RANDOLPH NORTH BUILDING A

SCANLON DRIVE
RANDOLPH, MA 02368

PROJECT TEAM

OWNER:
CORE
800 Boylston St FL 30,
Boston, MA 02199
Contact:
Art Campbell
acampbell@coreinvestmentsinc.com

ARCHITECT:
STANTEC
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Contact:
Dave Kadish
email: dave.kadish@stantec.com

CONSTRUCTION MANAGER:
CALLAHAN
80 First Street
Bridgewater, MA 02324
Contact:
George Malakidis
tel: 508-279-0012
email: gmalakidis@callahan-inc.com

LANDSCAPE ARCHITECT:
STANTEC
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Contact:
Chris Fee
email: chris.fee@stantec.com

MEP/FP ENGINEER:
COSENTINI CONSULTING ENGINEERING
101 Federal Street, 6th Floor
Boston, MA 02110
Contact:
Aniruddha Nene
email: anene@cosentini.com

INTERIOR DESIGN:
STANTEC
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Contact:
Sara Diem
email: sara.diem@stantec.com

STRUCTURAL ENGINEER:
DESIMONE CONSULTING ENGINEERS
31 Milk Street, Suite 1016
Boston, MA, 02109
Contact:
Jarret Johnson
email: jarret.johnson@de-simone.com

CIVIL ENGINEER:
VERTEX
400 Libbey Parkway
Weymouth, MA 02189
Contact:
Andrew Street
email: astreet@vertexeng.com

ENVELOPE
DESIMONE CONSULTING ENGINEERS
31 Milk Street, Suite 1016
Boston, MA, 02109
Contact:
Benjamin Reich
email: benjamin.reich@de-simone.com

ACOUSTICAL CONSULTANT
ACENTECH
33 Moulton Street
Cambridge, MA 02138
Contact:
Jonah Sacks
tel: 617-499-8000
email: jsacks@acentech.com

CODE CONSULTANT:
COSENTINI CONSULTING ENGINEERS
101 Federal Street, 6th Floor
Boston, MA 02110
Contact:
Mike McMahon
mmcmahon@cosentini.com

FLUIDS AND FUEL
WESTON & SAMPSON
150 Dow Street, Tower 4, Suite 350
Manchester, NH 03103
Contact:
Tyler Cofelice
tel: 603-263-9498
email: CofeliceT@wseinc.com

SPECIFICATIONS
KALIN ASSOCIATES INC.
PO BOX 420
Natick, MA, 01760
Contact:
Jay Ford
email: jford@kalinassociates.com

ZONING SUMMARY			
ZONING DISTRICT			
Blue Hills River Highway District (BHRHD)			
LAND USE			
Commercial			
OVERLAYS			
Surface Water Protection Zones A & C			
LOT SIZE (SF)			
varies per site			
CLIMATE RESILIENCY- SEA LEVEL RISE - BASE FLOOD ELEVATION			
not specified			
CRITERIA (a)			
	ZONING AS-OF-RIGHT	PROPOSED	COMPLIANCE (Y/N)
Min. Lot Size (SF)	20,000	236,692	Y
Building Footprint (SF)	-	58,272	
Max. Floor Area Ratio (FAR)	none	0.28	Y
Max. Gross Floor Area (Lot Size x FAR) (SF)	none	65,591	Y
Max. Bldg. Stories	3.0	1.0 with Mezz	Y
Max. Bldg. Height (FT) (b)**	50.0	32.50	Y
Min. Lot Frontage (FT) (c)	130.0	165.00	Y
Min. Lot Depth (FT) (d)	100.0	432	Y
Min Lot Width (FT) (e)	100.0	529	Y
LOT COVERAGE;			
A) Building Lot Coverage (% max) (g)	60%	24.6%	Y
B) Impervious Lot Coverage (% max) (h)	30%	62.7%	Y*
C) Green Area Open Space (% min)	10%	11.7%	Y
Maximum Lot Coverage (A + B) (%)	90%	87.3%	Y
BUILDING SETBACKS			
Setback from Street (FT)	15.0		Y
Setback from Front Yard (FT)	15.0		Y
Setback from Side Yard (FT)	10.0		Y
Setback from Rear Yard (FT)	15.0		Y
BUFFERS			
Buffer Strips to Street (FT) (f)	5.0		Y
Buffer Strips to Residential (FT)	10.0		Y
Buffer Strips to Commercial (FT)	2.5		Y

(a) Based on Section 200 Attachment 2, Table of Dimensional Requirements**
Based on Section 200-3, Definitions:

(b) Height of Building. The vertical distance from the established grade at the center of the front of the building to the highest point of the roof surface if a flat roof, to the deck line for mansard roofs, and to the mean height level between eaves and ridge for gabled, hip and gambrel roofs

***Note: The height of a structure shall be based on the average pre-existing grade within the proposed building footprint*

Mean height between eaves and ridges = 28'-0" for 200' of building length and 37'-0" for 200' of building length. Average Height by definition = 32'-6"

(c) Lot Frontage. The property line dividing a lot from a street (right-of-way). On a corner lot, the owner shall designate one (1) street line as the front lot line. On a corner lot, where the junction of two (2) streets is formed by a curve, the frontage shall be measured along the tangent line of the curve from the point of intersection to the side lot line

(d) Lot Depth. The mean horizontal distance between the front lot line and the rear lot line.

(e) Lot Width. The horizontal distance between the side lot lines as measured at the minimum required setback distance required by this chapter.

(f) Buffer Strip. A strip of land (often including vegetation) where disturbance is not allowed or is closely monitored to preserve or enhance aesthetic and other qualities along or adjacent to roads, trails, watercourses and recreation sites or between properties or lots

(g) Building Lot Coverage.
The total area covered, measured from the outside of the exterior walls, by all principal and accessor...

**(h) Maximum Lot Coverage.*
The total lot non-green area/open space may not exceed the maximum coverage specified in the Table of Dimensional Requirements. In order to fulfill the intent of maximum lot coverage, an applicant may shift a percentage of the building lot coverage requirement and the impervious lot coverage requirement, but in no case shall the maximum coverage percentage noted in the table be exceeded. 200-34 Section D

GROSS BUILDING AREA (GSF) & HEIGHT		
LEVEL	AREA (SF)	HEIGHT (FT)
Mezzanine (height to high eave)	7,355	22.50
Ground Level	58,334	11.50
GROSS BUILDING TOTAL	65,689	34.00
GROSS FLOOR AREA*	65,689	

Based on Section 200-3 Definitions:
Floor area, gross. The sum of the gross horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the center line of a wall separating two (2) buildings, but not including interior parking spaces, loading space for motor vehicles, or any space where the floor-to-ceiling height is less than six (6) feet.

Floor Area Ratio. Determined by dividing the gross floor area of all buildings on a lot by the area of that lot

OFF-STREET PARKING REQUIREMENTS			
COMMERCIAL/ BUSINESS	1 SPACE PER AREA (SF)	BLG. FLOOR AREA (SF)	REQUIRED NO. OF SPACES
Mezzanine	400	7,355	0
Ground Floor (B)	200	7,355	37
Ground Floor (S-1)	Warehouse*	50,979	12
TOTAL		65689.4	49

Per Section 200-22, Required Number of Spaces
Commercial/Business: one (1) space for each two hundred (200) square feet of gross floor area on the first floor of a building and one (1) space for each four hundred (400) square feet of gross floor area thereafter for all floors used for business purposes, excluding storage area

Warehouse/Industrial: one (1) space for each two (2) employees, plus space for every company-owned and -operated vehicle, plus spaces for customers' vehicles as determined appropriate by the Building Commissioner or Site Plan Administrator

10 warehouse workers (max) = 5 spaces
5 Company owner vehicles (yard trucks)= 5 spaces
2 customer vehicles (max) = 2 spaces
*By Right = 12 spaces. Compliant.

Mixed uses: Where a building has a mixture of uses for which off-street parking is required, the number of spaces will be the sum of the requirements of the various individual uses.

Other: Reasonable off-street parking requirements for uses not listed in this section shall be determined by the Site Plan Administrator.

By right, 49 required, currently providing 37 marked spaces and 12 unmarked spaces. Compliant.

Stantec

218421418

© 2018 Stantec
<Do Not Scale Project Information>
21/5/2024 1:14:36 PM
ORIGINAL SHEET - ARCH E1

DRAWING LIST

SHEET NO.	SHEET NAME	SCHEMATIC DESIGN	DESIGN DEVELOPMENT	50% CONSTRUCTION DOCUMENTS
GENERAL				
G-000	COVER SHEET	■	■	■
G-002	DRAWING INDEX	■	■	■
G-010	SITE LOCATION PLAN	■	■	■
CIVIL				
C0.1	GENERAL NOTES AND LEGEND		■	
C1.0	OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN	■	■	■
C1.1	EXISTING CONDITIONS AND DEMOLITION PLAN 1	■	■	■
C1.2	EXISTING CONDITIONS AND DEMOLITION PLAN 2	■	■	■
C1.3	EXISTING CONDITIONS AND DEMOLITION PLAN 3	■	■	■
C2.0	OVERALL SITE IMPROVEMENT PLAN	■	■	■
C2.1	SITE IMPROVEMENT PLAN 1	■	■	■
C2.2	SITE IMPROVEMENT PLAN 2	■	■	■
C2.3	SITE IMPROVEMENT PLAN 3	■	■	■
C3.0	OVERALL GRADING PLAN	■	■	■
C3.1	GRADING PLAN 1	■	■	■
C3.2	GRADING PLAN 2	■	■	■
C3.3	GRADING PLAN 3	■	■	■
C4.0	OVERALL UTILITY PLAN	■	■	■
C4.1	UTILITY PLAN 1	■	■	■
C4.2	UTILITY PLAN 2	■	■	■
C4.3	UTILITY PLAN 3	■	■	■
C5.0	OVERALL DRAINAGE PLAN	■	■	■
C5.1	DRAINAGE PLAN 1	■	■	■
C5.2	DRAINAGE PLAN 2	■	■	■
C5.3	DRAINAGE PLAN 3	■	■	■
LANDSCAPE				
L-100	OVERALL PLAN		■	■
L-101	LAYOUT AND MATERIALS 1	■	■	
L-102	LAYOUT AND MATERIALS 2	■	■	
L-103	LAYOUT AND MATERIALS 3		■	■
L-121	PLANTING PLAN 1		■	
L-122	PLANTING PLAN 2		■	
L-123	PLANTING PLAN 3		■	■
L-131	SITE DETAILS 1		■	■
L-132	SITE DETAILS 2		■	■
L-141	PLANTING DETAILS		■	■
ARCHITECTURE				
A-001	STANDARD LEGENDS, SYMBOLS, ABBREVIATIONS, & NOTES	■	■	■
A-011	PARTITION TYPES	■	■	■
A-016	FLOOR / CEILING ASSEMBLY TYPES	■	■	■
A-021	DOOR & HARDWARE SCHEDULES		■	■
A-022	DOOR & FRAME DETAILS		■	■
A-024	EXTERIOR DOOR DETAILS		■	■
A-101	FLOOR PLANS	■	■	■
A-102	ROOF PLAN	■	■	■
A-140	EDGE OF SLAB PLAN		■	■
A-171	REFLECTED CEILING PLANS	■	■	■
A-201	EXTERIOR ELEVATIONS	■	■	■
A-211	BUILDING SECTIONS	■	■	■
A-220	WALL SECTIONS	■	■	■
A-221	WALL SECTIONS	■	■	■
A-300	ENVELOPE AND ROOF SYSTEM TYPES	■	■	■
A-400	SECTION DETAILS	■	■	■
A-401	SECTION DETAILS	■	■	■
A-451	HORIZONTAL DETAILS		■	■
A-620	STAIR PLANS AND SECTIONS	■	■	■
A-622	TYPICAL STEEL PLATE STAIR DETAILS	■	■	■
A-700	INTERIOR FINISH SCHEDULES & NOTES		■	■
A-701	ENLARGED OFFICE PLAN	■	■	■
A-702	ENLARGED BOH PLAN			■
A-710	OFFICE REFLECTED CEILING PLAN		■	■
A-720	OFFICE POWER & SIGNAL PLAN		■	■
A-730	OFFICE FINISH PLAN		■	■
A-750	LOCKER ROOM AND RESTROOM PLANS AND ELEVATIONS		■	■
A-760	INTERIOR ELEVATIONS		■	■
A-780	FINISH TRANSITION DETAILS		■	■
A-790	INTERIOR DETAILS		■	■
A-861	CEILING DETAILS		■	■
A-881	MILLWORK CABINET DETAILS	■	■	■
A-884	MILLWORK CABINET DETAILS	■	■	■
STRUCTURAL				
S-001	GENERAL NOTES	■	■	■
S-101	FOUNDATION AND LEVEL 1 FLOOR PLAN	■	■	■
S-110	FOUNDATION DETAILS		■	■
S-201	PEMB LAYOUT	■	■	■
FIRE PROTECTION				
FP-001	FIRE PROTECTION LEGEND, SCHEDULES, AND DETAILS		■	■
FP-002	FIRE PROTECTION DETAILS		■	■
FP-101A	FIRE PROTECTION LEVEL 1- NORTH PLAN		■	■
FP-101B	FIRE PROTECTION LEVEL 1- SOUTH PLAN		■	■
FP-102A	FIRE PROTECTION LEVEL 2- NORTH PLAN		■	■
FP-102B	FIRE PROTECTION LEVEL 2- SOUTH PLAN		■	■
PLUMBING				
P-001	LEGEND, SCHEDULES & DETAILS		■	■
P-002	PLUMBING - DETAILS		■	■
P-101A	PLUMBING LEVEL 1 - NORTH PLAN		■	■
P-101B	PLUMBING LEVEL 1 - SOUTH PLAN		■	■
P-102	PLUMBING LEVEL 2 - SOUTH PLAN		■	■
MECHANICAL				
M-001	LEGEND & SCHEDULE		■	■
M-002	SCHEDULE		■	■
M-101A	MECHANICAL LEVEL 1 -NORTH PLAN		■	■
M-101B	MECHANICAL LEVEL 1 -SOUTH PLAN		■	■
M-102B	MECHANICAL LEVEL 2 -SOUTH PLAN		■	■
M-103A	MECHANICAL ROOF - NORTH PLAN		■	■
M-103B	MECHANICAL ROOF - SOUTH PLAN		■	■
M-400	DETAILS		■	■
M-401	DETAILS		■	■
ELECTRICAL				
E-001	ELECTRICAL SYMBOL LIST		■	■
E-002	ELECTRICAL EQUIPMENT SCHEDULES		■	■
E-003	ELECTRICAL LIGHTING FIXTURE SCHEDULE		■	■
E-004	ELECTRICAL LIGHTING FIXTURE SCHEDULE		■	■
E-005	ELECTRICAL PANEL SCHEDULES			■
E-006	ELECTRICAL PANEL SCHEDULES			■
E-007	ELECTRICAL PANEL SCHEDULES			■
E-101	ELECTRICAL OVERALL POWER PLAN		■	■
E-102A	ELECTRICAL LEVEL 1 - NORTH POWER PLAN		■	■
E-102B	ELECTRICAL LEVEL 1 - SOUTH POWER PLAN		■	■
E-103A	ELECTRICAL LEVEL 2 - NORTH POWER PLAN		■	■
E-103B	ELECTRICAL LEVEL 2 - SOUTH POWER PLAN		■	■
E-201	ELECTRICAL OVERALL LIGHTING PLAN		■	■
E-202A	ELECTRICAL LEVEL 1 - NORTH LIGHTING PLAN		■	■
E-202B	ELECTRICAL LEVEL 1 - SOUTH LIGHTING PLAN		■	■
E-203A	ELECTRICAL LEVEL 2 - NORTH LIGHTING PLAN		■	■
E-203B	ELECTRICAL LEVEL 2 - SOUTH LIGHTING PLAN		■	■
E-301	ELECTRICAL OVERALL FIRE ALARM PLAN		■	■
E-302A	ELECTRICAL LEVEL 1 - NORTH FIRE ALARM PLAN		■	■
E-302B	ELECTRICAL LEVEL 1 - SOUTH FIRE ALARM PLAN		■	■
E-303A	ELECTRICAL LEVEL 2 - NORTH FIRE ALARM PLAN		■	■
E-303B	ELECTRICAL LEVEL 2 - SOUTH FIRE ALARM PLAN		■	■
E-401	ELECTRICAL ONE-LINE DIAGRAM		■	■
E-501	ELECTRICAL SERVICE PLAN		■	■
E-502	ELECTRICAL SITE LIGHTING PLAN		■	■
E-503	ELECTRICAL SITE POWER PLAN		■	■
E-601	ELECTRICAL DETAILS		■	■
E-602	ELECTRICAL DETAILS		■	■
TELECOMMUNICATIONS				
TC-001	TELECOM COVER SHEET		■	■
TC-101	TELECOM OVERALL PLAN		■	■
TC-102A	TELECOM LEVEL 1 - NORTH PLAN		■	■
TC-102B	TELECOM LEVEL 1 - SOUTH PLAN		■	■
TC-103A	TELECOM LEVEL 2 - NORTH PLAN		■	
TC-103B	TELECOM LEVEL 2 - SOUTH PLAN		■	■
TC-201	TELECOM SER/MDF CLOSET LAYOUT AND ELEVATION			■
TC-202	TELECOM IDF CLOSET LAYOUT AND ELEVATION			■
TC-401	TELECOM DETAILS - SHEET 1		■	■
TC-402	TELECOM DETAILS - SHEET 2		■	■
TC-502	TELECOM SITE PLAN		■	■
SECURITY				
SE-001	SECURITY COVER SHEET		■	■
SE-101	SECURITY OVERALL PLAN		■	■
SE-102A	SECURITY LEVEL 1 - NORTH PLAN		■	■
SE-102B	SECURITY LEVEL 1 - SOUTH PLAN		■	■
SE-103A	SECURITY LEVEL 2 - NORTH PLAN		■	■
SE-103B	SECURITY LEVEL 2 - SOUTH PLAN		■	■
SE-301	SECURITY ELEVATION AND RISER DIAGRAM			■
SE-401	SECURITY DETAILS - SHEET 1		■	■
SE-402	SECURITY DETAILS - SHEET 2		■	■
SE-502	SECURITY SITE PLAN		■	■
FLUIDS & FUEL				
EQ-101	FLUID DISTRIBUTION		■	■
EQ-201	FUEL ISLAND LAYOUT PLAN		■	■
EQ-202	FUEL SYSTEM DETAILS			■
EQ-203	FUEL SYSTEM DETAILS			■

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale

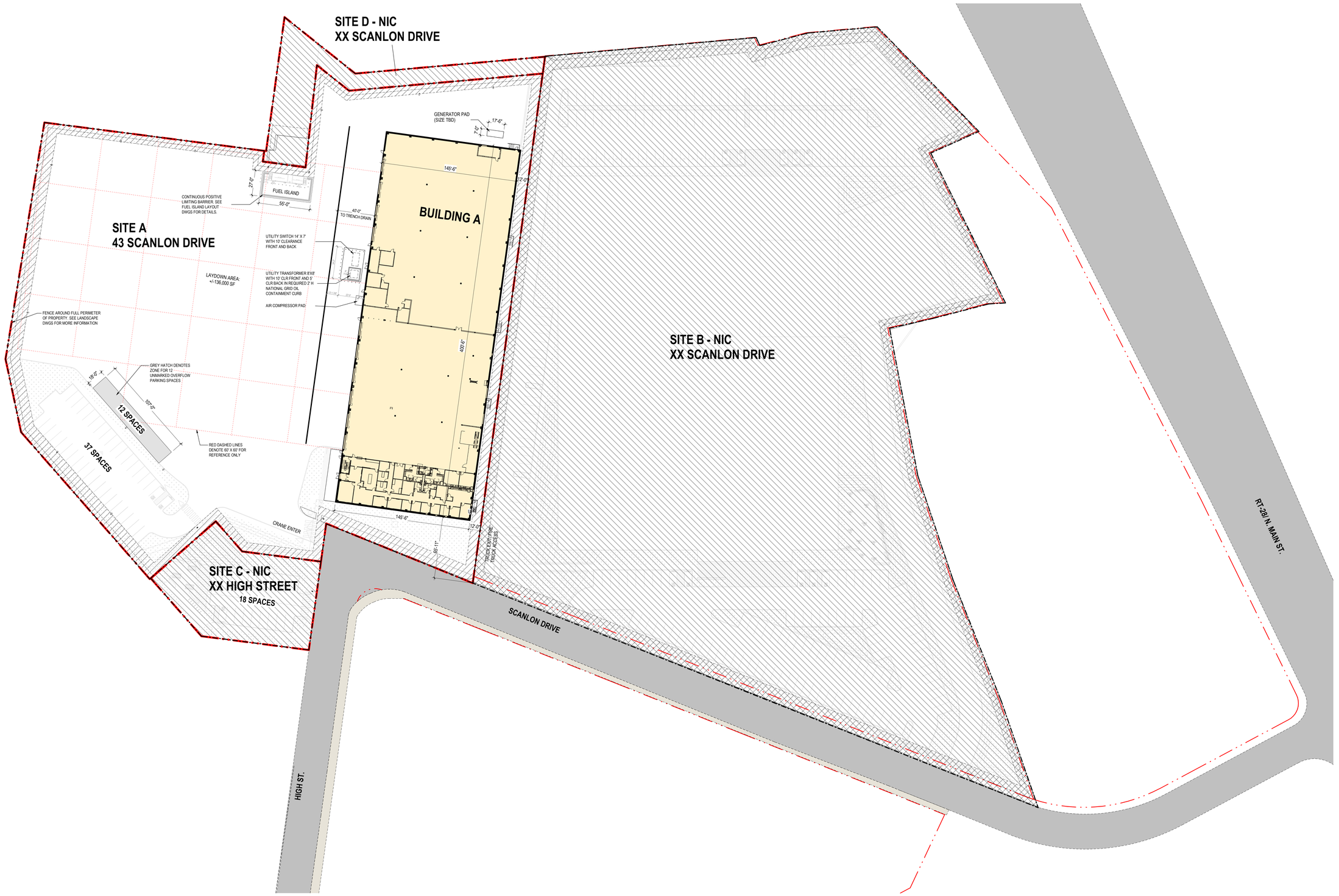
Project No. 218421418

DRAWING INDEX

G-002

<Tick location in Project Information>
[01.0004.17.44
Effective Date: March 01]

© 2018 Stantec



1 G-010 **SITE PLAN - MAXIM CRANE - 5 ACRES**

1" = 40'-0"

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
	Issued/Revision	YYYY.MM.DD

Permit/Seal

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Scale	1" = 40'-0"
Project No.	218421418

SITE LOCATION PLAN

G-010

*Plot location in Project Information
2/1/2024 1:41:48 PM
Autodesk Docs://21...

© 2018 Stantec

REFERENCE

1. EXISTING CONDITION AND PROPERTY INFORMATION PROVIDED BY CHA CONSULTING, INC. IN APRIL OF 2022.

GENERAL NOTES

1. THE STATE OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES 1995 EDITION AND THE SUPPLEMENTAL SPECIFICATIONS 2002 EDITION, OR LATEST REVISION, AND THE MASSACHUSETTS STANDARD DETAILS AND TOWN OF RANDOLPH STANDARD DETAILS AND CONSTRUCTION STANDARDS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. THE 1995 EDITION OF THE STANDARD SPECIFICATIONS AND THE 2002 EDITION OF THE SUPPLEMENTAL SPECIFICATIONS MAY BE OBTAINED AT THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION.
2. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE ENGINEER. THE CONTRACTOR IS REQUIRED TO FILE ANY DOCUMENTS REQUIRED BY NPDES GENERAL PERMIT OR PUBLIC WORKS ORDER OF CONDITIONS APPLICABLE TO THE SITE.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND/OR BARRIERS AROUND ALL OPEN EXCAVATED AREAS, AND CONDUCT ALL WORK IN ACCORDANCE WITH OSHA STANDARDS AND TOWN OF RANDOLPH REQUIREMENTS.
4. AFTER THE INSTALLATION OF THE EROSION CONTROLS, THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS IN WRITING AT LEAST 48 HOURS PRIOR TO THE START OF ANY WORK.
5. IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER, THE OWNER AND TOWN OF RANDOLPH PUBLIC WORKS OR THEIR AGENT.
6. ANY AREA OUTSIDE OF THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
7. ALL EXISTING CONDITIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER, THE ENGINEER AND TOWN OF RANDOLPH PUBLIC WORKS OR THEIR AGENT PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED. NO FIELD ADJUSTMENTS IN THE LOCATION OF SITE ELEMENTS SHALL BE MADE WITHOUT THE ENGINEERS, AND TOWN OF RANDOLPH PUBLIC WORKS OR THEIR AGENT APPROVAL.
8. ALL UTILITIES (LOCATION AND ELEVATION) SHOWN SHALL BE CONSIDERED APPROXIMATE ONLY. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-344-7233 AND ALL UTILITY COMPANIES NOT COVERED BY "DIG SAFE". TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES AS SHOWN ON THE PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COSTS OF SUCH DAMAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE. NOTE THAT NOT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT ALL RESPECTIVE UTILITY COMPANIES TO VERIFY AND LOCATE EXISTING UTILITIES.
9. ALL WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO TOWN OF RANDOLPH DEPARTMENT OF PUBLIC WORKS REQUIREMENTS, AND MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES 1995 EDITION AND THE 2002 EDITION OF THE SUPPLEMENTAL SPECIFICATIONS, OR LATEST REVISIONS TO BOTH.
10. PAVEMENT MARKINGS ARE TO BE WATERBOURNE AND CONFORM TO THE SPECIFICATIONS.
11. PRIOR TO THE PLACEMENT OF THE FINAL COAT OF PAVEMENT, ALL EXISTING PAVEMENT IS TO BE SWEPT CLEAN AND ASPHALT EMULSION TACK COAT IS TO BE APPLIED.
12. ALL CURB RAMPS SHALL HAVE DETECTABLE WARNING MATS IN ACCORDANCE WITH MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) GUIDELINES. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATION SECTION 32 13 12.
13. IN AREAS CALLED OUT AS SIDEWALKS FINISHES ARE DETAILED ON THE LANDSCAPE PLANS.
14. CONTRACTOR TO INSTALL A VISUAL BARRIER SCREENING COVERING THE CHAIN LINK FENCE WITH A MINIMUM 85% OPACITY. CONTRACTOR TO INSTALL THE SCREENING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
15. IN ADDITION TO TYPICAL DESIGN STANDARDS, THE CONSTRUCTION GATE/FENCE SUPPORT SYSTEM (POSTS, UPRIGHTS, RODS, RAILS, TIES, FOUNDATIONS, ETC.) SHALL BE DESIGNED FOR A LATERAL WIND PRESSURE WITH THE FENCE ASSUMED TO BE SOLID I.E., WITHOUT PENETRATIONS. CONTRACTOR SHALL SUBMIT CALCULATIONS STAMPED BY A MA REGISTERED PROFESSIONAL ENGINEER DEMONSTRATING THE DESIGN TO BE IN COMPLIANCE WITH ALL LOADS NOTED AND THE STATE BUILDING CODE.
16. WORK DEPICTED ON THE CIVIL AND LANDSCAPE PLANS (C-SERIES AND L-SERIES) SHALL BE FURNISHED AND INSTALLED BY THE SITE CONTRACTOR UNLESS OTHERWISE NOTED.

DEMOLITION NOTES

1. ALL DEMOLITION SHALL BE COORDINATED WITH THE OWNER PRIOR TO START OF WORK.
2. PAVEMENT DEMOLITION SHALL BE SAW CUT AND DISPOSED OF PROPERLY. WHERE NEW PAVEMENT ABUTS EXISTING, CONTRACTOR SHALL PROVIDE CLEAN SAW CUT WITH A 2' OVERLAP OF NEW TOP COURSE OVER ADJACENT EXISTING BASE COURSE.
3. ALL UTILITIES REMOVED FROM THE SITE SHALL BE REMOVED ALL THE WAY TO THE MAIN LINE, UNLESS OTHERWISE NOTED ON THE PLANS, WITH ANY ASSOCIATED TEES AND FITTINGS REMOVED AND REPLACED WITH A NEW SECTION OF PIPE.
4. THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION OF STRUCTURES, PAVEMENT AND CONCRETE MATERIALS, AND UTILITIES WITH APPROPRIATE PROPOSED SITE, GENERAL, AND UTILITY DRAWINGS.
5. THE CONTRACTOR SHALL REMOVE ALL UNSUITABLE SOILS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT FOR THE PROPOSED SITE.

STORMWATER MAINTENANCE

1. PREVENTATIVE MAINTENANCE SHOULD BE PERFORMED AT LEAST TWICE A YEAR, AND IDEALLY SEDIMENT SHOULD BE REMOVED FROM PRETREATMENT BMPS AFTER EVERY MAJOR STORM EVENT. THE SYSTEMS SHOULD BE INSPECTED AFTER THE FIRST SEVERAL RAINFALL EVENTS, AFTER ALL MAJOR STORMS, AND ON REGULAR BI-ANNUAL SCHEDULED DATES IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY. THE CONTRACTOR SHALL SUBMIT INSPECTION REPORTS AT LEAST EVERY TWO WEEKS TO TOWN OF RANDOLPH PUBLIC WORKS (VIA E-MAIL, HAND DELIVERED OR FAX).
2. PRETREATMENT BMPS SHOULD BE INSPECTED AND CLEANED DURING THE REGULAR SCHEDULED INSPECTIONS. WATER QUALITY INLETS SHOULD BE CLEARED OF ACCUMULATED SEDIMENT, LEAVES, AND DEBRIS AT EACH REGULAR INSPECTION, AND MORE FREQUENTLY WHERE APPROPRIATE. INLET AND OUTLET PIPES SHOULD BE CHECKED FOR CLOGGING.
3. RAIN GARDENS SHOULD BE CLEANED OF TRASH MONTHLY. REMOVE WEED GROWTH FROM MULCHED BEDS AND RIVER STONE AREAS MONTHLY. HERBACEOUS PLANT MATERIAL SPECIFIED FOR THE RAIN GARDEN AREAS SHOULD BE CUT BACK ONCE IN THE LATE FALL OR EARLY SPRING BEFORE NEW GROWTH DEVELOPS. SHRUBS AND TREES SHOULD BE MONITORED TO ENSURE PROPER AND HEALTHY GROWTH. OUTLET STRUCTURES SHALL BE CLEARED OF DEBRIS. ANY EROSION SHOULD BE NOTED. PLANTING BEDS SHOULD HAVE A FRESH LAYER OF MULCH ADDED EACH SPRING.

SURVEY NOTES

1. INFORMATION SHOWN HEREON IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY CHA CONSULTING, INC. IN APRIL OF 2022.
2. ALL DEED REFERENCES ARE TO NORFOLK COUNTY REGISTRY OF DEEDS UNLESS OTHERWISE NOTED.
3. LOCUS OWNER OF RECORD:

RANDOLPH REALTY TRUST II DEED BOOK 27987 PAGE 53 PARCEL ID: 02-B-1.LA	RANDOLPH REALTY TRUST I DEED BOOK 27628, PAGE 53 PARCEL ID: 02-B-1.LA

4. TOPOGRAPHY, CONTOURS AND BENCHMARKS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TEMPORARY BENCHMARKS, REFERENCED TO THE DATUM ARE INDICATED ON THE SURVEY. IN THE EVENT THAT BENCHMARKS (TBM'S), ESTABLISHED FOR THIS PROJECT ARE PUBLISHED ON THE SURVEY ARE DESTROYED, NOT RECOVERABLE OR A DISCREPANCY IS FOUND, THE USER SHOULD NOTIFY THIS FIRM IN WRITING PRIOR TO COMMENCING OR CONTINUING ANY WORK.
5. THE PROJECT AREA IS LOCATED IN FLOOD ZONES "X" (AREAS OF MINIMAL FLOODINGS) AS SHOWN ON FLOOD INSURANCE RATE MAP FOR NORFOLK COUNTY, COMMUNITY PANEL NUMBER 25021C0204E, EFFECTIVE DATE JULY 17, 2012.
6. LOCATION OF SUBSURFACE UTILITIES SHOWN HEREON ARE APPROXIMATE AND ADDITIONAL UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS PLAN. LOCATIONS ARE COMPILED FROM UTILITY PLANS OF RECORD AND DIG-SAFE FIELD MARKINGS. RIM AND INVERT INFORMATION HAS BEEN COMPILED AND FIELD VERIFIED WHERE POSSIBLE. THIS INFORMATION IS NOT TO BE USED FOR CONSTRUCTION. PRIOR TO ANY OCNSTRUCTION, CONTACT DIG-SAFE (811) TO FIELD VERIFY LOCATION OF ALL UTILITIES.
7. PLAN REFERENCES:

LAND COURT PLAN 4921S	PLAN BOOK 382 PAGE 570	PLAN BOOK 437 PAGE 117
PLAN BOOK 541 PAGE 682	PLAN BOOK 480 PAGE 645	PLAN BOOK 67 PAGE 3227
PLAN BOOK 4915 PAGE 153	PLAN BOOK 4998 PAGE 667	PLAN BOOK 4709 PAGE 407
PLAN BOOK 221 PAGE 683	PLAN BOOK 1773 PAGE END	PLAN BOOK 4813 PAGE 209
PLAN BOOK 4899 PAGE 700	PLAN BOOK 4842 PAGE 385	PLAN BOOK 4335 PAGE 354
PLAN BOOK 230 PAGE 164	PLAN BOOK 204 PAGE 1072-1076	PLAN BOOK 4707 PAGE 50
PLAN BOOK 596 PAGE 30	PLAN BOOK 480 PAGE 645	PLAN BOOK 5116 PAGE 585
PLAN BOOK 253 PAGE 91	PLAN BOOK 694 PAGE 99	

8. THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL OPINION BY THE LAND SURVEYOR WHICH IS BASED ON HIS BEST KNOWLEDGE, INFORMATION AND BELIEF, FORMULATED IN ACCORDANCE WITH COMMONLY ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND AS SUCH IT CONSTITUTES NEITHER A GUARANTEE NOR WARRANTY, EITHER EXPRESS OR IMPLIED. THE CERTIFICATIONS SHOWN ARE NOT CERTIFICATIONS TO THE TITLE OR OWNERSHIP OF THE PROPERTIES.
9. THE LOCUS PARCEL IS LOCATED IN THE TOWN OF RANDOLPH BLUE HILL RIVER HIGHWAY DISTRICT (BRHD) AND RESIDENTIAL SINGLE FAMILY HIGH DENSITY DISTRICT (RSFHD) AS DEFINED BY THE TOWN OF RANDOLPH ZONING MAP.

EROSION AND SEDIMENTATION CONTROL NOTES

1. SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE PROVIDED IN ACCORDANCE WITH THE "MASSACHUSETTS SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITY AND THE NOTES AND DETAILS SHOWN IN THIS PLAN SET.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE STORMWATER POLLUTION PREVENTION PLAN AND ANY NECESSARY DOCUMENTS REQUIRED BY THE NPDES GENERAL PERMIT.
3. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR ENGINEER.
4. THE CONTRACTOR SHALL SCHEDULE HIS/HER WORK TO ALLOW THE FINISHED SUB GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE, AS REQUIRED, TO STABILIZED DISCHARGE POINTS. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY UTILITY CONNECTIONS.
5. THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT RESERVE OF VARIOUS EROSION CONTROL MATERIALS ONSITE AT ALL TIMES FOR EMERGENCY PURPOSES.
6. ANY DEWATERING WASTE WATERS PUMPED FROM EXCAVATIONS SHALL BE CONVEYED BY HOSE TO AN UPLAND AREA AND DISCHARGED INTO HAYBALE ENCLOSURES OR SEDIMENTATION BAGS OUTSIDE ALL WETLAND AND WETLAND BUFFER AREAS AS REQUIRED.
7. CONSTRUCTION SITE WASTE MATERIALS SHALL BE PROPERLY CONTAINED ONSITE AND DISPOSED OFF SITE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE REGULATIONS.
8. ALL DISTURBED OR EXPOSED SOIL SURFACES SHALL BE TEMPORARILY STABILIZED AFTER EACH WORK DAY WITH HAY, STRAW, MULCH OR ANY OTHER PROTECTIVE COVERING AND/OR METHOD APPROVED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
9. ALL DRAINAGE STRUCTURES SHALL BE CLEARED OF ACCUMULATED SEDIMENT PRIOR TO ACCEPTANCE OF FINAL PROJECT.
10. THE CONTRACTOR SHALL MAINTAIN SURFACE DRAINAGE DURING CONSTRUCTION. STORMWATER SHALL BE MAINTAINED AWAY FROM WORK SITES WHILE PREVENTING AREAS OF EROSION.
11. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING NECESSARY TEMPORARY EROSION CONTROL MEASURES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING OR INSTALLING ALL TEMPORARY SEDIMENT AND EROSION CONTROLS AS SHOWN ON THESE PLANS AND SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD.
13. TEMPORARY DIVERSION SWALES SHALL BE PROVIDED AS NECESSARY TO DIRECT RUNOFF TO THE SEDIMENT BASINS DURING CONSTRUCTION.
14. ANTI-TRACKING PADS AND WHEEL WASH STATIONS SHALL BE PROVIDED AT ALL POINTS OF EGRESS OR INGRESS AND SHALL BE MAINTAINED TO LIMIT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS AND INTO THE REST OF THE SITE.
15. EROSION CONTROL BARRIERS SHALL BE INSTALLED AS SHOWN ON THE EROSION CONTROL PLAN PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS. CONTRACTOR SHALL NOTIFY IN WRITING TOWN OF RANDOLPH PUBLIC WORKS PRIOR TO THE START OF ANY WORK.
16. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE INTACT. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY. THE CONTRACTOR SHALL SUBMIT INSPECTION REPORTS AT LEAST EVERY TWO WEEKS TO TOWN OF RANDOLPH PUBLIC WORKS (VIA E-MAIL, HAND DELIVERED OR FAX).
17. THE CONTRACTOR SHALL CLEAN AND MAINTAIN EROSION CONTROL BARRIER WHEN SEDIMENT ACCUMULATES TO ONE HALF THE HEIGHT OF THE HAYBALES OR ONE THIRD THE HEIGHT OF SILT FENCE. MATERIAL COLLECTED FROM THE SILTATION BARRIERS SHALL BE REMOVED AS NECESSARY AND DISPOSED IN AN UPLAND AREA.
18. INSTALLATION OF THE EROSION CONTROL BARRIERS AS ILLUSTRATED IS INTENDED TO REPRESENT THE MINIMUM SEDIMENTATION CONTROL FACILITIES NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
19. REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK. SUCH FACILITIES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
20. CATCH BASINS AND STORM DRAIN INLETS SHALL BE PROTECTED WITH INLET PROTECTION WITHIN LIMITS OF DISTURBANCE.
21. THE CONTRACTOR SHALL NOT REMOVE ANY HAYBALES, SILT FENCE OR OTHER EROSION CONTROLS UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
22. RIP-RAP OR OTHER ENERGY DISSIPATERS SHALL BE USED WHERE NECESSARY TO PREVENT SCOUR.
23. NO STORAGE OF MATERIAL INCLUDING BUT NOT LIMITED TO COMPOST OR GRASS CLIPPINGS WITHIN 100' WETLAND BUFFER.
24. SHOULD ANY EROSION OR SEDIMENTATION CONTROL MEASURES FAIL, IMMEDIATE ATTENTION SHALL BE GIVEN BY THE CONTRACTOR TO CORRECTING THE FAILURE AND TO RECTIFYING ANY ADVERSE IMPACT FROM THE FAILURE. THE COMMISSION AND ENGINEER MUST BE NOTIFIED WITHIN 24 HOURS OF THE FAILURE.

GRADING AND UTILITY NOTES

1. ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES AND GRADES ON THE PLANS AND SITE WORK SPECIFICATIONS, UNLESS OTHERWISE DIRECTED.
2. AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUT NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.
3. ALL EXISTING AND PROPOSED UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH GRADE OF THIS CONTRACT. RIM ELEVATIONS OF STRUCTURES AND MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE PROPOSED FINAL GRADES.
4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION OF PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
5. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER, AND TOWN OF RANDOLPH PUBLIC WORKS OR THEIR AGENT.
6. THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
7. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES BY PROVIDING TEMPORARY SUPPORTS OR SHEETING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
8. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
9. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SEWER EXTENSION/CONNECTION COMPLIANCE CERTIFICATION WITHIN SIXTY (60) DAYS OF THE SEWER INSTALLATION.
11. SITE GRADES SHALL CONFORM WITH ADA AND MAAB REQUIREMENTS.
12. ALL TRANSITIONS BETWEEN GROUND COVERING MATERIALS SHALL BE SMOOTH AND MEET 521 CMR 20.10 REQUIREMENTS.
13. ALL PLUMBING/MECHANICAL UTILITIES WITHIN 10 FEET OF THE BUILDING ARE SHOWN ON THE PLUMBING/MECHANICAL PLANS.
14. CONTRACTOR IS REQUIRED TO APPLY FOR, OBTAIN, AND PAY ALL FEES ASSOCIATED WITH CONSTRUCTION PHASE PERMITS. PERMITS MAY INCLUDE, BUT NOT LIMITED TO:
    - NPDES CONSTRUCTION GENERAL PERMIT
    - TOWN OF RANDOLPH STREET OPENING PERMIT

LAYOUT NOTES

1. ALL LINES ARE PERPENDICULAR OR PARALLEL TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
2. DIMENSIONS OF PARKING SPACES AND DRIVEWAYS ARE FROM FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. ACCESSIBLE RAMPS SHALL BE PER THE (ADA) ACCESSIBILITY AND (MAAB) GUIDELINES AND INCLUDE DETECTABLE WARNING MATS. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATION SECTION 32 13 12.

