# 200 Libbey Industrial Parkway, WEYMOUTH, MA SITE DEVELOPMENT PLANS FOXROCK 200 LIBBEY, LLC

20 Cabot Blvd. Suite 305 Mansfield, MA 02048 Phone: 508-786-2200



**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301 Quincy, MA 02169



Tel 617 419 4660

# isgenuity

MEP/FP Engineer R.W. Sullivan Engineering The Schrafft Center 529 Main Street, Suite 203 Tel 617 523 8227 Fax 617 523 8016

Tetra Tech INE 20 Cabot Boulevard, Suite 305 Mansfield, MA 02048 Tel 508-786-2200 www.tetratech.com



**Landscape Architect** Terraink Landscape Architecture 7 Central Street, Suite 150 Arlington, MA 02476 Tel 781 316 1595 www.terraink.com

**Structural Engineer** McNamara • Salvia 101 Federal Street, Suite 1100 Boston, MA 02110 Tel 617 737 0040

### **DRAWING LIST**

C-1 COVER SHEET

**EXISTING CONDITIONS SURVEY** 

C-3 SITE LAYOUT PLAN

C-4 GRADING AND DRAINAGE PLAN

C-5 UTILITY PLAN

C-6 EROSION & SEDIMENT CONTROL PLAN

**DETAIL SHEET** 

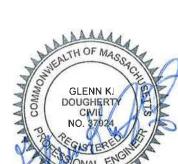
C-8 DETAIL SHEET

C-9 DETAIL SHEET

C-10 RECHARGE SYSTEM DETAIL SHEET

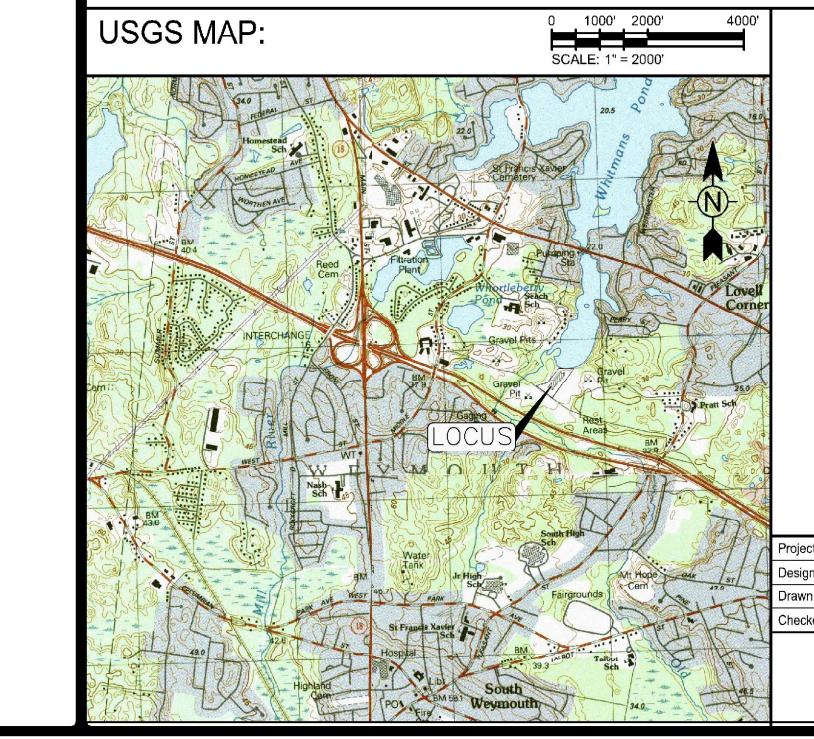
L-1 PERMITTING PLANTING

L-2 PERMITTING ENLARGEMENT L-3 PERMITTING ILLUSTRATIVES



# ISSUED:

FEBRUARY 3, 2021 SUBMIT NOI TO CONSERVATION COMMISSION FEBRUARY 11, 2021 SUBMIT TO BOARD OF ZONING APPEALS MARCH 8, 2021 REVISED PER CONSERVATION / DPW COMMENTS



SITE CONTEXT MAP

	LEGEND	
EXISTING	PROPOSED	
210X23	SPOT GRADE TOP OF WALL ELEVATION	140X50 123.5TW
	BOTTOM OF WALL ELEVATION	120.0BW
136	CONTOUR	<del>136</del>
□СВ	CONCRETE BOUND	
□ SB	STONE BOUND	
	DRILL HOLE	
*	LIGHT POLE	<b>□•</b> □
-O-	UTILITY POLE	
⊗ <sup>WV</sup>	WATER VALVE	M
	DRAIN LINE	——— SD ——————
SS	SEWER LINE	ss
	GAS LINE	G
	UNDERCROUND ELECTRIC	——Е/Т/С———
W ·	WATER LINE	w
OE	OVERHEAD WIRES	
■ CB	CATCH BASIN	■ CB
$\triangleright$	FLARED END OUTLET	<b>=</b>
DMH	DRAIN MANHOLE	■ DMH
SMH	SEWER MANHOLE	• ѕмн
	HYDRANT	•
⊗ GG	GAS GATE	•
MW	MONITORING WELL	
<del>"</del>	TEST PIT	
\ <u>`</u>	BOLLARD	V/CC
VGC CC	VERTICAL GRANITE CURB CONCRETE CURB	VGC CC
00	CONCILIE COND	00

ZONING ANALYSIS TABLE: District - Planned Office Park (POP)				
REQUIRED	EXISTING	PROVIDED		
43,560 S.F. (1.0 Ac.)	187,308 S.F. (4.3 Ac.)	NO CHANGE		
150'	388.08'	NO CHANGE		
NO REQ'MT.	419.98'	NO CHANGE		
40'	115'	266'		
25'	79'	56'		
25'	>25'	>25'		
NO REQ'MT.	22.9%	12.3%		
60%	72.5%	68.3%		
3	2	3		
35'	±20'	±45'		
	REQUIRED  43,560 S.F. (1.0 Ac.)  150'  NO REQ'MT.  40'  25'  25'  NO REQ'MT.  60%  3	REQUIRED       EXISTING         43,560 S.F. (1.0 Ac.)       187,308 S.F. (4.3 Ac.)         150'       388.08'         NO REQ'MT.       419.98'         40'       115'         25'       79'         25'       >25'         NO REQ'MT.       22.9%         60%       72.5%         3       2		

(1) WEYMOUTH ZONING ORDINANCE DEFINES LOT COVERAGE AS: "THE FIXED RELATION BETWEEN THE LOT AREA AND THE AREA OF GROUND COVERAGE OF ALL BUILDINGS, INCLUDING ACCESSORY BUILDINGS, AND EXPRESSED AS A PERCENTAGE".

(2) LOT IMPERVIOUS COVERAGE: THE FIXED RELATION BETWEEN THE LOT AREA AND THE AREA OF IMPERVIOUS COVERAGE OF ALL BUILDINGS AND PAVEMENT EXPRESSED AS A PERCENTAGE.

SITE WETLAND BUFFER IMPACTS TABLE					
AREA	EXISTING	PROPOSED			
50' NO DISTURB ZONE	<ul> <li>UNDISTURBED NATURAL LAND AREA = 5,800 S.F.</li> <li>DISTURBED AND FILLED PERVIOUS AREA = 7,820 S.F.</li> <li>INDUSTRIAL BUILDING / PAVEMENT AREA = 5,270 S.F.</li> <li>TOTAL LAND AREA = 18,890 S.F.</li> </ul>	UNDISTURBED NATURAL LAND AREA = 5,800 S.F.  IMPROVED SITE LANDSCAPE AREA = 11,550 S.F.  IMPROVED SITE PAVEMENT AREA = 1,540 S.F.  TOTAL LAND AREA = 18,890 S.F.			
100' BUFFER ZONE	<ul> <li>UNDISTURBED NATURAL LAND AREA = 12,425 S.F.</li> <li>DISTURBED AND FILLED PERVIOUS AREA = 11,400 S.F.</li> <li>INDUSTRIAL BUILDING / PAVEMENT AREA = 26,250 S.F.</li> <li>TOTAL LAND AREA = 50,075 S.F.</li> </ul>	● UNDISTURBED NATURAL LAND AREA = 12,425 S.F. ● IMPROVED SITE LANDSCAPE AREA = 22,180 S.F. ● IMPROVED SITE PAVEMENT AREA = 15,470 S.F. TOTAL LAND AREA = 50,075 S.Γ.			

SITE IMPERVIOUS CALCULATIONS TABLE

**PROPOSED** 

1,541 S.F. (0.04 Ac.)

0.8%

8.3%

68.3%

26,722 S.F. (0.61 Ac.) 15,614 S.F. (0.36 Ac.)

135,776 S.F. (3.12 Ac.) | 128,024 S.F. (2.94 Ac.)

**EXISTING** 

3 2%

14.3%

50' NO DISTURB 6,129 S.F. (0.14 Ac.)

