MICHAEL L. FEELEY

Attorney at Law
50 FRANKLIN STREET, SUITE 3A
BOSTON, MASSACHUSETTS 02110
(617) 542-8905
FAX (617) 542-6479
mikefeeley@dohertylawoffices.net

April 14, 2022

Robert Rosa, Chairman Town of Rockland, MA Board of Appeals 242 Union Street Rockland, MA 02370

Re: Updated Plans for Schoolhouse Apartments Rockland located at 6 Delprete Avenue, Rockland, MA.

Dear Chairman Rosa,

I am writing to you to follow up on our presentation to the Town of Rockland's Zoning Board of Appeals (the "Board") at the Tuesday, April 5th, 2022 meeting of the Board. Schoolhouse Apartments Rockland, Limited Partnership (the "Applicant"), Connolly and Partners, LLC (the "Developer") and the entire development team of Schoolhouse Apartments Rockland (the "Project") greatly appreciated the Board's thoughtful comments during the April 5th meeting for the Project

As follow up to the meeting, we have incorporated the Board's and Town Department's comments into a full set of 11" x 17" plans responding to these comments. We are grateful for the Board's feedback and look forward to presenting all updates to our application for a Comprehensive Permit under M.G.L. Chapter 40B for the Project at the April 26th, 2022 meeting of the Board.

Sincerely,

Michael Feeley

Enclosures: Exhibits A thru S

Cc: Liza Landy, Town Clerk, Town of Rockland Debra Shettlesworth, Regulatory Coordinator

EXHIBITS

EXHIBIT A Letter from McKenzie Engineering Responding to Amory

Engineering Peer Review dated April 12, 2022

EXHIBIT B Existing Conditions Plan updated April 12, 2022

EXHIBIT C Form A Plan updated April 12, 2022

EXHIBIT D Exhibit B Parking Plan updated April 12, 2022

EXHIBIT E Site Plan updated April 12, 2022

EXHIBIT F Grading and Utility Plan updated April 12, 2022

EXHIBIT G Traffic Flow Plan updated April 12, 2022

EXHIBIT H Signage and Pavement Marking Plan updated April 12, 2022

EXHIBIT I Construction Management Plan updated April 12, 2022

EXHIBIT J Connolly and Partners Letter to Rockland Fire Department

updated April 8, 2022

EXHIBT K Emergency Apparatus Turning Movement Plan April 12, 2022

EXHIBIT L Signage Construction Details (2 pages) updated April 12, 2022

EXHIBIT M Planting Plan dated April 12, 2022

EXHIBIT N Photometric Plan/ Site Details dated April 12, 2022 (2 pages)

EXHIBIT O Architectural Grills Cut Sheets (2 pages)

EXHIBIT P Proposed Elevations dated March 15, 2021 and updated August

28th, 2021

EXHIBIT Q First and Second Floor Plans dated March 15, 2021 and updated

August 28, 2021, and Second and Third Floor Plans dated March

15, 2021 (2 pages)

EXHIBIT R Waivers List

EXHIBIT S Snow Removal Plan (8 pages)



Professional Civil Engineering • Professional Land Surveying • Land Planning

150 Longwater Drive, Suite 101 Norwell, MA 02061 Tel: 781-792-3900 www.mckeng.com

April 12, 2022

Rockland Zoning Board of Appeals Town of Rockland 242 Union Street Rockland, MA 02370

RE: Schoolhouse Apartments – Chapter 40B Comprehensive Permit – Response to Amory Engineers, P.C. Peer Review

On behalf of the applicant, Connolly and Partners, LLC, McKenzie Engineering Group, Inc. (MEG) is pleased to submit these responses to the comments received in a memorandum dated April 5, 2022 from Amory Engineers, P.C. The following are the peer review comments with MEG responses in **bold italics**.

- 1. New/replaced catch basins should be equipped with four foot sumps and gas-trap hoods.
 - Language has been added to the plans that new/replace catch basins shall be equipped with four foot sumps and gas-trap hoods. See Grading and Utility Plan, Sheet C-2, and Construction Detail Sheet, CD-1.
- 2. If there are sumps in existing catch basins the existing catch basins should also be equipped with gas-trap hoods wherever possible.
 - Language has been added to the plans that existing catch basins to be retained shall have gas-trap hoods installed. Existing infrastructure is also proposed to have sediment removed and pipes cleaned. See Grading & Utility Plan, Sheet C-2.
- 3. We note that when the existing lot is subdivided, easements will be required for shared stormwater infrastructure, sewer infrastructure, parking and access/egress.
 - Easement will be provided for as required. A Reciprocal Easement document has been prepared as part of the lot creation which will legally allow access to both parcels and will be recorded with the lot. In addition, a 20' sewer easement is proposed across Lot A to provide access rights to the sewer infrastructure. See ANR Plan, Sheet ANR-1, and Grading and Utility Plan, Sheet C-2.

Should you have any questions on the contents of this submittal package or require any additional information, please do not hesitate to contact our office.

Very truly yours,

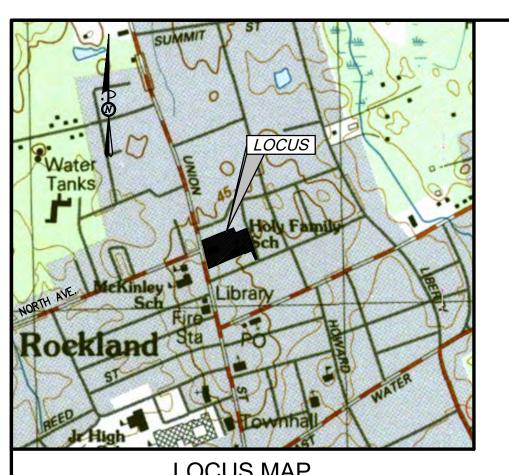
MCKENZIE ENGINEERING GROUP, INC.

Austin Charter, PE, LEED GA Project Engineer

cc: Connolly and Partners, LLC Amory Engineer, P.C.

Bradley C. McKenzie, P.E.

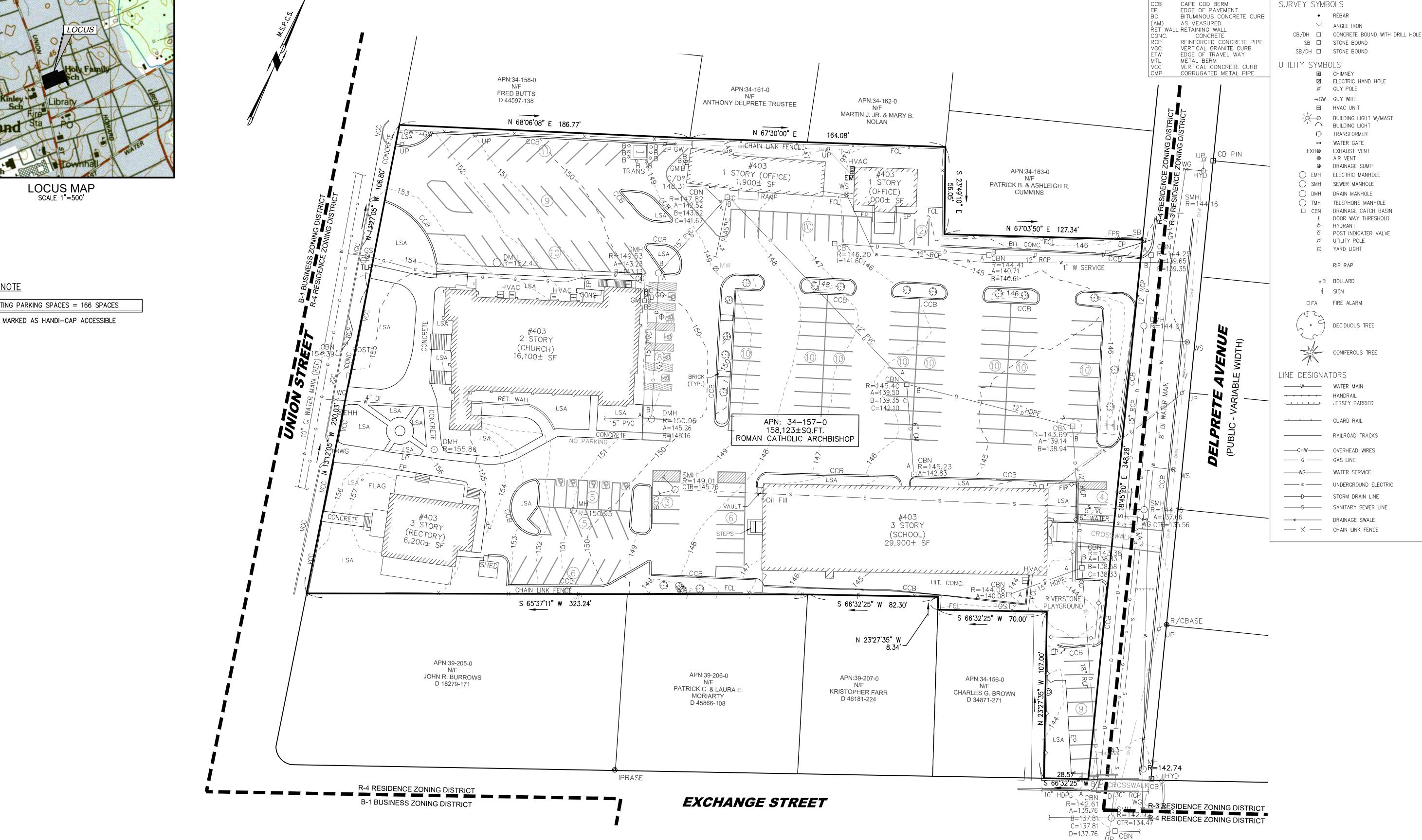
President



PARKING NOTE

TOTAL EXISTING PARKING SPACES = 166 SPACES

10 SPACES MARKED AS HANDI-CAP ACCESSIBLE

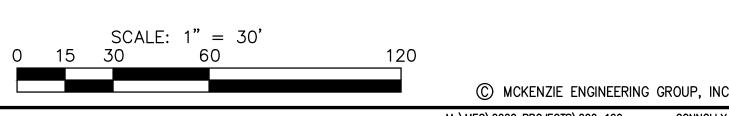


BUILDING, LOT AND GENERAL DISTRICT REGULATIONS

	R-4 RESIDENCE ZONING DISTRICT
MINIMUM LOT AREA	32,670 SQ. FT.
MAXIMUN NO. OF DWELLING UNITS PER 32,670 S.F.	4
MAXIMUM BUILDING AVERAGE % OF LOT	40
MAXIMUM NUMBER OF STORIES	3
MAXIMUM HEIGHT	36 FT.
FRONT YARD SETBACK	25 FT.
REAR YARD SETBACK	50 FT.
SIDE YARD SETBACK	15 FT.
MINIMUM LOT WIDTH	110 FT.
MINIMUM LOT FRONTAGE	110 FT.

GENERAL NOTES:

- 1. LOCUS IS SHOWN AS PARCEL NUMBER 34-157-0 ON THE TOWN OF ROCKLAND ASSESSORS
- 2. LOCUS IS OWNED BY THE ROMAN CATHOLIC ARCHBISHOP, 403 UNION STREET, ROCKLAND MA
- EXISTING CONDITIONS INFORMATION FOR THE SUBJECT PARCEL SHOWN HEREON IS TAKEN FROM A PLAN RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS AS PLAN BK. 11 PG. 155 ENTITLED "HOLY FAMILY PARISH" - ROCKLAND MASSACHUSETTS, PREPARED BY REGISTERED LAND SURVEYOR LORING H. JACOBS AND DATED 01/11/1956. OFFSITE CONDITIONS INFORMATION COMPILED FROM MASSGIS DATA AND LICENSED GOOGLE ORTHO
- 4. THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X AS SHOWN ON F.I.R.M. No. 25023C0093J, EFFECTIVE 7/17/12.
- 5. THE PROPERTY SHOWN HEREON DOES NOT LIE IN A FLOOD PLAIN OVERLAY DISTRICT.
- 6. LOCUS IS SITUATED WITHIN THE TOWN OF ROCKLAND R-4 RESIDENCE ZONING DISTRICT.



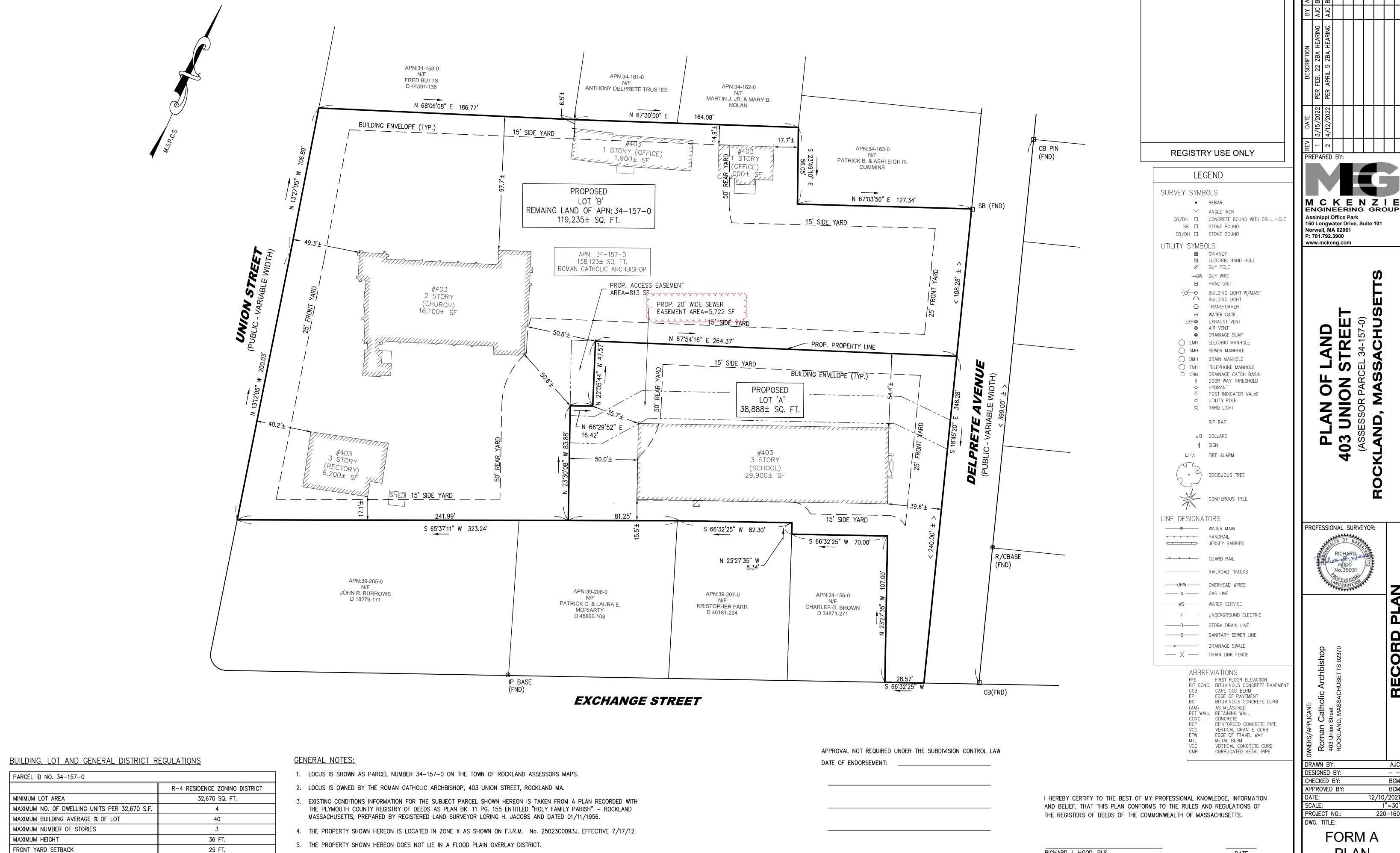
ABBREVIATIONS

BIT CONC. BITUMINOUS

FIRST FLOOR ELEVATION

PREPARED BY: MCKENZIE Assinippi Office Park 150 Longwater Drive, Suite 101 Norwell, MA 02061 P: 781.792.3900 www.mckeng.com 0 PROFESSIONAL SURVEYOR: DRAWN BY: DESIGNED BY: AJC RTLS CHECKED BY: APPROVED BY: 1/19/2021 SCALE: 1"=30' PROJECT NO.: 220-160 DWG. TITLE: **EXISTING** CONDITIONS **PLAN** DWG. NO:

EX-1



6. LOCUS IS SITUATED WITHIN THE TOWN OF ROCKLAND R-4 RESIDENCE ZONING DISTRICT.

AREA OF 119,235± SQUARE FEET.