EXISTING LEGEND

- LOCUS PROPERTY LINE
- INTERNAL PROPERTY LINE
- ABUTTER PROPERTY LINE
- EASEMENT LINE
- ____ ZONING
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- SPOT GRADE
- EDGE OF WOODS
- EDGE OF SCRUB BRUSH
- STONEWALL
- FENCE
- GUARDRAIL
- UNDERGROUND SEWER LINE
- UNDERGROUND DRAIN LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE
- OVER HEAD WIRE
- WETLAND LINE
- ROAD/PARKING STRIPES
- CONCRETE
- BUILDING
- EDGE OF PAVEMENT
- CURB LINE
- ____ ZONING LINE
- FEMA LINE
- 100 FT. WETLAND BUFFER
- WETLAND EDGE
- DRILL HOLE
- CONCRETE BOUND WITH DRILL HOLE
- STONE BOUND WITH DRILL HOLE
- UNKNOWN MANHOLE
- ELECTRIC MANHOLE
- ELECTRIC CONDUIT
- ELECTRIC HAND HOLE
- UTILITY POLE
- LIGHT POLE
- GUY WIRE
- TELEPHONE/CABLE MANHOLE
- TELEPHONE/CABLE HAND HOLE
- TELEPHONE/CABLE PEDESTAL
- GAS VALVE
- GAS METER
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- TOP OF HOOD
- TOP OF WATER
- INVERT
- VENT
- HYDRANT
- WATER VALVE
- WATER SHUT OFF
- WELL
- IRRIGATION CONTROL VALVE
- AIR CONDITIONER AND AG HEATING
- SIGN
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB
- WETLAND FLAG
- BOLLARD
- TEST PIT
- TEST BORING
- FLAG POLE
- ROCK
- EDGE OF PAVEMENT
- CAPE COD BERM
- GRANITE CURB
- SLOPE GRANITE CURB
- CROSS WALK
- CONCRETE RETAINING WALL
- CONCRETE HEADWALL
- WOOD FENCE
- CHAIN LINK FENCE
- POST & RAIL FENCE
- METAL HANDRAIL
- HANDI-CAP RAMP
- CONCRETE PAD
- METAL
- WOOD GUARDRAIL
- UPPER BONNET BOLT
- AMERICANS WITH DISABILITIES ACT
- MASSACHUSETTS ARCHITECTURAL ACCESS BOARD
- BEST MANAGEMENT PRACTICES

PROPOSED LEGEND

- CURBING(TYPE)
- EDGE OF PAVEMENT
- RETAINING WALL
- INTERMEDIATE CONTOUR
- INDEX CONTOUR (200)
- SPOT ELEVATION (+200.00)
- WATER LINE (W)
- SEWER LINE (S)
- DRAIN LINE (D)
- GAS LINE (G)
- DRAIN MANHOLE (DMH)
- CATCH BASIN (CB)
- HYDRODYNAMIC SEPARATOR (HS)
- AREA / YARD DRAIN (AD / YD)
- RAIN GARDEN OUTLET
- SEWER MANHOLE (SMH)
- WATER VALVE (WG)
- HYDRANT
- SIGN
- CHAIN LINK FENCE
- GUARDRAIL
- TREE LINE (LIMIT OF CLEARING)
- BITUMINOUS PAVEMENT
- CONCRETE WALK (SEE LANDSCAPE PLANS FOR FINISHES)
- CONSTRUCTION ENTRANCE TRACKING CONTROL
- EROSION CONTROL (SF x)
- LIMIT OF DISTURBANCE (LOD)
- INLET PROTECTION

- (AD-1) = AREA DRAIN (SEE DETAIL)
- (ATG) = ADJUST TO GRADE
- (BB) = BITUMINOUS BERM
- (BCP) = BITUMINOUS CONCRETE PAVEMENT
- (BCW) = BITUMINOUS CONCRETE WALK AND WIDTH
- (CB-1) = PROPOSED CATCH BASIN NUMBER
- (CM) = SAWCUT AND MATCH EXISTING GRADES
- (CW) = CEMENT CONCRETE SIDEWALK AND WIDTH
- (DAM) = DIRECTIONAL ARROW MARKING
- (DMH-1) = PROPOSED DRAIN MANHOLE NUMBER AND DIAMETER
- (DW) = 4" DASHED WHITE EPOXY RESIN PAVEMENT MARKING
- (FES) = FLARED END SECTION
- (GC) = GRANITE CURB (SEE DETAIL)
- (GCF) = GRANITE CURB FLUSH (SEE DETAIL)
- (GTC) = GRANITE TRANSITION CURB (SEE DETAIL)
- (HDS-1) = HYDRODYNAMIC SEPARATOR NUMBER
- (ICS) = INLET CONTROL STRUCTURE
- (IP) = INLET PROTECTION
- (LA) = LANDSCAPED AREA (SEE LANDSCAPE PLANS)
- (LS) = LOAM AND SEED (SEE LANDSCAPE PLANS)
- (OCS) = OUTLET CONTROL STRUCTURE NUMBER
- (PP) = POROUS PAVEMENT
- (R&D) = REMOVE AND DISPOSE
- (R&R) = REMOVE AND RELOCATE
- (R&S) = REMOVE AND STOCKPILE
- (SG) = 4" SOLID GREEN EPOXY RESIN PAVEMENT MARKING - COORDINATE COLOR W/OWNER
- (SCW) = STRIPED CROSS WALK (SEE DETAIL)
- (SHP) = HANDICAP EPOXY RESIN PAVEMENT MARKING
- (SMH-1) = PROPOSED SEWER MANHOLE NUMBER
- (SW) = 4" SOLID WHITE EPOXY RESIN PAVEMENT MARKING
- (SW12) = 12" SOLID WHITE EPOXY RESIN PAVEMENT MARKING
- (VC) = VEHICULAR CONCRETE (TYP)
- (WQS-1) = WATER QUALITY STRUCTURE NUMBER
- (107.2.0) = WHEELCHAIR RAMPS, MASSDOT CONSTRUCTION STANDARDS DETAIL
- (107.3.0) = WHEELCHAIR RAMPS, MASSDOT CONSTRUCTION STANDARDS DETAIL
- (107.6.0) = WHEELCHAIR RAMPS, MASSDOT CONSTRUCTION STANDARDS DETAIL
- (107.6.5) = DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS, MASSDOT CONSTRUCTION STANDARDS DETAIL
- (201.4.0) = PRECAST CONCRETE CATCH BASIN, MASSDOT CONSTRUCTION STANDARDS DETAIL

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

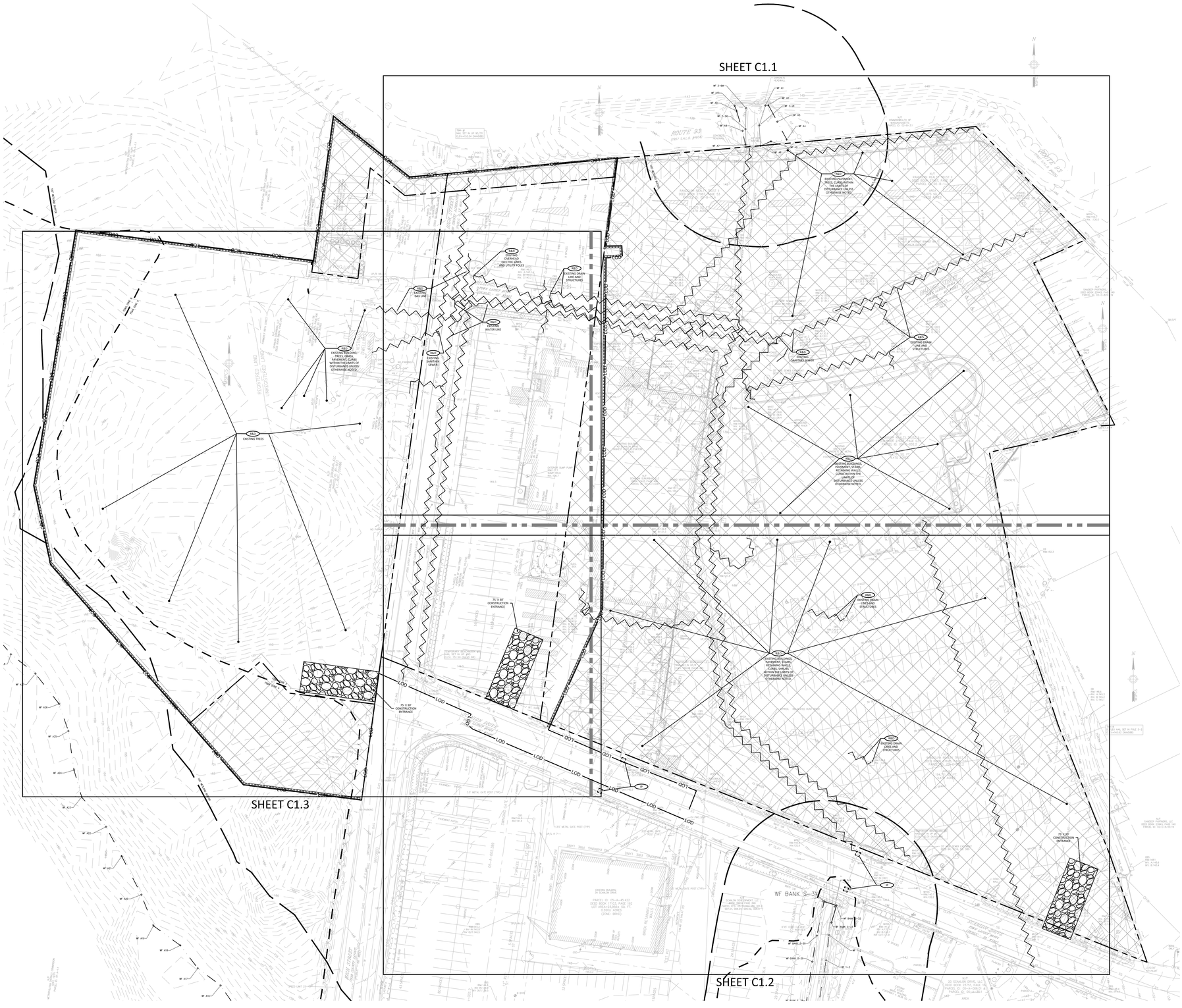
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

GENERAL NOTES AND LEGEND

C0.1

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05 Engineering\Vertex Drawings\78000_C0.1 General Notes and Legend.dwg Thursday, February 15, 2024 9:20:32 AM
Copyright: 2023 The Vertex Companies, Inc.
Plotted: 15 Feb 2024
© 2018 Stantec



Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

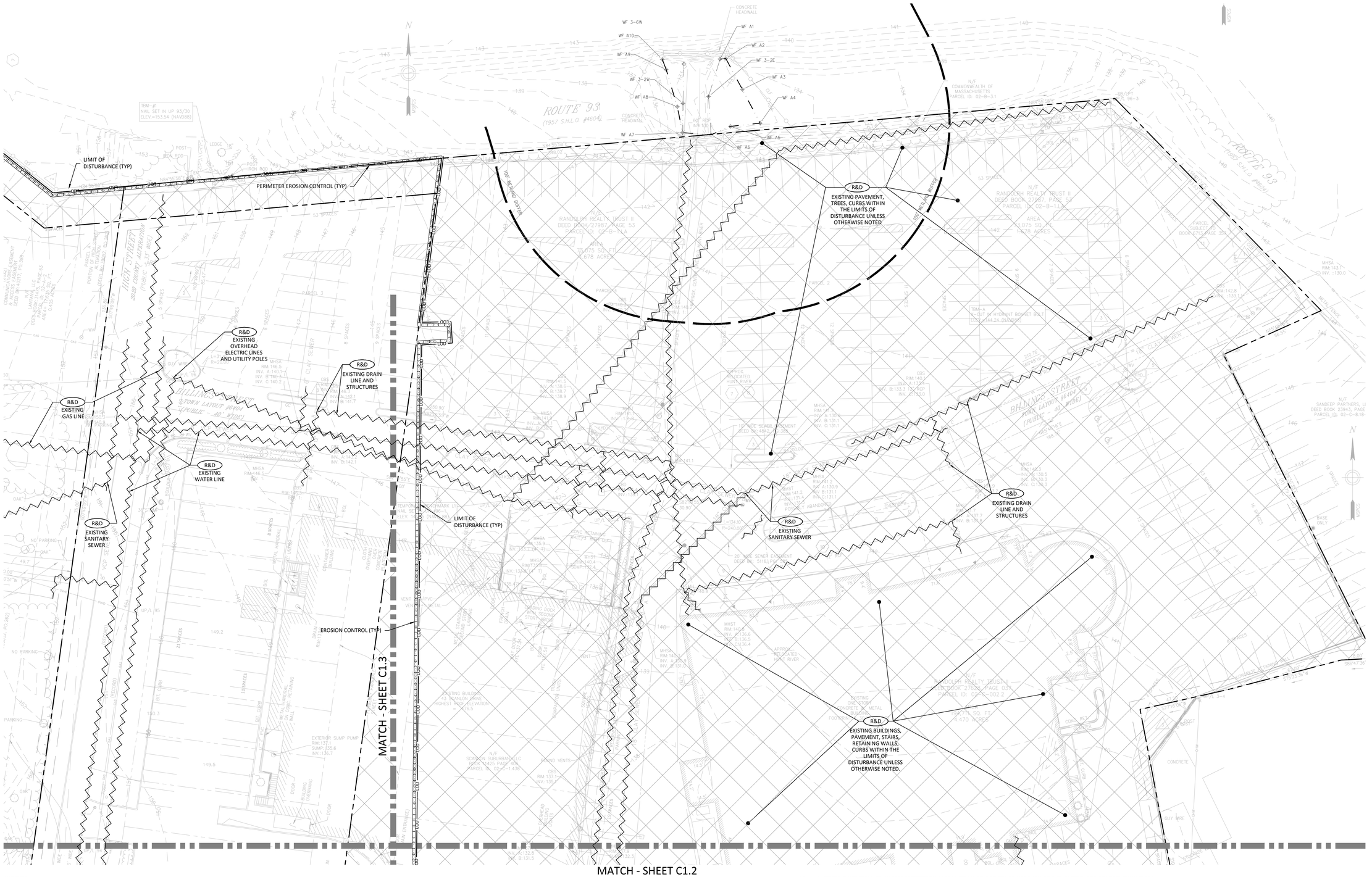
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN

C1.0

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05 Engineering\Vertex Drawings\78000_C1.0 Existing Conditions and Demo Plan.dwg Thursday, February 15, 2024 9:20:43 AM
Copyright: 2024 The Vertex Companies, Inc.
Plotted: 2024.02.16
© 2018 Stantec



NOTES:

1. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED UPON PREVIOUS DESIGN DRAWINGS AND RECORD INFORMATION. LOCATIONS, SIZES, AND DEPTHS OF UTILITIES HAVE NOT BEEN SURVEYED IN THE FIELD. ADDITIONAL SITE SURVEY IS ONGOING.
2. DEMOLITION OF EXISTING BUILDING AND SITE FEATURES SHOWN ON SHEETS C1.1 THROUGH C1.3 ARE INCLUSIVE OF ALL PHASES. PROPOSED DEMOLITION ACTIVITIES SHOWN ON THESE SHEETS ARE NOT INTENDED TO INDICATE THE PHASE IN WHICH THEY OCCUR. SEE PHASING DRAWINGS FOR DEMOLITION SPECIFIC TO PHASING.
3. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
4. INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING DISTURBANCE. THE DEMOLITION IS PROPOSED TO BE CONDUCTED IN PHASES. EROSION CONTROLS SHALL BE RELOCATED AS NECESSARY DURING EACH PHASE.
5. INSTALL CHAIN LINK FENCE TREE PROTECTION PER DETAIL AT THE LOCATIONS SHOWN ON THE PLAN TO PROTECT EXISTING TREES SPECIFICALLY INDICATED ON THE PLAN. LAYOUT OF FENCE SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT. TREE PROTECTION SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. ALL EXISTING DRAINAGE AND SEWER SHALL BE MAINTAINED OR REROUTED AS NECESSARY UNTIL PERMANENT PIPING IS INSTALLED.
7. ELECTRICAL DEMOLITION IS SHOWN FOR INFORMATION ONLY. REFER TO ELECTRICAL PLANS FOR COMPLETE EXTENT OF ELECTRICAL DEMOLITION.
8. PROVIDE INLET PROTECTION AT ALL EXISTING DRAINAGE INLETS.
9. ALL ITEMS TO BE REMOVED AND STOCKPILED SHALL BE COORDINATED WITH OWNER FOR STOCKPILE LOCATIONS. AT THIS TIME, THE OWNER HAS NOT IDENTIFIED ITEMS FOR STOCKPILE.
10. ALL ITEMS MARKED FOR RE-USE SHALL BE STOCKPILED ONSITE, PROTECTED AND RE-INSTALLED AS SHOWN ON THE LANDSCAPE PLANS.
11. DRAINAGE FEATURES AND UTILITIES TO BE MAINTAINED UNLESS OTHERWISE NOTED.
12. TOTAL AREA OF DISTURBANCE: 13.18 ACRES.
13. CONTRACTOR TO REESTABLISH BENCHMARKS IN ALTERNATE LOCATION PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL COORDINATE CLEARING OF ALL ABUTTER ENCROACHMENTS WITH THE OWNER PRIOR TO CONSTRUCTION. IT IS NOT EXPECTED THAT ENCROACHMENTS WILL BE ENCOUNTERED ON THIS SITE.
15. INSTALL CONSTRUCTION ENTRANCE AT ALL ENTRY/EXIT POINT FOR VEHICULAR TRAFFIC FOR EACH PHASE OF THE PROJECT. LOCATION TO BE DETERMINED BY PHASING. IT SHALL BE ASSUMED THAT TWO (2) WILL BE NECESSARY THROUGHOUT CONSTRUCTION.
16. ALL EARTH DISTURBANCE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
17. ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE), CONTRACTOR SHALL PROVIDE 1 WEEK NOTIFICATION FOR ANY POSSIBLE DISRUPTION OF SERVICE TO OWNER, OWNER'S PROJECT MANAGER AND ARCHITECT; PROVIDE NOTIFICATION FOR CONNECTING, DISCONNECTING, TURNING ON OR TURNING OFF ANY SERVICE WHICH MAY AFFECT OWNER'S OPERATIONS.
18. CONTRACTOR SHALL PROVIDE 72 HOUR (3 WORKING DAYS) NOTICE TO LOCAL FIRE DEPARTMENT OF DISRUPTIONS.
19. DISTURBANCE ON ACTIVE GAS LINES SHALL BE COORDINATED WITH UTILITY PROVIDER.
20. THE CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION OF THE EXISTING DRAINAGE MANHOLES AND PIPES INDICATED. IT SHALL BE ASSUMED THAT AN ADDITIONAL 60 FEET OF PIPE WILL NEED TO BE REMOVED AND DISPOSED.
21. ANY UNFORESEEN UNDERGROUND TRANSIT PIPE OR OTHER UNFORESEEN HAZARDOUS MATERIAL SHALL BE ABATED IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
22. CONTRACTOR SHALL COMPLY WITH ALL LEED REQUIREMENTS FOR DEMOLITION.
23. ALL EXISTING MANHOLES OR CATCH BASINS TO REMAIN SHALL BE ADJUSTED TO FINISHED GRADE ELEVATION.
24. ALL EXISTING UTILITIES WITHIN TREE PROTECTION AREAS NOT SCHEDULED FOR RE-USE SHALL BE CUT, CAPPED, AND ABANDONED IN PLACE.
25. DEMOLITION WORK SHOWN ON THIS SHEET IS INDEPENDENT OF PROJECT PHASING OR SEQUENCING. CONTRACTOR SHALL BE RESPONSIBLE FOR SEQUENCING ALL WORK AS OUTLINED IN THE PROJECT SPECIFICATIONS.
26. CONTRACTOR SHALL SCHEDULE PRECONSTRUCTION MEETING WITH ARCHITECT, LANDSCAPE ARCHITECT, CIVIL ENGINEER, STRUCTURAL ENGINEER, AND OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION OF EXISTING SERVICE AREA TO CONFIRM EXTENT OF DEMOLITION AND SAWCUT LOCATIONS.
27. PERIMETER EROSION CONTROL SHALL BE PROVIDED.

0' 20' 40' 60'
SCALE: 1" = 20'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	90% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

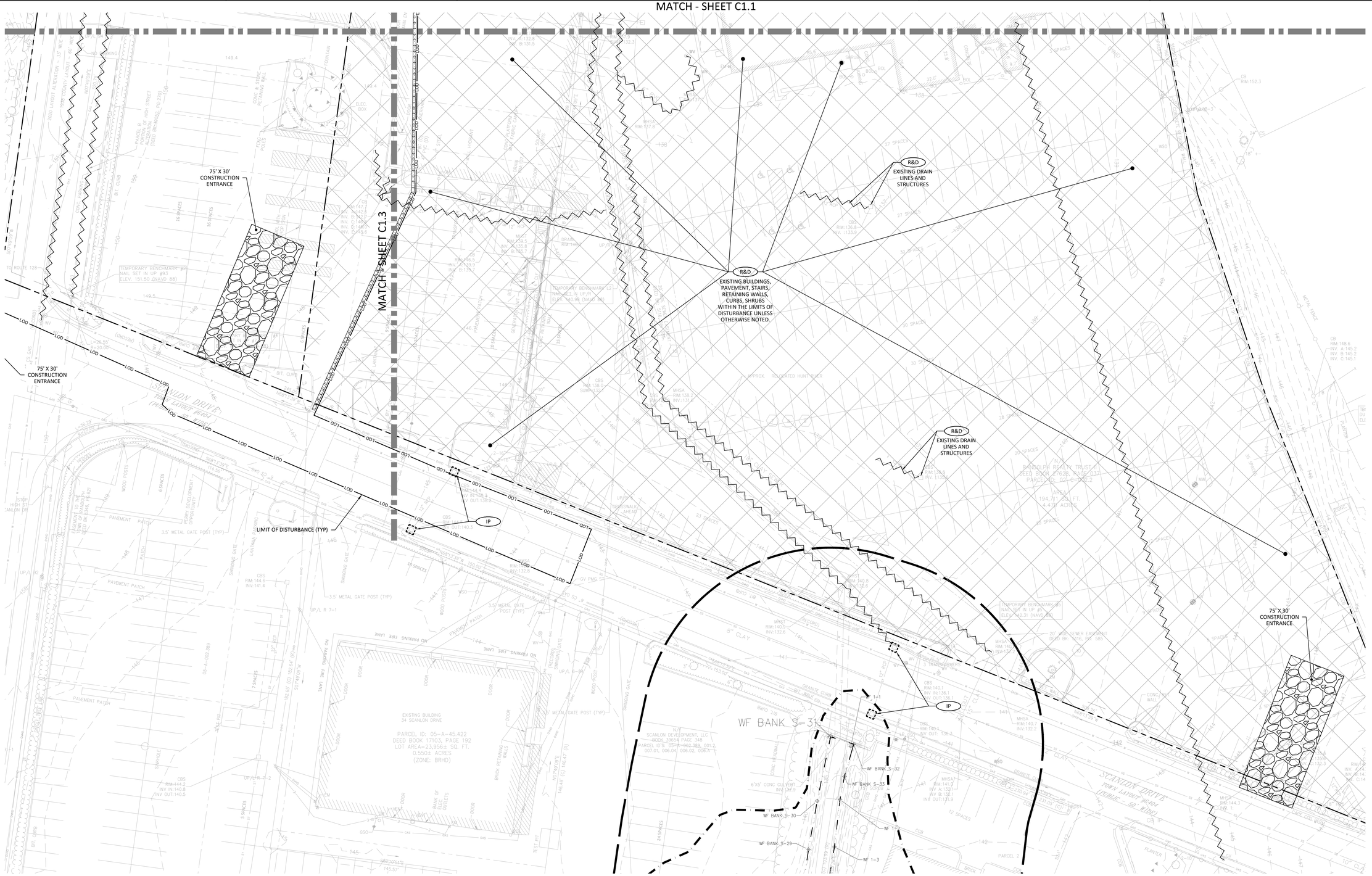
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

EXISTING CONDITIONS AND DEMOLITION PLAN 1

C1.1

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05 Engineering\Vertex Drawings\78000_C1.0 Existing Conditions and Demo Plan.dwg Thursday, February 15, 2024 9:20:47 AM
Copyright: 2024 The Vertex Companies, Inc.
Edmund Hayes
© 2018 Stantec



NOTES:

1. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED UPON PREVIOUS DESIGN DRAWINGS AND RECORD INFORMATION. LOCATIONS, SIZES, AND DEPTHS OF UTILITIES HAVE NOT BEEN SURVEYED IN THE FIELD. ADDITIONAL SITE SURVEY IS ONGOING.
2. DEMOLITION OF EXISTING BUILDING AND SITE FEATURES SHOWN ON SHEETS C1.1 THROUGH C1.3 ARE INCLUSIVE OF ALL PHASES. PROPOSED DEMOLITION ACTIVITIES SHOWN ON THESE SHEETS ARE NOT INTENDED TO INDICATE THE PHASE IN WHICH THEY OCCUR. SEE PHASING DRAWINGS FOR DEMOLITION SPECIFIC TO PHASING.
3. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
4. INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING DISTURBANCE. THE DEMOLITION IS PROPOSED TO BE CONDUCTED IN PHASES. EROSION CONTROLS SHALL BE RELOCATED AS NECESSARY DURING EACH PHASE.
5. INSTALL CHAIN LINK FENCE TREE PROTECTION PER DETAIL AT THE LOCATIONS SHOWN ON THE PLAN TO PROTECT EXISTING TREES SPECIFICALLY INDICATED ON THE PLAN. LAYOUT OF FENCE SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT. TREE PROTECTION SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. ALL EXISTING DRAINAGE AND SEWER SHALL BE MAINTAINED OR REROUTED AS NECESSARY UNTIL PERMANENT PIPING IS INSTALLED.
7. ELECTRICAL DEMOLITION IS SHOWN FOR INFORMATION ONLY. REFER TO ELECTRICAL PLANS FOR COMPLETE EXTENT OF ELECTRICAL DEMOLITION.
8. PROVIDE INLET PROTECTION AT ALL EXISTING DRAINAGE INLETS.
9. ALL ITEMS TO BE REMOVED AND STOCKPILED SHALL BE COORDINATED WITH OWNER FOR STOCKPILE LOCATIONS. AT THIS TIME, THE OWNER HAS NOT IDENTIFIED ITEMS FOR STOCKPILE.
10. ALL ITEMS MARKED FOR RE-USE SHALL BE STOCKPILED ONSITE, PROTECTED AND RE-INSTALLED AS SHOWN ON THE LANDSCAPE PLANS.
11. DRAINAGE FEATURES AND UTILITIES TO BE MAINTAINED UNLESS OTHERWISE NOTED.
12. TOTAL AREA OF DISTURBANCE: 13.18 ACRES.
13. CONTRACTOR TO REESTABLISH BENCHMARKS IN ALTERNATE LOCATION PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL COORDINATE CLEARING OF ALL ABUTTER ENCROACHMENTS WITH THE OWNER PRIOR TO CONSTRUCTION. IT IS NOT EXPECTED THAT ENCROACHMENTS WILL BE ENCOUNTERED ON THIS SITE.
15. INSTALL CONSTRUCTION ENTRANCE AT ALL ENTRY/EXIT POINT FOR VEHICULAR TRAFFIC FOR EACH PHASE OF THE PROJECT. LOCATION TO BE DETERMINED BY PHASING. IT SHALL BE ASSUMED THAT TWO (2) WILL BE NECESSARY THROUGHOUT CONSTRUCTION.
16. ALL EARTH DISTURBANCE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
17. ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE), CONTRACTOR SHALL PROVIDE 1 WEEK NOTIFICATION FOR ANY POSSIBLE DISRUPTION OF SERVICE TO OWNER, OWNER'S PROJECT MANAGER AND ARCHITECT; PROVIDE NOTIFICATION FOR CONNECTING, DISCONNECTING, TURNING ON OR TURNING OFF ANY SERVICE WHICH MAY AFFECT OWNER'S OPERATIONS.
18. CONTRACTOR SHALL PROVIDE 72 HOUR (3 WORKING DAYS) NOTICE TO LOCAL FIRE DEPARTMENT OF DISRUPTIONS.
19. DISTURBANCE ON ACTIVE GAS LINES SHALL BE COORDINATED WITH UTILITY PROVIDER.
20. THE CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION OF THE EXISTING DRAINAGE MANHOLES AND PIPES INDICATED. IT SHALL BE ASSUMED THAT AN ADDITIONAL 60 FEET OF PIPE WILL NEED TO BE REMOVED AND DISPOSED.
21. ANY UNFORESEEN UNDERGROUND TRANSIT PIPE OR OTHER UNFORESEEN HAZARDOUS MATERIAL SHALL BE ABATED IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
22. CONTRACTOR SHALL COMPLY WITH ALL LEED REQUIREMENTS FOR DEMOLITION.
23. ALL EXISTING MANHOLES OR CATCH BASINS TO REMAIN SHALL BE ADJUSTED TO FINISHED GRADE ELEVATION.
24. ALL EXISTING UTILITIES WITHIN TREE PROTECTION AREAS NOT SCHEDULED FOR RE-USE SHALL BE CUT, CAPPED, AND ABANDONED IN PLACE.
25. DEMOLITION WORK SHOWN ON THIS SHEET IS INDEPENDENT OF PROJECT PHASING OR SEQUENCING. CONTRACTOR SHALL BE RESPONSIBLE FOR SEQUENCING ALL WORK AS OUTLINED IN THE PROJECT SPECIFICATIONS.
26. CONTRACTOR SHALL SCHEDULE PRECONSTRUCTION MEETING WITH ARCHITECT, LANDSCAPE ARCHITECT, CIVIL ENGINEER, STRUCTURAL ENGINEER, AND OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION OF EXISTING SERVICE AREA TO CONFIRM EXTENT OF DEMOLITION AND SAWCUT LOCATIONS.
27. PERIMETER EROSION CONTROL SHALL BE PROVIDED.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
	Issued/Revision	YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

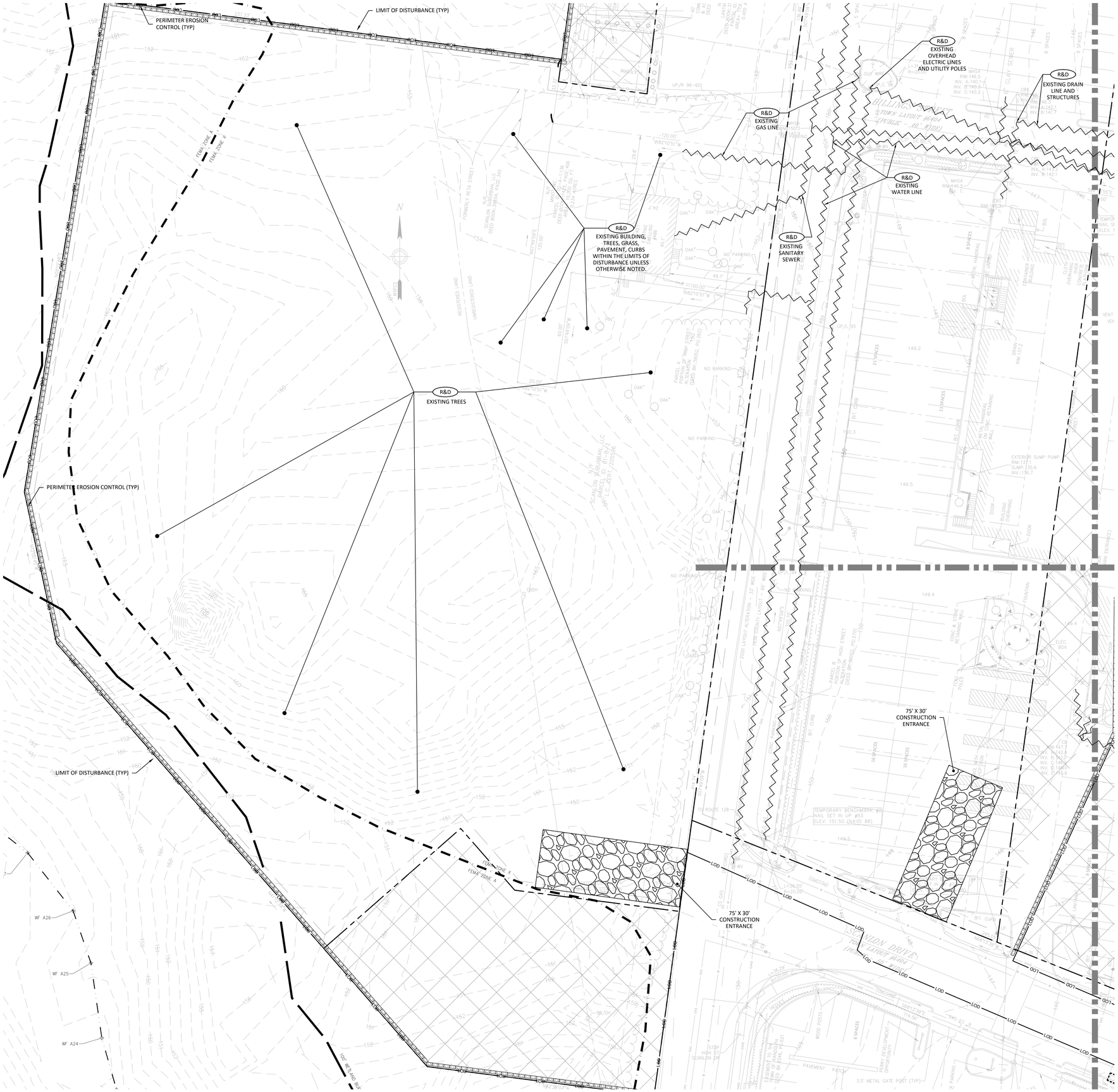
Scale	AS NOTED
Project No.	78000

EXISTING CONDITIONS AND DEMOLITION PLAN 2

C1.2

Z:\Shared\Projects\78000-78999\78000-78099\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C1.0 Existing Conditions and Demo Plan.dwg Thursday, February 15, 2024 9:20:52 AM
Copyright: 2024 The Vertex Companies, Inc.
Drawn by: Author

© 2018 Stantec



NOTES:

1. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED UPON PREVIOUS DESIGN DRAWINGS AND RECORD INFORMATION. LOCATIONS, SIZES, AND DEPTHS OF UTILITIES HAVE NOT BEEN SURVEYED IN THE FIELD. ADDITIONAL SITE SURVEY IS ONGOING.
2. DEMOLITION OF EXISTING BUILDING AND SITE FEATURES SHOWN ON SHEETS C1.1 THROUGH C1.3 ARE INCLUSIVE OF ALL PHASES. PROPOSED DEMOLITION ACTIVITIES SHOWN ON THESE SHEETS ARE NOT INTENDED TO INDICATE THE PHASE IN WHICH THEY OCCUR. SEE PHASING DRAWINGS FOR DEMOLITION SPECIFIC TO PHASING.
3. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
4. INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING DISTURBANCE. THE DEMOLITION IS PROPOSED TO BE CONDUCTED IN PHASES. EROSION CONTROLS SHALL BE RELOCATED AS NECESSARY DURING EACH PHASE.
5. INSTALL CHAIN LINK FENCE TREE PROTECTION PER DETAIL AT THE LOCATIONS SHOWN ON THE PLAN TO PROTECT EXISTING TREES SPECIFICALLY INDICATED ON THE PLAN. LAYOUT OF FENCE SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT. TREE PROTECTION SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. ALL EXISTING DRAINAGE AND SEWER SHALL BE MAINTAINED OR REROUTED AS NECESSARY UNTIL PERMANENT PIPING IS INSTALLED.
7. ELECTRICAL DEMOLITION IS SHOWN FOR INFORMATION ONLY. REFER TO ELECTRICAL PLANS FOR COMPLETE EXTENT OF ELECTRICAL DEMOLITION.
8. PROVIDE INLET PROTECTION AT ALL EXISTING DRAINAGE INLETS.
9. ALL ITEMS TO BE REMOVED AND STOCKPILED SHALL BE COORDINATED WITH OWNER FOR STOCKPILE LOCATIONS. AT THIS TIME, THE OWNER HAS NOT IDENTIFIED ITEMS FOR STOCKPILE.
10. ALL ITEMS MARKED FOR RE-USE SHALL BE STOCKPILED ONSITE, PROTECTED AND RE-INSTALLED AS SHOWN ON THE LANDSCAPE PLANS.
11. DRAINAGE FEATURES AND UTILITIES TO BE MAINTAINED UNLESS OTHERWISE NOTED.
12. TOTAL AREA OF DISTURBANCE: 13.18 ACRES.
13. CONTRACTOR TO REESTABLISH BENCHMARKS IN ALTERNATE LOCATION PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL COORDINATE CLEARING OF ALL ABUTTER ENCROACHMENTS WITH THE OWNER PRIOR TO CONSTRUCTION. IT IS NOT EXPECTED THAT ENCROACHMENTS WILL BE ENCOUNTERED ON THIS SITE.
15. INSTALL CONSTRUCTION ENTRANCE AT ALL ENTRY/EXIT POINT FOR VEHICULAR TRAFFIC FOR EACH PHASE OF THE PROJECT. LOCATION TO BE DETERMINED BY PHASING. IT SHALL BE ASSUMED THAT TWO (2) WILL BE NECESSARY THROUGHOUT CONSTRUCTION.
16. ALL EARTH DISTURBANCE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
17. ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE), CONTRACTOR SHALL PROVIDE 1 WEEK NOTIFICATION FOR ANY POSSIBLE DISRUPTION OF SERVICE TO OWNER, OWNER'S PROJECT MANAGER AND ARCHITECT; PROVIDE NOTIFICATION FOR CONNECTING, DISCONNECTING, TURNING ON OR TURNING OFF ANY SERVICE WHICH MAY AFFECT OWNER'S OPERATIONS.
18. CONTRACTOR SHALL PROVIDE 72 HOUR (3 WORKING DAYS) NOTICE TO LOCAL FIRE DEPARTMENT OF DISRUPTIONS.
19. DISTURBANCE ON ACTIVE GAS LINES SHALL BE COORDINATED WITH UTILITY PROVIDER.
20. THE CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION OF THE EXISTING DRAINAGE MANHOLES AND PIPES INDICATED. IT SHALL BE ASSUMED THAT AN ADDITIONAL 60 FEET OF PIPE WILL NEED TO BE REMOVED AND DISPOSED.
21. ANY UNFORESEEN UNDERGROUND TRANSIT PIPE OR OTHER UNFORESEEN HAZARDOUS MATERIAL SHALL BE ABATED IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
22. CONTRACTOR SHALL COMPLY WITH ALL LEED REQUIREMENTS FOR DEMOLITION.
23. ALL EXISTING MANHOLES OR CATCH BASINS TO REMAIN SHALL BE ADJUSTED TO FINISHED GRADE ELEVATION.
24. ALL EXISTING UTILITIES WITHIN TREE PROTECTION AREAS NOT SCHEDULED FOR RE-USE SHALL BE CUT, CAPPED, AND ABANDONED IN PLACE.
25. DEMOLITION WORK SHOWN ON THIS SHEET IS INDEPENDENT OF PROJECT PHASING OR SEQUENCING. CONTRACTOR SHALL BE RESPONSIBLE FOR SEQUENCING ALL WORK AS OUTLINED IN THE PROJECT SPECIFICATIONS.
26. CONTRACTOR SHALL SCHEDULE PRECONSTRUCTION MEETING WITH ARCHITECT, LANDSCAPE ARCHITECT, CIVIL ENGINEER, STRUCTURAL ENGINEER, AND OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION OF EXISTING SERVICE AREA TO CONFIRM EXTENT OF DEMOLITION AND SAWCUT LOCATIONS.
27. PERIMETER EROSION CONTROL SHALL BE PROVIDED.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

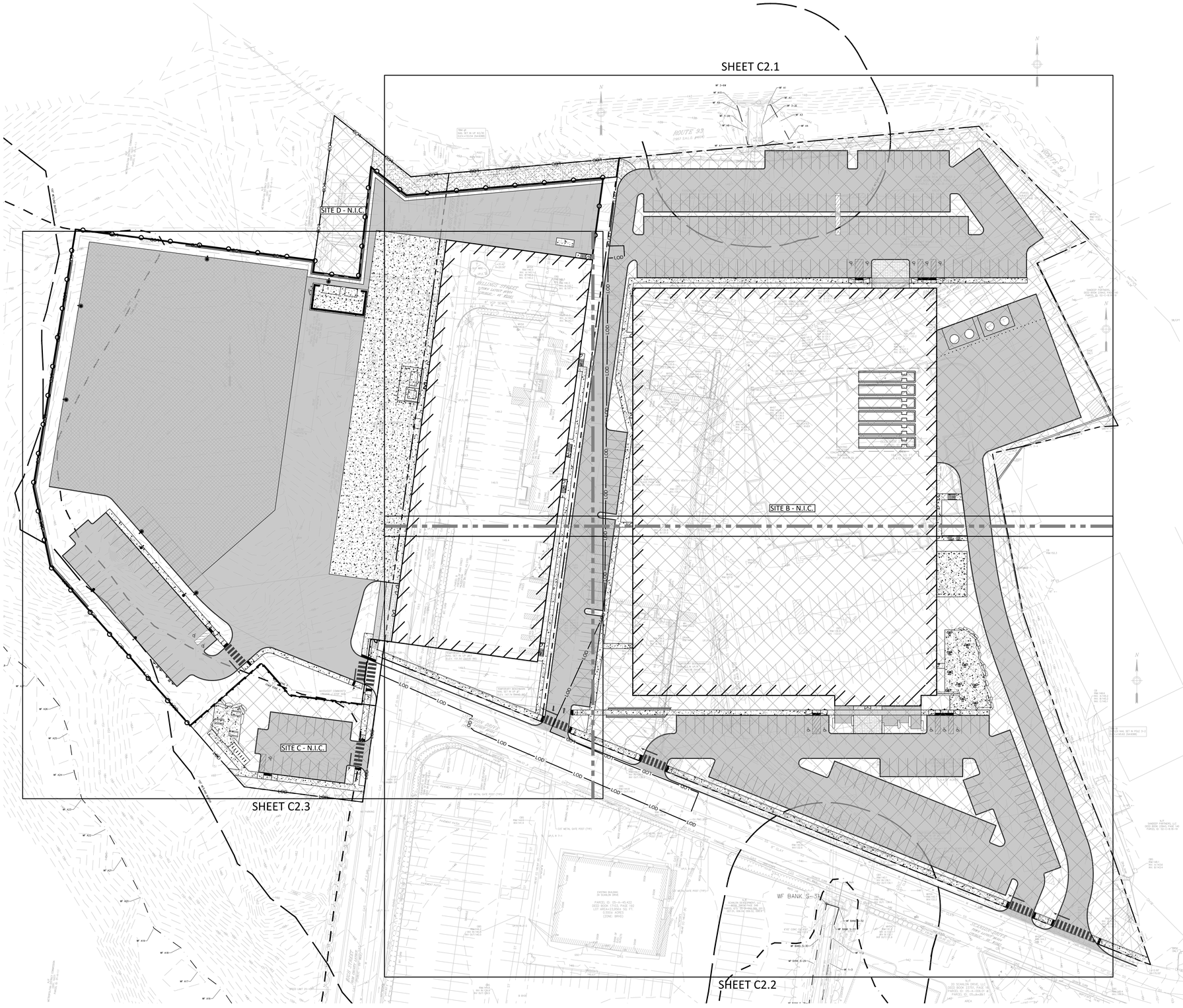
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

