Works Departments and Town Planner and such notice shall be posted on the Town website so as to provide notice to abutters and other members of the public. Every two months during the construction process the owner will provide reports on progress and next steps which will be sent to the Town Planner to be posted on the Town website and will also be distributed by the owner via the email list of 193 Central Avenue neighbors .

3. Construction Hours

Hours of construction shall be Monday – Friday, 7:00 am – 6:00 pm and Saturday 8:00 am – 5:00 pm. Work will not take place on Sundays and legal holidays excepting holidays on which the stock market is open. Work is prohibited within the Central Avenue or Columbine Road right of way during weekends and legal holidays. There shall be no idling of construction vehicles before 7 a.m. Any exception to these hours of work shall be made only for emergency, or only if the Building Commissioner has approved the reasons for out of hours work in advance.

Construction truck traffic during morning and afternoon peak traffic times shall be minimized. Queuing and idling trucks shall not occur offsite unless unavoidable, and any on site queuing or idling shall be only for good cause.

There shall be no construction truck traffic before 7 a.m. Reasonable effective steps shall be taken to concentrate construction truck traffic during late morning/early afternoon hours on weekdays.

4. Parking

Construction parking shall be on site under the control of Applicant or his agent. No workers, contractors or other subcontractors shall be permitted to park on public roadways surrounding the development or other than on-site once site access has been established. Satellite parking at a private parking facility shall be permissible. Effective measures shall be taken to maintain employee parking areas and the parking access route in as dust-free a condition as reasonably possible during dry conditions and in conveniently passable condition in wet and snow conditions. Parking areas shall be remote from dwellings of abutters to the extent possible. Any exceptions to these parking rules shall be only for good cause with the approval of the Building Commissioner. At the beginning of the project while access on site is prepared, parking in front of the property on Central Avenue is allowed. Overnight parking on the street shall not be allowed without permission from the Town, given in accordance with the usual procedures.

Construction vehicles not in use shall be turned off. Workers shall not congregate or loiter on Central Avenue or Columbine Road.

5. Controllable Noise and Pollution

The Applicant shall institute effective measures to control unnecessary noise and pollution during construction activities. Workers, contractors and subcontractors shall be prohibited from playing music or third party talk at levels not reasonably necessary for individual use. Noisy construction equipment used on-site shall be turned off when not in use or about to be used. Loud speakers shall not be used on site. Traffic controls shall be established to eliminate unnecessary backing movements and use of back-up horns. Priority shall be given to respecting residents' rights to the quiet enjoyment of their properties.

Although construction will unavoidably increase noise levels in the area, the contractors shall use all reasonable efforts to minimize the impact of noise during construction, including the following.

a. When feasible, equipment that is not in use shall be turned off.
b. Noise-creating equipment shall be located as far as possible from occupied residences.
c. Engine housing panels on all equipment shall be kept closed.
d. Electricity shall be obtained from the electric grid as soon as feasible to reduce the use portable generators.
e. Construction vehicles and equipment shall not be turned on for the purpose of being warmed up until their use is imminent.

6. Rock Removal

If any rock must be removed for this project methods other than blasting shall be used, and the least intrusive methods possible shall be employed.

The hours of such work will be limited to 9 a.m. to 4 p.m.

7. Street Closings/Construction within Public Right of Way

Central Avenue and Columbine Road shall remain open and operational at all times during construction. If temporary closures are required, the contractor shall obtain prior approval from the Town in accordance with usual procedures and shall comply with all conditions imposed by the Town with respect to the closing, including the use of police details/flagmen, as appropriate. Trench excavations associated with tie-ins to water lines shall be patched with bituminous pavement. Roadway plates shall be used when trenches must remain open either overnight or over a weekend before trenches are able to be filled.

8. Site Safety/Access

Prior to the start of construction activities, the contractor shall install and maintain construction fencing for roadway access points. Access to the site shall be from Central Avenue, not from Columbine Road. At the end of each day, access gates in the fences around these areas shall be closed and secured with lock and chain.

The project will comply with state law on trench excavation articulated in 520CMR 14: "Excavation and Trench Safety".

9. Erosion and Sediment Control Measures

The project shall comply with the erosion and sediment control measures in the Town's Stormwater Bylaw and the requirements of any other applicable state or federal laws or regulations.

10. Dust and Wind Controls

Dust control shall be implemented on site as necessary. Repetitive treatment shall be applied when needed to accomplish control when dust conditions exist. If field observations by the owner, his agent or the Building Commissioner indicate that additional protection from wind erosion (in addition to, or in place of watering) is necessary, additional dust suppressant measures shall be implemented forthwith. The following list of control measures may be implemented on site to limit the generation of dust as needed:

- Watering
- Establishment of Vegetative Cover
- Mulch or Spray-On Soil Treatments
- Tillage – Stone

Street cleaning shall also be used as necessary to control dust. Paved areas that have soil or dust on them from the construction site shall be cleaned as needed.

11. Materials Storage and earth stockpiling to block noise

The project shall comply with the stockpiling requirements in the Town's Stormwater Bylaw.

No earth stockpiling, material and equipment storage or parking shall be allowed within the drip line of existing trees to remain on the site.

12. Clearing of Site

Site clearing has taken place following the release of the site after the building was destroyed by fire.

13. Installation of Stormwater Drainage System

The rear portion of the lot is to be graded first and then drainage structures are to be installed in the rear portion of the lot, all as shown on the Site Plan. If possible, the perimeter fencing along the Atwood lot line proposed for the back of the site shall be installed before beginning this work, or as soon as possible after work begins.

14. Grading and underground utility work as shown on the Site Plan shall be completed next.

Grading work shall comply with the Town's Stormwater Bylaw.

15. Tree Protection Areas for Trees to Remain, on the perimeter of the work area

Temporary fencing shall be installed along the drip line (outer perimeter branches) of trees to remain, in locations bordering or within the work areas. If fencing is not possible then roots shall be protected by protective matting or a double layer of plywood.

No construction materials shall be stored in these protection areas.

Trees and stumps that are not going to be re-used shall be removed from the site. No burning is permitted on site.

17. Construction Period Solid Waste and Recycling

Any demolition activity shall comply with local, state and federal permit requirements. To the extent that excavated materials such as trees and roots require disposal off site, these materials shall be segregated on site for disposal. Materials that can be recycled will be placed in dumpsters and removed to a recycling facility for processing. Other materials shall be placed in dumpsters and transported and disposed of at an approved solid waste facility.

18. Utilities

Site utilities, including any temporary service connections, shall be constructed in a coordinated fashion so as not to impede or interrupt services, including storm drainage, to residents. Applicant's representative shall coordinate the efficient installation of all water installations as well as all private utility services (gas, telephone, cable, electric, etc.).

19. Building Construction

This project is for the construction of a single building and completion of site improvements including parking, sidewalks and playgrounds. Work may take place simultaneously on the site and the building. The building construction will follow a general construction sequence of foundation, framing, exterior and interior finishes, similar to single. Home construction.

19. Schedule

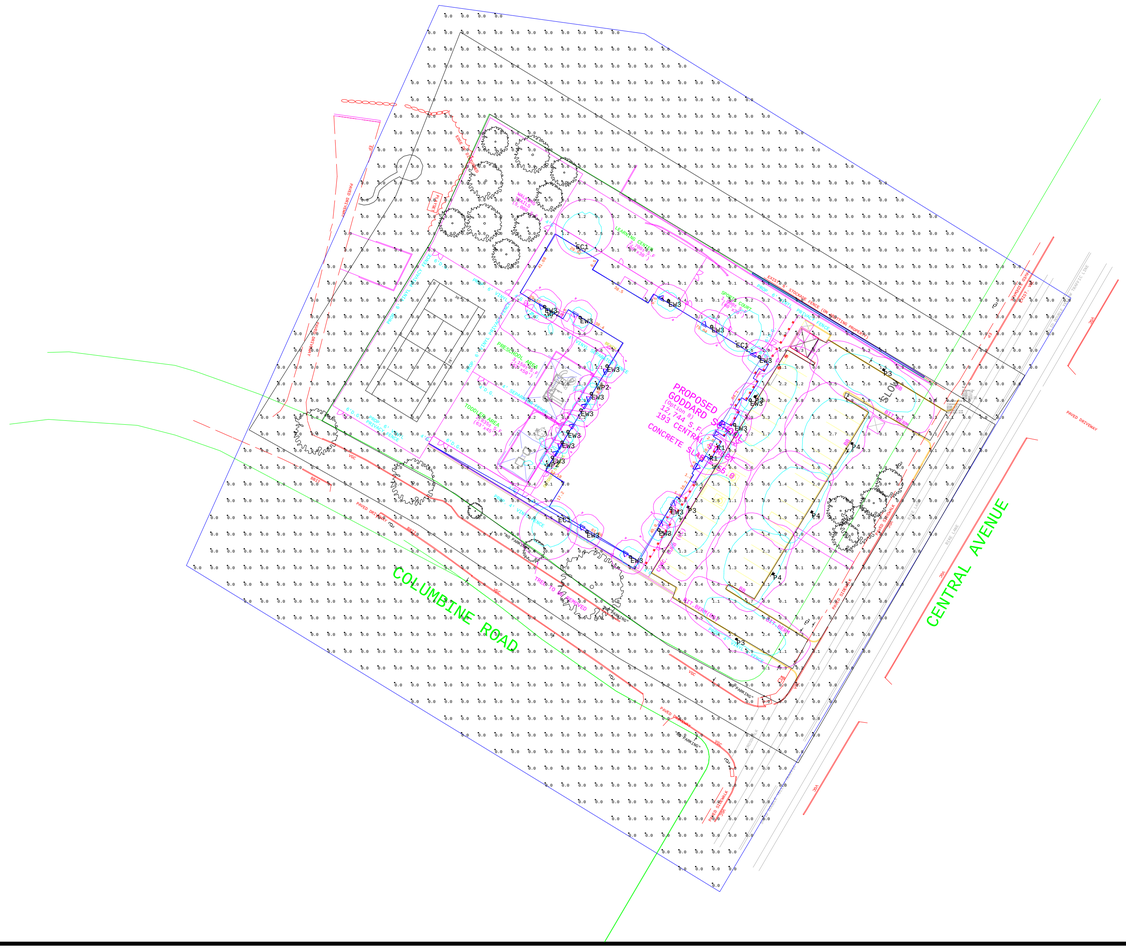
The following is a *tentative* schedule, which is subject to change based on weather and other conditions as well as when a building permit issues:

Mobilization: fall, 2021
Set up erosion control and temporary fencing:
Site Clearing and Grading:
Install Building Foundation and begin building construction:
Construct parking area, driveways and sidewalks:
Install pavement binder:
Complete building construction:
Complete site work including all landscaping: end of summer, 2022

Target date for completion of all work: September, 2022

EXHIBIT L

PHOTOMETRIC PLAN AND LIGHTING SPECIFICATIONS



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	4	P3	SINGLE	N.A.	0.500	BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS
	3	P4	SINGLE	N.A.	0.500	BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS
	3	WP2	SINGLE	N.A.	1.000	HUBBELL LNC-5LU-3K-4 BLT PCU
	2	R1	SINGLE	N.A.	1.000	LITON LCMPD5RW-UE-D10 T30
	17	EW3	SINGLE	466.23	1.000	MODERN FORMSWS-28516-BK
	3	EC1	SINGLE	N.A.	2.000	HUBBELL ML-2L3K-1 WH

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Object_1_Planar	Illuminance	Fc	0.21	7.5	0.0	N.A.	N.A.
Driveway and parking	Illuminance	Fc	1.48	5.0	0.1	14.80	50.00
Spill	Illuminance	Fc	0.00	0.1	0.0	N.A.	N.A.

illuminate

#	Date	Comments

Revisions

Drawn By:RK
Checked By:
Date:8/24/2021
Scale:

GODDARD SCHOOL

PARKING

TYPE EW3 MODERN FORMS WS-28514-BK

Project:

Location:

Fixture Type:

Catalog Number:

AVAILABLE FINISHES:

Balthus

WS-W28514

PRODUCT DESCRIPTION

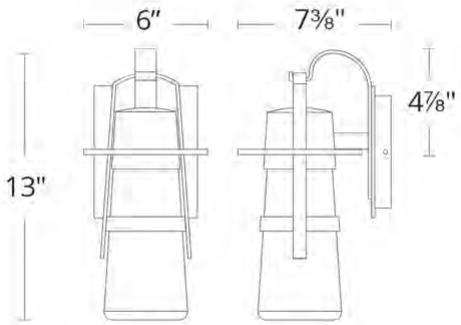
Vintage inspiration meets modern technology on this refined transitional sconce, perfect for lighting the path to your reception hall, residence or restaurant. High-performance LEDsstationed inside emit powerful, energy-efficient light through clear, hammered glass for a shimmering visual effect the eponymous painter would be proud of

FEATURES

- ACLED driverless technology
- Clear mouth-blown hammered glass
- 277V options available for 21" only; not available for 14" or 16"
- IDA Dark Sky compliant

SPECIFICATIONS

Rated Life	54000 Hours
Standards	ETL, cETL,Wet Location Listed,IP65,Title 24 JA8: 2019 Compliant,Dark Sky Friendly
Input	120 VAC,50/60Hz
Dimming	ELV
Color Temp	3000K
CRI	90
Construction	Aluminum hardware, Clear hammered mouth-blown glass



WS-W28514

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
❍ WS-W28514 13"	3000K	❍ BK Black	10.6W	440	431
	3000K	◉ ORB Oil Rubbed Bronze	10.6W	440	431

Example: **WS-W28514-ORB**

For custom requests please contact customs@modernforms.com

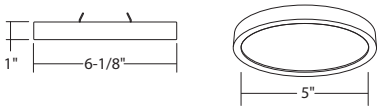
TYPE R1 LITON LCMPD5RW T30

TYPE _____ PROJECT _____

CATALOG# _____

LCMPD5R - 5" LUMENPAD ROUND LED DOWNLIGHT, SURFACE MOUNT, 1000LM (11W)

- Easily mounts to standard octagonal J-Box.
- Super Slim 3/4" thick design.
- No-glare side lit illumination.
- Die-cast aluminum frame.
- Suitable for temperature down to -4°F/-20°C
- WET LOCATION – For covered ceiling mount only
- 5-Year Warranty
- New Bronze finish
- California Title 24/JA8 Compliant[4]



ORDERING – Example: LCMPD5RW-T30

LCMPD5R | Finish | Dimming | Color Temperature | Material

Fixture

Finish[3]	
White	**W**
Black	**B**
Silver	**S**
Bronze	**BZ**

Dimming	
ELV Dimming (120V)	**Blank[2]**
0-10V Dimming (120V/277V)	**UE-D10[4]**

Color Temperature	
2700K	**-T27**
3000K	**-T30[2]**
3500K	**-T35**
4000k	**-T40**
ColorSelect 3000K/3500K/4000K	**-TS354[2]**

Material	
Die-Cast Aluminum	**Blank**
Non-Conductive Polycarbonate	**-PC[1]**

2021.07.28

[1]Special Order for PC.
[3]Field paintable ring options available. Consult factory.
[4](UE-D10) dimming option is not California Title 24/JA8 compliant.

