

SHINGLE MILL MULTI-FAMILY DEVELOPMENT

75 - 79 POND STREET

ROCKLAND, MASSACHUSETTS

COMPREHENSIVE PERMIT DRAWINGS

JULY 13, 2020

LAST REVISED: DECEMBER 8, 2020

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	12/08/2020
G-101	GENERAL NOTES, ABBREVIATIONS & LEGEND SHEET	12/08/2020
3 OF 24	EXISTING CONDITIONS KEY PLAN	05/14/2020
4 OF 24	EXISTING CONDITIONS SHEET	05/14/2020
5 OF 24	EXISTING CONDITIONS SHEET	05/14/2020
6 OF 24	EXISTING CONDITIONS SHEET	05/14/2020
7 OF 24	EXISTING CONDITIONS SHEET	05/14/2020
C-101.1	EXISTING CONDITIONS / DEMOLITION PLAN	12/08/2020
C-101.2	EXISTING CONDITIONS / DEMOLITION PLAN	12/08/2020
C-101.3	EXISTING CONDITIONS / DEMOLITION PLAN	12/08/2020
C-102	OVERLAY SITE LAYOUT PLAN	12/08/2020
C-102.1	SITE PLAN	12/08/2020
C-102.2	SITE PLAN	12/08/2020
C-102.3	SITE PLAN	12/08/2020
C-103.1	GRADING, DRAINAGE, & EROSION CONTROL PLAN	12/08/2020
C-103.2	GRADING, DRAINAGE, & EROSION CONTROL PLAN	12/08/2020
C-103.3	GRADING, DRAINAGE, & EROSION CONTROL PLAN	12/08/2020
C-104.1	UTILITY PLAN	12/08/2020
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C-201	DRIVEWAY PLAN & PROFILE	12/08/2020
C-202	DRIVEWAY SECTION VIEW	12/08/2020
C-203	DRIVEWAY SECTION VIEW	12/08/2020
C-204	DRIVEWAY SECTION VIEW	12/08/2020
C-205	DRIVEWAY SECTION VIEW	12/08/2020
C-206	DRIVEWAY SECTION VIEW	12/08/2020
C-207	DRIVEWAY SECTION VIEW	12/08/2020
C-208	DRIVEWAY SECTION VIEW	12/08/2020
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	12/08/2020
C-502	DETAILS SHEET	12/08/2020
C-503	DETAILS SHEET	12/08/2020
C-504	DETAILS SHEET	12/08/2020
C-505	DETAILS SHEET	12/08/2020
C-506	DETAILS SHEET	12/08/2020
C-507	DETAILS SHEET	12/08/2020
C-701.1	FIRE TRUCK TURNING PLAN	12/08/2020
C-701.2	FIRE TRUCK TURNING PLAN	12/08/2020



AERIAL PROJECT LOCATION MAP

SCALE: 1" = 500'

APPLICANT:

Shinglemill, LLC

4 First Street

Bridgewater, Massachusetts 02324

OWNER:

Caparrotta Maurice Trustee

195 Libbey Parkway Unit #2

Weymouth, Massachusetts 02189

PREPARED FOR:

Jones Street Residential

100 High Street, Suite 2500

Boston, Massachusetts 02110

PREPARED BY:

Tighe&Bond

Engineers | Environmental Specialists



Last Save Date: December 7, 2020 10:21 AM By: CNL
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
P&E File Location: J:\05019 Jones Street\002 Pond St., Rockland Drawings - Figures\AutoCAD\Sheet\5019-002-C-Design.dwg Layout Tab: G-101

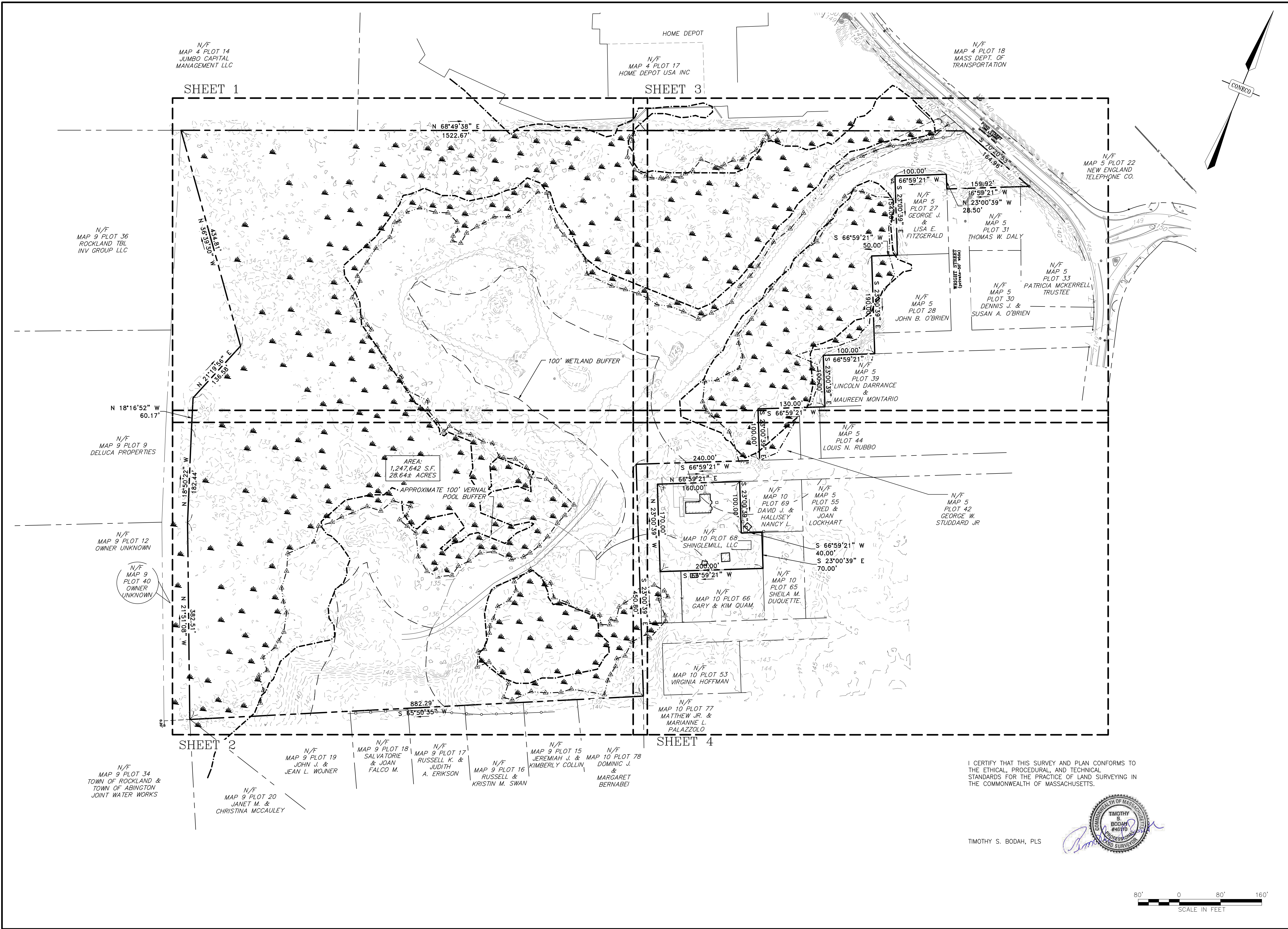
GENERAL NOTES:	
1.	THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2.	COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE TOWN OF ROCKLAND.
3.	THE CONTRACTOR SHALL EMPLOY A MASSACHUSETTS LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
4.	THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
5.	IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES AND COMPLY WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6.	THE CONTRACTOR SHALL OBTAIN AND PAY FOR AND COMPLY WITH ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
7.	THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES AND SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
8.	ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
9.	ALL WORK SHALL CONFORM TO THE TOWN OF ROCKLAND EXCAVATION AND CONSTRUCTION SPECIFICATIONS, STANDARD SPECIFICATIONS AND WITH THE COMMONWEALTH OF MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES," 1988 EDITION AS AMENDED.
10.	CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A MASSACHUSETTS LICENSED LAND SURVEYOR.
11.	CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
12.	SEE EXISTING CONDITIONS PLANS FOR BENCH MARK INFORMATION.
13.	PRIOR TO OCCUPANCY APPLICANT SHALL PROVIDE TEST RESULTS TO THE TOWN OF ROCKLAND FIRE AND POLICE DEPARTMENT DEMONSTRATING THAT ALL REQUIRED FREQUENCIES CAN BE TRANSMITTED AND RECEIVED WITHOUT INTERFERENCE. IF THE RESULTS ARE NOT SUFFICIENT THE APPLICANT SHALL PROVIDE A BI-DIRECTIONAL AMPLIFIER PER THE ROCKLAND FIRE DEPARTMENT REQUIREMETNS.
EXISTING CONDITIONS PLAN NOTES:	
1.	TOPOGRAPHIC INFOMATION IS A RESULT OF A COMBINATION OF LIDAR TERRAIN AND ELEVATION DATA FROM MASSGIS, AND AN ON THE GROUND TOPOGRAPHIC SURVEY PERFORMED BY CONECO ENGINEERS & SCIENTISTS.
2.	WETLAND DELINEATED BY WETLANDS STRATEGIES, INC. MAY & SEPTEMBER 2018 AND FIELD LOCATED BY ATLANTIC DESIGN ENGINEERS, INC.
3.	ORDER OF RESOURCE AREA DELINEATION WAS APPROVED BY THE TOWN OF ROCKLAND CONSERVATION COMMISSION ON OCTOBER 23, 2018
4.	ELEVATIONS REFER TO NAVD 88.
5.	LOCUS PROPERTY IN ZONE X AND ZONE A, AS SHOWN ON FLOOD INSURANCE RATE MAP NO. 25023C0092J DATED JULY 17, 2012.
6.	FLOOD PLAIN LINES SHOWN ON THESE PLANS WERE DIGITIZED FROM THE "REQUEST FOR LETTER OF MAP REVISION, 1 POND STREET, ROCKLAND, MA" DATED JUNE 11, 2013 BY BSC GROUP. THE LETTER OF MAP REVISION CASE, NO. 12-01-2134P WAS ISSUED NOVEMBER 21, 2013 AND EFFECTIVE ON THE FEMA MAP APRIL 14, 2014.
DEMOLITION NOTES:	
1.	EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
2.	ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
3.	COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
4.	ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5.	SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
6.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
7.	UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND TOWN OF ROCKLAND STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED.
8.	CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
9.	PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
10.	THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: PAVEMENT, UNDER GROUND PIPING, TREES AND LANDSCAPING.
11.	REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
12.	CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A MASSACHUSETTS LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
13.	PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
14.	THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
15.	SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.

SITE NOTES:	
1.	PAVEMENT MARKINGS SHALL BE INSTALLED AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, FIRE LANES, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES. ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE PAVEMENT MARKINGS. ALL THERMOPLASTIC PAVEMENT MARKINGS INCLUDING LEGENDS, ARROWS, CROSSWALKS AND STOP BARS SHALL MEET THE REQUIREMENTS OF AASHTO M249. ALL PAINTED PAVEMENT MARKINGS INCLUDING CENTERLINES, LANE LINES AND PAINTED MEDIANS SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F".
2.	ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3.	SEE DETAILS FOR PAVEMENT MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4.	CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES.
5.	PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6.	STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE, WHITE THERMOPLASTIC AND CONFORM TO CURRENT MUTCD STANDARDS.
7.	CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8.	SEE ARCHITECTURAL/BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
9.	CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
10.	ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
11.	COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
12.	CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RETAINING WALL DESIGN FROM STRUCTURAL ENGINEER AND/OR WALL MANUFACTURER. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CONSTRUCT WALL IN ACCORDANCE WITH DESIGN APPROVED BY THE ENGINEER.
13.	ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
14.	PROPERTY MANAGER WILL BE RESPONSIBLE FOR TIMELY SNOW REMOVAL FROM ALL PRIVATE SIDEWALKS, DRIVEWAYS, AND PARKING AREAS. SNOW REMOVAL WILL BE HAULED OFF-SITE AND LEGALLY DISPOSED OF WHEN NECESSARY.
15.	SIDEWALK ALONG DRIVEWAY TO BE CONSTRUCTED AFTER SIDEWALK ON POND STREET IS CONSTRUCTED.
GRADING AND DRAINAGE NOTES:	
1.	COMPACTION REQUIREMENTS: BELOW PAVED OR CONCRETE AREAS 95% TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95% BELOW LOAM AND SEED AREAS 90%
* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.	
2.	ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
3.	CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
4.	ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
5.	ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES," 1988 EDITION AS AMENDED.
6.	ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
EROSION CONTROL NOTES:	
1.	SEE SHEET C-501 FOR GENERAL EROSION CONTROL NOTES AND DETAILS.
UTILITY NOTES:	
1.	COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY. •NATURAL GAS - NATIONAL GRID •WATER - ABINGTON ROCKLAND JOINT WATER WORKS DEPARTMENT •SEWER - ROCKLAND SEWER DEPARTMENT •ELECTRIC - NATIONAL GRID •COMMUNICATIONS - COMCAST
2.	ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
3.	ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE ROCKLAND WATER DEPARTMENT.
4.	ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
5.	CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO ABINGTON & ROCKLAND JOINT WATER WORKS DEPARTMENT STANDARDS.
6.	EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
7.	ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
8.	THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
9.	ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10.	THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
11.	CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
12.	A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
13.	SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
14.	HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE TOWN OF ROCKLAND.
15.	COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE TOWN OF ROCKLAND.
16.	ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAT 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
17.	CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
18.	SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
19.	CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.

LANDSCAPE NOTES:	
1.	SEE LANDSCAPE PLANS.
REFERENCE PLANS:	
1.	"SHINGLEMILL APARTMENTS COMPREHENSIVE PERMIT PLANS" PREPARED BY CONECO ENGINEERS & SCIENTISTS, DATED MAY 14, 2020.
2.	"WETLAND LOCATION PLAN" PREPARED BY ATLANTIC DESIGN ENGINEERS LAST REVISED OCTOBER 1, 2018.
ABBREVIATIONS	
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
AC	ACRES
ADA	AMERICANS WITH DISABILITIES ACT
AGGR	AGGREGATE
BLDG	BUILDING
BMP(S)	BEST MANAGEMENT PRACTICE(S)
BOC	BOTTOM OF CURB
BOW	BOTTOM OF WALL
CB	CATCH BASIN
CCB	CAPE COD BERM
CMP	CORRUGATED METAL PIPE
CONST	CONSTRUCT
COORD	COORDINATE
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DMH	DRAINAGE MANHOLE
DWG	DRAWING
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
FES	FLARED END SECTION
FF	FINISHED FLOOR
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HW	HEADWALL
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
MSC	MONOLITHIC SIDEWALK / CURB
NCSS	NATIONAL COOPERATIVE SURVEY
NRCC	NORTHEAST REGIONAL CLIMATE CENTER
NRCS	NATURAL RESOURCES CONSERVATION SERVICE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PCB	PROPOSED CATCH BASIN
PDMH	PROPOSED DRAINAGE MANHOLE
PI	POINT OF INTERSECTION
POS	PROPOSED OUTLET STRUCTURE
PROP	PROPOSED
PSMH	PROPOSED SEWER MANHOLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS
RL	ROOF LEADER
ROW	RIGHT OF WAY
SF	SQUARE FEET
SSSNNE	SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND
STD	STANDARD
TBR	TO BE REMOVED
TOC	TOP OF CURB
TOW	TOP OF WALL
TYP	TYPICAL
USCS	UNIFIED SOIL CLASSIFICATION SYSTEM
USDA	UNITED STATES DEPARTMENT OF AGRICULTURE
W	WIDTH
W/	WITH

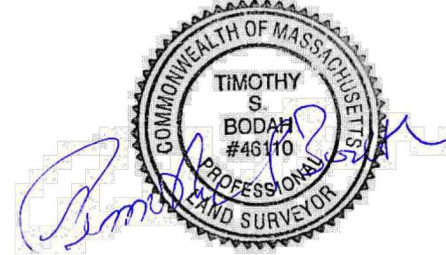
LEGEND	
	EXISTING PROPERTY LINE
	EXISTING CHAINLINK FENCE
	PROPOSED FENCE
	EXISTING OVERHEAD WIRES
	PROPOSED OVERHEAD WIRES
	EXISTING UNDERGROUND ELECTRIC LINE
	PROPOSED UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND TELECOMMUNICATION LINE
	PROPOSED UNDERGROUND ELECTRIC & COMMUNICATION LINE
	EXISTING DRAIN LINE
	PROPOSED DRAIN LINE
	EXISTING GAS LINE
	PROPOSED GAS LINE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING MAJOR CONTOUR LINE
	EXISTING MINOR CONTOUR LINE
	PROPOSED CONTOUR LINE
	APPROXIMATE LIMIT OF WORK
	APPROXIMATE LIMIT OF SAWCUT
	PROPOSED PERIMETER EROSION CONTROL
	APPROXIMATE LIMIT OF EXISTING PAVEMENT/CONCRETE TO BE REMOVED
	APPROXIMATE LIMIT OF CLEARING AND GRUBBING
	EXISTING CONCRETE
	PROPOSED CONCRETE
	PROPOSED STANDARD DUTY PAVEMENT SECTION
	EXISTING UTILITY POLE
	EXISTING UTILITY POLE & GUY WIRE
	EXISTING LIGHT POLE (ONE ARM)
	EXISTING SIGN
	PROPOSED SIGN
	EXISTING POST
	EXISTING BOLLARD
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING WATER GATE VALVE
	PROPOSED WATER GATE VALVE
	EXISTING WATER SHUTOFF VALVE
	PROPOSED WATER SHUTOFF VALVE
	EXISTING GAS GATE VALVE
	PROPOSED GAS GATE VALVE
	EXISTING ELECTRIC BOX
	PROPOSED ELECTRIC MANHOLE
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	EXISTING DRAIN MANHOLE
	PROPOSED DRAIN MANHOLE
	EXISTING MANHOLE
	EXISTING TELEPHONE MANHOLE
	EXISTING SEWER MANHOLE
	PROPOSED SEWER MANHOLE
	EXISTING CLEANOUT
	PROPOSED CLEANOUT
	EXISTING HAND HOLE
	EXISTING CONIFEROUS TREE
	EXISTING DECIDUOUS TREE
	EXISTING CONIFEROUS SHRUB
	EXISTING DECIDUOUS BUSH
	EXISTING BOUND FOUND
	PROPOSED IRON PIPE FOUND
	PROPOSED FLOW DIRECTION/SLOPE
	EXISTING SPOT SHOT ELEVATION
	PROPOSED SPOT SHOT ELEVATION
	APPROXIMATE BORING LOCATIONS
	APPROXIMATE EXISTING BORING LOCATIONS