ZONE

100' BUFFER

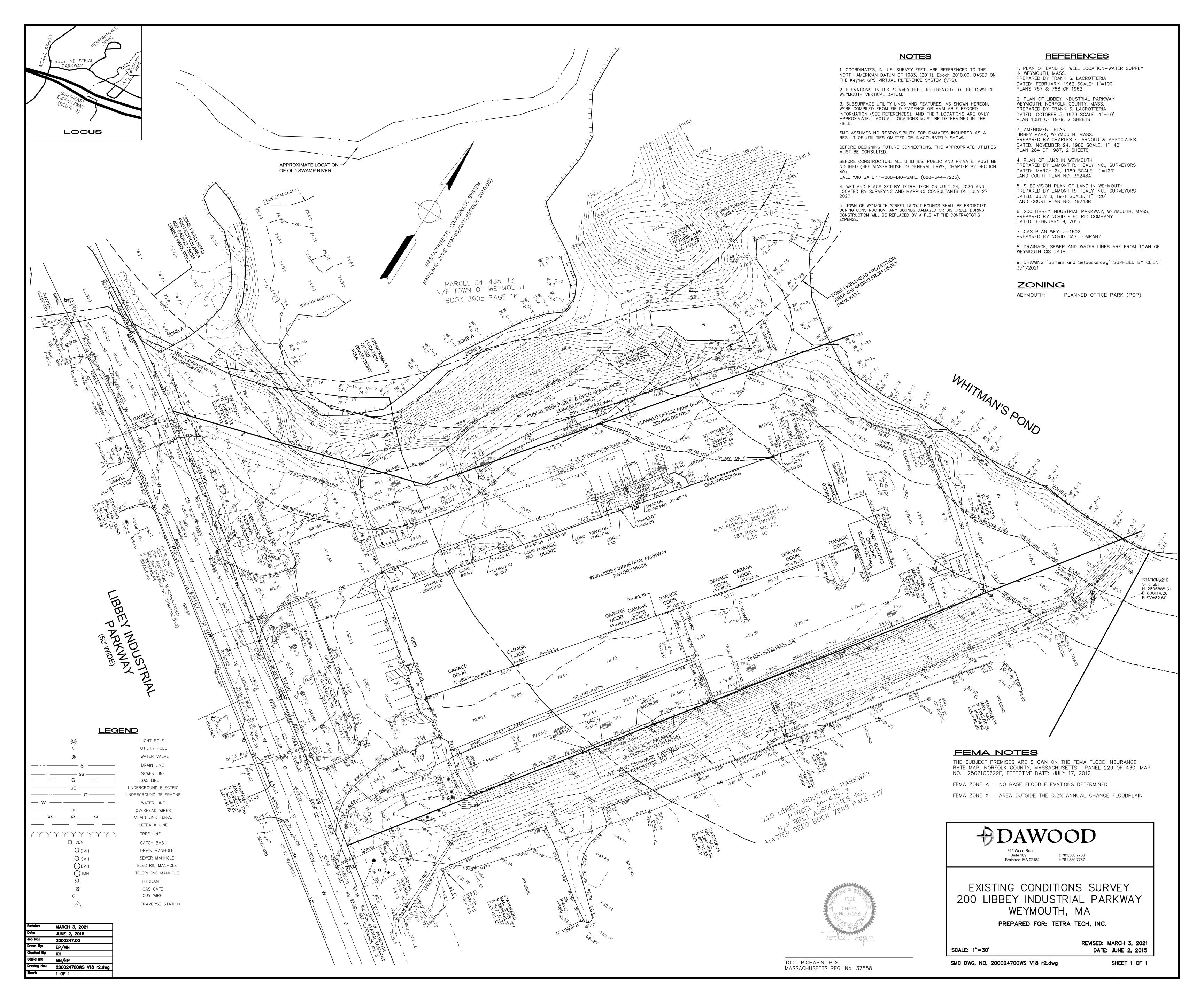
ZONE

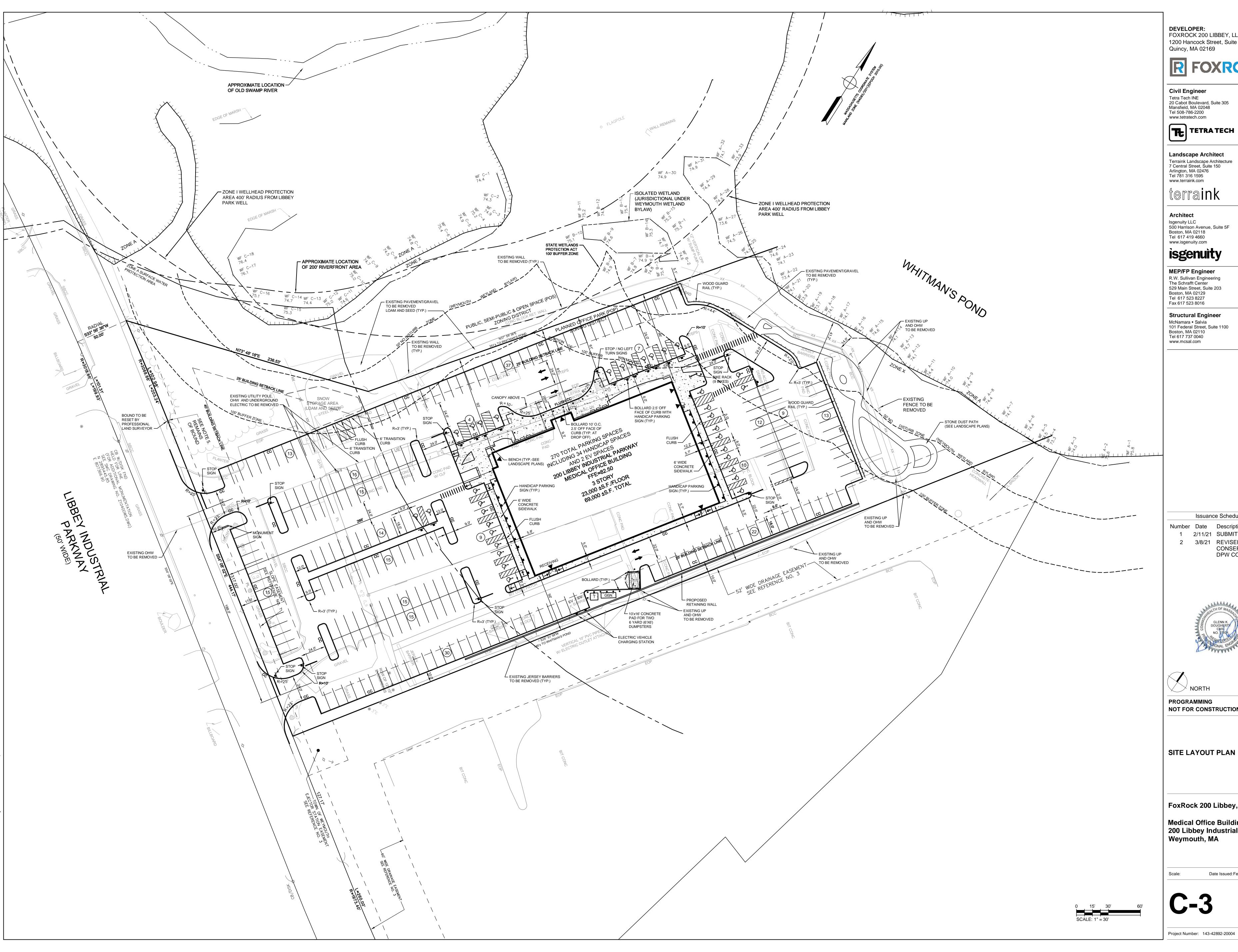
# REQUIRED VARIANCES REQUESTED

1. SECTION 120-51 SCHEDULE OF DISTRICT REGULATIONS, TABLE 1: SCHEDULE OF DISTRICT REGULATIONS: 1. LOT COVERAGE AREA; TABLE 1: SCHEDULE OF DISTRICT REGULATIONS. VARIANCE TO EXCEED 60% LOT COVERAGE AREA.

2. PER 120-62.1 FRONT YARD LANDSCAPING, THE FRONT YARD AREA COMPRISING THE MINIMUM REQUIRED FRONT YARD SETBACK DEPTH AND MEASURED ACROSS THE LOT WIDTH SHALL BE LANDSCAPED, EXCEPT FOR REQUIRED ACCESS DRIVEWAYS AND WALKWAYS.

3. SECTION 120-64.4 SIGNS IN INDUSTRIAL DISTRICT. 4. SECTION 120-74 - OFF-STREET PARKING - VARIANCE FROM MINIMUM





**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301





McNamara • Salvia
101 Federal Street, Suite 1100
Boston, MA 02110
Tel 617 737 0040

Issuance Schedule

1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION / DPW COMMENTS

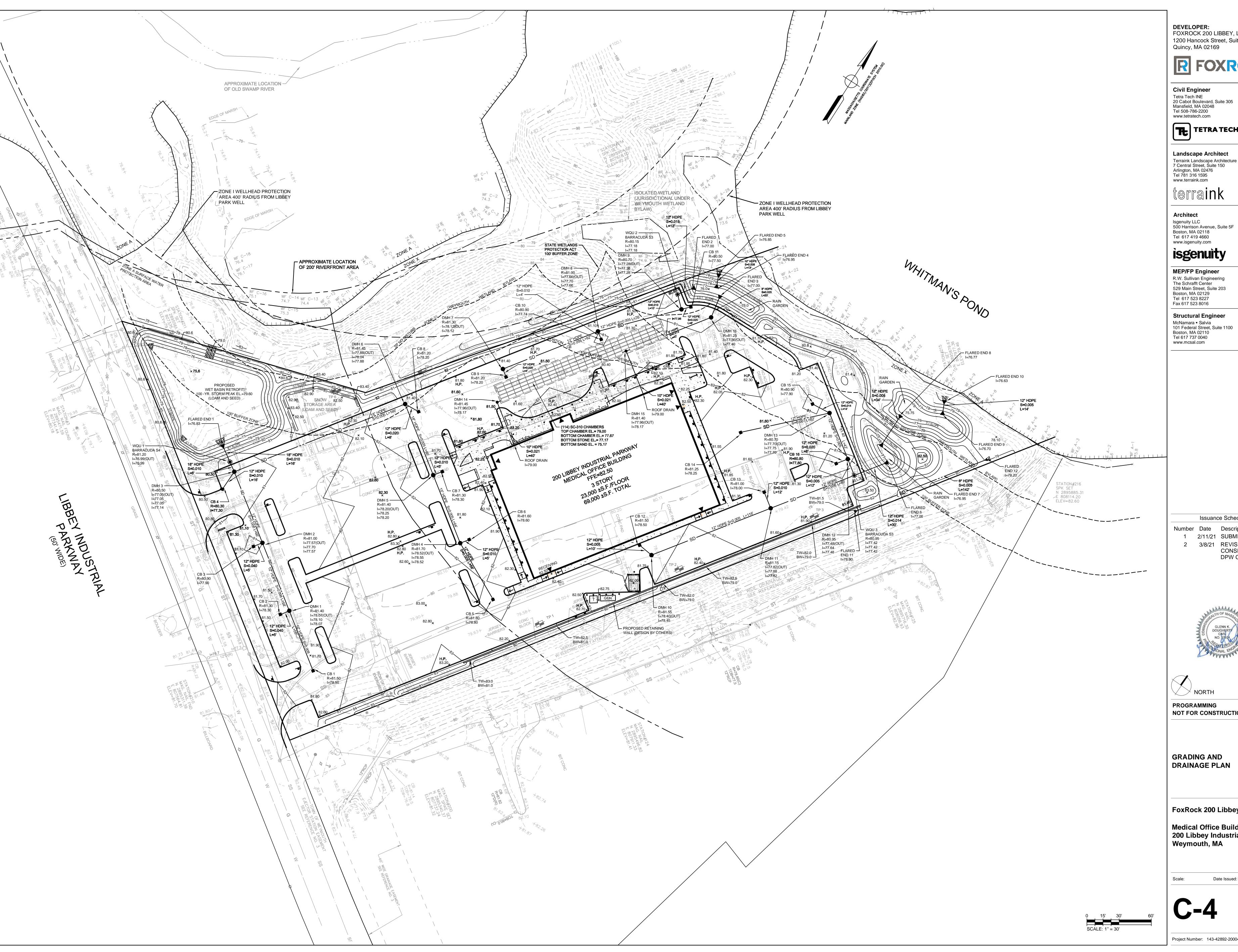


NOT FOR CONSTRUCTION

FoxRock 200 Libbey, LLC

Medical Office Building 200 Libbey Industrial Parkway

Date Issued: February 3, 2021



**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301





Landscape Architect Terraink Landscape Architecture 7 Central Street, Suite 150 Arlington, MA 02476 Tel 781 316 1595 www.terraink.com

# isgenuity

# Structural Engineer

McNamara • Salvia
101 Federal Street, Suite 1100
Boston, MA 02110
Tel 617 737 0040