Consult Factory for Remote Emergency Battery Back Up Option.

LCMPD5R - 5" LUMENPAD ROUND LED DOWNLIGHT, SURFACE MOUNT, 1000LM (11W)

SPECIFICATION

Application

5" Architectural Surface Mount Downlight is perfect for Retrofit, New Construction and Remodel Applications in low to medium height ceilings. Super thin profile is unobtrusive in design and has low glare. Lens is a polycarbonate frosted white lens. Suitable for closet installation.

Housing

Die-cast aluminum frame. Optional (-PC) Non-Conductive Polycarbonate is available to minimize the risk of electrical shock from housing.

Mounting

Universal mounting hardware allows mounting to all standard octagonal electrical junction boxes. 277V 0-10V Dimming Driver (UE-D10) has external 2-1/8" by 7/8" Driver. WET LOCATION – For covered ceiling mount only.

Lumen Maintenance

Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Electrical Components

Thermal Management - Effective thermal dissipation facilitated by integral heat sink design for maximum heat rejection to provide long LED life.

Temperature Rating - Maximum temperature 90°C. Minimum temperature, -20°C.

Driver - Standard dimming option. Smoothly dims down to 5% with standard Low Voltage dimmers. Works with standard electronic low voltage (ELV) dimmers. Factory qualified for use with Lutron brand dimmers: SELV300P, DVELV-300P, MAELV-600 and NELV-450.

Color Temperature - Available in 2700K, 3000K, 3500K, 4000K, and ColorSelect 3000K/3500K/4000K, 90 CRI (Color Rendering Index). LED's binned according to ANSI C78 377A for color temperature and chromaticity ranges.

Finishes

High quality powder coat finish for maximum durability. Available in White, Black, Silver and Bronze.

Certifications and Listings

ETL/cETL listed. Suitable for Wet Location Installations (Covered Ceiling Mount). Suitable for use in closets, compliant with NFPA® 70, NEC® Section 410.16 (A)(3) and 410.16 (C)(5).

Caution

Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Recommended for applications where ambient temperatures do not exceed 35°C. installations exceeding this temperature will result in reduced LED lamp life and avoided warranty.

Title 24/JA8 Compliant

LCMPD5R-T27
LCMPD5R-T30
LCMPD5R-T35
LCMPD5R-T40
LCMPD5R-TS354

Energy Star Qualified

LCMPD5RW-T27
LCMPD5RW-T30
LCMPD5RW-T35
LCMPD5RW-T40

Ready to Ship Items

LCMPD5RW-T30
LCMPD5RW-T35
LCMPD5RW-T40

LCMPD5RW-T30-PC
LCMPD5RW-T35-PC
LCMPD5RW-T40-PC

LCMPD5RWUE-D10-T30
LCMPD5RWUE-D10-T35
LCMPD5RWUE-D10-T40

LCMPD5RWUE-D10-T30-PC
LCMPD5RWUE-D10-T30-PC
LCMPD5RWUE-D10-T30-PC

TYPE P3 BEACON VP-S-24L-39-3K7-3-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS

BEACON
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DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

VIPER S

SMALL VIPER LUMINAIRE

OPTICS STRIKE

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations

*3000K and warmer CCTs only

See Certification Specifications

CONTROL TECHNOLOGY

NX DISTRIBUTED INTELLIGENCE wiSCAPE energeni SiteSync LIGHTING CONTROL

RELATED PRODUCTS

Viper Large

SPECIFICATIONS

CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

INSTALLATION

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL

- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)
- Ambient operating temperature -40°C to 25°C

ELECTRICAL (CONTINUED)

- Power factor is ≥ .90 at full load
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only
- Fixture electrical compartment contains all LED driver components
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Surge protection: 20kA
- Lifeshield™ Circuit (see Electrical Data)

CONTROLS

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night

CONTROLS (CONTINUED)

- In addition, Viper can be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

CERTIFICATIONS

- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- IDA approved
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions.

WARRANTY

- 5 year warranty
- See HLI Commercial and Industrial Outdoor Lighting Warranty for additional information

KEY DATA	
Lumen Range	4,045–16,216
Wattage Range	39–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–1.1

HUBBELL Lighting

BEACON
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DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

ORDERING GUIDE

Example: VPS–24L–55–4K7–4W–UNV–A–DBT–TL–GENI–04–BC

CATALOG #

VPS – [LED Engine] – [CCT/CRI] – [Distribution] – [Rotation] – [Voltage] – [Mounting] – [Color] – [Network Control Options] – [Options]

Series	
VPS	Viper Small

LED Engine	
24L-39	39W, LED array
24L-55	55W, LED array
36L-65	65W, LED array
36L-80	80W, LED array
48L-110	110W, LED array
60L-136	136W, LED array

CCT/CRI[7]	
3K7	3000K, 70 CRI
4K7	4000K, 70 CRI
5K7	5000K, 70 CRI

Distribution	
FR	Type 1/Front Row
2	Type 2
3	Type 3
4F (formerly 4)	Type 4
4W	Type 4 Wide
5QM	Type 5QM
5R	Type 5R (rectangular)
5W	Type 5W (round wide)
TC	Tennis Court
CR	Corner Right
CL	Corner Left

Rotation	
Blank	No rotation
L	Optic rotation left[5]
R	Optic rotation right[5]

Voltage	
UNV	120–277V
347	347V
480	480V

Mounting	
A	Rectangular Arm (formerly RA) for square or round pole
MAF	Mast Arm Fitter (formerly SF2) for 2⅜" OD horizontal arm
K	Knuckle (formerly PK2) limit to 30° tilt or 2⅜" OD horizontal arm or vertical tenon
WB	Wall Bracket
AD	Universal Arm for square pole
AD3	Adapter for 2.4"–4.1" round pole
AD4	Adapter for 4.2"–5.3" round pole
AD5	Adapter for 5.5"–5.9" round pole
AD6	Adapter for 6.0"–6.5" round pole

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Network Control Options	
NXWE	NX Wireless Enabled (module + radio)
NXSPW_F	Nx Wireless, PIR Occ. Sensor, Daylight Havesting[7]
WIR	Wireless Controls, wiSCAPE
SWP	SiteSync Pre-Commission[1,4]
SWPM_F	SiteSync Pre-Commission w/ Sensor[1,2,4]
Control Options	
GENI-XX	ENERGENI[3]
7PR	7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)
7PR-SC	7-Pin Receptacle w/Shorting Cap
7PR-TL	7-Pin Receptacle w/Twist-Lock® photo control
Sensors	
BTS_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens[7]
BTSO_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height[8]
NXSP_F	NX, PIR Occ. Sensor, Daylight Harvesting[7]
SCP/_F	Programmable Occupancy Sensor w/ daylight control[1,2,6]

Options	
BC	Backshield (available for FR, 2, 3, 4, 4W Optics)
CD	Continuous Dimming
F	Fusing
TB	Terminal Block

House Side Shield Accessories

☐ **HSS/VP-S/90-FB/XXX**	90° shield front or back
☐ **HSS/VP-S/90-LR/XXX**	90° shield left or right
☐ **HSS/VP-S/270-FB/XXX**	270° shield front or back
☐ **HSS/VP-S/270-LR/XXX**	270° shield left or right
☐ **HSS/VP-S/360/XXX**	Full shield

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

Mounting Accessories

☐ **VPL-AD-RPA3**	2.4"–4.1" Round Pole Adapter for AD arm
☐ **VPL-AD-RPA4**	4.2"–5.3" Round Pole Adapter for AD arm
☐ **VPL-AD-RPA5**	5.5"–5.9" Round Pole Adapter for AD arm
☐ **VPL-AD-RPA6**	6.0"–6.5" Round Pole Adapter for AD arm

Notes:

1. Not available with other wireless control or sensor options
2. Specify mounting height; 8 = 8' or less, 40 = 14' to 30'
3. Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table and options. Not available with sensor or SiteSync options
4. Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for further details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
5. Only available with FR, 2, 3, 4, 4W and 5R distributions
6. Specify mounting height; 8=8', 30=30
7. Replace "_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
8. Replace "_" with "12" for up to 12' mounting height

Accessories and Services (Ordered Separately)

☐ **SCP-REMOTE**	Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
☐ **SWUSB***	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
☐ **SWTAB***	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node
☐ **SWBRG**	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested
☐ **SW7PR+**	SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120–480VAC
☐ **BIRD-SPIKE-3**	Bird Spikes

* When ordering SiteSync at least one of these two interface options must be ordered per project.
\+ Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.

Hubbell Control Solutions — Accessories (Sold Separately)

NX Distributed Intelligence™

☐ **NXOFM-1R1D-UNV**	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120–480VAC

wiSCAPE® Lighting Control

☐ **WIR-RME-L**	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

CONTROLS

SiteSync — Precommissioned Ordering Information:

When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit the SiteSync family page on our website or contact Hubbell Lighting tech support at 864-678-1000.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VP-L/80L-235/4K7/3/UNV/A/DB/SWP/ SiteSync only
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/ SiteSync with Motion Control

SiteSync 7-Pin Module:

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does not interface with occupancy sensors

SW7PR

NX Distributed Intelligence™ Lighting Controls:

Supports both indoor and outdoor applications in a variety of deployment options: wired, wireless and hybrid.
Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.

NX Integrated Controls Reference								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wireless								
NXOFM-1R1D-UNV	SCLNX	Yes	Yes	Yes	Yes	Yes	Yes	Yes, Bluetooth App

wiSCAPE™:

Supports remote management, monitoring and metering of outdoor wireless lighting applications such as smart campuses, smart cities, parking lots, parking lots and roadways.

wiSCAPE Reference								
wiSCAPE Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
Networked – Wireless								
WIR-RME-L	WIR-RME-L	Yes	Yes	No	Yes	Yes	Yes	wiSCAPE Gateway