Shingle Mill Multi-Family Development		
Shinglemill, LLC		
75 - 79 Pond Street Rockland, Massachusetts		
E	12/8/2020	Supplemental Comprehensive Permit - 2
D	11/30/2020	Conservation Commission Submission
C	9/16/2020	Not Submission
B	9/4/2020	Supplemental Comprehensive Permit Submitted for Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit
MARK	DATE	DESCRIPTION
PROJECT NO: J5019-002		
DATE: 7/13/2020		
FILE: J5019-002-C-DESIGN.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		
GENERAL NOTES, ABBREVIATIONS, & LEGEND SHEET		
SCALE: AS SHOWN		
G-101		



I CERTIFY THAT THIS SURVEY AND PLAN CONFORMS TO THE ETHICAL, PROCEDURAL, AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

TIMOTHY S. BODAH, PLS



REVISIONS		NO.	DATE	DESCRIPTION	DR/CK
NO.	DATE				

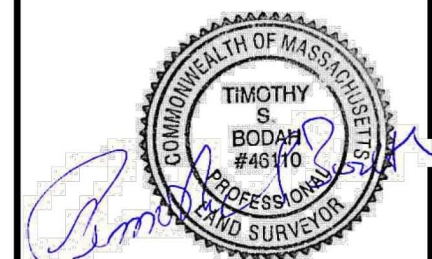
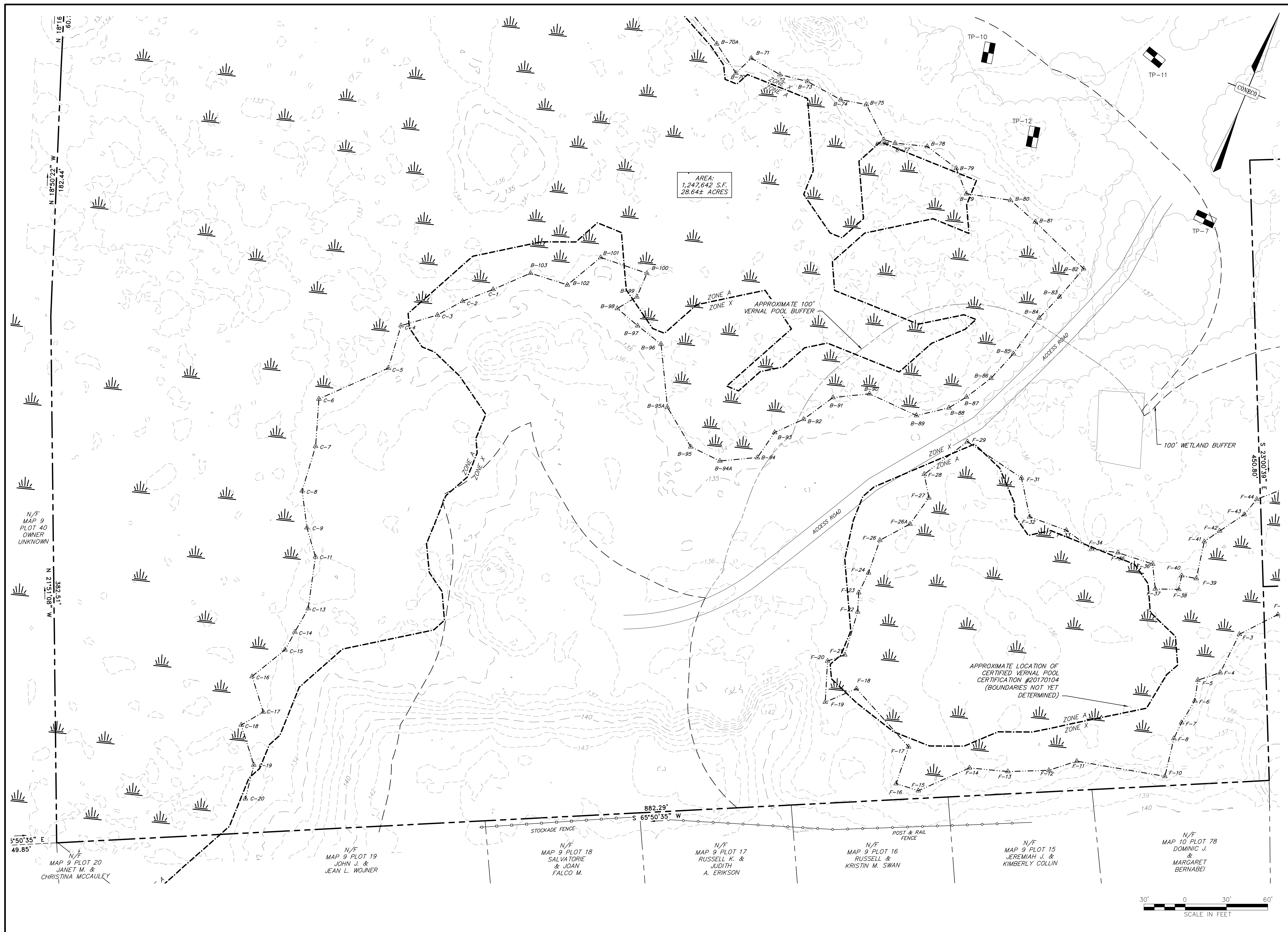
PROJECT	PREPARED FOR	DATE
SHINGLEMILL APARTMENTS POND STREET ROCKLAND, MASSACHUSETTS 02370	SHINGLEMILL, LLC 4 FIRST STREET BRIDGEWATER, MASSACHUSETTS 02324	05/14/2020

PLAN SET	DRAWING	EXISTING CONDITIONS KEY PLAN
SITE PLANS		

CONECO
Engineers & Scientists

4 FIRST STREET, BRIDGEWATER, MASSACHUSETTS 02324
PHONE 508-697-3191 OR 800-548-3355; FAX 508-697-5996
WEBSITE: www.coneco.com

DATE	DESIGNED	CHECKED	DRAFTED	SCALE	PROJECT NO.	SHEET NO.
05/14/2020	DJD	TSB	DJD	1" = 80'	3395.1	3



05/14/2020

[illegible]

SHINGLEMILL, LLC
4 FIRST STREET
BRIDGEWATER, MASSACHUSETTS 02324

EXISTING CONDITIONS
SHEET 2 OF 4

SHINGLEMILL APARTMENTS
POND STREET
ROCKLAND, MASSACHUSETTS 02370

SITE PLANS



CONECO
Engineers & Scientists

4 FIRST STREET, BRIDGEWATER, MASSACHUSETTS 02324
PHONE: 508-697-5100 FAX: 508-697-5996
WEBSITE: www.coneco.com

DATE	05/14/2020
------	------------

DESIGNED: DJD	CHECKED: TSB
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DRAFTED: DJD	IN CHARGE: JEN
--------------	----------------

SCALE: $1" = 30'$

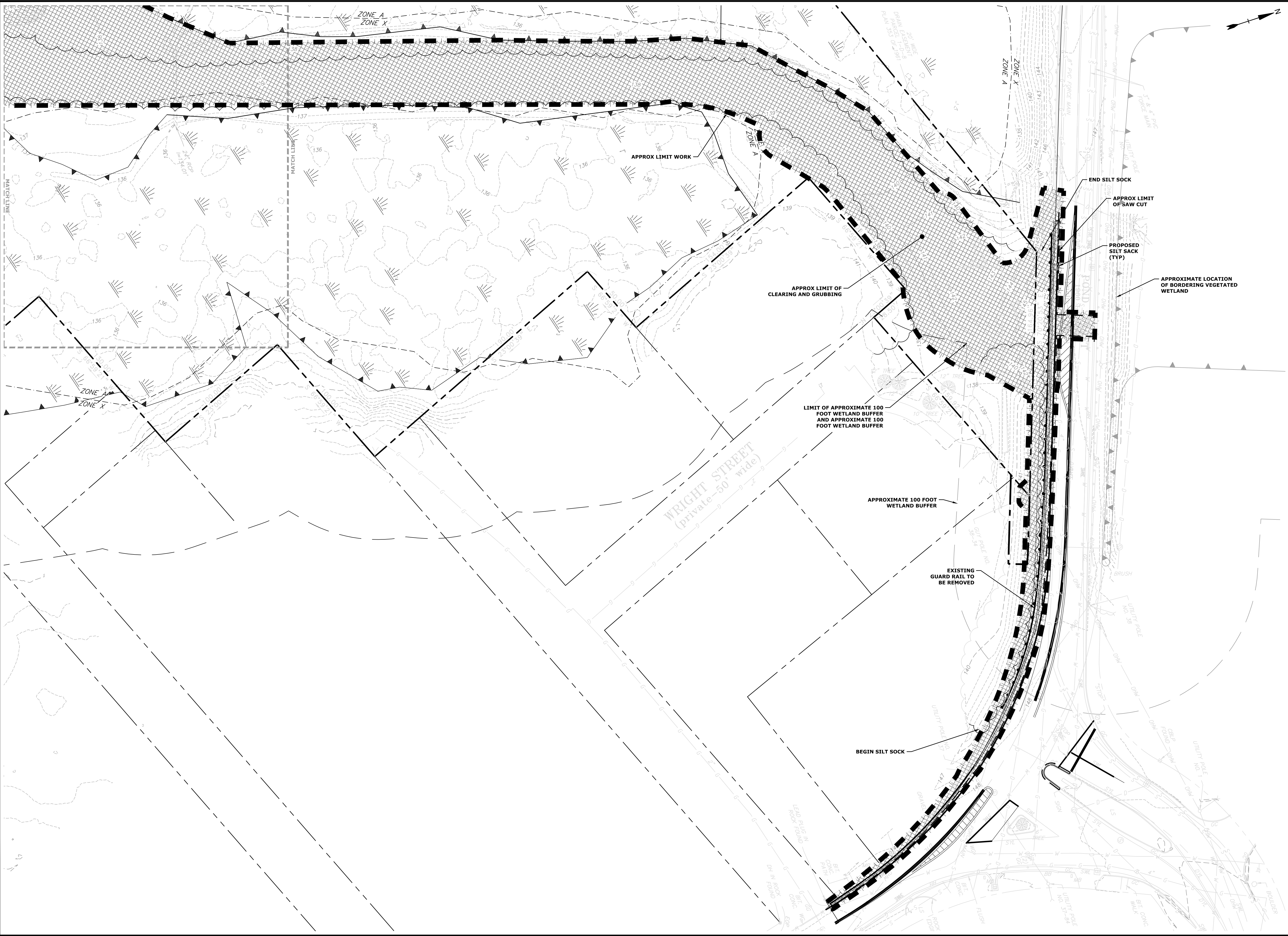
PROJECT NO.	3395.1
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SHEET NO.

5

05 34

Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
File Location: J:\05019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\05019-002-C-Design.dwg Layout Tab Demo-1



Tighe&Bond

SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

**Shingle Mill
Multi-Family
Development**

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/4/2020	Supplemental Comprehensive Permit Submitted for Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit

PROJECT NO:	J5019-002
DATE:	7/13/2020
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

EXISTING CONDITIONS /
DEMOLITION PLAN

SCALE: AS SHOWN

C-101.1



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
268 File Location: J:\J5019 Jones Street\002 Pond St., Rockland\Drawings Figures\AutoCAD\Sheet\J5019-002-C-Design.dwg Layout Tab Demo-2

SCALE IN FEET

0 30' 60'

GRAPHIC SCALE

Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
 Rockland,
 Massachusetts

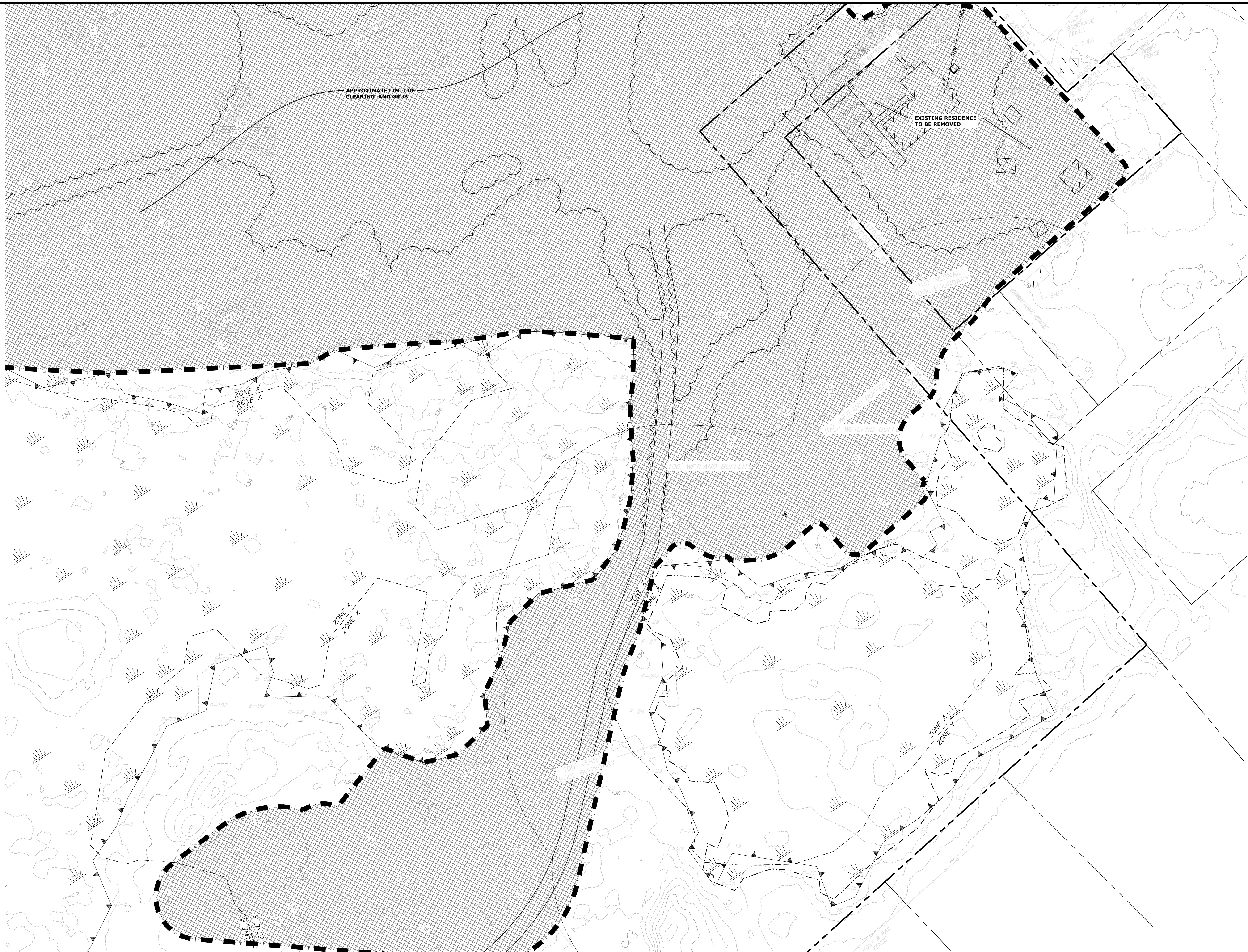
MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/4/2020	Supplemental Comprehensive Permit Submitted for Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit

PROJECT NO: J5019-002
 DATE: 7/13/2020
 FILE: J5019-002-C-DESIGN.DWG
 DRAWN BY: CML
 CHECKED: PMC
 APPROVED: BLM

EXISTING CONDITIONS / DEMOLITION PLAN

SCALE: AS SHOWN

C-101.2

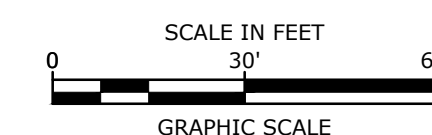


Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton



75 - 79 Pond Street
Rockland,
Massachusetts

C	12/8/2020	Supplemental Comprehensive Permit - 2
B	11/30/2020	Conservation Commission Submission
A	9/4/2020	Conservation Commission Submission
MARK	DATE	DESCRIPTION
PROJECT NO:		J5019-002
DATE:		9/4/2020
FILE:		J5019-002-C-DESIGN.DWG
DRAWN BY:		CHL
CHECKED:		PMC
APPROVED:		BLM
EXISTING CONDITIONS / DEMOLITION PLAN		
SCALE:		AS SHOWN
C-101.3		