Issuance Schedule

1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION /

DPW COMMENTS





**PROGRAMMING** NOT FOR CONSTRUCTION

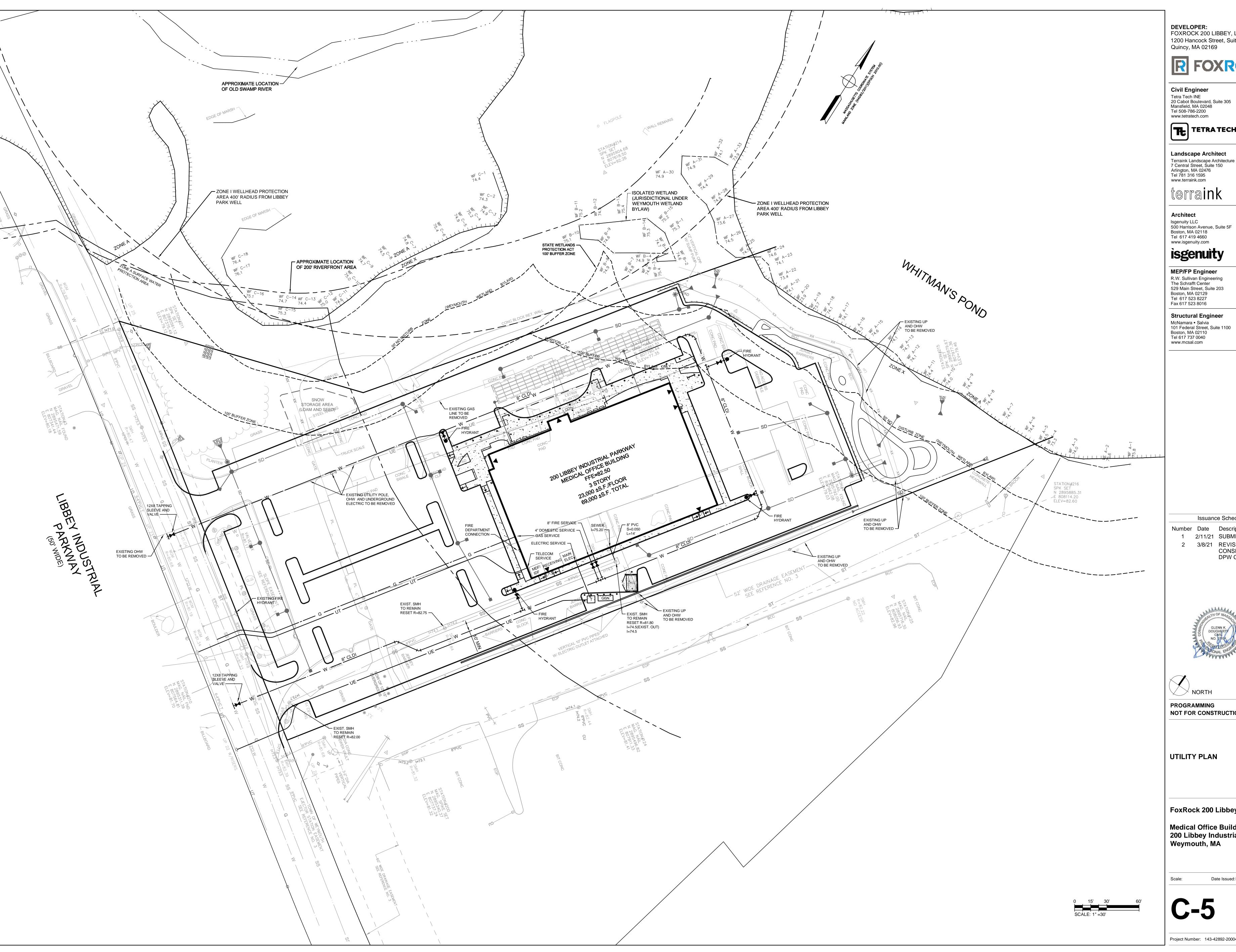
**GRADING AND** DRAINAGE PLAN

FoxRock 200 Libbey, LLC

Medical Office Building 200 Libbey Industrial Parkway Weymouth, MA

Date Issued: February 3, 2021





**DEVELOPER:**FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301 Quincy, MA 02169



Civil Engineer

Tetra Tech INE
20 Cabot Boulevard, Suite 305
Mansfield, MA 02048
Tel 508-786-2200
www.tetratech.com



**Landscape Architect** Terraink Landscape Architecture
7 Central Street, Suite 150
Arlington, MA 02476
Tel 781 316 1595
www.terraink.com

Architect

MEP/FP Engineer
R.W. Sullivan Engineering
The Schrafft Center
529 Main Street, Suite 203
Boston, MA 02129
Tel 617 523 8227
Fax 617 523 8016

Structural Engineer

McNamara • Salvia 101 Federal Street, Suite 1100 Boston, MA 02110 Tel 617 737 0040 www.mcsal.com

Issuance Schedule

1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION / DPW COMMENTS



✓ NORTH

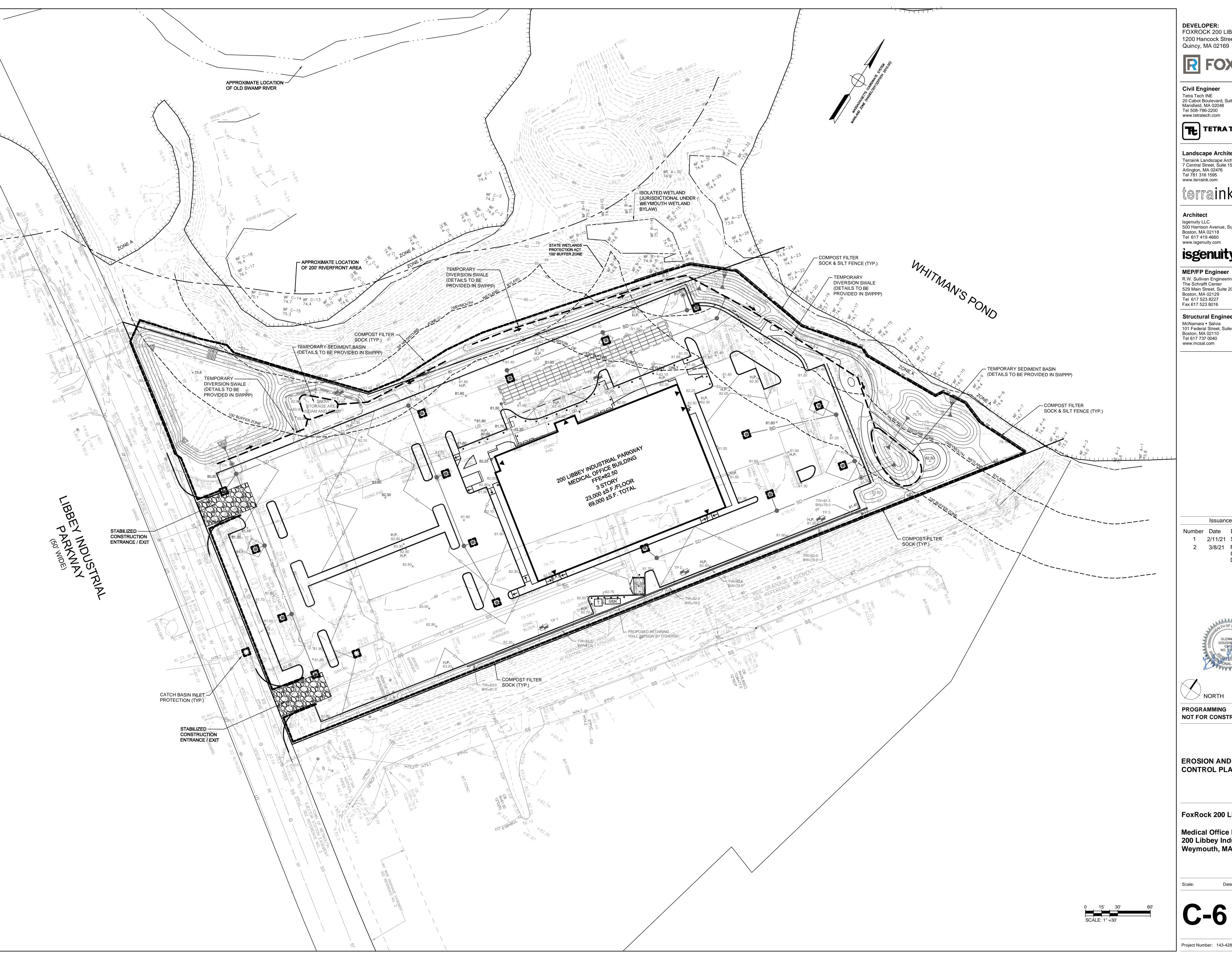
**PROGRAMMING** NOT FOR CONSTRUCTION

UTILITY PLAN

FoxRock 200 Libbey, LLC

Medical Office Building 200 Libbey Industrial Parkway Weymouth, MA

Date Issued: February 3, 2021



**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301



Civil Engineer

Tetra Tech INE
20 Cabot Boulevard, Suite 305
Mansfield, MA 02048
Tel 508-786-2200
www.tetratech.com



**Landscape Architect** Terraink Landscape Architecture
7 Central Street, Suite 150
Arlington, MA 02476
Tel 781 316 1595
www.terraink.com

Architect

Isgenuity LLC 500 Harrison Avenue, Suite 5F Boston, MA 02118 Tel 617 419 4660 www.isgenuity.com

# isgenuity

MEP/FP Engineer
R.W. Sullivan Engineering
The Schrafft Center
529 Main Street, Suite 203
Boston, MA 02129
Tel 617 523 8227
Fax 617 523 8016

Structural Engineer

McNamara • Salvia 101 Federal Street, Suite 1100 Boston, MA 02110 Tel 617 737 0040 www.mcsal.com

Issuance Schedule

Number Date Description 1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION / DPW COMMENTS

NORTH

**PROGRAMMING** NOT FOR CONSTRUCTION

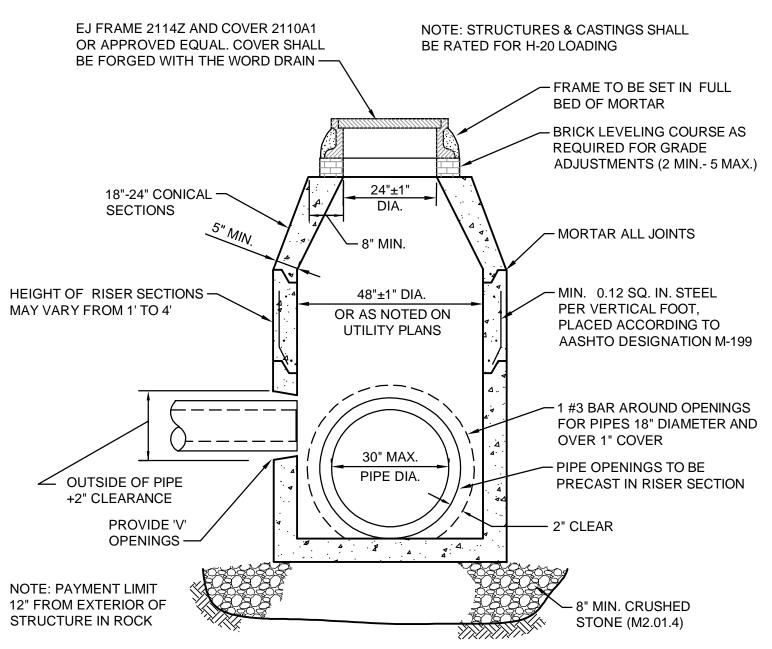
EROSION AND SEDIMENT CONTROL PLAN

FoxRock 200 Libbey, LLC

Medical Office Building 200 Libbey Industrial Parkway Weymouth, MA

Date Issued: February 3, 2021





C-478 & OSHA (STD 1-1.9)

- 1. MANHOLE DIAMETER TO BE INCREASED AS REQUIRED TO ACCOMMODATE NUMBER OF
- PIPES ENTERING OR DISCHARGING FROM MANHOLE. 2. STRUCTURE OPENING VOIDS, AFTER PIPE INSTALLATION, SHALL BE FILLED WITH NON-SHRINK WATERPROOF GROUT. GROUT TO BE COMPLETELY AROUND THE PIPE.