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	500mA	39W	FR	4689	120	1	0	0	4665	120	1	0	0	4432	114	1	0	0
			2	4523	116	1	0	1	4500	115	1	0	1	4275	110	1	0	1
			3	4436	114	1	0	1	4414	113	1	0	1	4194	108	1	0	1
			4F	4362	112	1	0	2	4340	111	1	0	2	4123	106	0	0	2
			4W	4280	110	1	0	2	4258	109	1	0	2	4045	104	1	0	2
			5QM	4442	114	2	0	1	4420	113	2	0	1	4199	108	2	0	0
			5R	4472	115	2	0	2	4450	114	2	0	2	4227	108	2	0	2
			5W	4335	112	3	0	1	4336	111	3	0	1	4114	105	3	0	1
			TC	4561	117	1	0	1	4538	116	1	0	1	4311	111	1	0	1
			CL	4758	122	1	0	2	4758	122	1	0	2	4329	111	1	0	1
			CR	4773	122	1	0	2	4773	122	1	0	2	4361	112	1	0	1
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4F	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2
			5QM	6022	112	2	0	1	6145	114	2	0	1	5499	102	2	0	1
			5R	6063	112	3	0	3	6187	115	3	0	3	5536	103	3	0	3
			5W	5908	109	3	0	1	6028	112	3	0	1	5908	102	3	0	1
			TC	6183	113	1	0	1	6309	118	1	0	1	5645	105	1	0	1
			CL	6707	122	1	0	2	6707	122	1	0	2	6117	111	1	0	2
			CR	6729	122	1	0	2	6729	122	1	0	2	6143	112	1	0	2
36	560 mA	65W	FR	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
			2	7586	117	1	0	2	7757	119	1	0	2	6934	107	1	0	2
			3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4F	7317	110	1	0	2	7482	112	1	0	2	6688	100	1	0	2
			4W	8690	108	1	0	2	8864	110	1	0	2	7908	98	1	0	2
			5QM	7450	115	3	0	1	7618	117	3	0	1	6810	105	3	0	1
			5R	7501	115	3	0	3	7670	118	3	0	3	6857	105	3	0	3
			5W	7309	112	3	0	2	7473	115	3	0	2	6681	103	3	0	1
			TC	7540	116	1	0	1	7694	118	1	0	1	7694	122	1	0	2
			CL	8179	126	2	0	2	8179	126	2	0	2	7467	115	1	0	2
			CR	8205	126	2	0	2	8205	126	2	0	2	7492	115	1	0	2
36	700 mA	80W	FR	9535	118	1	0	1	9730	120	1	0	1	8706	107	1	0	1
			2	9197	114	1	0	2	9385	116	1	0	2	8398	104	1	0	2
			3	9022	111	1	0	2	9206	114	1	0	2	8238	102	1	0	2
			4F	8871	110	1	0	2	9052	112	1	0	2	8100	100	1	0	2
			4W	11587	108	1	0	3	11819	110	1	0	3	10544	98	1	0	3
			5QM	9033	112	3	0	1	9217	114	3	0	1	8248	102	3	0	1
			5R	9095	112	3	0	3	9280	115	3	0	3	8304	103	3	0	3
			5W	8861	109	3	0	2	9043	112	3	0	2	8092	100	3	0	2
			TC	9275	115	1	0	1	9464	118	1	0	1	8468	105	1	0	1
			CL	10060	126	2	0	2	10060	126	2	0	2	9184	115	2	0	2
			CR	10093	126	2	0	2	10093	126	2	0	2	9215	115	2	0	2
48	700 mA	110W	FR	12713	118	1	0	1	12973	120	2	0	1	11608	107	1	0	1
			2	12263	114	2	0	2	12513	116	2	0	2	11197	104	2	0	2
			3	12029	111	2	0	2	12275	114	2	0	2	10984	102	1	0	2
			4F	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
			4W	11609	108	1	0	3	11841	110	1	0	3	10564	98	1	0	3
			5QM	12044	112	3	0	2	12290	114	3	0	2	10997	102	3	0	1
			5R	12126	112	3	0	3	12374	115	3	0	3	11072	103	3	0	3
			5W	12126	109	4	0	2	12057	112	4	0	2	10789	100	4	0	2
			RC	12366	115	1	0	2	12619	118	1	0	1	11290	105	1	0	2
			CL	13414	122	2	0	3	13414	122	2	0	3	12246	111	2	0	2
			CR	13458	122	2	0	3	13458	122	2	0	3	12287	112	2	0	2
60	700 mA	136W	FR	15891	117	2	0	2	16216	120	2	0	2	14511	107	2	0	1
			2	15329	113	2	0	2	15642	116	2	0	2	13997	103	2	0	2
			3	15037	111	2	0	3	15344	113	2	0	3	13730	101	2	0	3
			4F	14784	109	1	0	3	15086	111	1	0	3	13500	100	1	0	3
			4W	14802	109	2	0	3	15104	112	2	0	3	13515	100	2	0	3
			5QM	15055	111	3	0	2	15362	114	3	0	2	13747	102	3	0	2
			5R	15158	112	4	0	4	15469	114	4	0	4	13841	102	4	0	4
			5W	14781	109	4	0	2	15083	111	4	0	2	13495	100	4	0	2
			TC	15458	115	1	0	2	15834	118	1	0	2	14113	105	1	0	2
			CL	16768	123	3	0	3	16768	123	3	0	3	15309	113	2	0	3
			CR	16823	124	3	0	3	16823	124	3	0	3	15359	113	2	0	3

HUBBELL Lighting

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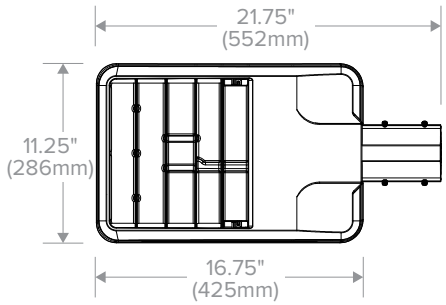
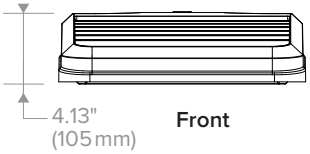
VIPER S

SMALL VIPER LUMINAIRE

DIMENSIONS



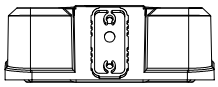


Front

Weight	15.0 lbs (6.8 kg)
EPA	.67 ft²

A Arm (formerly RA)

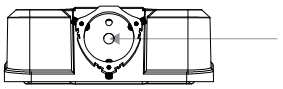
Side View



Back View

MAF (formerly SF2)

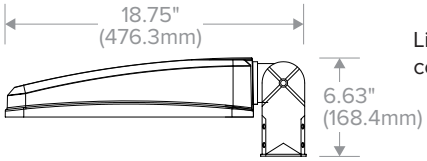
Side View



Back View

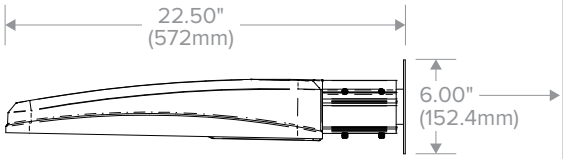
Accepts 2⅜" OD tenon, min 5" long.

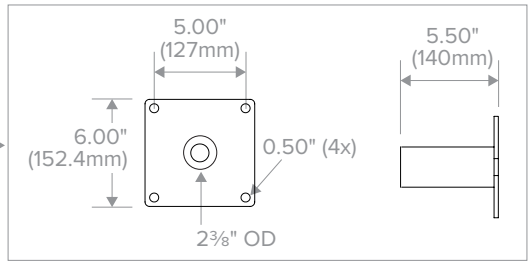
2⅜" Adjustable Knuckle (K) (formerly PK2)



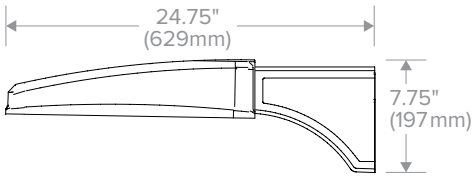
Limit to 30° tilt. Sensor, photocell and wireless controls should not be tilted above horizontal.

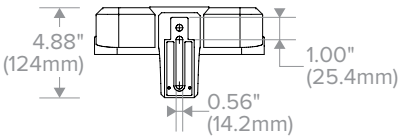
Wall Bracket (WB)





AD Decorative Arm





See page 9 for mounting details.

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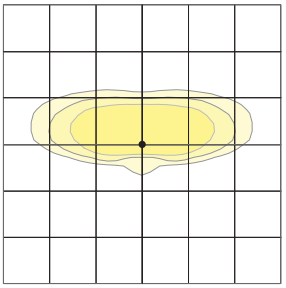
VIPER S

SMALL VIPER LUMINAIRE

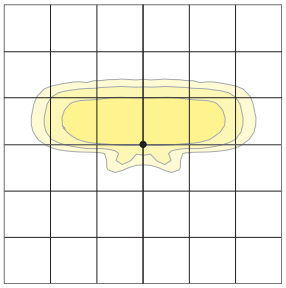
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

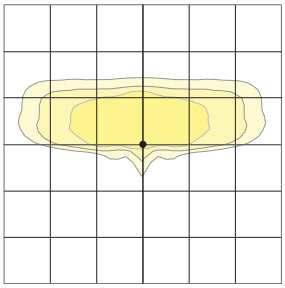
Type FR – Front Row/Auto Optic



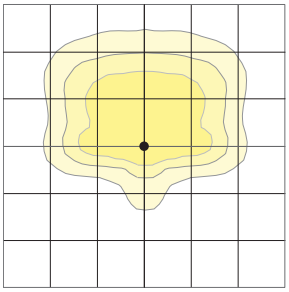
Type 2



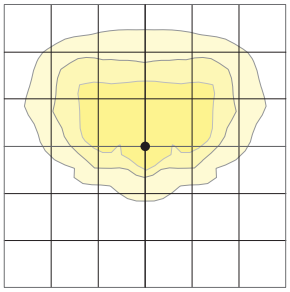
Type 3



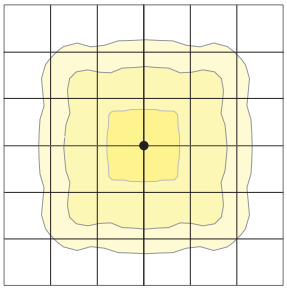
Type 4



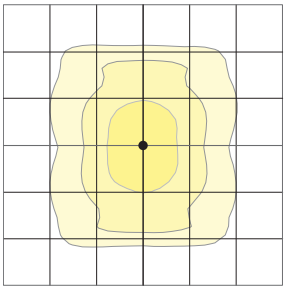
Type 4 Wide



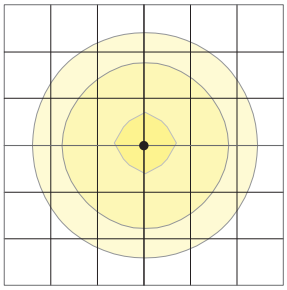
Type 5QM



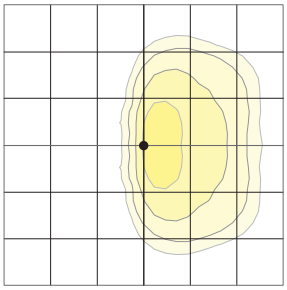
Type 5R (rectangular)



Type 5W (round wide)



Type TC



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VIPER S

SMALL VIPER LUMINAIRE

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	1	500 mA	120	39	0.33
			277		0.14
			347		0.11
			480		0.08
24	1	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
36	1	525 mA	120	65	0.65
			277		0.28
			347		0.22
			480		0.16
		700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

PROJECTED LUMEN MAINTENANCE						
Ambient Temp.	0	25,000	50,000	TM-21-11 60,000[1]	100,000	Calculated L70 (HOURS)
25°C / 77°C	1	0.97	0.95	0.95	0.92	>377,000

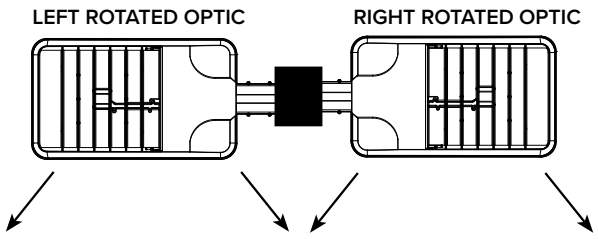
1 Projected per IESNA TM-21-11.
Data references the extrapolated performance projections for the 60 LED base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

LIFESHIELD™ CIRCUIT

Protects luminaire from excessive temperature. The device activates at a specific, factory-preset temperature and progressively reduces power over a finite temperature range. Operation is smooth and undetectable to the eye. Thermal circuit is designed to “fail on”, allowing the luminaire to revert to full power in the event of an interruption of its power supply or faulty wiring connection to the drivers. The device can co-exist with other 0–10V control devices (occupancy sensors, external dimmers, etc.)

ADDITIONAL INFORMATION

ROTATION OPTIONS



HUBBELL Lighting

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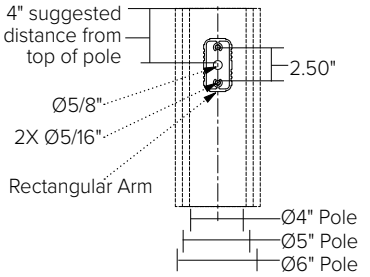
VIPER S

SMALL VIPER LUMINAIRE

ADDITIONAL INFORMATION (CONTINUED)

DRILL PATTERN

RECTANGULAR ARM (A)
Compatible with Pole drill pattern B3



EPA

Config.	EPA
1	.67
2 @ 90˚	1.06
2 @ 180˚	1.34

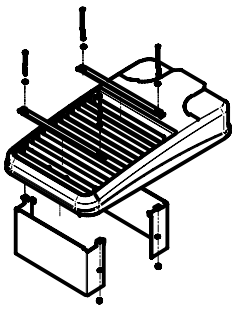
Config.	EPA
3 @ 120˚	1.68
3 @ 90˚	1.73
4 @ 90˚	2.12

TENON TOP POLE BRACKET ACCESSORIES (ORDER SEPARATELY)

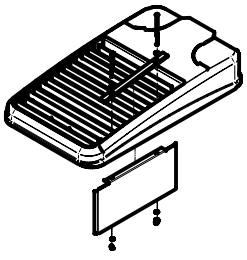
(2 3/8" OD tenon)

TENON TOP POLE BRACKET ACCESSORIES (Order Separately)	
☐ **SETAVP-XX**	Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
☐ **RETAVP-XX**	Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
☐ **SETA2XX**	Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
☐ **RETA2XX**	Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only

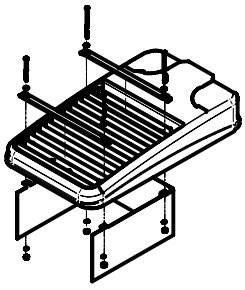
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



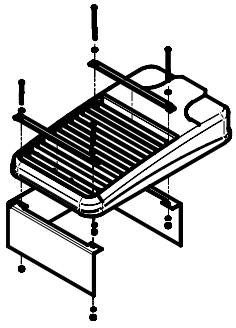
HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



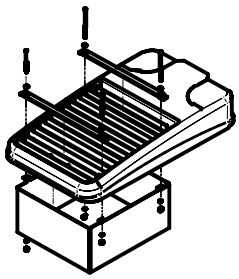
HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



HSS/VP-S/270-FB/XXX
270° shield front or back
(1 shield shown in back orientation)