EXISTING CONDITIONS AND DEMOLITION PLAN 3

C1.3

Z:\Shared\Projects\78000-78999\78000-78099\78000-78099.00.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C1.0 Existing Conditions and Demo Plan.dwg Thursday, February 15, 2024 9:20:57 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

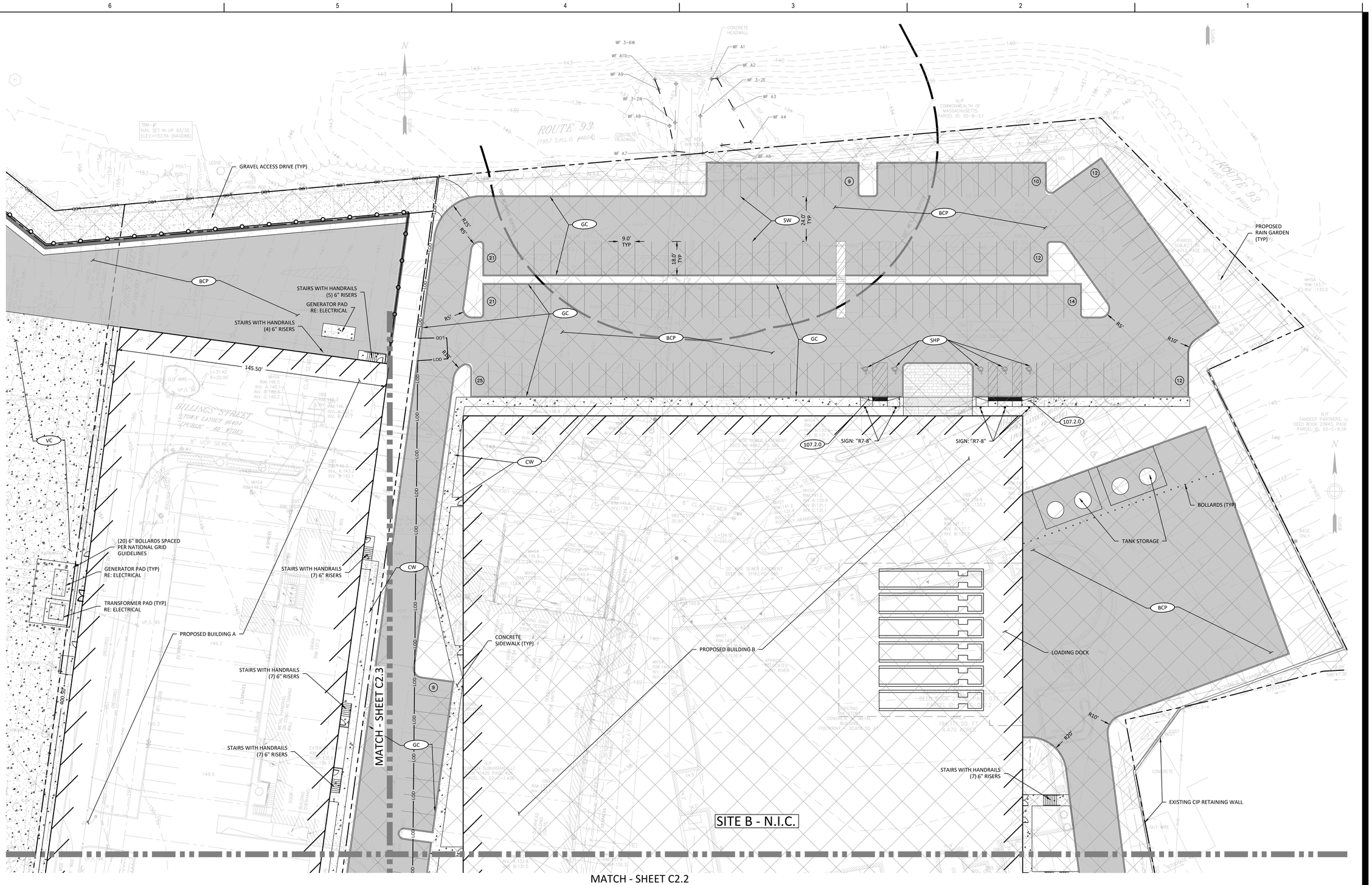
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

OVERALL SITE IMPROVEMENT PLAN

C2.0

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C2.0 Site Improvements Plan.dwg Thursday, February 15, 2024 9:21:10 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



NOTES:

1. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED
2. GRANITE CURB SHALL BE PROVIDED IN ALL PARKING AREAS AT THE EDGE OF THE PAVEMENT AND ADJACENT TO SIDEWALKS
3. CURB, BERM, AND WALKWAY RADII SHALL BE 2 FEET UNLESS NOTED ON PLANS.
4. WHERE SIDEWALKS INTERSECT CURB LINES, ADA, MAAB COMPLIANT CURB RAMP WITH DETECTABLE WARNING MAT SHALL BE INSTALLED. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATION SECTION 32 13 12.
5. CURB & GUTTER RELATED DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
6. ALL PAVEMENT MARKINGS ONSITE SHALL BE WATERBOURNE, CONFORMING TO MASSACHUSETTS STANDARD SPECIFICATIONS.
7. CONCRETE WALKWAY MATERIALS SHOWN FOR CLARITY ONLY. REFER TO LANDSCAPE PLANS FOR ALL WALKWAY MATERIALS, FINISHES, AND SCORING.

HEAVY-DUTY BITUMINOUS CONCRETE PAVEMENT:
1.5" FINISH COURSE OVER
2" BINDER COURSE OVER
8.5' PROCESSED GRAVEL OVER
12" COMPACTED SUBGRADE

SIDEWALK CONCRETE
RE: LANDSCAPE FOR CONCRETE TYPE

POROUS PAVEMENT
RE: SITE DETAILS

SITE NOT INCLUDED (N.I.C.)

0' 20' 40' 60'
SCALE: 1" = 20'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

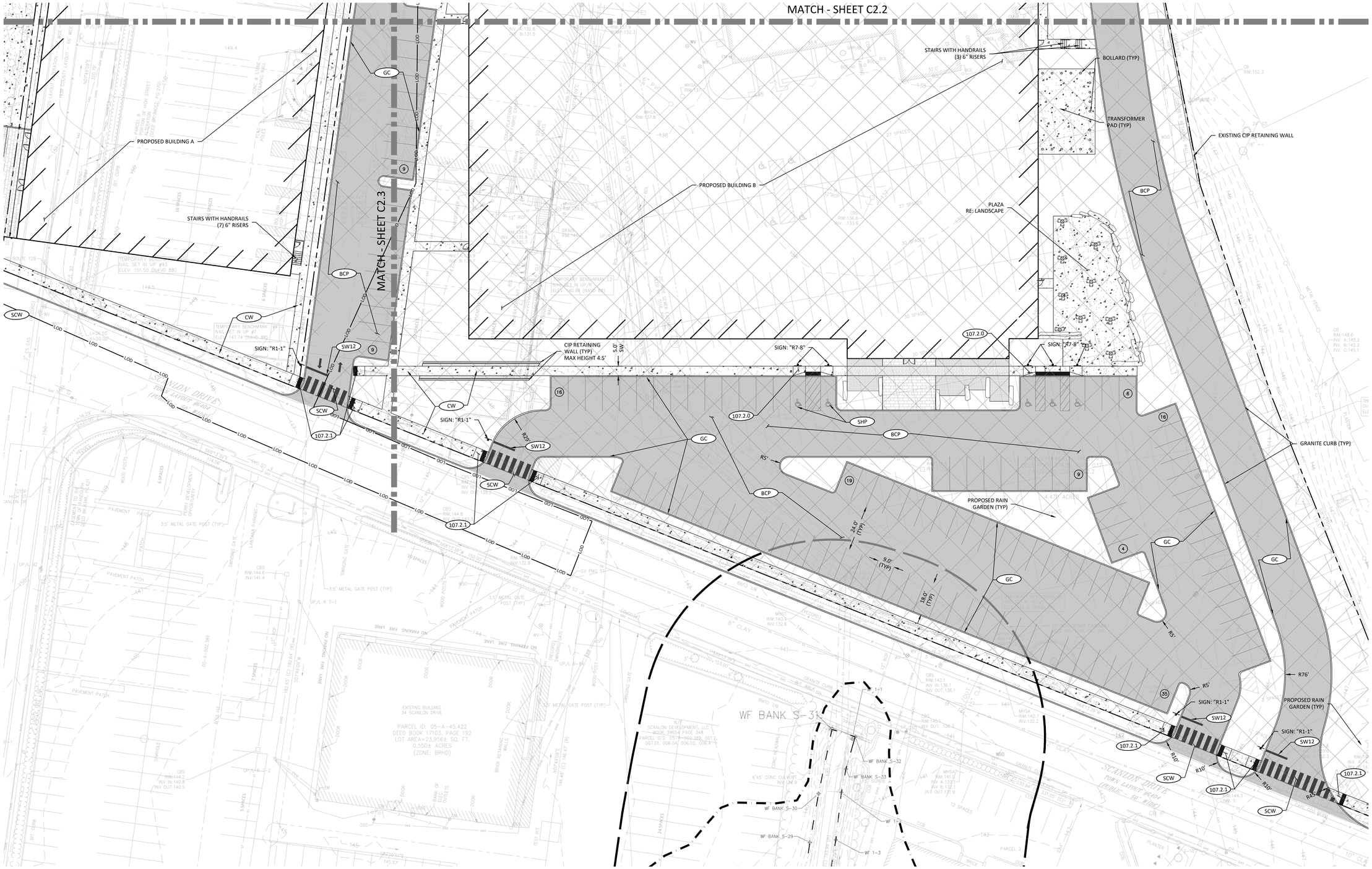
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

SITE IMPROVEMENT PLAN 1

C2.1

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C2.0 Site Improvements Plan.dwg Thursday, February 15, 2024 9:21:15 AM
Copyright 2024 The Vertex Companies, Inc.
All rights reserved.
© 2018 Stantec



NOTES:

1. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED
2. GRANITE CURB SHALL BE PROVIDED IN ALL PARKING AREAS AT THE EDGE OF THE PAVEMENT AND ADJACENT TO SIDEWALKS
3. CURB, BERM, AND WALKWAY RADII SHALL BE 2 FEET UNLESS NOTED ON PLANS.
4. WHERE SIDEWALKS INTERSECT CURB LINES, ADA, MAAB COMPLIANT CURB RAMP WITH DETECTABLE WARNING MAT SHALL BE INSTALLED. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATION SECTION 32 13 12.
5. CURB & GUTTER RELATED DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
6. ALL PAVEMENT MARKINGS ONSITE SHALL BE WATERBOURNE, CONFORMING TO MASSACHUSETTS STANDARD SPECIFICATIONS.
7. CONCRETE WALKWAY MATERIALS SHOWN FOR CLARITY ONLY. REFER TO LANDSCAPE PLANS FOR ALL WALKWAY MATERIALS, FINISHES, AND SCORING.

HEAVY-DUTY BITUMINOUS CONCRETE PAVEMENT:
1.5" FINISH COURSE OVER
2" BINDER COURSE OVER
8.5' PROCESSED GRAVEL OVER
12" COMPACTED SUBGRADE

SIDEWALK CONCRETE
RE: LANDSCAPE FOR CONCRETE TYPE

POROUS PAVEMENT
RE: SITE DETAILS

SITE NOT INCLUDED (N.I.C.)

0' 20' 40' 60'
SCALE: 1" = 20'

Z:\Shared\Projects\78000-78999\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C2.0 Site Improvements Plan.dwg Thursday, February 15, 2024 9:21:20 AM

Copyright: 2024 The Vertex Companies, Inc.
DISCLAIMER: SHEET 1 OF 1

© 2018 Stantec

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale AS NOTED
Project No. 78000

SITE IMPROVEMENT PLAN 2

C2.2

NOTES:

1. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED
2. GRANITE CURB SHALL BE PROVIDED IN ALL PARKING AREAS AT THE EDGE OF THE PAVEMENT AND ADJACENT TO SIDEWALKS
3. CURB, BERM, AND WALKWAY RADII SHALL BE 2 FEET UNLESS NOTED ON PLANS.
4. WHERE SIDEWALKS INTERSECT CURB LINES, ADA, MAAB COMPLIANT CURB RAMP WITH DETECTABLE WARNING MAT SHALL BE INSTALLED. DETECTABLE WARNING PANELS SHALL BE CAST IRON, SEE SPECIFICATION SECTION 32 13 12.
5. CURB & GUTTER RELATED DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
6. ALL PAVEMENT MARKINGS ONSITE SHALL BE WATERBOURNE, CONFORMING TO MASSACHUSETTS STANDARD SPECIFICATIONS.
7. CONCRETE WALKWAY MATERIALS SHOWN FOR CLARITY ONLY. REFER TO LANDSCAPE PLANS FOR ALL WALKWAY MATERIALS, FINISHES, AND SCORING.

HEAVY-DUTY BITUMINOUS CONCRETE PAVEMENT:
1.5" FINISH COURSE OVER
2" BINDER COURSE OVER
8.5' PROCESSED GRAVEL OVER
12" COMPACTED SUBGRADE

SIDEWALK CONCRETE
RE: LANDSCAPE FOR CONCRETE TYPE

POROUS PAVEMENT
RE: SITE DETAILS

SITE NOT INCLUDED (N.I.C.)

PROJECT NORTH

0' 20' 40' 60'
SCALE: 1" = 20'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

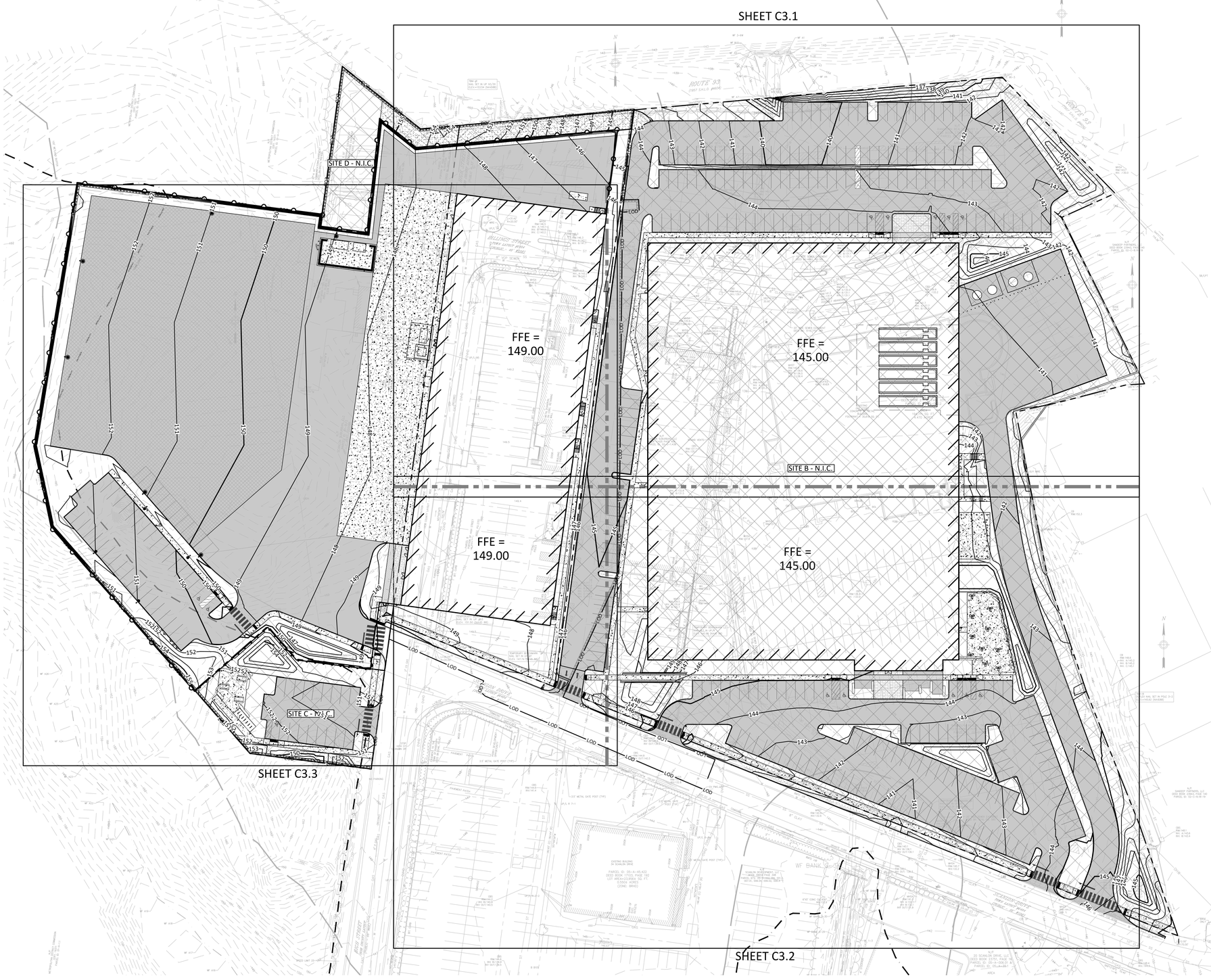
Scale	AS NOTED
Project No.	78000

SITE IMPROVEMENT PLAN 3

C2.3

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05 Engineering\Vertex Drawings\78000_C2.0 Site Improvements Plan.dwg Thursday, February 15, 2024 9:21:25 AM
Copyright: 2024 The Vertex Companies, Inc.
Plotted by: Jessica Ferreira

© 2018 Stantec



0' 40' 80' 120'

SCALE: 1" = 40'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

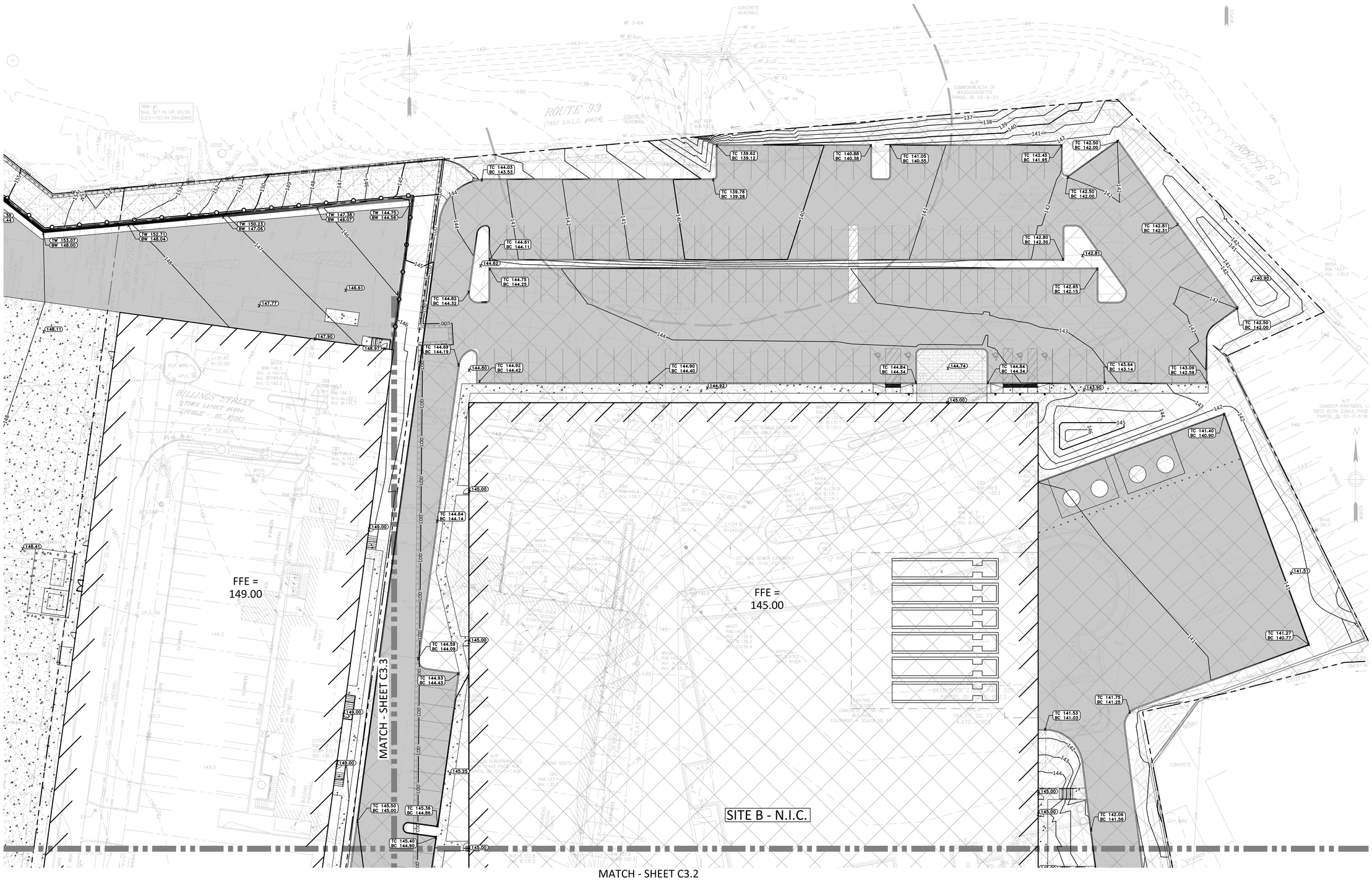
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

OVERALL GRADING PLAN

C3.0

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C3.0 Grading Plan.dwg Thursday, February 15, 2024 9:21:39 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



NOTES:

1. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
2. SITE GRADES SHALL CONFORM WITH ADA AND MAAB REQUIREMENTS. IN AREAS WHERE THESE REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION.
3. ALL TRANSITIONS BETWEEN GROUND COVERING MATERIALS SHALL BE SMOOTH AND MEET 521 CMR 20.10 REQUIREMENTS.
4. CROSS SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 2% AND RUNNING SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 5%.
5. REFER TO GRADING PLANS FOR ALL GRADING STRUCTURE RIM ELEVATIONS.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

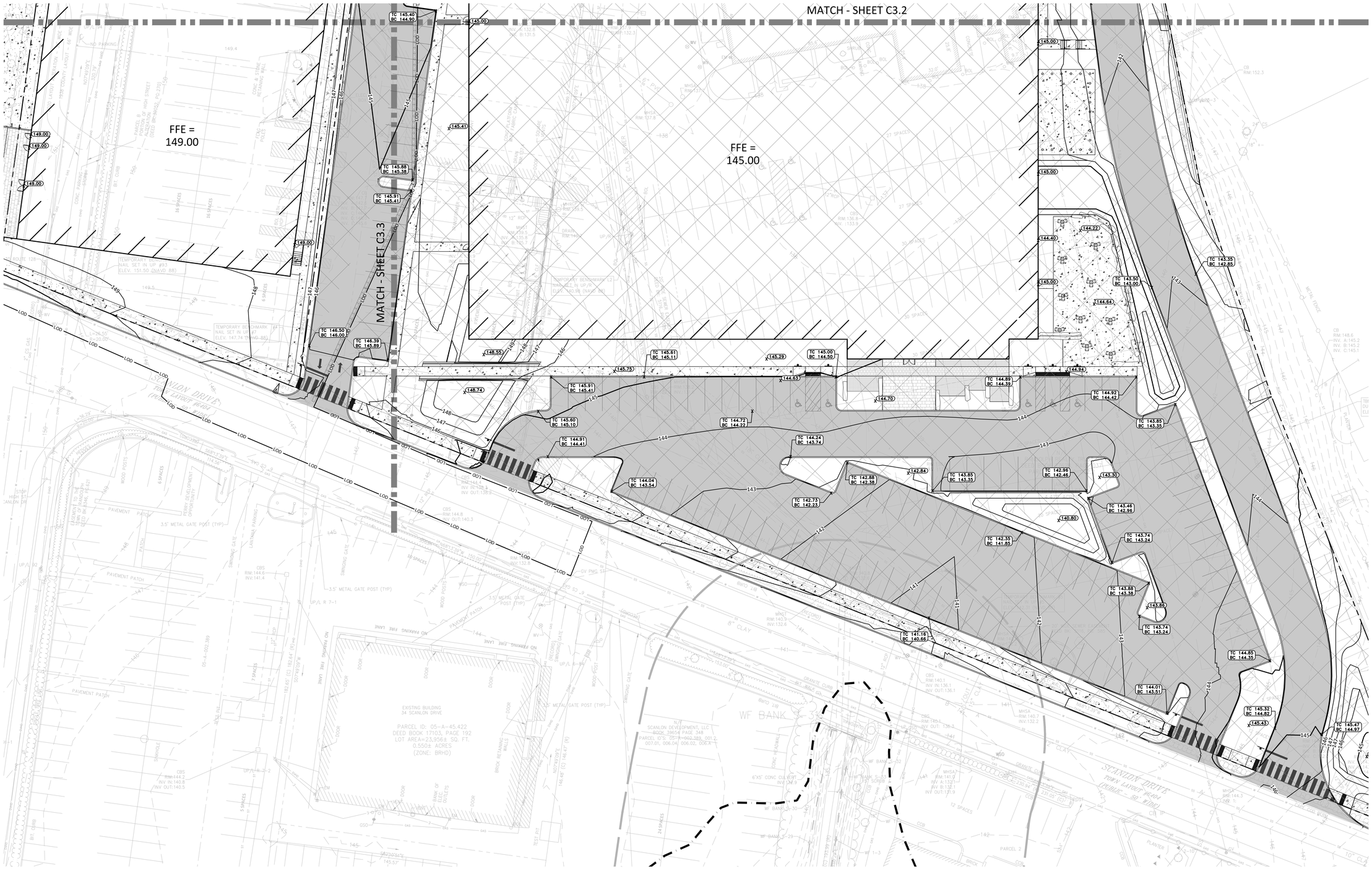
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

GRADING PLAN 1

C3.1

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C3.0 Grading Plan.dwg Thursday, February 15, 2024 9:21:45 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



NOTES:

1. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
2. SITE GRADES SHALL CONFORM WITH ADA AND MAAB REQUIREMENTS. IN AREAS WHERE THESE REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION.
3. ALL TRANSITIONS BETWEEN GROUND COVERING MATERIALS SHALL BE SMOOTH AND MEET 521 CMR 20.10 REQUIREMENTS.
4. CROSS SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 2% AND RUNNING SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 5%.
5. REFER TO GRADING PLANS FOR ALL GRADING STRUCTURE RIM ELEVATIONS.

0' 20' 40' 60'
SCALE: 1" = 20'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale AS NOTED
Project No. 78000

GRADING PLAN 2

C3.2

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C3.0 Grading Plan.dwg Thursday, February 15, 2024 9:21:50 AM
Copyright: 2024 The Vertex Companies, Inc.
DIGITAL SIGNATURE
© 2018 Stantec

NOTES:

1. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
2. SITE GRADES SHALL CONFORM WITH ADA AND MAAB REQUIREMENTS. IN AREAS WHERE THESE REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION.
3. ALL TRANSITIONS BETWEEN GROUND COVERING MATERIALS SHALL BE SMOOTH AND MEET 521 CMR 20.10 REQUIREMENTS.
4. CROSS SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 2% AND RUNNING SLOPES FOR ALL WALKWAYS SHALL NOT EXCEED 5%.
5. REFER TO GRADING PLANS FOR ALL GRADING STRUCTURE RIM ELEVATIONS.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

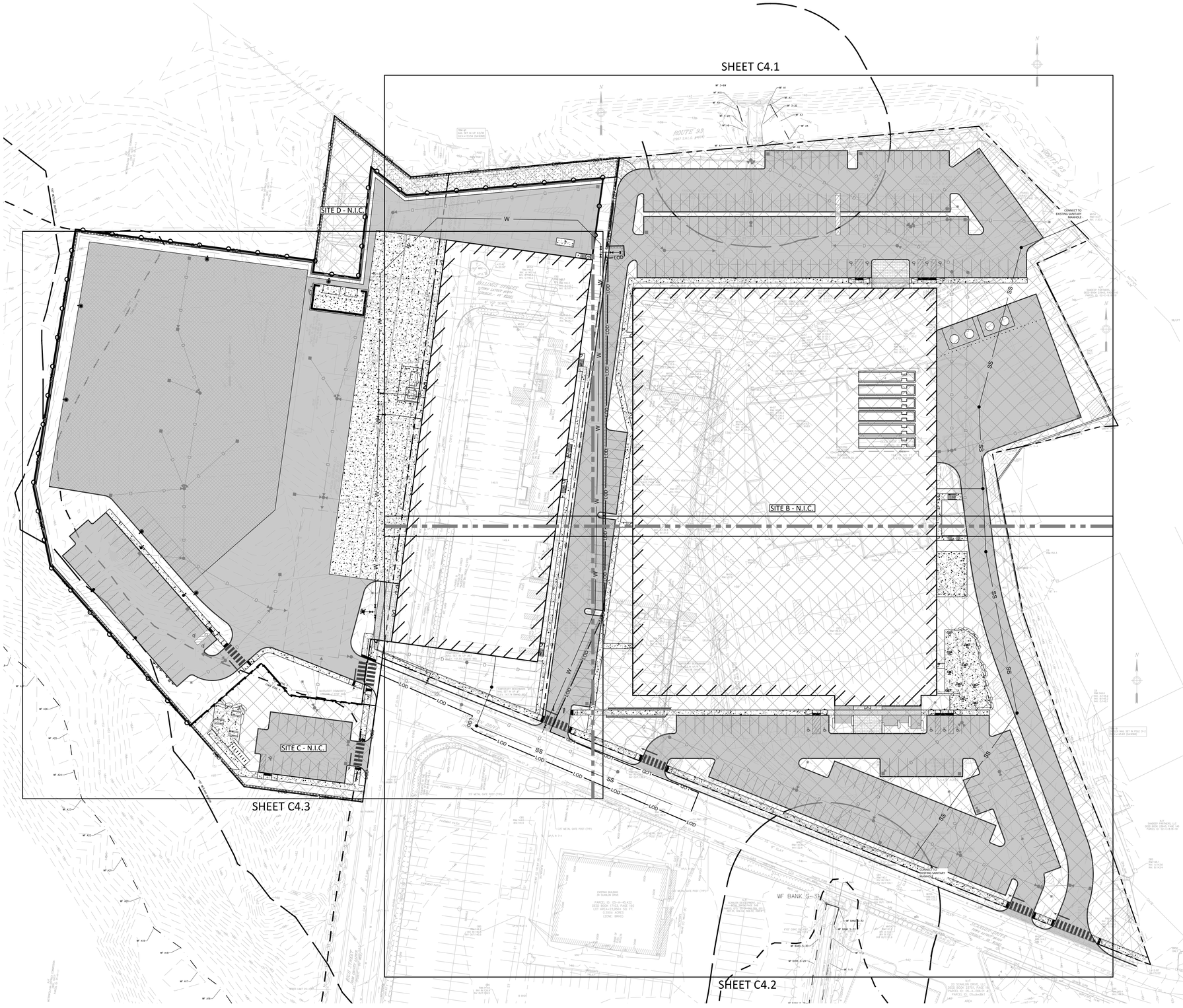
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

GRADING PLAN 3

C3.3

Z:\Shared\Projects\78000-78999\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C3.0 Grading Plan.dwg Thursday, February 15, 2024 9:21:56 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



0' 40' 80' 120'
SCALE: 1" = 40'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

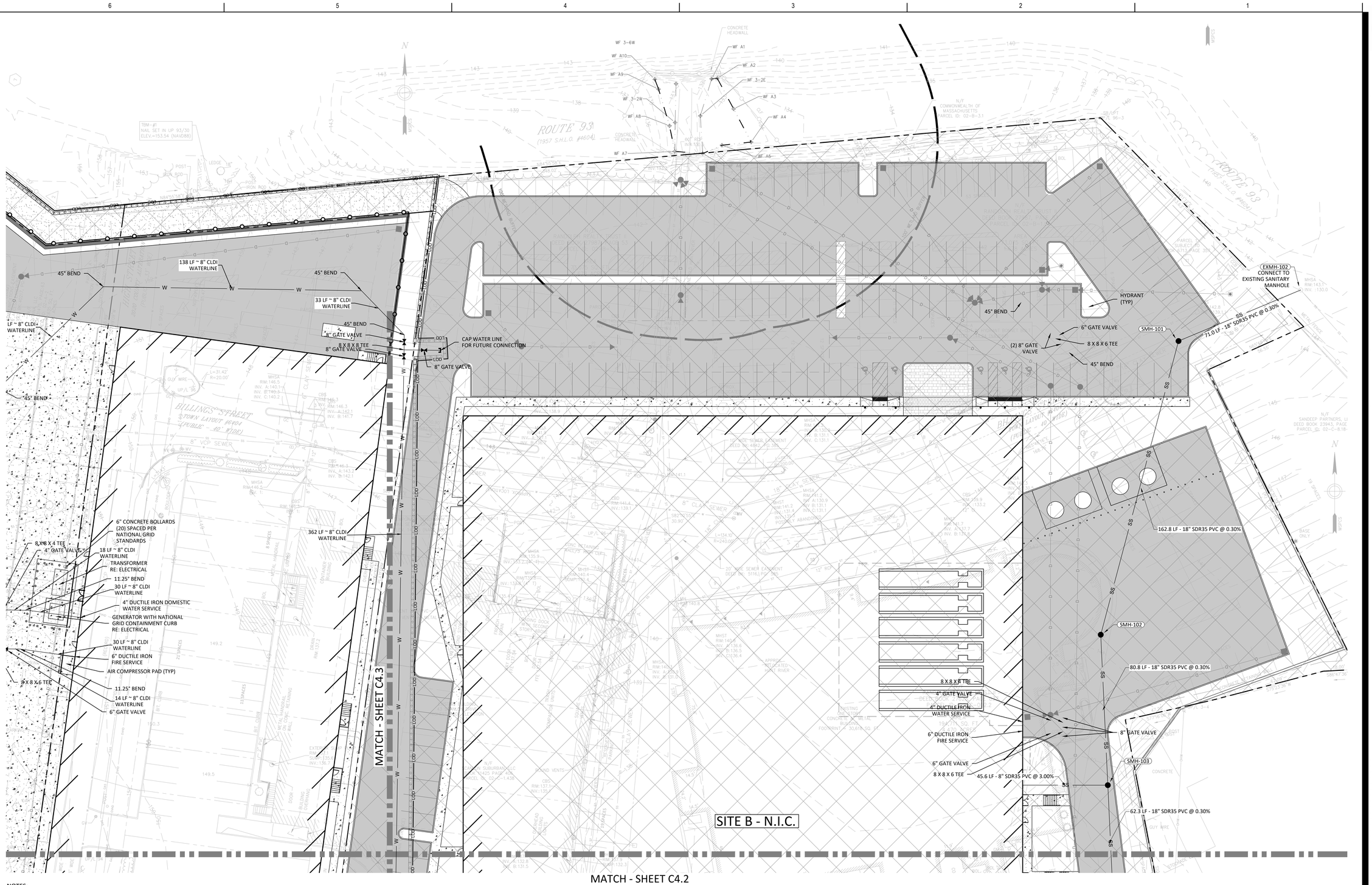
PRELIMINARY NOT FOR CONSTRUCTION

Scale AS NOTED
Project No. 78000

OVERALL UTILITY PLAN

C4.0

Z:\Shared\Projects\78000-78999\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C4.0 Utility Plan.dwg Thursday, February 15, 2024 9:22:14 AM
Copyright: 2024 The Vertex Companies, Inc.
DESIGNED: JMC-E
© 2018 Stantec



NOTES:

1. WORK ON ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE) SHALL BE COORDINATED AND SCHEDULED WITH THE OWNER PRIOR TO EXECUTION OF THE WORK.
2. THE CONTRACTOR SHALL MAINTAIN SANITARY SEWER SERVICE TO THE EXISTING SANITARY MAIN FROM THE START OF CONSTRUCTION TO THE START OF BUILDING DEMOLITION.
3. WORK ON EXISTING AND PROPOSED GAS LINES SHALL BE COORDINATED WITH LOCAL GAS COMPANY.
4. POLYVINYL CHLORIDE PIPE AND FITTINGS (PVC) SHALL BE MINIMUM SDR 35 WITH FULL DIAMETER DIMENSIONS CONFORMING TO THE SPECIFICATIONS FOR TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION D3034 LATEST REVISION, FOR SIZES 18 INCHES TO 27 INCHES THE PIPE SHALL COMPLY WITH ASTM F679, LATEST RECORD.
5. MANHOLE FRAMES AND COVERS SHALL BE MINIMUM CLASS 25 CONFORMING TO ASTM "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS," DESIGNATION: A48.
6. ALL WATER MAINS SHALL BE DUCTILE IRON CLASS 52 WITH PUSH ON JOINTS (UNLESS OTHERWISE SPECIFIED) MEETING THE REQUIREMENTS OF ANSI/AWWA C151/A21.51. ALL DUCTILE IRON WATER MAIN PIPE SHALL BE CEMENT LINED, WITH AN ASPHALTIC SEAL COAT MEETING THE REQUIREMENTS OF ANSI/AWWA C104/A21.4.
7. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL WATERLINE BENDS AND TEES IN ACCORDANCE WITH THE SPECIFICATIONS.
8. ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. MINIMUM AND MAXIMUM NUMBER OF SEWER BRICK COURSES USED FOR GRADE ADJUSTMENT SHALL BE IN ACCORDANCE WITH TOWN STANDARDS
9. ALL PRECAST CONCRETE MANHOLES FOR SANITARY AND DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT COLLAR TO PREVENT FLOTATION
10. ALL DUCTILE IRON WATER PIPE SHALL BE PRESSURE TESTED FOR 2 HOURS.
11. ALL DOMESTIC AND FIRE SUPPLY PIPES AND MAINS MUST BE DISINFECTED AND SAMPLED FOR COLIFORM BACTERIA 2X24 HOURS APART BE A MASSACHUSETTS CERTIFIED LAB.
12. ALL WATERLINE CONNECTIONS SHALL REQUIRE A SHUTDOWN. LIVE TAPS SHALL NOT BE PERMITTED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SHUTDOWN WITH RANDOLPH DPW TWO WEEKS IN ADVANCE OF WORK.
13. ALL UTILITY AND DRAINAGE INSTALLATION SHALL BE INSPECTED BY RANDOLPH DPW. CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE TO DPW PRIOR TO INSTALLATION.
14. CONTRACTOR TO PROVIDE CONCRETE ENCASEMENT FOR WATER AND DRAINAGE CROSSINGS.
15. ALL WATERLINE GATE VALVES SHALL TURN TO THE RIGHT.