7. THE PURPOSE OF THIS PLAN IS TO CONVEY A PORTION OF THE EXISTING ASSESSOR PARCEL NUMBER 34-157-0 WITH AN

EXISTING AREA OF 158,123± SQUARE FEET, TO CREATE A BUILDABLE LOT 'A' WITH AN AREA OF 38,888± SQUARE FEET,

THE REMAINING PORTION OF APN 34-157-0 SHALL HAVE NO CHANGE IN OWNERSHIP, AND IS SHOWN AS LOT 'B' WITH AN

REAR YARD SETBACK

SIDE YARD SETBACK

MINIMUM LOT WIDTH

MINIMUM LOT FRONTAGE

50 FT.

15 FT.

110 FT.

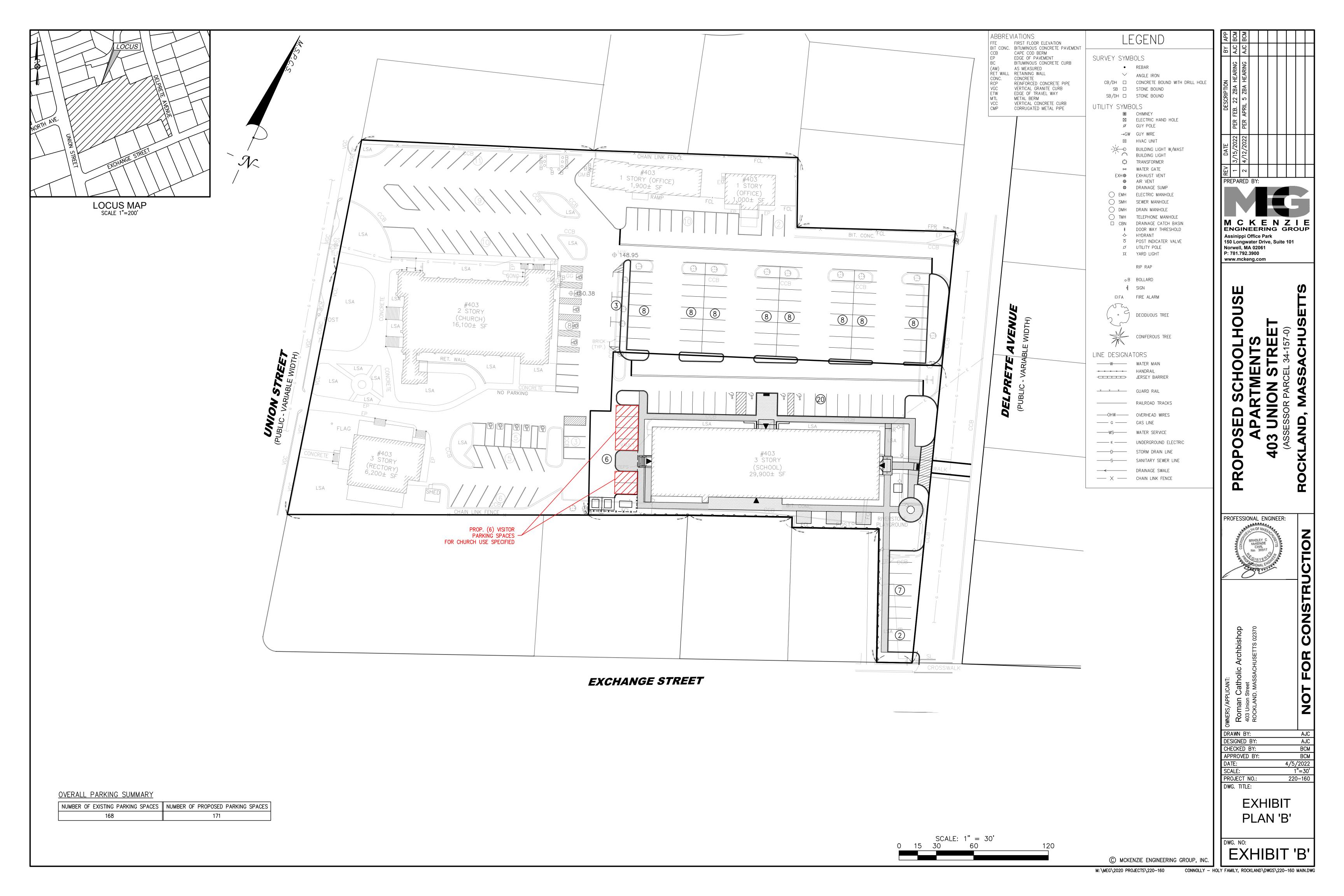
110 FT.

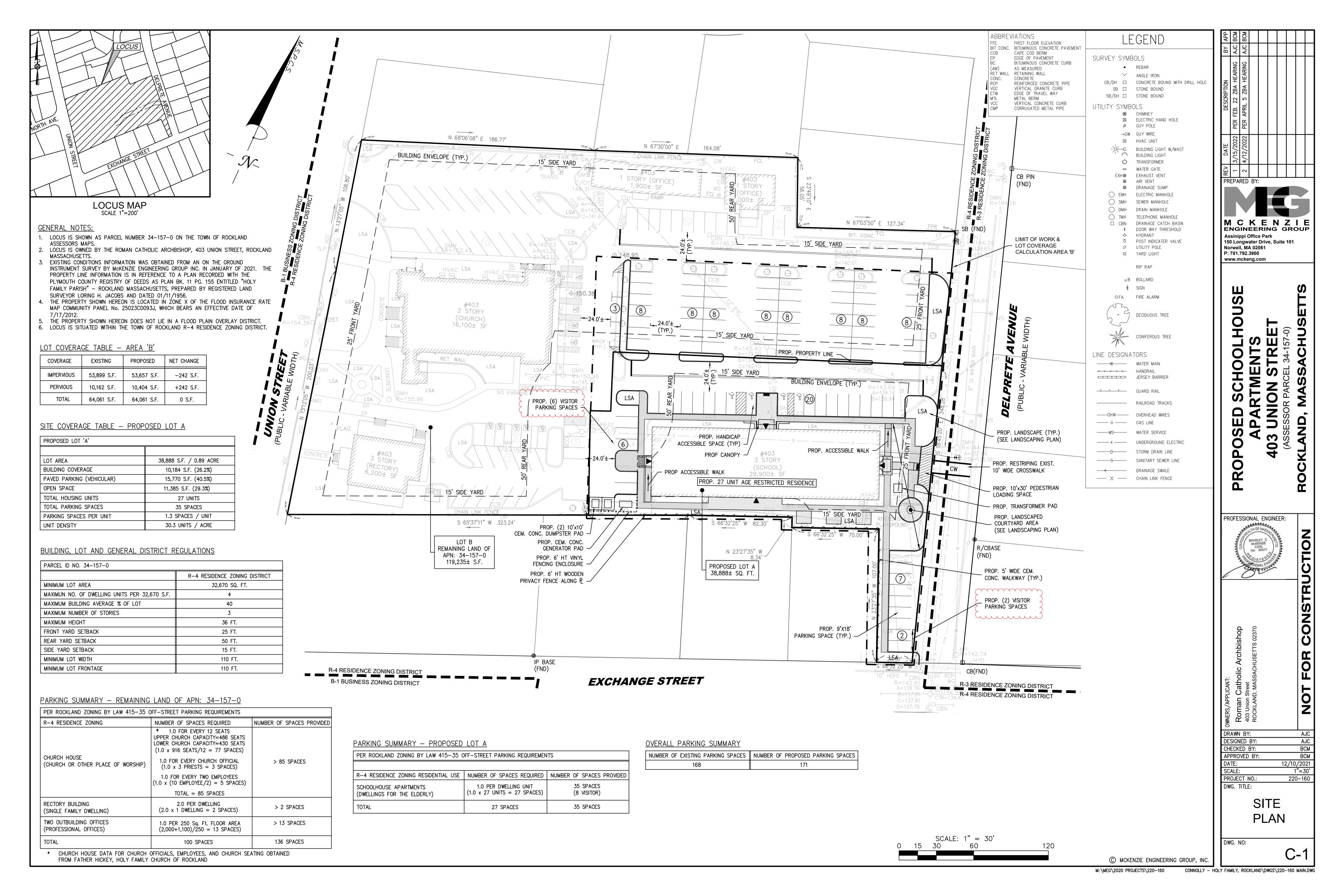
BCM 12/10/2021 1"=30' 220-160 FORM A **PLAN** DATE DWG. NO: ANR-1 © MCKENZIE ENGINEERING GROUP, INC

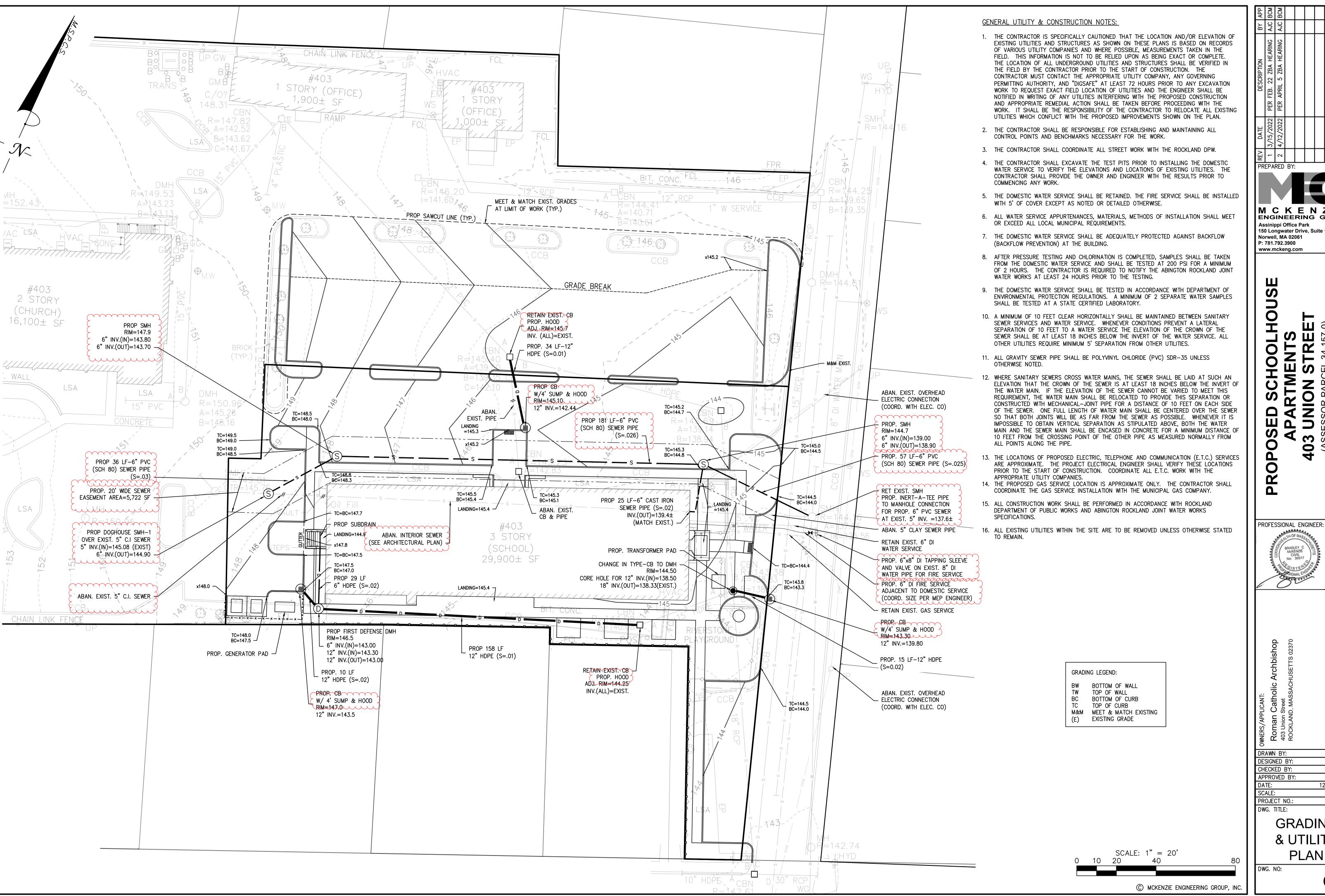
RICHARD J. HOOD, PLS

TOWN OF ROCKLAND PLANNING BOARD

CONNOLLY - HOLY FAMILY, ROCKLAND\DWGS\220-160 MAIN.DWG M:\MEG\2020 PROJECTS\220-160







MCKENZIE

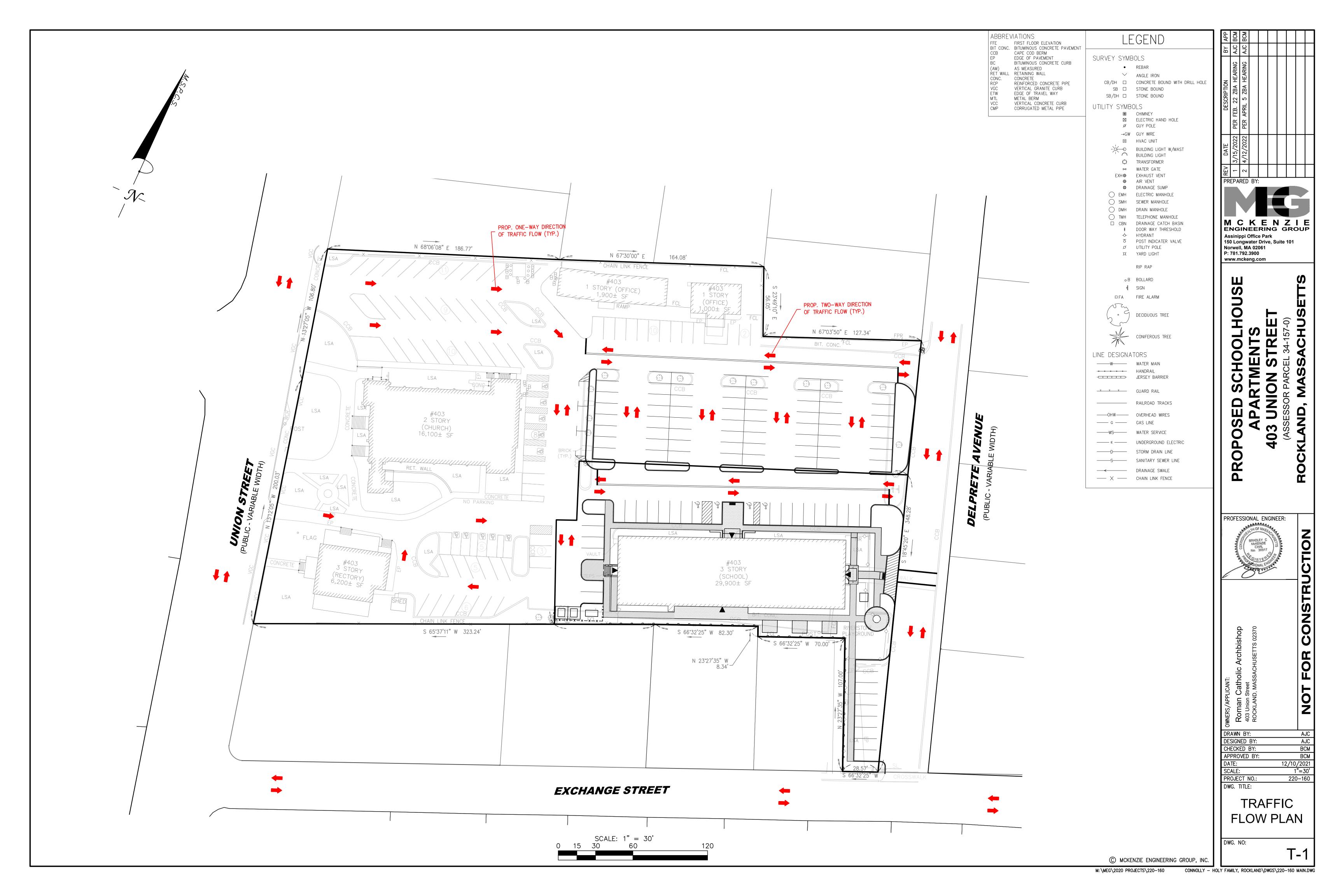
ENGINEERING GROUP

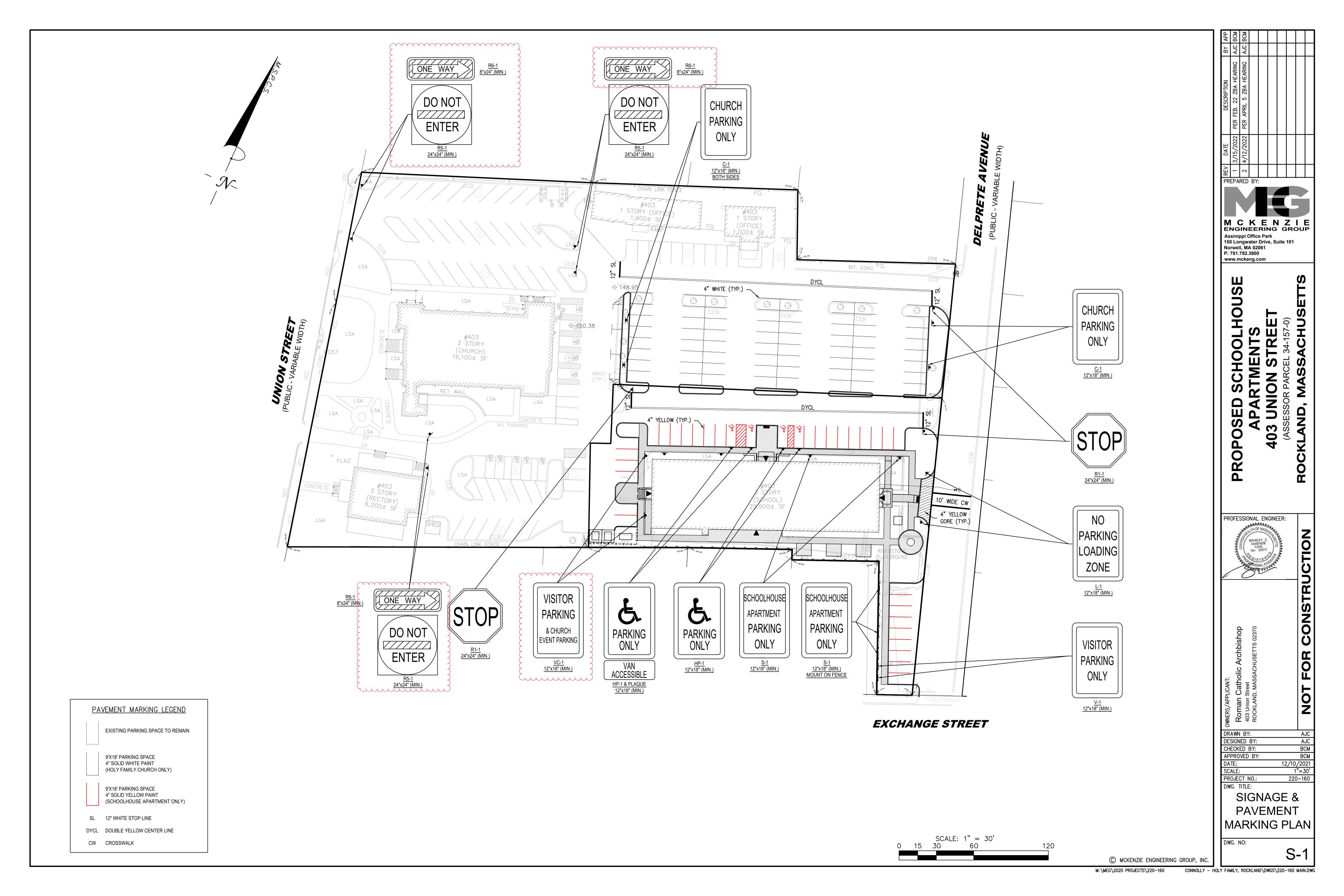
150 Longwater Drive, Suite 101

AJC AJC BCM BCM 12/10/2021 1"=20 220-160

GRADING & UTILITY

C-2





EROSION AND SEDIMENTATION CONTROL

- STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE SILT SOCK BARRIER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, TEMPORARY DIVERSION SWALES WITH STONE CHECK DAMS, SEDIMENT BASINS, AND INLET PROTECTION.
- STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
- IN GENERAL, THE SMALLEST POSSIBLE AREA OF LAND SHOULD BE EXPOSED AT ONE TIME. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHALL BE CONFINED TO A MAXIMUM PERIOD OF 3 MONTHS. LAND SHALL NOT BE EXPOSED DURING THE WINTER MONTHS. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY AND THAT WILL BE REGRADED AT A LATER DATE SHALL BE MACHINE HAY MULCHED AND SEEDED WITH WINTER RYE TO PREVENT EROSION.