HSS/VP-S/270-LR/XXX
270° shield left or right
(1 shield shown in right orientation)



HSS/VP-S/360/XXX
Full shield
(1 shield shown)

DATE: LOCATION:

TYPE: PROJECT:

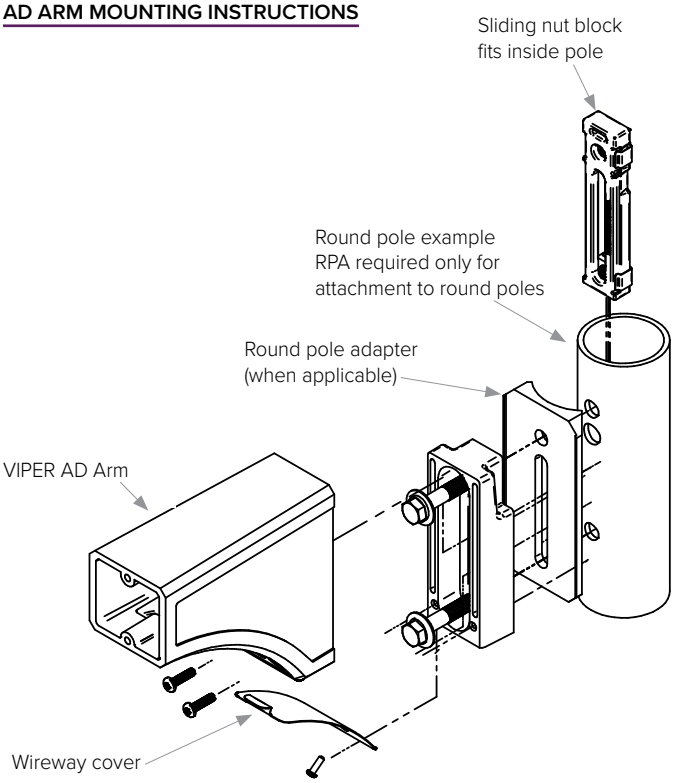
CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

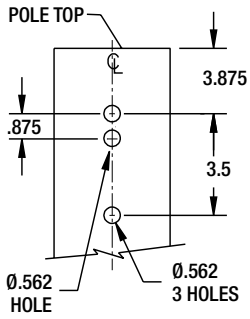
ADDITIONAL INFORMATION (CONTINUED)

AD ARM MOUNTING INSTRUCTIONS



DECORATIVE ARM (AD)

Compatible with pole drill pattern S2



TYPE P3 BEACON VP-S-24L-39-3K7-3-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS

SSA-B SERIES POLES

SQUARE STRAIGHT ALUMINUM

Cat.#

Job

Type

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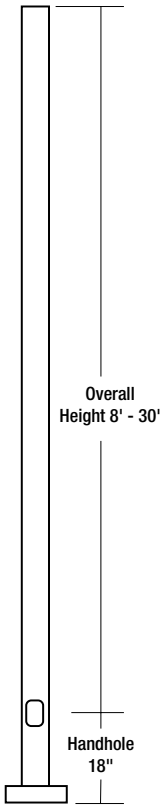
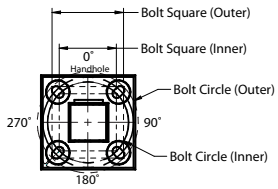
Approvals





APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT: One-piece straight aluminum with square cross section, flat sides and minimum radius on all corners; Extruded shafts of 6061-T6 aluminum in 1/8", 3/16", or 1/4" thickness. Base plate of 356 cast aluminum.
- BASE COVER: Four (4) individual bolt covers provided, painted to match pole and base finish.
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE: Rectangular 3x5 aluminum hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

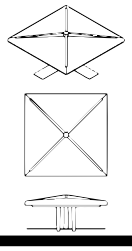
  Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38

  1 x 36 x 4 — TAB-36-M38

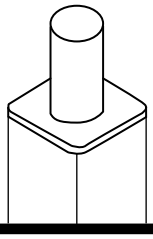
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint finish coat available in 12 standard colors; Custom colors available; RAL number preferable.

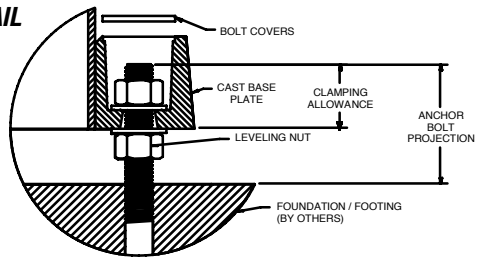
POLE CAP



TENON



BASE DETAIL



ORDERING EXAMPLE:

SSA-B - 20 - 40 - A/B/C - 2L - B3 - DBT - VM2

SERIES	HEIGHT	SHAFT	THICKNESS
SSA-B Square Straight Aluminum Pole Beacon	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix

MOUNTING

1	Single arm mount
2	Two fixtures at 180°
2L	Two fixtures at 90°
3T	Three fixtures at 90°
4	Four fixtures at 90°
TA	Tenon (2.375" OD)
TB	Tenon (2.875" OD)
OT	Open top (includes pole cap)

FINISH

BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

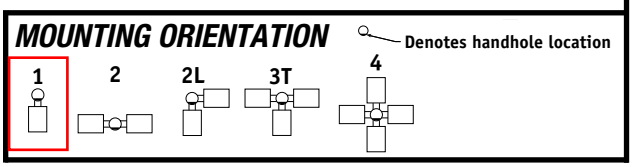
Color Option

CC	Custom Color

OPTIONS

GFI[1]	20 Amp GFCI Receptacle and Cover
EHH[1]	Extra Handhole
C05[1]	.5" Coupling
C07[1]	.75" Coupling
C20[1]	2" Coupling
VM1[2]	Mode vibration damper
VM2	2nd mode vibration damper
LAB	Less Anchor Bolts

MOUNTING ORIENTATION



DRILL PATTERN

B1	Cruzer, "AM" arm
B3	2 bolt (2-½" spacing), Viper "A" arm
S2	2 bolt (3-½" spacing), Viper "AD" arm

1 Specify option location using logic found on page 2 **(Option Orientation)**
2 VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES- Order Separately

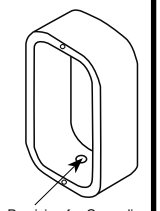
Catalog Number	Description
VM1[2]	1st mode vibration damper
VM2SXX	2nd mode vibration damper

ORDERING INFORMATION Cont.

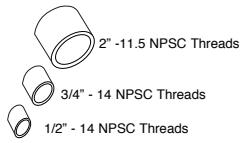
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight (lbs)
	Feet	Meters									
SSA-B-08-40-A	8	2.4	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	32
SSA-B-10-40-A	10	3.0	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	37
SSA-B-12-40-A	12	3.7	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	42
SSA-B-14-40-A	14	4.3	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	47
SSA-B-16-40-A	16	4.9	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	52
SSA-B-18-40-A	18	5.5	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	57
SSA-B-20-40-A	20	6.1	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	62
SSA-B-16-40-B	16	4.9	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	74
SSA-B-18-40-B	18	5.5	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	80
SSA-B-20-40-B	20	6.1	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	85
SSA-B-18-50-B	18	5.5	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	91
SSA-B-20-50-B	20	6.1	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	107
SSA-B-25-50-B	25	7.6	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	130
SSA-B-16-60-B	16	4.9	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	105
SSA-B-18-60-B	18	5.5	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	130
SSA-B-20-60-B	20	6.1	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	155
SSA-B-25-60-B	25	7.6	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	180
SSA-B-30-60-B	30	9.1	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	210
SSA-B-16-60-C	16	4.9	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	121
SSA-B-18-60-C	18	5.5	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	144
SSA-B-20-60-C	20	6.1	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	166
SSA-B-25-60-C	25	7.6	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	224
SSA-B-30-60-C	30	9.1	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	258

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

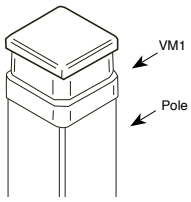
EHH - EXTRA HANDHOLE



C05 - C07 - C20 - COUPLING



VM1 - VIBRATION DAMPER 1ST MODE



Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is required for pole systems 20' and taller with a total EPA of 1.0 or less.

VM2 - VIBRATION DAMPER 2ND MODE

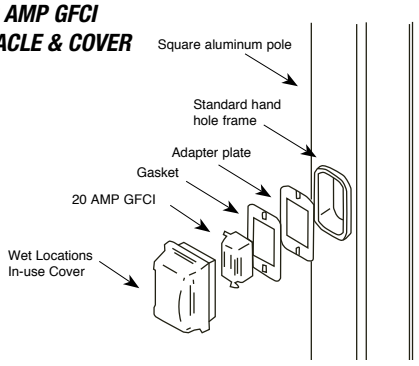
Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

VM2SXX - VIBRATION DAMPER 2ND MODE

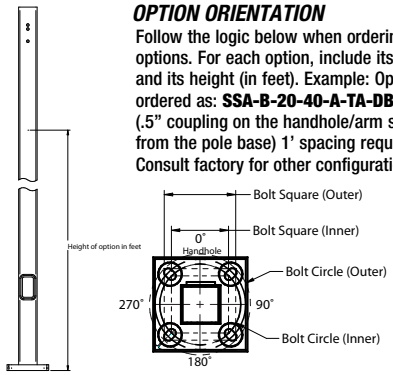
VM2S08 – 8'
VM2S12 – 12'
VM2S16 – 16'
VM2S20 – 20'
VM2S24 – 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI – 20 AMP GFCI RECEPTACLE & COVER



OPTION ORIENTATION

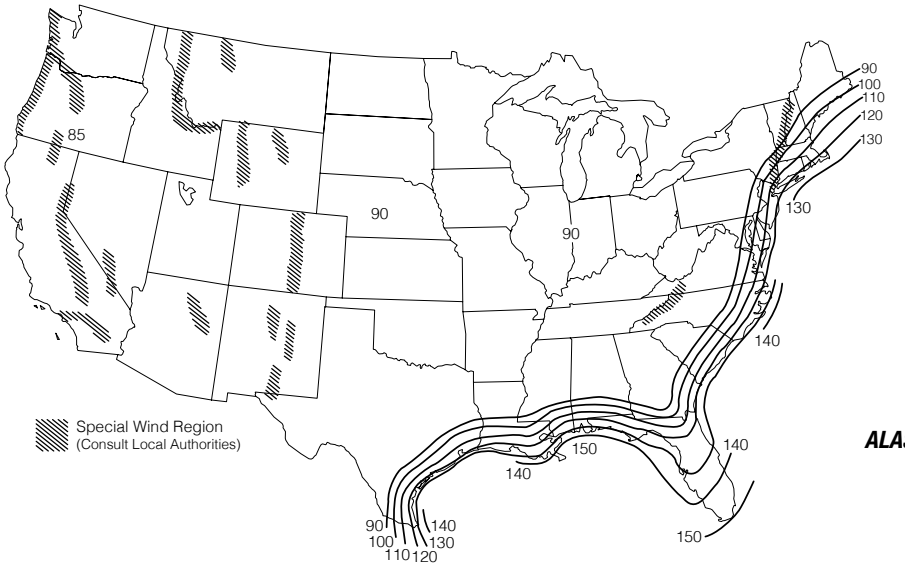


Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **SSA-B-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.

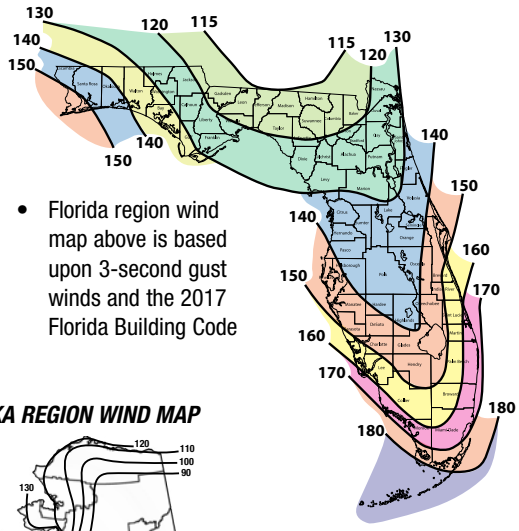
For more information about pole vibration and vibration dampers, please consult:
https://hubbellcdn.com/ohwassets/HLI/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HLOI0022.pdf