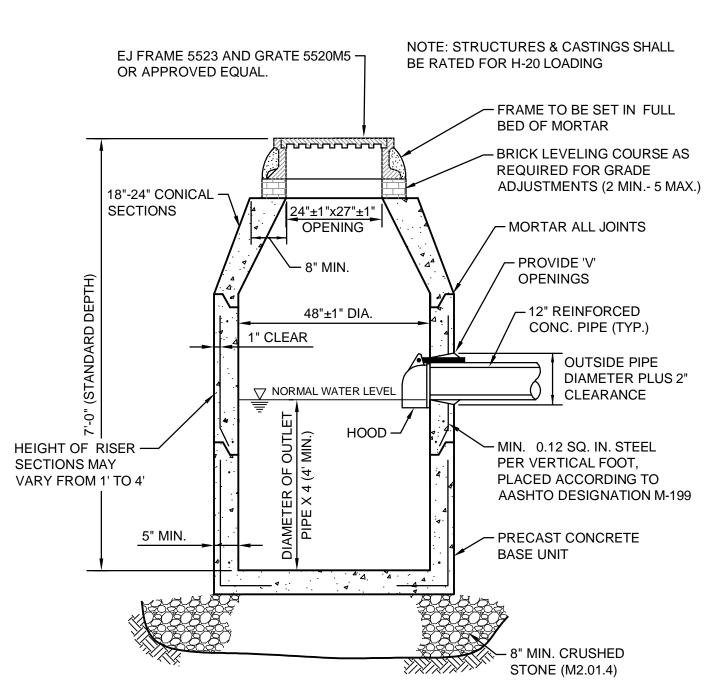
GROUT SHALL BE SMOOTH AND PARALLEL TO INTERIOR AND EXTERIOR WALLS.

- NOTES: 1. CONCRETE = 4000 PSI MINIMUM, CEMENT PER ASTM C-478
- 2. MANHOLE TO CONFORM TO LATEST ASTM C-478 SPECIFICATIONS FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS"
- 3. STEEL REINFORCEMENT TO MEET OR EXCEED H20 LOADING. 4. MANHOLE STEPS - POLYPROPYLENE COATED GRADE 60 REINFORCING BAR, PER ASTM

### PRECAST CONCRETE DRAIN MANHOLE

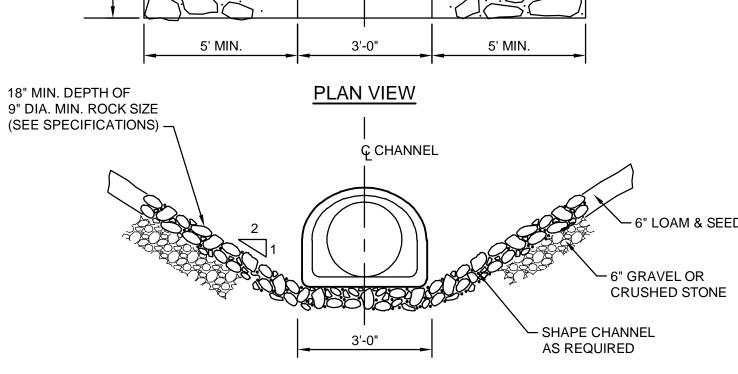
9 FEET OR LESS IN DEPTH

NOT TO SCALE



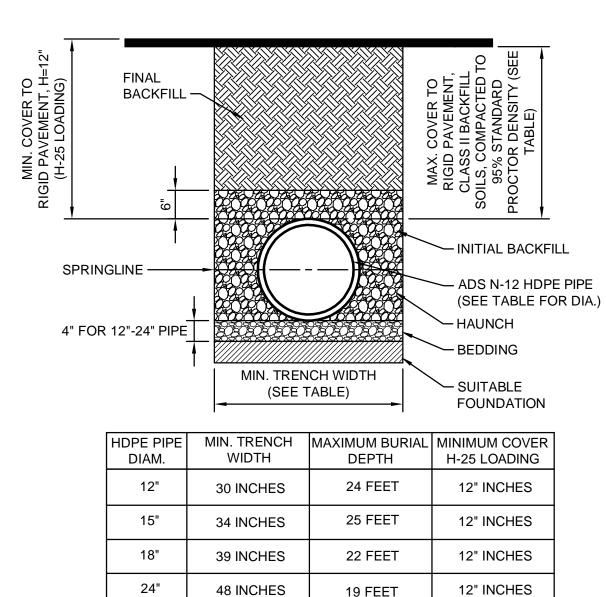
### PRECAST CONCRETE CATCH BASIN NOT TO SCALE

/- 15" HDPE FLARED END SECTION - STONE RIP-RAP (TYP.) TOE OF SLOPE -5' MIN.



## **OUTLET EROSION PROTECTION**

SECTION A-A



1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

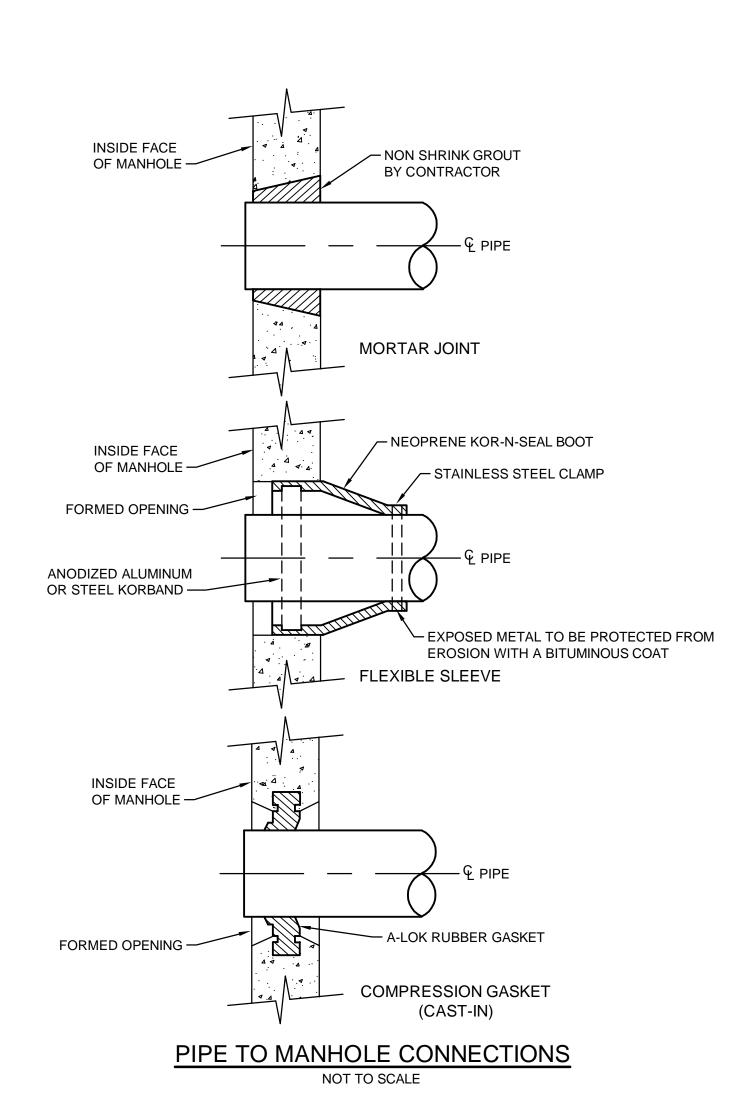
4. <u>BEDDING:</u> SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).

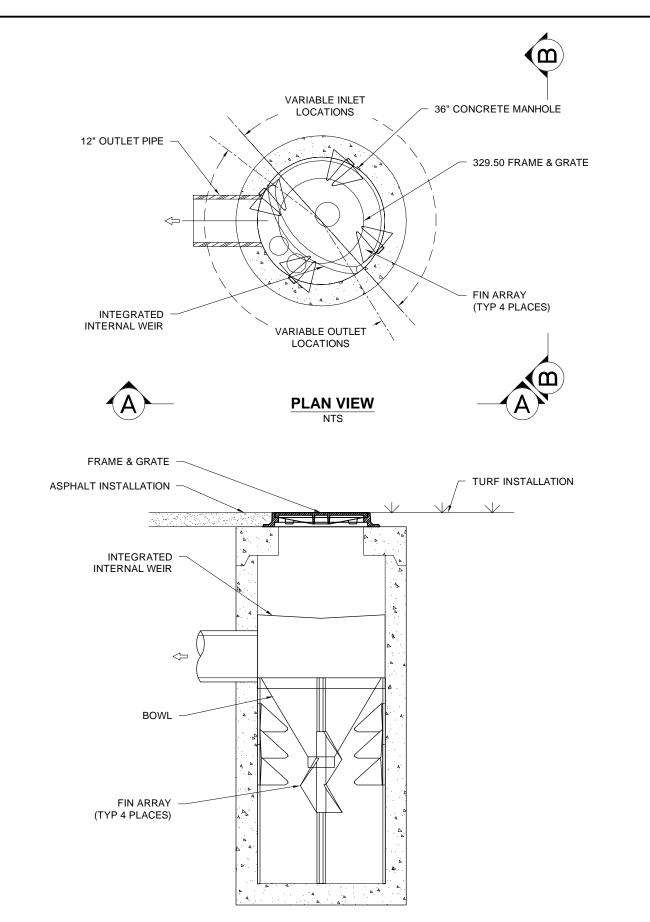
5. <u>INITIAL BACKFILL:</u> SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