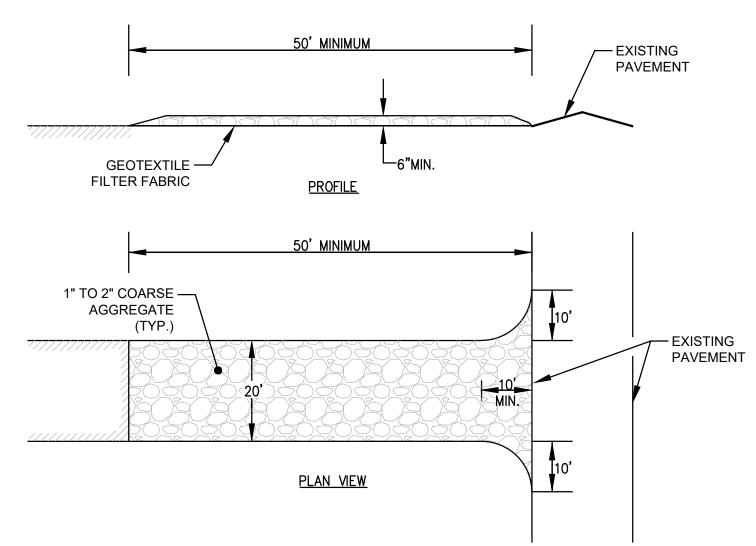
CONSTRUCTION SEQUENCE

TO PREVENT EXCESSIVE EROSION AND SILTING, THE FOLLOWING CONSTRUCTION SEQUENCE COUPLED WITH OTHER WIDELY ACCEPTED PRINCIPALS FOR REDUCING EROSION AND SEDIMENTATION SHALL BE IMPLEMENTED IN THE DEVELOPMENT OF THE SITE. STABILIZATION PRACTICES FOR EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED

- PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. REFER TO "EROSION AND SEDIMENTATION CONTROL" SECTION OF THIS PLAN. PLACE EROSION CONTROL BARRIERS AND CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS.
- CLEAR AND GRUB ALL AREAS ASSOCIATED WITH THE CONSTRUCTION OF THE CONSTRUCTION ENTRANCE AND INSTALL ALL OTHER STORMWATER BEST MANAGEMENT PRACTICES SHOWN ON THIS PLAN.
- BEGIN DEMOLITION AND CONSTRUCTION OF BUILDING.
- GRADE PARKING LOT AND SITE ENTRANCES TO SUBGRADE ELEVATION AND CONSTRUCT SIDE SLOPES. APPLY TEMPORARY STABILIZATION MEASURES WHERE WARRANTED. REFER TO "EROSION AND SEDIMENT CONTROL" SECTION OF THIS PLAN.
- COMPLETE FINAL CONSTRUCTION.
- REMOVE ALL EROSION AND AND SEDIMENTATION CONTROL MEASURES.

CONSTRUCTION PHASE OPERATION AND MAINTENANCE NOTES:

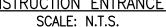
- STRUCTURAL PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE EROSION CONTROL BARRIERS, STABILIZED CONSTRUCTION ENTRANCES, AND INLET PROTECTION.
- 2. STABILIZATION PRACTICES UTILIZED FOR THE PROJECT WILL INCLUDE TEMPORARY SEEDING, GEOTEXTILES (JUTE MESH), MULCHING, AND PERMANENT SEEDING.
- 3. OPERATOR PERSONNEL SHALL INSPECT THE CONSTRUCTION SITE AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 1/2 INCH OR GREATER. THE INSPECTOR SHOULD REVIEW THE EROSION AND SEDIMENT CONTROLS WITH RESPECT TO THE FOLLOWING:
 - A. WHETHER OR NOT THE MEASURE WAS INSTALLED/PERFORMED CORRECTLY. B. WHETHER OR NOT THERE HAS BEEN DAMAGE TO THE MEASURE SINCE IT INSTALLED OR PERFORMED. C. WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE MEASURE.
- 5. THE INSPECTOR SHALL COMPLETE THE INSPECTION SCHEDULE AND EVALUATION CHECKLIST FOR FINDINGS AND SHOULD REQUEST THE REQUIRED MAINTENANCE OR REPAIR. THE CHECKLIST IS PROVIDED WITHIN THE OPERATION AND MAINTENANCE PLAN.
- 6. SILTSACKS AND SILTSOCK BARRIERS SHALL BE INSPECTED AND CLEANED IF REQUIRED PRIOR TO ANY PREDICTED LARGE STORM EVENT.

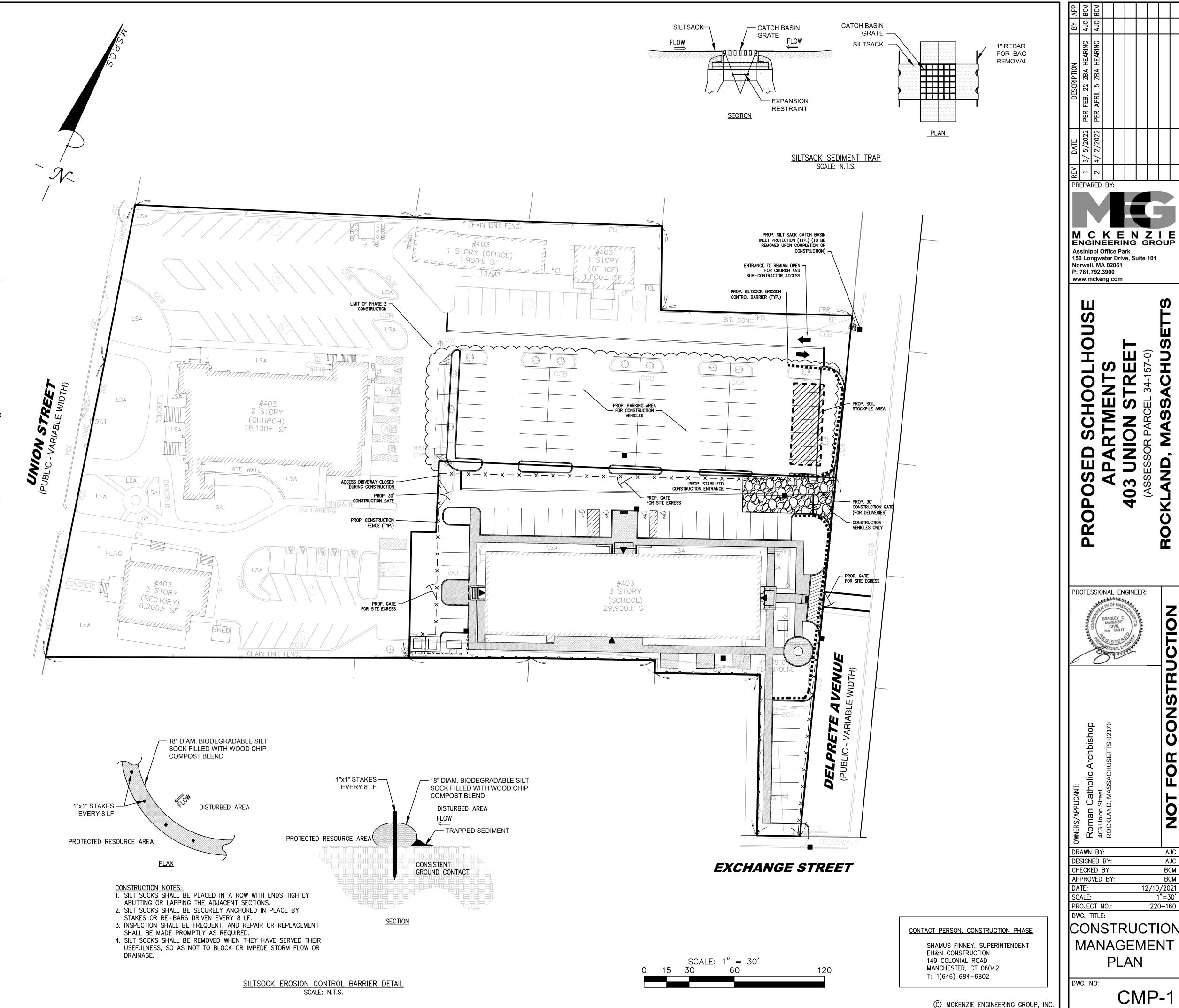


(SCE) CONSTRUCTION SPECIFICATIONS:

- 1. STONE FOR A STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE.
- 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT
- FOR A SINGLE RESIDENTIAL LOT A 30 FOOT MINIMUM LENGTH WOULD APPLY. 3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6
- 4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN A FULL WIDTH OF THE ENTRANCE
- WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER. 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING
- THE STONE. 6. ALL SURFACE WATER THAT IS FLOWING TO OR DEVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE
- 7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE (SCE) DETAIL





0

AJC

12/10/2021

1"=30

220-160

PLAN

CONNOLLY - HOLY FAMILY, ROCKLAND\DWGS\220-160 MAIN.DWG

M:\MEG\2020 PROJECTS\220-160

CMP-1



April 8, 2022

Deputy Chief Thomas Heaney Rockland Fire Department P.O. BOX 542 360 Union Street Rockland, MA 02370

Via Electronic Transmission

Subject: Schoolhouse Apartments Rockland

Dear Deputy Chief Heaney,

Connolly and Partners appreciates your thoughtful review of our plans to redevelop the former Holy Family School into a 27-unit affordable senior living community. Please find below our response to your request for further clarification related to this adaptive reuse project:

1. Per CMR 18.1.1.4 The Fire apparatus access roads plans must include an analysis and evaluation of fire apparatus maneuvers throughout the access roads created by a swept path analysis and turn simulation software.

This analysis will be performed by McKenzie Engineering Group, Inc. (MEG). Access would be similar to the existing condition with the exception of the parking being moved against the building to create greater ease of use for our residents. This change, however, should not be an impediment. Additionally, we are installing a full NFPA 13 sprinkler system which does not currently exist on site.

2. CMR 13.3.2.4 New buildings three or more stories in height above grade shall be protected throughout by an approved automatic sprinkler system in accordance with Section 13.3., additionally refer to Massachusetts General Law Chapter 148 Section 26I and 26G.

The installation of a fully compliant NFPA 13 sprinkler system in accordance with Section 13.3 and Massachusetts General Law Chapter 148 Section 26I and 26G is included in the project plan.

3. CMR 11.10.2 Two-way radio communications enhancement systems, when required. Shall be maintained in accordance with Chapter 24 of NFPA 72.

Seger Architects, through use of a consultant, will analyze the adequacy of radio communication within the built project. If determined to be required, then an enhancement system will be installed.

4. Installation of a new Fire Alarm System in compliance with the International Building Code (IBC) Section 907, plans to include the location of all emergency lighting, extinguishers, horn strobes, and any additional Fire Protection devices.

A new Fire Alarm System in compliance with the International Building Code (IBC) Section 907 will be designed and installed. Plans will include the location of all emergency lighting, extinguishers, horn strobes, and any additional Fire Protection devices.

5. A Fire Alarm system monitored by Central Station of a Master Box connection to the Rockland Fire Department per Massachusetts General Law Chapter 148 Section 26E(b).

A Fire Alarm system monitored by Central Station of a Master Box connection to the Rockland Fire Department per Massachusetts General Law Chapter 148 Section 26E(b) will be designed and installed.

6. Installation of a Knox Box. A Fire Alarm system monitored by Central Station of a Master Box connection to the Rockland Fire Department per Massachusetts General Law Chapter 148 Section 26E(b).

A Knox Box will be designed and installed as will a Fire Alarm system monitored by Central Station of a Master Box connection to the Rockland Fire Department per Massachusetts General Law Chapter 148 Section 26E(b).

7. Installation of a Standpipe System in compliance with IBC Section 905.

A Standpipe System in compliance with the International Building Code (IBC) Section 905 will be designed and installed.

8. Installation of an Elevator in compliance with the International Building Code Section 30.

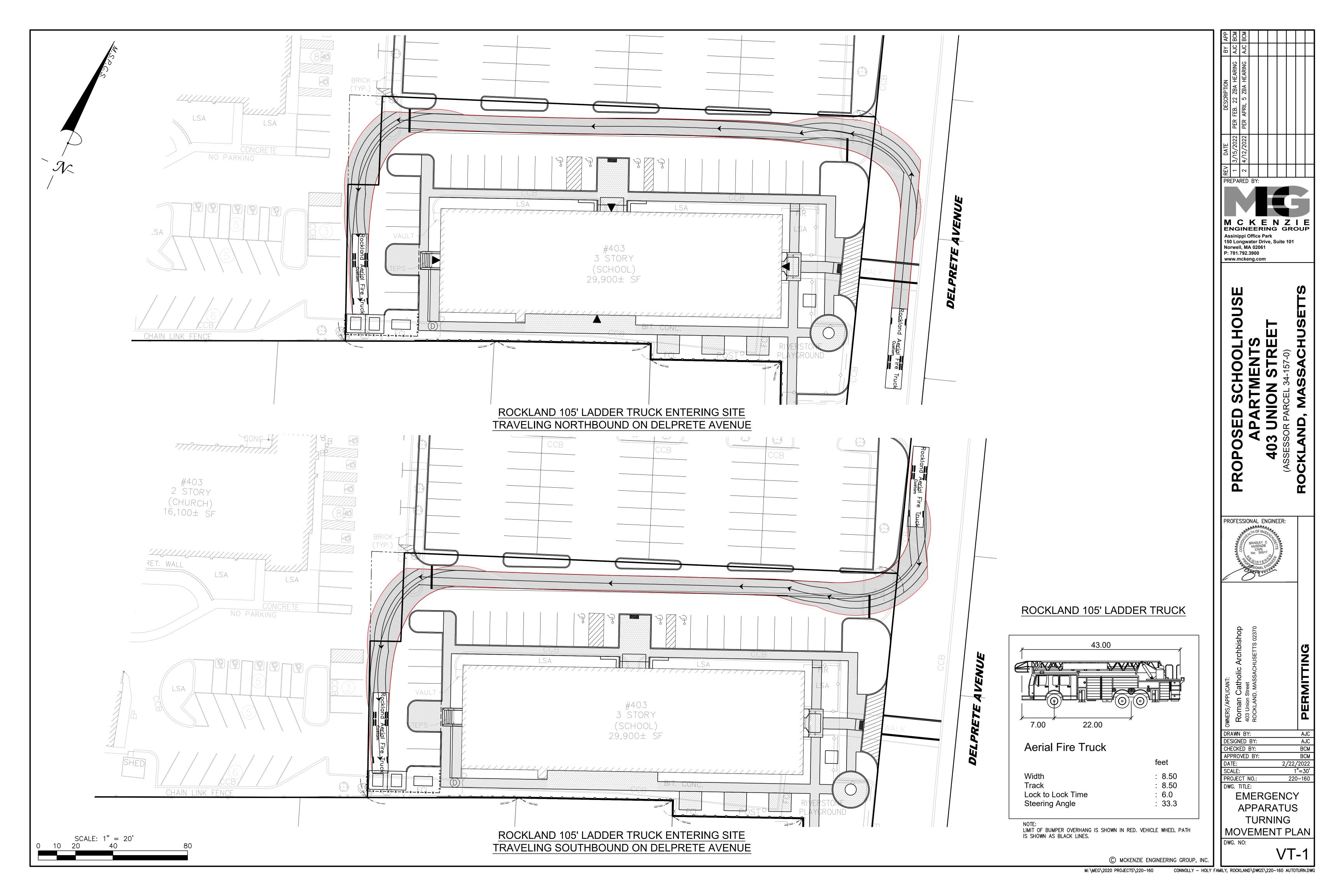
A stretcher size, 3500# elevator is planned for the project incompliance with the MA State elevator Code.

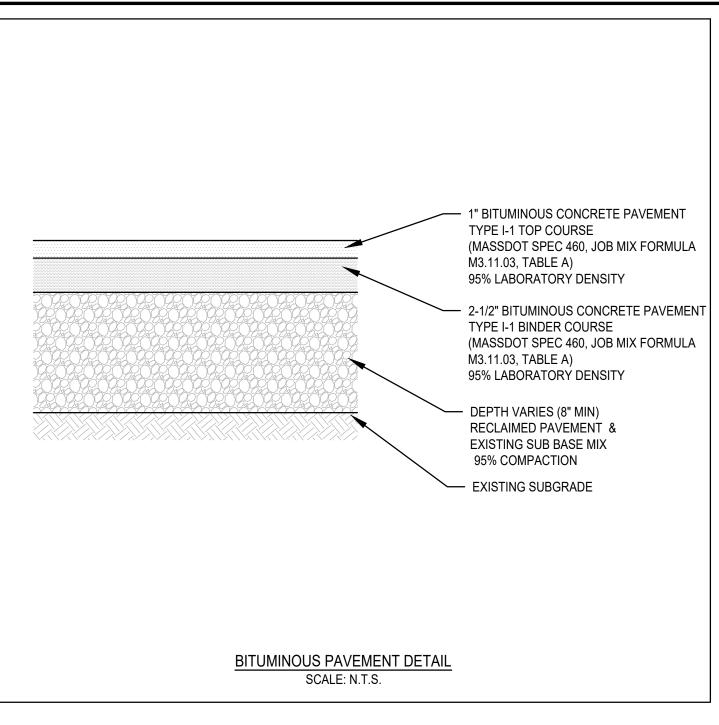
Please let me know of any additional information that would be helpful to the Department at this time.