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

ASCE7-05 WIND MAP

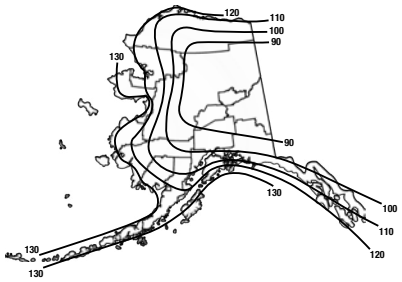


FLORIDA REGION WIND MAP



- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



HAWAII – 105 mph
PUERTO RICO – 145 mph

***PRINTED WITH PERMISSION FROM ASCE**

ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds										
Catalog Number	**85**	**90**	**100**	**105**	**110**	**120**	**130**	**140**	**145**	**150**
SSA-B-08-40-A	17.3	15.2	12.0	10.7	9.6	7.7	6.2	5.0	4.5	4.0
SSA-B-10-40-A	12.6	11.0	8.4	7.4	6.5	4.9	3.7	2.8	2.4	2.0
SSA-B-12-40-A	9.3	7.9	5.8	4.9	4.2	2.9	1.9	1.1	0.8	0.5
SSA-B-14-40-A	6.7	5.6	3.8	3.0	2.4	1.3	NR	NR	NR	NR
SSA-B-16-40-A	4.7	3.7	2.1	1.4	0.9	NR	NR	NR	NR	NR
SSA-B-18-40-A	2.9	2.1	0.6	NR	NR	NR	NR	NR	NR	NR
SSA-B-20-40-A	1.4	0.6	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-40-B	9.2	7.7	5.4	4.5	3.7	2.3	1.2	NR	NR	NR
SSA-B-18-40-B	6.8	5.6	3.6	2.7	2.0	0.8	NR	NR	NR	NR
SSA-B-20-40-B	4.8	3.7	1.9	1.2	0.6	NR	NR	NR	NR	NR
SSA-B-18-50-B	12.9	10.9	7.6	6.3	5.1	3.2	1.7	0.5	NR	NR
SSA-B-20-50-B	9.8	8.1	5.2	4.0	3.0	1.3	NR	NR	NR	NR
SSA-B-25-50-B	4.0	2.7	0.5	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-B	25.0	22.3	16.9	14.7	12.7	9.6	7.0	5.0	4.2	3.4
SSA-B-18-60-B	20.7	17.7	13.0	11.0	9.3	6.5	4.3	2.6	1.8	1.1
SSA-B-20-60-B	16.4	13.8	9.6	7.9	6.4	3.9	2.0	NR	NR	NR
SSA-B-25-60-B	8.3	6.3	3.1	1.8	0.7	NR	NR	NR	NR	NR
SSA-B-30-60-B	2.5	0.8	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-C	25.0	25.0	24.5	21.5	19.0	14.9	11.6	9.0	7.9	6.8
SSA-B-18-60-C	25.0	25.0	19.5	17.1	14.9	11.2	8.3	6.0	5.1	4.2
SSA-B-20-60-C	24.2	20.9	15.4	13.2	11.2	8.0	5.5	3.5	2.6	1.8
SSA-B-25-60-C	14.2	11.6	7.5	5.8	4.3	1.9	NR	NR	NR	NR
SSA-B-30-60-C	7.1	5.0	1.7	NR	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds								
Catalog Number	**115**	**120**	**130**	**140**	**150**	**160**	**170**	**180**
SSA-B-08-40-A	14.8	13.4	11	9.1	7.6	6.3	5.3	4.4
SSA-B-10-40-A	10.9	9.8	7.9	6.3	5.1	4.1	3.2	2.5
SSA-B-12-40-A	7.9	7.0	5.4	4.1	3.0	2.2	1.5	0.9
SSA-B-14-40-A	5.6	4.8	3.4	2.3	1.4	0.6	NR	NR
SSA-B-16-40-A	3.6	2.9	1.7	0.7	NR	NR	NR	NR
SSA-B-18-40-A	1.8	1.2	NR	NR	NR	NR	NR	NR
SSA-B-20-40-A	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-40-B	7.7	6.7	4.9	3.5	2.4	1.5	0.7	NR
SSA-B-18-40-B	5.4	4.5	3	1.8	0.8	NR	NR	NR
SSA-B-20-40-B	3.5	2.7	1.3	NR	NR	NR	NR	NR
SSA-B-18-50-B	10.6	9.2	6.8	4.9	3.3	2	1	NR
SSA-B-20-50-B	7.8	6.5	4.4	2.7	1.3	NR	NR	NR
SSA-B-25-50-B	2.2	1.2	NR	NR	NR	NR	NR	NR
SSA-B-16-60-B	22	19.6	15.5	12.4	9.8	7.7	5.9	4.4
SSA-B-18-60-B	17.2	15.2	11.7	8.9	6.6	4.8	3.3	2
SSA-B-20-60-B	13.4	11.5	8.4	6.4	4	2.4	1	NR
SSA-B-25-60-B	5.7	4.4	2	NR	NR	NR	NR	NR
SSA-B-30-60-B	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-C	25	25	22.8	18.6	15.2	12.5	10.1	8.2
SSA-B-18-60-C	25	22.5	18	14.3	11.3	9	7	5.3
SSA-B-20-60-C	20.4	18	14	10.8	8.2	6	4.3	2.8
SSA-B-25-60-C	11.2	9.3	6.2	3.8	1.8	NR	NR	NR
SSA-B-30-60-C	4.3	2.9	NR	NR	NR	NR	NR	NR

NOTES

Wind-speed Website disclaimer:
Hubbell Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Hubbell Lighting Inc. does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. http://windspeed.atcouncil.org

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. https://hubbellcdn.com/ohwassets/HLI/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HLOI0022.pdf
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

TYPE P4 BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS

BEACON
design . performance . technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

OPTICS STRIKE

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations

*3000K and warmer CCTs only

See Certification Specifications

CONTROL TECHNOLOGY

NX DISTRIBUTED INTELLIGENCE wiSCAPE energeni SiteSync LIGHTING CONTROL

RELATED PRODUCTS

Viper Large

SPECIFICATIONS

CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

INSTALLATION

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL

- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)
- Ambient operating temperature -40°C to 25°C

ELECTRICAL (CONTINUED)

- Power factor is ≥ .90 at full load
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only
- Fixture electrical compartment contains all LED driver components
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Surge protection: 20kA
- Lifeshield™ Circuit (see Electrical Data)

CONTROLS

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night

CONTROLS (CONTINUED)

- In addition, Viper can be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

CERTIFICATIONS

- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- IDA approved
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions.

WARRANTY

- 5 year warranty
- See HLI Commercial and Industrial Outdoor Lighting Warranty for additional information

KEY DATA	
Lumen Range	4,045–16,216
Wattage Range	39–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–1.1

HUBBELL Lighting

BEACON
design . performance . technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

ORDERING GUIDE

Example: VPS–24L–55–4K7–4W–UNV–A–DBT–TL–GENI–04–BC

CATALOG #

VPS	–		–		–		–		–		–	
Series		**LED Engine**		**CCT/CRI**[7]		**Distribution**		**Rotation**		**Voltage**		
VPS Viper Small		**24L-39** 39W, LED array		**3K7** 3000K, 70 CRI		**FR** Type 1/Front Row		**Blank** No rotation		**UNV** 120–277V		
		24L-55 55W, LED array		**4K7** 4000K, 70 CRI		**2** Type 2		**L** Optic rotation left[5]		**347** 347V		
		36L-65 65W, LED array		**5K7** 5000K, 70 CRI		**3** Type 3		**R** Optic rotation right[5]		**480** 480V		
		36L-80 80W, LED array				**4F (formerly 4)** Type 4						
		48L-110 110W, LED array				**4W** Type 4 Wide						
		60L-136 136W, LED array				**5QM** Type 5QM						
						5R Type 5R (rectangular)						
						5W Type 5W (round wide)						
						TC Tennis Court						
						CR Corner Right						
						CL Corner Left						

–		–		–	
Mounting		**Color**		**Network Control Options**	**Options**
A Rectangular Arm (formerly RA) for square or round pole		**BLT** Black Matte Textured		**NXWE** NX Wireless Enabled (module + radio)	**BC** Backshield (available for FR, 2, 3, 4, 4W Optics)
MAF Mast Arm Fitter (formerly SF2) for 2⅜" OD horizontal arm		**BLS** Black Gloss Smooth		**NXSPW_F** Nx Wireless, PIR Occ. Sensor, Daylight Havesting[7]	**CD** Continuous Dimming
K Knuckle (formerly PK2) limit to 30° tilt or 2⅜" OD horizontal arm or vertical tenon		**DBT** Dark Bronze Matte Textured		**WIR** Wireless Controls, wiSCAPE	**F** Fusing
WB Wall Bracket		**DBS** Dark Bronze Gloss Smooth		**SWP** SiteSync Pre-Commission[1,4]	**TB** Terminal Block
AD Universal Arm for square pole		**GTT** Graphite Matte Textured		**SWPM_F** SiteSync Pre-Commission w/ Sensor[1,2,4]	
AD3 Adapter for 2.4"–4.1" round pole		**LGS** Light Grey Gloss Smooth		**Control Options**	
AD4 Adapter for 4.2"–5.3" round pole		**PSS** Platinum Silver Smooth		**GENI-XX** ENERGENI[3]	
AD5 Adapter for 5.5"–5.9" round pole		**WHT** White Matte Textured		**7PR** 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)	
AD6 Adapter for 6.0"–6.5" round pole		**WHS** White Gloss Smooth		**7PR-SC** 7-Pin Receptacle w/Shorting Cap	
		VGT Verde Green Textured		**7PR-TL** 7-Pin Receptacle w/Twist-Lock® photo control	
		Color Option		**Sensors**	
		CC Custom Color		**BTS_F** Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens[7]	
				BTSO_F Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height[8]	
				NXSP_F NX, PIR Occ. Sensor, Daylight Harvesting[7]	
				SCP/_F Programmable Occupancy Sensor w/ daylight control[1,2,6]	

House Side Shield Accessories

- ☐ **HSS/VP-S/90-FB/XXX** 90° shield front or back
- ☐ **HSS/VP-S/90-LR/XXX** 90° shield left or right
- ☐ **HSS/VP-S/270-FB/XXX** 270° shield front or back
- ☐ **HSS/VP-S/270-LR/XXX** 270° shield left or right
- ☐ **HSS/VP-S/360/XXX** Full shield

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

Mounting Accessories

- ☐ **VPL-AD-RPA3** 2.4"–4.1" Round Pole Adapter for AD arm
- ☐ **VPL-AD-RPA4** 4.2"–5.3" Round Pole Adapter for AD arm
- ☐ **VPL-AD-RPA5** 5.5"–5.9" Round Pole Adapter for AD arm
- ☐ **VPL-AD-RPA6** 6.0"–6.5" Round Pole Adapter for AD arm

Notes:

1. Not available with other wireless control or sensor options
2. Specify mounting height; 8 = 8' or less, 40 = 14' to 30'
3. Specify routine setting code (example GENI-04). See ENERGENI brochure and instructions for setting table and options. Not available with sensor or SiteSync options
4. Specify group and zone at time of order. See www.hubbelllighting.com/sitesync for further details. Order at least one SiteSync interface accessory SWUSB or SWTAB. Each option contains SiteSync License, GUI, and Bridge Node
5. Only available with FR, 2, 3, 4, 4W and 5R distributions
6. Specify mounting height; 8=8', 30=30
7. Replace "_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
8. Replace "_" with "12" for up to 12' mounting height

Accessories and Services (Ordered Separately)

- ☐ **SCP-REMOTE** Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
- ☐ **SWUSB*** SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
- ☐ **SWTAB*** Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node
- ☐ **SWBRG** SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested
- ☐ **SW7PR+** SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120–480VAC
- ☐ **BIRD-SPIKE-3** Bird Spikes

* When ordering SiteSync at least one of these two interface options must be ordered per project.
\+ Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.

Hubbell Control Solutions — Accessories (Sold Separately)

NX Distributed Intelligence™

- ☐ **NXOFM-1R1D-UNV** On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120–480VAC

wiSCAPE® Lighting Control

- ☐ **WIR-RME-L** On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

HUBBELL Lighting

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VIPER S

SMALL VIPER LUMINAIRE

CONTROLS

SiteSync — Precommissioned Ordering Information:

When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit the SiteSync family page on our website or contact Hubbell Lighting tech support at 864-678-1000.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VP-L/80L-235/4K7/3/UNV/A/DB/SWP/ SiteSync only
VP-L/80L-235/4K7/3/UNV/A/DB/SWPM-40F/ SiteSync with Motion Control

SiteSync 7-Pin Module:

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Does not interface with occupancy sensors

SW7PR

NX Distributed Intelligence™ Lighting Controls:

Supports both indoor and outdoor applications in a variety of deployment options: wired, wireless and hybrid.
Integrates with and enables a wide array of luminaires including those with SpectraSync Color Tuning Technology.