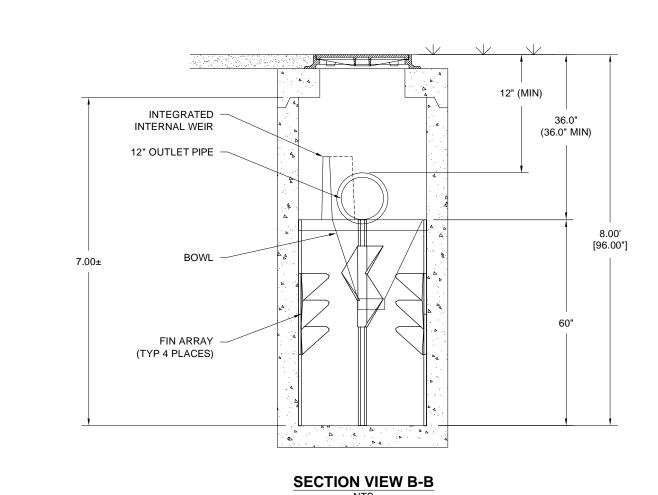
# HDPE PIPE INSTALLATION

NOT TO SCALE





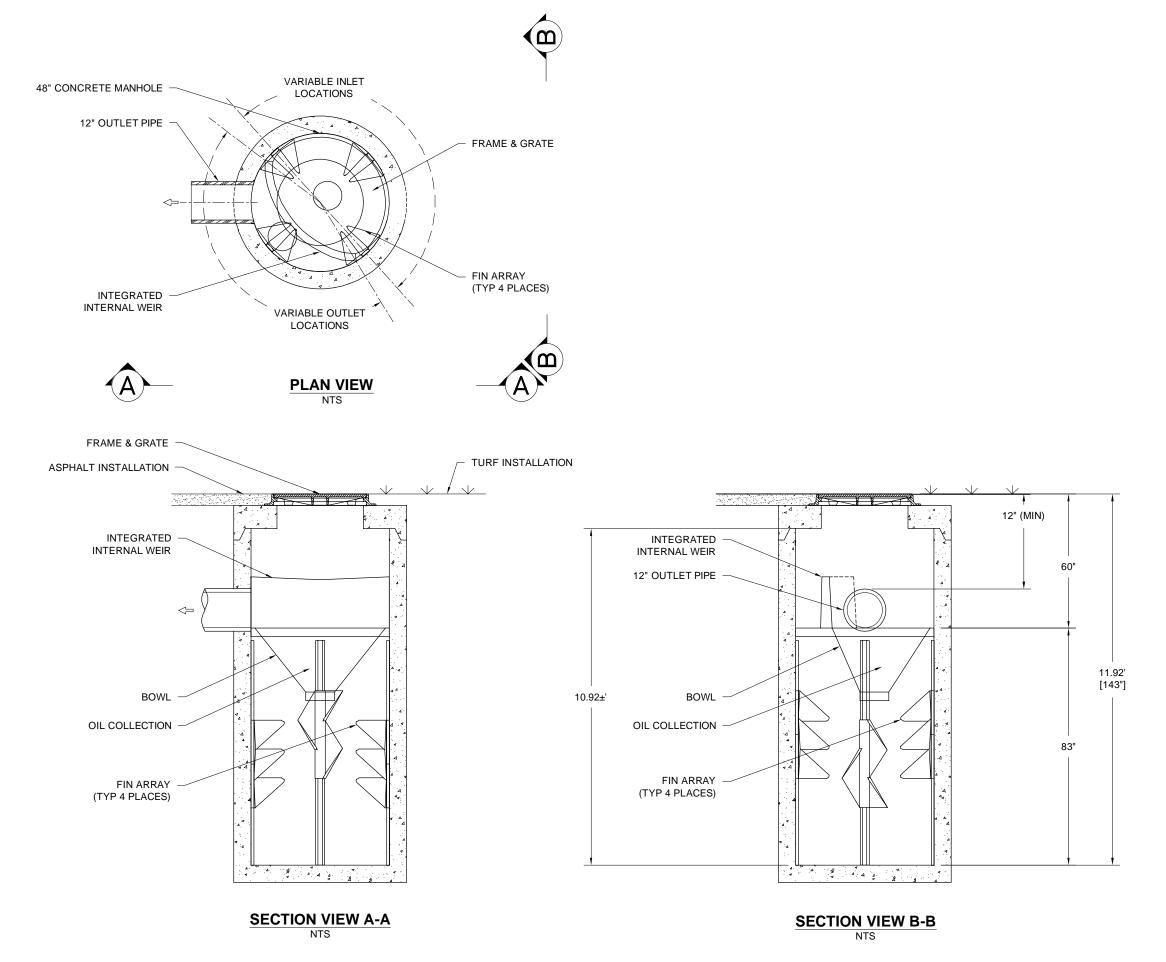
**SECTION VIEW A-A** 



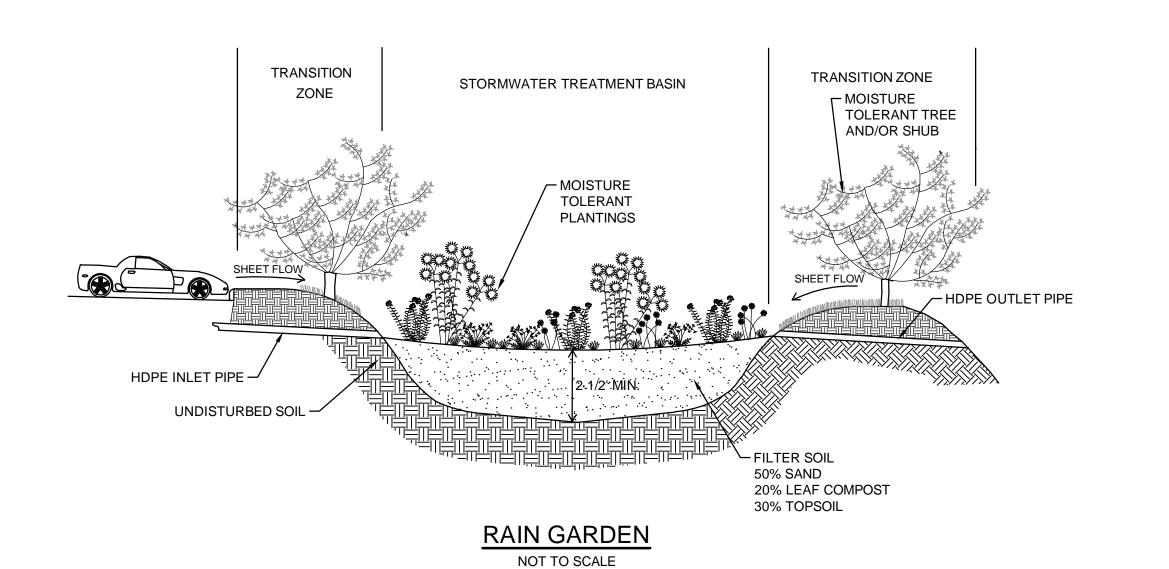
# COMPLETE UNIT INCLUDING CONCRETE MANHOLE WILL BE PROVIDED BY ADS

### WATER QUALITY UNIT ADS BARRACUDA S3

NOT TO SCALE



### COMPLETE UNIT INCLUDING CONCRETE MANHOLE WILL BE PROVIDED BY ADS **ADS BARRACUDA S4** NOT TO SCALE



**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301 Quincy, MA 02169

Civil Engineer

**TETRA TECH** 

20 Cabot Boulevard, Suite 305

Tetra Tech INE

Mansfield, MA 02048

Tel 508-786-2200

www.tetratech.com

Landscape Architect Terraink Landscape Architecture 7 Central Street, Suite 150 Arlington, MA 02476 Tel 781 316 1595 www.terraink.com

Architect Isgenuity LLC 500 Harrison Avenue, Suite 5F Boston, MA 02118 Tel 617 419 4660

### www.isgenuity.com isgenuity

MEP/FP Engineer R.W. Sullivan Engineering The Schrafft Center 529 Main Street, Suite 203 Boston, MA 02129

### Tel 617 523 8227 Fax 617 523 8016 Structural Engineer

McNamara • Salvia 101 Federal Street, Suite 1100 Boston, MA 02110 Tel 617 737 0040 www.mcsal.com

Issuance Schedule

Number Date Description 1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION / **DPW COMMENTS** 





**PROGRAMMING** NOT FOR CONSTRUCTION

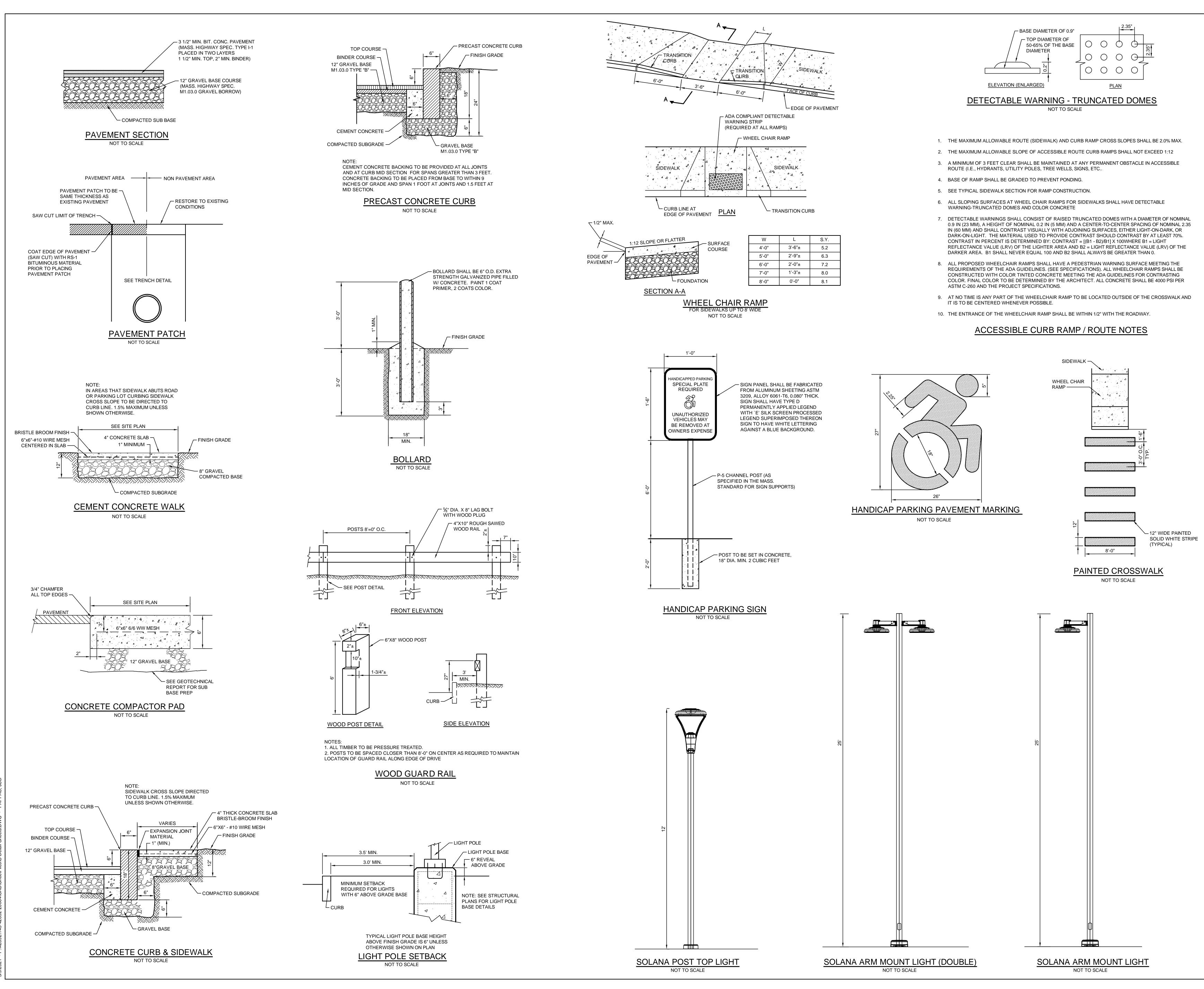
DETAIL SHEET

FoxRock 200 Libbey, LLC

**Medical Office Building** 200 Libbey Industrial Parkway

Date Issued: February 3, 2021

Weymouth, MA



DEVELOPER: FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301 Quincy, MA 02169