Shingle Mill Multi-Family Development

Shinglemill, LLC

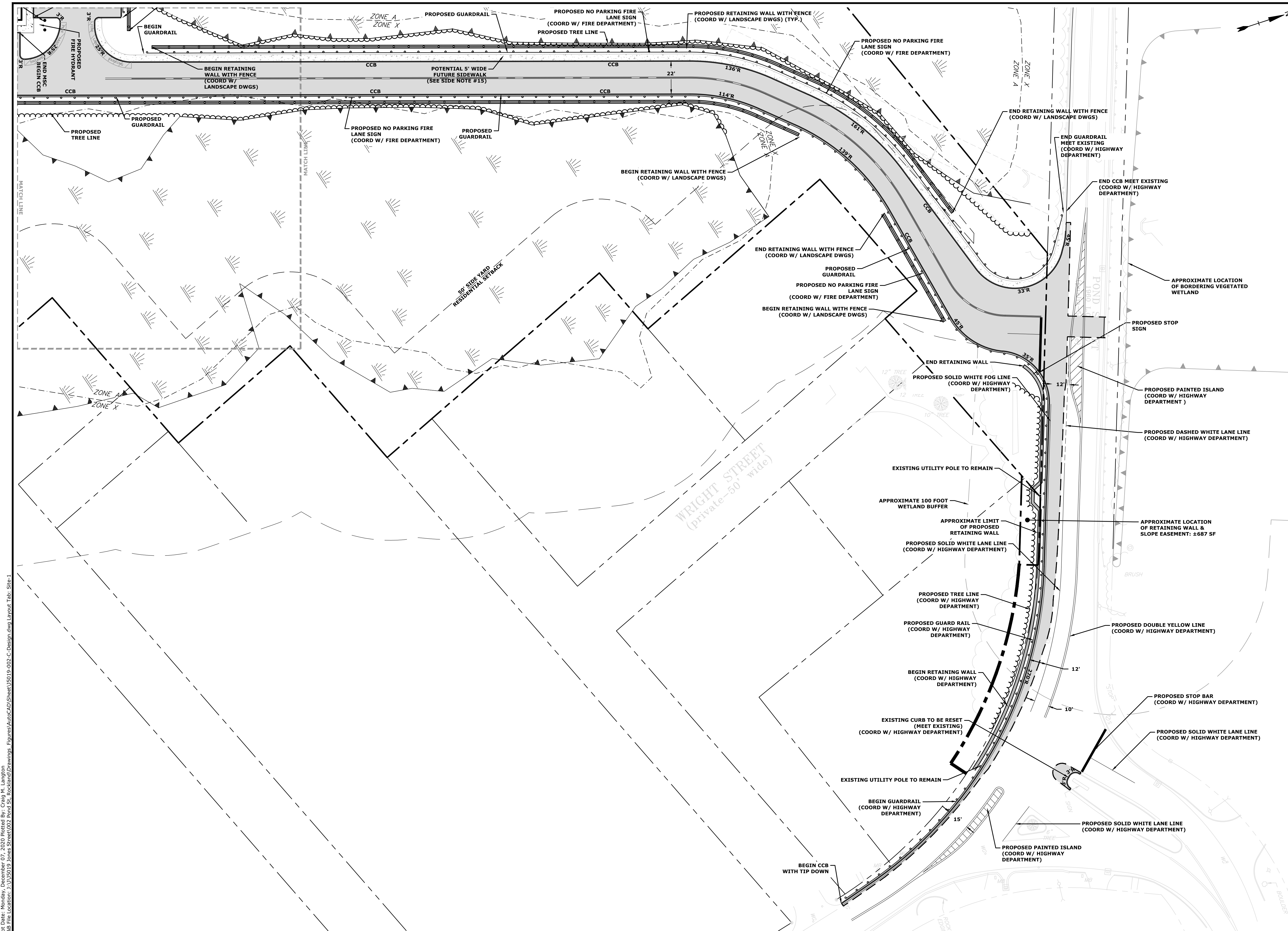
75 - 79 Pond Street
Rockland,
Massachusetts

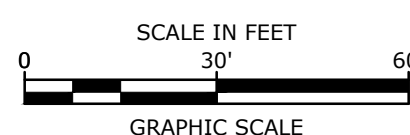
E	12/8/2020	Supplemental Comprehensive Permit - 2
D	11/30/2020	Conservation Commission Submission
C	9/16/2020	No Submission
B	9/4/2020	Supplemental Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit
MARK	DATE	DESCRIPTION
PROJECT NO: J5019-002		
DATE: 7/13/2020		
FILE: J5019-002-C-DESIGN.DWG		
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

SITE PLAN

SCALE: AS SHOWN

C-102.1





Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

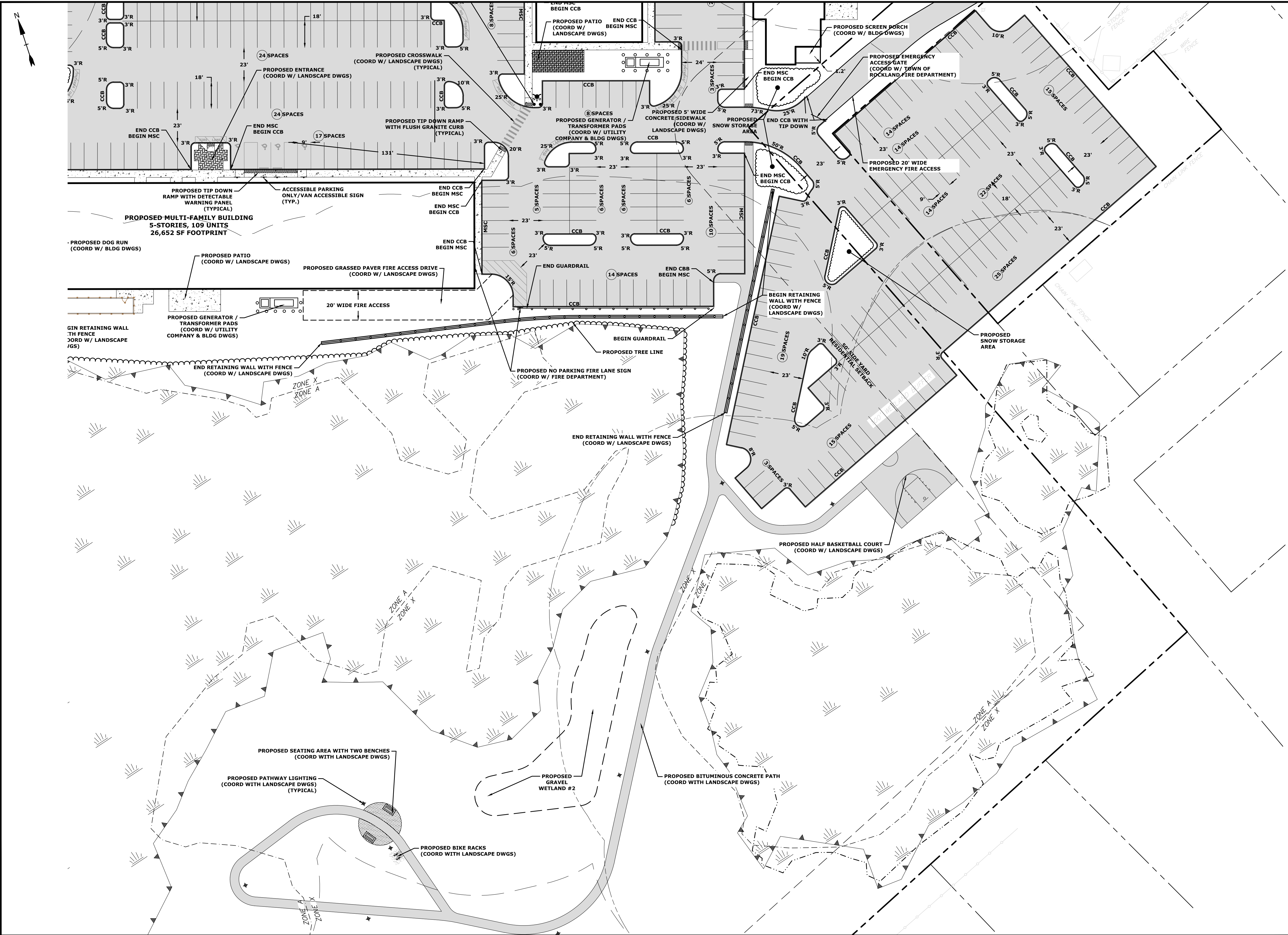
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D	11/30/2020	Conservation Commission Submission
C	9/16/2020	Not Submission
B	9/4/2020	Supplemental Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit
MARK	DATE	DESCRIPTION
PROJECT NO:		35019-002
DATE:		7/13/2020
FILE:		35019-002-C-DESIGN.DWG
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

SITE PLAN

SCALE: AS SHOWN

C-102.2

Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\05019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\05019-002-C-Design.dwg Layout Tab: Site-3



Tighe&Bond

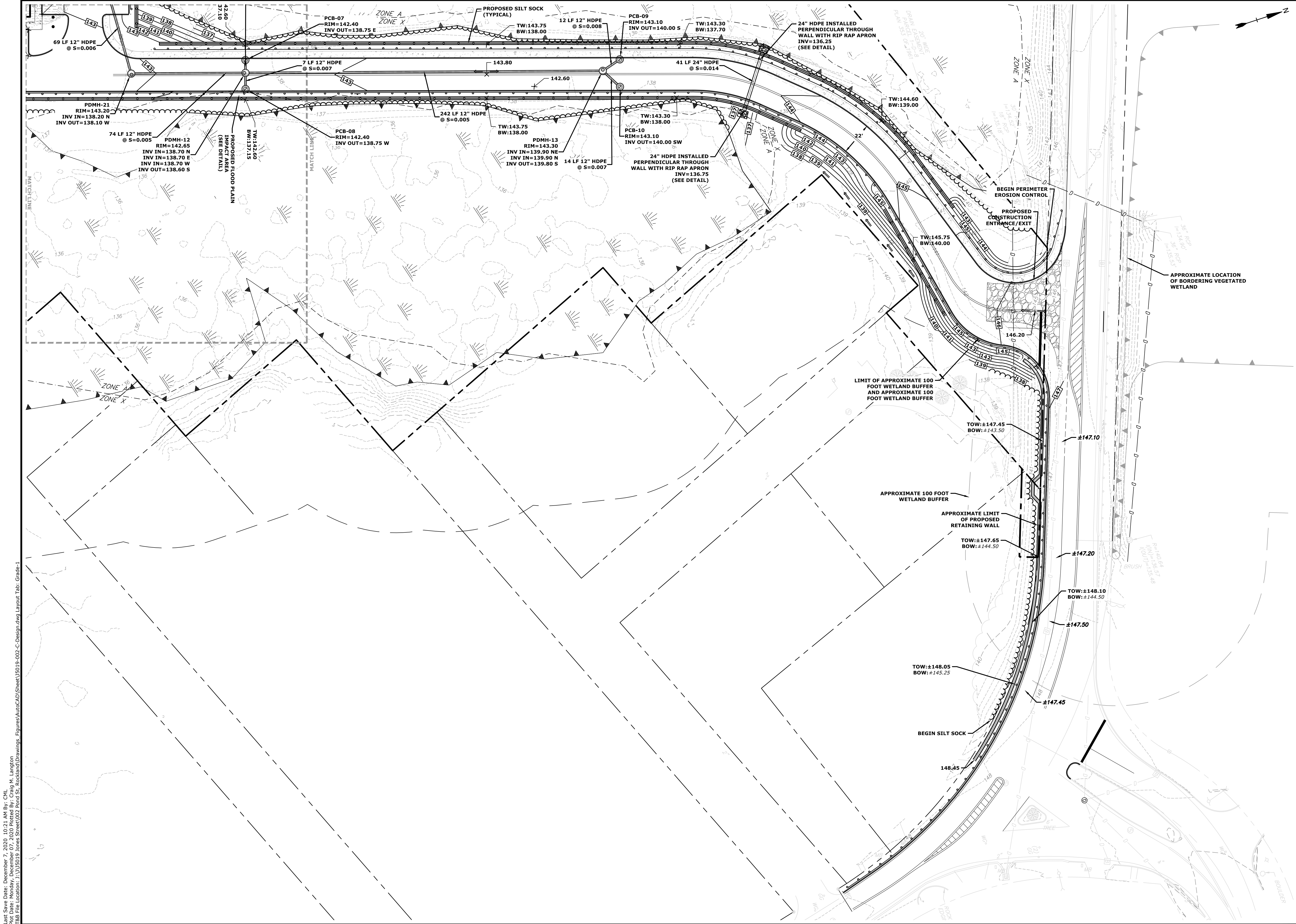
SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

**Shingle Mill
Multi-Family
Development**

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

D	12/8/2020	Supplemental Comprehensive Permit - 2
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B	9/16/2020	NoI Submission
A	9/4/2020	Conservation Commission Submission
MARK	DATE	DESCRIPTION
PROJECT NO: J5019-002		
DATE: 9/4/2020		
FILE: J5019-002-C-DESIGN.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		
SITE PLAN		
SCALE: AS SHOWN		
C-102.3		



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
File Location: J:\J5019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\J5019-002-C-Design.dwg Layout Tab: Grade-1

Tighe&Bond

Bradlee Neelands
12/8/2020

Patrick Crimmins
12/8/2020

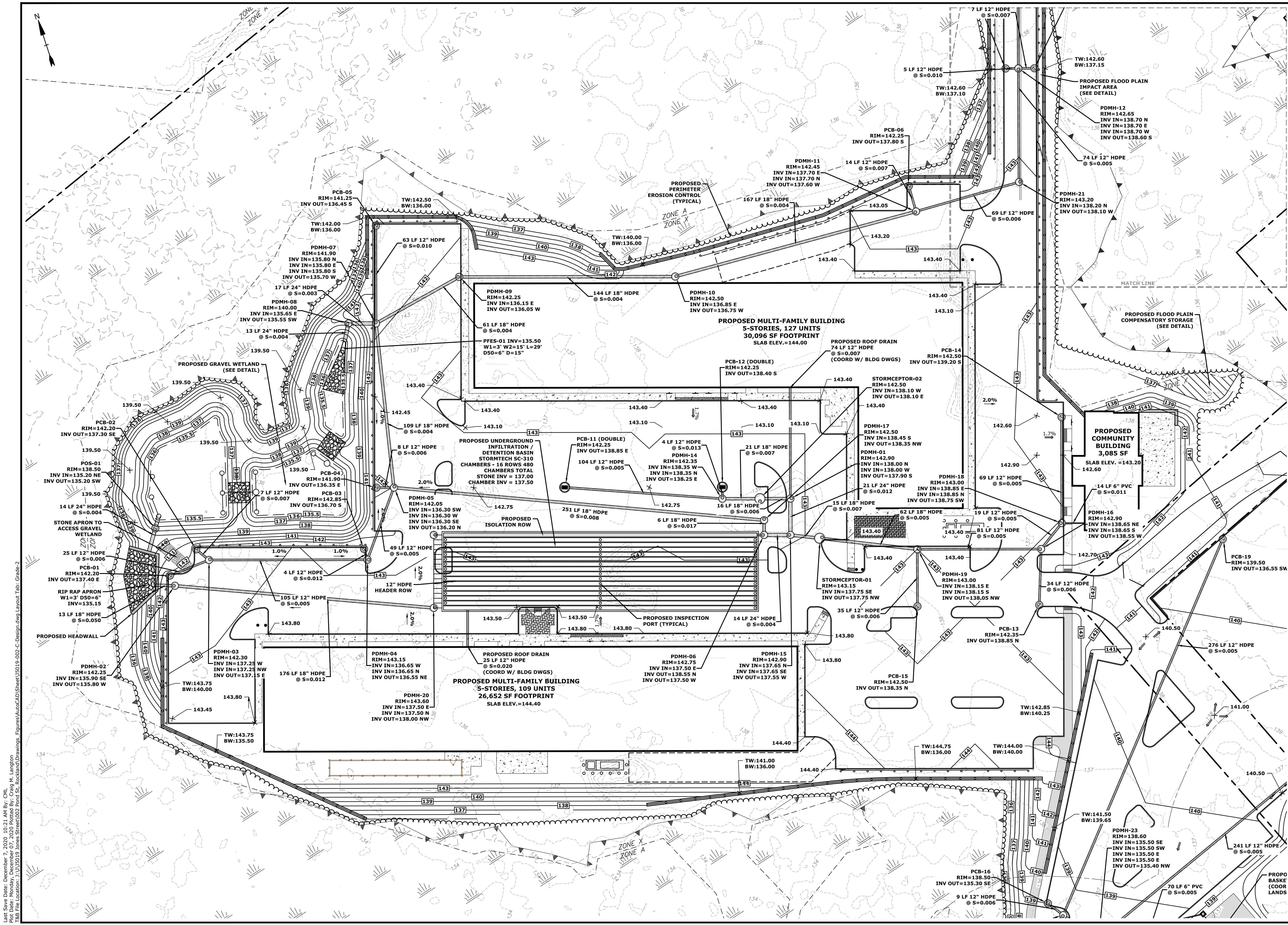
SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

**Shingle Mill
Multi-Family
Development**

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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A	7/13/2020	
MARK	DATE	DESCRIPTION
PROJECT NO: J5019-002		
DATE: 7/13/2020		
FILE: J5019-002-C-DESIGN.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		
GRADING, DRAINAGE, & EROSION CONTROL PLAN		
SCALE: AS SHOWN		
C-103.1		



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\35019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\35019-002-C-Design.dwg Layout Tab Grade-2

Tighe&Bond

12/8/2020

SCALE IN FEET
GRAPHIC SCALE

Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

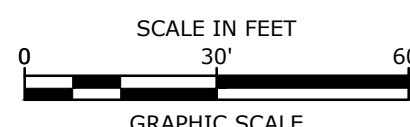
MARK	DATE	DESCRIPTION
E	12/8/2020	Supplemental Comprehensive Permit - 2
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PROJECT NO: J5019-002
DATE: 7/13/2020
FILE: J5019-002-C-DESIGN.DWG
DRAWN BY: CML
CHECKED: PMC
APPROVED: BLM