Structure Table	
Structure Name	Structure Details
EXMH-101	141.80 INV OUT = 132.20
EXMH-102	134.47 INV IN = 130.05
EXMH-103	133.99 INV IN = 132.80
SMH-101	141.97 INV IN = 130.27 INV OUT = 130.26
SMH-102	141.09 INV IN = 130.75 INV OUT = 130.75
SMH-103	141.43 INV IN = 131.00 INV IN = -4.15 INV OUT = 131.00

Structure Table	
Structure Name	Structure Details
SMH-104	142.01 INV IN = 131.18 INV OUT = 131.18
SMH-105	143.25 INV IN = 131.67 INV OUT = 131.67
SMH-201	148.36 INV IN = 137.98 INV OUT = 137.89
SMH-202	138.26 INV IN = 137.07 INV OUT = 136.97

SCALE: 1" = 20'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	90% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

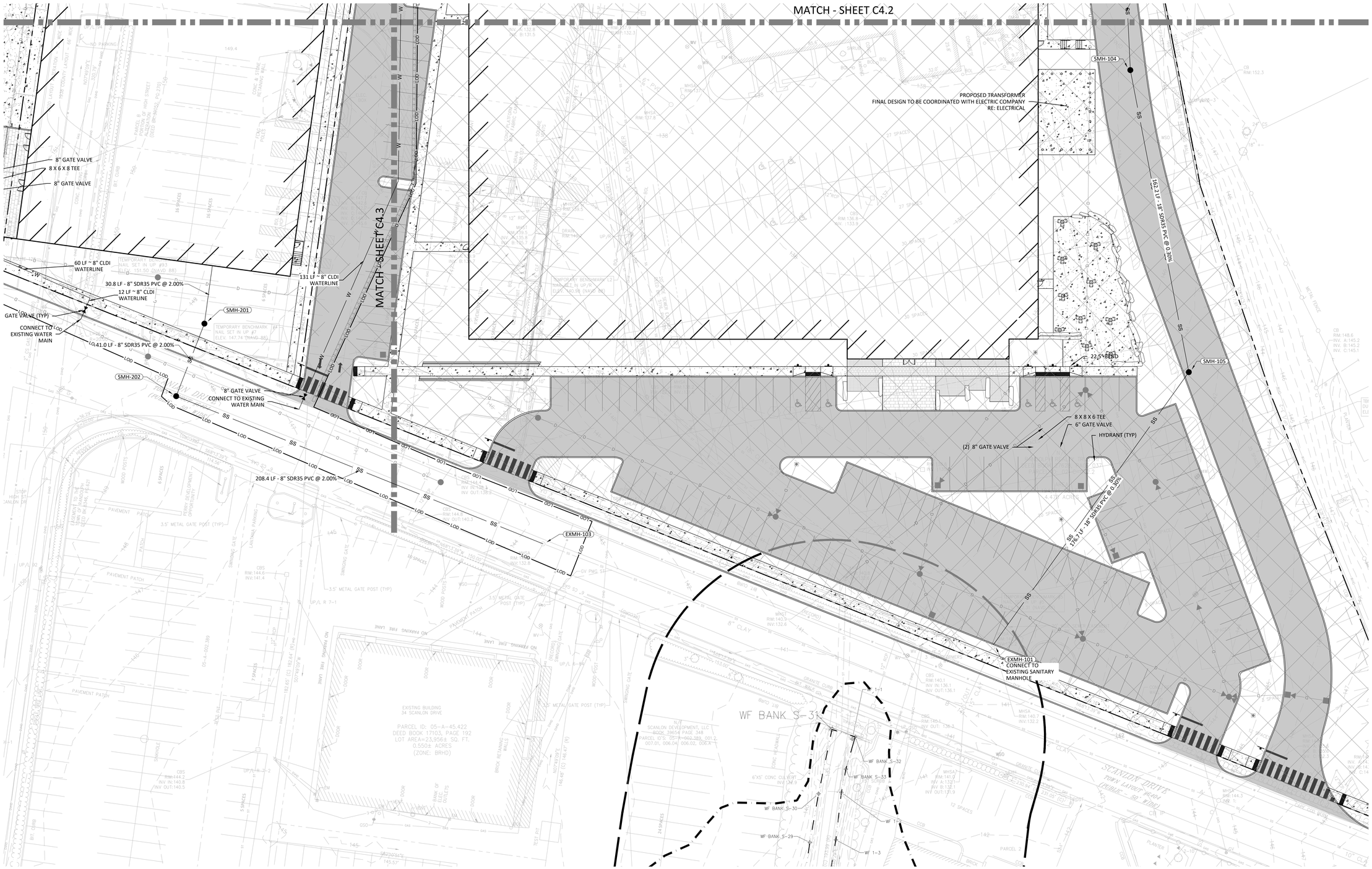
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

UTILITY PLAN 1

C4.1

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C4.0 Utility Plan.dwg Thursday, February 15, 2024 9:22:22 AM
Copyright: 2014 The Vertex Companies, Inc.
© 2018 Stantec


MATCH - SHEET C4.2
MATCH - SHEET C4.3
8" GATE VALVE
8 X 6 X 8 TEE
8" GATE VALVE
60 LF ~ 8" CLDI WATERLINE
30.8 LF - 8" SDR35 PVC @ 2.00%
12 LF ~ 8" CLDI WATERLINE
131 LF ~ 8" CLDI WATERLINE
GATE VALVE (TYP)
CONNECT TO EXISTING WATER MAIN
SMH-201
41.0 LF - 8" SDR35 PVC @ 2.00%
SMH-202
8" GATE VALVE
CONNECT TO EXISTING WATER MAIN
208.4 LF - 8" SDR35 PVC @ 2.00%
EXMH-103
PROPOSED TRANSFORMER
FINAL DESIGN TO BE COORDINATED WITH ELECTRIC COMPANY
RE: ELECTRICAL
SMH-104
162.2 LF - 18" SDR35 PVC @ 0.30%
22.5° BEND
SMH-105
8 X 8 X 6 TEE
6" GATE VALVE
(2) 8" GATE VALVE
HYDRANT (TYP)
176.7 LF - 18" SDR35 PVC @ 0.30%
EXMH-101
CONNECT TO EXISTING SANITARY MANHOLE
WF BANK S-31
WF BANK S-32
WF BANK S-33
WF BANK S-30
WF BANK S-29
WF 1-1
WF 1-2
WF 1-3
SCANLON DRIVE
EXISTING BUILDING
34 SCANLON DRIVE
PARCEL ID: 05-A-45.422
DEED BOOK 17103, PAGE 192
LOT AREA=23,956± SQ. FT.
0.550± ACRES
(ZONE: BRHD)
SCANLON DEVELOPMENT, LLC
BOOK 39654 PAGE 348
PARCEL ID'S: 05-A-66.389, 001.2, 007.01, 008.04, 008.02, 008.A
NO PARKING FIRE LANE
NO PARKING
PAVEMENT PATCH
3.5' METAL GATE POST (TYP)
SWINGING GATE
DOUBLE SWINGING GATE
CHAIN LINK FENCE
BRICK RETAINING WALLS
BRICK WALK
CONC. PLANTER
GRANITE CURB
BIT. CURB
SCANLON DRIVE
TOWN LAYOUT WIDTH
(VARIES ~ 50' WIDE)
PLANTER
CB RIM:152.3
CB RIM:148.6 INV: A:145.2 INV: B:145.2 INV: C:145.7
CBS RIM:144.6 INV:141.4
CBS RIM:144.2 INV IN:140.8 INV OUT:140.5
CBS RIM:140.1 INV IN:136.1 INV OUT:136.1
CBS RIM:135.5 INV OUT:135.3
MHSA RIM:140.7 INV:132.2
MHSA RIM:141.0 INV A:132.1 INV B:132.1 INV OUT:131.9
MHSA RIM:144.3 INV:139.2
MHSA RIM:137.8
MH RIM:137.9
MH RIM:140.3 INV:132.6
MH RIM:132.5
MH RIM:132.3
MH RIM:131.5 INV:128.3 INV OUT:128.3
MH RIM:135.8 INV:128.5 INV OUT:128.5
MH RIM:135.8 INV:133.8
MH RIM:140.3 INV:132.8
MH RIM:144.6 INV:140.3
MH RIM:144.6 INV:141.4
MH RIM:147.8 INV:144.6
MH RIM:147.8 INV:144.6
MH RIM:147.8 INV:144.6

NOTES:

1. WORK ON ACTIVE UTILITY LINES (INCLUDING SEWER, WATER, AND DRAINAGE) SHALL BE COORDINATED AND SCHEDULED WITH THE OWNER PRIOR TO EXECUTION OF THE WORK.
2. THE CONTRACTOR SHALL MAINTAIN SANITARY SEWER SERVICE TO THE EXISTING SANITARY MAIN FROM THE START OF CONSTRUCTION TO THE START OF BUILDING DEMOLITION.
3. WORK ON EXISTING AND PROPOSED GAS LINES SHALL BE COORDINATED WITH LOCAL GAS COMPANY.
4. POLYVINYL CHLORIDE PIPE AND FITTINGS (PVC) SHALL BE MINIMUM SDR 35 WITH FULL DIAMETER DIMENSIONS CONFORMING TO THE SPECIFICATIONS FOR TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION D3034 LATEST REVISION, FOR SIZES 18 INCHES TO 27 INCHES THE PIPE SHALL COMPLY WITH ASTM F679, LATEST RECORD.
5. MANHOLE FRAMES AND COVERS SHALL BE MINIMUM CLASS 25 CONFORMING TO ASTM "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS," DESIGNATION: A48.
6. ALL WATER MAINS SHALL BE DUCTILE IRON CLASS 52 WITH PUSH ON JOINTS (UNLESS OTHERWISE SPECIFIED) MEETING THE REQUIREMENTS OF ANSI/AWWA C151/A21.51. ALL DUCTILE IRON WATER MAIN PIPE SHALL BE CEMENT LINED, WITH AN ASPHALTIC SEAL COAT MEETING THE REQUIREMENTS OF ANSI/AWWA C104/A21.4.
7. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL WATERLINE BENDS AND TEES IN ACCORDANCE WITH THE SPECIFICATIONS.
8. ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. MINIMUM AND MAXIMUM NUMBER OF SEWER BRICK COURSES USED FOR GRADE ADJUSTMENT SHALL BE IN ACCORDANCE WITH TOWN STANDARDS
9. ALL PRECAST CONCRETE MANHOLES FOR SANITARY AND DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT COLLAR TO PREVENT FLOTATION
10. ALL DUCTILE IRON WATER PIPE SHALL BE PRESSURE TESTED FOR 2 HOURS.
11. ALL DOMESTIC AND FIRE SUPPLY PIPES AND MAINS MUST BE DISINFECTED AND SAMPLED FOR COLIFORM BACTERIA 2X24 HOURS APART BE A MASSACHUSETTS CERTIFIED LAB.
12. ALL WATERLINE CONNECTIONS SHALL REQUIRE A SHUTDOWN. LIVE TAPS SHALL NOT BE PERMITTED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SHUTDOWN WITH RANDOLPH DPW TWO WEEKS IN ADVANCE OF WORK.
13. ALL UTILITY AND DRAINAGE INSTALLATION SHALL BE INSPECTED BY RANDOLPH DPW. CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE TO DPW PRIOR TO INSTALLATION.
14. CONTRACTOR TO PROVIDE CONCRETE ENCASEMENT FOR WATER AND DRAINAGE CROSSINGS.
15. ALL WATERLINE GATE VALVES SHALL TURN TO THE RIGHT.

Structure Table	
Structure Name	Structure Details
EXMH-101	141.80 INV OUT = 132.20
EXMH-102	134.47 INV IN = 130.05
EXMH-103	133.99 INV IN = 132.80
SMH-101	141.97 INV IN = 130.27 INV OUT = 130.26
SMH-102	141.09 INV IN = 130.75 INV OUT = 130.75
SMH-103	141.43 INV IN = 131.00 INV IN = -4.15 INV OUT = 131.00

Structure Table	
Structure Name	Structure Details
SMH-104	142.01 INV IN = 131.18 INV OUT = 131.18
SMH-105	143.25 INV IN = 131.67 INV OUT = 131.67
SMH-201	148.36 INV IN = 137.98 INV OUT = 137.89
SMH-202	138.26 INV IN = 137.07 INV OUT = 136.97

0' 20' 40' 60'
SCALE: 1" = 20'

Stantec
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant
VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	30% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

UTILITY PLAN 3

C4.3

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C4.0 Utility Plan.dwg Thursday, February 15, 2024 9:22:32 AM
Copyright: 2024 The Vertex Companies, Inc.
Date/Time: 2024.02.15 09:22:32
© 2018 Stantec

SHEET C5.1

SITE D - N.I.C.

SITE B - N.I.C.

SITE C - N.I.C.

1.9 LF - 6" HDPE @ 1.50%

1.9 LF - 6" HDPE @ 1.50%

28.7 LF - 12" HDPE @ 5.03%

13.0 LF - 12" HDPE @ 0.50%

46.4 LF - 24" 24" HDPE @ 0.50%

1.8 LF - 6" 6" HDPE @ 1.50%

2.0 LF - 6" 6" HDPE @ 1.37%

9.9 LF - 6" HDPE @ 1.37%

1.9 LF - 6" HDPE @ 1.50%

12" HDPE @ 1.37%

SHEET C5.3

SHEET C5.2

0' 40' 80' 120'

SCALE: 1" = 40'

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

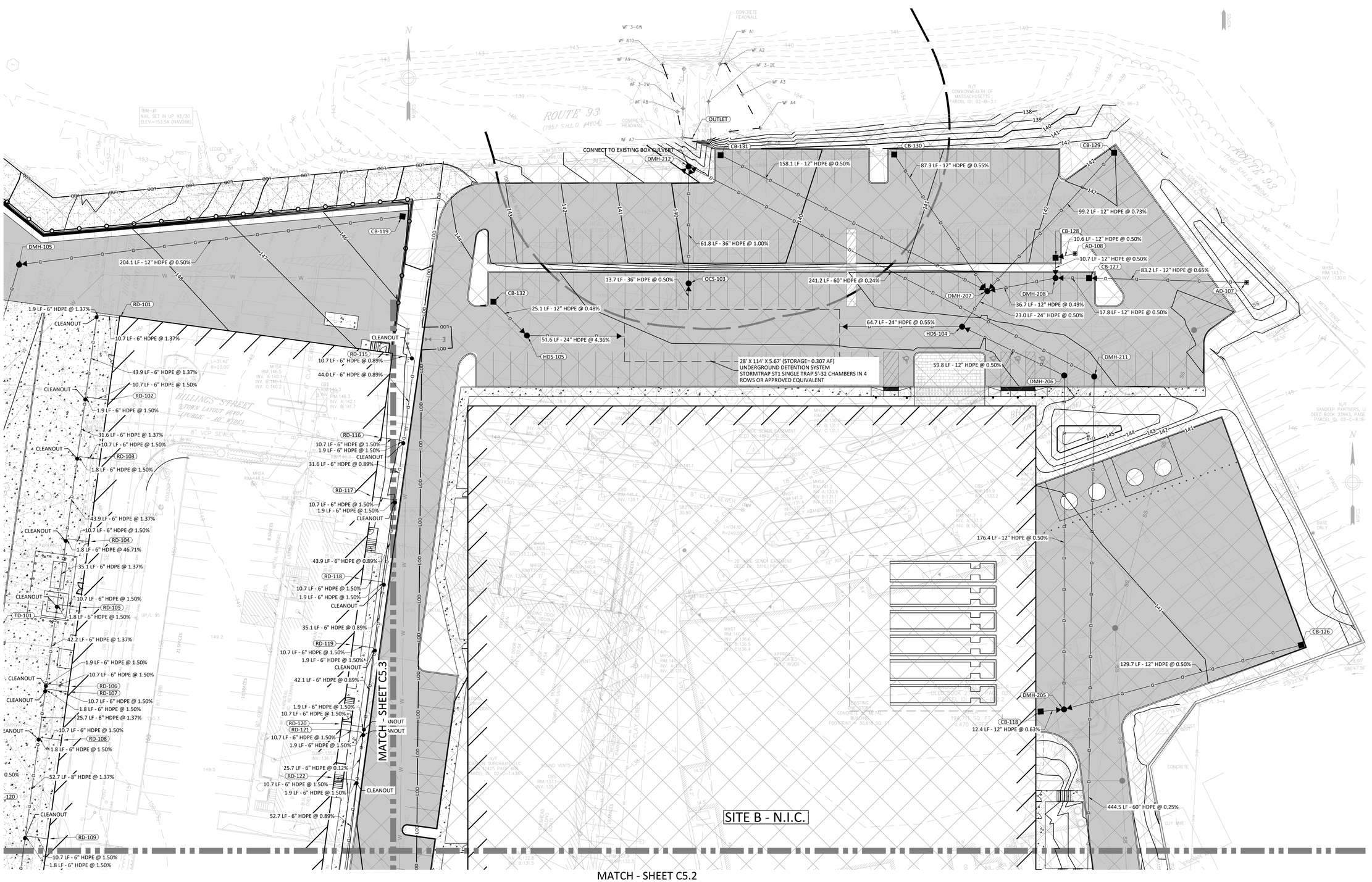
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

OVERALL DRAINAGE PLAN

C5.0

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C5.0 Drainage Plan.dwg Thursday, February 15, 2024 9:23:09 AM
Copyright 2024 The Vertex Companies, Inc.
© 2018 Stantec



NOTE:

1. EXISTING UNDERGROUND UTILITY LOCATIONS ARE ESTIMATED. AT THIS TIME EXISTENCE AND CONDITIONS OF UTILITIES HAVE NOT BEEN CONFIRMED
2. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED
3. ALL UTILITIES WITHIN THE FOOTPRINT OF PROPOSED BUILDING ADDITIONS SHOULD BE ANTICIPATED TO BE REMOVED AND RELOCATED. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION
6. ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION.
7. ALL PRECAST CONCRETE MANHOLES FOR SANITARY AND DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT COLLAR TO PREVENT FLOTATION
8. ALL DRAIN LINES SHALL BE 12" UNLESS OTHERWISE NOTED. ALL DRAIN LINES SHALL BE RCP UNLESS OTHERWISE NOTED
9. ALL CATCH BASINS TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) SHALL CONFORM TO MHD STANDARD DETAIL 201.4.0 AND ALL CATCH BASIN FRAMES AND GRATES SHALL CONFORM TO 201.6.0 UNLESS OTHERWISE NOTED.
10. ALL MANHOLES TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) AND SHALL CONFORM TO MHD STANDARD DETAIL 202.4.0 AND ALL MANHOLE FRAMES AND COVERS SHALL CONFORM TO 202.6.0 UNLESS OTHERWISE NOTED. CONCRETE ANTI-FLOTATION COLLARS SHALL BE PROVIDED AT ALL MANHOLES.
11. REINFORCED CONCRETE PIPE AND FLARED ENDS SHALL CONFORM TO THE AASHTO M170 FOR STANDARD STRENGTH REINFORCED CONCRETE CULVERT PIPE FOR CLASS III PIPE, WALL B. OR ASTM C76 FOR REINFORCED CONCRETE CULVERT AND STORM DRAIN PIPE UNLESS NOTED OTHERWISE. ALL PIPE 24 INCHES IN DIAMETER OR SMALLER SHALL BE OF THE BELL AND SPIGOT TYPE. PIPES LARGER THAN 24 INCHES IN DIAMETER SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT. ALL DRAINAGE PIPING SHALL BE GASKETED.
12. RCP PIPE LOCATED IN VEHICULAR AREAS WITH LESS THAN 6" OF COVER BELOW SUBGRADE ELEVATION SHALL BE CLASS V
13. CONCRETE VAULT DETENTION SYSTEMS SHALL INCLUDE AN 8" EXTENDED CONCRETE SLAB WITH UNITS ANCHORED INTO SLAB, AND SHALL BE LINED WITH AN IMPERVIOUS LINER
14. HIGH-DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL BE ADS N-12 IB ST SMOOTH INTERIOR PIPE, ADS N-12 IB ST HIGH CAPACITY LARGE DIAMETER PIPE OR APPROVED EQUIVALENT. JOINTS SHALL BE SOIL-TIGHT AND INCLUDE A RUBBER GASKET ON THE SPIGOT END OF THE PIPE. WHEN INSTALLED INTO THE BELL END, THE JOINT SHALL BE SEALED.
15. MANHOLES OVER 12 FEET IN DEPTH SHALL HAVE MINIMUM OF 5 FEET INSIDE DIAMETER. ALL MANHOLES SHALL HAVE A SUMP OF AT LEAST 30 INCHES BELOW INVERT OF OUTLET PIPE. RISERS SHALL BE CLAY OR SHALE BRICK, AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 91, GRADE MM OR AS SPECIFIED IN MASSDOT M4.05.
16. ALL CATCH BASINS SHALL HAVE A SUMP OF AT LEAST 48 INCHES (4 FEET) BELOW THE INVERT OF THE OUTLET PIPE, OR OTHERWISE APPROVED BY THE DPW, AND AN INSIDE DIAMETER OF 4 FEET MINIMUM.
17. LIVE LOAD DESIGN FOR CATCH BASINS SHALL BE HS-25 LOADING. CATCH BASINS WHICH ARE LIMITED BY HEIGHT SHALL BE INSTALLED WITH A FLAT TOP SLAB, CAST IN PLACE, DESIGNED FOR HS-25 LOADING AND CAST IRON FRAME CAST IN PLACE.
18. MANHOLE FRAMES AND COVERS SHALL BE AT LEAST CLASS 25 CONFORMING TO ASTM A48 "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS.
19. CATCH BASIN HOODS SHALL BE USED TO MINIMIZE THE ENTRY OF OIL, GASOLINE, AND DEBRIS INTO DRAINAGE PIPES.
20. WHERE PROPOSED DRAIN LINES CROSS SANITARY OR WATER LINES WITH LESS THAN 1.5' CLEARANCE, ENCASE BOTH UTILITIES IN FLOWABLE FILL FOR A DISTANCE OF 10' ON EITHER SIDE OF CROSSING. CENTER PIPE LENGTH AT CROSSING. REFER TO CROSSING DETAIL ON SHEET C6._ ON DETAIL SHEETS.
21. HYDRODYNAMIC SEPARATORS SHALL BE CONTECH CDS2025-5-C, UNLESS OTHERWISE NOTED, OR APPROVED EQUIVALENT.
22. CONCRETE ANTI-FLOTATION COLLARS SHALL BE PROVIDED AT ALL MANHOLES IN AREAS OF HIGH GROUNDWATER.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

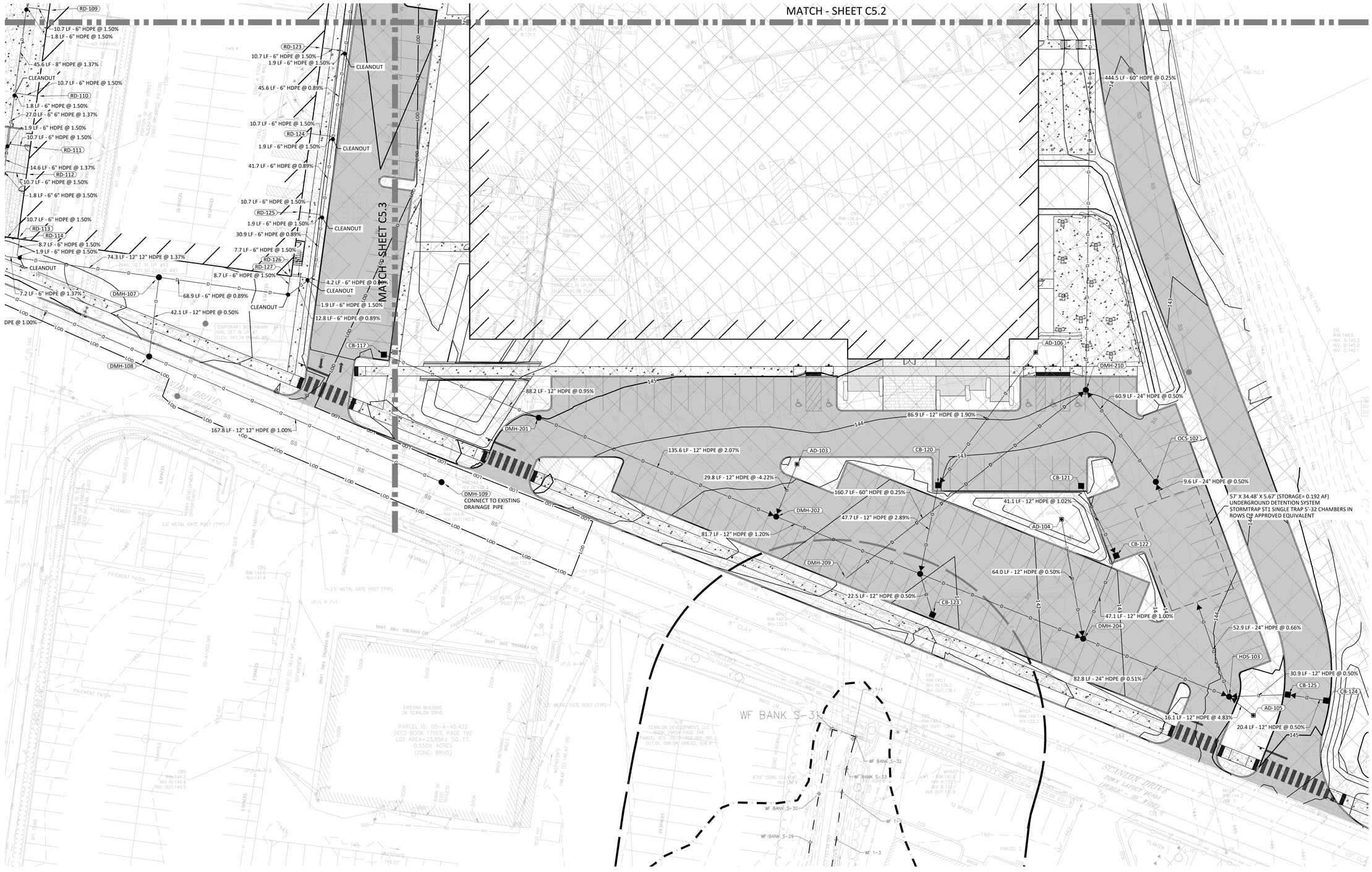
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

DRAINAGE PLAN 1

C5.1

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C5.0 Drainage Plan.dwg Thursday, February 15, 2024 9:23:17 AM
Copyright: 2024 The Vertex Companies, Inc.
Kathleen Richard
© 2018 Stantec



NOTE:

1. EXISTING UNDERGROUND UTILITY LOCATIONS ARE ESTIMATED. AT THIS TIME EXISTENCE AND CONDITIONS OF UTILITIES HAVE NOT BEEN CONFIRMED
2. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, PERIMETER HAY BALES, VEHICLE TRACKING CONTROL, INLET PROTECTION, CONCRETE WASHOUT AREAS AND TEMPORARY SEDIMENTATION BASINS SHOULD BE CONSIDERED
3. ALL UTILITIES WITHIN THE FOOTPRINT OF PROPOSED BUILDING ADDITIONS SHOULD BE ANTICIPATED TO BE REMOVED AND RELOCATED. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION
6. ALL EXISTING STRUCTURES TO REMAIN WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISH GRADE. SERVICE SHALL BE MAINTAINED TO EXISTING BUILDINGS TO REMAIN FOR THE DURATION OF CONSTRUCTION.
7. ALL PRECAST CONCRETE MANHOLES FOR SANITARY AND DRAINAGE SHALL CONFORM TO THE ASTM "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," DESIGNATION D478. THE BARREL SHALL BE 4-FOOT WITH A 1-FOOT COLLAR TO PREVENT FLOTATION
8. ALL DRAIN LINES SHALL BE 12" UNLESS OTHERWISE NOTED. ALL DRAIN LINES SHALL BE RCP UNLESS OTHERWISE NOTED
9. ALL CATCH BASINS TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) SHALL CONFORM TO MHD STANDARD DETAIL 201.4.0 AND ALL CATCH BASIN FRAMES AND GRATES SHALL CONFORM TO 201.6.0 UNLESS OTHERWISE NOTED.
10. ALL MANHOLES TO BE 4' DIAMETER (UNLESS OTHERWISE NOTED) AND SHALL CONFORM TO MHD STANDARD DETAIL 202.4.0 AND ALL MANHOLE FRAMES AND COVERS SHALL CONFORM TO 202.6.0 UNLESS OTHERWISE NOTED. CONCRETE ANTI-FLOTATION COLLARS SHALL BE PROVIDED AT ALL MANHOLES.
11. REINFORCED CONCRETE PIPE AND FLARED ENDS SHALL CONFORM TO THE AASHTO M170 FOR STANDARD STRENGTH REINFORCED CONCRETE CULVERT PIPE FOR CLASS III PIPE, WALL B. OR ASTM C76 FOR REINFORCED CONCRETE CULVERT AND STORM DRAIN PIPE UNLESS NOTED OTHERWISE. ALL PIPE 24 INCHES IN DIAMETER OR SMALLER SHALL BE OF THE BELL AND SPIGOT TYPE. PIPES LARGER THAN 24 INCHES IN DIAMETER SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT. ALL DRAINAGE PIPING SHALL BE GASKETED.
12. RCP PIPE LOCATED IN VEHICULAR AREAS WITH LESS THAN 6" OF COVER BELOW SUBGRADE ELEVATION SHALL BE CLASS V
13. CONCRETE VAULT DETENTION SYSTEMS SHALL INCLUDE AN 8" EXTENDED CONCRETE SLAB WITH UNITS ANCHORED INTO SLAB, AND SHALL BE LINED WITH AN IMPERVIOUS LINER
14. HIGH-DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL BE ADS N-12 IB ST SMOOTH INTERIOR PIPE, ADS N-12 IB ST HIGH CAPACITY LARGE DIAMETER PIPE OR APPROVED EQUIVALENT. JOINTS SHALL BE SOIL-TIGHT AND INCLUDE A RUBBER GASKET ON THE SPIGOT END OF THE PIPE. WHEN INSTALLED INTO THE BELL END, THE JOINT SHALL BE SEALED.
15. MANHOLES OVER 12 FEET IN DEPTH SHALL HAVE MINIMUM OF 5 FEET INSIDE DIAMETER. ALL MANHOLES SHALL HAVE A SUMP OF AT LEAST 30 INCHES BELOW INVERT OF OUTLET PIPE. RISERS SHALL BE CLAY OR SHALE BRICK, AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 91, GRADE MM OR AS SPECIFIED IN MASSDOT M4.05.
16. ALL CATCH BASINS SHALL HAVE A SUMP OF AT LEAST 48 INCHES (4 FEET) BELOW THE INVERT OF THE OUTLET PIPE, OR OTHERWISE APPROVED BY THE DPW, AND AN INSIDE DIAMETER OF 4 FEET MINIMUM.
17. LIVE LOAD DESIGN FOR CATCH BASINS SHALL BE HS-25 LOADING. CATCH BASINS WHICH ARE LIMITED BY HEIGHT SHALL BE INSTALLED WITH A FLAT TOP SLAB, CAST IN PLACE, DESIGNED FOR HS-25 LOADING AND CAST IRON FRAME CAST IN PLACE.
18. MANHOLE FRAMES AND COVERS SHALL BE AT LEAST CLASS 25 CONFORMING TO ASTM A48 "STANDARD SPECIFICATION FOR GRAY IRON CASTINGS.
19. CATCH BASIN HOODS SHALL BE USED TO MINIMIZE THE ENTRY OF OIL, GASOLINE, AND DEBRIS INTO DRAINAGE PIPES.
20. WHERE PROPOSED DRAIN LINES CROSS SANITARY OR WATER LINES WITH LESS THAN 1.5' CLEARANCE, ENCASE BOTH UTILITIES IN FLOWABLE FILL FOR A DISTANCE OF 10' ON EITHER SIDE OF CROSSING. CENTER PIPE LENGTH AT CROSSING. REFER TO CROSSING DETAIL ON SHEET C6._ ON DETAIL SHEETS.
21. HYDRODYNAMIC SEPARATORS SHALL BE CONTECH CDS2025-5-C, UNLESS OTHERWISE NOTED, OR APPROVED EQUIVALENT.
22. CONCRETE ANTI-FLOTATION COLLARS SHALL BE PROVIDED AT ALL MANHOLES IN AREAS OF HIGH GROUNDWATER.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

DRAINAGE PLAN 2

C5.2

Z:\Shared\Projects\78000-78999\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C5.0 Drainage Plan.dwg Thursday, February 15, 2024 9:23:38 AM
Copyright: 2024 The Vertex Companies, Inc.
Matthew Hamilton
© 2018 Stantec

CB-101
71.0 LF - 12" HDPE @ 0.50%
CB-102
66.7 LF - 12" HDPE @ 0.50%
CB-104
32.8 LF - 12" HDPE @ 1.45%
DMH-103
95.7 LF - 12" HDPE @ 0.50%
CB-105
61.4 LF - 12" HDPE @ 0.64%
CB-106
70.2 LF - 12" HDPE @ 0.50%
CB-107
73.3 LF - 12" HDPE @ 1.46%
DMH-102
68.8 LF - 15" HDPE @ 0.50%
DMH-101
CB-112
43.9 LF - 12" HDPE @ 2.56%
99.5 LF - 18" HDPE @ 0.93%
CB-114
63.0 LF - 12" HDPE @ 0.94%
CB-113
22.4 LF - 12" HDPE @ 0.54%
40.1 LF - 12" HDPE @ 3.56%
AD-101
AD-102
142' X 55.2' X 8.67' (STORAGE= 1.208 AF) UNDERGROUND DETENTION SYSTEM STORMTRAP ST1 DOUBLE TRAP 7' 6"- 80 CHAMBERS IN 10 ROWS OR APPROVED EQUIVALENT
CB-111
34.7 LF - 12" HDPE @ 1.00%
17.2 LF - 15" HDPE @ 0.50%
HDS-101
191.9 LF - 12" 12" HDPE @ 0.50%
CB-108
47.9 LF - 12" HDPE @ 1.32%
DMH-104
98.4 LF - 12" HDPE @ 0.72%
HDS-102
28.7 LF - 12" HDPE @ 5.03%
13.0 LF - 12" HDPE @ 0.50%
28.7 LF - 12" HDPE @ 5.03%
13.0 LF - 12" HDPE @ 0.50%
46.4 LF - 24" 24" HDPE @ 0.50%
DMH-120
52.0 LF - 12" HDPE @ 0.50%
HDS-201
28.5 LF - 12" HDPE @ 0.50%
47.1 LF - 12" HDPE @ 0.50%
CB-116
22.0 LF - 12" HDPE @ 3.41%
CB-115
SITE C - N.I.C.
1.9 LF - 6" HDPE @ 1.37%
CLEANOUT
RD-101
10.7 LF - 6" HDPE @ 1.37%
43.9 LF - 6" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-102
1.9 LF - 6" HDPE @ 1.50%
31.6 LF - 6" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-103
1.8 LF - 6" HDPE @ 1.50%
43.9 LF - 6" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-104
1.8 LF - 6" HDPE @ 46.71%
35.1 LF - 6" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-105
TD-101
1.8 LF - 6" HDPE @ 1.50%
42.2 LF - 6" HDPE @ 1.37%
1.9 LF - 6" HDPE @ 1.50%
10.7 LF - 6" HDPE @ 1.50%
RD-106
RD-107
10.7 LF - 6" HDPE @ 1.50%
1.8 LF - 6" HDPE @ 1.50%
25.7 LF - 8" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-108
1.8 LF - 6" HDPE @ 1.50%
52.7 LF - 8" HDPE @ 1.37%
RD-109
10.7 LF - 6" HDPE @ 1.50%
1.8 LF - 6" HDPE @ 1.50%
45.6 LF - 8" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
RD-110
1.8 LF - 6" HDPE @ 1.50%
27.0 LF - 6" HDPE @ 1.37%
1.9 LF - 6" HDPE @ 1.50%
10.7 LF - 6" HDPE @ 1.50%
RD-111
14.6 LF - 6" HDPE @ 1.37%
RD-112
10.7 LF - 6" HDPE @ 1.50%
1.8 LF - 6" HDPE @ 1.50%
33.9 LF - 6" HDPE @ 1.37%
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
RD-113
RD-114
2.0 LF - 6" HDPE @ 1.37%
8.7 LF - 6" HDPE @ 1.50%
13.8 LF - 30" HDPE @ 0.50%
1.9 LF - 6" HDPE @ 1.50%
9.9 LF - 6" HDPE @ 1.37%
74.3 LF - 12" 12" HDPE @ 1.37%
OCS-101
7.2 LF - 6" HDPE @ 1.37%
DMH-107
68.9 LF - 6" HDPE @ 0.89%
42.1 LF - 12" HDPE @ 0.50%
118.8 LF - 12" 12" HDPE @ 1.00%
DMH-108
167.8 LF - 12" 12" HDPE @ 1.00%
RD-115
10.7 LF - 6" HDPE @ 0.89%
44.0 LF - 6" HDPE @ 0.89%
RD-116
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
31.6 LF - 6" HDPE @ 0.89%
RD-117
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
43.9 LF - 6" HDPE @ 0.89%
RD-118
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
35.1 LF - 6" HDPE @ 0.89%
RD-119
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
42.1 LF - 6" HDPE @ 0.89%
1.9 LF - 6" HDPE @ 1.50%
10.7 LF - 6" HDPE @ 1.50%
RD-120
RD-121
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
25.7 LF - 6" HDPE @ 0.12%
RD-122
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
52.7 LF - 6" HDPE @ 0.89%
RD-123
10.7 LF - 6" HDPE @ 1.50%
1.9 LF - 6" HDPE @ 1.50%
45.6 LF - 6" HDPE @ 0.89%
10.7 LF - 6" HDPE @ 1.50%
RD-124
1.9 LF - 6" HDPE @ 1.50%
41.7 LF - 6" HDPE @ 0.89%
10.7 LF - 6" HDPE @ 1.50%
RD-125
1.9 LF - 6" HDPE @ 1.50%
30.9 LF - 6" HDPE @ 0.89%
7.7 LF - 6" HDPE @ 1.50%
RD-126
RD-127
8.7 LF - 6" HDPE @ 1.50%
4.2 LF - 6" HDPE @ 0.00%
1.9 LF - 6" HDPE @ 1.50%
12.8 LF - 6" HDPE @ 0.89%
CB-117
CLEANOUT
BILLINGS STREET
TOWN LAYOUT #6904
PUBLIC 40' WIDE
8" VCP SEWER
MHSA
RIM:146.5
INV. A:140.1
INV. B:140.3
INV. C:140.2
RIM:146.3
INV. A:142.1
INV. B:141.7
RIM:146.4
INV. A:142.1
INV. B:141.7
RIM:146.3
INV. A:142.1
INV. B:141.7
RIM:146.4
INV. A:142.1
INV. B:141.7
RIM:146.4
INV. A:142.1
INV. B:141.7
RIM:146.4

Structure Table	
Structure Name	Structure Details
AD-101	RIM = 151.47 INV OUT = 148.43
AD-102	RIM = 146.80 INV OUT = 144.75
AD-103	RIM = 143.65 INV OUT = 138.85
AD-104	RIM = 140.80 INV OUT = 138.75
AD-105	RIM = 145.35 INV OUT = 143.30
AD-106	RIM = 144.98 INV OUT = 142.15
AD-107	RIM = 140.90 INV OUT = 138.85
AD-108	RIM = 142.84 INV OUT = 140.00
CB-101	RIM = 151.27 INV OUT = 149.22
CB-102	RIM = 151.08 INV IN = 148.86 INV OUT = 148.76
CB-104	RIM = 151.02 INV OUT = 148.97
CB-105	RIM = 151.17 INV OUT = 149.12
CB-106	RIM = 150.00 INV OUT = 147.95
CB-107	RIM = 151.84 INV OUT = 149.79
CB-108	RIM = 148.87 INV OUT = 146.82
CB-110	RIM = 149.11 INV OUT = 147.06
CB-111	RIM = 148.74 INV OUT = 146.07
CB-112	RIM = 150.79 INV OUT = 148.74
CB-113	RIM = 149.89 INV OUT = 147.49
CB-114	RIM = 149.73 INV OUT = 147.68
CB-115	RIM = 150.87 INV OUT = 148.82
CB-116	RIM = 150.12 INV IN = 148.07 INV OUT = 147.97
CB-117	RIM = 145.92 INV OUT = 143.76
CB-118	RIM = 141.02 INV OUT = 138.96
CB-119	RIM = 145.17 INV OUT = 143.12
CB-120	RIM = 143.12 INV IN = 140.49 INV OUT = 139.73
CB-121	RIM = 142.24 INV OUT = 140.19
CB-122	RIM = 143.41 INV IN = 139.77 INV OUT = 139.67
CB-123	RIM = 140.68 INV OUT = 138.62
CB-124	RIM = 144.72 INV OUT = 142.67
CB-125	RIM = 144.70 INV IN = 142.57 INV OUT = 142.47
CB-126	RIM = 140.78 INV OUT = 138.73
CB-127	RIM = 142.18 INV IN = 138.31 INV OUT = 138.21
CB-128	RIM = 142.27 INV IN = 139.95 INV OUT = 139.85
CB-129	RIM = 141.99 INV OUT = 139.94

Structure Table	
Structure Name	Structure Details
CB-130	RIM = 140.61 INV OUT = 138.56
CB-131	RIM = 139.18 INV OUT = 137.13
CB-132	RIM = 144.31 INV OUT = 142.26
DMH-101	RIM = 150.22 INV IN = 147.15 INV IN = 147.62 INV OUT = 147.05
DMH-102	RIM = 150.78 INV IN = 147.85 INV IN = 148.73 INV IN = 148.72 INV IN = 147.60 INV OUT = 147.50
DMH-103	RIM = 150.55 INV IN = 148.43 INV IN = 148.50 INV OUT = 148.33
DMH-104	RIM = 148.37 INV IN = 146.19 INV IN = 141.04 INV IN = 146.16 INV OUT = 140.94
DMH-105	RIM = 148.19 INV IN = 142.10 INV OUT = 142.00
DMH-106	RIM = 149.42 INV IN = 147.01 INV IN = 147.37 INV IN = 147.09 INV OUT = 146.91
DMH-107	RIM = 148.61 INV IN = 140.58 INV IN = 140.58 INV OUT = 140.48
DMH-108	RIM = 144.15 INV IN = 140.27 INV IN = 140.00 INV OUT = 139.98
DMH-109	RIM = 141.07 INV IN = 138.30
DMH-120	RIM = 148.11 INV IN = 144.90 INV OUT = 143.90
DMH-201	RIM = 144.99 INV IN = 142.92 INV OUT = 142.80
DMH-202	RIM = 143.99 INV IN = 140.10 INV IN = 139.99 INV OUT = 139.89
DMH-203	RIM = 141.06 INV IN = 138.91 INV IN = 138.51 INV IN = 138.35 INV OUT = 137.98
DMH-204	RIM = 142.53 INV IN = 137.33 INV IN = 139.20 INV IN = 138.43 INV OUT = 137.23
DMH-205	RIM = 142.77 INV IN = 138.08 INV IN = 138.89 INV OUT = 137.98
DMH-206	RIM = 143.45 INV IN = 137.10 INV OUT = 137.00
DMH-207	RIM = 142.57 INV IN = 137.84 INV IN = 136.34 INV IN = 138.07 INV IN = 139.22 INV OUT = 136.71
DMH-208	RIM = 142.30 INV IN = 139.79 INV IN = 138.12 INV OUT = 138.02
DMH-209	RIM = 141.46 INV OUT = 132.60
DMH-210	RIM = 144.09 INV IN = 135.55 INV IN = 132.20 INV OUT = 132.21
DMH-211	RIM = 143.15 INV IN = 131.09 INV OUT = 131.10
DMH-212	RIM = 139.46 INV IN = 130.52 INV IN = 132.99 INV OUT = 130.53
HDS-101	RIM = 148.70 INV IN = 146.13 INV IN = 146.57 INV IN = 145.73 INV OUT = 144.34
HDS-102	RIM = 148.64 INV IN = 140.23 INV IN = 145.61 INV IN = 143.67 INV OUT = 140.13
HDS-103	RIM = 144.57 INV IN = 136.80 INV IN = 142.32 INV IN = 142.52 INV OUT = 136.70
HDS-104	RIM = 143.31 INV IN = 136.60 INV IN = 136.70 INV OUT = 136.60
HDS-105	RIM = 144.21 INV IN = 142.14 INV OUT = 141.14
HDS-201	RIM = 151.62 INV IN = 147.74 INV IN = 144.61 INV OUT = 144.51
INF-101	RIM = 145.60 INV IN = 144.26
INF-102	RIM = 142.72 INV OUT = 140.00
INF-103	RIM = 145.35 INV IN = 144.25
INF-104	RIM = 141.17 INV IN = 140.07

Structure Table	
Structure Name	Structure Details
OCS-101	RIM = 149.66 INV IN = 139.93 INV OUT = 141.19
OCS-102	RIM = 143.42 INV IN = 135.95 INV OUT = 135.85
OCS-103	RIM = 143.58 INV IN = 135.20 INV OUT = 133.61
OUTLET	RIM = 136.30 INV IN = 130.50
RD-101	RIM = 148.08 INV OUT = 147.52
RD-102	RIM = 147.50 INV OUT = 146.93
RD-103	RIM = 147.07 INV OUT = 146.50
RD-104	RIM = 147.29 INV OUT = 146.72
RD-105	RIM = 145.99 INV OUT = 145.42
RD-106	RIM = 145.41 INV OUT = 144.84
RD-107	RIM = 145.37 INV OUT = 144.80
RD-108	RIM = 145.02 INV OUT = 144.45
RD-109	RIM = 144.30 INV OUT = 143.73
RD-110	RIM = 143.67 INV OUT = 143.10
RD-111	RIM = 143.30 INV OUT = 142.73
RD-112	RIM = 143.10 INV OUT = 142.53
RD-113	RIM = 142.63 INV OUT = 142.06
RD-114	RIM = 142.33 INV OUT = 141.76
RD-115	RIM = 145.31 INV OUT = 144.74
RD-116	RIM = 145.00 INV OUT = 144.43
RD-117	RIM = 144.72 INV OUT = 144.15
RD-118	RIM = 144.33 INV OUT = 143.76
RD-119	RIM = 144.02 INV OUT = 143.45
RD-120	RIM = 143.65 INV OUT = 143.08
RD-121	RIM = 143.62 INV OUT = 143.05
RD-122	RIM = 143.59 INV OUT = 143.02
RD-123	RIM = 143.12 INV OUT = 142.55
RD-124	RIM = 142.71 INV OUT = 142.14
RD-125	RIM = 142.34 INV OUT = 141.77
RD-126	RIM = 142.01 INV OUT = 141.45
RD-127	RIM = 141.89 INV OUT = 141.32

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX

The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

Issued/Revision	YYYY.MM.DD
3 50% CONSTRUCTION DOCUMENTS	2024.02.16
2 DESIGN DEVELOPMENT	2023.12.15
1 SCHEMATIC DESIGN	2023.10.06

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

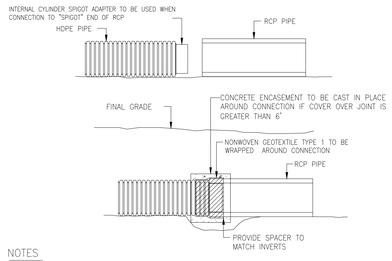
Scale	AS NOTED
Project No.	78000

DRAINAGE PLAN 4

C5.4

Z:\Shared\Projects\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C5.0 Drainage Plan.dwg Thursday, February 15, 2024 9:23:44 AM
Copyright: 2024 The Vertex Companies, Inc.
Plotted By: Jason Ford

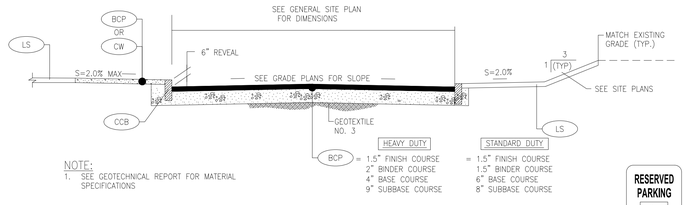
© 2018 Stantec



NOTES

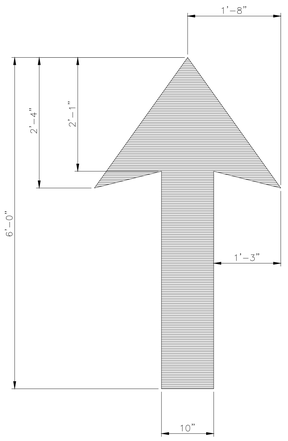
1. INTERNAL CYLINDER ADAPTER TO BE WELDED TO HDPE, OUTSIDE DIAMETER TO BE INSERTED TO INSIDE DIAMETER OF CONCRETE PIPE.
2. NON-WOVEN GEOTEXTILE TO BE WRAPPED AROUND CONNECTION WITH FULL SEAM OVERLAP TO PROVIDE FULL PROTECTION FROM SOIL INTRUSION.
3. CONNECTION TO BE MADE IN ACCORDANCE WITH PIPE MANUFACTURER'S REQUIREMENTS.
4. INTERNAL CYLINDER SPIGOT ADAPTER NOT REQUIRED IF HDPE IS CONNECTED TO "BELL" END OF RCP.