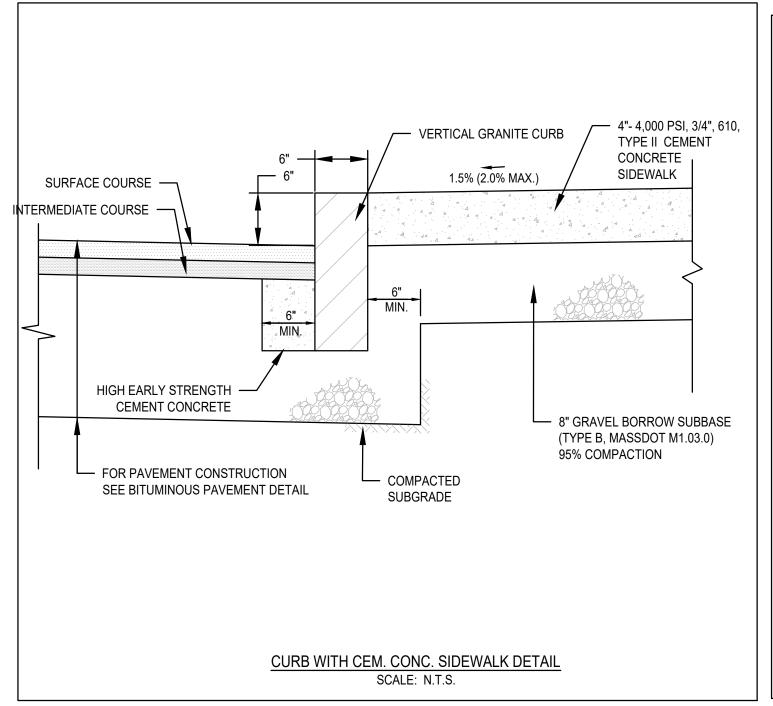
Sincerely,

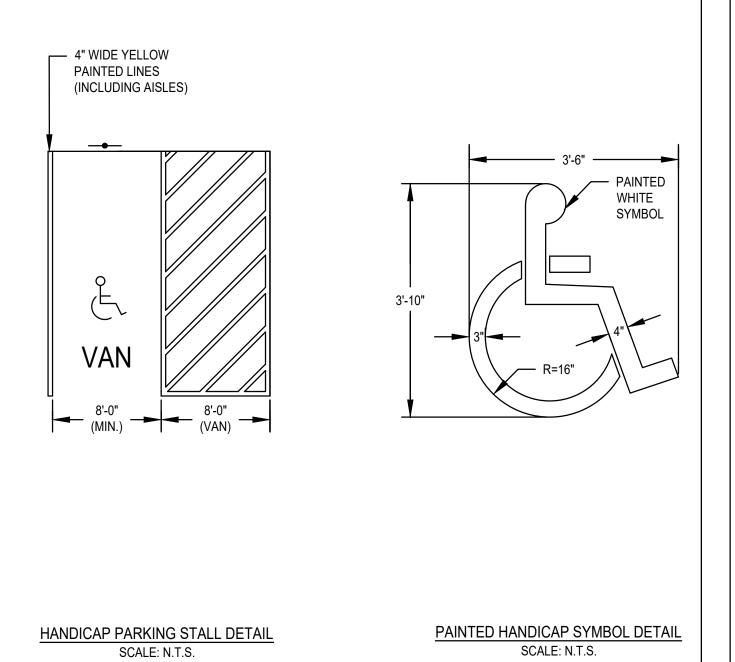
Jennifer J. Connolly

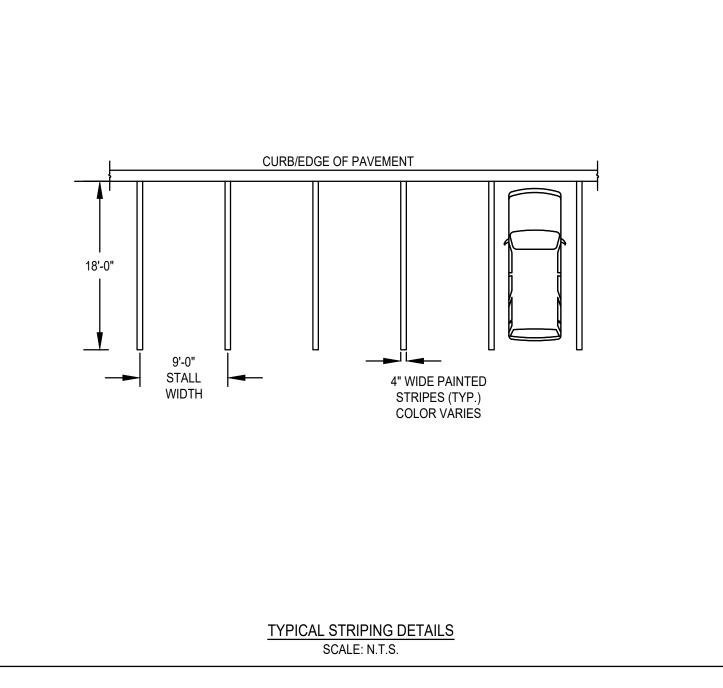
Acquisitions and Development

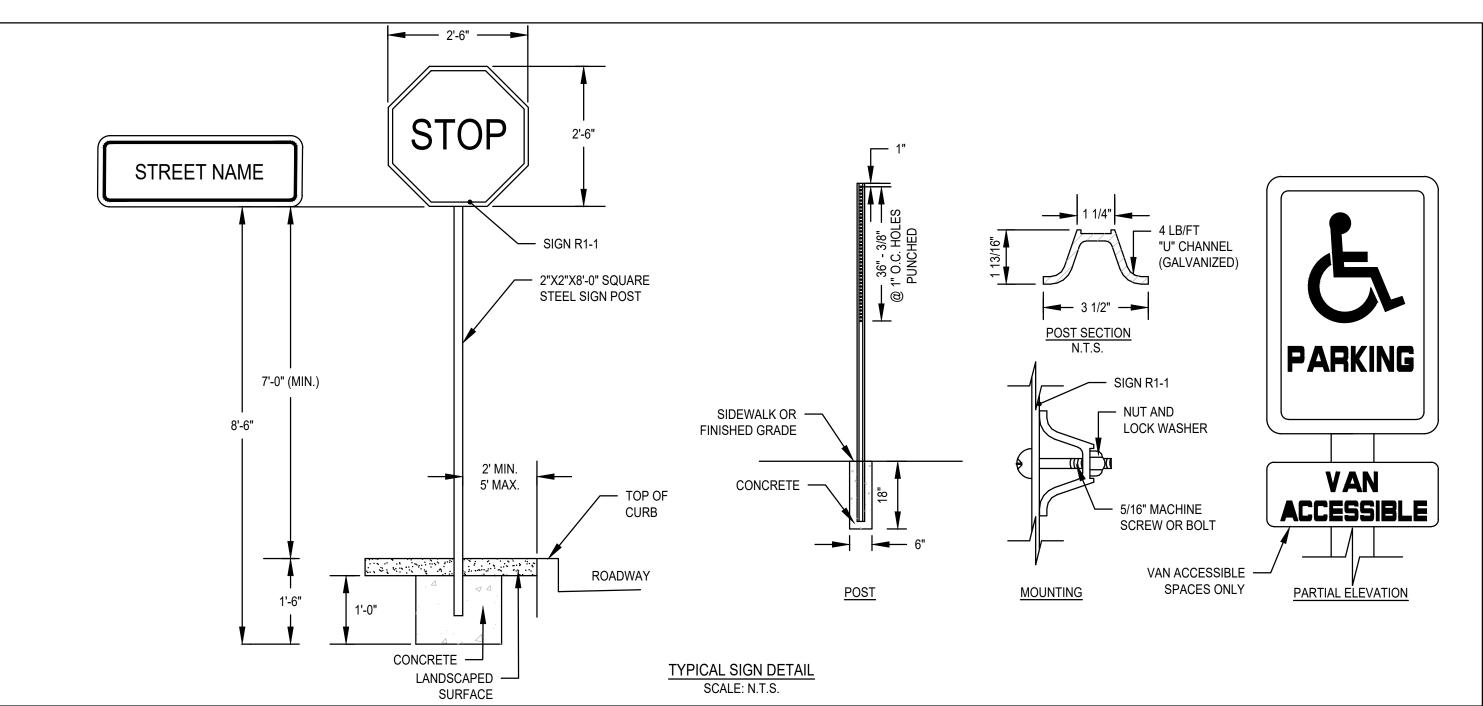


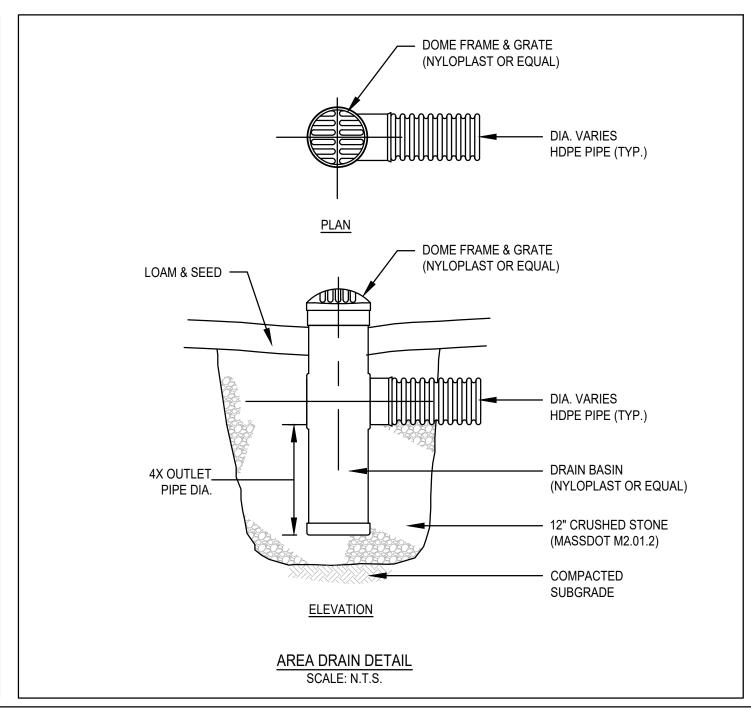


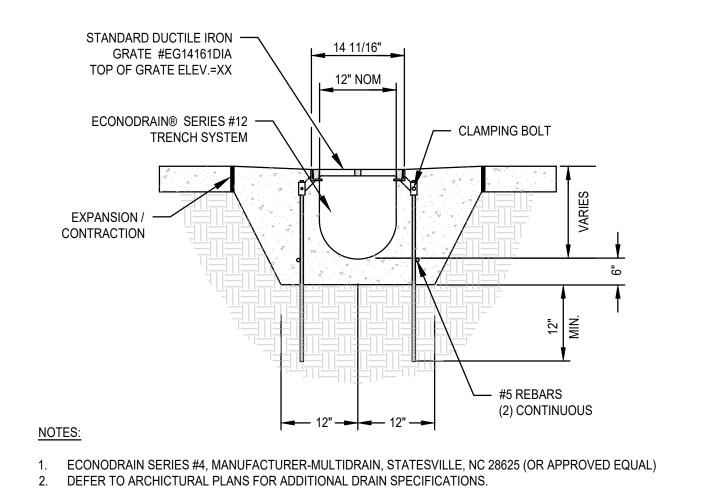












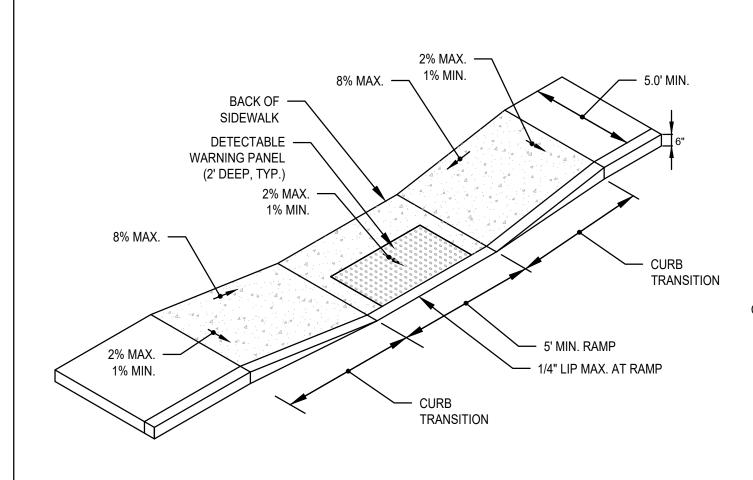
3. ADD REBAR AS REQUIRED FOR H-20 LOADING (*)

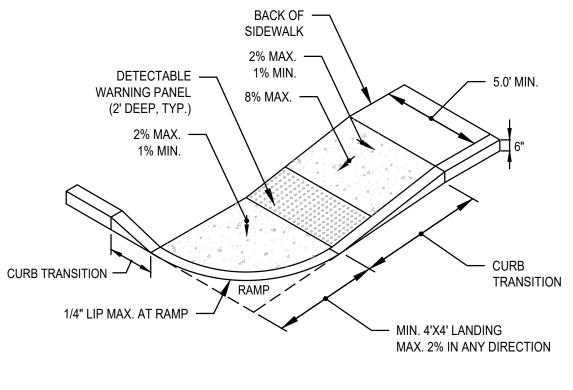
4. A TRENCH SHALL BE EXCAVATED A MINIMUM OF 12" WIDER THAN THE OVERALL WIDTH OF THE STEEL FRAME (10" MINIMUM EACH SIDE) AND A MINIMUM OF 12" DEEPER THAN THE OVERALL DEPTH OF THE FORM.

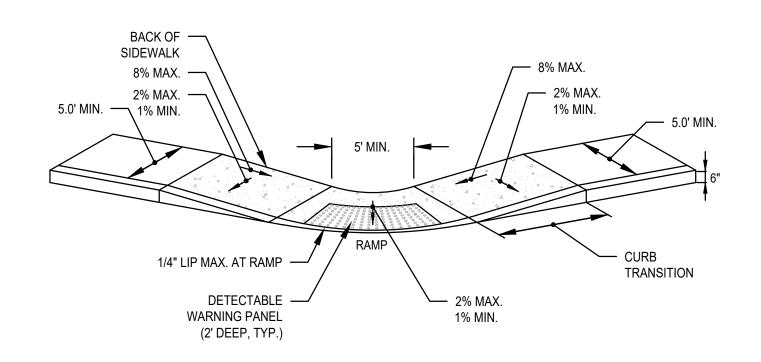
5. TOP OF GRATE ELEVATION SHOWN IN PLAN VIEW EXPANSION / CONTRACTION JOINT PER LOCAL ENGINEERING REGULATIONS AND GUIDELINES.

6. STANDARD CHANNEL SLOPE IS 0.5% INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.

> SUBDRAIN/TRENCH DRAIN DETAIL SCALE: N.T.S.







CEM. CONC. ACCESSIBLE CURB RAMPS SCALE: N.T.S.

- 1. CURBS AND WALKS ALONG ACCESSIBLE ROUTES SHALL MEET OR EXCEED THE APPLICABLE REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD, FAIR HOUSING ACT AND ADA.
- 2. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 2%.
- 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
- 4. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%...
- 5. MAINTAIN A MINIMUM OF 3 FEET CLEAR AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS ETC.).
- 6. GRADE BASE OF RAMP TO PREVENT PONDING..
- 7. RAMP CONSTRUCTION SHALL CONFORM TO TYPICAL SIDEWALK SECTION.
- 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5'X5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
- 9. ALL CURBING AT RAMPS SHALL BE VERTICAL CURBING SET FLUSH WHERE IT ABUTS ROADWAY.
- 10. ALL RAMPS SHALL BE CEMENT CONCRETE WITH ROUGHENED NON-SLIP SURFACE.
- 11. ALL DETECTABLE WARNING PANELS SHALL BE CAST IN PLACE WITH A STAINLESS STEEL ANCHORING SYSTEM. MINIMUM DIMENSIONS SHALL BE 2-FEET WIDE BY 5-FEET LONG, OR AS APPROVED.
- 12. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE-CONTACT.
- 13. CEMENT CONCRETE TO BE 4000 PSI, 3/4", 610, TYPE II.