Civil Engineer

Tetra Tech INE
20 Cabot Boulevard, Suite 305
Mansfield, MA 02048
Tel 508-786-2200

www.tetratech.com



Landscape Architect
Terraink Landscape Architecture
7 Central Street, Suite 150
Arlington, MA 02476
Tel 781 316 1595
www.terraink.com

## erraink

Architect
Isaenuity LLC

Isgenuity LLC 500 Harrison Avenue, Suite 5F Boston, MA 02118 Tel 617 419 4660 www.isgenuity.com

# isgenuity

MEP/FP Engineer

R.W. Sullivan Engineering
The Schrafft Center
529 Main Street, Suite 203

Roston, MA 02129

Boston, MA 02129
Tel 617 523 8227
Fax 617 523 8016

Structural Engineer

McNamara • Salvia
101 Federal Street, Suite 1100
Boston, MA 02110
Tel 617 737 0040
www.mcsal.com

Issuance Schedule

Number Date Description
1 2/11/21 SUBMIT TO BZA
2 3/8/21 REVISED PER
CONSERVATION /
DPW COMMENTS



NORTH

PROGRAMMING
NOT FOR CONSTRUCTION

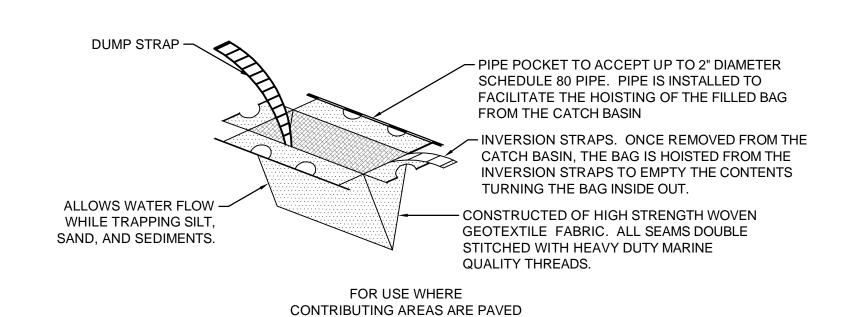
DETAIL SHEET

FoxRock 200 Libbey, LLC

Medical Office Building 200 Libbey Industrial Parkway Weymouth, MA

Scale: Date Issued: February 3, 2021

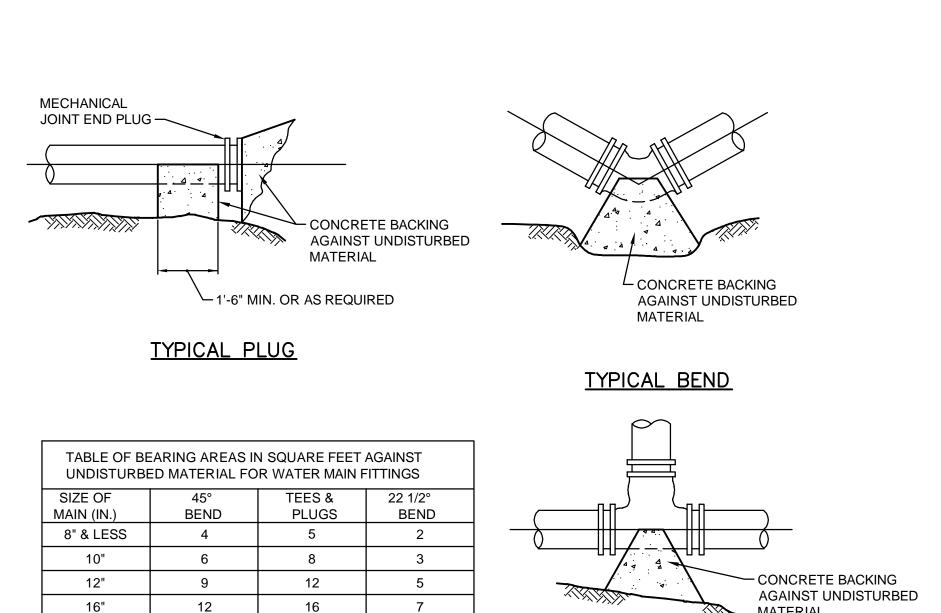
**C-8** 



GEOTEXTILE CATCH BASIN INLET PROTECTION

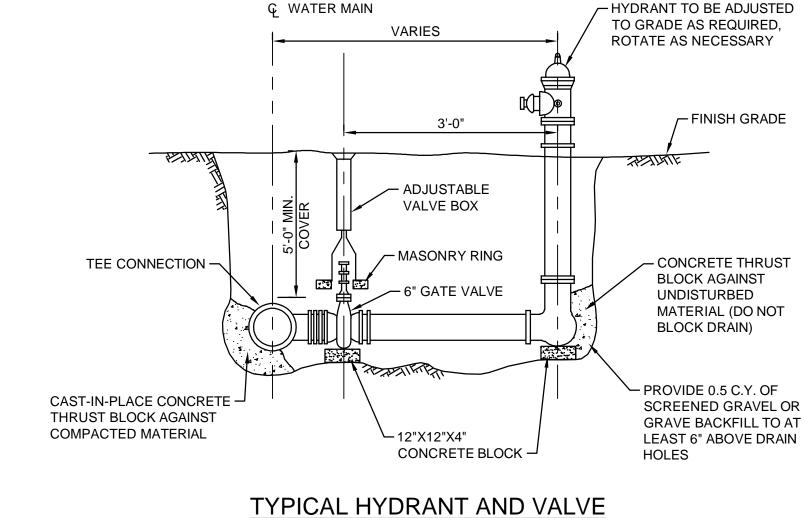
UNPAVED PAVED SEE SPECIFICATIONS - PAVING AND SUBBASE FOR FINAL GRADING — MATERIAL AS SPECIFIED COMMON FILL MATERIAL TO BE -COMPACTED AS SPECIFIED, NO STONES LARGER THAN 6" PERMITTED IN THIS AREA SELECT BACKFILL, NO STONES LARGER -THAN 2" IN ANY DIMENSION WILL BE PERMITTED FROM THE TRENCH BOTTOM TO 12" ABOVE TOP OF PIPE. → BACKFILL TO BE INSTALLED IN TYPICAL FOR EARTH OR LEDGE. LAYERS OF 6" FIRMLY TAMPED BY HAND TO 12" ABOVE PIPE FROM THE BOTTOM OF TRENCH. TYPICAL FOR 6" MINIMUM IN LEDGE -EARTH OR LEDGE - BED BOTTOM QUADRANT ON UNDISTURBED EARTH. EXCAVATE BY HAND FOR BELL HOLES AND INSTALL PIPE SO THAT IT IS FIRMLY SCREENED GRAVEL SUPPORTED FOR ITS LENGTH. EXCAVATION IN LEDGE | EXCAVATION IN EARTH

CEMENT LINED DUCTILE IRON (CLDI) PIPE TRENCH NOT TO SCALE



CONCRETE THRUST BLOCKS TYPICAL TEE

NOT TO SCALE



NOT TO SCALE

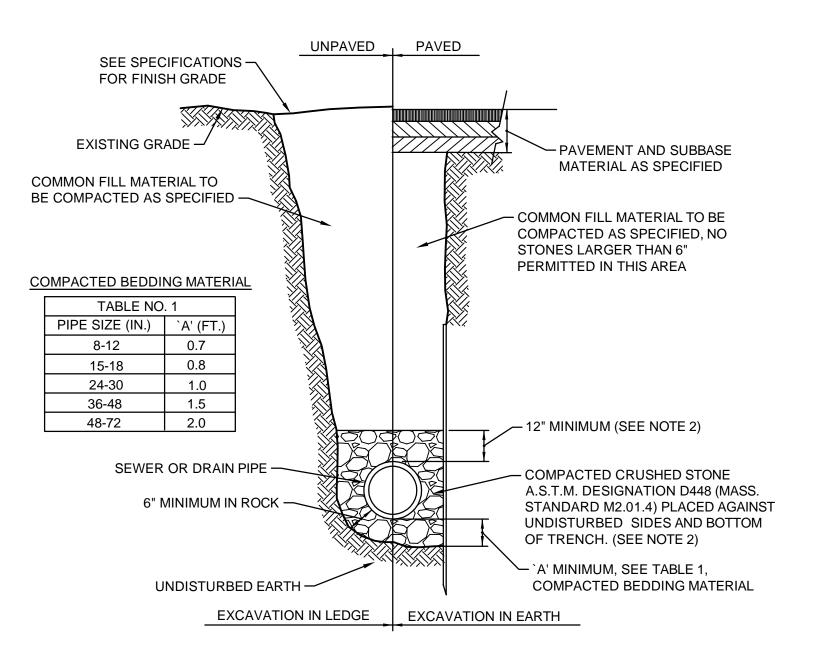
CONCRETE THRUST BLOCK

WATER MAIN -

AGAINST COMPACTED MATERIAL -

TIE RODS -

SPOOL PIECE -



MATERIAL

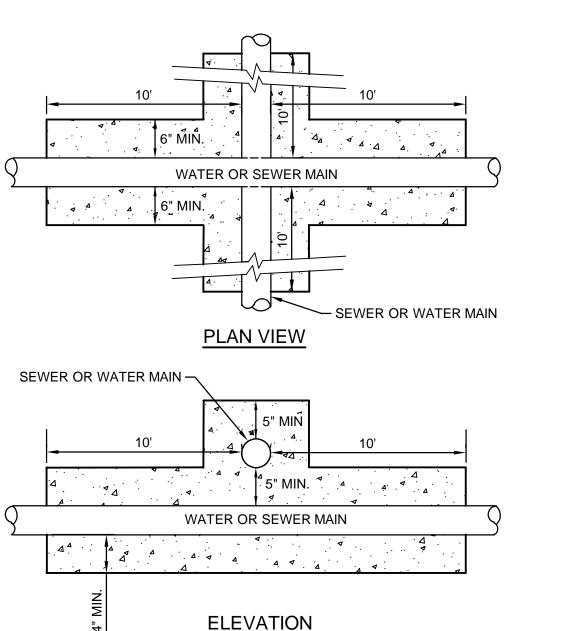
1. SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.