GRADING, DRAINAGE, & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.2



Shinglemill, LLC

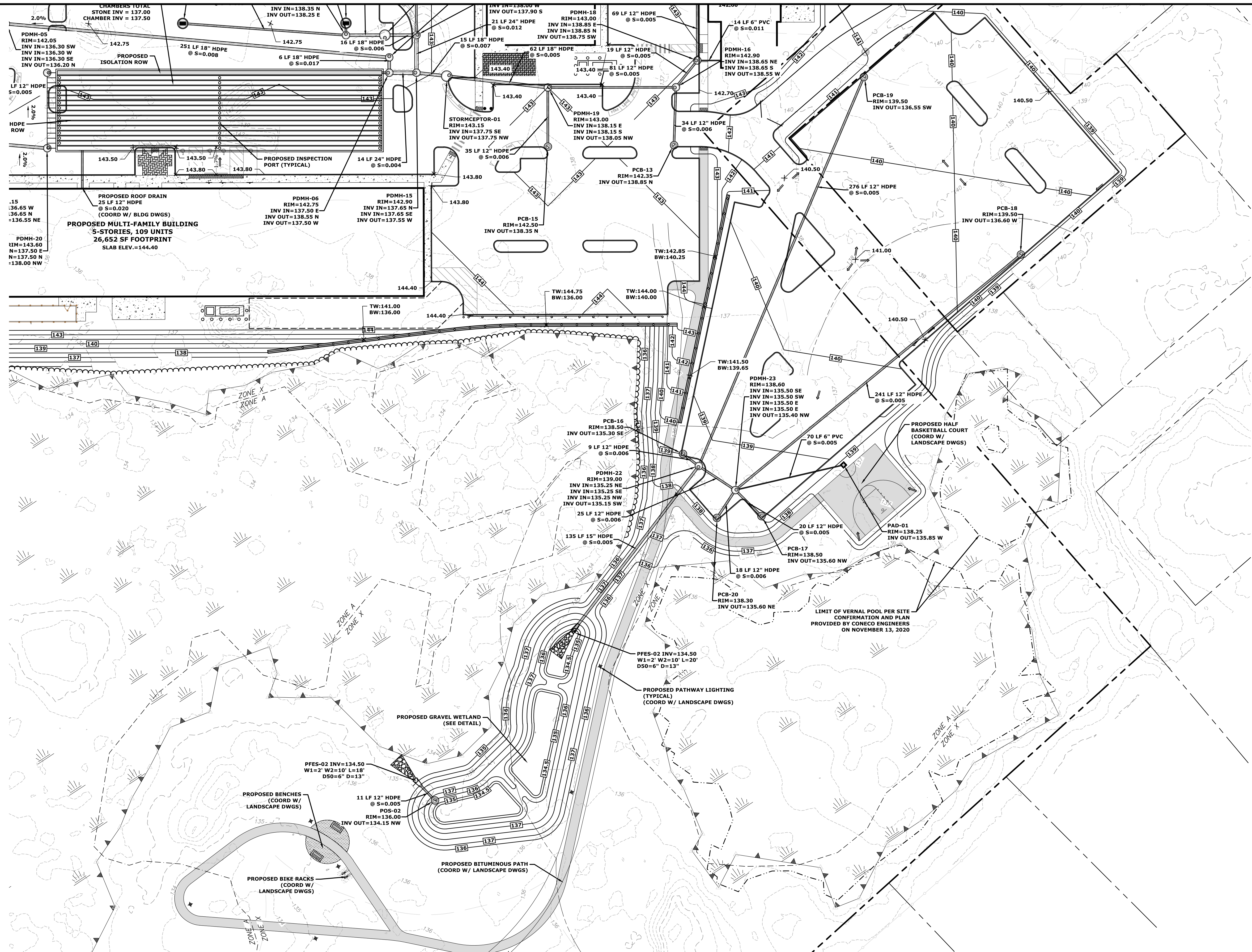
75 - 79 Pond Street
Rockland,
Massachusetts

D	12/8/2020	Supplemental Comprehensive Permit -
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B	9/16/2020	Not Submission
A	9/4/2020	Conservation Commission Submission
MARK	DATE	DESCRIPTION
PROJECT NO: 35019-002		
DATE: 9/4/2020		
FILE: 35019-002-C-DESIGN.DWG		
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

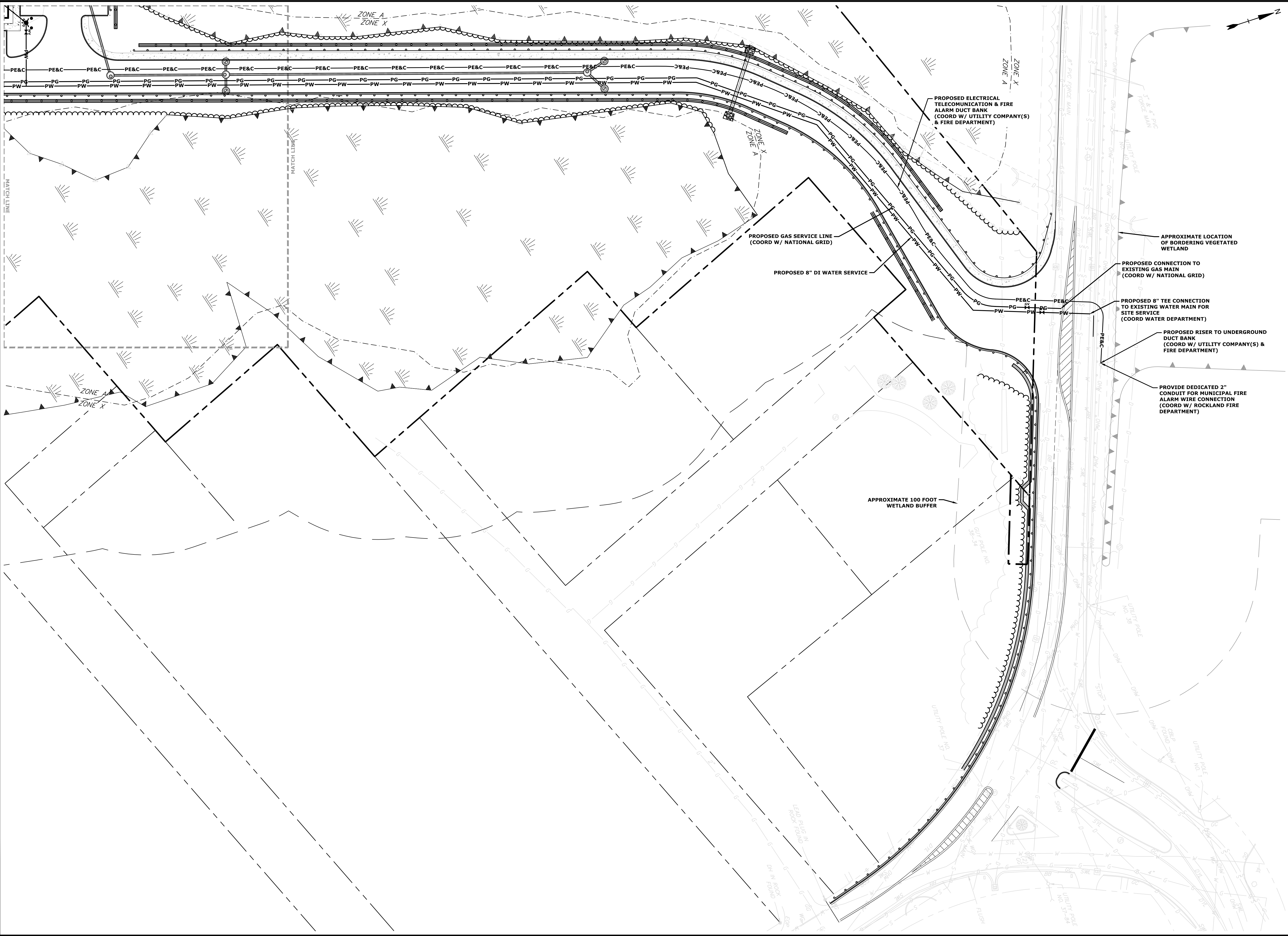
GRADING, DRAINAGE, & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.3



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\J5019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\J5019-002-C-Design.dwg Layout Tab: Util-1



Tighe&Bond

APPROXIMATE LOCATION OF BORDERING VEGETATED WETLAND

PROPOSED CONNECTION TO EXISTING GAS MAIN (COORD W/ NATIONAL GRID)

PROPOSED 8" TEE CONNECTION TO EXISTING WATER MAIN FOR SITE SERVICE (COORD WATER DEPARTMENT)

PROPOSED RISER TO UNDERGROUND DUCT BANK (COORD W/ UTILITY COMPANY(S) & FIRE DEPARTMENT)

PROVIDE DEDICATED 2" CONDUIT FOR MUNICIPAL FIRE ALARM WIRE CONNECTION (COORD W/ ROCKLAND FIRE DEPARTMENT)

SCALE IN FEET

0 30' 60'

GRAPHIC SCALE

Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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MARK	DATE	DESCRIPTION

PROJECT NO: J5019-002

DATE: 7/13/2020

FILE: J5019-002-C-DESIGN.DWG

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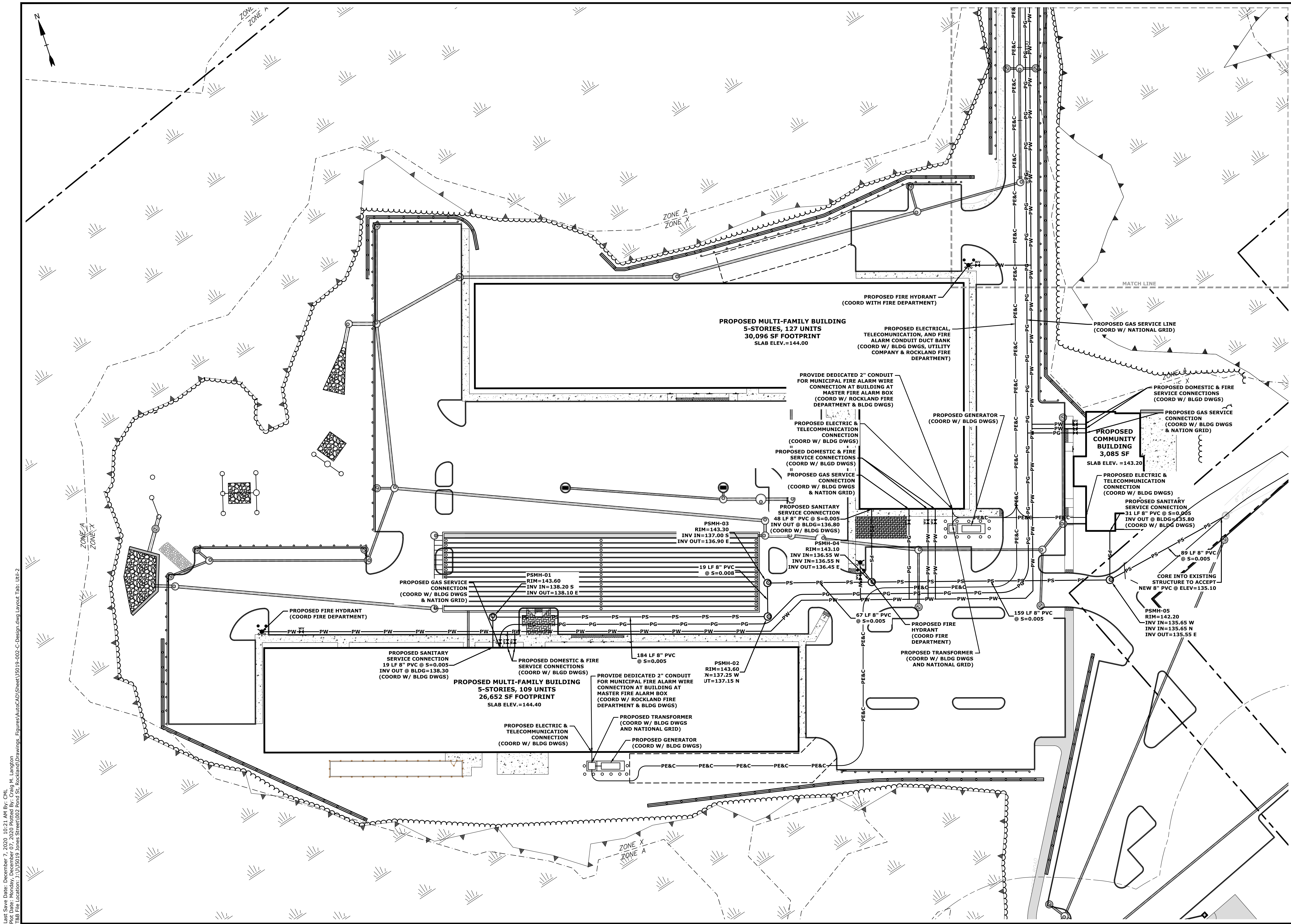
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APPROVED: BLM

UTILITY PLAN

SCALE: AS SHOWN

C-104.1



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\05019 Jones Street\002 Pond St, Rockland\Drawings - Figures\AutoCAD\Sheet\05019-002-C-Design.dwg Layout Tab: Util-2

Tighe&Bond

12/8/2020

12/8/2020

SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

**Shingle Mill
Multi-Family
Development**

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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A	7/13/2020	

PROJECT NO: J5019-002

DATE: 7/13/2020

FILE: J5019-002-C-DESIGN.DWG

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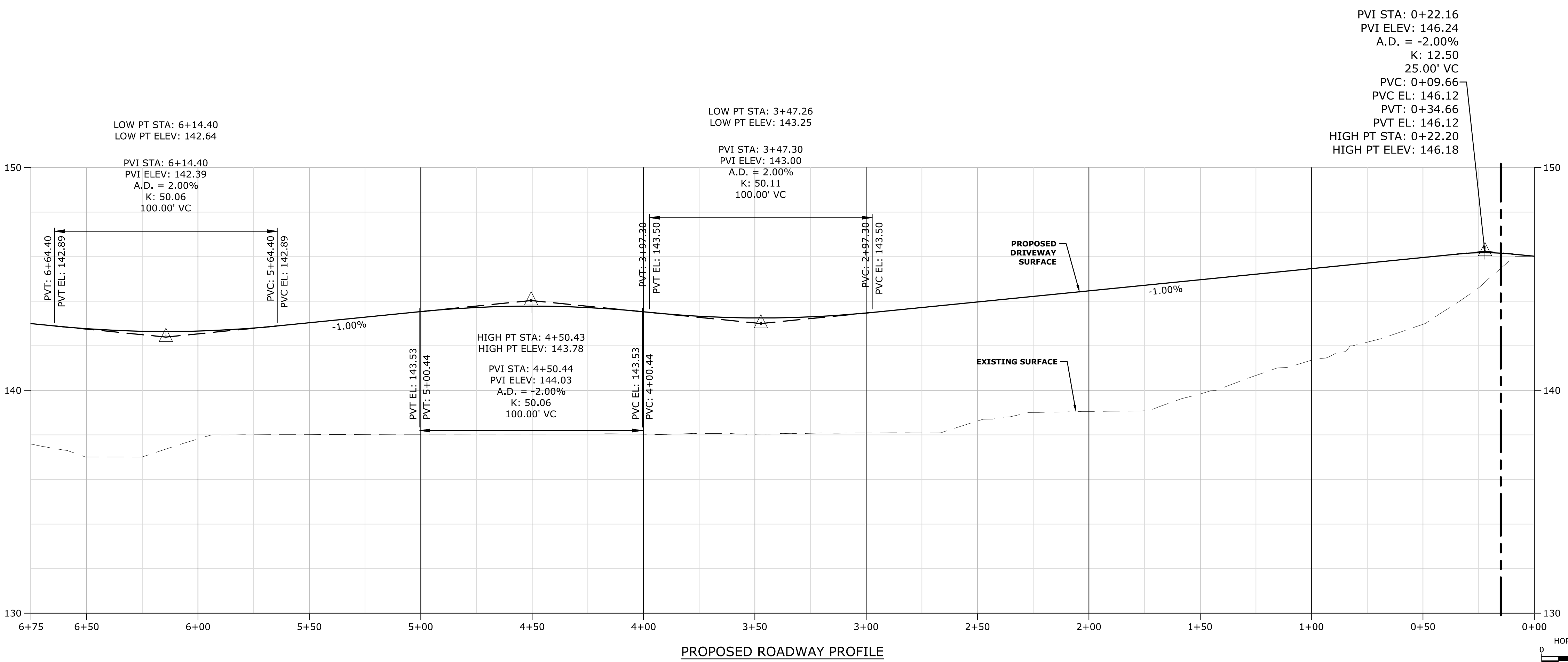
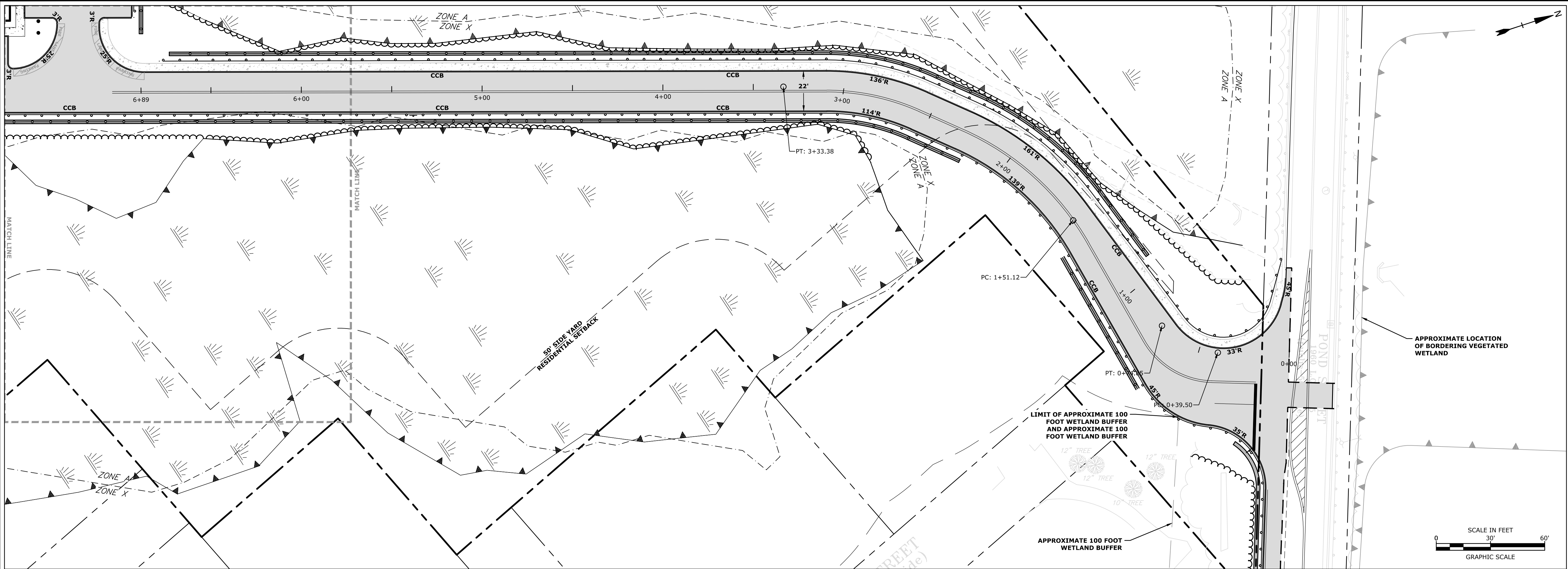
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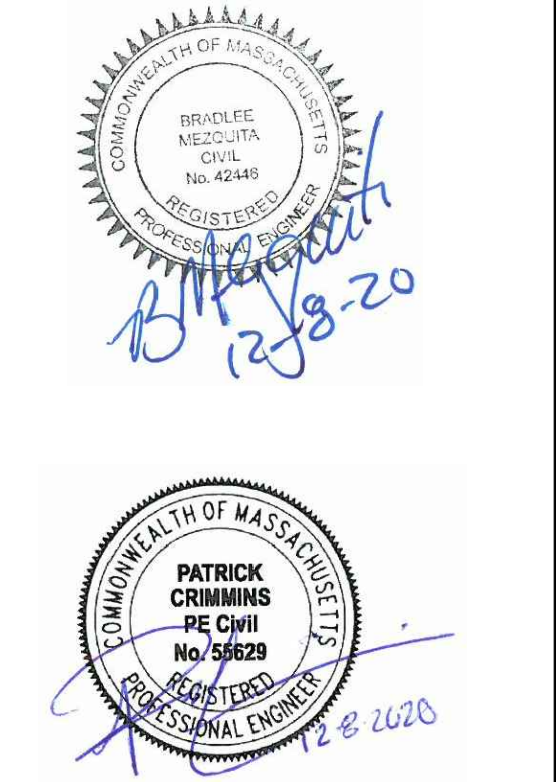
UTILITY PLAN