ЧЬР	BCM	BCM						
ВУ	AJC	AJC						
DESCRIPTION	PER FEB. 22 ZBA HEARING	PER APRIL 5 ZBA HEARING						
DATE	3/15/2022	4/12/2022						
REV	1	2						
PREPARED BY:								

MCKENZIE

Assinippi Office Park

150 Longwater Drive, Suite 101 Norwell, MA 02061 P: 781.792.3900 www.mckeng.com

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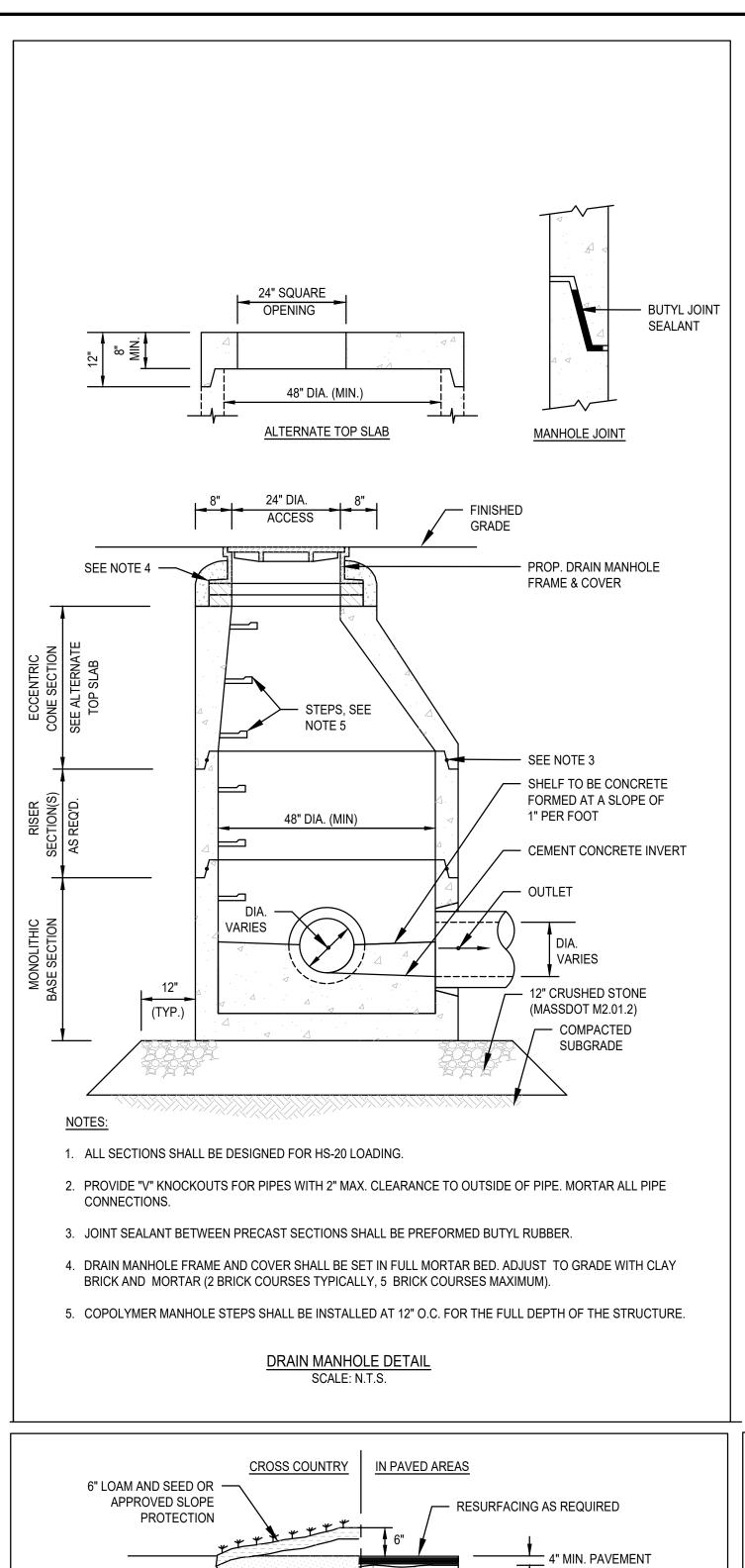
PROFESSIONAL ENGINEER:

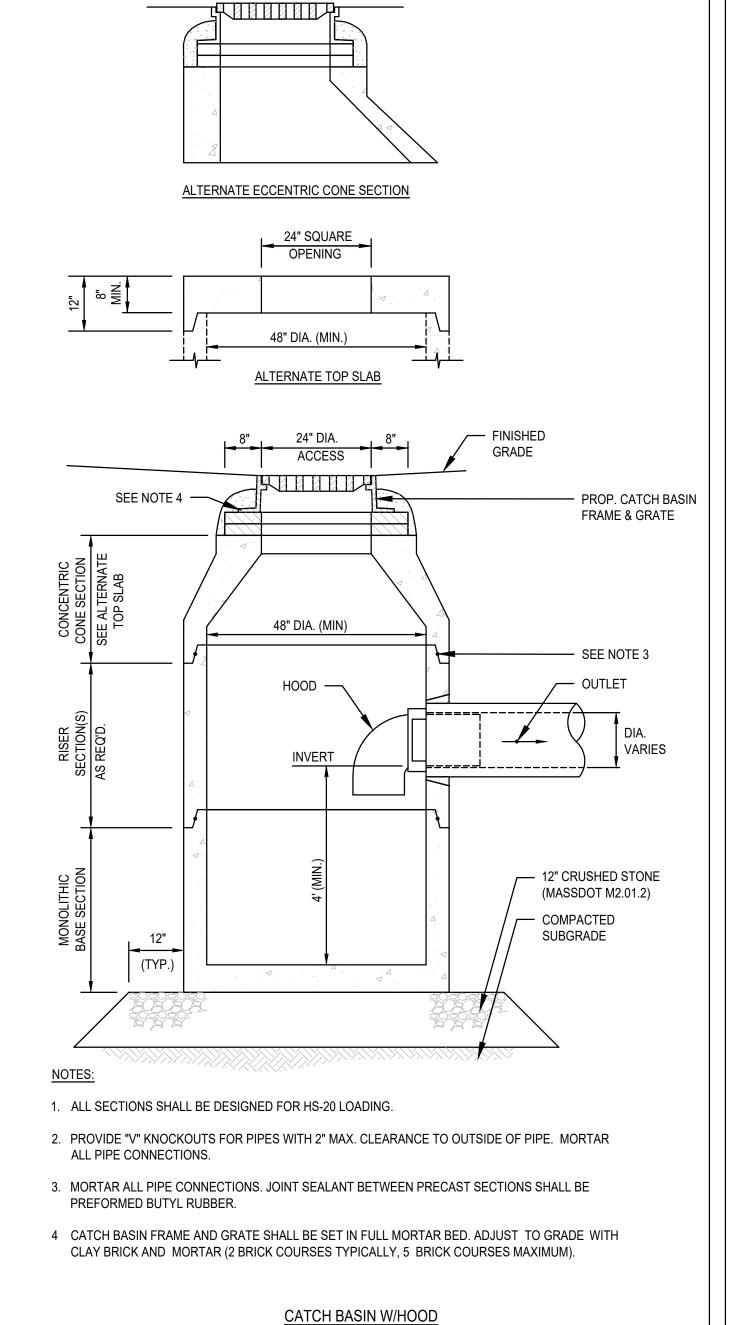
DRAWN BY: DESIGNED BY: AJC BCM CHECKED BY: APPROVED BY: BCM 12/10/2021 PROJECT NO.: 220-160

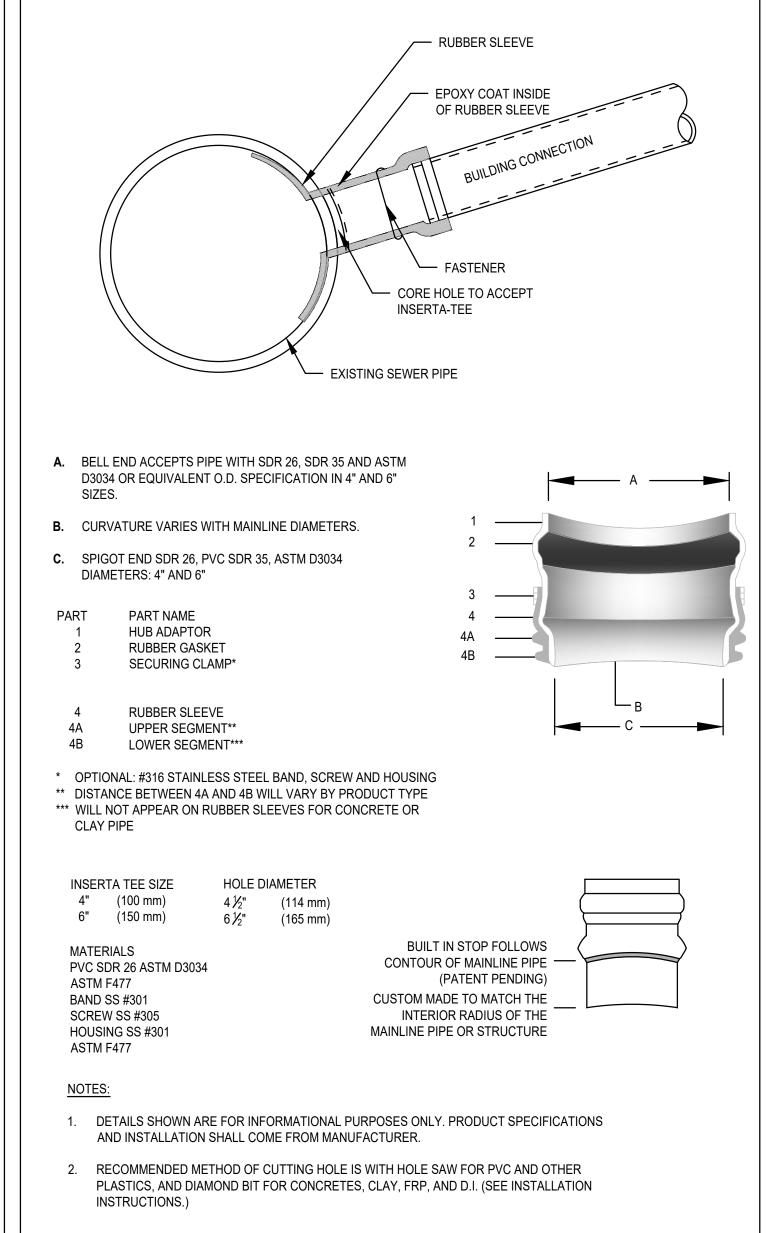
CONSTRUCTION **DETAILS**

DWG. NO:

DWG. TITLE:



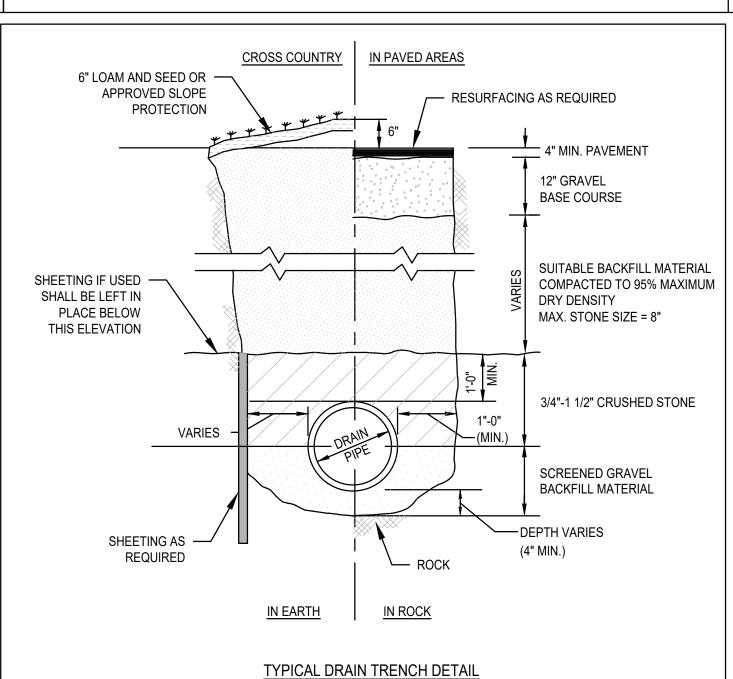


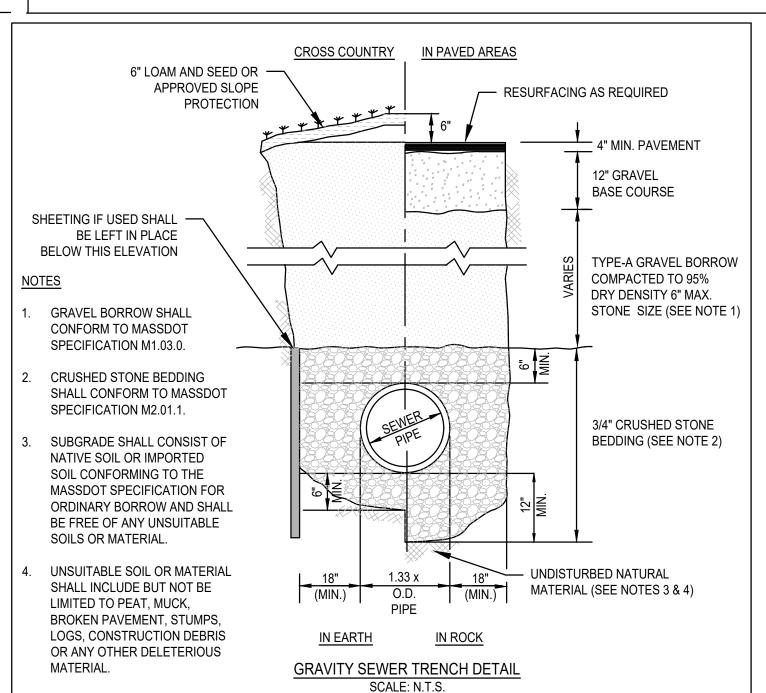


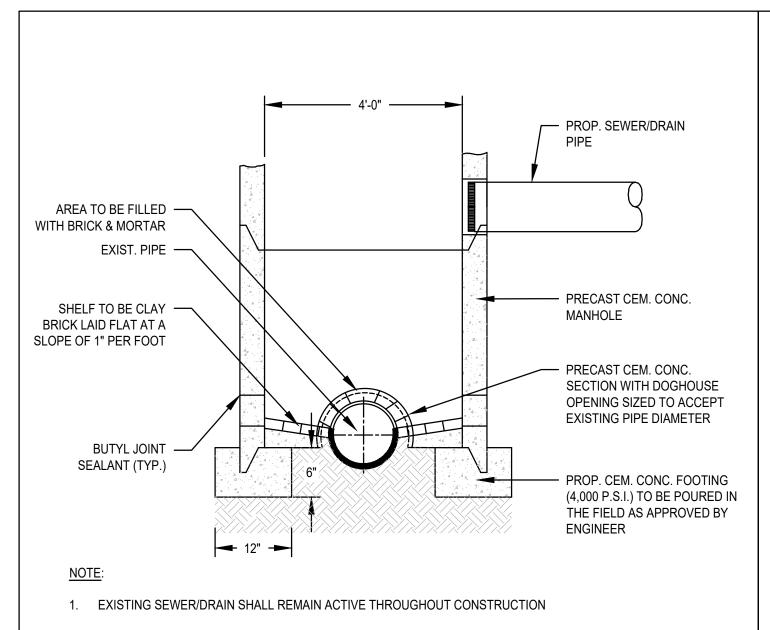
BUTYL JOINT SEALANT MANHOLE JOINT FINISHED GRADE SEE NOTE 4 -PROP. DRAIN MANHOLE FRAME & COVER · STEPS, SEE NOTE 5 — SEE NOTE 3 48" DIA. (MIN) FLEXIBLE WATERTIGHT **GASKET OR SLEEVE** VARIES 12" CRUSHED STONE (MASSDOT M2.01.2) (TYP.) COMPACTED SUBGRADE SHELF TO BE CLAY BRICK — LAID FLAT AT A SLOPE OF 1" PER FOOT BRICK CHIP — - ARCH INVERT TO BE CONSTRUCTED MORTAR OR CEMENT WITH CLAY BRICK LAID AS STRETCHERS AND ON EDGE CONCRETE FILL 1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.

- 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
- 3. ALL EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.
- 4. SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
- 5. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.

TYPICAL SEWER MANHOLE SCALE: N.T.S.



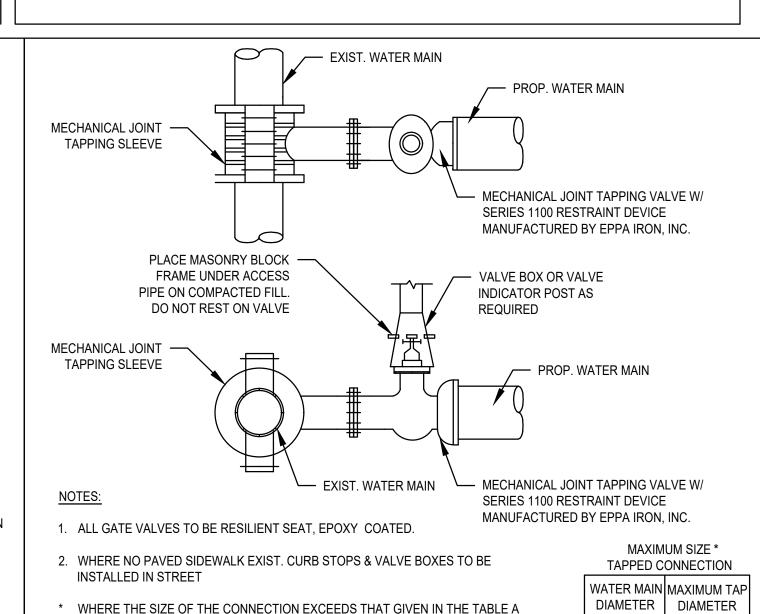




TYPICAL DOGHOUSE MANHOLE

INSERTA-TEE SEWER CONNECTION TO EXISTING SEWER

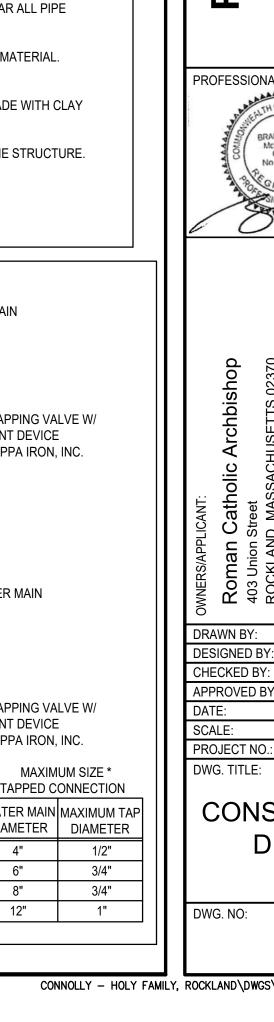
SCALE: N.T.S.