2. WHEN APPROVED BY THE ENGINEER FOR PIPES OTHER THAN PVC SELECTED GRAVEL FILL MATERIAL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE. NO STONES LARGER THAN 2 INCHES IN ANY DIMENSION WILL BE PERMITTED IN THIS AREA - MASSACHUSETTS STATE MATERIAL STANDARD M1.03.0 TYPE C.

3. TRENCHES LOCATED ON THE ROAD SHOULDER SHALL BE TREATED THE SAME EXCEPT FOR PAVING. 4. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE WHERE DIRECTED, OR EVERY 300 FEET, WHICHEVER IS LESS.

5. BEDDING MATERIAL FOR PVC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D2321 CLASS I OR CLASS II EMBEDMENT MATERIALS.

SEWER TRENCH (PVC)



1. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER.

2. THE WATER MAIN SHALL BE LAID ABOVE THE SEWER.

NOTES:

3. SHOULD LOCAL CONDITIONS PREVENT AN 18" SEPARATION, BOTH THE WATER MAIN AND THE SEWER SHALL BE ENCASED IN CONCRETE ON EITHER SIDE OF THE CROSSING (SEE DETAIL).

4. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE 18" MINIMUM VERTICAL CLEARANCE.

> **CONCRETE ENCASED SEWER** AND WATER MAIN CROSSING NOT TO SCALE

**GENERAL CONSTRUCTION NOTES** 

CAST-IN-PLACE CONCRETE

- NUT & WASHER

- SOCKET CLAMP

─ MJ GATE VALVE

FINISH GRADE

— ADJUSTABLE VALVE

CONCRETE SUPPORT

BOX W/ COVER

- GATE VALVE

- UNDISTURBED EARTH

TYPICAL GATE VALVE

NOT TO SCALE

TYPICAL VALVE CONNECTION

RESTRAINED JOINT TEE

NOT TO SCALE

1) THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION."

2) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN RULES AND REGULATIONS UNLESS OTHERWISE NOTED.

3) VERTICAL CONTROL IS BASED ON THE CITY OF QUINCY DATUM.

4) ALL UTILITY PROVIDERS MUST BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS PRIOR TO

5) WHILE WORKING IN THE VICINITY OF AN EXISTING UTILITY, REFER TO THE FOLLOWING: ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS GENERAL LAWS. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE APPROPRIATE PUBLIC ENGINEERING DEPARTMENT SHALL BE CONTACTED AND THE PROPOSED UTILITY WORK SHALL BE COORDINATED.

DIG SAFE NUMBER; 1-888-344-7233. 6) THE CONTRACTOR SHALL GIVE TIMELY NOTICE TO PERTINENT CITY DEPARTMENTS BEFORE COMMENCING ANY WORK.

7) ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO EQUAL OR BETTER

9) AT THE COMPLETION OF THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ALL DRAINAGE STRUCTURES (NEW AND/OR EXISTING) OF DEBRIS. 10) DO NOT SCALE PLANS. DUE TO REPROGRAPHIC STRETCH, PRINTS MAY NOT SCALE ACCURATELY. NUMERIC DIMENSIONING IS CORRECT. CONTACT DESIGN ENGINEER TO CLARIFY.

8) ALL FINISHED SURFACES SHALL BE GRADED SMOOTHLY AND EVENLY.

LOCATION AND ELEVATION OF ALL WORK INSTALLED.

ADVANCED DRAINAGE SYSTEMS, INC, OR APPROVED EQUAL.

11) FILL CONTAINING HAZARDOUS MATERIALS SHALL NOT BE USED. 12) LIMITS OF WORK SHALL BE MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. 13) ALL CONSTRUCTION WHICH INCLUDES HAULING OF EARTH TO OR FROM THE SITE SHALL BE RESTRICTED BETWEEN THE HOURS OF 7:00 AM AND 6:00 PM ON WEEKDAYS. 14) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE RECORDS OF

15) IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN THE ELECTRONIC FILE FROM TETRA TECH FOR PROPER COORDINATION OF SURVEY LAYOUT. 16) PRESERVATION OF ON SITE VEGETATION SHALL BE REVIEWED AND APPROVED BY OWNERS REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.

DRAINAGE

1) PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM DESIGNATION C478. CONCRETE REQUIREMENTS SHALL BE 4000 PSI.

2) STANDARD CATCHBASIN SHALL CONSIST OF PRECAST REINFORCED RISER SECTIONS, CONE SECTION, AND A BASE SECTION CONFORMING TO THE TYPICAL CATCHBASIN DETAIL. ALL CATCHBASINS SHALL HAVE A

3) INSTALL STEPS IN ACCORDANCE WITH ASTM C-478, 12" O.C. IN ALL CATCHBASINS AND DRAIN MANHOLES DEEPER THAN 4 FEET. 4) MANHOLE AND PIPE JOINT/CONNECTION SHALL BE NON-SHRINK GROUT OR APPROVED EQUAL.

5) PIPE MATERIAL SHALL BE SMOOTH WALL HIGH DENSITY POLYETHYLENE PIPE AS MANUFACTURED BY

6) INSTALLATION AND MATERIALS FOR ALL PIPES WITHIN 10-FEET OF A BUILDING ARE SUBJECT TO CONFORMANCE WITH 248 CMR (MASSACHUSETTS STATE PLUMBING CODE.)

1) DUCTILE IRON PIPE SHALL BE CEMENT LINED, COAL TAR ENAMEL, DOUBLE COATED, PUSH-ON TYPE JOINT, AND SHALL CONFORM TO A21.51 (AWWA C151) CLASS 52 FOR SIZES 4 INCH THROUGH 12 INCH. 2) DUCTILE IRON FITTINGS SHALL CONFORM TO ANSI/AWWA C153/A21.53-84 (DUCTILE IRON COMPACT FITTINGS) PRESSURE RATING 350 PSI.

3) GATE VALVES AND TAPPING SLEEVE VALVES SHALL BE RESILIENT SEATED VALVES CONFORMING TO THE REQUIREMENTS OF AWWA STANDARD C509. THE VALVE SHALL OPEN LEFT AND BE PRESSURE RATED FOR 250 PSI WORKING PRESSURE.

4) VALVE BOXES SHALL BE THE 2 PIECE SLIP TYPE, 5 1/4 INCH I.D., FLANGE LOCATED AT THE TOP OF THE BOX, COVER MARKED "WATER" EQUAL TO TYPE CURRENTLY BEING USED BY THE CITY. 5) WATER PRESSURE REQUIREMENTS AND THE ACTUAL WATER PRESSURE TO BE PROVIDED AT THE BUILDING

SHALL BE DETERMINED BY OTHERS 6) THE CONTRACTOR WILL FURNISH AND INSTALL 1 1/4" CTS DOMESTIC WATER LINES AND WATER METERS AS SPECIFIED BY THE WATER DISTRICT.

7) WATER LINES MUST BE A MINIMUM OF (18) INCHES ABOVE SEWER LINES. IN ADDITION, ONE FULL LENGTH OF WATER MAIN MUST BE CENTERED ON ONE FULL LENGTH OF SEWER LINE SO THAT ALL JOINTS WILL BE AS FAR FROM

8) WATER SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH U.S. DEPARTMENT OF HEALTH, EDUCATION. AND WELFARE, PHS (PUBLIC HEALTH SERVICE) MANUAL OF INDIVIDUAL WATER SYSTEMS, PHS PUBLICATION NO. 24, REVISED 1962, WASHINGTON, GPO (GOVERNMENT PRINTING OFFICE), 1963 AND ANY APPLICABLE CURRENT STATE AND FEDERAL REGULATIONS.

9) CHLORINATION SHALL BE IN ACCORDANCE WITH THE AWWA STANDARD C601 DISINFECTING WATER MAINS. 10) ALL PIPELINES SHALL BE GIVEN COMBINED PRESSURE AND LEAKAGE TESTS AT THE DIRECTION OF THE TOWN WATER DEPARTMENT. HYDROSTATIC AND LEAKAGE TEST SHALL BE MADE IN ACCORDANCE WITH AWWA STANDARD C600 SECTION 4. HYDROSTATIC TESTS SHALL BE MADE AT 1.5 TIMES THE WORKING PRESSURE, BUT NOT LESS THAN 150 PSI FOR A PERIOD OF NOT LESS THAN 2 HOURS IN ACCORDANCE WITH THE ABOVE AWWA STANDARD. 11) INSTALLATION OF WATER UTILITIES TO BE IN CONFORMANCE WITH THE WATER DISTRICT STANDARDS. 12) WHENEVER POSSIBLE WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. 13) SHOULD LOCAL CONDITIONS PREVENT AN 18" SEPARATION, BOTH THE WATER MAIN AND THE SEWER SHALL BE ENCASED IN CONCRETE ON EITHER SIDE OF THE CROSSING (SEE DETAIL).

1) SPECIFICATIONS: ALL WORK SHALL BE IN ACCORDANCE WITH THE ELECTRIC COMPANY'S STANDARDS. THE NATIONAL ELECTRICAL SAFETY CODE, AND STATE AND LOCAL CODE

2) APPROVAL: CONTRACTOR SHALL OBTAIN APPROVAL OF PLAN BY THE WIRE INSPECTOR AND THE ELECTRIC COMPANY. PLANS SHALL SHOW THE LOCATION OF CONDUITS AND THEIR TYPE, SIZE, AND

3) PROVIDE ALL EXCAVATION AND BACK FILLING WORK REQUIRED FOR THE INSTALLATION OF ALL ELECTRIC FACILITIES. THIS SHALL INCLUDE EXCAVATING FOR CONDUITS, MANHOLES, AND/OR JUNCTION ENCLOSURES, AND PADS. 4) INSTALL ALL GROUNDING MATERIALS (IE. WIRE, GROUND, RODS, CONNECTORS, ETC.) AS SPECIFIED BY ELECTRIC COMPANY.

### PRIVATE UTILITY NOTES

1) THIS PLAN HAS BEEN PREPARED AS A SCHEMATIC REPRESENTATION OF THE PROPOSED ELECTRIC, TELEPHONE, FIRE ALARM, AND NATURAL GAS SYSTEMS. IT IS NOT THE INTENTION OF THIS DRAWING THAT EVERY DETAIL, DEVICE, ITEM OR PIECE OF EQUIPMENT BE SHOWN. FINAL DESIGN AND APPROVAL MUST BE OBTAINED FROM THE RESPECTIVE UTILITY COMPANIES FOR LOCATION OF TRANSFORMERS, CONDUITS, AND CONNECTIONS TO BUILDINGS.