HDPE/RCP PIPE JOINT ①
NOT TO SCALE

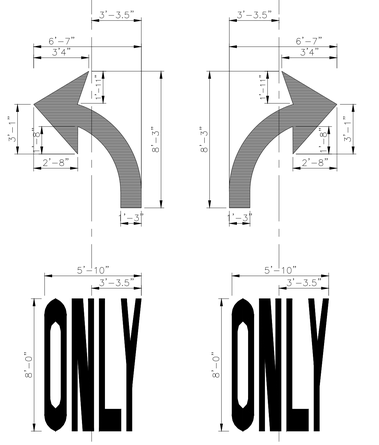


NOTE:
1. SEE GEOTECHNICAL REPORT FOR MATERIAL SPECIFICATIONS

BCP TYPICAL BITUMINOUS CONCRETE PAVEMENT SECTIONS ⑦
NOT TO SCALE

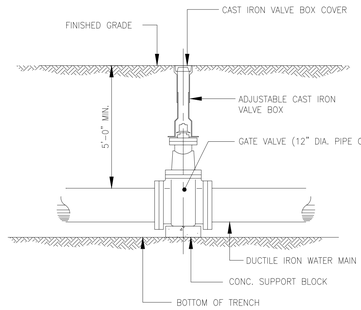


DIRECTIONAL ARROW PAVEMENT MARKINGS ②
NOT TO SCALE
STRIPING SHOULD BE EPOXY RESIN AND WHITE IN COLOR

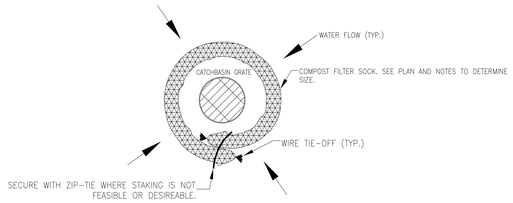


PAVEMENT MARKING ③
NOT TO SCALE

PAVEMENT MARKING ④
NOT TO SCALE

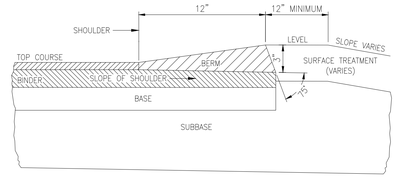


VALVE BOX ⑤
NOT TO SCALE

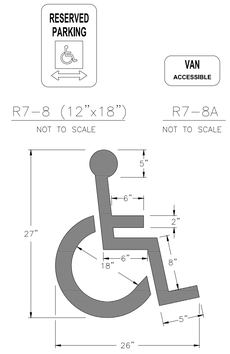


NOTES:
1. OVERLAP ENDS OF SOCK PER MANUFACTURERS RECOMMENDATIONS – ONE FOOT MINUMUM, 3 FEET MAXIMUM.
2. USE 8"-12" DIA. SOCK IN CURBSIDE OR TRAFFICED AREAS.
3. USE 12"-18" DIA. SOCK IN NON-TRAFFICED AREAS.
4. INSPECT AND MAINTAIN THROUGHOUT CONSTRUCTION.
5. SOCK AND COMPOST MATERIAL TO BE REMOVED FROM SITE WHEN CONSTRUCTION IS COMPLETE.

INLET PROTECTION ⑥
NOT TO SCALE



BB HOT MIX ASPHALT BERM ⑧
NOT TO SCALE

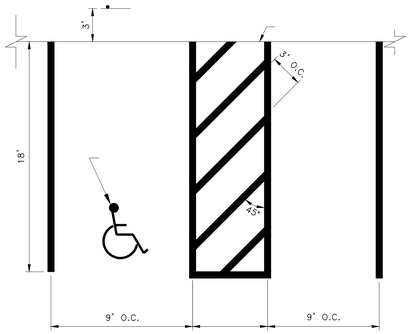


R7-8 (12"x18") NOT TO SCALE

R7-8A NOT TO SCALE

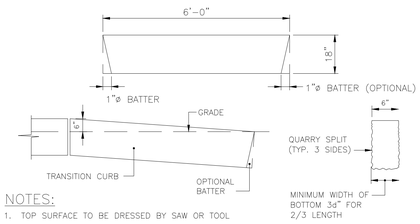
NOTE:
1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN CONFORMANCE WITH THE RULES & REGULATIONS OF THE ARCHITECTURAL BARRIERS BOARD & A.D.A.

SHP HANDICAP PAVEMENT MARKING ⑨
NOT TO SCALE



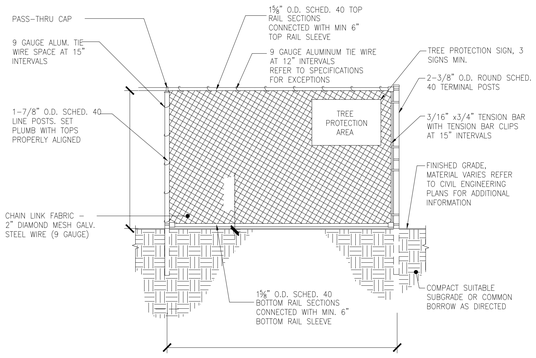
NOTE:
1. WHERE STALLS ABUT SIDEWALK, PARKING SIGNS SHOULD BE PLACED AT BACK EDGE OF SIDEWALK.
2. STRIPING SHOULD BE WHITE IN COLOR

SHP VAN HANDICAP PARKING STALLS @ 90° ⑩
NOT TO SCALE



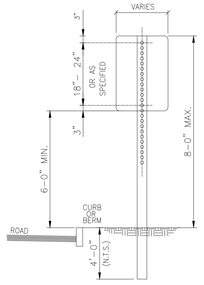
NOTES:
1. TOP SURFACE TO BE DRESSED BY SAW OR TOOL
2. GRANITE CURB SHALL CONFORM TO M.H.D. STD. SPECIFICATION MATERIALS SECTION M9.04.1 GRANITE CURB, TYPE VA4.

6' GRANITE TRANSITION CURB ⑪
NOT TO SCALE



NOTE:
1. FOR TREE PROTECTION ONLY, SEE CIVIL PLANS FOR LOCATION.
2. FENCE POST TO BE BURIED 2 FEET BELOW GRADE.
3. ADJUST POST LOCATIONS IN THE FIELD ACCORDING TO LOCATION OF TREE ROOTS.
4. PROTECTION FENCING LOCATED ON SIDEWALKS AS SHOWN ON THE PLANS SHALL HAVE CONCRETE BLOCKS.
5. INSTALLATION TO BE APPROVED BY TOWN TREE WARDEN AND LANDSCAPE ARCHITECT

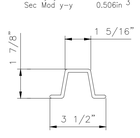
6 FOOT CHAIN LINK TREE PROTECTION FENCE ⑫



NOTE:
5/16" x 2-1/2" GALVANIZED BOLTS & WASHERS

STEEL SPECIFICATION – A.S.T.M. DESIGNATION A499-64 ZINC (HOT GALVANIZED) SPECIFIED BY- A.S.T.M. A 123.

WT./FT.	3.00 #
Mom. Ix-x	0.484in 4
Sec Mod x-x	0.569in 3
Mon Iy-y	0.886in 4
Sec Mod y-y	0.506in 3

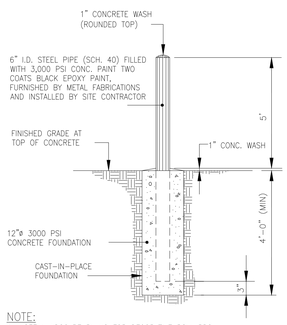


PARKING SIGNS SHALL BE SET AT AN ANGLE OF NOT LESS THAN 30° NOR MORE THAN 45° A LINE PARALLEL TO THE FLOW OF TRAFFIC.

SIGN MOUNTING NOTES:
1. ALL LAG SCREWS, BOLTS AND WASHERS SHALL BE GALVANIZED 5/16"x2 1/2" LONG UNLESS OTHERWISE NOTED.
2. WASHERS SHALL BE 0.07" THICK. 3. ALL SIGN COLORS, RADII AND BORDERS AS SPECIFIED IN "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

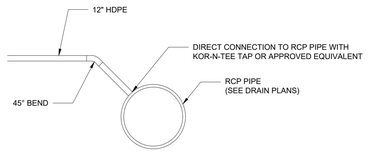
HANDICAP SIGN NOTES:
1. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN CONFORMANCE WITH THE RULES & REGULATIONS AS SPECIFIED BY THE AMERICAN DISABILITIES ACT (ADA)
2. SIGN(S) SHALL BE LOCATED SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
3. FOR HANDICAPPED VAN SPACE, USE SIGN AS DETAILED.
4. FOR HANDICAPPED SPACE FOR AUTOMOBILES, USE ONLY HANDICAPPED PARKING SIGN. (WITHOUT ADDITIONAL "VAN ACCESSIBLE" SIGN)

SIGN MOUNTING DETAIL ⑬

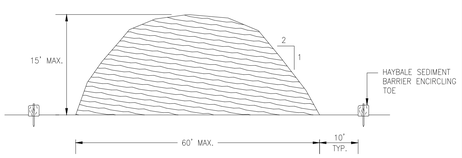


NOTE:
1. SEE LANDSCAPE PLANS FOR DECORATIVE BOLLARDS.
2. SITE CONTRACTOR IS RESPONSIBLE FOR INSTALLING CONCRETE BOLLARDS.
3. SIX FOOT MINIMUM CLEARANCE FROM FRONT OF PAD.
4. BOLLARDS SHALL BE SUPPORTED WITH A 12" MIN. DIA. CONCRETE FOTTING 6" BELOW GRADE TO BASE OF THE BOLLARD.
5. FOR INSTALLATIONS AROUND OIL CONTAINMENT CURBS, INSTALL BOLLARDS SIX FEET MIN. ON ALL APPLICABLE SIDES.

CONCRETE BOLLARD ⑭
NOT TO SCALE



DIRECT CONNECTION DETAIL ⑮
NOT TO SCALE



NOTES:
1. STOCKPILE AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM ENGINEER.
2. STOCKPILED ERODIBLE MATERIAL THAT WILL NOT BE USED FOR GREATER THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR COVERED IMMEDIATELY FOLLOWING PLACEMENT.
3. NO STOCKPILE SHALL BE PLACED WITHIN THE 100 FOOT WETLAND BUFFER.

ERODIBLE MATERIAL STOCKPILE ⑯
NOT TO SCALE

NOTE:
ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.

Stantec
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant
VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	30% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

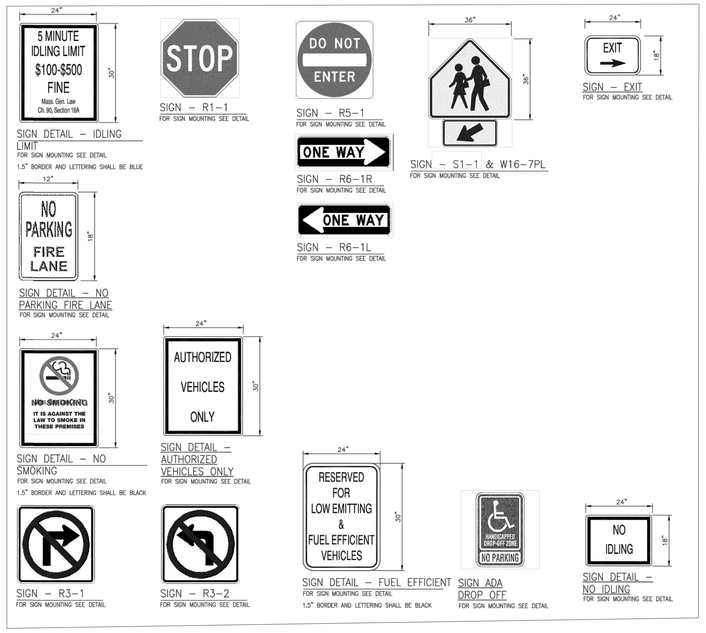
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

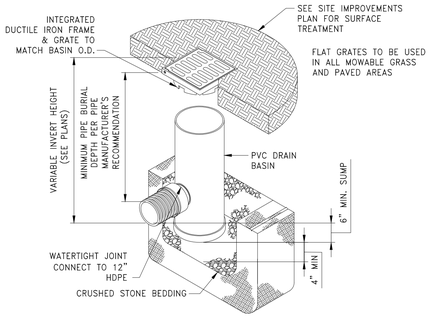
SITE DETAILS 1

C6.1

Z:\Shared\Projects\78000-78999\78000-78099\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C6.0 Details.dwg Thursday, February 15, 2024 9:23:56 AM
Copyright: 2024 The Vertex Companies, Inc.
Last saved by: JEFFREY.BOUDREAU
© 2018 Stantec



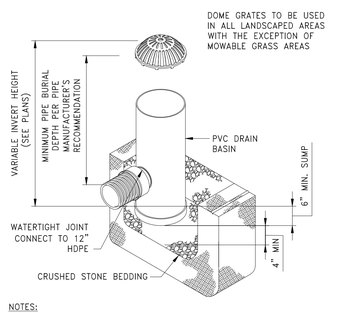
TYPICAL MISCELLANEOUS SIGNS ①
NOT TO SCALE



NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05 AND ADA COMPLIANT
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

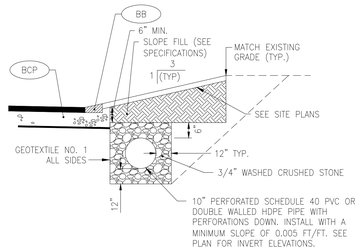
AD 12" AREA DRAIN BASIN ②
NOT TO SCALE



NOTES:

1. DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

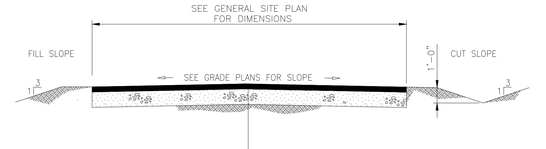
AD 12" AREA DRAIN BASIN WITH DOME GRATE ③
NOT TO SCALE



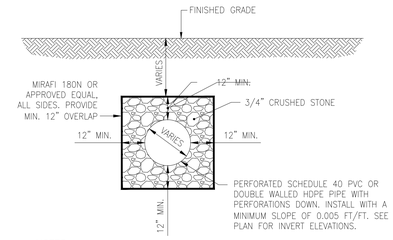
NOTES:

1. SEE UNDERDRAIN PLANS FOR LOCATION OF UNDERDRAIN.
2. SEE GRADING PLAN 2 FOR LOCATION AND EXTENT OF SLOPE FILL.
3. OVERLAP GEOTEXTILE NO. 1 A MINIMUM OF 1 FOOT.
4. DISTURBED AND REMOVED MATERIAL FROM EXISTING SLOPE SHALL BE REPLACED WITH GRANULAR FILL UNLESS OTHERWISE APPROVED BY THE ENGINEER.

SLOPE UNDERDRAIN ④
NOT TO SCALE



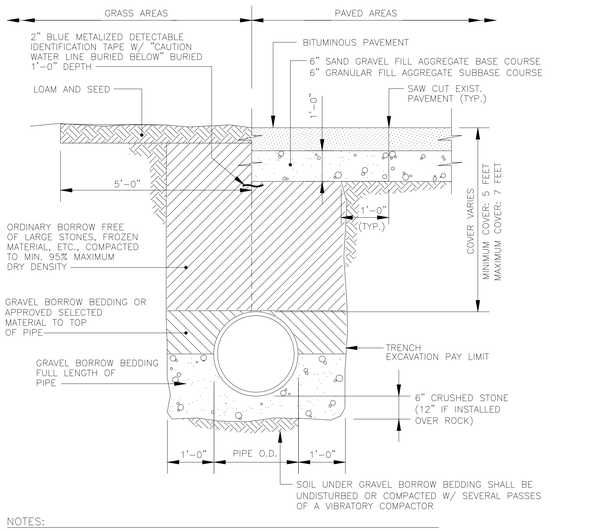
BCP TYPICAL TEMPORARY ACCESS ROAD PAVEMENT SECTION ⑤
NOT TO SCALE



NOTES:

1. PIPE SHALL BE PERFORATED SDR–35 PVC UNDER LANDSCAPED AREAS AND PERFORATED SCHEDULE 40 PVC UNDER PAVED AREAS UNLESS OTHERWISE SPECIFIED.
2. SEE UNDERDRAIN PLANS FOR PIPE SIZES, LOCATIONS AND INVERTS.
3. PIPE PERFORATIONS SHALL BE DOWN.

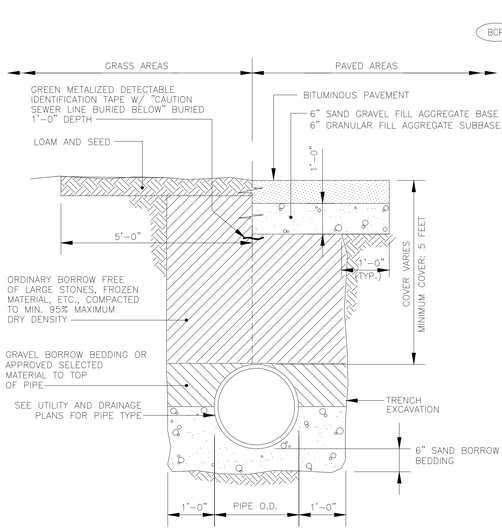
UNDERDRAIN ⑥
NOT TO SCALE



NOTES:

1. FOR PIPE INSTALLATION IN ROCK OR LEDGE MINIMUM TRENCH WIDTH SHOULD EQUAL THE DIAMETER OF THE PIPE PLUS 18 INCHES ON EACH SIDE.
2. MINIMUM WIDTH OF TRENCH SHOULD BE 3 FEET.
3. PLACE 6" OF DRAINAGE STONE FROM BASE OF TRENCH TO TOP OF PIPE IF PIPE IS INSTALLED BELOW SEASONAL HIGH GROUND WATER TABLE.

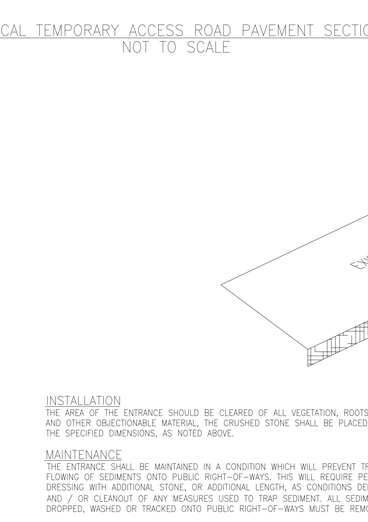
TYPICAL WATER MAIN TRENCH ⑦
NOT TO SCALE



NOTES:

1. FOR PIPE INSTALLATION IN ROCK OR LEDGE MINIMUM TRENCH WIDTH SHOULD EQUAL THE DIAMETER OF THE PIPE PLUS 18 INCHES ON EACH SIDE.
2. MINIMUM WIDTH OF TRENCH SHOULD BE 3 FEET.
3. PLACE 6" OF DRAINAGE STONE FROM BASE OF TRENCH TO TOP OF PIPE IF PIPE IS INSTALLED BELOW SEASONAL HIGH GROUND WATER TABLE.

TYPICAL ONSITE SEWER TRENCH ⑧
NOT TO SCALE

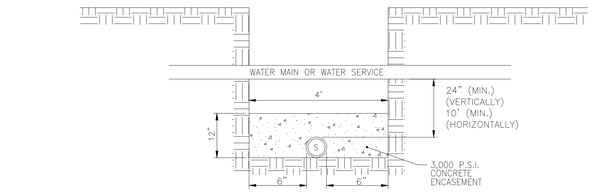


INSTALLATION
THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE CRUSHED STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS, AS NOTED ABOVE.

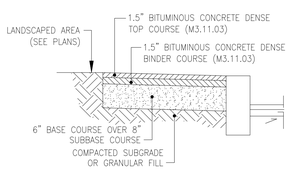
MAINTENANCE
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHT–OF–WAYS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, OR ADDITIONAL LENGTH, AS CONDITIONS DEMAND, AND REPAIR, AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT–OF–WAYS MUST BE REMOVED IMMEDIATELY.

LOCATION
SEE PROJECT PLANS FOR LOCATION OF CONSTRUCTION ENTRANCE. EXISTING SIDEWALK SHALL BE MAINTAINED INTACT AND FREE OF SEDIMENT FOR THE DURATION OF CONSTRUCTION.

CONSTRUCTION ENTRANCE PROTECTION STONE STABILIZATION PAD ⑨
NOT TO SCALE

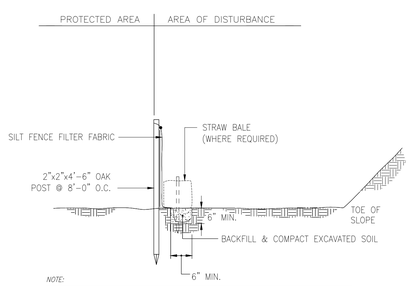


MINIMUM DISTANCES FOR SEWER AND WATER LINE CROSSINGS ⑩
NOT TO SCALE



NOTE:
ASPHALT EMULSION TACK COAT (M3.03.3) TO BE APPLIED BETWEEN BITUMINOUS LAYERS

BCW BITUMINOUS CONCRETE WALK ⑪
NOT TO SCALE



NOTE:
SILT FENCE FABRIC SHALL NOT BE SLIT. STRAW BALE POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC.

SILT FENCE ⑫
NOT TO SCALE

NOTE:
ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.

Stantec
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant
VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
	Issued/Revision	YYYY.MM.DD

Permit/Seal

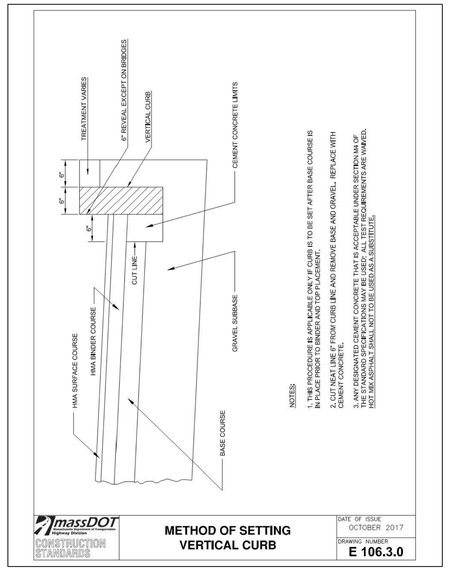
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

SITE DETAILS 3

C6.2

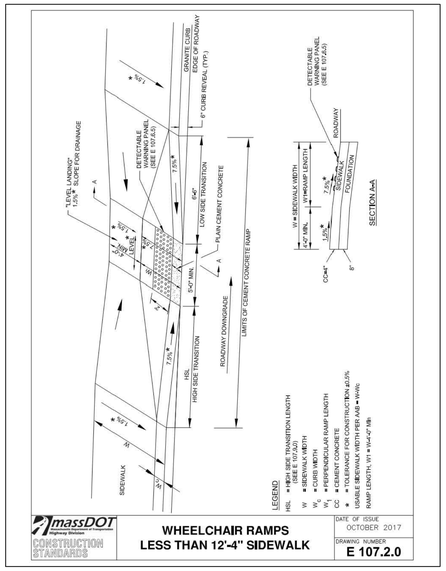
Z:\Shared\Projects\78000-78999\78000-78999\78000-78999\78000.05 Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C6.0 Details.dwg Thursday, February 15, 2024 9:23:54 AM
Copyright 2024 The Vertex Companies, Inc.
Copyright 2018 Stantec
© 2018 Stantec



MassDOT Highway Division — CONSTRUCTION STANDARDS

METHOD OF SETTING VERTICAL CURB

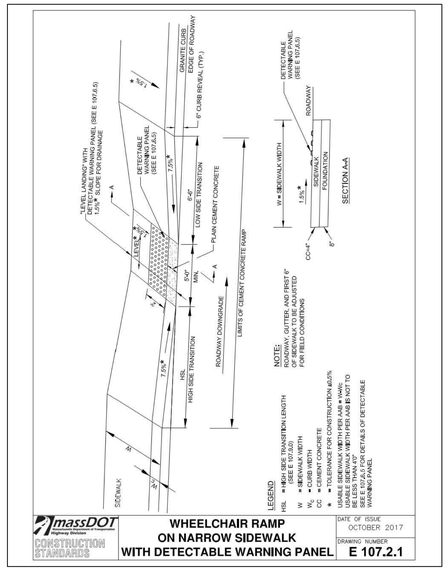
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 106.3.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK

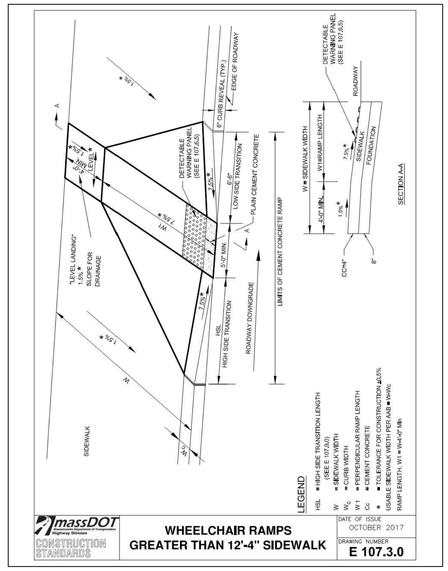
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.2.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

WHEELCHAIR RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL

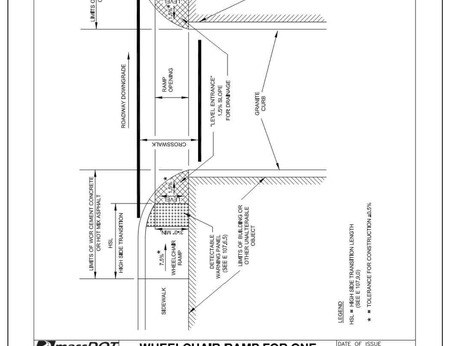
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.2.1**



MassDOT Highway Division — CONSTRUCTION STANDARDS

WHEELCHAIR RAMPS GREATER THAN 12'-4" SIDEWALK

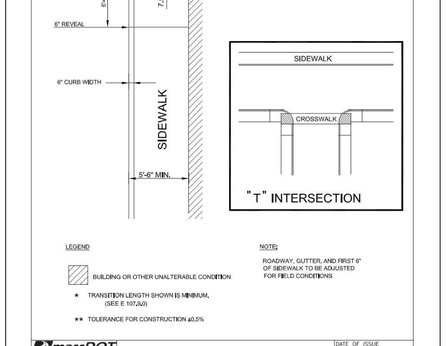
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.3.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.6.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

"T" INTERSECTION WHEELCHAIR RAMP

DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.6.4**

* HIGH SIDE TRANSITION LENGTH	ENGLISH UNITS
	6'-6"
	7'-8"
	9'-0"
	11'-0"
	14'-0"
	15'-0" Max

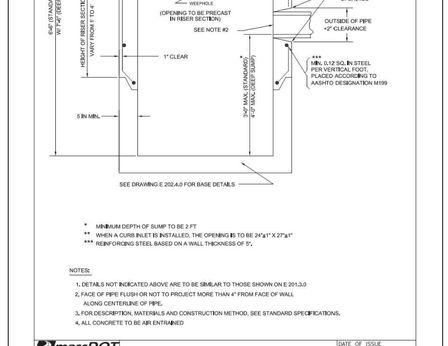
ROADWAY PROFILE GRADE	%
	=0%
	>0% TO 1%
	>1% TO 2%
	>2% TO 3%
	>3% TO 4%
	>4% TO 5%

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

MassDOT Highway Division — CONSTRUCTION STANDARDS

CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS

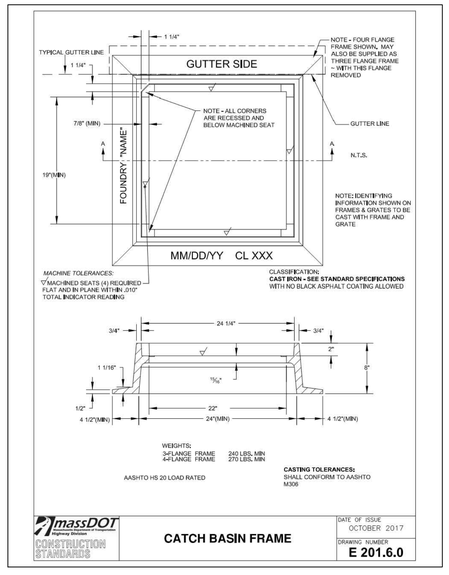
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 107.9.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

PRECAST CONCRETE CATCH BASIN

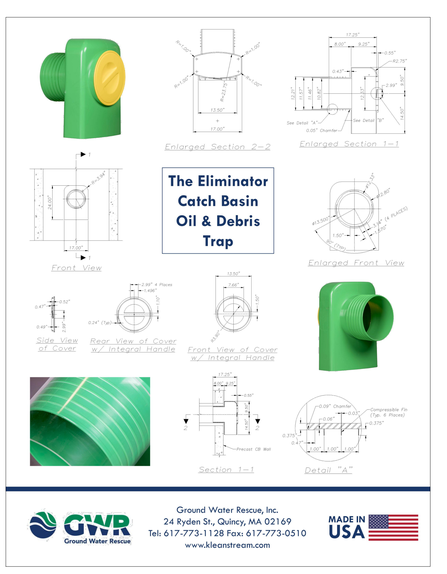
DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 201.4.0**

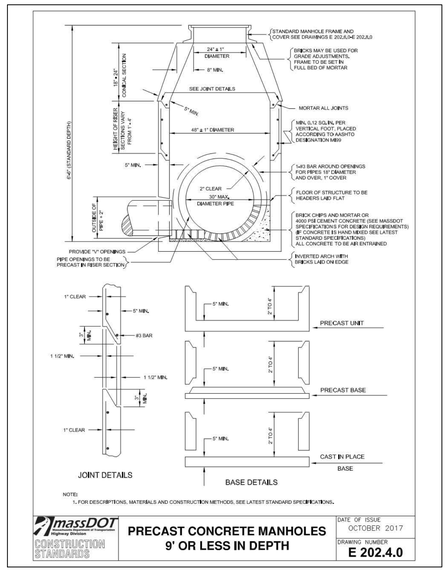


MassDOT Highway Division — CONSTRUCTION STANDARDS

CATCH BASIN FRAME

DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 201.6.0**

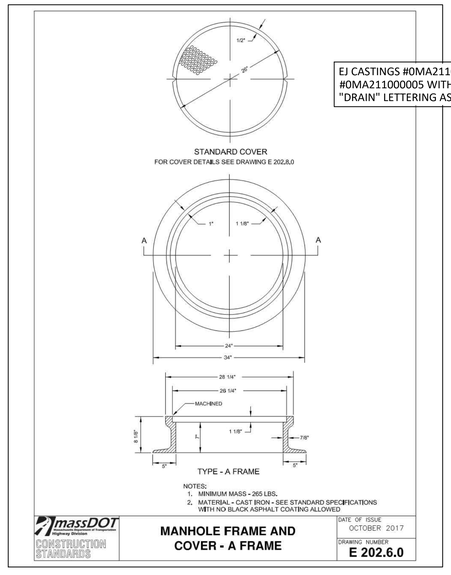




MassDOT Highway Division — CONSTRUCTION STANDARDS

PRECAST CONCRETE MANHOLES 9' OR LESS IN DEPTH

DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 202.4.0**



MassDOT Highway Division — CONSTRUCTION STANDARDS

MANHOLE FRAME AND COVER - A FRAME

DATE OF ISSUE: OCTOBER 2017
DRAWING NUMBER: **E 202.6.0**

NOTE:
ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.

Stantec
Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

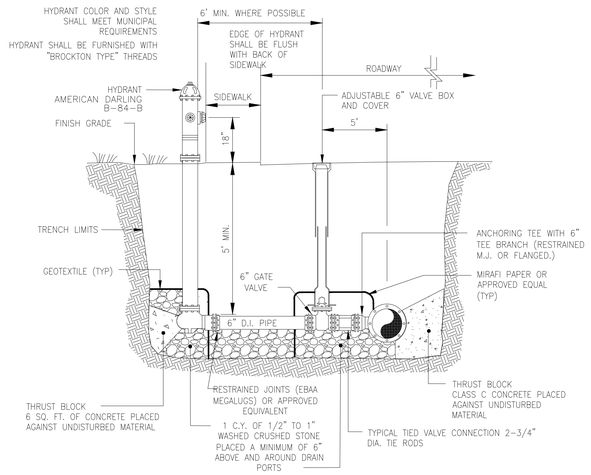
PRELIMINARY NOT FOR CONSTRUCTION

Scale: AS NOTED
Project No.: 78000

SITE DETAILS 3

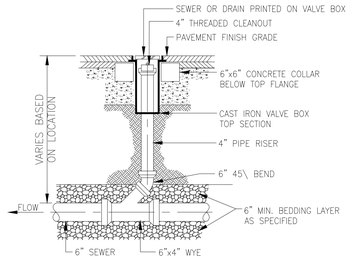
C6.3

Z:\Shared\Projects\78000-78999\78000-78999\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C6.0 Details.dwg Thursday, February 15, 2024 9:24:02 AM
Copyright: 2024 The Vertex Companies, Inc.
Plotted by: Richard Lee
© 2018 Stantec



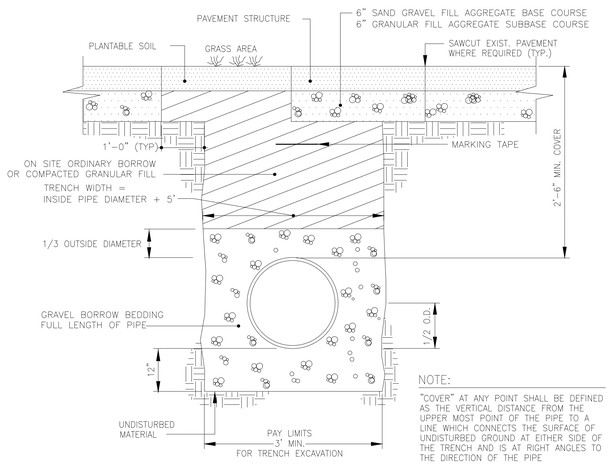
HYDRANT DETAIL ①

NOT TO SCALE



PIPE CLEANOUT DETAIL ②

NOT TO SCALE

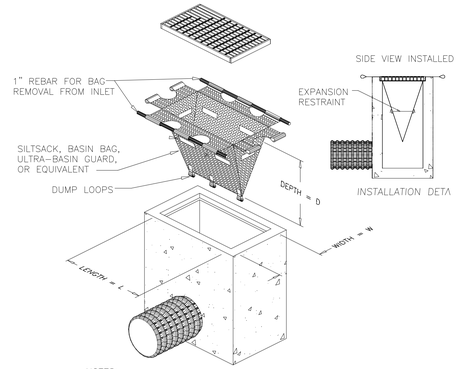


TYPICAL TRENCH FOR DRAINAGE INSTALLATION ③

NOT TO SCALE

NOTE:

"COVER" AT ANY POINT SHALL BE DEFINED AS THE VERTICAL DISTANCE FROM THE UPPER MOST POINT OF THE PIPE TO A LINE WHICH CONNECTS THE SURFACE OF UNDISTURBED GROUND AT EITHER SIDE OF THE TRENCH AND IS AT RIGHT ANGLES TO THE DIRECTION OF THE PIPE.

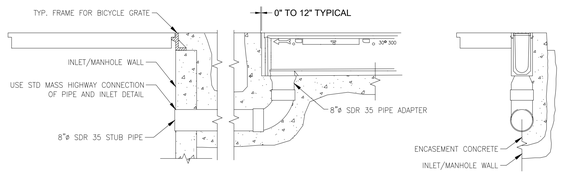


NOTES:

1. INLET PROTECTION SHALL BE CLEANED OF SILT AND DEBRIS ON A REGULAR BASIS AS REQUIRED BY PROJECT SPECIFIC SWPPP.
2. INSPECTIONS SHALL BE DONE AFTER EACH RAIN EVENT AND AS REQUIRED BY PROJECT SPECIFIC SWPPP.

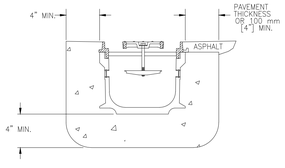
SS INLET PROTECTION DETAIL ④

NOT TO SCALE



STANDARD INSTALLATION DETAIL

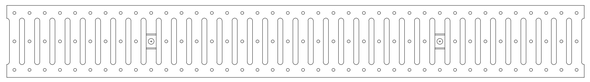
6" WIDE CHANNEL



PRESLOPED TRENCH DRAIN

TYPICAL INSTALLATION

TYPICAL PRE-MOLDED, PRE-SLOPED TRENCH DRAIN



TYPICAL GRATE

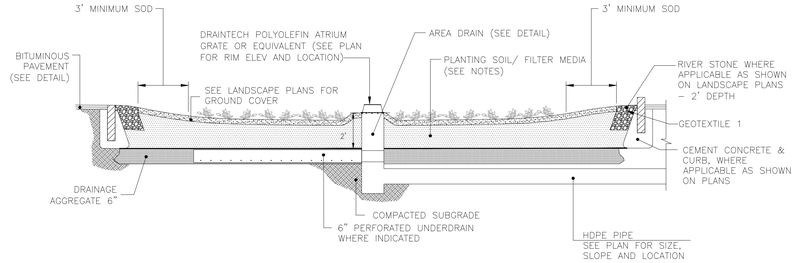
NOTE: GRATE SHALL BE LOCKABLE, HEEL-PROOF, ADA COMPLIANT, AND APPROVED BY LANDSCAPE ARCHITECT.