NX Integrated Controls Reference								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Networked – Wireless								
NXOFM-1R1D-UNV	SCLNX	Yes	Yes	Yes	Yes	Yes	Yes	Yes, Bluetooth App

wiSCAPE™:

Supports remote management, monitoring and metering of outdoor wireless lighting applications such as smart campuses, smart cities, parking lots, parking lots and roadways.

wiSCAPE Reference								
wiSCAPE Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
Networked – Wireless								
WIR-RME-L	WIR-RME-L	Yes	Yes	No	Yes	Yes	Yes	wiSCAPE Gateway

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VIPER S

SMALL VIPER LUMINAIRE

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	500mA	39W	FR	4689	120	1	0	0	4665	120	1	0	0	4432	114	1	0	0
			2	4523	116	1	0	1	4500	115	1	0	1	4275	110	1	0	1
			3	4436	114	1	0	1	4414	113	1	0	1	4194	108	1	0	1
			4F	4362	112	1	0	2	4340	111	1	0	2	4123	106	0	0	2
			4W	4280	110	1	0	2	4258	109	1	0	2	4045	104	1	0	2
			5QM	4442	114	2	0	1	4420	113	2	0	1	4199	108	2	0	0
			5R	4472	115	2	0	2	4450	114	2	0	2	4227	108	2	0	2
			5W	4335	112	3	0	1	4336	111	3	0	1	4114	105	3	0	1
			TC	4561	117	1	0	1	4538	116	1	0	1	4311	111	1	0	1
			CL	4758	122	1	0	2	4758	122	1	0	2	4329	111	1	0	1
			CR	4773	122	1	0	2	4773	122	1	0	2	4361	112	1	0	1
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4F	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2
			5QM	6022	112	2	0	1	6145	114	2	0	1	5499	102	2	0	1
			5R	6063	112	3	0	3	6187	115	3	0	3	5536	103	3	0	3
			5W	5908	109	3	0	1	6028	112	3	0	1	5908	102	3	0	1
			TC	6183	113	1	0	1	6309	118	1	0	1	5645	105	1	0	1
			CL	6707	122	1	0	2	6707	122	1	0	2	6117	111	1	0	2
			CR	6729	122	1	0	2	6729	122	1	0	2	6143	112	1	0	2
36	560 mA	65W	FR	7864	121	1	0	1	8041	124	1	0	1	7189	111	1	0	1
			2	7586	117	1	0	2	7757	119	1	0	2	6934	107	1	0	2
			3	7441	114	1	0	2	7609	117	1	0	2	6802	105	1	0	2
			4F	7317	110	1	0	2	7482	112	1	0	2	6688	100	1	0	2
			4W	8690	108	1	0	2	8864	110	1	0	2	7908	98	1	0	2
			5QM	7450	115	3	0	1	7618	117	3	0	1	6810	105	3	0	1
			5R	7501	115	3	0	3	7670	118	3	0	3	6857	105	3	0	3
			5W	7309	112	3	0	2	7473	115	3	0	2	6681	103	3	0	1
			TC	7540	116	1	0	1	7694	118	1	0	1	7694	122	1	0	2
			CL	8179	126	2	0	2	8179	126	2	0	2	7467	115	1	0	2
			CR	8205	126	2	0	2	8205	126	2	0	2	7492	115	1	0	2
36	700 mA	80W	FR	9535	118	1	0	1	9730	120	1	0	1	8706	107	1	0	1
			2	9197	114	1	0	2	9385	116	1	0	2	8398	104	1	0	2
			3	9022	111	1	0	2	9206	114	1	0	2	8238	102	1	0	2
			4F	8871	110	1	0	2	9052	112	1	0	2	8100	100	1	0	2
			4W	11587	108	1	0	3	11819	110	1	0	3	10544	98	1	0	3
			5QM	9033	112	3	0	1	9217	114	3	0	1	8248	102	3	0	1
			5R	9095	112	3	0	3	9280	115	3	0	3	8304	103	3	0	3
			5W	8861	109	3	0	2	9043	112	3	0	2	8092	100	3	0	2
			TC	9275	115	1	0	1	9464	118	1	0	1	8468	105	1	0	1
			CL	10060	126	2	0	2	10060	126	2	0	2	9184	115	2	0	2
			CR	10093	126	2	0	2	10093	126	2	0	2	9215	115	2	0	2
48	700 mA	110W	FR	12713	118	1	0	1	12973	120	2	0	1	11608	107	1	0	1
			2	12263	114	2	0	2	12513	116	2	0	2	11197	104	2	0	2
			3	12029	111	2	0	2	12275	114	2	0	2	10984	102	1	0	2
			4F	11828	110	1	0	3	12069	112	1	0	3	10800	100	1	0	2
			4W	11609	108	1	0	3	11841	110	1	0	3	10564	98	1	0	3
			5QM	12044	112	3	0	2	12290	114	3	0	2	10997	102	3	0	1
			5R	12126	112	3	0	3	12374	115	3	0	3	11072	103	3	0	3
			5W	12126	109	4	0	2	12057	112	4	0	2	10789	100	4	0	2
			RC	12366	115	1	0	2	12619	118	1	0	1	11290	105	1	0	2
			CL	13414	122	2	0	3	13414	122	2	0	3	12246	111	2	0	2
			CR	13458	122	2	0	3	13458	122	2	0	3	12287	112	2	0	2
60	700 mA	136W	FR	15891	117	2	0	2	16216	120	2	0	2	14511	107	2	0	1
			2	15329	113	2	0	2	15642	116	2	0	2	13997	103	2	0	2
			3	15037	111	2	0	3	15344	113	2	0	3	13730	101	2	0	3
			4F	14784	109	1	0	3	15086	111	1	0	3	13500	100	1	0	3
			4W	14802	109	2	0	3	15104	112	2	0	3	13515	100	2	0	3
			5QM	15055	111	3	0	2	15362	114	3	0	2	13747	102	3	0	2
			5R	15158	112	4	0	4	15469	114	4	0	4	13841	102	4	0	4
			5W	14781	109	4	0	2	15083	111	4	0	2	13495	100	4	0	2
			TC	15458	115	1	0	2	15834	118	1	0	2	14113	105	1	0	2
			CL	16768	123	3	0	3	16768	123	3	0	3	15309	113	2	0	3
			CR	16823	124	3	0	3	16823	124	3	0	3	15359	113	2	0	3

HUBBELL Lighting

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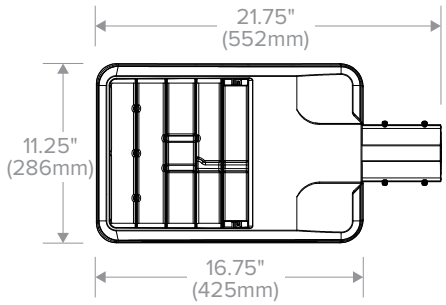
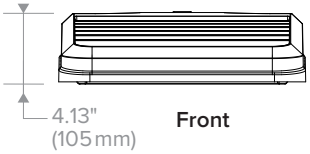
VIPER S

SMALL VIPER LUMINAIRE

DIMENSIONS



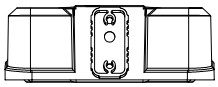


Front

Weight	15.0 lbs (6.8 kg)
EPA	.67 ft²

A Arm (formerly RA)

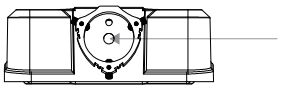
Side View



Back View

MAF (formerly SF2)

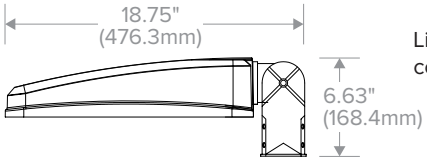
Side View



Back View

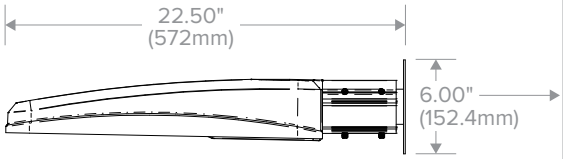
Accepts 2⅜" OD tenon, min 5" long.

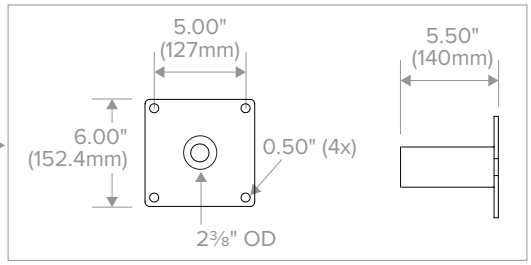
2⅜" Adjustable Knuckle (K) (formerly PK2)



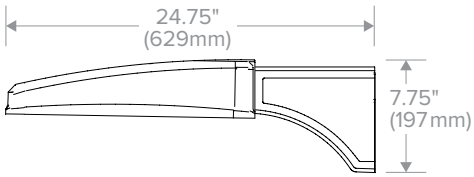
Limit to 30° tilt. Sensor, photocell and wireless controls should not be tilted above horizontal.

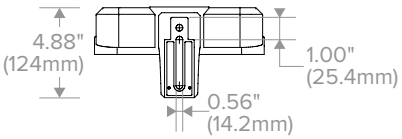
Wall Bracket (WB)





AD Decorative Arm





See page 9 for mounting details.

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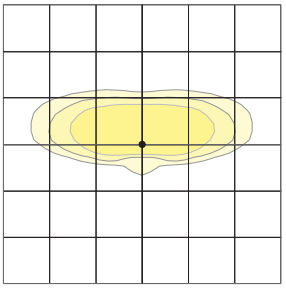
VIPER S

SMALL VIPER LUMINAIRE

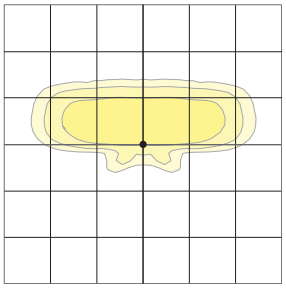
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

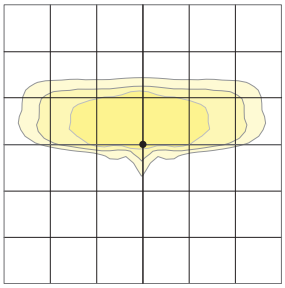
Type FR – Front Row/Auto Optic



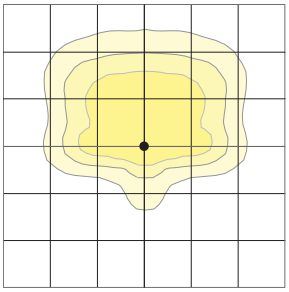
Type 2



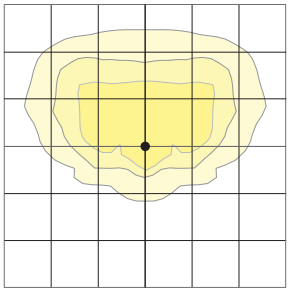
Type 3



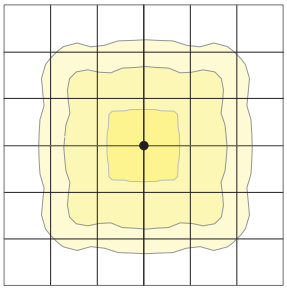
Type 4



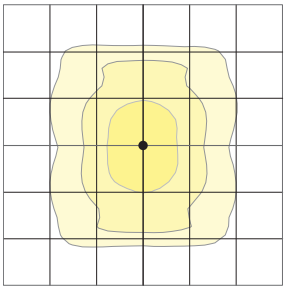
Type 4 Wide



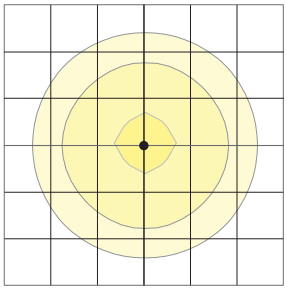
Type 5QM



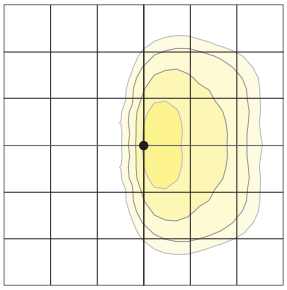
Type 5R (rectangular)



Type 5W (round wide)



Type TC



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VIPER S

SMALL VIPER LUMINAIRE

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	1	500 mA	120	39	0.33
			277		0.14
			347		0.11
			480		0.08
24	1	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
36	1	525 mA	120	65	0.65
			277		0.28
			347		0.22
			480		0.16
		700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

PROJECTED LUMEN MAINTENANCE						
Ambient Temp.	0	25,000	50,000	TM-21-11 60,000[1]	100,000	Calculated L70 (HOURS)
25°C / 77°C	1	0.97	0.95	0.95	0.92	>377,000

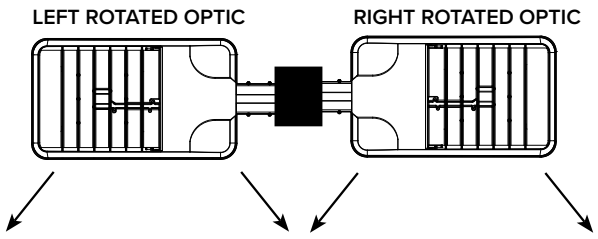
1 Projected per IESNA TM-21-11.
Data references the extrapolated performance projections for the 60 LED base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

LIFESHIELD™ CIRCUIT

Protects luminaire from excessive temperature. The device activates at a specific, factory-preset temperature and progressively reduces power over a finite temperature range. Operation is smooth and undetectable to the eye. Thermal circuit is designed to “fail on”, allowing the luminaire to revert to full power in the event of an interruption of its power supply or faulty wiring connection to the drivers. The device can co-exist with other 0–10V control devices (occupancy sensors, external dimmers, etc.)