SCALE: AS SHOWN

C-104.2



Tighe&Bond



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/16/2020	Not Submission
A	9/4/2020	Conservation Commission Submission

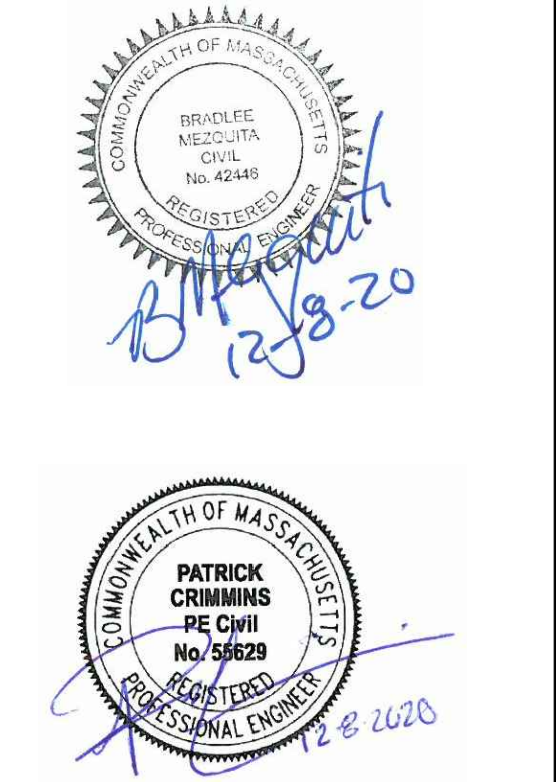
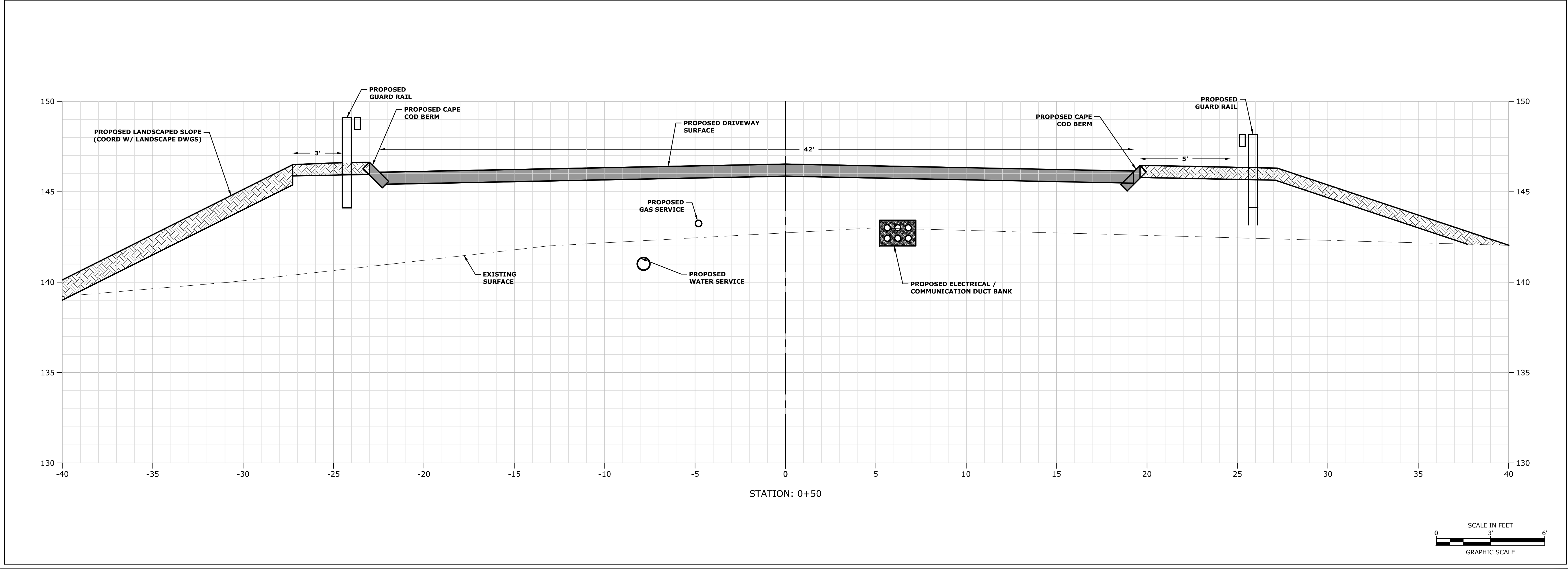
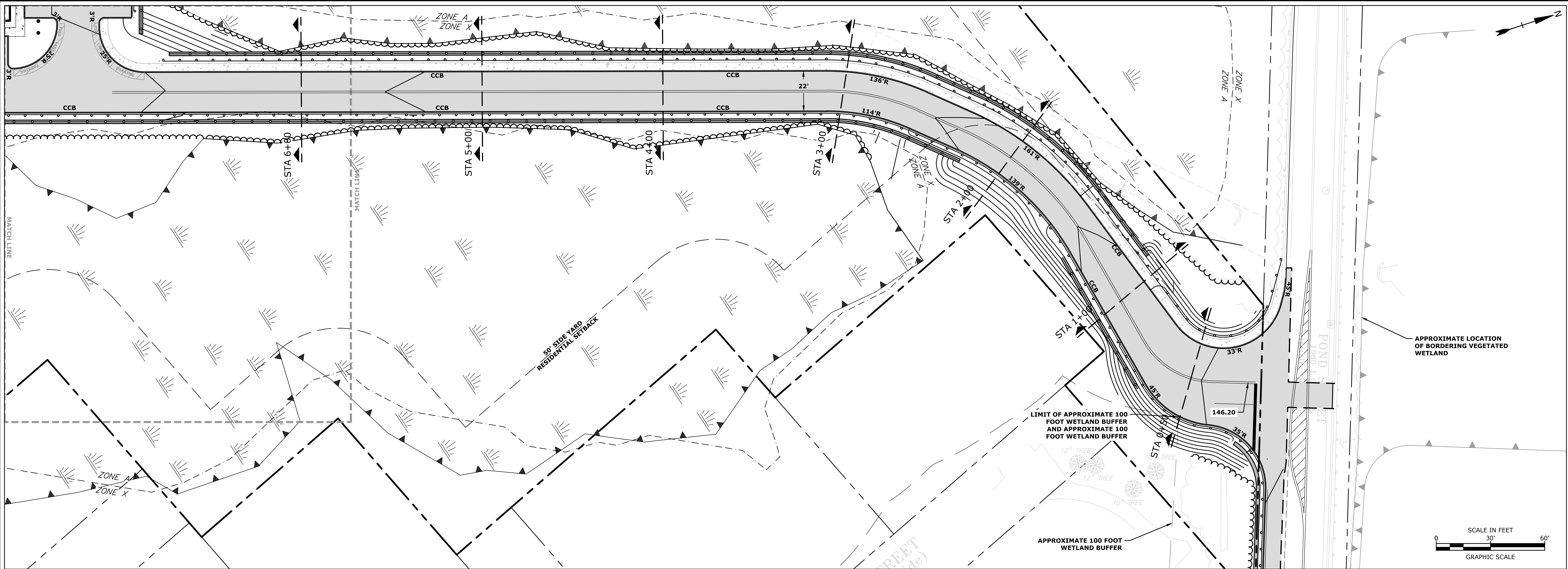
PROJECT NO: J5019-002
DATE: 9/4/20200
FILE: J5019-002-C-DESIGN.DWG
DRAWN BY: CML
CHECKED: PMC
APPROVED: BLM

DRIVEWAY PLAN & PROFILE

SCALE: AS SHOWN

C-201

Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
File Location: J:\J5019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\J5019-002-C-Design.dwg Layout Tab: Profile-1



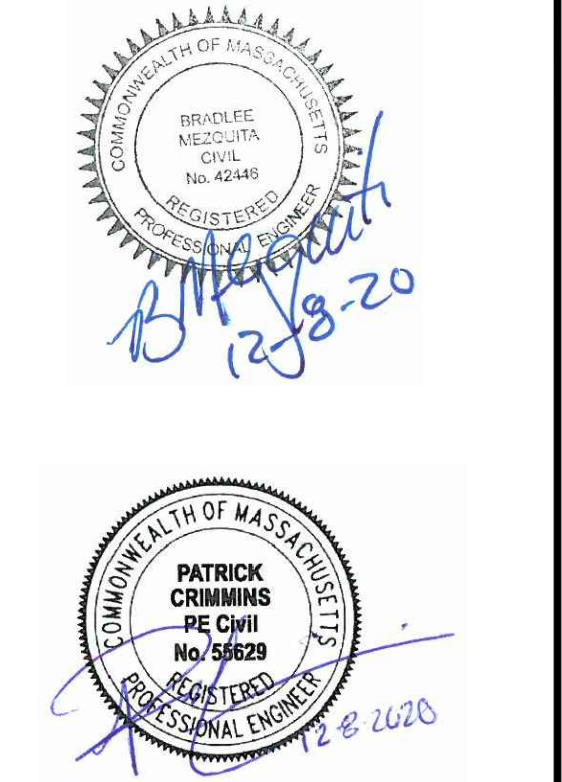
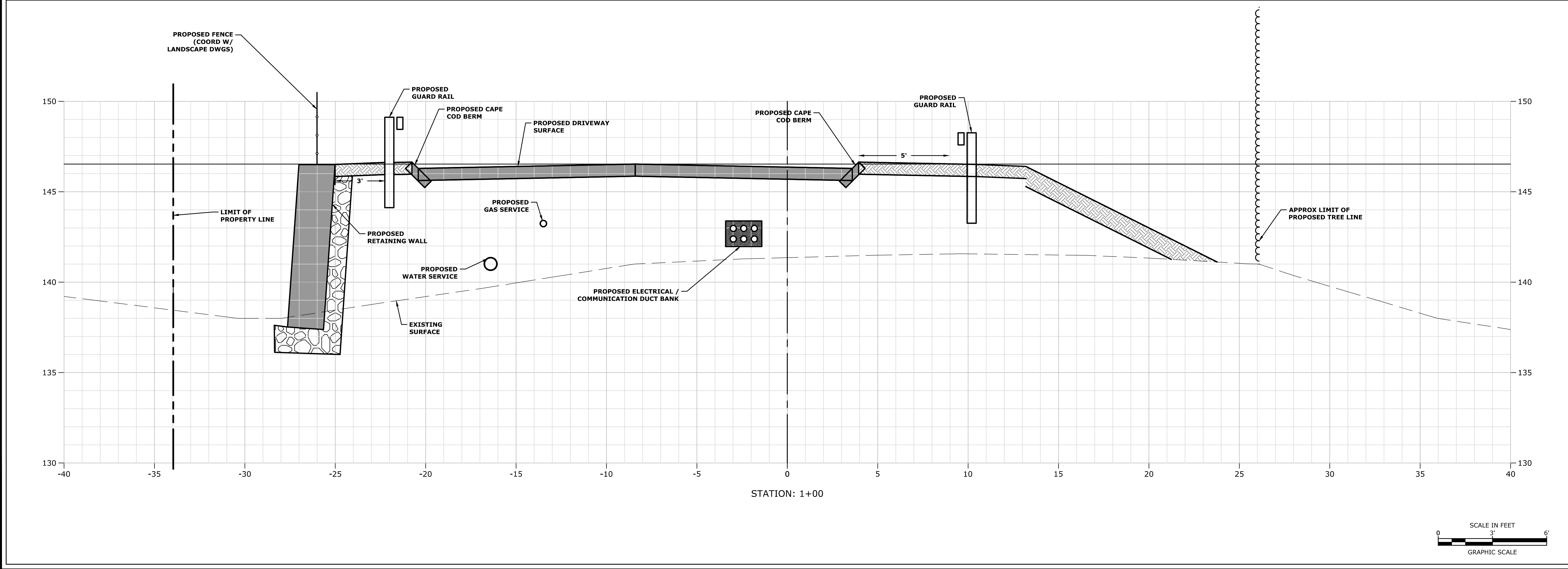
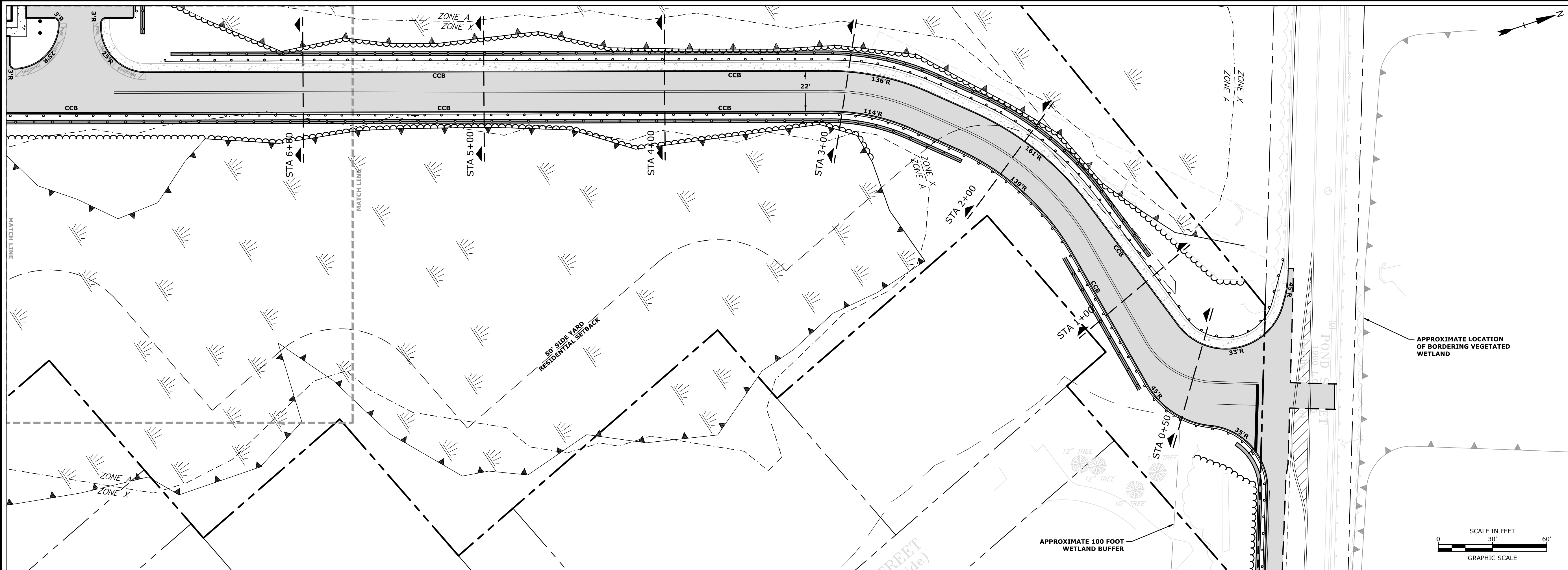
Shingle Mill
Multi-Family
Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
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PROJECT NO:	J5019-002
DATE:	9/4/2020
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-202	