NOTES:

1. TRENCH DRAIN SYSTEM SHALL BE CAPABLE OF A MINIMUM HYDRAULIC FLOW OF 650 GPM.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF PROPOSED TRENCH DRAIN LAYOUT. ACCEPTABLE PRODUCTS FOR THIS APPLICATION INCLUDE POLYDRAIN BY ABT INC., SPORT SYSTEM 4000, KLASSIKDRAIN, OR POWERDRAIN BY ACO, DURASLOPE BY NDS, OR APPROVED EQUIVALENT.
3. TRENCH DRAIN SHALL HAVE MINIMUM SLOPE OF 0.6%.
4. AT ACCESSIBLE ROUTES, GRATE OPENINGS SHALL NOT EXCEED ½" AND ELONGATED OPENINGS MUST BE PERPENDICULAR TO THE PRIMARY PATH OF TRAVEL

TRENCH DRAIN ⑤

NOT TO SCALE

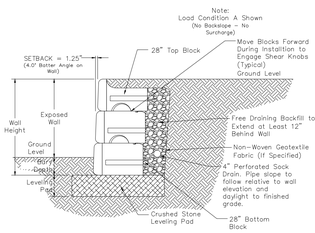


BIORETENTION AREA DETAIL ⑦

NOT TO SCALE

BIO-RETENTION AREA NOTES :

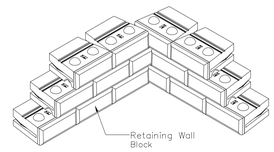
1. FOR PLANTING SOIL/FILTER MEDIA AND BARK MULCH SPECIFICATIONS, REFER TO LANDSCAPE SPECIFICATIONS



TYPICAL SECTION-REINFORCED RETAINING WALL

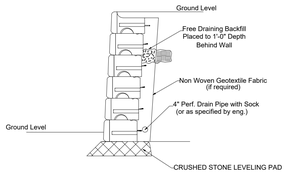
MODULAR CONCRETE UNIT

SCALE: NONE



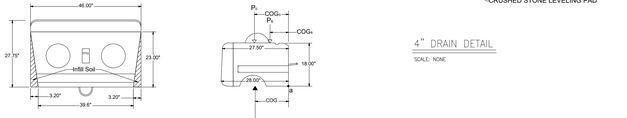
90° INSIDE CORNER (41" AND 28" SERIES)

SCALE: NONE



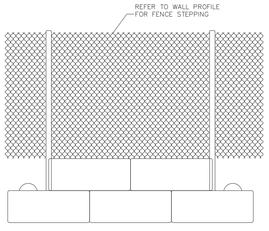
4" DRAIN DETAIL

SCALE: NONE



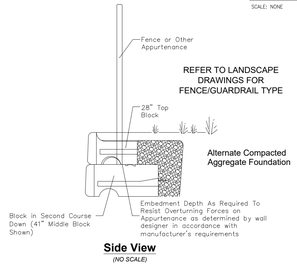
28" MIDDLE BLOCK FOR SRWALL

SCALE: NONE



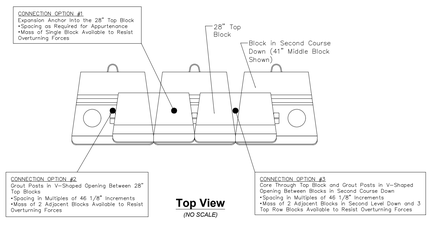
Front View

(NO SCALE)



Side View

(NO SCALE)



Top View

(NO SCALE)

SEGMENTAL RETAINING WALL DETAIL ⑥

NOT TO SCALE

1. RETAINING WALLS SHALL BE REDI-ROCK, OR STRONG STONE, RE-CON RETAINING WALL SYSTEMS, INC., SERIES 50, NORTH SHORE GRANITE TEXTURE OR EQUIVALENT

2. THESE DETAILS ARE FOR REFERENCE PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS COMPLETED AND STAMPED BY A MASSACHUSETTS REGISTERED STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL INCLUDE ALL DETAILS AND INFORMATION NECESSARY FOR CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE STRUCTURAL ENGINEER ALL APPURTENANT INFORMATION FOR THEIR DESIGN AND CALCULATIONS.

NOTE:

ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

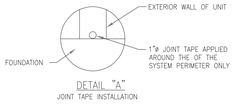
Scale AS NOTED

Project No. 78000

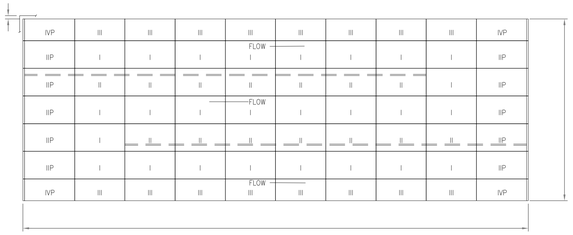
SITE DETAILS 4

C6.4

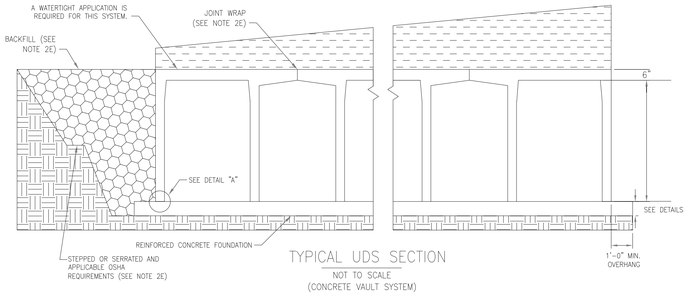
Z:\Shared\Projects\78000-78999\78000-78999\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C6.0 Details.dwg Thursday, February 15, 2024 9:24:06 AM
Copyright: 2024 The Vertex Companies, Inc.
Created by: Kevin J. Hall
© 2018 Stantec



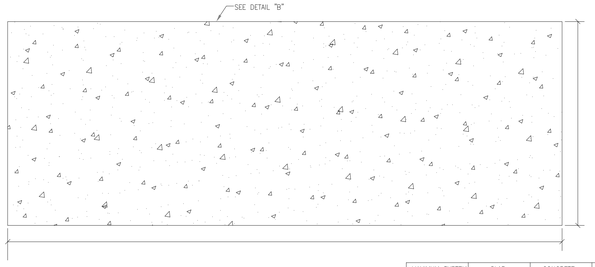
DETAIL "A"
JOINT TAPE INSTALLATION



TYPICAL UDS LAYOUT
NOT TO SCALE



TYPICAL UDS SECTION
NOT TO SCALE
(CONCRETE VAULT SYSTEM)



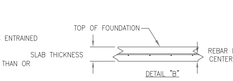
SYSTEM SPECIFICATION

1. MANUFACTURER SHALL BE STORMTRAP, LLC, UNITED CONCRETE PRODUCTS, CONCRETE SYSTEMS INC, OR APPROVED EQUIVALENT.
2. CONTRACTOR SHALL SUBMIT MANUFACTURERS SHOP DRAWINGS, INCLUDING PLANS, ELEVATIONS, SECTIONS, AND DETAILS, INDICATING LAYOUT, DIMENSIONS, FOUNDATION, COVER, AND JOINTS. INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET AND OUTLET PIPE OPENINGS.
3. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS INCLUDING STORMWATER VOLUME SIZING, STRUCTURAL CALCULATIONS, AND BUOYANCY CALCULATIONS.
4. TOTAL COVER: MIN. 2.25' MAX. 3.75' CONSULT MANUFACTURER FOR ADDITIONAL COVER OPTIONS.
5. THE SYSTEM SHALL BE WATER TIGHT.
6. CONCRETE CHAMBER SHALL BE DESIGNED FOR AASHTO HS-20 HIGHWAY LOADING. MIN. SOIL PRESSURE 2000 PSF.
7. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO UNIT INSTALLATION.
8. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE SHALL BE ASSUMED TO BE AT ELEVATION 18.62.
9. FOR STRUCTURAL CALCULATIONS THE SOIL DENSITY IS ASSUMED TO BE 120 PCF.
10. FOR FLOTATION CALCULATIONS THE GROUND WATER TABLE SHALL BE ASSUMED TO BE AT ELEVATION 18.62.
11. SYSTEM VOLUME =

UNDERGROUND CONCRETE VAULT DETENTION SYSTEM (UDS) ①
NOT TO SCALE

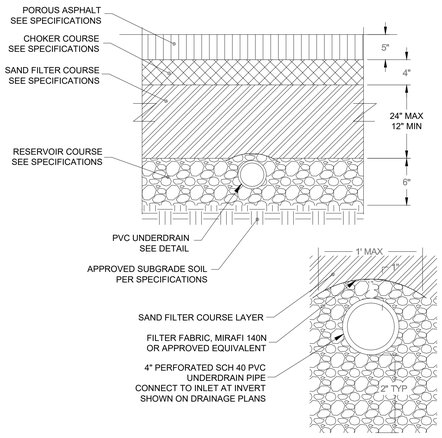
NOTES:

1. CONCRETE STRENGTH @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
2. NET ALLOWABLE SOIL PRESSURE GREATER THAN OR EQUAL TO 2000 PSF.
3. SOIL CONDITIONS TO BE VERIFIED ON SITE.
4. 1'-0" OVERHANG AROUND OUTSIDE OF SYSTEM.
5. REBAR: ASTM A-615 GRADE 60, BLACK BAR.
6. DIMENSION OF FOUNDATION MUST HAVE 1'-0" OVERHANG BEYOND EXTERNAL FACE OF UNITS.
7. DIMENSION OF SYSTEM ALLOW FOR A 3/4" GAP BETWEEN EACH UNIT.
8. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD.
9. THE CONTROL JOINTS CAN BE 16'-0" TO 24'-0" MAX APART.



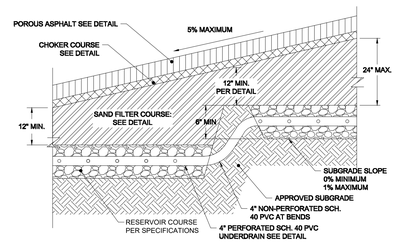
MAXIMUM SYSTEM COVER	SLAB THICKNESS	CONCRETE STRENGTH	REINFORCEMENT (BOTH DIRECTIONS)
6" – 1'-0"	8"	4000 psi	#4 @ 18" o.c.
>1'-0" – 2'-0"	8"	4000 psi	#4 @ 16" o.c.
>2'-0" – 3'-0"	8"	4000 psi	#4 @ 12" o.c.
>3'-0" – 4'-0"	8"	4000 psi	#4 @ 12" o.c.
>4'-0" – 5'-0"	8"	4000 psi	#5 @ 18" o.c.
>5'-0" – 6'-0"	8"	4000 psi	#5 @ 16" o.c.
>6'-0" – 7'-0"	8"	4000 psi	#5 @ 16" o.c.
>7'-0" – 8'-0"	9"	4000 psi	#5 @ 12" o.c.
>8'-0" – 9'-0"	10"	4000 psi	#5 @ 12" o.c.
>9'-0" – 10'-0"	10"	4500 psi	#5 @ 12" o.c.

TYPICAL UDS FOUNDATION PLAN ②
NOT TO SCALE
(CONCRETE VAULT SYSTEM)

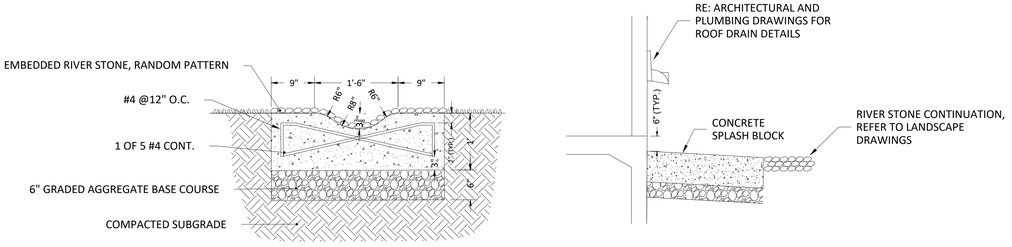


UNDERDRAIN
NOT TO SCALE

TYPICAL POROUS ASPHALT CROSS-SECTION ③
NOT TO SCALE



POROUS ASPHALT SUBBASE & UNDERDRAIN ⑤
NOT TO SCALE



CONCRETE SPLASH BLOCK ④
NOT TO SCALE

*NOTE: CONTRACTOR SHALL SUBMIT MOCKUP OF SPLASH BLOCK FOR APPROVAL BY THE LANDSCAPE ARCHITECT

NOTE:
ANY MANUFACTURER'S NAMES AND/OR MODEL NUMBERS IDENTIFIED HEREIN ARE INTENDED TO ASSIST IN ESTABLISHING A GENERAL LEVEL OF QUALITY, CONFIGURATION, FUNCTIONALITY, AND APPEARANCE REQUIRED. THIS IS NOT A PROPRIETARY SPECIFICATION AND IT SHOULD BE NOTED THAT "OR APPROVED EQUIVALENT" APPLIES TO ALL PRODUCTS DENOTED HEREIN. IT IS UNDERSTOOD THAT ALL MANUFACTURERS WILL HAVE MINOR VARIATIONS IN CONFIGURATION, APPEARANCE, AND PRODUCT SPECIFICATION TO ENCOURAGE OPEN AND COMPETITIVE INVOLVEMENT FROM MULTIPLE MANUFACTURERS THAT ARE ABLE TO SUPPLY SIMILAR PRODUCTS.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

VERTEX®
The Vertex Companies, LLC.
400 Libbey Parkway
Weymouth, MA 02189
PHONE 781.952.6000
www.vertexeng.com

Key Plan

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

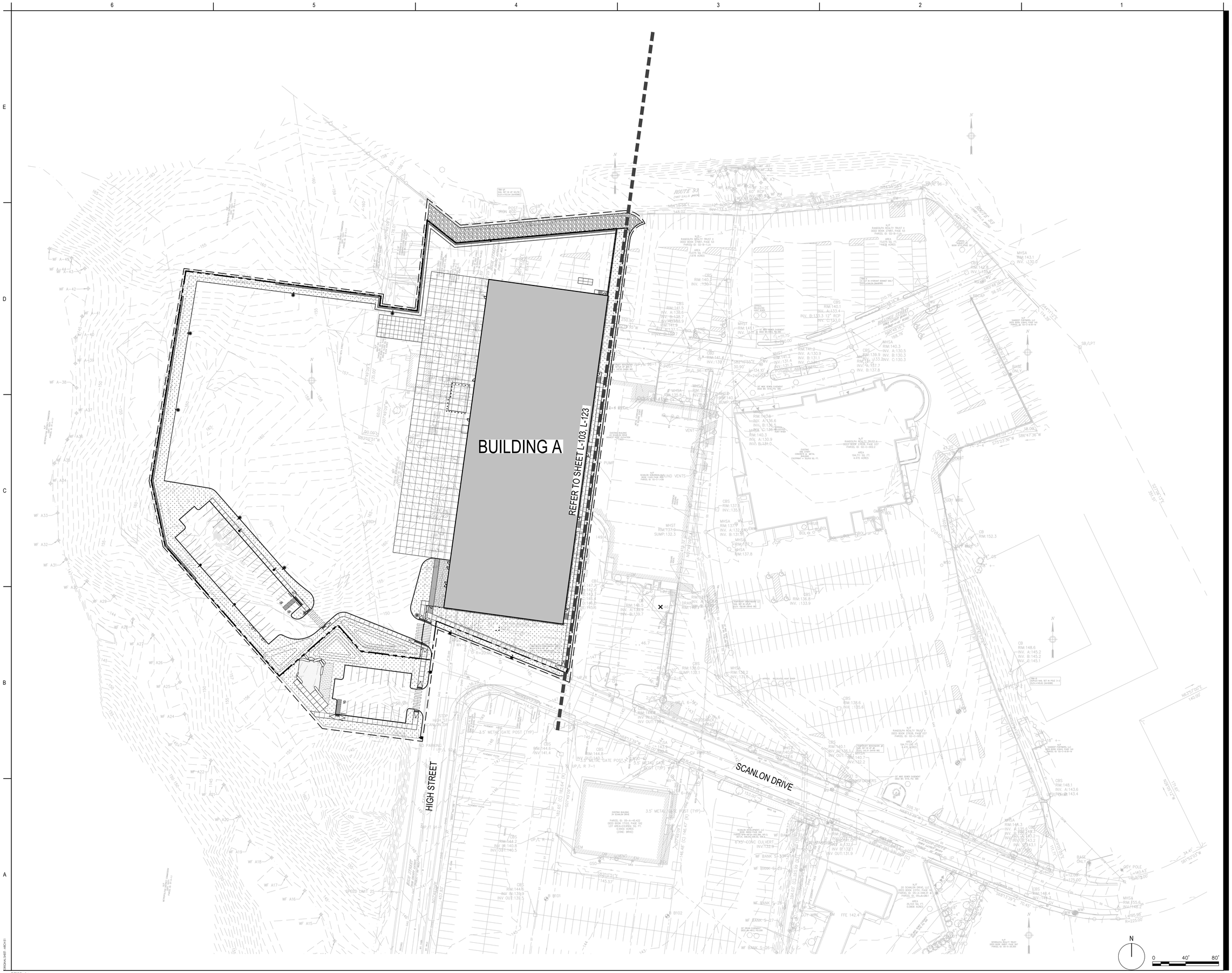
PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS NOTED
Project No.	78000

SITE DETAILS 5

C6.5

Z:\Shared\Projects\78000-78999\78000-78099\78000.05.Randolph North - Assemblage (Civil)\05-Engineering\Vertex Drawings\78000_C6.0 Details.dwg Thursday, February 15, 2024 9:24:13 AM
Copyright: 2024 The Vertex Companies, Inc.
Drawn by: JDC
© 2018 Stantec



Stantec

Consultant

CORE INVESTMENTS, INC

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=40'

Project No. 218421418

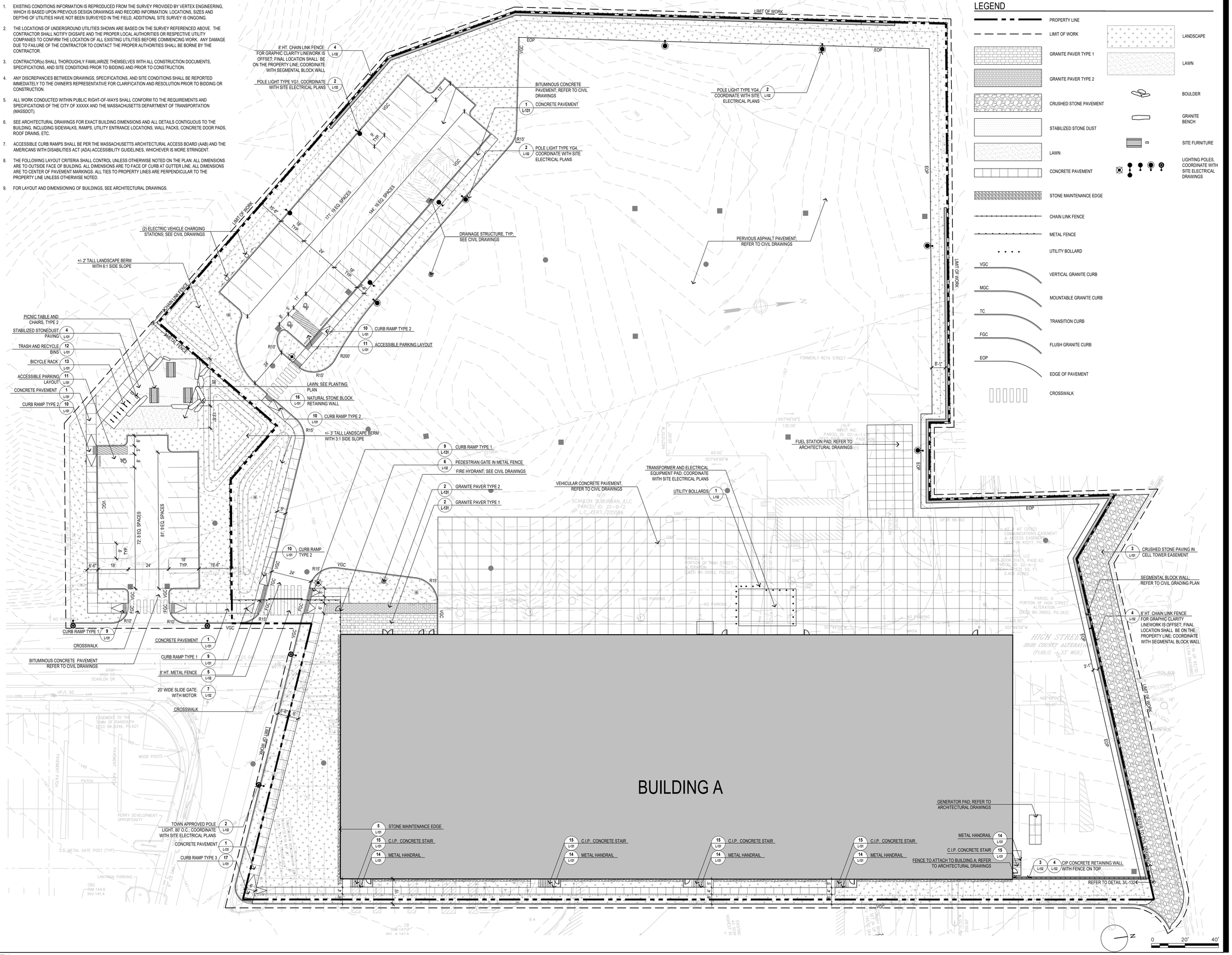
OVERALL PLAN

L-100

© 2018 Stantec

LAYOUT AND MATERIAL NOTES

1. EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PROVIDED BY VERTEX ENGINEERING, WHICH IS BASED UPON PREVIOUS DESIGN DRAWINGS AND RECORD INFORMATION. LOCATIONS, SIZES AND DEPTHS OF UTILITIES HAVE NOT BEEN SURVEYED IN THE FIELD, ADDITIONAL SITE SURVEY IS ONGOING.
2. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE BASED ON THE SURVEY REFERENCED ABOVE. THE CONTRACTOR SHALL NOTIFY DIGSAFE AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
3. CONTRACTOR(s) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
4. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
5. ALL WORK CONDUCTED WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF XXXXX AND THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT).
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND ALL DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, UTILITY ENTRANCE LOCATIONS, WALL PACKS, CONCRETE DOOR PADS, ROOF DRAINS, ETC.
7. ACCESSIBLE CURB RAMPS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, WHICHEVER IS MORE STRINGENT.
8. THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN: ALL DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING. ALL DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE. ALL DIMENSIONS ARE TO CENTER OF PAVEMENT MARKINGS. ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.
9. FOR LAYOUT AND DIMENSIONING OF BUILDINGS, SEE ARCHITECTURAL DRAWINGS.



LEGEND

- PROPERTY LINE
- LIMIT OF WORK
- GRANITE PAVER TYPE 1
- GRANITE PAVER TYPE 2
- CRUSHED STONE PAVEMENT
- STABILIZED STONE DUST
- LAWN
- CONCRETE PAVEMENT
- STONE MAINTENANCE EDGE
- CHAIN LINK FENCE
- METAL FENCE
- UTILITY BOLLARD
- VGC — VERTICAL GRANITE CURB
- MGC — MOUNTABLE GRANITE CURB
- TC — TRANSITION CURB
- FGC — FLUSH GRANITE CURB
- EOP — EDGE OF PAVEMENT
- CROSSWALK
- LANDSCAPE
- LAWN
- BOULDER
- GRANITE BENCH
- SITE FURNITURE
- LIGHTING POLES, COORDINATE WITH SITE ELECTRICAL DRAWINGS

Stantec

Consultant

CORE INVESTMENTS, INC

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=20'

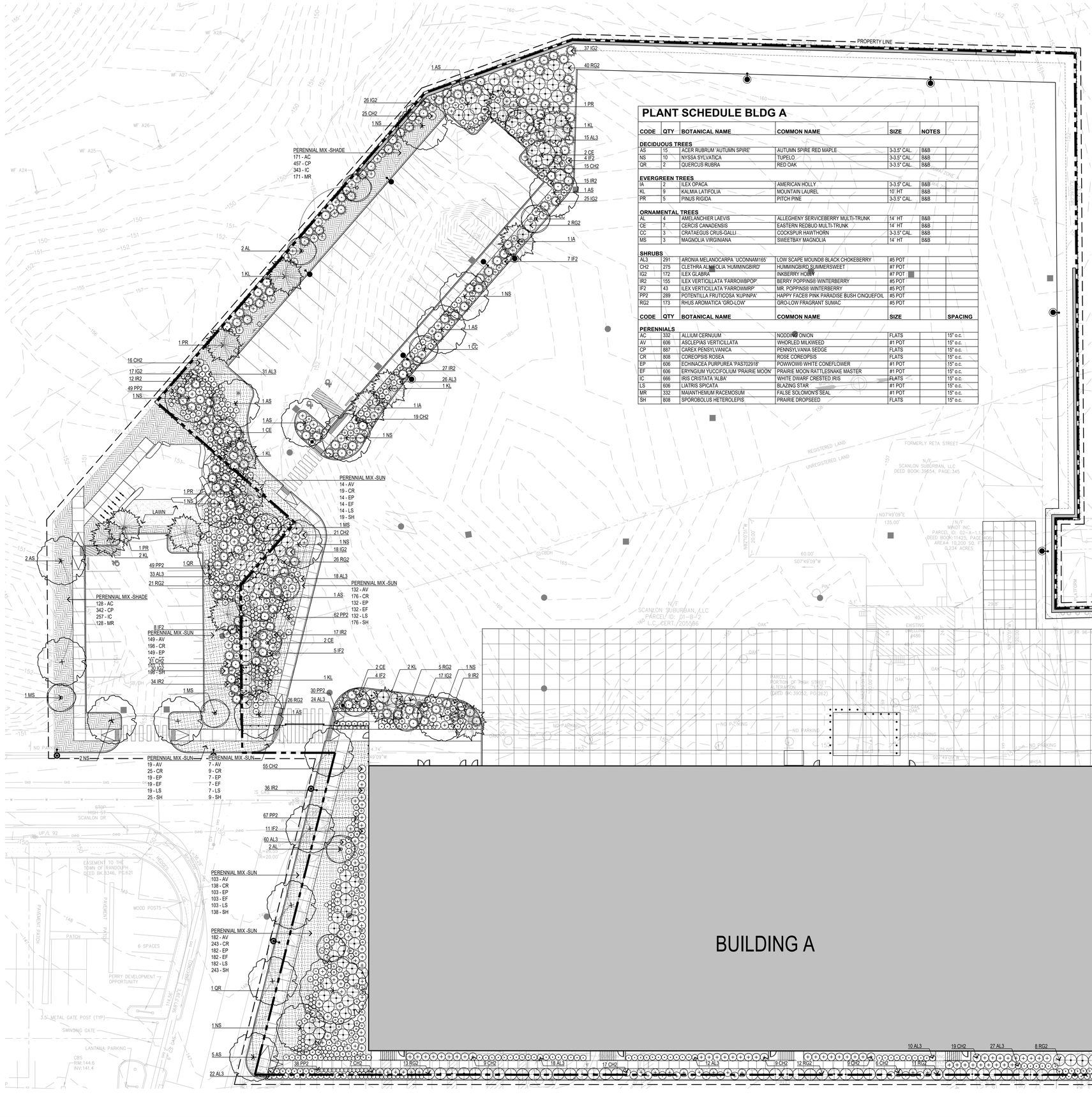
Project No. 218421418

LAYOUT AND MATERIALS 3

L-103

ORIGINAL SHEET - ARCH E1

© 2018 Stantec



LEGEND

- PROPERTY LINE
- LIMIT OF WORK
- DECIDUOUS TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUBS

PLANTING NOTES

1. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE UNTIL FINAL WRITTEN ACCEPTANCE OF PLANT MATERIAL.
2. CONTRACTOR SHALL VERIFY ALL TREE REMOVALS AND/OR TRANSPLANTS WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION START.
3. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES, AND PLANTING BEDS.
4. MAXIMUM SLOPE WITHIN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
5. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTINGS SHOWN ON THIS DRAWING.
6. ALL MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
7. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS TO ORIGINAL GRADES BEFORE DIGGING.
8. ALL PLANTS TO BE BALLED IN BURLAP OR CONTAINERIZED.
9. MULCH FOR PLANTED AREAS TO BE AGED PINE BARK: PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS THICKER THAN 1/4 INCH.
10. PLANTING SOIL MIX: LOAM THOROUGHLY INCORPORATED WITH ROTTED MANURE PROPORTIONED 5 C.Y. TO 1 C.Y. OR EQUIVALENT. FERTILIZER ADDED PER RECOMMENDED RATES OF SOILS ANALYSIS.
11. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.
12. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, AT THE NURSERY, AND AT THE SITE.
13. ALL AREAS OF THE SITE WHICH HAVE BEEN DISTURBED AND NOT OTHERWISE DEVELOPED SHALL BE LOAMED AND SEEDED WITH A MINIMUM DEPTH OF 6" DEPTH TOPSOIL.

PLANT SCHEDULE BLDG A

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	
DECIDUOUS TREES						
AS	15	ACER RUBRUM 'AUTUMN SPIRE'	AUTUMN SPIRE RED MAPLE	3-3.5" CAL.	B&B	
NS	10	NYSSA SYLVATICA	TUPELO	3-3.5" CAL.	B&B	
QR	2	QUERCUS RUBRA	RED OAK	3-3.5" CAL.	B&B	
EVERGREEN TREES						
IA	2	ILEX OPACA	AMERICAN HOLLY	3-3.5" CAL.	B&B	
KL	9	KALMIA LATIFOLIA	MOUNTAIN LAUREL	10` HT	B&B	
PR	5	PINUS RIGIDA	PITCH PINE	3-3.5" CAL.	B&B	
ORNAMENTAL TREES						
AL	4	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY MULTI-TRUNK	14` HT	B&B	
CE	7	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	14` HT	B&B	
CC	3	CRATAEGUS CRUS-GALLI	COCKSPUR HAWTHORN	3-3.5" CAL.	B&B	
MS	3	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	14` HT	B&B	
SHRUBS						
AL3	291	ARONIA MELANOCARPA `UCONNAM165`	LOW SCAPE MOUND® BLACK CHOKEBERRY	#5 POT		
CH2	275	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	#7 POT		
IG2	172	ILEX GLABRA	INKBERRY HOBBY	#7 POT		
IR2	155	ILEX VERTICILLATA 'FARROWBPOP'	BERRY POPPINS® WINTERBERRY	#5 POT		
IF2	43	ILEX VERTICILLATA 'FARROWMRP'	MR. POPPINS® WINTERBERRY	#5 POT		
PP2	289	POTENTILLA FRUTICOSA 'KUPINPA'	HAPPY FACE® PINK PARADISE BUSH CINQUEFOIL	#5 POT		
RG2	173	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#5 POT		
CODE	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**		**SPACING**
PERENNIALS						
AC	332	ALLIUM CERNUUM	NODDING ONION	FLATS		15" o.c.
AV	606	ASCLEPIAS VERTICILLATA	WHORLED MILKWEED	#1 POT		15" o.c.
CP	887	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	FLATS		15" o.c.
CR	808	COREOPSIS ROSEA	ROSE COREOPSIS	FLATS		15" o.c.
EP	606	ECHINACEA PURPUREA 'PAS702918'	POWWOW® WHITE CONEFLOWER	#1 POT		15" o.c.
EF	606	ERYNGIUM YUCCIFOLIUM 'PRAIRIE MOON'	PRAIRIE MOON RATTLESNAKE MASTER	#1 POT		15" o.c.
IC	666	IRIS CRISTATA 'ALBA'	WHITE DWARF CRESTED IRIS	FLATS		15" o.c.
LS	606	LIATRIS SPICATA	BLAZING STAR	#1 POT		15" o.c.
MR	332	MAIANTHEMUM RACEMOSUM	FALSE SOLOMON'S SEAL	#1 POT		15" o.c.
SH	808	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	FLATS		15" o.c.

CONCEPT PLANT SCHEDULE BLDG A

PERENNIAL MIX -SUN	**6,069 SF**
ASCLEPIAS VERTICILLATA / WHORLED MILKWEED	606
COREOPSIS ROSEA / ROSE COREOPSIS	808
ECHINACEA PURPUREA 'PAS702918' / POWWOW® WHITE CONEFLOWER	606
ERYNGIUM YUCCIFOLIUM 'PRAIRIE MOON' / PRAIRIE MOON RATTLESNAKE MASTER	606
LIATRIS SPICATA / BLAZING STAR	606
SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	808
PERENNIAL MIX -SHADE	**3,333 SF**
ALLIUM CERNUUM / NODDING ONION	332
CAREX PENSYLVANICA / PENNSYLVANIA SEDGE	887
IRIS CRISTATA 'ALBA' / WHITE DWARF CRESTED IRIS	666
MAIANTHEMUM RACEMOSUM / FALSE SOLOMON'S SEAL	332
LAWN	**547 SF**

Stantec

Consultant

CORE INVESTMENTS, INC.

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=20'

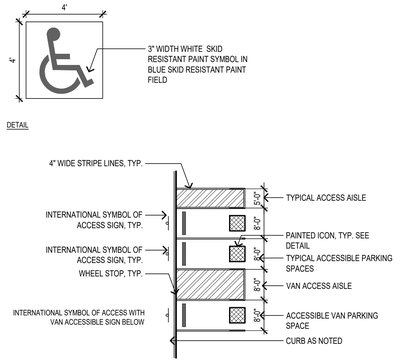
Project No. 218421418

PLANTING PLAN 3

L-123

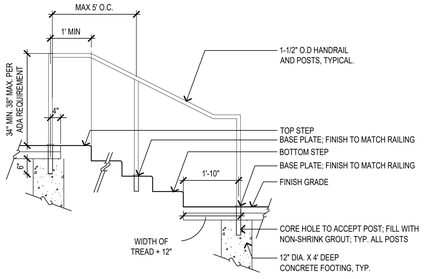
ORIGINAL SHEET - ARCH E1

© 2018 Stantec



17 ACCESSIBLE PARKING LAYOUT

1/16" = 1'-0" BC2184-21418-41

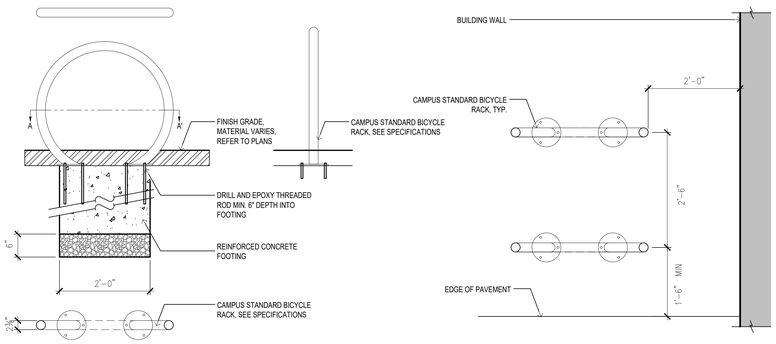


NOTES:

1. PROVIDE HANDRAILS FOR BOTH SIDES OF ALL SITE STAIRS
2. PROVIDE ESCUTCHEON PLATE AT ALL LOCATIONS WHERE POSTS PENETRATE GRADE; FINISH TO MATCH HANDRAILS
3. WHERE NOTED ON PLANS, HANDRAILS SHALL BE INTEGRALLY LIT; COORDINATE WITH SITE LIGHTING PLANS AND SPECIFICATION
4. ALL METALWORK TO BE BRONZE; SEE SPECIFICATIONS

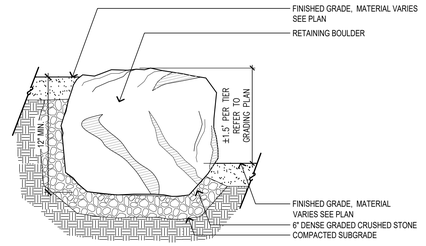
14 METAL HANDRAIL

1/2" = 1'-0" BC2184-21418-17



13 BICYCLE RACK

3/4" = 1'-0" BC2184-21418-25

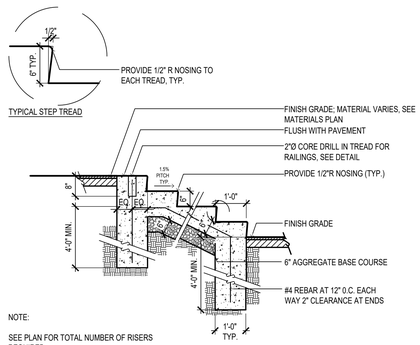


NOTES:

1. PLACEMENT OF BOULDERS TO BE REVIEWED IN FIELD BY LANDSCAPE ARCHITECT
2. BOULDERS SHALL BE STABLE, FREE OF MAJOR CRACKS, OF A NATIVE VARIETY AND SOURCED LOCALLY. SLIGHT COLOR VARIATION IS ACCEPTABLE. TEXTURE SHALL BE CONSISTENT.
3. BOULDERS SHALL BE CHOSEN BY LANDSCAPE ARCHITECT FROM SURPLUS OF AVAILABLE BOULDERS AT SUPPLIER.
4. INSTALLER TO MOVE AND PLACE BOULDERS USING EQUIPMENT THAT WILL NOT HARM OR SCRATCH THE BOULDER SURFACE.
5. BOULDERS SHALL APPROXIMATE SIZES SHOWN ON PLAN.

16 NATURAL STONE BLOCK RETAINING WALL

3/4" = 1'-0" BC2184-21418-06

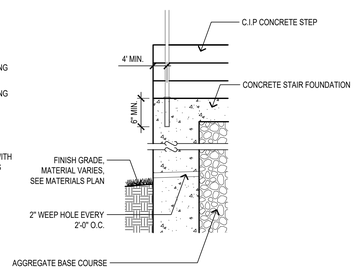


NOTE:

SEE PLAN FOR TOTAL NUMBER OF RISERS REQUIRED.

15 C.I.P CONCRETE STAIRS

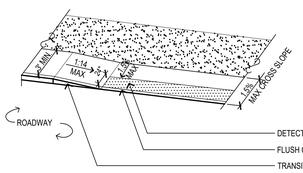
1/2" = 1'-0" BC2184-21418-15



CROSS SECTION AT TREAD STAIR WITH SIDE WALLS

11 CURB RAMP TYPE 3

3/16" = 1'-0" BC2184-21418-39

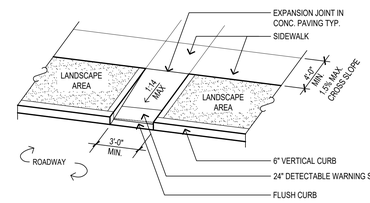


NOTES:

1. RAMP CROSS SECTION TO BE THE SAME AS ADJACENT SIDEWALK I.E. DEPTH OF SURFACE AND FOUNDATION.
2. DIMENSIONS ARE SUBJECT TO CHANGE IN FIELD. ALL SLOPES AND DIMENSIONS TO COMPLY WITH A.D.A. AND MAAB REQUIREMENTS.
3. PROVIDE EXPANSION JOINT AT TOPS OF RAMP AND AT BACK OF WALK AT INTERFACE OF CURB.
4. PROVIDE HEAVY BROOM FINISH ON RAMP AND SIDE SLOPES PERPENDICULAR TO FLOW OF TRAFFIC.
5. MINIMUM WALK DIMENSIONS ARE FROM BACK OF CURB.
6. TRANSITION CURB LENGTH AS REQUIRED TO MEET CODE.
7. FIXED OBJECTS (i.e. UTILITY POLES, HYDRANTS ETC.) MUST NOT ENCROACH ON ANY PART OF A WHEELCHAIR RAMP, INCLUDING TRANSITION SLOPES.
8. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE OF THE CROSSWALK.

10 CURB RAMP TYPE 2

1/8" = 1'-0" BC2184-21418-59

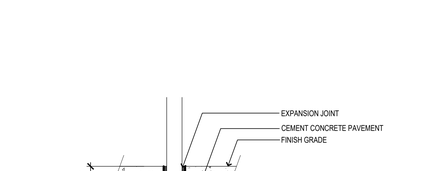


NOTES:

1. RAMP CROSS SECTION TO BE THE SAME AS ADJACENT SIDEWALK I.E. DEPTH OF SURFACE AND FOUNDATION.
2. DIMENSIONS ARE SUBJECT TO CHANGE IN FIELD. ALL SLOPES AND DIMENSIONS TO COMPLY WITH A.D.A. AND MAAB REQUIREMENTS.
3. PROVIDE EXPANSION JOINT AT TOPS OF RAMP AND AT BACK OF WALK AT INTERFACE OF CURB.
4. PROVIDE HEAVY BROOM FINISH ON RAMP AND SIDE SLOPES PERPENDICULAR TO FLOW OF TRAFFIC.
5. MINIMUM WALK DIMENSIONS ARE FROM BACK OF CURB.
6. TRANSITION CURB LENGTH AS REQUIRED TO MEET CODE.
7. FIXED OBJECTS (i.e. UTILITY POLES, HYDRANTS ETC.) MUST NOT ENCROACH ON ANY PART OF A WHEELCHAIR RAMP, INCLUDING TRANSITION SLOPES.
8. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE OF THE CROSSWALK.