ADDITIONAL INFORMATION

ROTATION OPTIONS



HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

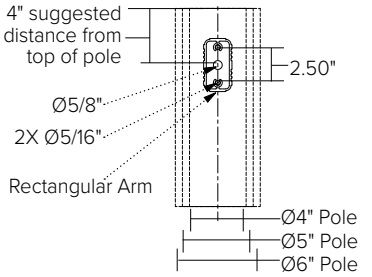
VIPER S

SMALL VIPER LUMINAIRE

ADDITIONAL INFORMATION (CONTINUED)

DRILL PATTERN

RECTANGULAR ARM (A)
Compatible with Pole drill pattern B3



EPA

Config.	EPA
1	.67
2 @ 90˚	1.06
2 @ 180˚	1.34

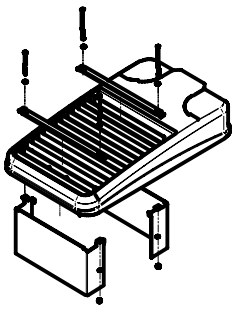
Config.	EPA
3 @ 120˚	1.68
3 @ 90˚	1.73
4 @ 90˚	2.12

TENON TOP POLE BRACKET ACCESSORIES (ORDER SEPARATELY)

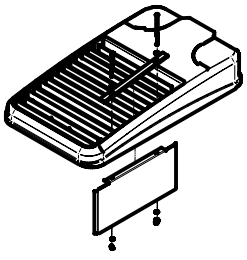
(2 3/8" OD tenon)

TENON TOP POLE BRACKET ACCESSORIES (Order Separately)	
☐ **SETAVP-XX**	Square tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
☐ **RETAVP-XX**	Round tenon adapter (4 at 90°) for A - Rectangular Arm mounting option only
☐ **SETA2XX**	Square tenon adapter (4 at 90°) for AD - Universal Arm mounting option only
☐ **RETA2XX**	Round tenon adapter (4 at 90°) for AD3 - Universal Arm mounting option only

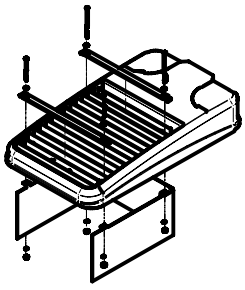
HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES



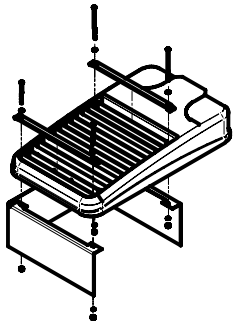
HSS/VP-S/90-FB/XXX
90° shield front or back
(2 shields shown)



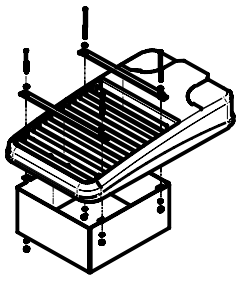
HSS/VP-S/90-LR/XXX
90° shield left or right
(1 shield shown in left orientation)



HSS/VP-S/270-FB/XXX
270° shield front or back
(1 shield shown in back orientation)



HSS/VP-S/270-LR/XXX
270° shield left or right
(1 shield shown in right orientation)



HSS/VP-S/360/XXX
Full shield
(1 shield shown)

DATE: LOCATION:

TYPE: PROJECT:

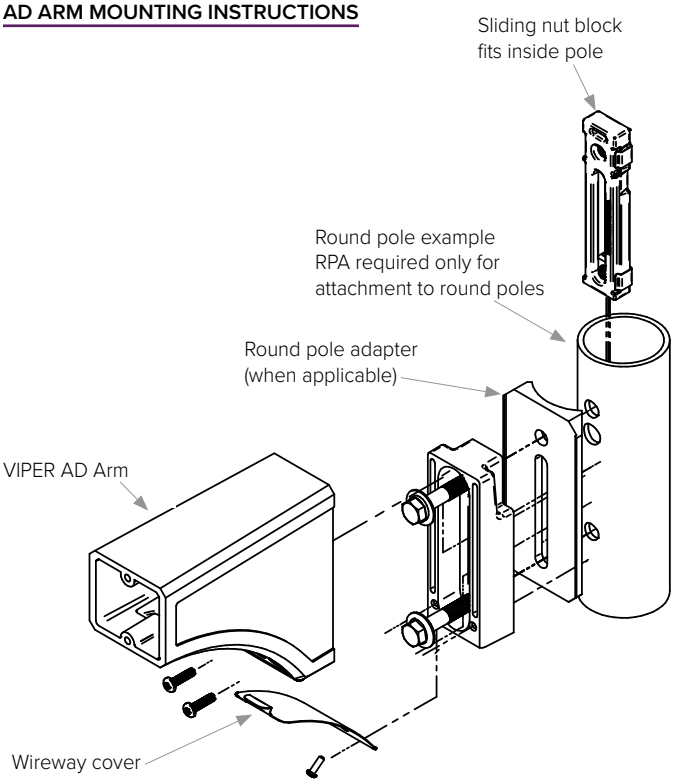
CATALOG #:

VIPER S

SMALL VIPER LUMINAIRE

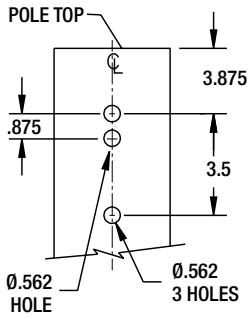
ADDITIONAL INFORMATION (CONTINUED)

AD ARM MOUNTING INSTRUCTIONS



DECORATIVE ARM (AD)

Compatible with pole drill pattern S2



TYPE P4 BEACON VP-S-24L-39-3K7-4-BC CD UNV A BLS/SSA-B-10-40-A-1-B3-BLS

SSA-B SERIES POLES

SQUARE STRAIGHT ALUMINUM

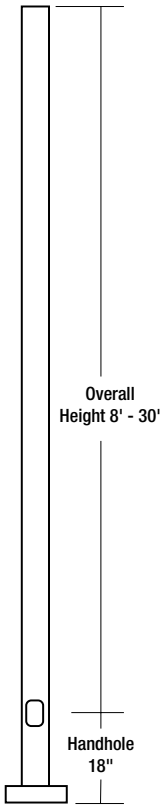
Cat.#

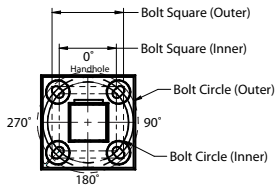
Job

Type

BEACON design . performance . technology

Approvals





APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

CONSTRUCTION

- SHAFT: One-piece straight aluminum with square cross section, flat sides and minimum radius on all corners; Extruded shafts of 6061-T6 aluminum in 1/8", 3/16", or 1/4" thickness. Base plate of 356 cast aluminum.
- BASE COVER: Four (4) individual bolt covers provided, painted to match pole and base finish.
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE: Rectangular 3x5 aluminum hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

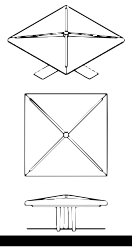
  Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38

  1 x 36 x 4 — TAB-36-M38

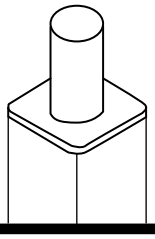
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint finish coat available in 12 standard colors; Custom colors available; RAL number preferable.

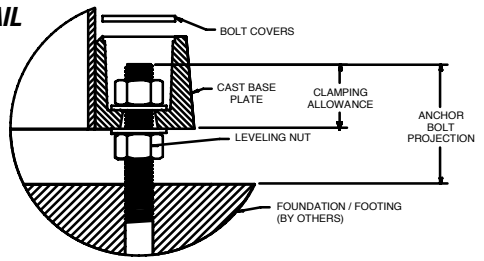
POLE CAP



TENON



BASE DETAIL



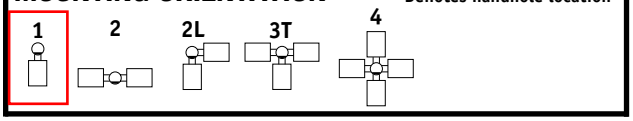
ORDERING EXAMPLE:

SSA-B - 20 - 40 - A/B/C - 2L - B3 - DBT - VM2

SERIES	HEIGHT	SHAFT	THICKNESS
SSA-B Square Straight Aluminum Pole Beacon	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix

MOUNTING ORIENTATION

Denotes handhole location



MOUNTING	
1	Single arm mount
2	Two fixtures at 180°
2L	Two fixtures at 90°
3T	Three fixtures at 90°
4	Four fixtures at 90°
TA	Tenon (2.375" OD)
TB	Tenon (2.875" OD)
OT	Open top (includes pole cap)

FINISH	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

Color Option	
CC	Custom Color

OPTIONS	
GFI[1]	20 Amp GFCI Receptacle and Cover
EHH[1]	Extra Handhole
C05[1]	.5" Coupling
C07[1]	.75" Coupling
C20[1]	2" Coupling
VM1[2]	Mode vibration damper
VM2	2nd mode vibration damper
LAB	Less Anchor Bolts

DRILL PATTERN	
B1	Cruzer, "AM" arm
B3	2 bolt (2-½" spacing), Viper "A" arm
S2	2 bolt (3-½" spacing), Viper "AD" arm

1 Specify option location using logic found on page 2 **(Option Orientation)**
2 VM1 recommended on poles 20' and taller with EPA of less than 1.

ACCESSORIES- Order Separately

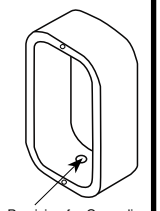
Catalog Number	Description
VM1[2]	1st mode vibration damper
VM2SXX	2nd mode vibration damper

ORDERING INFORMATION Cont.

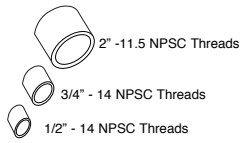
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Anchor bolt size	Bolt Projection	Pole weight (lbs)
	Feet	Meters									
SSA-B-08-40-A	8	2.4	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	32
SSA-B-10-40-A	10	3.0	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	37
SSA-B-12-40-A	12	3.7	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	42
SSA-B-14-40-A	14	4.3	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	47
SSA-B-16-40-A	16	4.9	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	52
SSA-B-18-40-A	18	5.5	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	57
SSA-B-20-40-A	20	6.1	4" Square	.125"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	62
SSA-B-16-40-B	16	4.9	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	74
SSA-B-18-40-B	18	5.5	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	80
SSA-B-20-40-B	20	6.1	4" Square	.188"	8.5"	8.5" - 9.5"	6.01" - 6.72"	9.88 x 2"	3/4 x 30 x 3"	3"	85
SSA-B-18-50-B	18	5.5	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	91
SSA-B-20-50-B	20	6.1	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	107
SSA-B-25-50-B	25	7.6	5" Square	.188"	10.5"	10.5" - 11.5"	7.42" - 8.13"	10.44 x 2.5"	3/4 x 30 x 3"	3.5"	130
SSA-B-16-60-B	16	4.9	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	105
SSA-B-18-60-B	18	5.5	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	130
SSA-B-20-60-B	20	6.1	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	155
SSA-B-25-60-B	25	7.6	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	180
SSA-B-30-60-B	30	9.1	6" Square	.188"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	210
SSA-B-16-60-C	16	4.9	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	121
SSA-B-18-60-C	18	5.5	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	144
SSA-B-20-60-C	20	6.1	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	166
SSA-B-25-60-C	25	7.6	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	224
SSA-B-30-60-C	30	9.1	6" Square	.250"	12"	12" - 13"	8.49" - 9.19"	11.96 x 2.75"	1 x 36 x 4"	3.75"	258

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

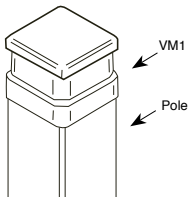
EHH - EXTRA HANDHOLE



C05 - C07 - C20 - COUPLING



VM1 - VIBRATION DAMPER 1ST MODE



Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is required for pole systems 20' and taller with a total EPA of 1.0 or less.

VM2 - VIBRATION DAMPER 2ND MODE

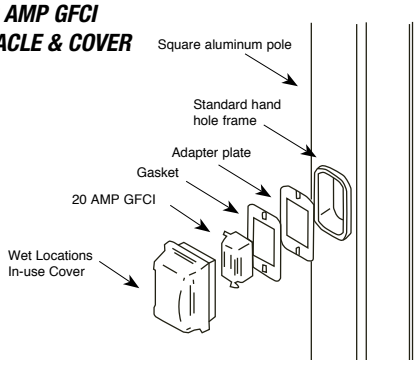
Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

VM2SXX - VIBRATION DAMPER 2ND MODE

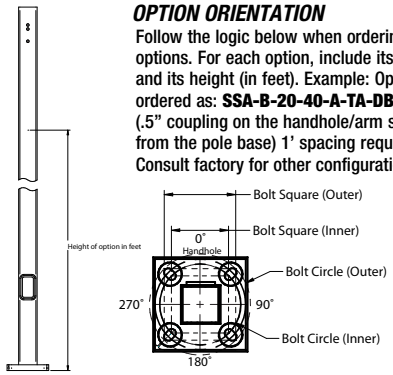
VM2S08 – 8'
VM2S12 – 12'
VM2S16 – 16'
VM2S20 – 20'
VM2S24 – 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI – 20 AMP GFCI RECEPTACLE & COVER



OPTION ORIENTATION

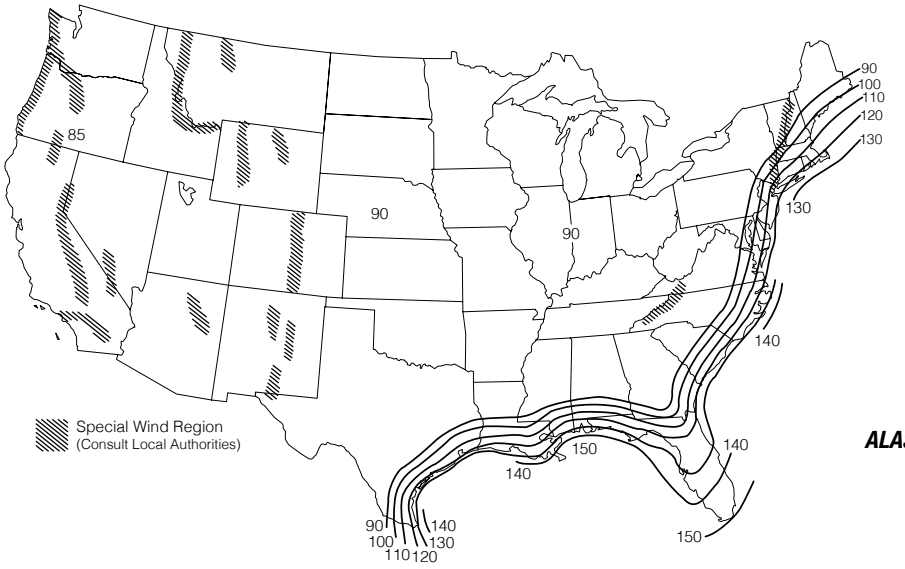


Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **SSA-B-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.