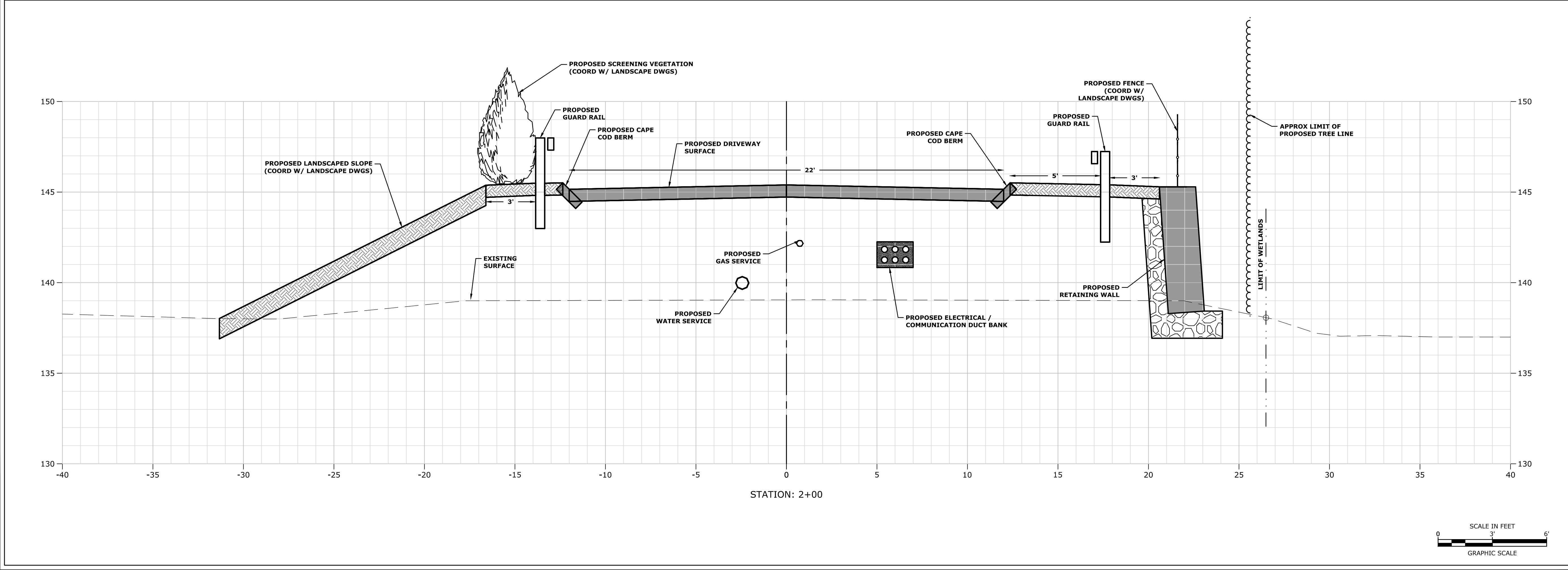
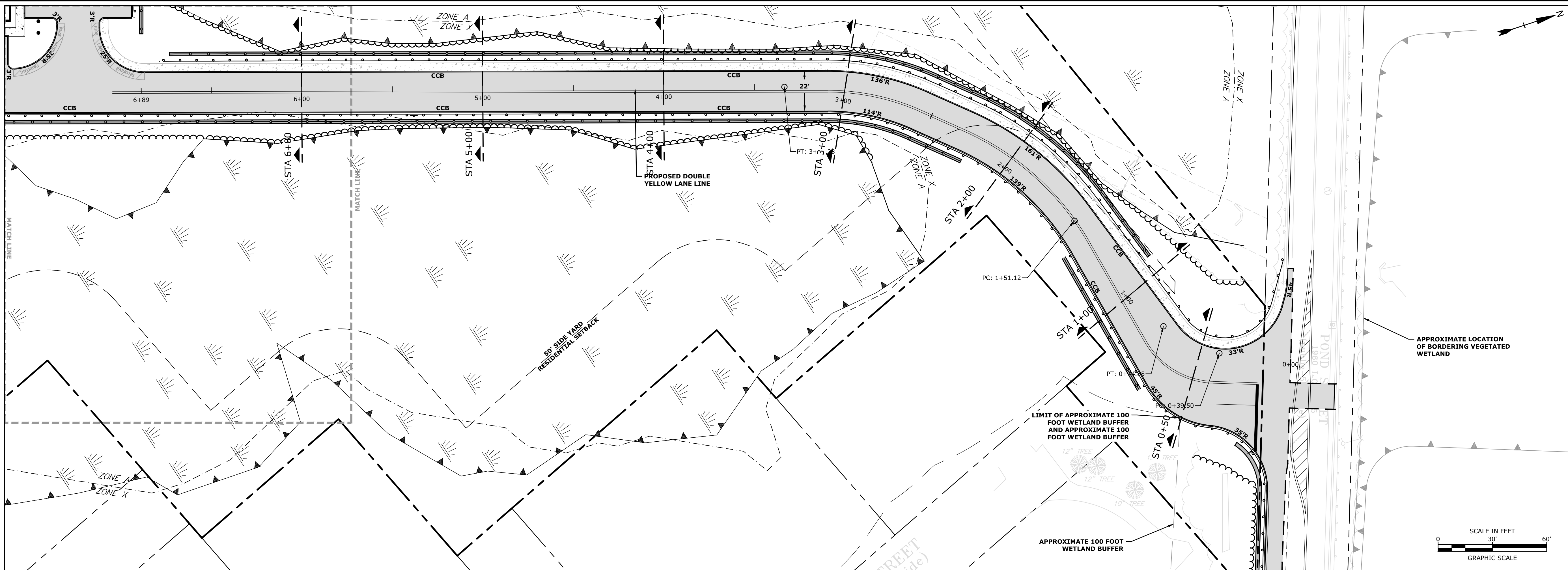
Shingle Mill
Multi-Family
Development

Shinglemill, LLC

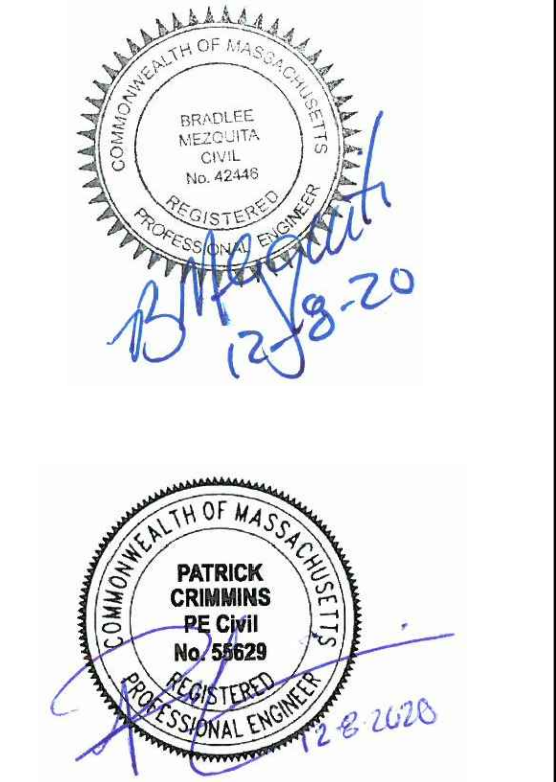
75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/16/2020	Not Submission
A	9/4/2020	Conservation Commission Submission

PROJECT NO:	J5019-002
DATE:	9/4/202000
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-203	



Last Save Date: December 7, 2020, 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
Pkg File Location: J:\J5019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\J5019-002-C-Design.dwg Layout Tab: Section-2



Shingle Mill
Multi-Family
Development

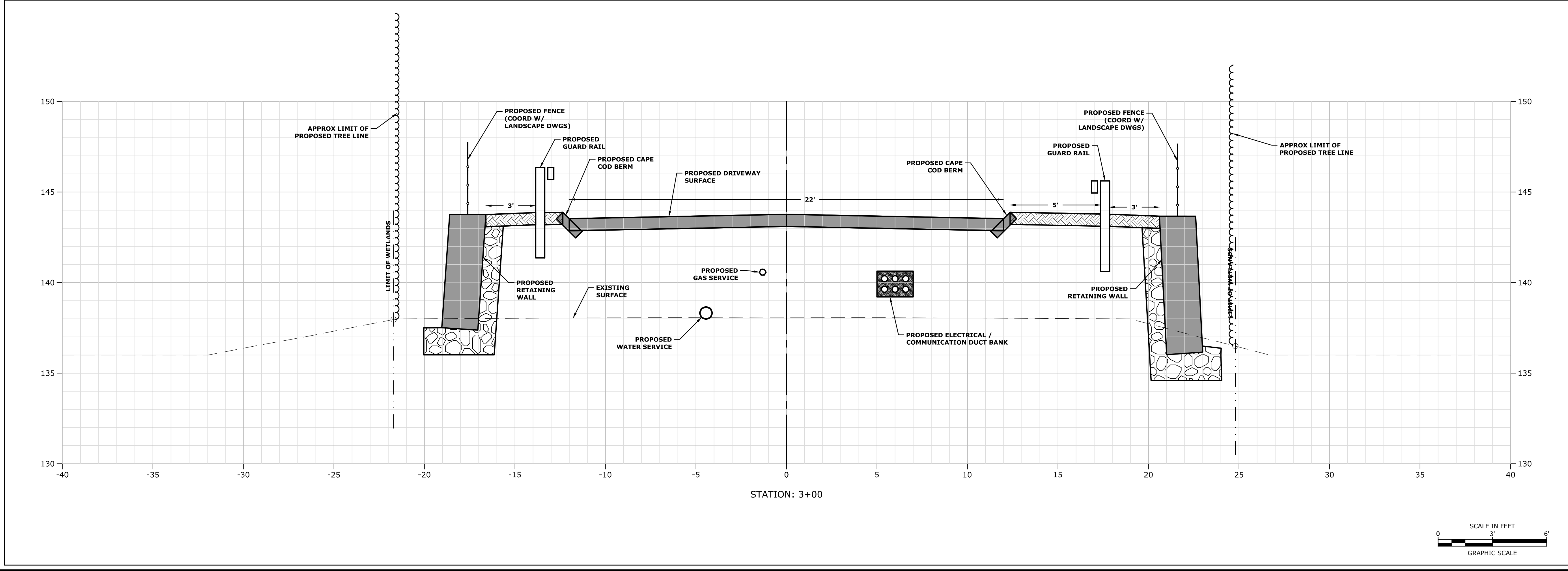
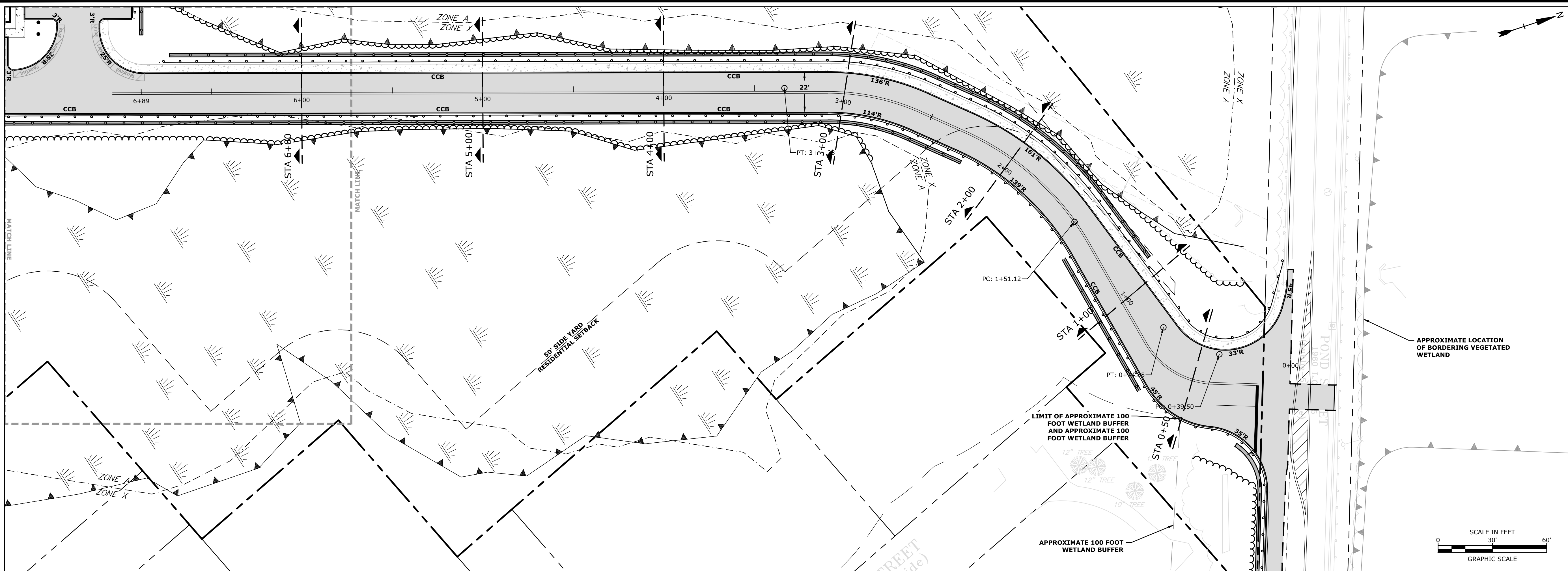
Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

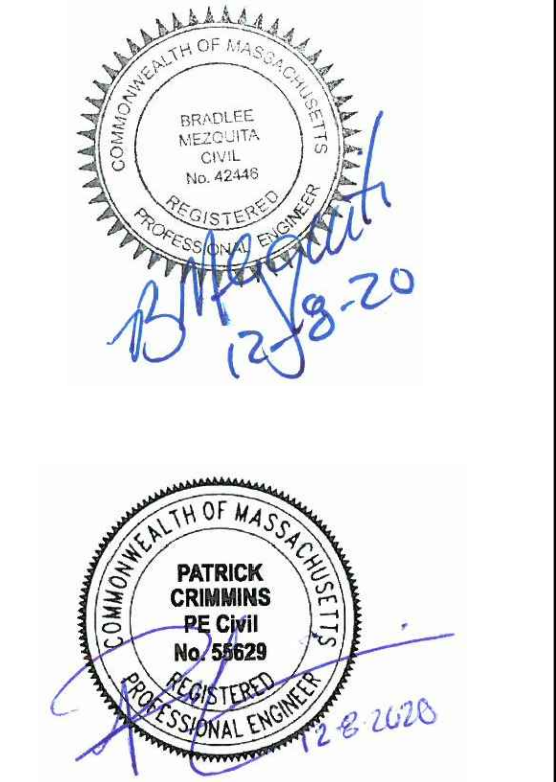
MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/16/2020	Not Submission
A	9/4/2020	Conservation Commission Submission

PROJECT NO:	J5019-002
DATE:	9/4/20200
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-204	

Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langton
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Tighe&Bond



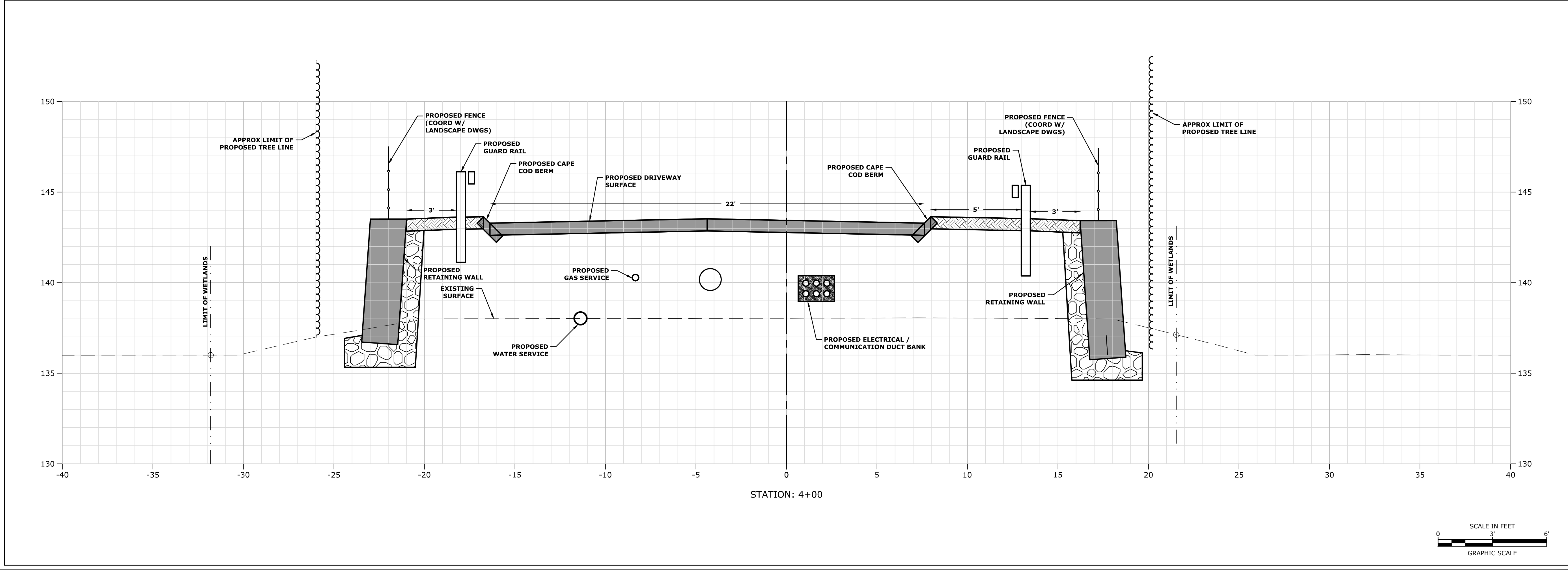
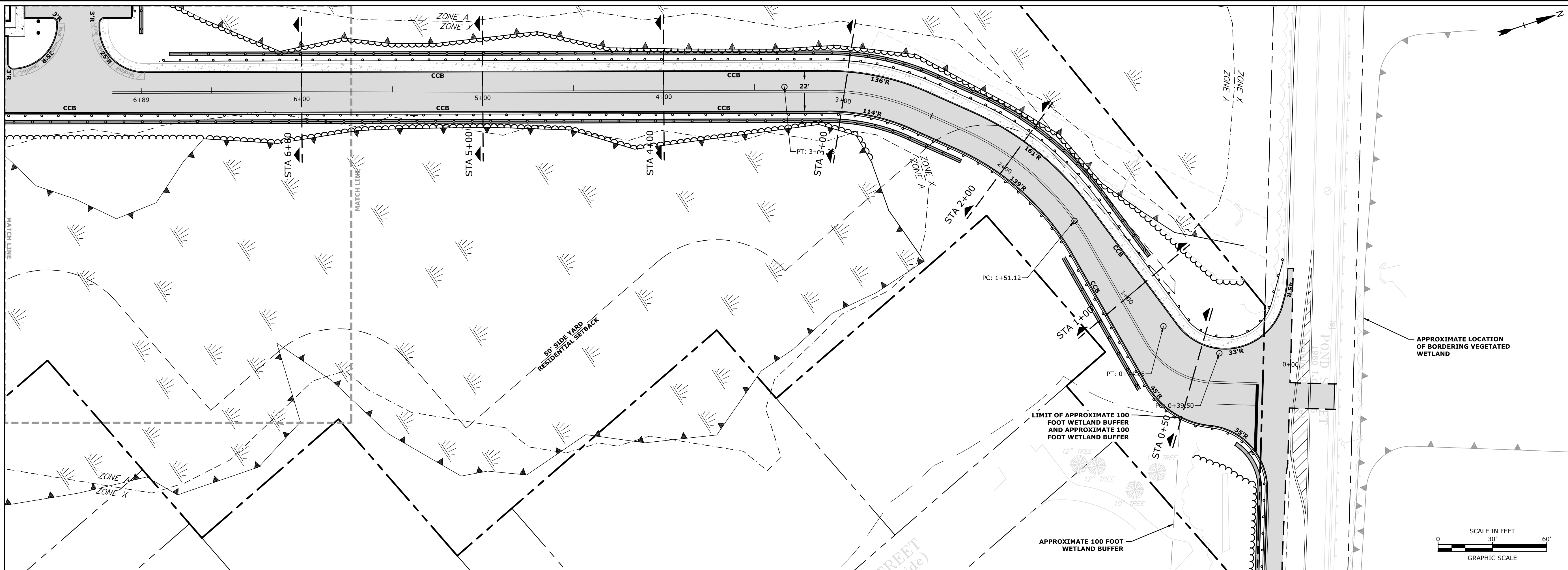
Shingle Mill Multi-Family Development