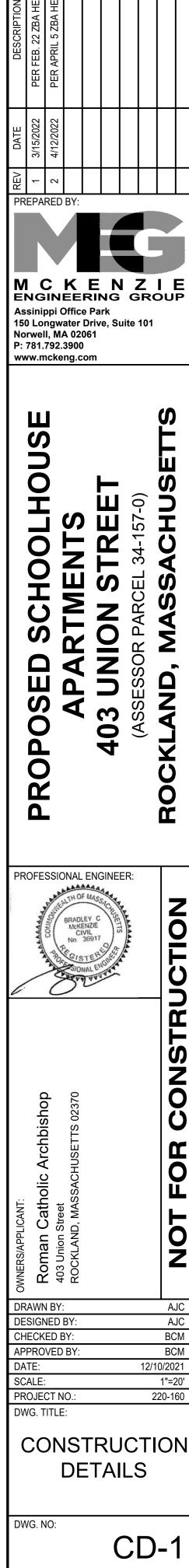


TYPICAL TAPPING SLEEVE AND VALVE DETAIL

BOSS SHALL BE PROVIDED OR THE TAP SHALL BE MADE BY MEANS OF MULTIPLE

CORPS, STOPS AND BRANCH FITTINGS, TAPPED TEE, OR TAPPED SADDLE





B&B, 6' CLEAR BRANCHING

B&B, 6' CLEAR BRANCHING

B&B, 6' CLEAR BRANCHING

B&B, MULTI-STEM

B&B, MULTI-STEM

36" O.C. B&B 36" O.C. B&B

36" O.C. B&B

36" O.C. B&B

30" O.C. B&B

24" O.C. CONTAINER

18" O.C. CONTAINER

S

04/12/2022 PERMIT SET

AS NOTED

SHEET 1 OF 3

PLANT SCHEDULE SYM. QTY. LATIN NAME COMMON NAME AR 10 ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE AMELANCHIER 'AUTUMN BRILLIANCE' SERVICEBERRY **CERCIS CANADENSIS** EASTERN REDBUD GLEDITSEA TRICANTHOS 'SKYLINE' SKYLINE HONEYLOCUST QUERCUS PALUSTRIS SUMMERSWEET CORNUS SERICEA 'ARCTIC FIRE' ARCTIC FIRE DOGWOOD HYDRANGEA ARBORESCENS 'ANNABELLE' ANNABELLE HYDRANGEA HYDRANGEA PANICULATA 'LITTLE LIME' ITTLE LIME HYDRANGEA ILEX GLABRA NKBERRY GALLON RG 87 RHUS AROMATICA 'GRO LOW'
TM 62 TAXUS X MEDIA 'HICKSII' GRO LOW SUMAC GALLON HICKS YEW VD 14 VIBURNUM DENTATUM ARROWWOOD VIBURNUM 5 GALLON 48" O.C. B&B PERENNIALS AND GRASSES CK 38 CALAMAGROSTIS X ACUTIFLORA 'KARL F.' KARL FOERSTER REED GRASS ECHINACEA PURPUREA PURPLE CONEFLOWER LEUCANTHEMUM X SUPERBUM 'BECKY' LIRIOPE SPICATA NEPETA X FAASSENII 'WALKERS LOW' RUDBECKIA FULGIDA 'GOLDSTURM' **BLACK EYE SUSAN** HEARTLEAF FOAMFLOWER 160 TIARELLA CORDIFOLIA PLANTING: 1. DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES. 2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT. 3. LANDSCAPE ARCHITECT APPROVAL IS REQUIRED BEFORE PLANT MATERIAL IS PURCHASED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SEE ALL MATERIAL IN PERSON AT THE NURSERY. IF TRAVEL OUTSIDE OF MA IS REQUIRED, LANDSCAPE ARCHITECT'S TRAVEL COSTS SHALL BE PAID FOR BY THE CONTRACTOR. 4. ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS. 5. THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING. 6. WHERE DISCREPANCIES IN QUANTITIES OCCUR, DRAWINGS SUPERCEDE PLANT NOTES AND SCHEDULE. 7. TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK. 8. LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5. 9. MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL. 10.LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT. 11. SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUNDCOVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6"MIN. 12. PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS, SIZE FOR CALIPER IRRIGATION DIAGRAM NOTES: 1. IRRIGATION PLAN SHOWN IS DIAGRAMMATIC FOR DESIGN-BUILD INSTALLATION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING. 2. IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION. 3. TREES SHOULD BE ON A SEPARATE ZONE. 4. PROVIDE A REMOTE RAIN SENSOR ON A ROOF AREA THAT IS NOT OBSTRUCTED FROM THE OPEN SKY. 5. COORDINATE WITH OWNER FOR POINT OF CONNECTION LOCATION. 6. COORDINATE WITH OWNER FOR IRRIGATION CONTROLLER LOCATION. 7. INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4' 8. COORDINATE WITH OWNER FOR BACKFLOW PREVENTION LOCATION. 9. INSTALLER SHALL INSTALL LIGHTNING AND SURGE PROTECTION DEVICES THROUGHOUT SYSTEM AS PER MANUFACTURER'S HIGHEST SPECIFICATION LEVELS. 10.INSTALLER SHALL ADHERE TO ALL MANUFACTURER'S SPECIFICATIONS RELATED TO CONTROL SYSTEM INSTALLATION. 11.INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURERS'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET. 12.PRIOR TO BID, CONTRACTOR TO VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS, AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY DESIGNER AND OWNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES.

LIMIT C

LOT CO

CALCU

— 100 EP

─ 1 AR

– 5 NW

− 1 IG

− 1 CC

— 9 RF — 1 AS — 20 HP

− 12 LS

SEEDED LAWN -

10 NW -

8 LS —

16 LS -

3 CA -

5 RF —

10 NW -2 LS -1 AS -

3 IG -

4 NW —

4 TM —

2 TM —

6 HP -

7 LS —

14 IG —

10 IG -

27 RG -

1 AR —

14 CS —

4 CK -

3 RG -

6 CK —

10 EP ─/

1 AS —

10 LD —

5 TM —

12 NW —

10 EP ─ /

1 AS —

10 LD —

5 TM —

25 LS —

13 TM -

40 TC -

NOT FOR CONSTRUCTION



SEEDED

LAWN

1 QP -

14 TM -

5 IG -

10 LS -

6 CK -

14 LS -

10 CK —

2 GT -

 $4 \text{ RG} \rightarrow$

12 LS ─

5 TM ─\

6 CK =

2 GT -

5 CA ─\

40 TC -

5 CA -

6 CK -

8 NW —

9 TM -

plot date: 4/12/2022

AS NOTED SHEET 2 OF 3

plot date: 4/12/2022

Qty	Label		Arrangement	LLF	Descriptio	n	1
1. SUBN 2. FOUN	AIT CUT SE	HEETS FOR APPROVAL; <u>SEE PHOTOME</u> DESIGN BY LICENSED ENGINEER. CON	TRIC PLAN PROVIDED WITH TRACTOR TO COORDINATE.	THIS DRA	WING SET FOR	MORE INFORMA	ATION.
	WR1	BEGA 22794-BEGA-IES	MOUNT TO CONCRETE FOOTING	SIN	IGLE	COLOR: BLK	
٥	BL1	BEGA 99570K4-BEGA-IES	MOUNT TO CONCRETE FOOTING	SIN	IGLE	COLOR: BLK	
	WL3	HUBBELL RATIO SERIES - HEAD RWL2-160L-50-4K7-3-U	COORDINATE WITH THE ARCHITECT	SIN	IGLE	COLOR: BLK	
•	SL3	HUBBELL RATIO SERIES - HEAD RAR1-160L-100-4K7-3-BC HUBBELL RATIO SERIES - POLE SSS-H-16'-40-A-X-XX-XX	CONCRETE FOOTING 2' EXPOSED FROI GRADE	M	IGLE	COLOR: BLK	
•	SL4	HUBBELL RATIO SERIES - HEAD RAR1-160L-135-4K7-4W-U HUBBELL RATIO SERIES - POLE SSS-H-21'-40-A-X-XX-XX	CONCRETE FOOTING 2' EXPOSED FROM GRADE	M	IGLE	COLOR: BLK	OMNILITE ILLUMINATE 617-947-8996 STEVE PRUDHOMM
SYMBOL	LABEL	MODEL	MOUNT	AR	RANGEMENT	OPTIONS	REP
LIGHT SCHE						_	

Qty	Label	Arrangement	LLF	Description	Lum. Lumens
2	SL4	SINGLE	0.900	RAR1-160L-135-4K7-4W-U	17568
5	WL3	SINGLE	0.900	RWL2-160L-50-4K7-3-U	7839
1	SL3	SINGLE	0.900	RAR-1-160L-100-4K7-3-BC	8269
18	BL1	SINGLE	0.900	99570K4_BEGA_IES	1091
7	WR1	SINGLE	0.900	22794_BEGA_IES	44

Calculation Summary						- 24	,
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Mir
LANSCAPE AREA	Illuminance	Fc	2.10	16.2	0.0	N.A.	N.A.
PARKING LOT	Illuminance	Fc	1.25	9.9	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.01	0.7	0.0	N.A.	N.A.
STREET PARKING	Illuminance	Fc	2.51	5.0	0.3	8.37	16.67

NOT FOR CONSTRUCTION

6.9 BL1 3' MH

WL3 __/

18' MH

3' MH

1.5' MH

WL3 __/

BL1 — 3' MH

18' MH

BUILDING

WL3 __/

18' MH

3' MH

્રેં∘ ŞSL4 ે ૂ 23 MH,

WL3 __/

 $^{
m BL1}_{
m 3'\,MH}$

Ö. 0 Ö. 0 185.MH \ .

BL1 — 3' MH

18' MH

BL1 — 3' MH

Ŏ. o Ŏ. o Ŏ. o

Ö. o

Ö. 0 18' MH

BEGA Product:

Project:

Modified:

The shielded light distribution is ideal for the glare-free illumination of ground surfaces, building entrances, stairs, and footpaths. Materials Luminaire housing and faceplate constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy

Clear safety glass with optical texture High temperature silicone gasket Mechanically captive stainless steel fasteners Stainless steel screw clamps Painted aluminum installation housing

NRTL listed to North American Standards, suitable for wet locations Protection class IP65 Weight: 0.5 lbs Electrical

Operating voltage 24VDC (remote power supply req.) I ED module wattage System wattage Color rendering index Luminaire lumens 44 lumens (3000K) Lifetime at Ta = 25° C 50,000 h (L70) LED color temperature

3000K - Product number + K3 (EXPRESS) □ 2700K - Product number + **K27** BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

☐ 4000K - Product number + K4

□ 3500K - Product number + K35

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness. Available colors ☐ Black (BLK) ☐ White (WHT) ☐ RAL: □ Bronze (BRZ) □ Silver (SLV) □ CUS:

Available Accessories ☐ **19580** Remote 25W LED driver and box 19591 Remote 50W LED driver and box

See individual accessory spec sheet for details.

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com



· A · · B · C ·

LED recessed wall · shielded

RWL1/RWL2 LED WALLPACK

FEATURES

• Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount • Featuring Micro Strike Optics which maximizes target zone illumination with

minimal losses at the house-side, reducing light trespass issues Visual comfort standard Control options including photo control, occupancy sensing, NX Distributed Intelligence™, Wiscape and 7-Pin with networked controls

 Battery Backup options available for emergency code compliance Quick-mount adapter allows easy installation/maintenance • 347V and 480V versions for industrial applications and Canada



CONTROL TECHNOLOGY

Site Site NX DISTRIBUTED WISCAPE

SPECIFICATIONS

CONSTRUCTION Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface · Corrosion resistant, die-cast aluminum housing with powder coat paint finish

• Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.

 Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing 48 or 160 midpower LEDs

• 3000K, 4000K or 5000K (70 CRI/80 CRI) Zero uplight distributions

· LED optics provide IES type II, III and IV distributions. Type II only available in RWL2 configurations.

INSTALLATION

• Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box) Designed for direct j-box mount.

 Integral back box contains 1/2" conduit hubs Integral back box standard with Dual Driver, Dual Power Feed, NX, Wiscape and batter versions (battery versions for RWL1 only)

120V-277V universal voltage 50/60Hz 0-10V dimming drivers • 347V and 480V dimmable driver option for all wattages above 35W.

Page 1/7 Rev. 11/16/21

RWLLED-SPEC

 Ambient operating temperature -40°C to 40°C · Drivers have greater than .90 power factor Driver RoHS and IP66 Field replaceable surge protection device

PROJECT:

CATALOG #:

Prefet replaceable salige protection device provides 20kA protection meeting ANSI/ IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is wet locations

Dimming drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimmina leads. Must specify if wiring leads are to be greater than 6" standard.

CONTROLS Photo control, occupancy sensor and wireless available for complete on/off and dimming control Button photocontrol is suitable for 120-277V

• 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately) NX Distributed Intelligence[™] available with in fixture wireless control module, features wiSCAPE® available with in fixture wireless

control module, features dimming and occupancy sensor Integral Battery Backup provides emergency lighting for the required 90 minute path of Battery Backup suitable for operating temperatures -25°C to 40°C

CONTROLS (CONTINUED)

RELATED PRODUCTS

8 Ratio Family 8 Ratio Area 8 Ratio Flood

 Dual Driver and Dual Power Feed options creates product configuration with 2 internal Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your

CERTIFICATIONS Listed to UL1598 and CSAC22.2#250.0-24 for IP65 rated housing

 This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Naterials under Trade Agreements effective 04/23/2020. See Buy American Solutions DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations Please refer to the DLC website for specific

product qualifications at www.designlights.org WARRANTY 5 year limited warranty See <u>HLI Standard Warranty</u> for additional information

KEY DATA Lumen Range 1,300-18,800 10-155 Wattage Range Efficacy Range (LPW) 119-148

ixture Projected Life (Hours)

Weights lbs. (kg)

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701 Millennium Blvd • Greenville, SC 29607 / Tel 864.678.1000 / Website www.hubbelloutdoor.com

L70>60K

6.5/16.5 (2.9/7.5)

LED bollard - 360° distribution

BEGA

LED bollard with shielded 360° light distribution. This luminaire is designed to provide rotationally symmetric illumination of ground surfaces. Provided with mounting system that allows the luminaire to be adjusted independent of anchor bolt orientation.

Luminaire housing and base constructed of die-cast and extruded marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy Borosilicate glass lens

Reflector made of pure anodized aluminum High temperature silicone gasket Mechanically captive stainless steel fastener NRTL listed to North American Standards, suitable for wet locations Protection class IP65 Weight: 19.4lbs

Electrical Operating voltage 120-277VAC Minimum start temperature LED module wattage System wattage 0-10V, TRIAC, and ELV dimmable Controllability Color rendering index Ra > 80

Luminaire lumens 746 lumens (3000K) 77,000 h (L70) 53,000 h (L70) Lifetime at Ta = 15° C Lifetime at Ta = 55° C LED color temperature □ 4000K - Product number + **K4** □ 3500K - Product number + K35 □ 3000K - Product number + **K3**

□ 2700K - Product number + **K27** BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness. Available colors ☐ Black (BLK) ☐ White (WHT) ☐ RAL: ☐ Bronze (BRZ) ☐ Silver (SLV) ☐ CUS:



BEGA Product:

Project:

Modified:

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com

CATALOG #:

FEATURES

• Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots

• Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues Visual comfort standard

 Compact and lightweight design with low EPA • 3G rated for high vibration applications including bridges and overpasses • Control options including photo control, occupancy sensing, NX Distributed

Intelligence™ and 7-Pin with networked controls Best in class surge protection available





8 Airo 8 Cimarron LED 8 Ratio Family

CONTROL TECHNOLOGY

Site Sync N DISTRIBUTED WISCAPE

SPECIFICATIONS

CONSTRUCTION • Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications

 Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface Corrosion resistant, die-cast aluminum housing with powder coat paint finish

· Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance • 80, 160, 320 or 480 midpower LEDs • 3000K, 4000K or 5000K (70 CRI) CCT Zero uplight at 0 degrees of tilt

 Field rotatable optics INSTALLATION Standard square arm mount, compatible with B3 drill pattern Optional universal mounting block for ease

Available as an option or accessory for

Knuckle arm fitter option available for 2-3/8"

OD tenon. Max tilt of 60 degrees with 4

degree adjustable increments. (Restrictions

square and round poles.

apply for 7-pin options)

voltage, 50/60 Hz

the 6" standard SiteSvnc™ wireless control system is available via 7-pin See ordering information and details at: www.hubbelllighting.com/sitesync NX Distributed Intelligence[™] available with in fixture wireless control module, features dimming and occupancy sensor ELECTRICAL

• Universal 120-277 VAC or 347-480 VAC input • wiSCAPE® available with in fixture wireless control module, features dimming and

wireless available for complete

7-pin ANSI C136.41-2013 photocontro

receptacle option available for twist lock

photocontrols or wireless control modules

on/off and dimming control

is compromised

CONTROLS

ELECTRICAL (CONTINUED) CERTIFICATIONS Ambient operating temperature -40°C to 40°C • Drivers have greater than 90% power factor LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery

• Field replaceable surge protection device provides 20kA protection meeting ANSI/ IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device 3G rated for ANSI C136.31 high vibration applications Fixture is IP66 rated configuration at 0 degrees of tilt

(control accessories sold separately) • 0-10 V Dimming Drivers are standard and 5 year limited warranty dimming leads are extended out of the luminaire unless control options require additional information connection to the dimming leads. Must pecify if wiring leads are to be greater than

Lumen Range Wattage Range Efficacy Range (LPW) Weights lbs. (kg) occupancy sensor via 7-pin

• DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org • Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient

 Meets IDA recommendations using 3K CCT • 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

See <u>HLI Standard Warranty</u> for

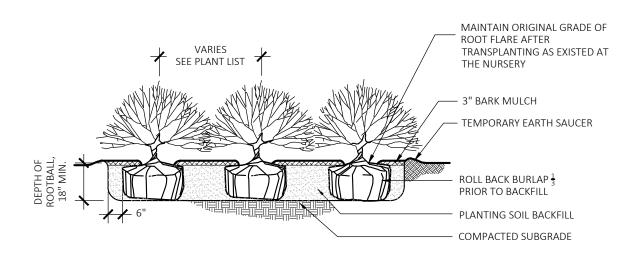
KEY DATA 3,000-48,000 25-340 118-155 L70>60K Fixture Projected Life (Hours) 13.5-24 (6.1-10.9)