2) ELECTRIC, TELEPHONE, AND GAS UTILITY SIZES, AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND REVIEWED AND APPROVED BY THE APPROPRIATE UTILITY COMPANIES.

**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301

Quincy, MA 02169



Civil Engineer Tetra Tech INE 20 Cabot Boulevard, Suite 305 Mansfield, MA 02048 Tel 508-786-2200

www.tetratech.com



Landscape Architect Terraink Landscape Architecture 7 Central Street, Suite 150 Arlington, MA 02476 Tel 781 316 1595 www.terraink.com

Architect Isgenuity LLC

500 Harrison Avenue, Suite 5F

### www.isgenuity.com isgenuity

Boston, MA 02118

Tel 617 419 4660

MEP/FP Engineer R.W. Sullivan Engineering The Schrafft Center 529 Main Street, Suite 203

McNamara • Salvia

Boston, MA 02110

Tel 617 737 0040

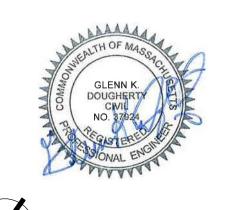
www.mcsal.com

Boston, MA 02129 Tel 617 523 8227 Fax 617 523 8016 Structural Engineer

101 Federal Street, Suite 1100

Issuance Schedule

Number Date Description 1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION / DPW COMMENTS



> NORTH PROGRAMMING

NOT FOR CONSTRUCTION

**DETAIL SHEET** 

FoxRock 200 Libbey, LLC

**Medical Office Building** 

200 Libbey Industrial Parkway Weymouth, MA

Date Issued: February 3, 2021



### STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740, SC-310, OR APPROVED EQUAL.

FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

- 2. CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.<sup>A</sup>J CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT
- WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION. 4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1)
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".^J

LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION

- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 7. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE
- a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
- b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- 8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- 1. STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.^J
- 2. STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION 3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.^J
- STORMTECH RECOMMENDS 3 BACKFILL METHODS: STONESHOOTER LOCATED OFF THE CHAMBER BED. • BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
- BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.^J THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.^J JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.^J
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.^J EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm). J THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN
- 9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED: • NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS
- NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". • WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".^J FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT

LAYOUT (114) STORMTECH SC-310 CHAMBERS (12) STORMTECH SC-310 END CAPS INSTALLED WITH 6 " COVER STONE, 6 " BASE STONE, 40% STONE VOID INSTALLED SYSTEM VOLUME: 3839 CF AREA OF SYSTEM: 3032 FT<sup>2</sup> PERIMETER OF SYSTEM: 370 FT PROPOSED ELEVATIONS MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED): MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC): MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC): MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT): 80.50 MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT): TOP OF STONE: TOP OF CHAMBER:

PROPOSED 24" NYLOPLAST STRUCTURE (DMH 14)

(DESIGN BY ENGINEER)

8" TOP CONNECTION INVERT

BOTTOM OF CHAMBER BOTTOM OF STONE:

12" BOTTOM CONNECTION INVERT:

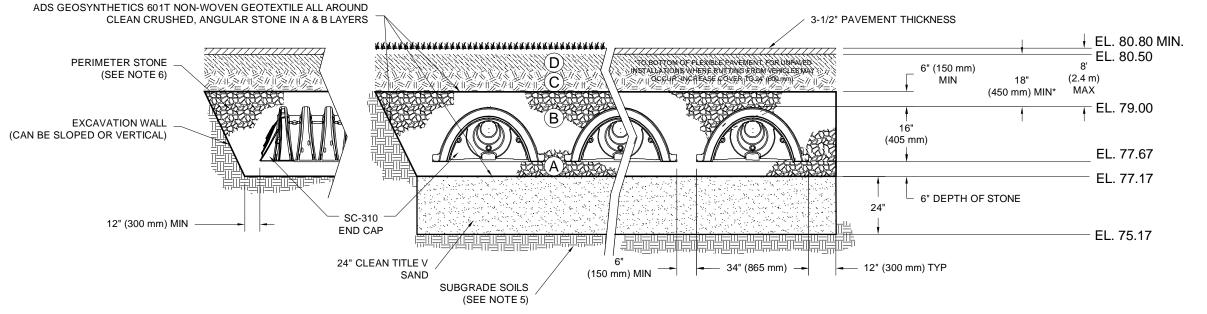
# PROPOSED 24" NYLOPLAST STRUCTURE (DMH 15) 12" PREFABRICATED END CAP PART# SC310EPE12B PLACE MINIMUM 12.5' OF ADS GEOSYNTHETICS 315WTK WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER (DESIGN BY ENGINEER) TYP OF ALL SC-310 12" CONNECTIONS AND ISOLATOR ROWS FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

### ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	OR	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 23

PLEASE NOTE: 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE WOULD STAT ANGULAR NO. 4 (AASHTO M43) STONE".

STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION

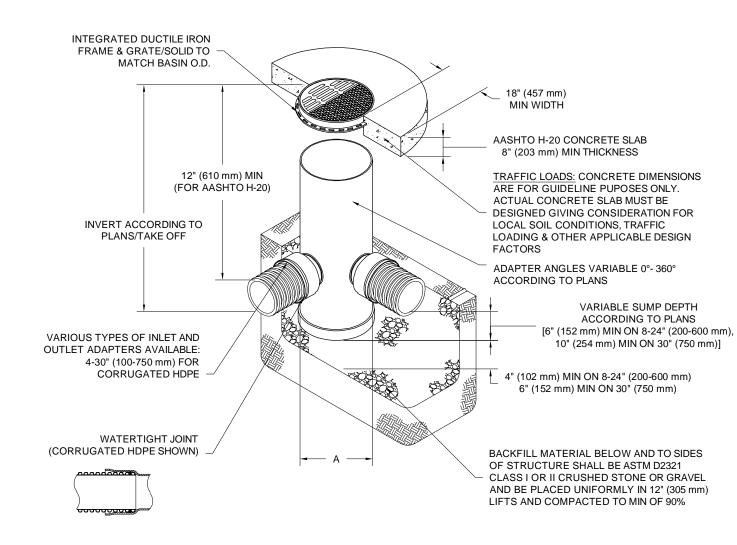


### NOTES:

- 1. SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 ^J"STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". J
- 2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION
- 3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.'J 4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT. 5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH
- CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.^\J 6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

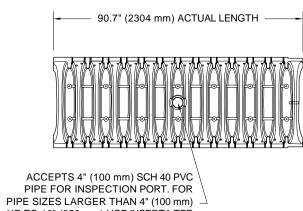
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

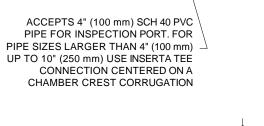


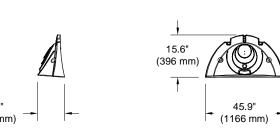
- 1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS 4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC 5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- TO ORDER CALL: 800-821-6710 PART# GRATE/SOLID COVER OPTIONS (200 mm) DUTY DUTY PEDESTRIAN LIGHT | STANDARD LIGHT SOLID LIGHT DUTY (250 mm) DUTY PEDESTRIAN STANDARD AASHTO (300 mm) PEDESTRIAN STANDARD AASHTO (375 mm) AASHTO H-10 H-20 PEDESTRIAN STANDARD AASHTO AASHTO H-10 H-20 PEDESTRIAN STANDARD AASHTO (600 mm) AASHTO H-10 H-20 (750 mm) 2830AG PEDESTRIAN STANDARD AASHTO SOLID

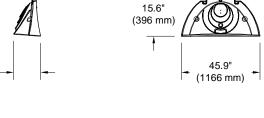
AASHTO H-20 H-20 AASHTO H-20

### **NYLOPLAST DRAIN BASIN**





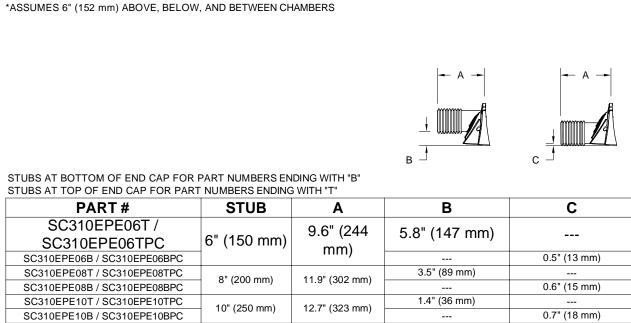




NOMINAL CHAMBER SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH) CHAMBER STORAGE MINIMUM INSTALLED STORAGE\* WEIGHT

SC310EPE12B

NOTE: ALL DIMENSIONS ARE NOMINAL



34.0" X 16.0" X 85.4" (864 mm X 406 mm X 2169 mm)

(16.8 kg)

(0.42 m<sup>3</sup>)

14.7 CUBIC FEET

35.0 lbs.

31.0 CUBIC FEET (0.88 m<sup>3</sup>)

→ 85.4" (2169 mm) INSTALLED LENGTH →

<BUILD ROW IN THIS DIRECTION

OVERLAP NEXT CHAMBER HERE

0.7" (18 mm)

0.9" (23 mm)

(OVER SMALL CORRUGATION)

ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694. \* FOR THE SC310EPE12B THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

SC-310 TECHNICAL SPECIFICATION

**DEVELOPER:** FOXROCK 200 LIBBEY, LLC 1200 Hancock Street, Suite 301 Quincy, MA 02169



Civil Engineer Tetra Tech INE 20 Cabot Boulevard, Suite 305 Mansfield, MA 02048

Tel 508-786-2200

www.tetratech.com



Landscape Architect Terraink Landscape Architecture 7 Central Street, Suite 150 Arlington, MA 02476 Tel 781 316 1595 www.terraink.com

Architect Isgenuity LLC 500 Harrison Avenue, Suite 5F Boston, MA 02118 Tel 617 419 4660

# isgenuit

www.isgenuity.com

MEP/FP Engineer R.W. Sullivan Engineering The Schrafft Center 529 Main Street, Suite 203 Boston, MA 02129 Tel 617 523 8227

### Fax 617 523 8016 Structural Engineer McNamara • Salvia 101 Federal Street, Suite 1100 Boston, MA 02110

Tel 617 737 0040

www.mcsal.com

Issuance Schedule

Number Date Description 1 2/11/21 SUBMIT TO BZA 2 3/8/21 REVISED PER CONSERVATION DPW COMMENTS





**PROGRAMMING** NOT FOR CONSTRUCTION

> RECHARGE SYSTEM **DETAIL SHEET**

FoxRock 200 Libbey, LLC

**Medical Office Building** 200 Libbey Industrial Parkway Weymouth, MA

Date Issued: February 3, 2021