9 CURB RAMP TYPE 1

1/4" = 1'-0" BC2184-21418-21

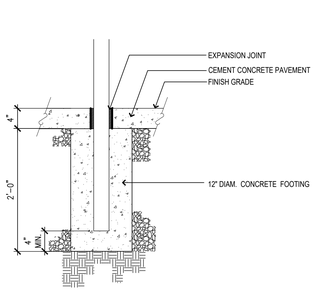


NOTES:

1. RAMP CROSS SECTION TO BE THE SAME AS ADJACENT SIDEWALK I.E. DEPTH OF SURFACE AND FOUNDATION.
2. DIMENSIONS ARE SUBJECT TO CHANGE IN FIELD. ALL SLOPES AND DIMENSIONS TO COMPLY WITH A.D.A. AND MAAB REQUIREMENTS.
3. PROVIDE EXPANSION JOINT AT TOPS OF RAMP AND AT BACK OF WALK AT INTERFACE OF CURB.
4. PROVIDE HEAVY BROOM FINISH ON RAMP AND SIDE SLOPES PERPENDICULAR TO FLOW OF TRAFFIC.
5. MINIMUM WALK DIMENSIONS ARE FROM BACK OF CURB.
6. TRANSITION CURB LENGTH AS REQUIRED TO MEET CODE.
7. FIXED OBJECTS (i.e. UTILITY POLES, HYDRANTS ETC.) MUST NOT ENCROACH ON ANY PART OF A WHEELCHAIR RAMP, INCLUDING TRANSITION SLOPES.
8. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE OF THE CROSSWALK.

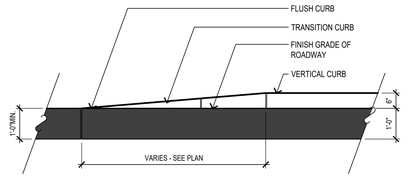
12 SITE FURNISHING BELOW GRADE FOOTING

1" = 1'-0" BC2184-21418-37



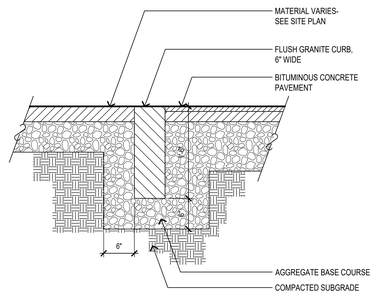
8 TRANSITION FROM VERTICAL TO FLUSH CURB

1/2" = 1'-0" BC2184-21418-50



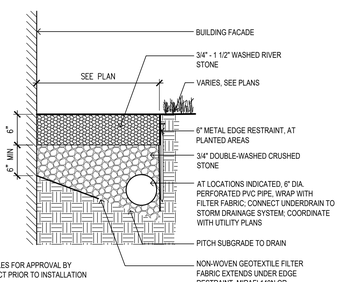
7 6" VERTICAL GRANITE CURB

1" = 1'-0" BC2184-21418-01



6 FLUSH GRANITE CURB

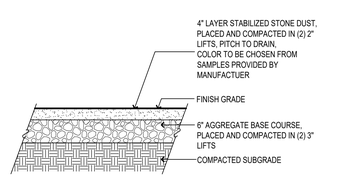
1" = 1'-0" BC2184-21418-28



NOTE:
SUBMIT STONE SAMPLES FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

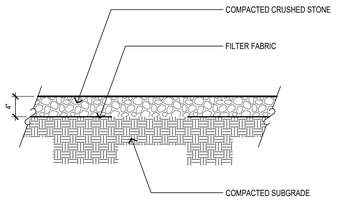
5 STONE MAINTENANCE EDGE

1" = 1'-0" BC2184-21418-48



4 STABILIZED STONEDUST PAVING

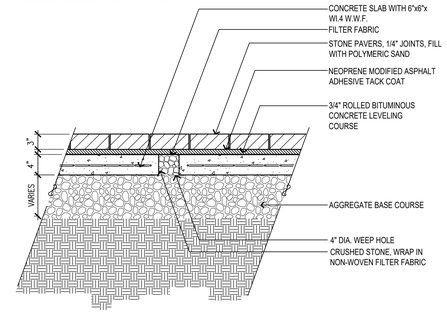
3/4" = 1'-0" BC2184-21418-03



3 CRUSHED STONE PAVING

1" = 1'-0" BC2184-21418-47

NOTE:
PROVIDE 4" DIA. WEEP HOLES ON RECESSED CONCRETE SLAB BELOW PAVERS AT 5'-0" O.C.

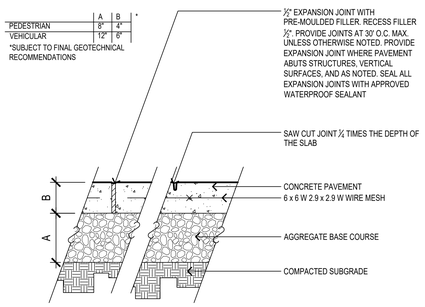


2 GRANITE UNITE PAVERS

1" = 1'-0" BC2184-21418-14

	A	B	*
PEDESTRIAN	8"	4"	
VEHICULAR	12"	6"	

*SUBJECT TO FINAL GEOTECHNICAL RECOMMENDATIONS



NOTE:

1. PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO THE TRAFFIC FLOW UNLESS OTHERWISE NOTED.

1 CONCRETE PAVING

1 1/2" = 1'-0" BC2184-21418-08

© 2018 Stantec

ORIGINAL SHEET - ARCH E1

Stantec

Consultant

CORE INVESTMENTS, INC.

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

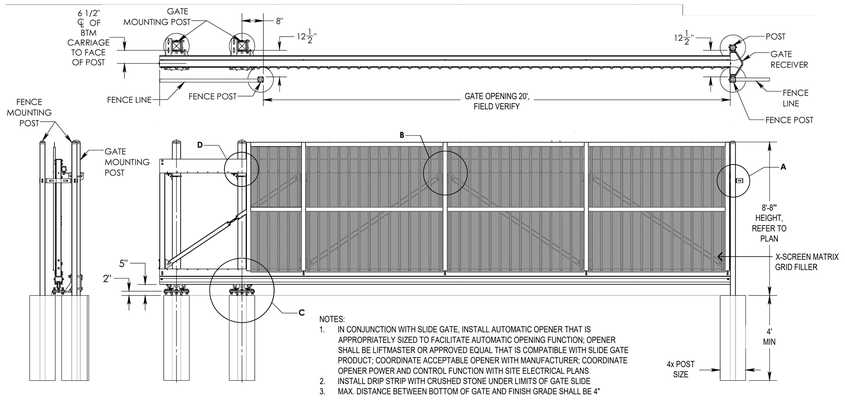
PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=20'

Project No. 218421418

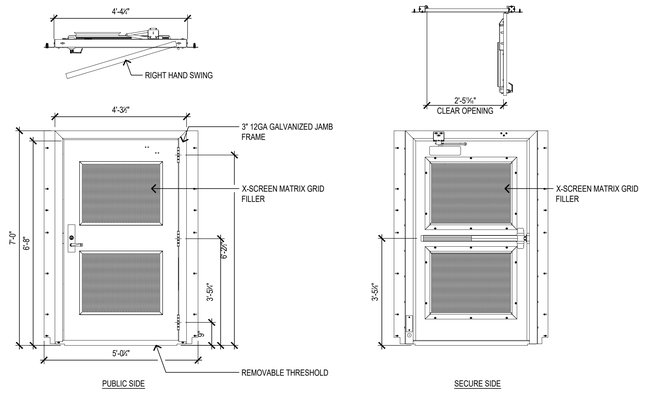
SITE DETAIL 1

L-131



7 20' WIDE SLIDE GATE WITH MOTOR

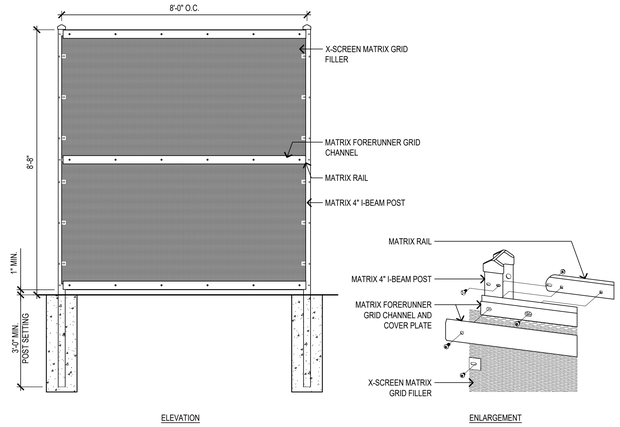
1/4" = 1'-0" BC2184-21418-85



6 PEDESTRIAN GATE IN METAL FENCE

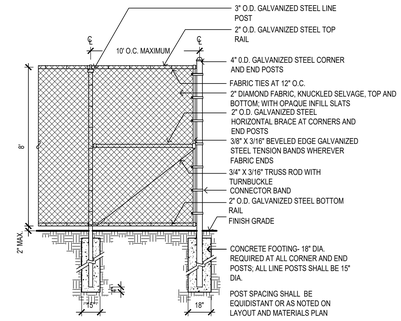
1/2" = 1'-0" BC2184-21418-62

NOTES:
1. VALUES SHOWN ARE NOMINAL AND NOT TO BE USED FOR INSTALLATION PURPOSES. SEE PRODUCT SPECIFICATIONS FOR INSTALLATION REQUIREMENTS.



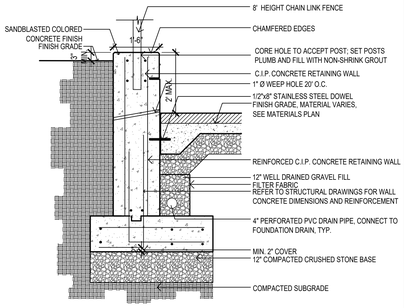
5 METAL FENCE

1/2" = 1'-0" BC2184-21418-61



4 8' HT. CHAIN LINK FENCE

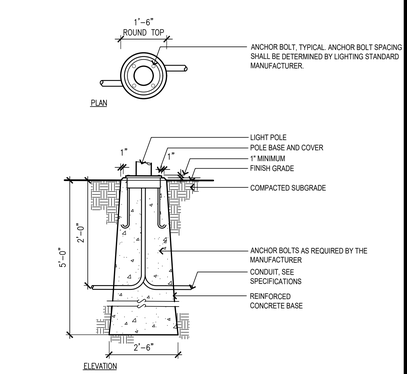
1/4" = 1'-0" BC2184-21418-38



NOTES:
1. STRUCTURAL ENGINEER SHALL REVIEW SIZING AND STRUCTURAL REINFORCEMENT OF THE WALL. THIS DETAIL IS NOT FOR CONSTRUCTION

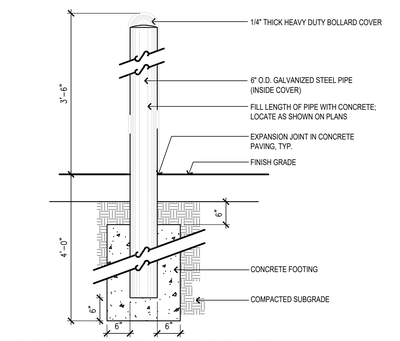
3 CIP CONCRETE RETAINING WALL WITH FENCE ON TOP

1/2" = 1'-0" BC2184-21418-43



2 PRECAST LIGHT POLE FLUSH BASE

1/2" = 1'-0" BC2184-21418-36



1 6" DIAMETER STEEL UTILITY BOLLARD

3/4" = 1'-0" BC2184-21418-20

© 2018 Stantec

ORIGINAL SHEET - ARCH D1

Stantec

Consultant

CORE INVESTMENTS, INC.

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

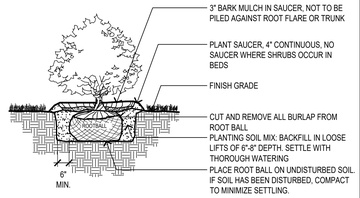
PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=20'

Project No. 218421418

SITE DETAIL 2

L-132

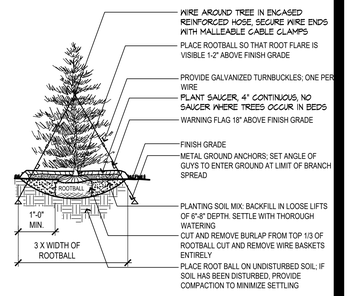


NOTES:

1. SHRUB SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE.
2. WHERE SHRUBS OCCUR IN GROUPINGS IN PLANT BEDS, PROVIDE 2 - FOOT DEEP CONTINUOUS LOAM BED.

4 SHRUB PLANTING

3/8" = 1'-0" BC2184-21418-32

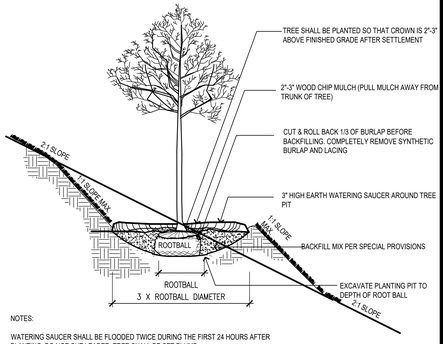


NOTE:

1. TREE SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE .
2. INSTALL THREE GUYS PER TREE, EQUALLY SPACED AROUND BALL. ATTACH GUYS AT 2/3 HEIGHT OF TREE; USE DOUBLE STRAND GALVANIZED STEEL WIRE.
3. ROOT FLARE SHALL BE VISIBLE 1-2" ABOVE FINISH GRADE.

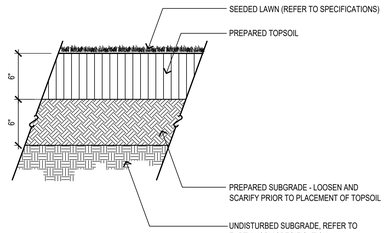
3 EVERGREEN TREE PLANTING

1/8" = 1'-0" BC2184-21418-31



NOTES:

WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE SHALL BE SET PLUMB

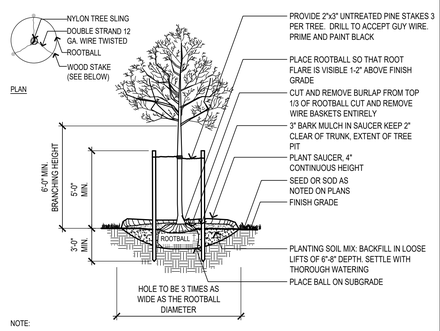


6 LOAM AND SEED OR SOD PLANTING

1 1/2" = 1'-0" BC2184-21418-34

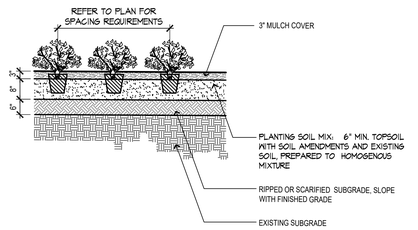
2 DECIDUOUS TREE PLANTING IN A SLOPE

3/32" = 1'-0" BC2184-21418-30



NOTE:

1. TREE SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE
2. CONTRACTOR MAY USE PLASTIC TREE GUYING CHAIN IF APPROVED BY LANDSCAPE ARCHITECT



5 GROUND COVER PLANTING

1/2" = 1'-0" BC2184-21418-33

1 DECIDUOUS TREE PLANTING WITH GUYING

1/4" = 1'-0" BC2184-21418-29

Stantec

Consultant

CORE INVESTMENTS, INC

Key Plan

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale 1"=20'

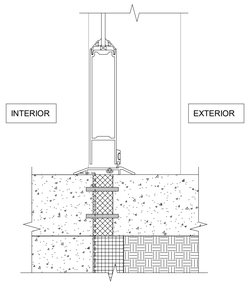
Project No. 218421418

PLANTING DETAILS

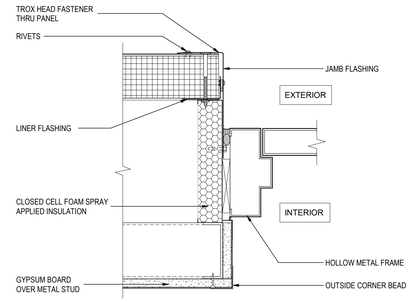
L-141

ORIGINAL SHEET - ARCH E1

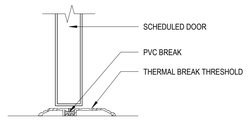
© 2018 Stantec



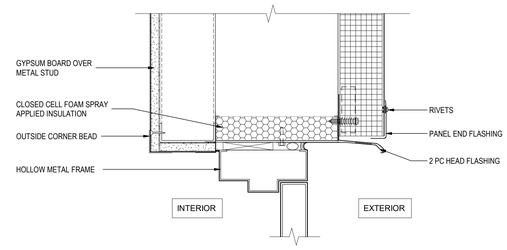
8 A-024 DOOR SILL - ALUM FRAME AT MAIN ENTRY
3" = 1'-0"



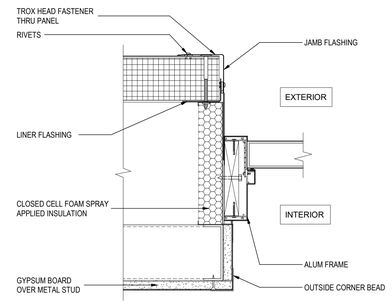
4 A-024 EXTERIOR DOOR JAMB - HM FRAME @MPS-2
3" = 1'-0"



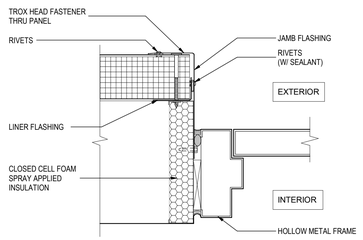
7 A-024 EXTERIOR DOOR SILL, TYP.
3" = 1'-0"



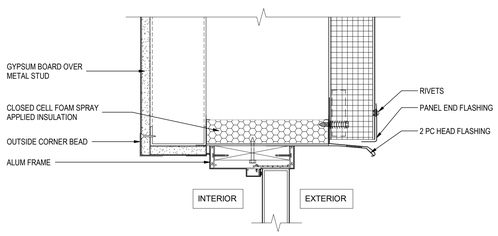
3 A-024 EXTERIOR DOOR HEAD - HM FRAME @MPS-2
3" = 1'-0"



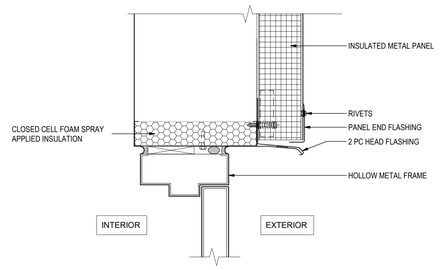
6 A-024 EXTERIOR DOOR JAMB - AL FRAME
3" = 1'-0"



2 A-024 EXTERIOR DOOR JAMB - HM FRAME @MPS-1
3" = 1'-0"



5 A-024 EXTERIOR DOOR HEAD - AL FRAME
3" = 1'-0"



1 A-024 EXTERIOR DOOR HEAD - HM FRAME @MPS-1
3" = 1'-0"

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

2	50% CONSTRUCTION DOCUMENTS	2024.02.16
1	DESIGN DEVELOPMENT	2023.12.15
	Issued/Revision	YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

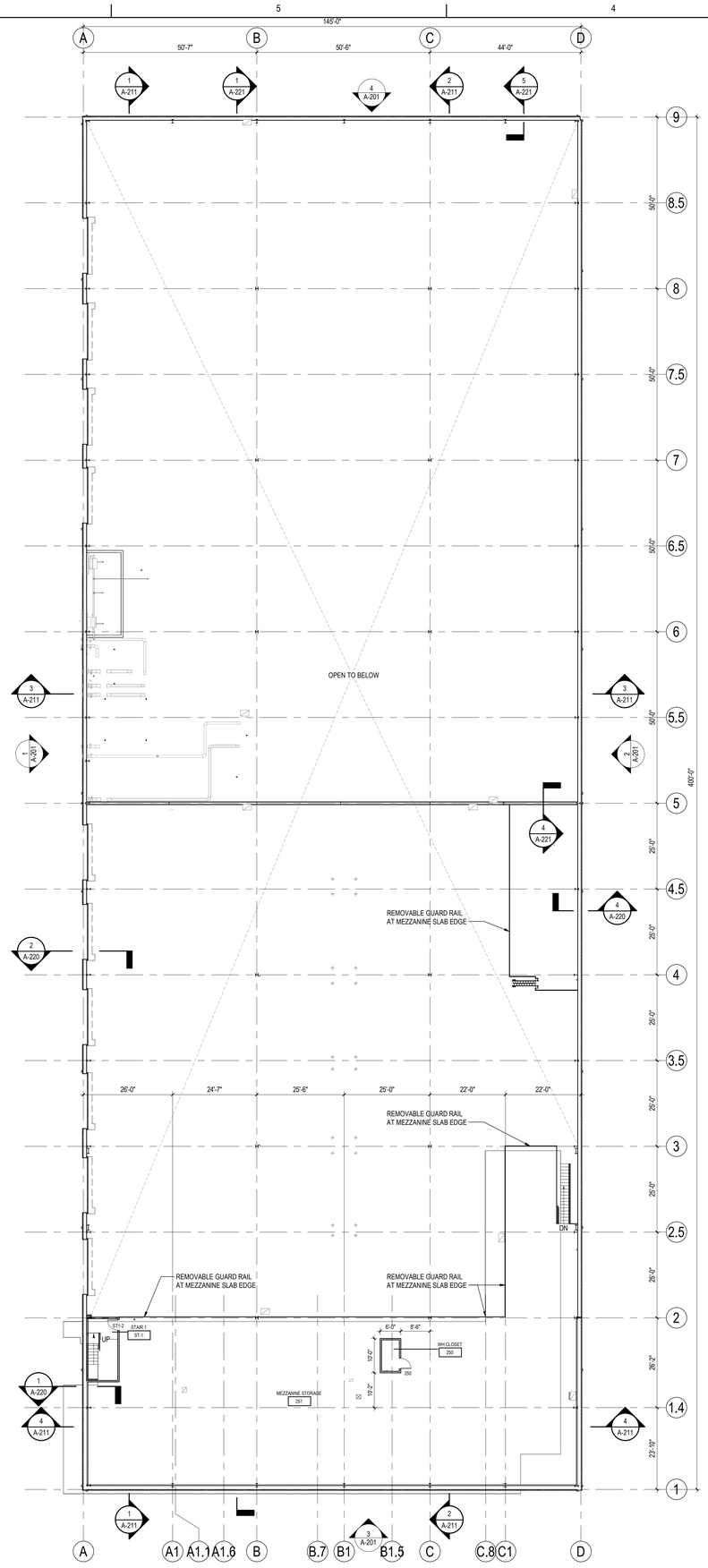
Scale 3" = 1'-0"
Project No. 218421418

EXTERIOR DOOR DETAILS

A-024

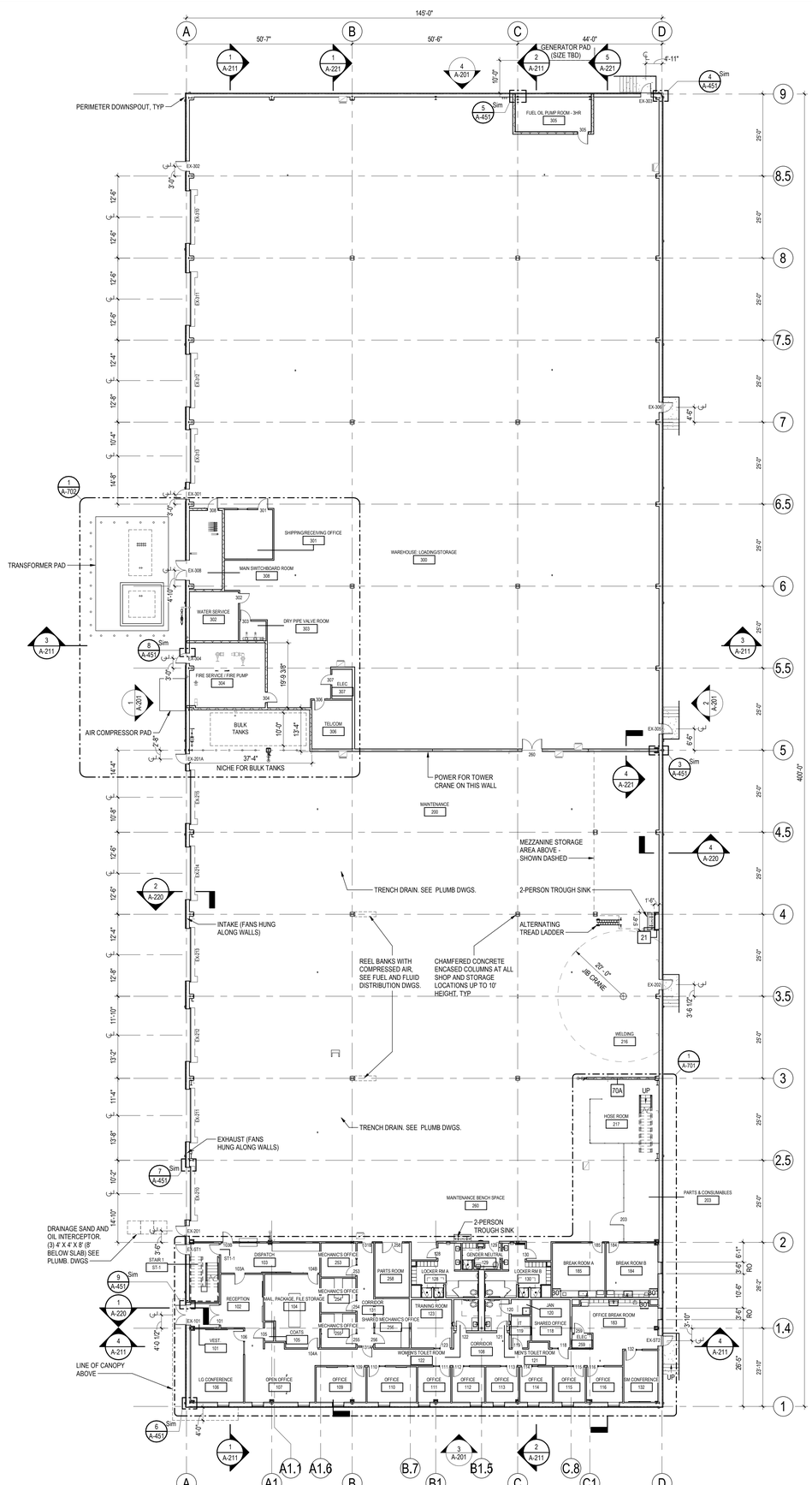
*Pick location in Project Information (SHARED SITE) to show correct North direction

© 2018 Stantec



2 LEVEL 2 PLAN

A-101 1/16" = 1'-0"



1 LEVEL 1 PLAN

A-101 1/16" = 1'-0"

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

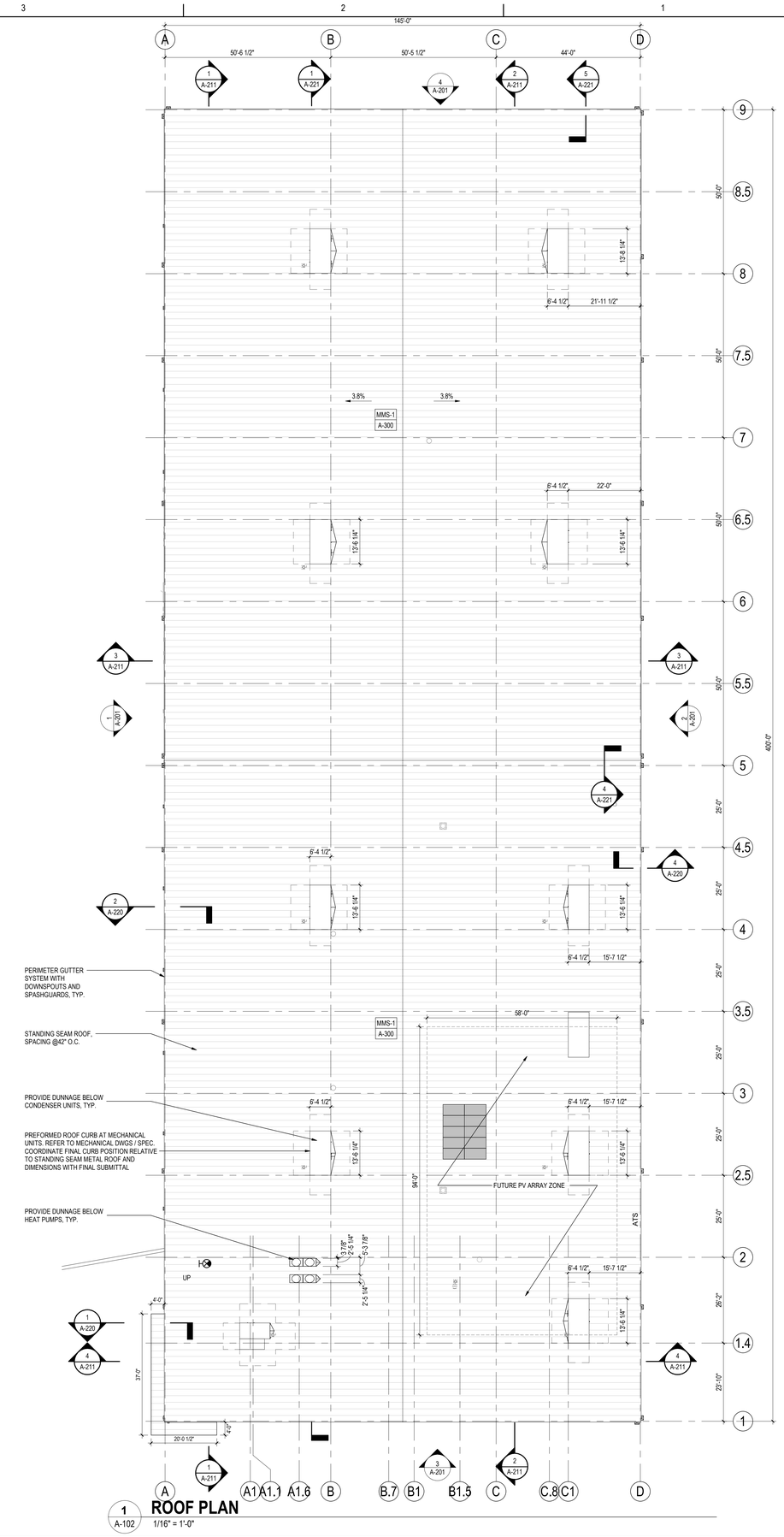
Scale 1/16" = 1'-0"

Project No. 218421418

FLOOR PLANS

A-101

© 2018 Stantec



1 ROOF PLAN
A-102 1/16" = 1'-0"

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel.: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale

Project No. 218421418

ROOF PLAN

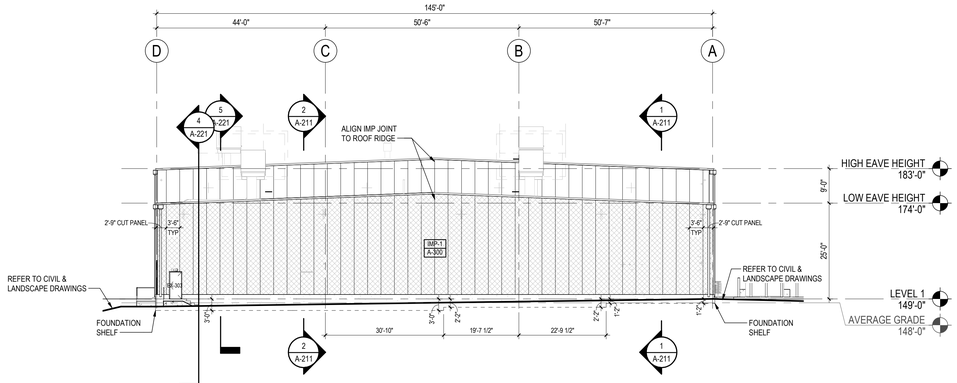
A-102

© 2018 Stantec

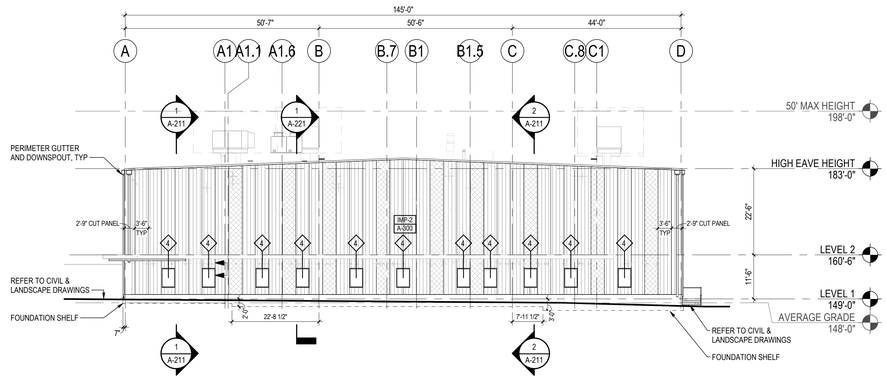
File location in Project Information
2/7/2024 4:23:13 PM
Autodesk Docs://218421418 - Randolph North Bldg A_R21.rvt

MATERIAL LEGEND

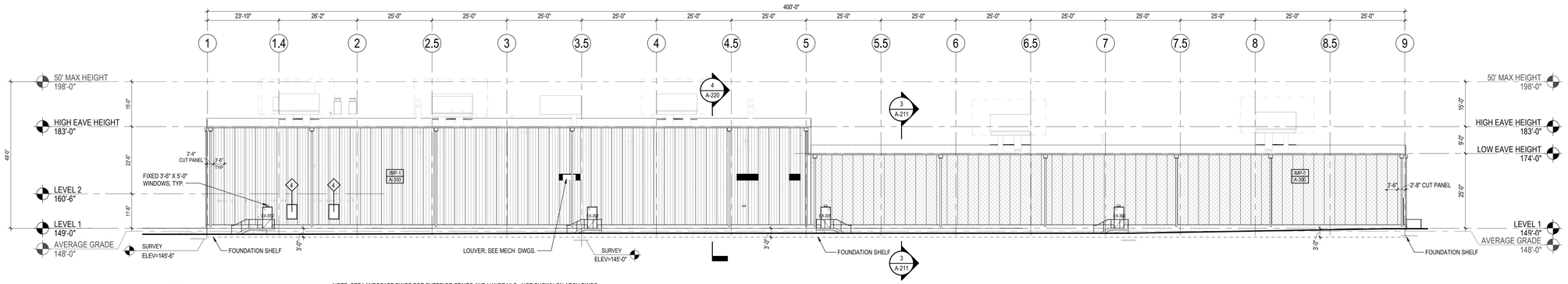
- INSULATED METAL PANEL - REGAL GRAY
  BOD: METL-SPAN CF LIGHT MESA PROFILE PANELS (42" WIDTH)
- INSULATED METAL PANEL - REGAL GRAY
  BOD: METL-SPAN CF FLUTE PROFILE PANELS (42" WIDTH)



4 NORTH ELEVATION
A-201 1/16" = 1'-0"

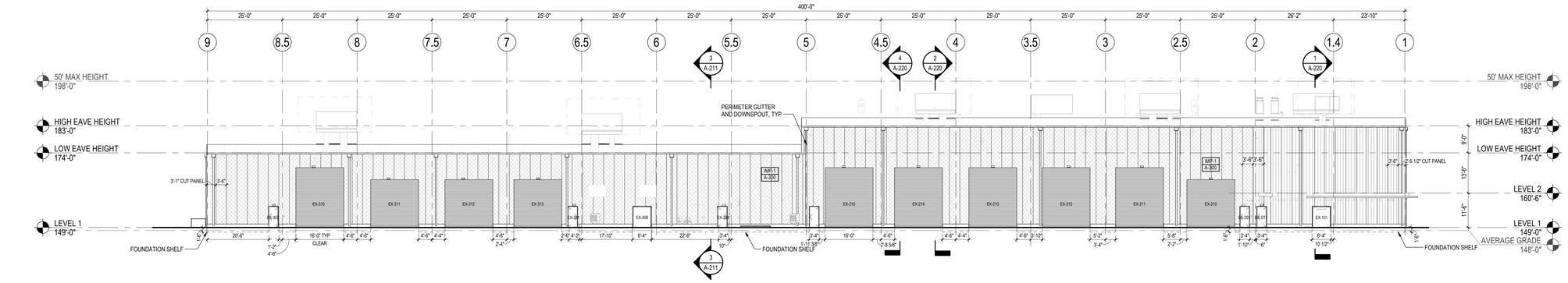


3 SOUTH ELEVATION
A-201 1/16" = 1'-0"



2 EAST ELEVATION
A-201 1/16" = 1'-0"

NOTE: SEE LANDSCAPE DWGS FOR EXTERIOR STAIRS AND HANDRAILS - NOT SHOWN ON ARCH DWGS.