Shinglemill, LLC

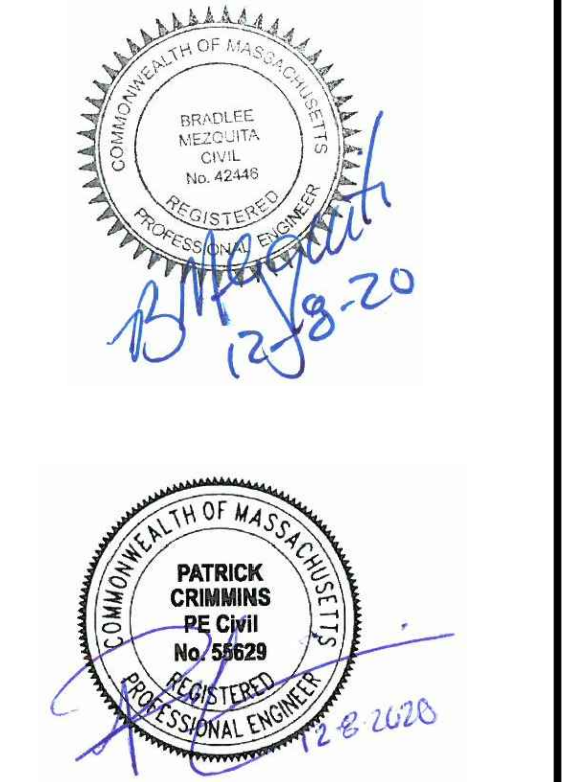
75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
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PROJECT NO:	J5019-002
DATE:	9/4/2020
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-205	



Tighe&Bond



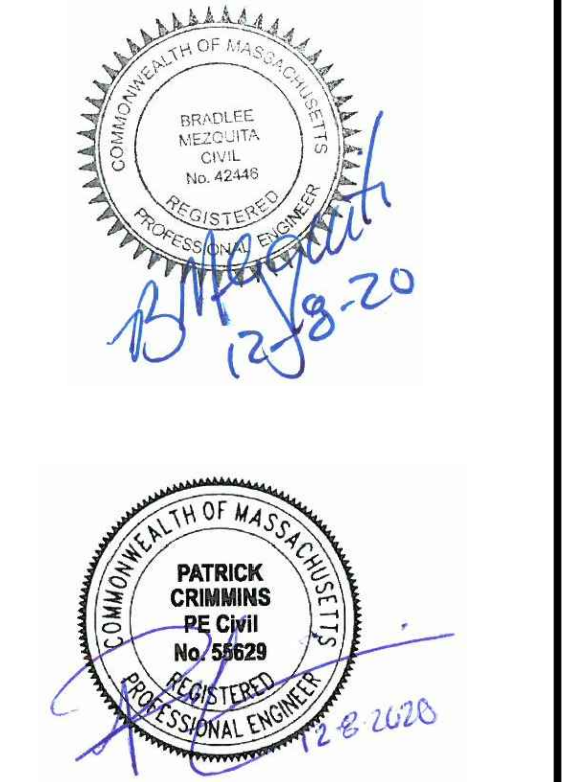
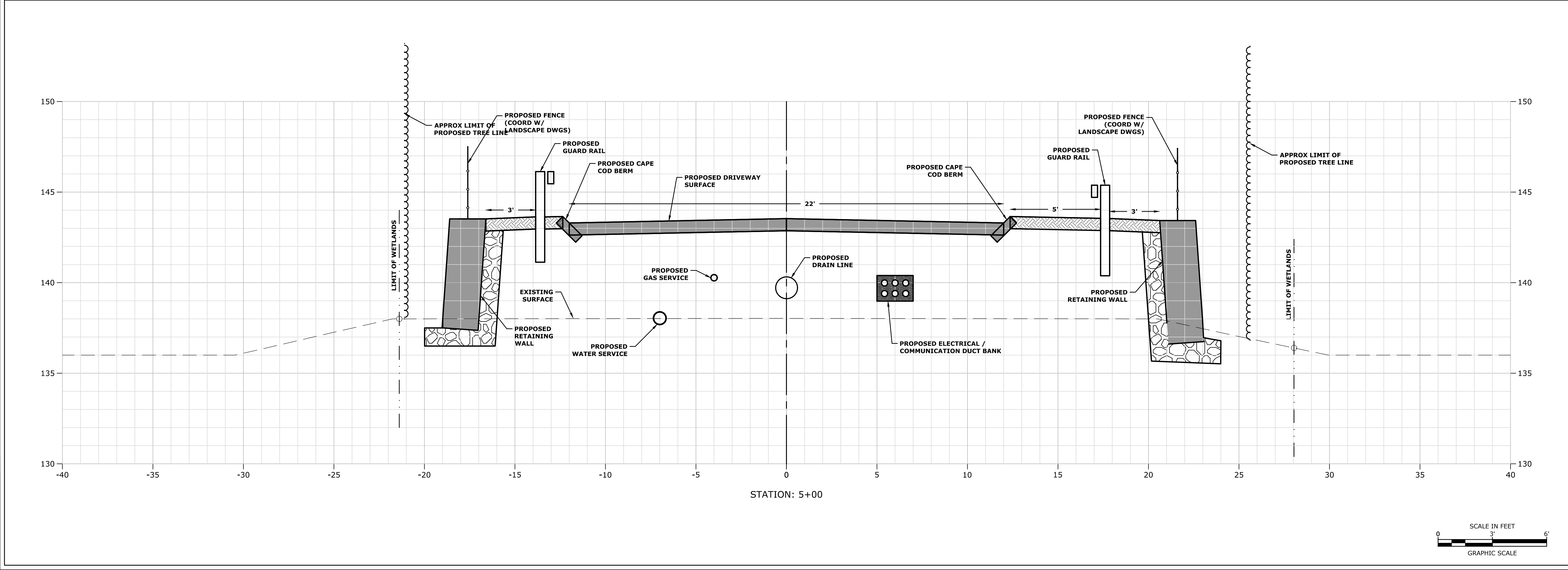
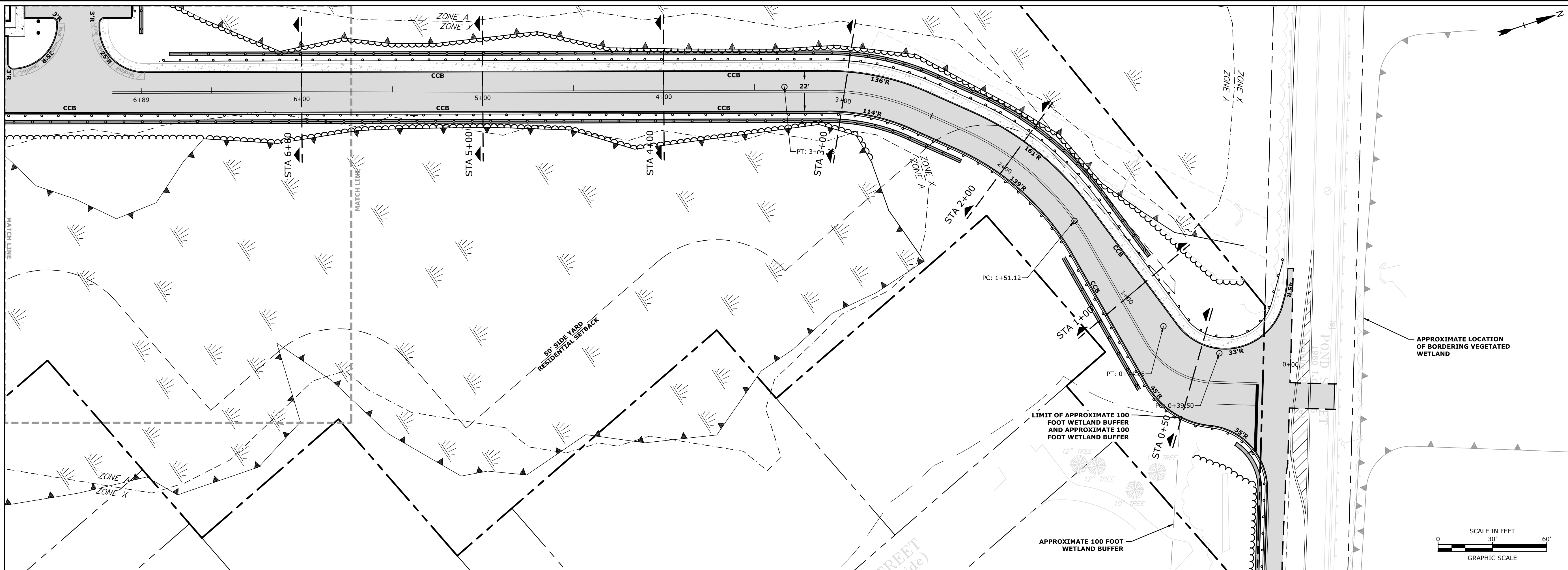
Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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PROJECT NO:	J5019-002
DATE:	9/4/2020
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-206	



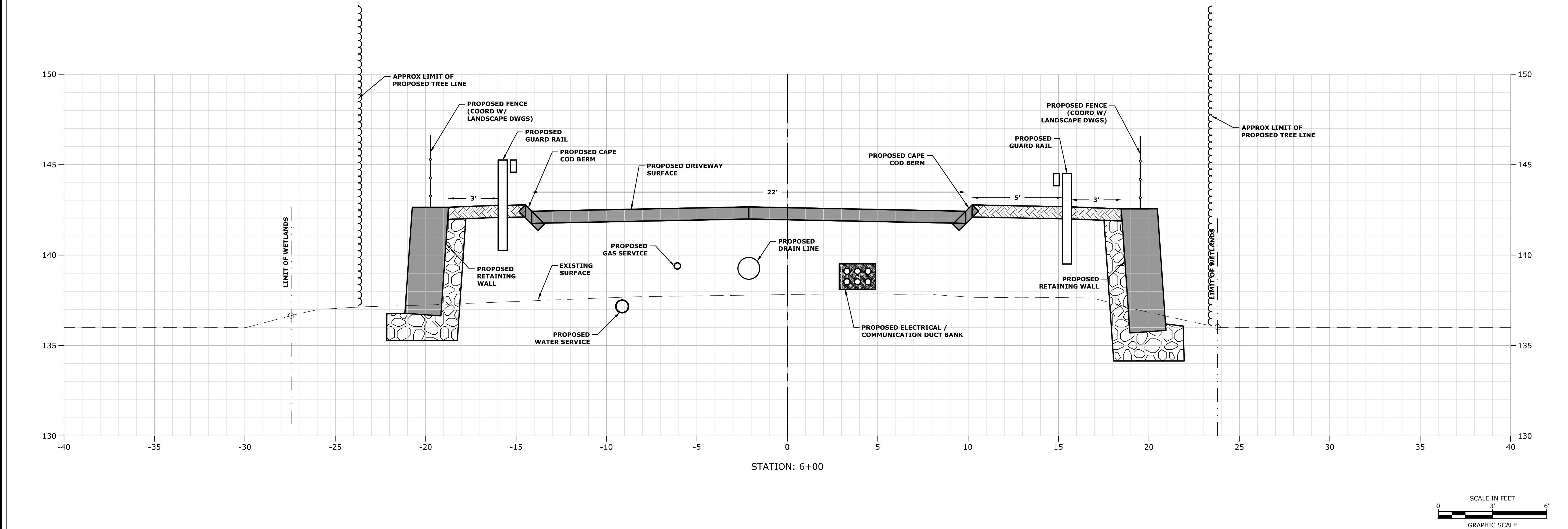
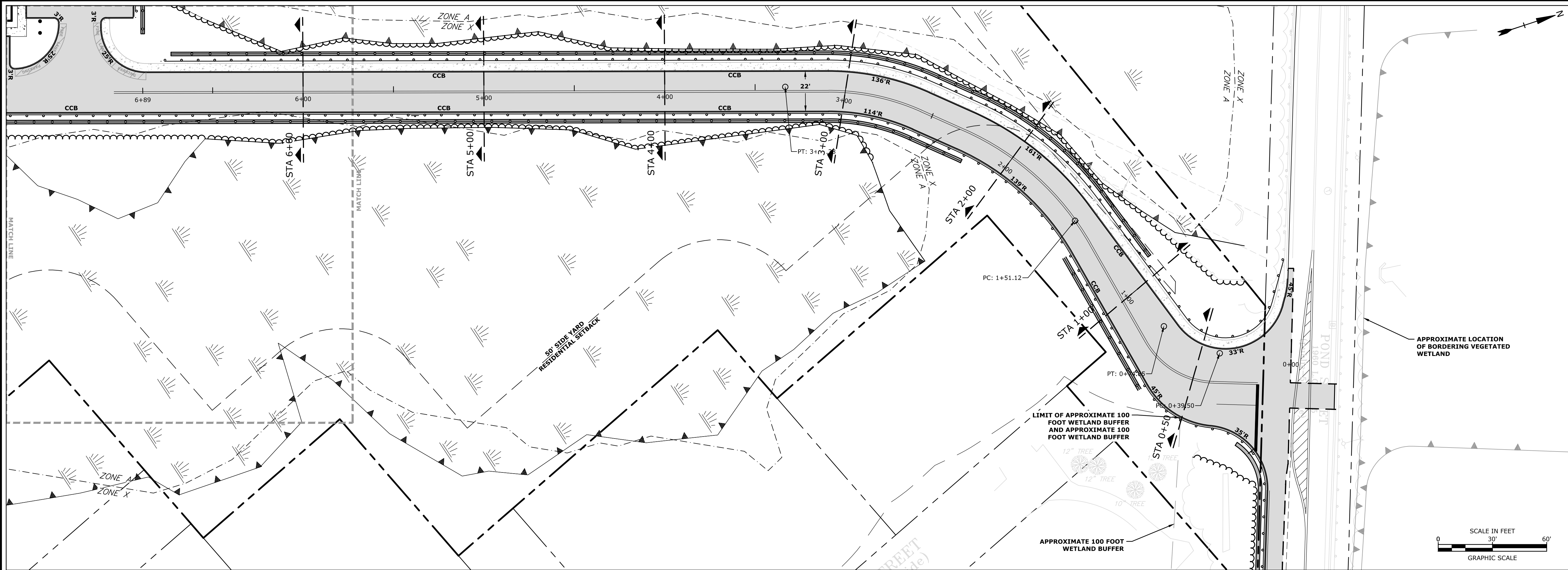
Shingle Mill
Multi-Family
Development

Shinglemill, LLC

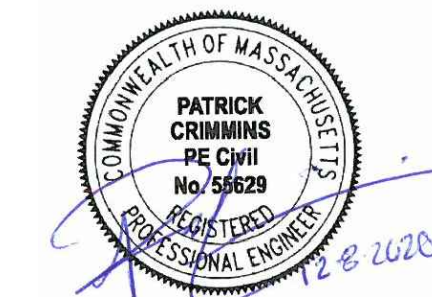
75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/16/2020	Not Submission
A	9/4/2020	Conservation Commission Submission

PROJECT NO:	J5019-002
DATE:	9/4/20200
FILE:	J5019-002-C-DESIGN.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM
DRIVEWAY SECTION VIEW	
SCALE:	AS SHOWN
C-207	



Last Save Date: December 7, 2020 10:21 AM By: CML
Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\05019 Jones Street\002 Pond St, Rockland\Drawings Figures\AutoCAD\Sheet\05019-002-C-Design.dwg Layout Tab: Section-6



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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GENERAL PROJECT INFORMATION

1. PROJECT APPLICANT:

JONES STREET RESIDENTIAL
100 HIGH STREET, SUITE 2500
BOSTON, MASSACHUSETTS 02110
2. PROJECT NAME:

SHINGLE MILLS MULTI-FAMILY DEVELOPMENT
- PROJECT ADDRESS:

75 - 79 POND STREET
ROCKLAND, MASSACHUSETTS

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF A MULTI-FAMILY DEVELOPMENT WITH ASSOCIATED SITE IMPROVEMENTS.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 9 ACRES.

SOIL CHARACTERISTICS

BASED ON THE NRCS WEB SOIL SURVEY FOR PLYMOUTH COUNTY - MASSACHUSETTS, THE SOILS ON SITE CONSIST OF TIRONET COURSE SOAD AND FRETOWN MUCH WHICH ARE EXCESSIVELY WELL DRAINED TO MODERATELY WELL DRAINED SOILS WITH HYDROLOGIC SOIL GROUP RATING(S) OF A/D AND B/D RESPECTIVELY.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE PROPOSED SITE WILL DISCHARGE VIA OVERLAND FLOW THROUGH THE PROPOSED ON-SITE DRAINAGE SYSTEMS TO THE EXISTING WETLAND.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

1. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:

1.1. NEW CONSTRUCTION

1.2. DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE

1.3. FLOOD PLAIN EXCAVATION WORK

1.4. CONTROL OF DUST

1.5. NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS

1.6. CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
2. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
3. CLEAR AND DISPOSE OF DEBRIS.
4. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
5. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
6. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
7. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
8. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
9. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
10. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
11. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
12. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

SPECIAL CONSTRUCTION NOTES:

1. THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE. IS CLEAN NOTES:

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" PREPARED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.
2. PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
3. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
4. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
5. PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
6. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
8. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
9. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION:

1. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:

1.1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;

1.2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;

1.3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
- 1.4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.;
- 1.5. IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF COMMONWEALTH OF MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES," 1988 EDITION AS AMENDED.
2. WINTER STABILIZATION PRACTICES:

2.1. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;

2.2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;

2.3. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;

3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:

3.1. TEMPORARY SEEDING;

3.2. MULCHING.

4. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

5. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

6. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH

DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

DUST CONTROL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.

2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.

STOCKPILES:

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.

2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.

3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.

4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING:

THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

1. SEE LANDSCAPE PLANS FOR SITE VEGETATION NOTES.

CONCRETE WASHOUT AREA:

1. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:

1.1. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;

1.2. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;

1.3. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;

1.4. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES:

1. FIRE-FIGHTING ACTIVITIES;

2. FIRE HYDRANT FLUSHING;

3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;

4. WATER USED TO CONTROL DUST;

5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;

6. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;

7. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;

8. UNCONTAMINATED GROUND WATER OR SPRING WATER;

9. UNCONTAMINATED EXCAVATION DEWATERING;

10. LANDSCAPE IRRIGATION.

WASTE DISPOSAL:

1. WASTE MATERIAL:

1.1. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;

1.2. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;

1.3. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

2. HAZARDOUS WASTE:

2.1. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;

2.2. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.