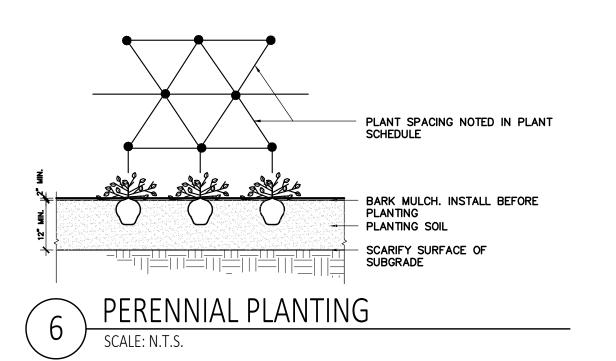
Page **1/11** Rev. **12/06/21 RARLED-SPEC**

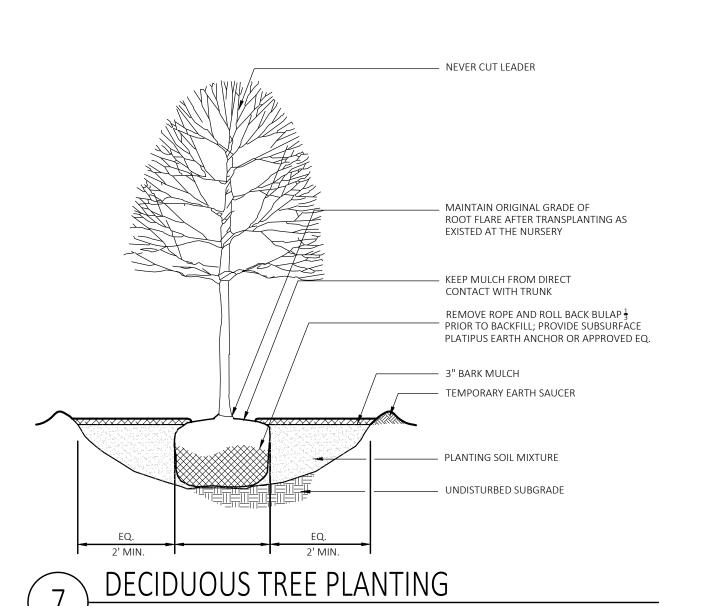
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MICHAEL D'ANGELO ANDSCAPE ARCHITECTURE LI 840 SUMMER STREET SUITE 201A BOSTON, MA 02127 t. 203.592.4788 www.m-d-l-a.com

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REV. NO. DATE DESCRIPTION 04/12/2022 PERMIT SET

> SITE DETAILS

AS NOTED

04/12/22

NOT FOR CONSTRUCTION

plot date: 4/12/2022

SHEET 3 ΟF

ARCHITECTURAL GRILLES

Vision Barrier Screens

Both functional and decorative, architectural grilles and vision barriers can change the entire personality of a building. Let the colors, shapes and textures inspire your next design by adding depth and dimension to any architectural façade.

Features

- Sight screening
- · Linear louvered aluminum screens
- No exposed framework; all supports and frames are hidden
- Blade orientation and spacing can be customized for optimal sight cutoff
- · Variety of extruded aluminum blade profiles

Benefits

- Provides up to 100% sight cutoff
- Easy to install
- Blades ship in long lengths to minimize joints
- · Fully engineered
- Varying height, width and blade spacing of each pattern provide unlimited options

Applications

- · Parking garages
- Mechanical screening
- Horizontal or vertical accent walls
- Rooftop equipment enclosure



ARCHITECTURAL GRILLES

Vision Barrier Screens

Finish Options







Patterns



See all finish options online at c-sgroup.com.

Warranty

- · One-Year Material Warranty
- · 20-Year Finish Warranty* (does not include anodized finishes)

Models

Each category below has multiple models





Alumatex Madras

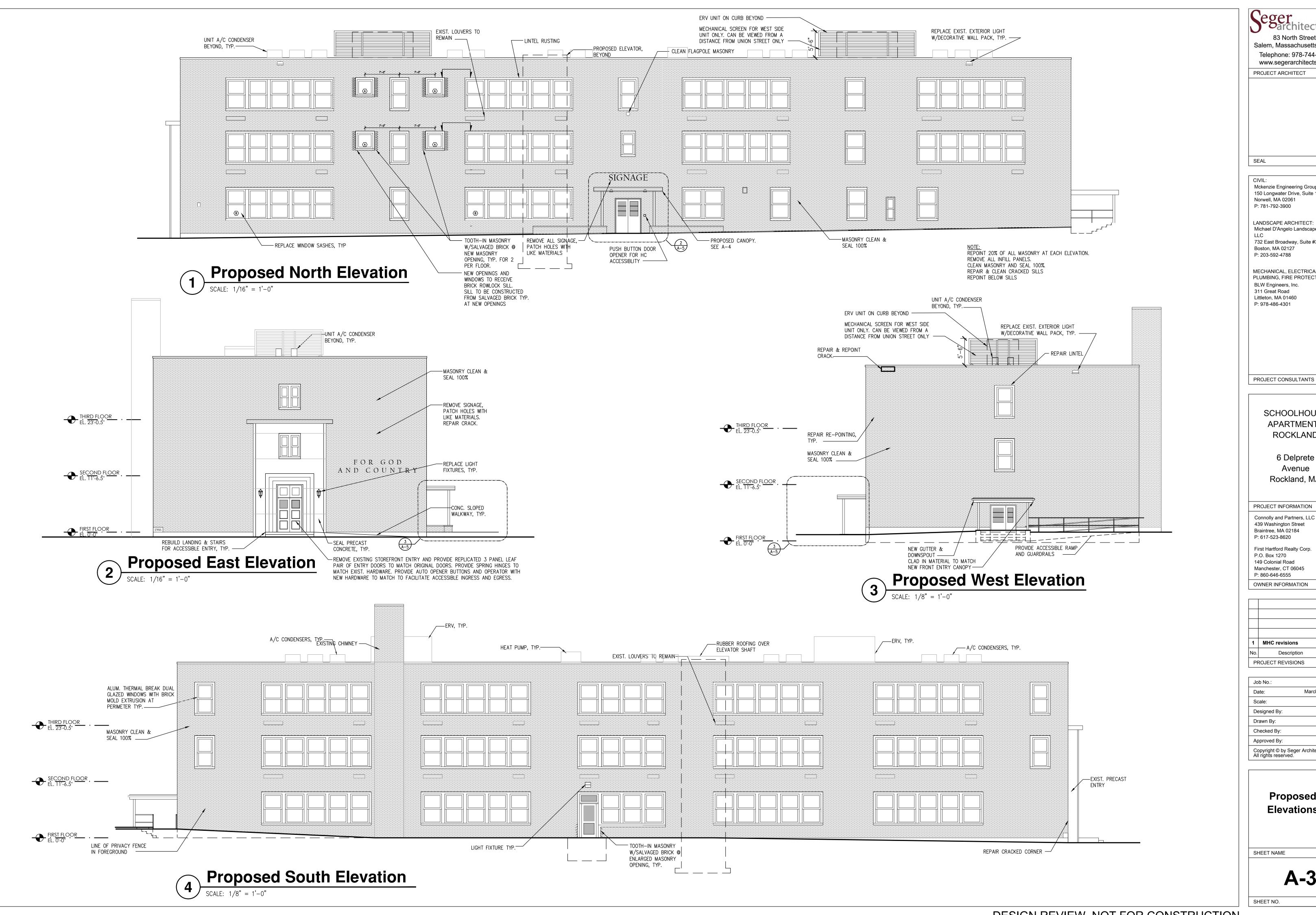
Alumatex Tweed





...or create your own custom model

^{*}Woodgrain finishes carry a 15 year finish warranty.



Seger architects, inc 83 North Street Salem, Massachusetts 01970 Telephone: 978-744-0208 www.segerarchitects.com PROJECT ARCHITECT SEAL Mckenzie Engineering Group 150 Longwater Drive, Suite 101 Norwell, MA 02061 P: 781-792-3900 LANDSCAPE ARCHITECT: Michael D'Angelo Landscape Architecture 732 East Broadway, Suite #3 Boston, MA 02127 P: 203-592-4788 MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION: BLW Engineers, Inc. 311 Great Road Littleton, MA 01460 P: 978-486-4301

> SCHOOLHOUSE **APARTMENTS**

> > ROCKLAND

6 Delprete Avenue Rockland, MA

PROJECT INFORMATION Connolly and Partners, LLC 439 Washington Street Braintree, MA 02184 P: 617-523-8620

First Hartford Realty Corp. P.O. Box 1270 149 Colonial Road Manchester, CT 06045 P: 860-646-6555

OWNER INFORMATION

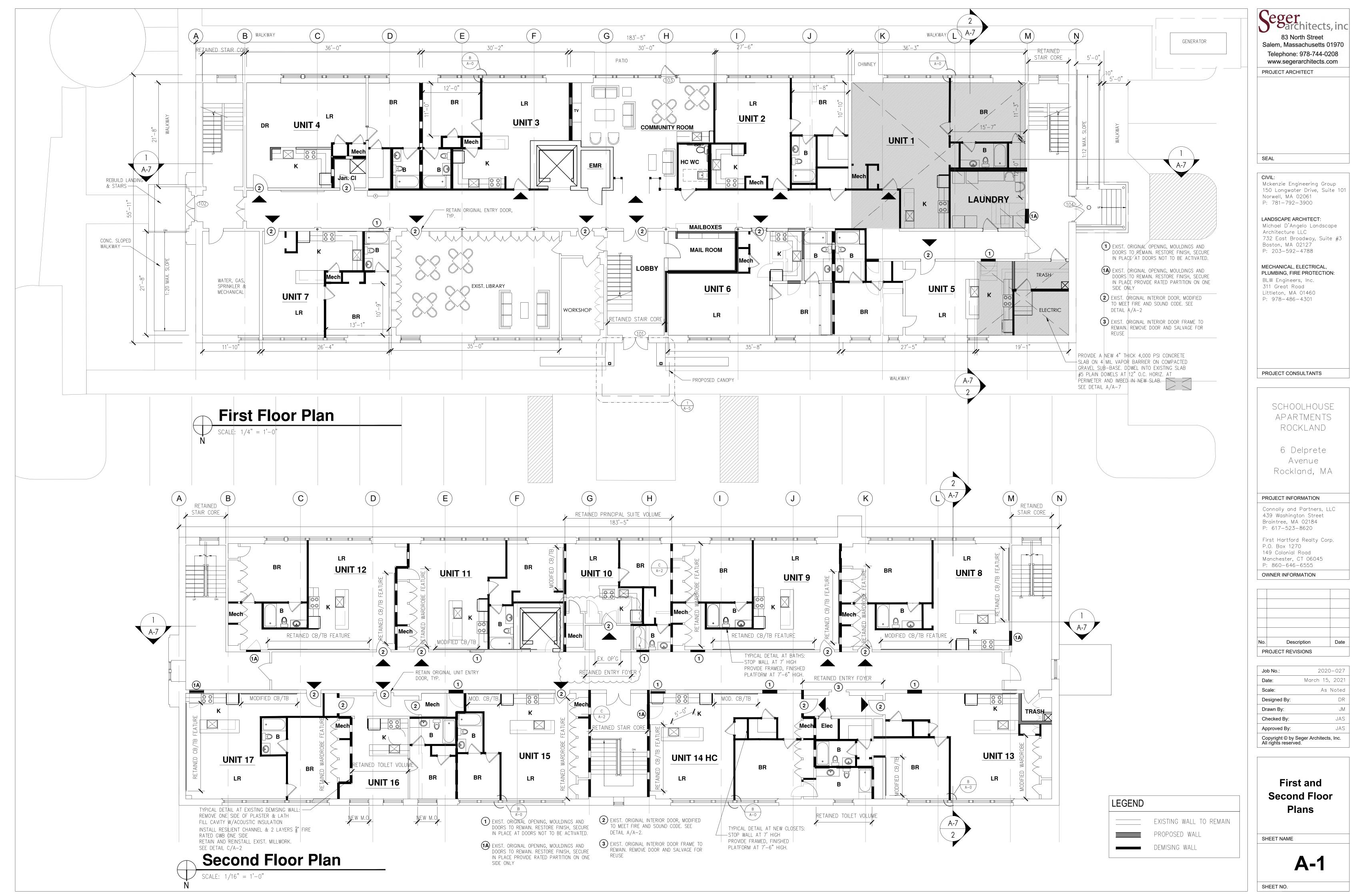
MHC revisions Description PROJECT REVISIONS

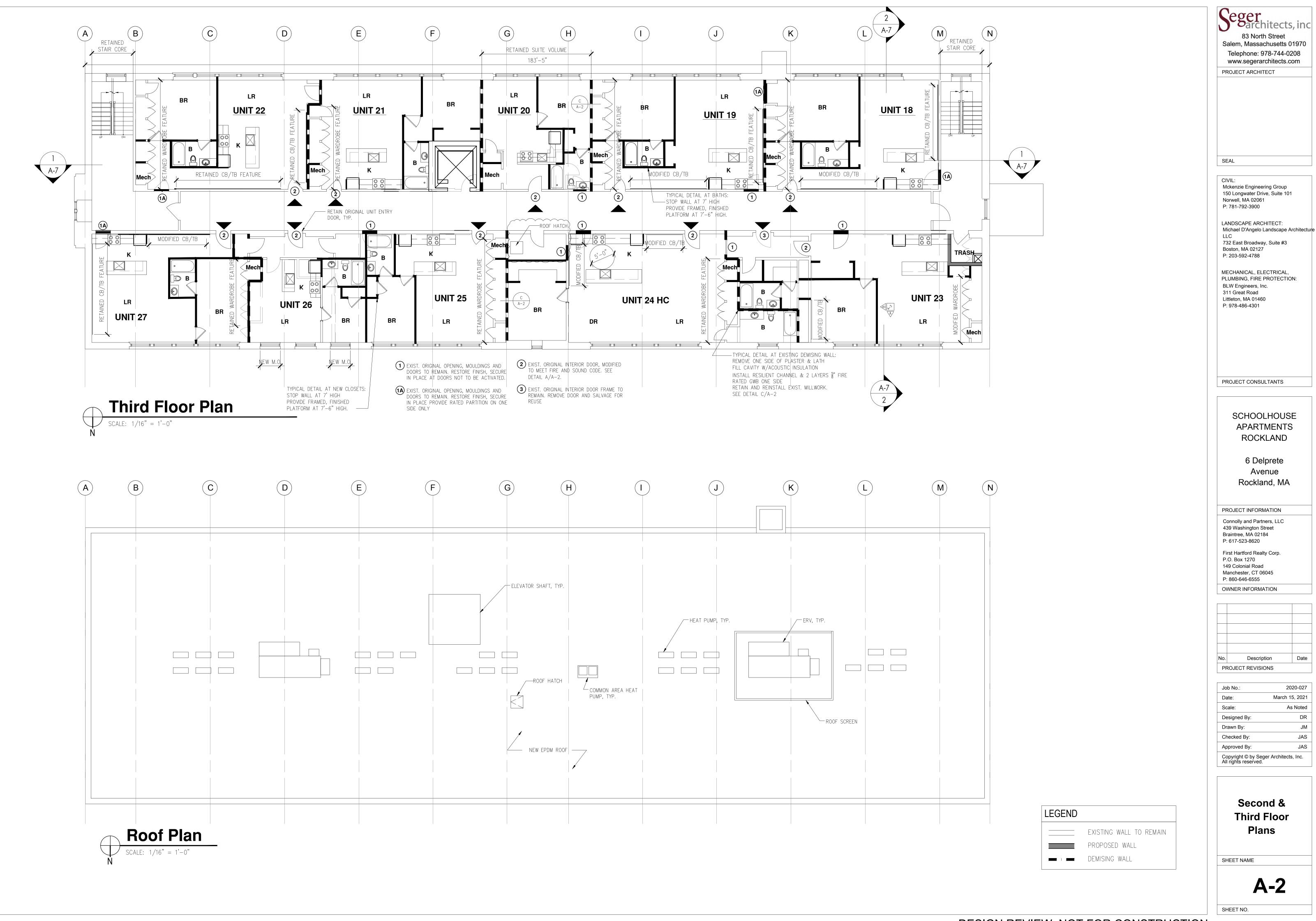
2020-027 March 15, 2021 Scale: As Noted Designed By: Drawn By: Checked By: Approved By: Copyright © by Seger Architects, Inc. All rights reserved.