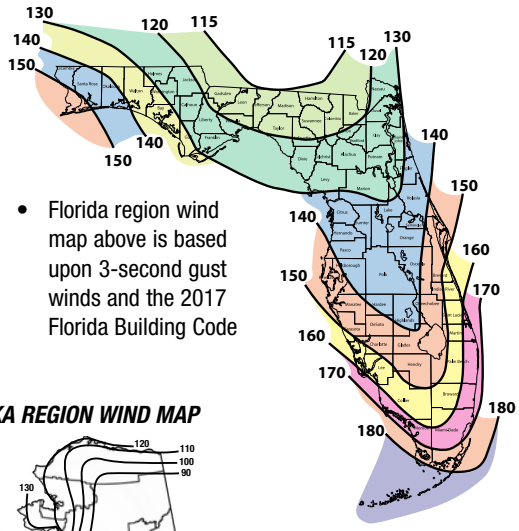
For more information about pole vibration and vibration dampers, please consult:
https://hubbellcdn.com/ohwassets/HLI/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HLOI0022.pdf

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

ASCE7-05 WIND MAP

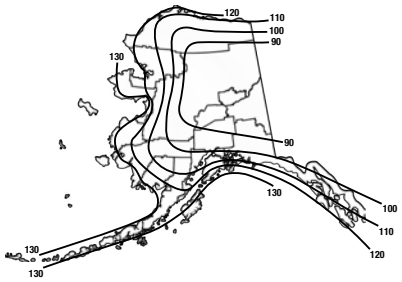


FLORIDA REGION WIND MAP



- Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code

ALASKA REGION WIND MAP



HAWAII – 105 mph
PUERTO RICO – 145 mph

***PRINTED WITH PERMISSION FROM ASCE**

ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds										
Catalog Number	**85**	**90**	**100**	**105**	**110**	**120**	**130**	**140**	**145**	**150**
SSA-B-08-40-A	17.3	15.2	12.0	10.7	9.6	7.7	6.2	5.0	4.5	4.0
SSA-B-10-40-A	12.6	11.0	8.4	7.4	6.5	4.9	3.7	2.8	2.4	2.0
SSA-B-12-40-A	9.3	7.9	5.8	4.9	4.2	2.9	1.9	1.1	0.8	0.5
SSA-B-14-40-A	6.7	5.6	3.8	3.0	2.4	1.3	NR	NR	NR	NR
SSA-B-16-40-A	4.7	3.7	2.1	1.4	0.9	NR	NR	NR	NR	NR
SSA-B-18-40-A	2.9	2.1	0.6	NR	NR	NR	NR	NR	NR	NR
SSA-B-20-40-A	1.4	0.6	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-40-B	9.2	7.7	5.4	4.5	3.7	2.3	1.2	NR	NR	NR
SSA-B-18-40-B	6.8	5.6	3.6	2.7	2.0	0.8	NR	NR	NR	NR
SSA-B-20-40-B	4.8	3.7	1.9	1.2	0.6	NR	NR	NR	NR	NR
SSA-B-18-50-B	12.9	10.9	7.6	6.3	5.1	3.2	1.7	0.5	NR	NR
SSA-B-20-50-B	9.8	8.1	5.2	4.0	3.0	1.3	NR	NR	NR	NR
SSA-B-25-50-B	4.0	2.7	0.5	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-B	25.0	22.3	16.9	14.7	12.7	9.6	7.0	5.0	4.2	3.4
SSA-B-18-60-B	20.7	17.7	13.0	11.0	9.3	6.5	4.3	2.6	1.8	1.1
SSA-B-20-60-B	16.4	13.8	9.6	7.9	6.4	3.9	2.0	NR	NR	NR
SSA-B-25-60-B	8.3	6.3	3.1	1.8	0.7	NR	NR	NR	NR	NR
SSA-B-30-60-B	2.5	0.8	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-C	25.0	25.0	24.5	21.5	19.0	14.9	11.6	9.0	7.9	6.8
SSA-B-18-60-C	25.0	25.0	19.5	17.1	14.9	11.2	8.3	6.0	5.1	4.2
SSA-B-20-60-C	24.2	20.9	15.4	13.2	11.2	8.0	5.5	3.5	2.6	1.8
SSA-B-25-60-C	14.2	11.6	7.5	5.8	4.3	1.9	NR	NR	NR	NR
SSA-B-30-60-C	7.1	5.0	1.7	NR	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds								
Catalog Number	**115**	**120**	**130**	**140**	**150**	**160**	**170**	**180**
SSA-B-08-40-A	14.8	13.4	11	9.1	7.6	6.3	5.3	4.4
SSA-B-10-40-A	10.9	9.8	7.9	6.3	5.1	4.1	3.2	2.5
SSA-B-12-40-A	7.9	7.0	5.4	4.1	3.0	2.2	1.5	0.9
SSA-B-14-40-A	5.6	4.8	3.4	2.3	1.4	0.6	NR	NR
SSA-B-16-40-A	3.6	2.9	1.7	0.7	NR	NR	NR	NR
SSA-B-18-40-A	1.8	1.2	NR	NR	NR	NR	NR	NR
SSA-B-20-40-A	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-40-B	7.7	6.7	4.9	3.5	2.4	1.5	0.7	NR
SSA-B-18-40-B	5.4	4.5	3	1.8	0.8	NR	NR	NR
SSA-B-20-40-B	3.5	2.7	1.3	NR	NR	NR	NR	NR
SSA-B-18-50-B	10.6	9.2	6.8	4.9	3.3	2	1	NR
SSA-B-20-50-B	7.8	6.5	4.4	2.7	1.3	NR	NR	NR
SSA-B-25-50-B	2.2	1.2	NR	NR	NR	NR	NR	NR
SSA-B-16-60-B	22	19.6	15.5	12.4	9.8	7.7	5.9	4.4
SSA-B-18-60-B	17.2	15.2	11.7	8.9	6.6	4.8	3.3	2
SSA-B-20-60-B	13.4	11.5	8.4	6.4	4	2.4	1	NR
SSA-B-25-60-B	5.7	4.4	2	NR	NR	NR	NR	NR
SSA-B-30-60-B	NR	NR	NR	NR	NR	NR	NR	NR
SSA-B-16-60-C	25	25	22.8	18.6	15.2	12.5	10.1	8.2
SSA-B-18-60-C	25	22.5	18	14.3	11.3	9	7	5.3
SSA-B-20-60-C	20.4	18	14	10.8	8.2	6	4.3	2.8
SSA-B-25-60-C	11.2	9.3	6.2	3.8	1.8	NR	NR	NR
SSA-B-30-60-C	4.3	2.9	NR	NR	NR	NR	NR	NR

NOTES

Wind-speed Website disclaimer:
Hubbell Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Hubbell Lighting Inc. does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. http://windspeed.atcouncil.org

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. https://hubbellcdn.com/ohwassets/HLI/outdoor/resources/literature/files/Pole_Wind_Induced_Flyer_HLOI0022.pdf
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

TYPE EC1 HUBBELL ML-2L3K-1 WH

Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

MARSHAL LED TWIN

MOTION SENSOR KIT

tradeSELECT

FEATURES

- Attractive security floodlight improves safety and replaces bulky outdated fixtures
- Powerful LED system saves energy and maintenance over traditional lighting sources
- Includes adjustable settings for time, sensitivity, and distance
- Aimable PIR occupancy sensor has 180° coverage, perfect for outdoor applications
- CSA listed to UL1598 for use in wet locations

RELATED PRODUCTS

Ratio Family FSL Factor Colt Flood

MARSHAL PSG PAGE

INSTRUCTIONS

DIMENSIONAL DRAWINGS

SPECIFICATIONS

CONSTRUCTION
- Die cast aluminum heads and mounting plate
- Mounting plate has 1/2" threaded hubs
- Tempered glass lenses
- UV resistant occupancy sensor
- 2 adjustable 1000 lumen LED heads
- Available in Dark Bronze or White finish

OPTICS
- Replaces twin 150w incandescent lamps
- Each floodlight head has a 6x6 distribution

INSTALLATION
- Mounts to 4" junction box and includes a gasket to seal electrical connections

INSTALLATION (CONTINUED)
- Easy 4 step installation and wiring
- Two ½" threaded conduit hubs for surface conduit provided

ELECTRICAL
- 120V/60Hz LED

CONTROLS
- Adjustable PIR occupancy sensor
- PIR occupancy sensor has 180 degree coverage
- Programmable settings include time, sensitivity, distance

CERTIFICATIONS
- CSA listed to UL1598 for use in wet locations
- Heads NEMA 3R

WARRANTY
- 5 year warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	2104
Wattage Range	26.6W
Efficacy Range (LPW)	79
Fixture Projected Life (Hours)	L70>125K
Weights lbs. (kg)	2.2 (1)

STOCK ORDERING INFORMATION

	Catalog Number	Mount	Color	Beam Pattern	Wattage	Voltage	CCT/CRi	Lumens	LPW	Weight lbs. (kg)
☐	ML–2L3K–1–DB	Ceiling/Wall	Dark Bronze	General	26.6w	120V	3000K/83	2104	79	2.2 (1)
☐	ML–2L3K–1–WH	Ceiling/Wall	White	General	26.6w	120V	3000K/83	2104	79	2.2 (1)

ACCESSORIES

Accessories		
☐	MS–DB	.5" threaded, Dark bronze, Occupancy sensor only, 180° and adjustable settings
☐	MS-WH	.5" threaded, White, Occupancy sensor only, 180° and adjustable settings

MS-DB MS-WH

HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

MARSHAL LED TWIN

MOTION SENSOR KIT

PERFORMANCE DATA

			3K (3000K nominal, 80 CRI)	
# of LEDs	Drive Current	System Watts	Lumens	LPW[1]
2	0.22	26.6	2090	80.2

1 Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application

ELECTRICAL DATA

# OF LEDS	Drive Current (mA)	Input Voltage (V)	Oper. Current (Amps)	System Power (Watts)
2	0.22	120	0.994	26.6

PROJECTED LUMEN MAINTENANCE

	Operating Hours					
Ambient Temp.	0	25,000	TM–21–111 L90 36,000	50,000	100,000	L70 (hours)
25ºC / 770F	1.00	0.93	0.90	0.86	0.75	> 125,000
40ºC / 1040F	0.99	0.90	0.86	0.81	0.67	> 88,000

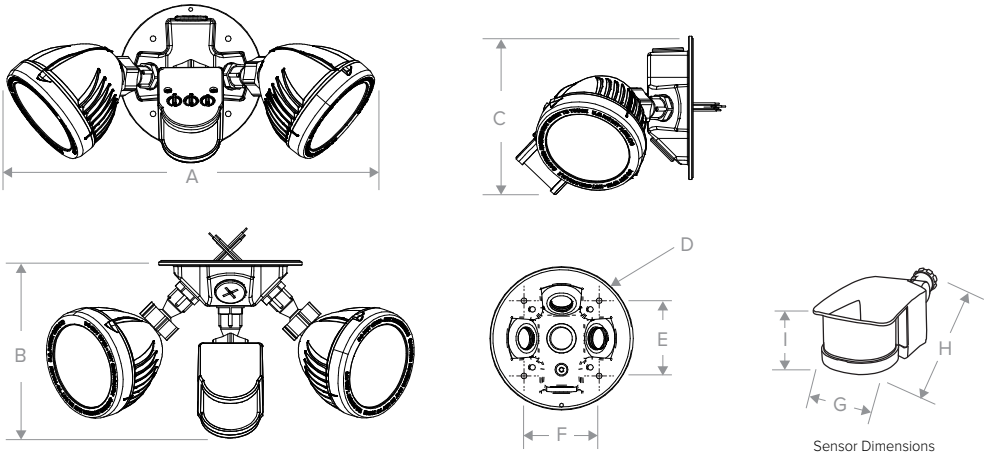
1 Projected per IESNA TM–21–11 (*Cree XP-L, 2100A, 105ºC Ts, 6,000hrs)

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0˚ C	32˚ F	1.06
10˚ C	50˚ F	1.03
20˚ C	68˚ F	1.01
25˚ C	77˚ F	1.00
30˚ C	86˚ F	0.99
40˚ C	104˚ F	0.97
50˚ C	122˚ F	0.94

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F)

DIMENSIONS



Sensor Dimensions

A	B	C	D	E	F	Weight	G	H	I
12.75" 323 mm	6.5" 165 mm	5.00" 127 mm	4.81" 122 mm	2.52" 64 mm	2.52" 64 mm	2.2 lbs. 1 kg	0.25" 60 mm	6" 152 mm	0.25" 47 mm

HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

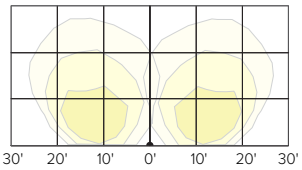
MARSHAL LED TWIN

MOTION SENSOR KIT

PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

Marshal – Mounting Height: 10ft



ADDITIONAL INFORMATION

SENSOR ADJUSTMENTS

Includes adjustable settings and photo control

- Time
- Sensitivity
- Distance

SHIPPING INFORMATION

Catalog Number	G.W(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
ML-2L	3.4 lbs (1.5)	10.75" (27.3)	7.75" (20.7)	6.5" (16.5)
MS	0.4 lbs (0.2)	2.38" (6.0)	2.13" (5.4)	5.88" (14.9)

HUBBELL Lighting