1 WEST ELEVATION
A-201 1/16" = 1'-0"

© 2018 Stantec

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

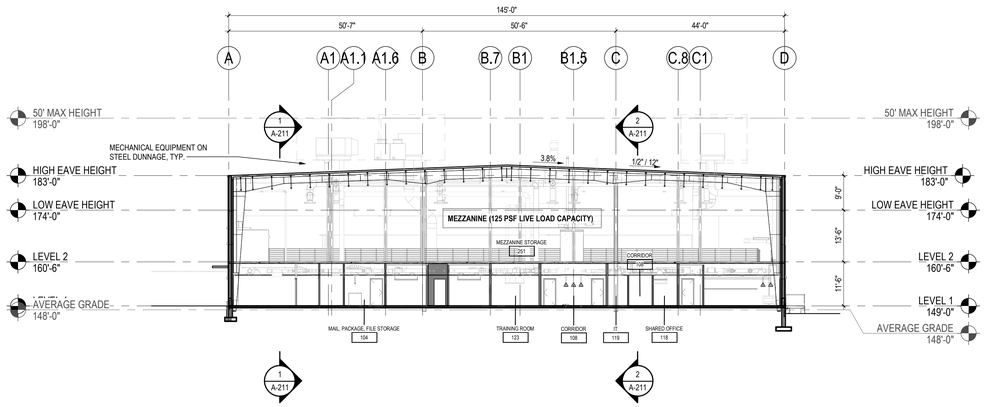
PRELIMINARY NOT FOR CONSTRUCTION

Scale As indicated
Project No. 218421418

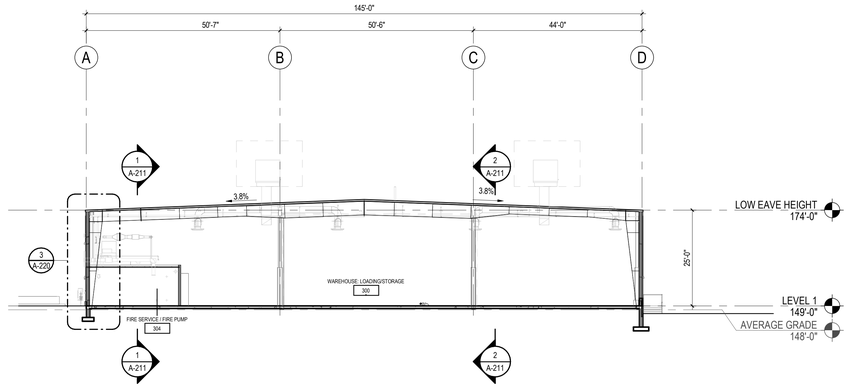
EXTERIOR ELEVATIONS

A-201

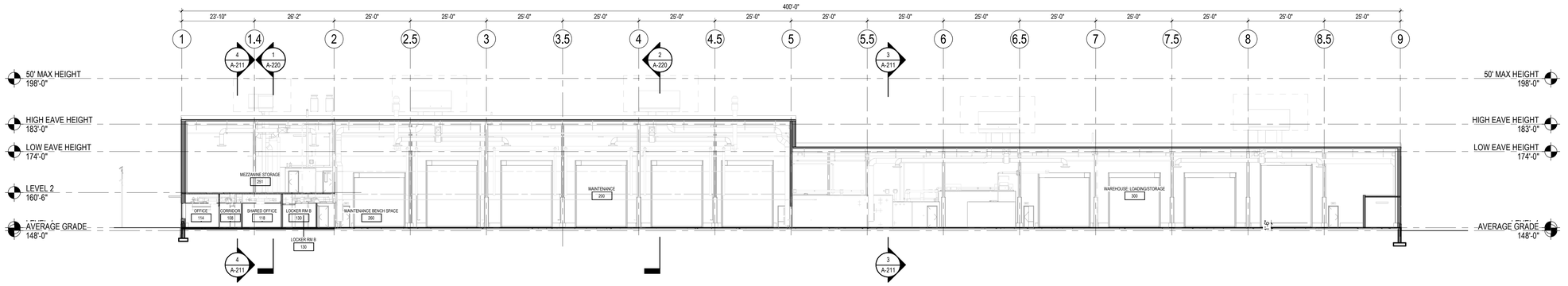
<Pick location in Project Information>
<$Date:2024.2.21 11:49:47$>
<$Revision:ARP1-ARCHE1$>



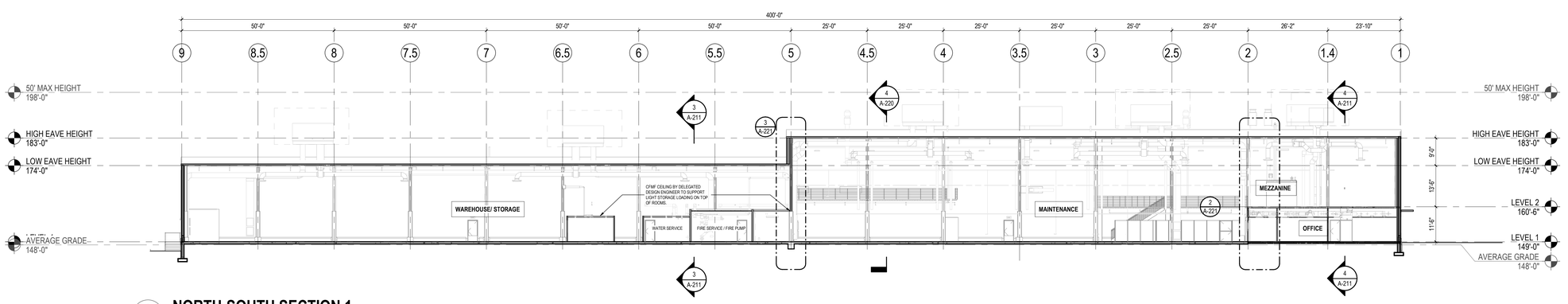
4 A-211 WEST-EAST SECTION 1
1/16" = 1'-0"



3 A-211 WEST-EAST SECTION 2
1/16" = 1'-0"



2 A-211 NORTH-SOUTH SECTION 2
1/16" = 1'-0"



1 A-211 NORTH-SOUTH SECTION 1
1/16" = 1'-0"

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

Key Plan

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale 1/16" = 1'-0"

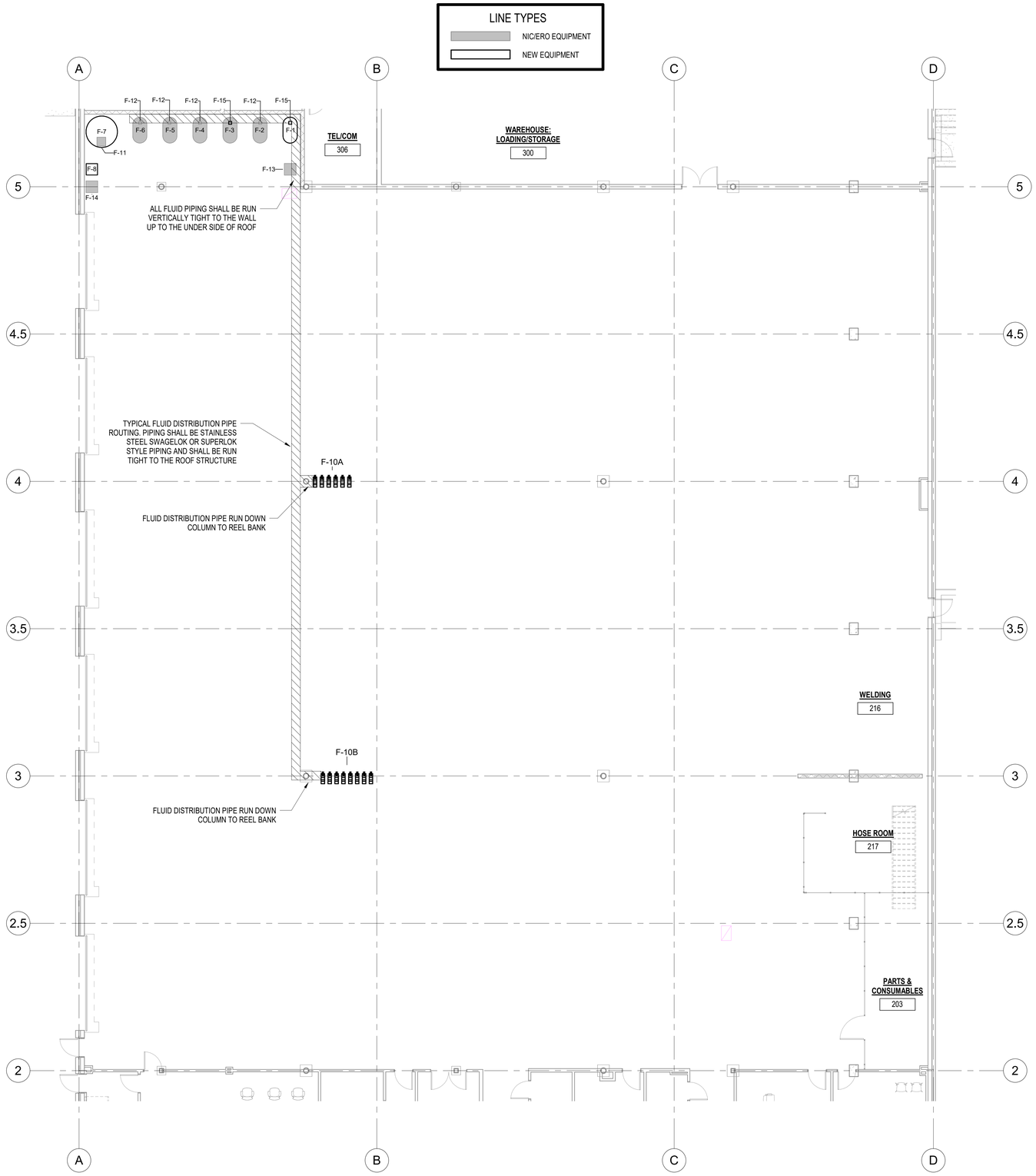
Project No. 218421418

BUILDING SECTIONS

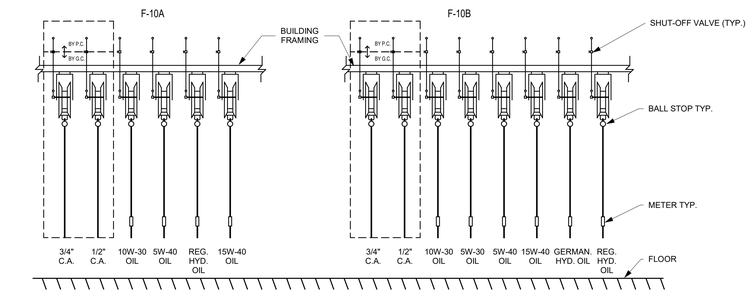
A-211

© 2018 Stantec

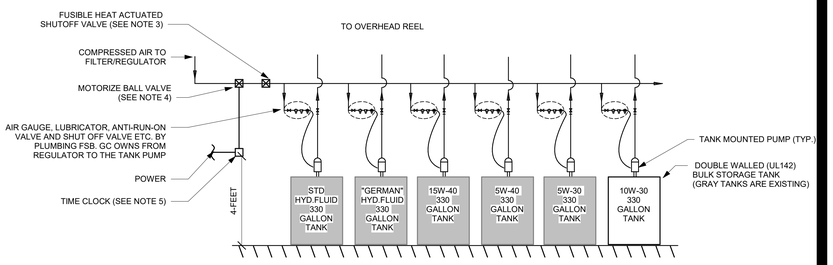
<Pick location in Project Information>
2/13/2024 2:51:16 PM
Autodesk Docs://218421418 - RNDLPH E1 Bldg A_detached_central.rvt



1 FLUID DISTRIBUTION PLAN
1/8" = 1'-0"



2 REEL BANK DETAIL
N.T.S.



NOTE(S):

1. NOT ALL COMPONENTS OF PUMPING SYSTEM ARE SHOWN. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT/COMPONENTS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM, PER MANUFACTURER'S REQUIREMENTS.
2. COORDINATE TANK OPENINGS TO PROVIDE LAYOUT SHOWN
3. HEAT ACTUATE SHUTOFF SUPPLIED BY LUBE SYSTEM CONTRACTOR, INSTALLED BY PLUMBING FSB.
4. MOTORIZED BALL VALVE SUPPLIED BY LUBE SYSTEM CONTRACTOR AND INSTALLED BY PLUMBING FSB. POWER PROVIDED BY ELECTRICAL FSB.
5. TIME CLOCK SHALL BE PROVIDED BY LUBE SYSTEM CONTRACTOR, AND INSTALLED BY ELECTRICAL FSB.
6. OWNER SHALL PROVIDE FLUIDS TO FILL LUBE TANKS, TO ALLOW LUBE SYSTEM CONTRACTOR TO PRESSURIZE AND CALIBRATE SYSTEM.

3 GENERAL TANK PIPING ARRANGEMENT
N.T.S.

Fluid Distribution Schedule

EQ Number	Description	Count	Equipment Type	Spec Number	Notes
F-1	330 Gallon Standard Hydraulic Fluid Tank	1	N	11 11 29	
F-2	330 Gallon "German" Hydraulic Fluid Tank	1	ERO	11 11 29	
F-3	330 Gallon 15W-40 Tank	1	ERO	11 11 29	
F-4	330 Gallon 5W-40 Tank	1	ERO	11 11 29	
F-5	330 Gallon 5W-30 Tank	1	ERO	11 11 29	
F-6	330 Gallon 10W-30 Tank	1	ERO	11 11 29	
F-7	1,000 Gallon Waste Oil Tank	1	N	11 11 29	
F-8	Oil Filter Crusher	1	N	11 11 29	
F-10A	Lube Reel Bank	1	N	11 11 29	
F-10B	Lube Reel Bank	1	N	11 11 29	
F-11	Waste Oil Transfer Pump	1	ERO	11 11 29	
F-12	Existing Tank Mounted Lube Pumps	4	ERO	11 11 29	SEE NOTE 4
F-13	Lube Trolley - 55 Gallon ATF	1	ERO	11 11 29	
F-14	Lube Trolley - 55 Gallon Gear Oil	1	ERO	11 11 29	
F-15	Tank Mounted Lube Pump	2	N	11 11 29	

ABBREVIATIONS:

N NEW EQUIPMENT TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

ERO EXISTING EQUIPMENT TO BE RELOCATED AND INSTALLED BY THE OWNER. UTILITIES FOR ERO EQUIPMENT TO BE PROVIDED BY THE FILED SUB-BID CONTRACTORS.

ERC EXISTING EQUIPMENT TO BE RELOCATED AND INSTALLED BY THE CONTRACTOR. UTILITIES FOR ERC EQUIPMENT TO BE PROVIDED BY THE FILED SUB-BID CONTRACTORS

NIC NEW EQUIPMENT PROVIDED AND INSTALLED BY THE OWNER (NOT IN CONTRACT), HOWEVER UTILITIES FOR THIS EQUIPMENT SHALL BE PROVIDED BY THE FILED SUB-BID CONTRACTORS.

GENERAL NOTES:

1. EQUIPMENT LAYOUTS ARE SCHEMATIC. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT LOCATIONS WITH OWNER AND MANUFACTURER REQUIREMENTS. COORDINATE ALL UTILITY REQUIREMENTS WITH SUB-CONTRACTORS. FINAL EQUIPMENT LOCATIONS SHALL BE CONFIRMED BY THE OWNER PRIOR TO RUNNING UTILITIES AND INSTALLATION EQUIPMENT.
2. GENERAL CONTRACTOR SHALL COORDINATE UTILITY REQUIREMENTS OF EXISTING EQUIPMENT PRIOR TO INSTALLATION OF SERVICES.
3. SEE SPECIFICATION SECTION 11 11 29 - FLUID DISTRIBUTION SYSTEM FOR ADDITIONAL INFORMATION AND SCOPE DELINEATION FOR THE FLUID DISTRIBUTION SYSTEM.
4. THE LUBE SYSTEM CONTRACTOR SHALL VERIFY THE EXISTING LUBE PUMPS ARE ADEQUATELY SIZED FOR THE FLUID TYPE AND PRESSURE LOSS ASSOCIATED WITH THE PROPOSED FLUID DISTRIBUTION SYSTEM. IF ANY OF THE EXISTING FLUID DISTRIBUTION PUMPS ARE FOUND INSUFFICIENT FOR THE FUNCTIONALITY OF THE PROPOSED SYSTEM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND PROVIDE HYDRAULIC CALCULATIONS AS REQUESTED IN SPECIFICATION SECTION 11 11 29.

Stantec

Consultant

CORE INVESTMENTS, INC

Key Plan

Project Name

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06

Issued/Revision YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

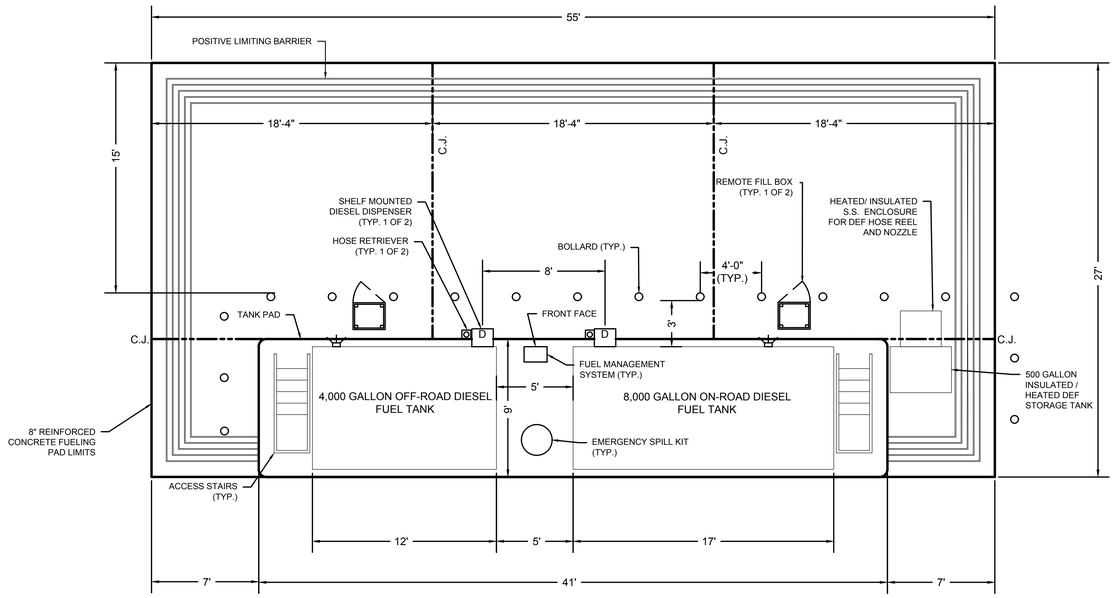
Scale As indicated

Project No. 218421418

FLUID DISTRIBUTION

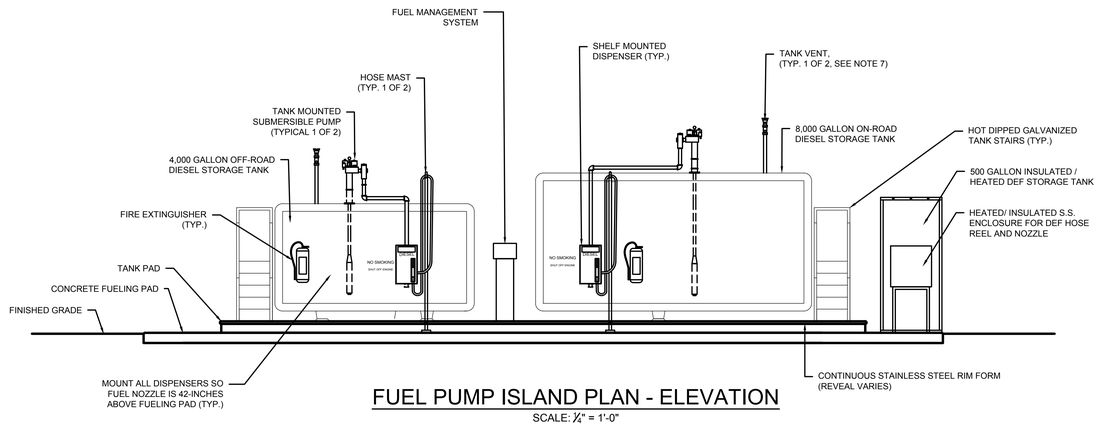
EQ101

© 2018 Stantec



FUEL PUMP ISLAND PLAN

SCALE: ¼" = 1'-0"



FUEL PUMP ISLAND PLAN - ELEVATION

SCALE: ¼" = 1'-0"

LEGEND:

TANK MOUNTED HIGH LEVEL ALARM (VEEDER ROOT 790091-001, OR EQUAL)

C.J. CONTROL JOINT

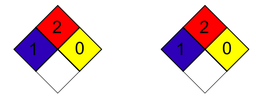
FUEL SYSTEM NOTES:

1. CONCRETE SLAB PITCH SHALL BE AS SHOWN IN THE GRADING AND DRAINAGE PLAN.
2. FINAL LOCATIONS TO BE APPROVED BY THE ENGINEER FOR TANK MOUNTED HIGH LEVEL ALARMS, EXTINGUISHERS, EMERGENCY PUMP SHUTOFF SWITCHES, AND FIRE SUPPRESSION ACTIVATION SWITCHES.
3. SEAL CONTROL JOINT PENETRATIONS THROUGH POSITIVE LIMITING BARRIER WITH PETROLEUM RESISTANT SEALANT (SIKA DUOFLEX SL,OR EQUAL) AS WELL AS ALL PENETRATIONS THROUGH THE FUELING PAD.
4. TANK VENTS SHALL EXTEND TO 12' ABOVE THE SURROUNDING FUELING PAD GRADE.
5. CONTRACTOR SHALL CONFIRM ALL BOLLARD LOCATIONS WITH ENGINEER PRIOR TO INSTALLATION.
6. ALL SPOT ELEVATIONS LOCATED AROUND THE TANK PAD SHOW THE ELEVATION WHERE THE DRIVE PAD MEETS THE STAINLESS STEEL ISLAND FORM.

CONSTRUCTION NOTES

1. TANK SHALL BE LABELED WITH A MINIMUM OF 2-INCH LETTERING WITH THE FOLLOWING INFORMATION:

TANK ID:	#1	#2
CONTENTS:	OFF-ROAD DIESEL	ON-ROAD DIESEL
SAFE FILL VOLUME (HEIGHT):	4,000 GALLONS (X'-X")*	8,000 GALLONS (X'-X")*
NFPA HAZARD ID:		



*CONTRACTOR TO PROVIDE HEIGHT "X" BASED ON MANUFACTURER DATA AND FINAL APPROVED SHOP DRAWING AND LABEL TANK AS SHOWN ABOVE

2. THE SAFE FILL LEVEL SHALL BE 90% OF THE TANK VOLUME. THE AUDIBLE AND VISUAL ALARM SHALL BE ACTIVATED AT THIS LEVEL. THE OVERFILL PREVENTION VALVE SHALL BE ACTIVATED AT 95% OF THE TANK VOLUME. INSTALLER SHALL VERIFY THAT THE 95% SHUTOFF VALVE FULLY STOPS FLOW AT THE SPECIFIED LEVEL.
3. VALVES, GAUGES, SENSORS, PIPES AND PUMPS ARE SHOWN AT APPROXIMATE LOCATIONS. THESE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATION.
4. THE INSTALLER SHALL VERIFY THAT THE TANK IS TESTED BY THE MANUFACTURER. IF TANK IS DELIVERED TO THE SITE UNDER VACUUM AND MAINTAINS ITS VACUUM THROUGH FINAL PLACEMENT, IT SHALL BE CONSIDERED SUCCESSFULLY TESTED. IF NOT, THE INSTALLER SHALL TEST THE TANK PER NFPA 30 CHAPTER 21.5. TANKS AND INTERSTITIAL SPACE SHALL BE TESTED FOR TIGHTNESS BY POSITIVE AIR PRESSURE OR HYDROSTATICALLY AT PRESSURE BETWEEN 3 AND 5 PSI FOR A MINIMUM OF 1.0 HOUR WITHOUT MEASURABLE LOSS.
5. PIPING SHALL BE TESTED AFTER INSTALLATION. PIPING SHALL BE TESTED PER NFPA 30 CHAPTER 27.7. PIPING SHALL BE TESTED PNEUMATICALLY AT 110% OF THE MAXIMUM ANTICIPATED PRESSURE. THE MAXIMUM PRESSURE OF PIPE SYSTEM PRODUCED AT THE PUMP IS APPROXIMATELY 31 PSI, TEST PRESSURE SHALL BE 110% OF 31 PSI OR 34 PSI. THE TEST PRESSURE SHALL BE MAINTAINED WHILE A COMPLETE VISUAL INSPECTION OF ALL JOINTS AND CONNECTIONS IS CONDUCTED. THE TEST SHALL BE MAINTAINED FOR A MINIMUM OF 10 MINUTES WITHOUT MEASURABLE LOSS.
6. THE TANK AND PIPING SHALL HAVE PROTECTIVE COATINGS AS SPECIFIED IN NFPA 30.
7. THE TANK, PIPING AND ASSOCIATED EQUIPMENT SHALL BE DESIGNED, INSTALLED AND OPERATED TO PREVENT ELECTROSTATIC IGNITION PER THE REQUIREMENTS OF NFPA 30 CHAPTER 6.5.4. TANK, PIPING AND ASSOCIATED EQUIPMENT SHALL BE GROUNDED AND TESTED FOR CONTINUITY PRIOR TO BEING PLACED INTO OPERATION.
8. WARNING SIGN(S) SHALL BE CONSPICUOUSLY POSTED IN THE DISPENSING AREA STATING THE FOLLOWING (DIMENSION OF SIGN TO BE DETERMINED. LETTERHEAD SHALL BE MINIMUM OF 1" HIGH):

   WARNING:

   IT IS UNLAWFUL AND DANGEROUS TO DISPENSE FUEL INTO UNAPPROVED CONTAINERS.

   NO SMOKING.

   STOP MOTOR.

   NO FILLING OF PORTABLE CONTAINERS IN OR ON A MOTOR VEHICLE.

   PLACE CONTAINER ON GROUND BEFORE FILLING.

   DISCHARGE YOUR STATIC ELECTRICITY BEFORE FUELING BY TOUCHING A METAL SURFACE AWAY FROM THE NOZZLE.

   DO NOT RE-ENTER YOUR VEHICLE WHILE FUEL IS PUMPING.

   IF A FIRE STARTS, DO NOT REMOVE NOZZLE - BACK AWAY IMMEDIATELY.

   DO NOT ALLOW INDIVIDUALS UNDER LICENSED AGE TO USE THE PUMP.

Stantec

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

CORE INVESTMENTS, INC

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
	Issued/Revision	YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

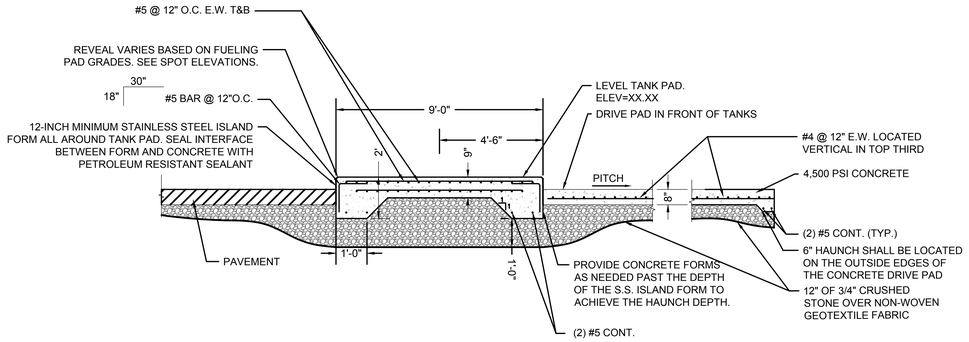
Scale	AS INDICATED
Project No.	218421418

FUEL ISLAND LAYOUT

EQ-201

© 2018 Stantec

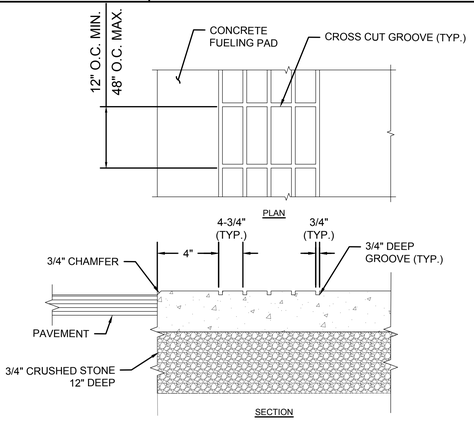
Pick location in Project Information
DO NOT SCALE DRAWING
DRAWING SHALL BE 24" x 36"
ARCH D (ANSI D)



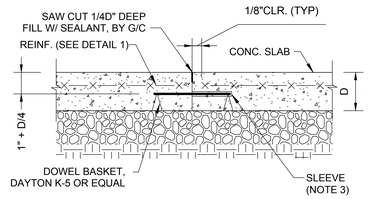
NOTES:

1. CONCRETE PADS SHALL BE 4,500 PSI AND COATED WITH CORROSION INHIBITING ADMIXTURE AS SPECIFIED. SEE SECTION 03 30 00 - CAST IN PLACE CONCRETE.

1 CONCRETE TANK AND DRIVE PAD SECTION
SCALE: N.T.S.



2 POSITIVE LIMITING BARRIER DETAIL
SCALE: N.T.S.

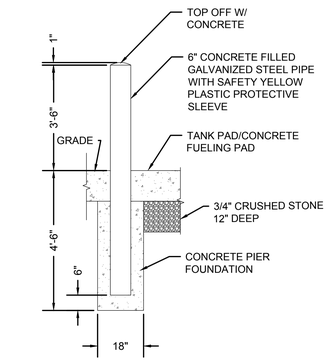


CONSTRUCTION JOINT (C.J.)			
SLAB THICKNESS, IN.	MIN. DOWEL LENGTH (L), IN.	MAXIMUM DOWEL SPACING, IN.	DOWEL DIAMETER AND TYPE
LESS THAN 6	N/A	N/A	N/A
8 TO AND INCLUDING 12	16	12	1" BAR

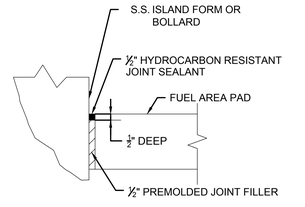
NOTE(S):

1. ALL DOWELS SHALL BE STRAIGHT, SMOOTH AND FREE FROM BURRS AT THE ENDS
2. ONE-HALF OF EACH DOWEL SHALL BE OILED OR OTHERWISE TREATED TO PREVENT BONDING WITH THE CONCRETE.
3. CONTRACTOR SHALL SECURELY SUPPORT DOWELS BY MEANS OF DOWEL BASKETS TO PREVENT ANY DISPLACEMENT OF THE DOWELS DURING CONCRETE PLACEMENT.
4. PUNCTURES IN THE VAPOR BARRIER MUST BE SEALED. ENGINEER SHALL INSPECT THE CONDITION OF THE VAPOR BARRIER BEFORE PLACING CONCRETE.
5. STOP REINFORCING 2" FROM EACH SIDE OF CONSTRUCTION/CONTROL JOINT.

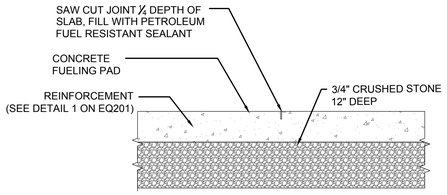
3 TYPICAL CONSTRUCTION JOINT DETAIL
SCALE: N.T.S.



4 BOLLARD DETAIL
SCALE: N.T.S.

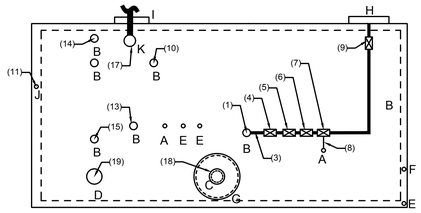


5 ISOLATION JOINT DETAIL
SCALE: N.T.S.

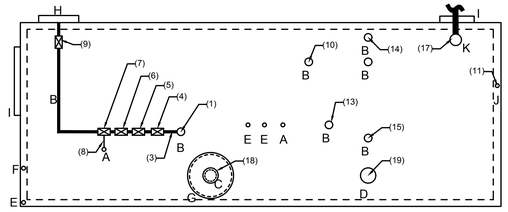


6 CONTROL JOINT (C.J.)
SCALE: N.T.S.

4,000 GALLON
RECTANGULAR
OFF-ROAD DIESEL TANK



8,000 GALLON
RECTANGULAR
ON-ROAD DIESEL TANK



LEGEND:

A. 2" FEMALE FIREGUARD COUPLING
B. 4" FEMALE FIREGUARD COUPLING
C. 8" FFSO 150# FLANGE - PRIMARY EMERGENCY VENT USE ONLY
D. 8" FFSO 150# FLANGE THROUGH OUTER SHELL ONLY. MARK WITH SPECIAL WARNING LABEL "INTERSTITIAL EMERGENCY VENT USE ONLY"
E. 2" FITTING THROUGH OUTER SHELL ONLY WITH CAST IRON PLUG - FOR MFG USE ONLY
F. 2" INTERSTITIAL MONITOR PIPE - MALE NPT END
G. 24" TIGHT BOLT MANWAY WITH "C" MOUNTED IN COVER
H. DISPENSER BRACKET MOUNTED TO SIDE OF TANK.
I. PIPING SUPPORT BRACKET
J. 2" INTERSTITIAL MONITOR PIPE - MALE NPT END - BULK HEAD MONITOR USE
K. 6" FEMALE FIREGUARD COUPLING

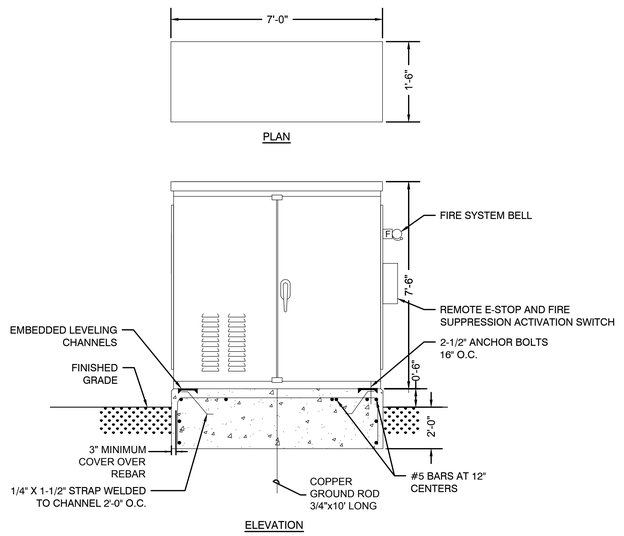
NOTES:

1. SEE PIPING NOTES ON EQ202 FOR ADDITIONAL INFORMATION/REQUIREMENTS.
2. FINAL TANK FITTING LAYOUT AND QUANTITY TO BE ADJUSTED AS NEEDED AND CONFIRMED DURING THE SUBMITTAL PROCESS TO MEET THE DESIGN LAYOUT AND TO MEET MANUFACTURER AND CODE REQUIREMENTS.
3. TANK TOP PIPING SUPPORT BRACKETS (NOT SHOWN) SHALL BE INCLUDED TO SUPPORT DISPENSER PIPING AS NEEDED.

SCHEDULE:

1. 1.5 HP RED JACKET PUMP
2. NOTE USED
3. 1.5" SCH 40 CARBON STEEL PIPE
4. 1.5" THREADED GATE VALVE
5. 1.5" EMERGENCY VALVE (MORRISON BROS. 346DI-0400 AV)
6. 1.5" SOLENOID VALVE (MORRISON BROS. 710SS-2150 1V)
7. 0.5" EXPANSION RELIEF VALVE (MORRISON BROS. 078DI-0200 AV)
8. 0.5" SCH 40 CARBON STEEL PIPE FROM EXP. RELIEF VALVE TO TANK
9. 1.5" BALL VALVE (MORRISON BROS. 691 BSS)
10. TANK LEVEL PROBE/HIGH LEVEL SENSOR (VEEDER ROOT 846391-399)
11. INTERSTITIAL SENSOR (VEEDER ROOT 794390-420)
12. NOT USED
13. 3" CARBON STEEL VENT PIPE WITH ATMOSPHERIC VENT CAP (OPW 23-0055)
14. CLOCK GAUGE (MORRISON BROS. 818-0400AGEVR)
15. GAUGE STICK PORT WITH CAP (MORRISON BROS. 305GSP2000AKEVR)
16. NOT USED
17. PRODUCT FILL
18. PRIMARY EMERGENCY VENT (MORRISON BROS. 244OF-0200AEVR)
19. SECONDARY EMERGENCY VENT (MORRISON BROS. 244OF-0100AEVR)

3 FUEL SYSTEM COMPONENT SCHEDULE
SCALE: N.T.S.



NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE EXACT CABINET SIZE WITH ALL MANUFACTURER EQUIPMENT SIZES PRIOR TO SUBMITTING THE CABINET FOR APPROVAL. PROVIDE A SCALED DRAWING SHOWING ALL EQUIPMENT.
2. FUEL ISLAND ELECTRICAL CABINET SHALL BE STAINLESS STEEL NEMA 3R RATED CABINET WITH THE FOLLOWING MINIMUM REQUIREMENTS:
   - 2.1. SLOPED ROOF AND OPEN BOTTOM
   - 2.2. CONTINUOUS STAINLESS STEEL HINGES
   - 2.3. FILTERED LOUVERS IN LEFT HAND DOOR
   - 2.4. STAINLESS STEEL 3-POINT PAD LOCKABLE HANDLE
   - 2.5. TWO STEEL BACK PANELS PAINTED WHITE FOR MOUNTING DEVICES IN CABINET
3. CONTRACTOR SHALL INSTALL 3/4-INCH HARD BOARD INSULATION ALONG THE SIDE WALLS, ROOF AND DOORS USING CONSTRUCTION ADHESIVE. WHEN INSTALLING INSULATION ON DOORS, CUT AND SHAPE INSULATION BOARD AS NEEDED TO AVOID THE DOOR LOCKING HARDWARE AND LOUVER IN LEFT HAND DOOR.

5 PAD MOUNTED ELECRICAL CABINET DETAIL
SCALE: N.T.S.

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

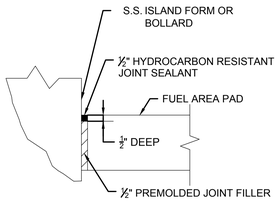
Scale AS INDICATED
Project No. 218421418

FUEL SYSTEM DETAILS I

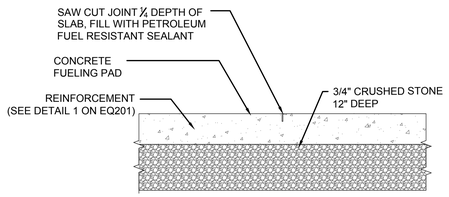
EQ-202

Do Not Scale Drawing - Refer to Project Information for Dimensions
ARCHITECTURAL (ARCH1)

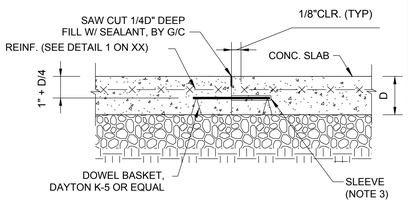
© 2018 Stantec



1 ISOLATION JOINT DETAIL
SCALE: N.T.S.



2 CONTROL JOINT (C.J.)
SCALE: N.T.S.

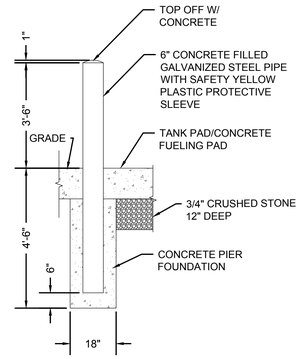


SLAB THICKNESS, IN.	CONSTRUCTION JOINT (C.J.) MIN. DOWEL LENGTH (L), IN.	MAXIMUM DOWEL SPACING, IN.	DOWEL DIAMETER AND TYPE
LESS THAN 6	N/A	N/A	N/A
8 TO AND INCLUDING 12	16	12	1" BAR

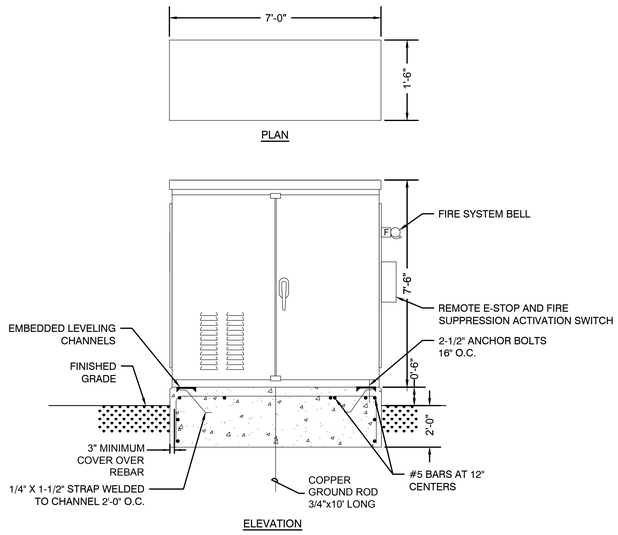
NOTE(S):

1. ALL DOWELS SHALL BE STRAIGHT, SMOOTH AND FREE FROM BURRS AT THE ENDS
2. ONE-HALF OF EACH DOWEL SHALL BE OILED OR OTHERWISE TREATED TO PREVENT BONDING WITH THE CONCRETE.
3. CONTRACTOR SHALL SECURELY SUPPORT DOWELS BY MEANS OF DOWEL BASKETS TO PREVENT ANY DISPLACEMENT OF THE DOWELS DURING CONCRETE PLACEMENT.
4. PUNCTURES IN THE VAPOR BARRIER MUST BE SEALED. ENGINEER SHALL INSPECT THE CONDITION OF THE VAPOR BARRIER BEFORE PLACING CONCRETE.
5. STOP REINFORCING 2" FROM EACH SIDE OF CONSTRUCTION/CONTROL JOINT.

3 TYPICAL CONSTRUCTION JOINT DETAIL
SCALE: N.T.S.



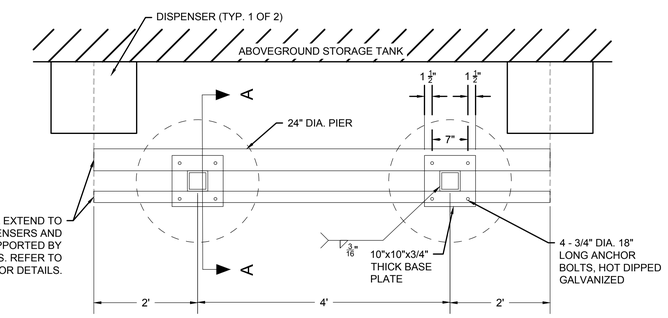
4 BOLLARD DETAIL
SCALE: N.T.S.

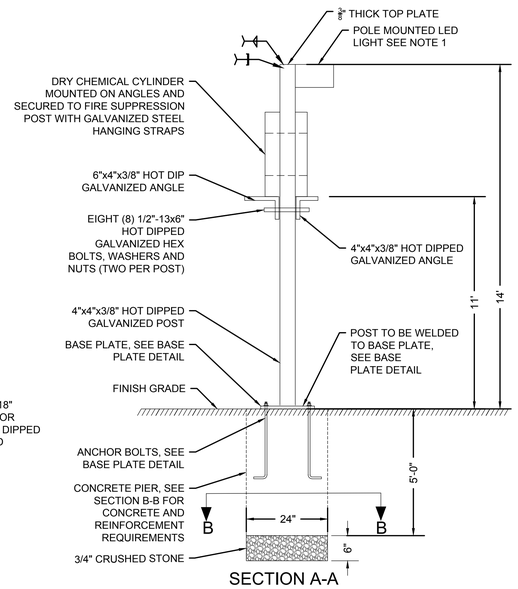


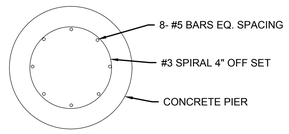
5 PAD MOUNTED ELECRICAL CABINET DETAIL
SCALE: N.T.S.

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE EXACT CABINET SIZE WITH ALL MANUFACTURER EQUIPMENT SIZES PRIOR TO SUBMITTING THE CABINET FOR APPROVAL. PROVIDE A SCALED DRAWING SHOWING ALL EQUIPMENT.
2. FUEL ISLAND ELECTRICAL CABINET SHALL BE STAINLESS STEEL NEMA 3R RATED CABINET WITH THE FOLLOWING MINIMUM REQUIREMENTS:
   - 2.1. SLOPED ROOF AND OPEN BOTTOM
   - 2.2. CONTINUOUS STAINLESS STEEL HINGES
   - 2.3. FILTERED LOUVERS IN LEFT HAND DOOR
   - 2.4. STAINLESS STEEL 3-POINT PAD LOCKABLE HANDLE
   - 2.5. TWO STEEL BACK PANELS PAINTED WHITE FOR MOUNTING DEVICES IN CABINET
3. CONTRACTOR SHALL INSTALL 3/4-INCH HARD BOARD INSULATION ALONG THE SIDE WALLS, ROOF AND DOORS USING CONSTRUCTION ADHESIVE. WHEN INSTALLING INSULATION ON DOORS, CUT AND SHAPE INSULATION BOARD AS NEEDED TO AVOID THE DOOR LOCKING HARDWARE AND LOUVER IN LEFT HAND DOOR.







SECTION B-B

NOTES:

1. IF ADD ALTERNATE 2A IS SELECTED, CONTRACTOR SHALL NOT INSTALL POLE MOUNTED LIGHTS. INSTEAD, CONTRACTOR SHALL INSTALL LIGHTS MOUNTED IN CANOPY. IF ADD ALTERNATE 2A IS NOT SELECTED, CONTRACTOR SHALL PROVIDE TWO (2) POLE MOUNTED LED LIGHTS, ONE PER DISPENSER. REFER TO THE ELECTRICAL DRAWINGS FOR LIGHT SPECIFICATIONS.
2. CONTRACTOR SHALL PROVIDE FIRE SUPPRESSION ENGINEERING DRAWINGS STAMPED BY A NEW YORK PROFESSIONAL ENGINEER. REFER TO SPECIFICATION SECTION 21 24 00 FUEL ISLAND FIRE SUPPRESSION SYSTEM FOR ADDITIONAL INFORMATION.
3. CONCRETE SHALL BE 4,000 PSI. SEE SECTION 03 30 00 - CAST IN PLACE CONCRETE.

6 FIRE SUPPRESSION SUPPORT BASE PLATE DETAIL
SCALE: N.T.S.

Stantec Architecture and Engineering P.C.
40 Water Street
Boston, MA 02109
Tel: (617) 234-3100
www.stantec.com

Consultant

RANDOLPH NORTH BUILDING A

PROJECT NORTH

Notes

3	50% CONSTRUCTION DOCUMENTS	2024.02.16
2	DESIGN DEVELOPMENT	2023.12.15
1	SCHEMATIC DESIGN	2023.10.06
Issued/Revision		YYYY.MM.DD

Permit/Seal

PRELIMINARY NOT FOR CONSTRUCTION

Scale	AS INDICATED
Project No.	218421418

FUEL SYSTEM DETAILS Ii

EQ-203

<Pick button or Project Information>
<Drawing Scale>
<Plot Date>
© 2018 Stantec