> Proposed **Elevations**

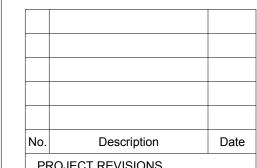
SHEET NAME

A-3





Salem, Massachusetts 01970 Telephone: 978-744-0208 www.segerarchitects.com



Job No.:	2020-027
Date:	March 15, 2021
Scale:	As Noted
Designed By:	DR
Drawn By:	JM
Checked By:	JAS
Approved By:	JAS
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Applicable Sections of the Town of Rockland Zoning Bylaw Pertinent to this Application

ARTICLE IV - PERMITED USES:

REGULATION	REQUIRED	REQUESTED
415-11	R-4 Residence Zoning District:	Exemption Not
	Permitted principle uses: Multi family residence	Required

<u>ARTICLE V – BUILDING, LOT AND GENERAL DISTRICT REGULATIONS:</u>

REGULATION	REQUIRED	REQUESTED
415-22	-Maximum number of dwelling units per 32,670	Exemption
(District R-4)	square feet: 4	22.3 units per 32,670 square feet
		(27 units on 38,888 s.f. proposed lot)
415-22	Minimum side yard setback: 15 feet	Exemption
(District R-4)		(10.62 feet)
415-22 A(1).	All parking spaces as required by this bylaw shall be a	Exemption
	minimum of 10 feet in width by 20 feet in length for full size vehicles; and nine feet in width by 18 feet in length for compact vehicles. The ratio shall be 30% compact vehicles to 70% full size vehicles spaces.	(9' x 18')
415-22 A(2)a.	In all Residential Zones, all parking areas, loading	Exemption
	areas and areas used for access, egress or onsite circulation shall be set back a minimum of 10 feet from any property line and the ten-foot set back shall be properly landscaped and maintained.	Visitor Spaces setback: 2.22' min.
415-22 F (5) d.	F(1)	Special Permit -
	F(2)	Exemption Not Required
	F(3)	•
	The conversions of schools, retail/wholesale establishments, and other industrial, or commercial buildings into dwelling will be allowed by the Zoning	

	Board of Appeals under the Special Permit	
415-22 G (1)a.	The following uses shall require the submission of a traffic impact report to the Planning Board:	Exemption
	The proposed construction of 25 or more residential	
	units	
415-22 H	Consultant review requirement.	Exemption

<u>ARTICLE VIII – SITE PLAN REVIEW:</u>

REGULATION	REQUIRED	REQUESTED
415-58	Except as provided herein, no building, excavation, or foundation activities shall be initiated unless a Site plan is first submitted and approved and a building permit issued.	Exemption
415-59	Site plan review and approval	Exemption

<u>ARTICLE XI – ENFORCEMENT</u>

REGULATION	REQUIRED	REQUESTED
415-89 A	A special permit shall be required to construct or otherwise establish any of the specific types of uses so identified within this bylaw which shall only be permitted upon issuance of a special permit.	Exemption

ARTICLE XIII – DESIGN REVIEW BOARD

REGULATION	REQUIRED	REQUESTED
415-93.A	All commercial, industrial, public, and institutional sites and/or buildings which are to be constructed, or substantially altered and/or renovated shall be subject to review by the Design Review Board, regardless of their location in Rockland.	Exemption
415-94.B	Condominium Developments are subject to review by the Design Review Board.	Exemption

Schoolhouse Apartments Rockland

Snow and Ice Removal Program

Overview

Schoolhouse Apartments Rockland will rely on private contractors to conduct snow plowing of the roadways and parking areas on-site. (The "Snow Removal Specification Sheet" from Clarendon Hill Towers, included at the end of this plan, provides a more detailed example.) The remainder of the site is cleared by property maintenance staff.

Seasonal Preparation

Seasonal preparation is critical to the success of the Snow Removal and Ice Control Program. There are five phases to the Snow Removal and Ice Control Program:

- 1. Readiness Phase
- 2. Alert Phase
- 3. Operations Phase
- 4. Recovery
- 5. Post-Storm Assessment

Readiness Phase

Snow blowers, shovels, ice choppers, wheelbarrows, abrasives, and chemicals needed in the first phase of operations are readied ahead of time. Stockpile levels of materials, ice melt, heating oil, and generator fuel supplies, salt are restored by the maintenance team after each storm. Obstacles should be identified, then marked with reflective poles if required. The markers should be tall enough that they will be seen by the snowplow operators to prevent plows from doing damage to property.

In the Spring of each year, the Maintenance Supervisor evaluates the adequacy of storage requirements and levels of stockpiled de-icing and abrasive material in anticipation of needs of the upcoming season. Suppliers are also found. In addition, stockpile levels are re-established following each storm event. Facilities are also evaluated for the need to add ice cleats along the roofline, even where roof slopes do not exceed a 6:12 ratio.

Agreement Contracts for Snow Removal Services

The Maintenance Supervisor annually execute contracts, usually in September.

Contractual arrangements will be made with a private contractor(s) at pre-specified rates for snow removal depending on the depth of the snow (See Snow Removal Specification Sheet) and for additional dump trucks, tractors, graders, as well as front end loaders for snow removal services during extreme storms.

During November, all personnel are trained to ensure that they fully understand how to use and maintain the snow blowers, tractors, scrapers, spreaders, and other equipment assigned to them during Snow and Ice Operations. Staff are also instructed on how to shovel snow to avoid injuries.

Alert Phase

Depending on the weather forecast and current conditions, the Maintenance Supervisor will notify the snowplow contractor and site staff to mobilize for the storm. Each staff member must be available in the case of an impending storm. If a storm occurs during regular work hours, then the staff will deploy according to the pre-arranged snow removal plan. The Maintenance Supervisor will decide the need to keep staff on duty beyond

normal work hours. If a storm strikes during after duty hours, then staff is to assume that they are on call-back status. The Supervisor will call back staff as needed.

Weather Forecasting

A key element in implementing an efficient Snow and Ice Control Program is receiving and acting on timely weather information. Accurate weather forecasting is imperative in deciding which of the various operational procedures will be initiated. It is recognized that forecasts will occasionally be in error and operation plans may change. The Property Manager and Maintenance Supervisor should be informed of impending weather conditions by the National Weather Service. Local radio and television stations are a useful source for information. Other sources include the Weather Channel (on cable) or NOAA's alert system.

Winter Weather Terminology

The U.S. Department of Commerce National Oceanic and Atmospheric Administration National Weather Service uses the following definitions and criteria to describe hazardous winter weather:

- <u>Winter Storm Watch</u>: Heavy snow or a blizzard is possible, but the exact timing, location, or occurrence of the storm is still uncertain. A watch means to get prepared for a storm.
- <u>Winter Storm Warning</u>: You should be ready for a storm by the time a warning is issued. A lifethreatening storm is likely with:
 - o Snow 6 inches or more in 12 hours or less; or 8 inches or more in 24 hours,
 - Heavy ice accumulations that cause extremely dangerous conditions and considerable damage,
 - High winds, and/or
 - Wind chills indices -40°F or colder.
- <u>Blizzard Warning</u>: You should use caution when an advisory is issued. A storm with winds 35 mph or greater and significant snow or blowing snow with visibilities less than 1/4 mile.
- <u>Winter Weather Advisory</u>: Weather conditions that cause inconvenience, but are not lifethreatening, such as:
 - o High Wind Warning: Winds 40 mph or greater; or wind gusts 58 mph or greater.
 - o Wind Advisory: Winds 30 mph or greater; or wind gusts 45 mph or greater.

Analysis of this data and other factors by the Property Manager/Maintenance Supervisor results in a decision of when to become operational. This planning process is made more difficult due to the variable weather conditions met during each storm and whether a winter weather advisory, winter storm, winter storm watch, winter storm warning or blizzard warning etc. is in effect.

Available lead time, storm intensity, rate, and type (wet or powdery) of accumulation, moisture content, air/ pavement temperatures, time of day, traffic, and pedestrian volumes (peak or off-peak), wind direction and velocity, storm duration, geographical distribution of snow/ice, and most importantly the availability of equipment and rested personnel are all factors that interact to create a unique aspect for each storm.

Condition Alerts

The following alert conditions are set by the Maintenance Supervisor:

- <u>Condition 1</u>: Approximately 36 hours before effects of storm are predicted to reach the property's location.
- Condition 2: When the storm is predicted within 12-18 hours.

• <u>Condition 3</u>: When the arrival of the storm is imminent. All preventive measures should have been taken. Required personnel stand by in pre-selected locations. All other personnel are relieved of duties.

Operations Phase

When snowfall accumulations reach the established threshold, parking lot plowing (by contractor) and/or snow shoveling and snow blowing operations will start. The primary purpose of plowing is to open Priority Code 1 areas and make primary entrances and walkways "passable". Remaining areas are plowed and treated following established priorities to restore the property to normal operations after a storm ceases.

Priorities

- Priority 1
 - Roadways into and out of the property
 - Main entranceways and doorways
 - Management and Maintenance Office
- o Priority 2
 - Parking lots
 - Walkways
 - Around dumpsters

• Spreading Abrasives and Chemicals

Apply salt or abrasives to sidewalks, landings, entrances, parking areas, ramps, or other reported / known trouble spots. Salt all pavements before/after a snow / ice storm followed by conditions inconsistent with natural melting. Application width studies show that snow melts faster when salt is applied in narrow strips ("windrows"). As such, salt is normally applied in a windrow of 4-5 feet wide down the middle of parking lots and on the "high" side of paved areas.

Storm Types

o Minor Storms

An ice or snowstorm of four (4) inches or less (fallen or is forecasted) on the paved surfaces is considered a Minor Storm.

- If less than 2", Priority Code 1 locations (roadways/walkways/building entrances) are cleared and plowed within 4-5 hours after the storm ends.
- If greater than 2", Priority Code 1 locations can be re-plowed/treated in 4-5 hours. After Priority Code 1 locations are completed (i.e., lots, sidewalks, and at least one ADA accessible route made "passable"), Priority Code 2 facilities should be fully addressed between 8-10 hours after the storm ends.

o Major Storms

Snow or ice storms that develop an accumulation of more than four (4) inches (fallen or is forecasted) on paved surfaces are considered Major Storms. All available staff and/or contractor support should be considered for mobilization at this time. This action will require the Property Manager and Maintenance Supervisor approval and will vary based on an assessment of current conditions, weather forecast, and budgetary constraints.

• Suspended Operations

In the event a storm reaches an intensity that the continuation of operations would prove ineffective or would pose an undue safety risk for staff, contractors and/or the traveling residents (i.e., during blizzard conditions), snow and ice control activities should be shut down until weather conditions have improved.

The Maintenance Supervisor at each property or designee is responsible for making a closure decision. Crews will be demobilized to the maintenance shop or other designated location for food, shelter, and rest. Likewise, contractors will be placed on stand-by status at half-time pay rates until remobilized.

Contractor Assistance

Additional equipment and personnel from private contractors may be mobilized to meet goals during major storms, if necessary. Contract labor, rental equipment, structural engineers, operators, roofing contractor(s) etc. are alerted for service, if deemed necessary.

• Snow Removal Procedures

Steps, Entranceways and Sidewalks

- Removal of snow from main entrances, landings, fire lanes/exits, and handicap routes/ramps will be high priority and will be cleared before all secondary entrances and walkways. Conditions will be monitored to assure icy or slippery areas treated. Every effort will be made to use only a salt product for sidewalks. As a last resort to assure safe walks, a sand product will be used sparingly.
- During severe storms, steps and entryways shall be partially shoveled with a path along the railings for initial opening of these areas. At least one (1) handicap route must be fully passable. Sidewalks should be cleared at least one shovel's width within 24 hours after snowfall ceases. Staff is advised that snow should not be shoveled or moved onto the roadway or into parking areas.

Parking Lots

- Employees and visitors may be directed to park on one side, or in designated areas during snow removal operations. Fire lanes, delivery, loading/unloading zones, and handicapped parking receive priority. Once one side of the parking lot has been cleared, residents may be requested to move their vehicle to the other side. To help avoid the frustration that occurs when a snowplow covers sidewalks, plowing operations shall be performed to stockpile snow in parking spaces, preferably in a location that does not block storm drain inlets, sidewalks, or ADA ramp / access points.
- Parking lots will be plowed with the priority for handicap spaces being first, and employee parking as a secondary priority. It must be understood that lots with vehicles parked in them make it difficult to do an adequate job in snow removal. Efforts will be first made to open areas with no vehicle traffic to make room for incoming vehicles. If the surface in the parking lots becomes slippery and determined a safety hazard, sand/salt will be spread in the main driving lanes and lot entrances. During parking lot snow removal, it may become necessary for staff and visitors to park in an alternate lot other than the one they normally park in until all lots are cleared and available. Every reasonable effort will be made to open parking lanes to allow for two-way traffic.

Snow Hauling and Disposal

As snowbanks build up around the parking lots, sidewalks and entrances, the maintenance crews may have to remove necessary snow and haul to an unused area of the property or an authorized snow dump. This is done to provide adequate parking in lots, assure visibility for pedestrians and vehicles, to make room for more snow, and to control flooding problems when snow and ice melts.

Removal of Snow and Ice from Roofs

The removal of snow accumulations on roofs which will take the weight off the roof, is the best way to prevent a loss. It is important to follow proper snow-removal procedures to avoid creating an undesired loading on a roof. The following procedures should be followed to safely remove snow from roofs, as relates to this site:

- Drifted snow should be removed first, which will be on lower roofs. Drifted snow can also occur around rooftop mechanical vents, skylights, parapet walls and around penthouse walls.
- Snow should be removed from the middle of the bays first. (i.e., if your building has 50-foot bays with the primary steel running from the peak to the eave, the snow should be removed from the center of the bay starting at the peak and working toward the eave.) The greatest deflection will occur at the center of the bay. This should be repeated for all the bays.
- It is important to remove snow evenly from both sides of the roof so that the live load on one side of the roof is not significantly greater than the other side. For peaked roofs, the snow should be removed from the center of a given bay on one side of the roof and then the snow should be removed on the same bay on the other side of the ridge or peak.
- Do not pile snow from upper roofs onto lower roofs.
- Take care while removing snow and/or ice accumulation to prevent damage to the roof membrane. Avoid removal within 2 inches of the surface of the roof membrane. The use of plastic snow shovels is recommended.
- When removing snow from one section of a roof, avoid traveling over and compacting snow on adjacent roof sections. Areas onto which snow will be dumped from a roof should be secured to prevent access.
- Snow removal personnel should stay spread out to avoid additional localized concentrations of weight. Workers on a roof must use proper personal protective fallarrest type equipment.

Snow Loads

Following major and repeated snow and ice storm events, where there is significant snow on the roof of buildings and there is physical evidence that a roof is sagging or is showing other visible signs of distress, the roof should be assessed by a structural engineer, or other qualified professional, to determine if:

- Snow loads are excessive
- There are signs of structural distress
- Special removal procedures are needed to avoid additional structural problems
- To determine if a structure is overstressed. Most buildings are designed to accommodate a roof snow load associated with 2 feet (24 inches) of dense, compact and/or wet snow.
- Here are some warning signs that a roof may be giving way under the weight of snow. If there are any of the warning signs below, the building needs to be evacuated at once:
 - Cracked or split wood members/Popping, cracking, and creaking sounds.
 - Bowed utility pipes or conduit attached at ceiling.
 - Sagging ceiling tiles and/or sprinkler heads pushed down below ceiling tiles.
 - Sagging roof members including steel bar joists.
 - Doors and/or windows that pop open or are difficult to open and close.
 - Metal decking, wood rafters, wood trusses and plywood sheathing-visually deformed.

Snow Load Based on Accumulation Depth

	•	Snow Depth on Roof	Dry Snow	In Between Snow	Wet Snow
	•	(ft)	(lbs./ft²)	(lbs./ft²)	(lbs./ft²)
1			3	12	21
2			6.5	24	42
3			9.5	36	62
4			12.5	48	83
5			15.5	60	104

Source: Winter Snow Loads. Curt Gooch, Sr. Cornell University. 2002

o Roofs, Gutter, Downspouts and Maintenance Equipment

The following items should be addressed before and during a major snow or rain event:

- Keep roof drains clear of ice and accumulated debris. Inspect roof immediately after major winter storms where precipitation more than 8 inches of snow fall and/or 2 inches of rain fall has occurred in a 24- hour period.
- Keep gutters and downspouts clear so they will flow freely.
- Keep the bottom of downspouts clear of snow and ice so the water has a place to drain.
- Truncate downspouts 2 feet above grade to ensure they flow freely and do not freeze at the bottom.
- Ensure that snow is not plowed or shoveled against downspouts, which will prevent proper drainage.
- Do not install equipment (air handlers, air conditioners, transformers, etc.) or storage below eaves where the equipment could be affected by snow or ice sliding off the roof.
- If there is existing equipment located below eaves, a structurally sound roof should be installed over the equipment to help prevent damage to the equipment from falling snow or ice.

Recovery Phase

As the storm abates and with the completion of clearing, staff moves into the Recovery Phase. Recovery consists of phasing-down operations by: terminating contractor support; returning employees to regular work schedules; pushing back or removing any piles of snow blocking or remaining at entrances to facilities, downspouts, or storm drains; removing areas of isolated compacted snow or ice within porch, entrance, handicapped entrances, or sidewalks; evaluating the need for any damage repairs; cleaning and servicing vehicles and equipment; replenishing or shifting snow-related supplies; and preparing the needed financial paperwork.

Post-Storm Assessment Phase

The Property Manager and Maintenance Supervisor should perform an internal evaluation and assessment of storm related operational decisions. Issues to consider include:

- How responsive in terms of timeliness was the private contractor?
- What was the quality of snow removal operations? Did staff have to do more work when the contractor ended operations?
- How responsive was site personnel?
- Did residents cooperate with staff?
- Was there a need for additional contracted personnel?
- Is there a need to change priorities in the snow removal policy?

Lessons can be learned from both successes and failures of any winter maintenance operation. Improvements in operation, and even equipment, can be found and implemented through a post-storm assessment of the practices and treatments used. It is important that all levels of maintenance personnel be involved in the evaluation process. This process includes the evaluation of treatment effectiveness, assessment of operational decision timing, and an examination of costs. Recommendations for improved safety such as the installation of roof guards, shields, or cleats on roofs over public walkway areas, or effectiveness of existing measures are reported at this time. In the event of significant storm events, snow removal costs are accounted for, and budget amendments are prepared and processed by the Property Manager. In case of a declared emergency, special project accounts may be set up to preclude the need for the processing of separate budget amendments.

Property Damage and Repair

Although significant caution and safety efforts are made to avoid damage to the buildings / grounds during snow and ice removal operations, property damage may inevitably occur. In cases where turf damage has resulted from the plow jumping the curb, snow shovels or blowers, restoration will be done as soon as weather conditions allow. Under only extreme circumstances will the damage to turf from salt application be restored or treated. If contracted services are used, then the contractor is contractually responsible for all damage to life and property during their snow removal activities and operations.

CLARENDON HILL TOWERS

1366 Broadway ♦ Somerville, Massachusetts 02144 ♦ Phone 617-625-7150 ♦ Facsimile 617-625-3741

Snow Removal Specification Sheet

Snow Removal Rates For The 2009 - 2010 Winter Season

Plowing Per Storm

1-3"

3-6"

9-12"

Additional Price Per Inch After 12"

Snow Removal off Site from Parking Lots as Requested by Management

Equipment Prices Hourly:

Bob Cat

Back Hoe

Front end Loader

6 Wheeler Dump

14 Wheeler Dump

Snow Dumping fee

Areas under Contract – All Parking Lots
All asphalt road ways and parking lots.

All Drivers are to be fully licensed and insured up to 1,000,000.00

Certificates of insurance are required with bids

Insurance Company will provide upon acceptance as per coverage requirements.

Please contact the Site for a visit at (617) 625-7150.