3. SANITARY WASTE:

3.1. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION:

1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.

2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

2.1. GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:

2.1.1. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;

2.1.2. ALL REGULATED MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE, ON AN IMPERVIOUS SURFACE;

2.1.3. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;

2.1.4. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;

2.1.5. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;

2.1.6. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

2.1.7. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.

3. HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

3.1. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;

3.2. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;

3.3. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

4. PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:

4.1. PETROLEUM PRODUCTS:

4.1.1. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;

4.1.2. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

4.1.3. SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;

4.1.4. INSPECT FUEL STORAGE AREAS WEEKLY;

4.1.5. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS;

4.1.6. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;

4.1.7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.

4.1.8. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:

4.1.8.1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;

4.1.8.2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;

4.1.8.3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;

4.1.8.4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES;

4.1.8.5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.

4.1.9. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT SHALL COMPLY WITH THE REGULATIONS OF THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.

4.2. FERTILIZERS:

4.2.1. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;

4.2.2. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;

4.2.3. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

4.3. PAINTS:

4.3.1. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;

4.3.2. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;

4.3.3. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

5. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

5.1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;

5.2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;

5.3. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;

5.4. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;

5.5. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;

5.6. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

6. VEHICLE FUELING AND MAINTENANCE PRACTICE:

6.1. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICAL FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;

6.2. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;

6.3. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;

6.4. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;

6.5. CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;

6.6. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

1. THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.

2. THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT

2.1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;

2.2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;

2.3. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;

2.4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF TAPLES/STAKES 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED 12" APART ACROSS THE WIDTH OF THE BLANKET.

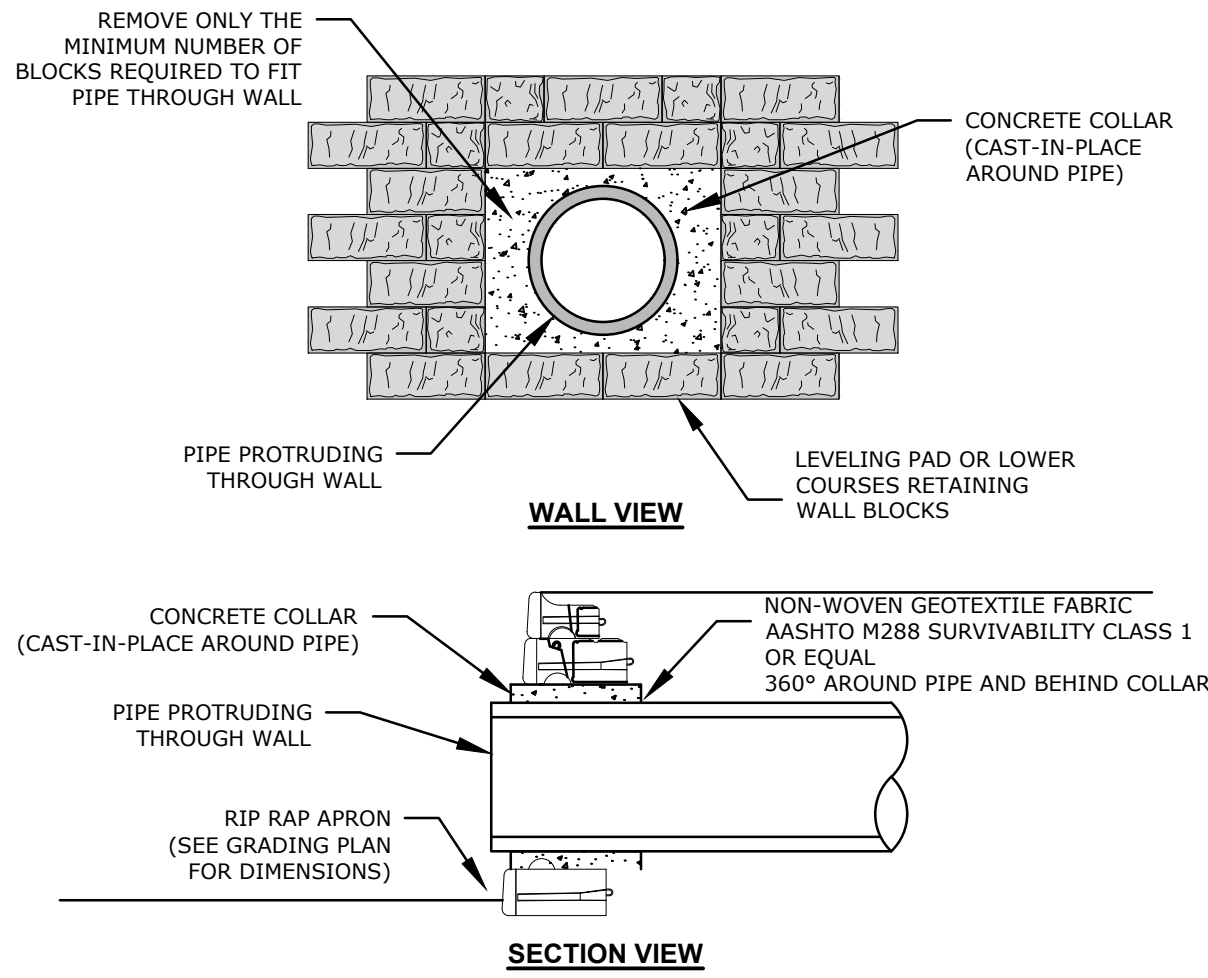
3. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN ON THE STAPLE PATTERN GUIDE.

4. STAPLE LENGTHS SHALL BE A MINIMUM OF 8 INCHES.

EROSION CONTROL BLANKET FOR SLOPE PROTECTION

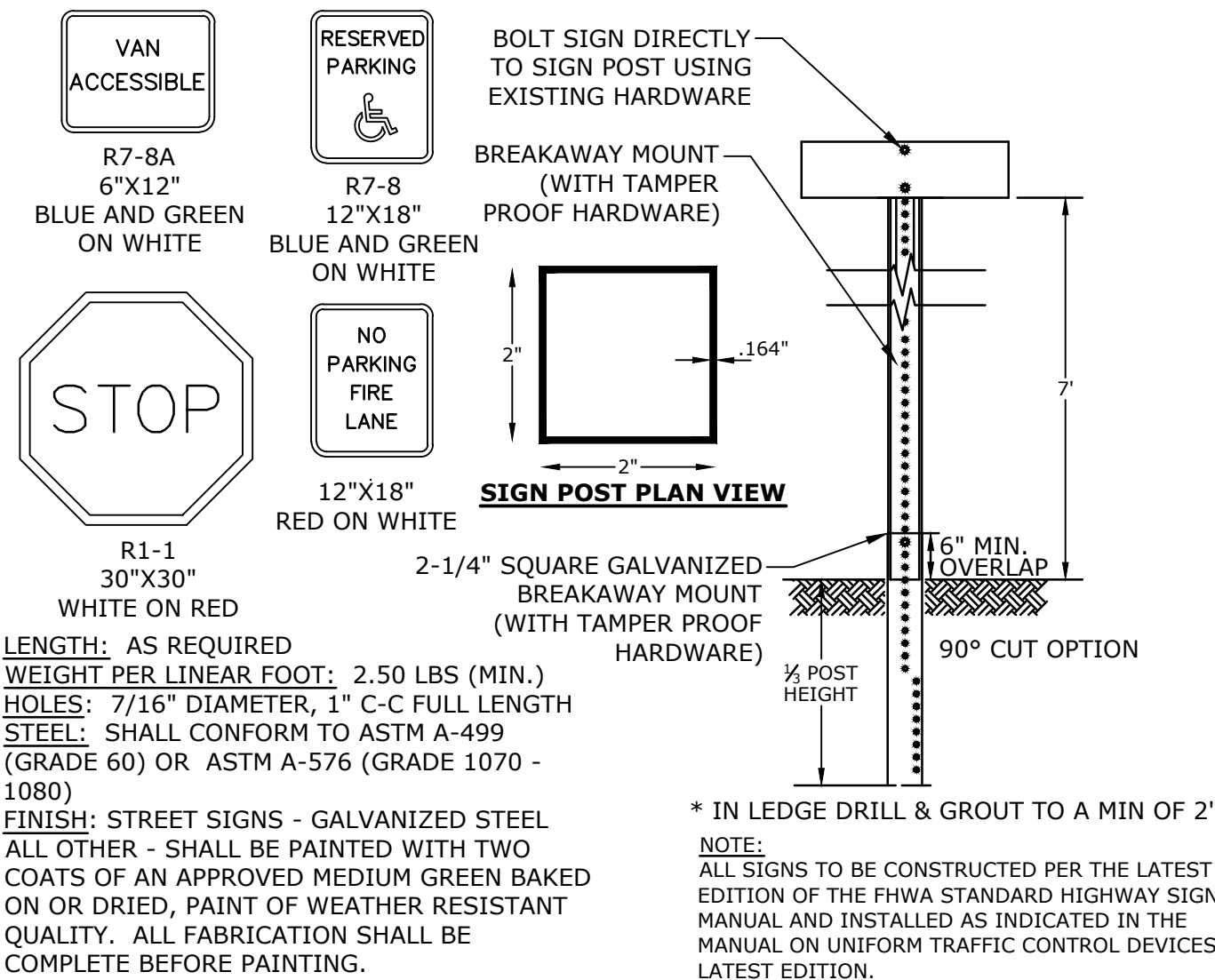
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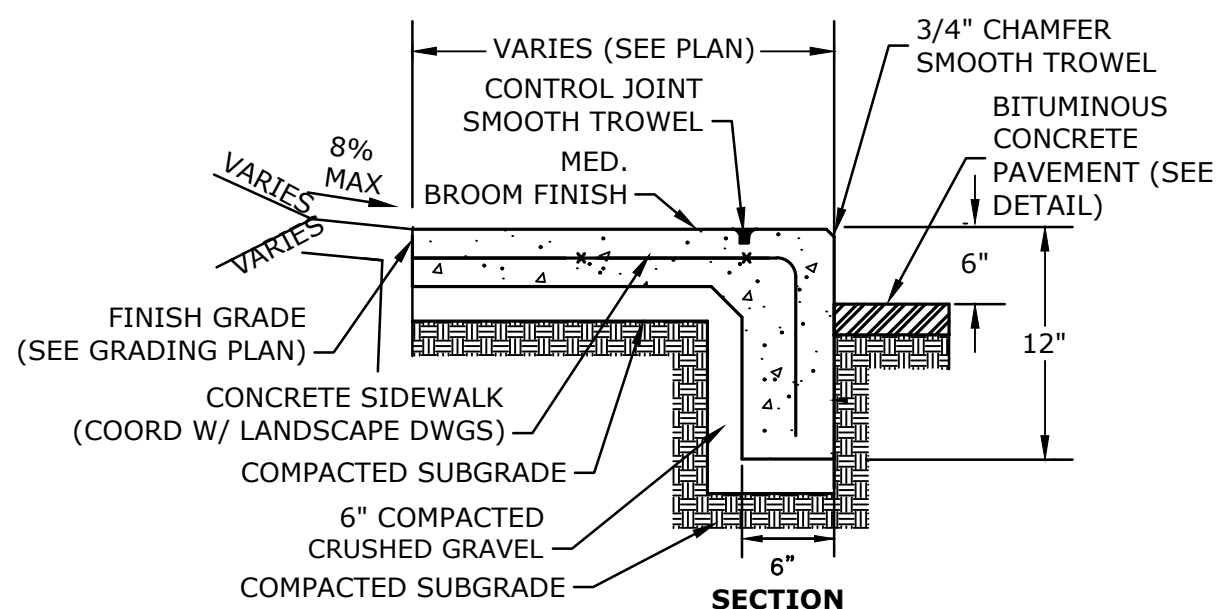
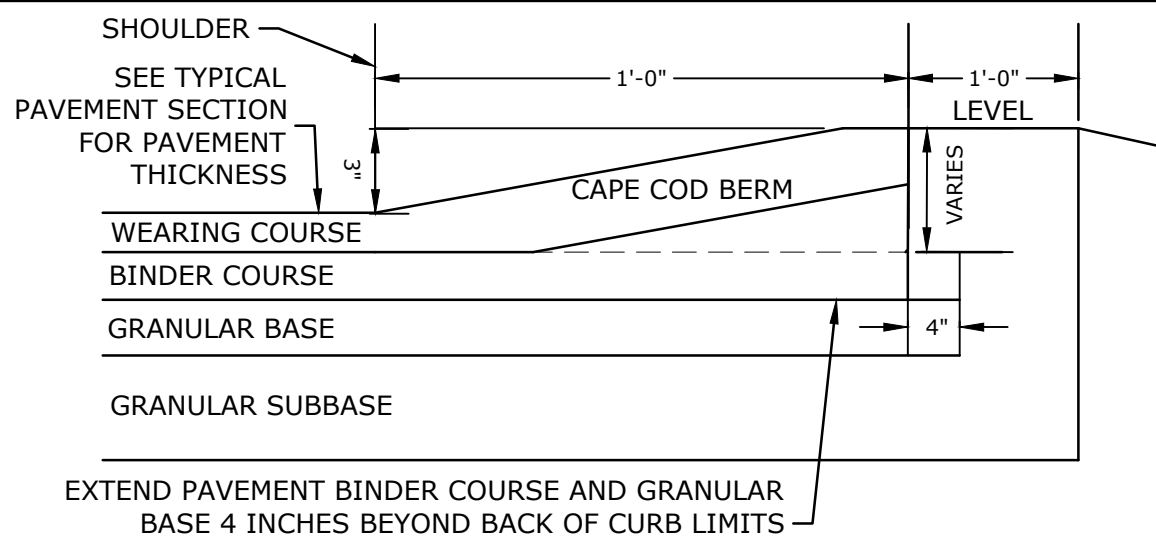


- NOTES:
- THIS DETAIL IS FOR REFERENCE PURPOSES ONLY FINAL PIPE THROUGH WALL DETAIL SHALL BE PROVIDED WITH RETAINING WALL DESIGN

TYPICAL PIPE THROUGH RETAINING WALL DETAIL
NO SCALE

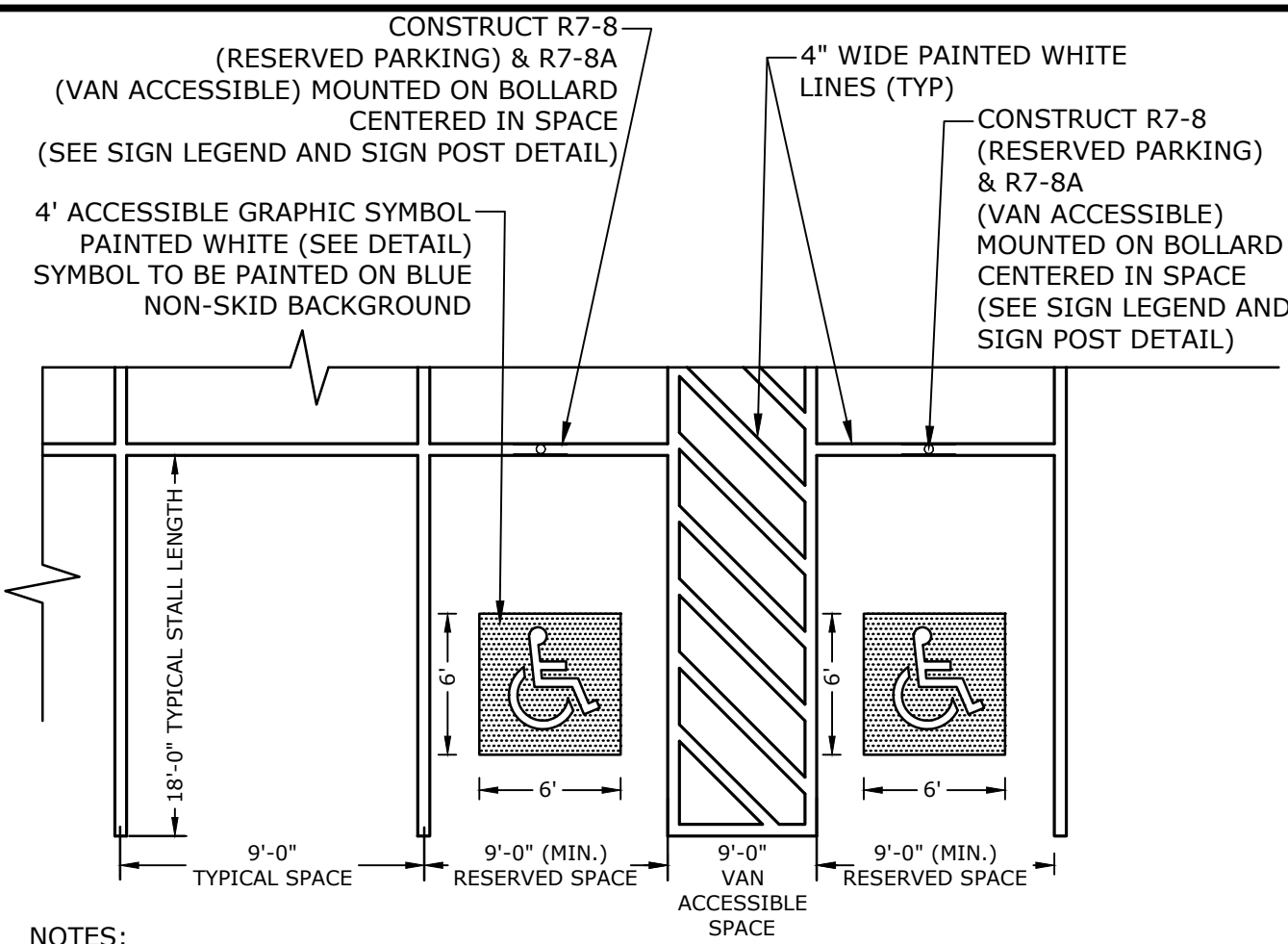


SIGN LEGEND & SIGN POST
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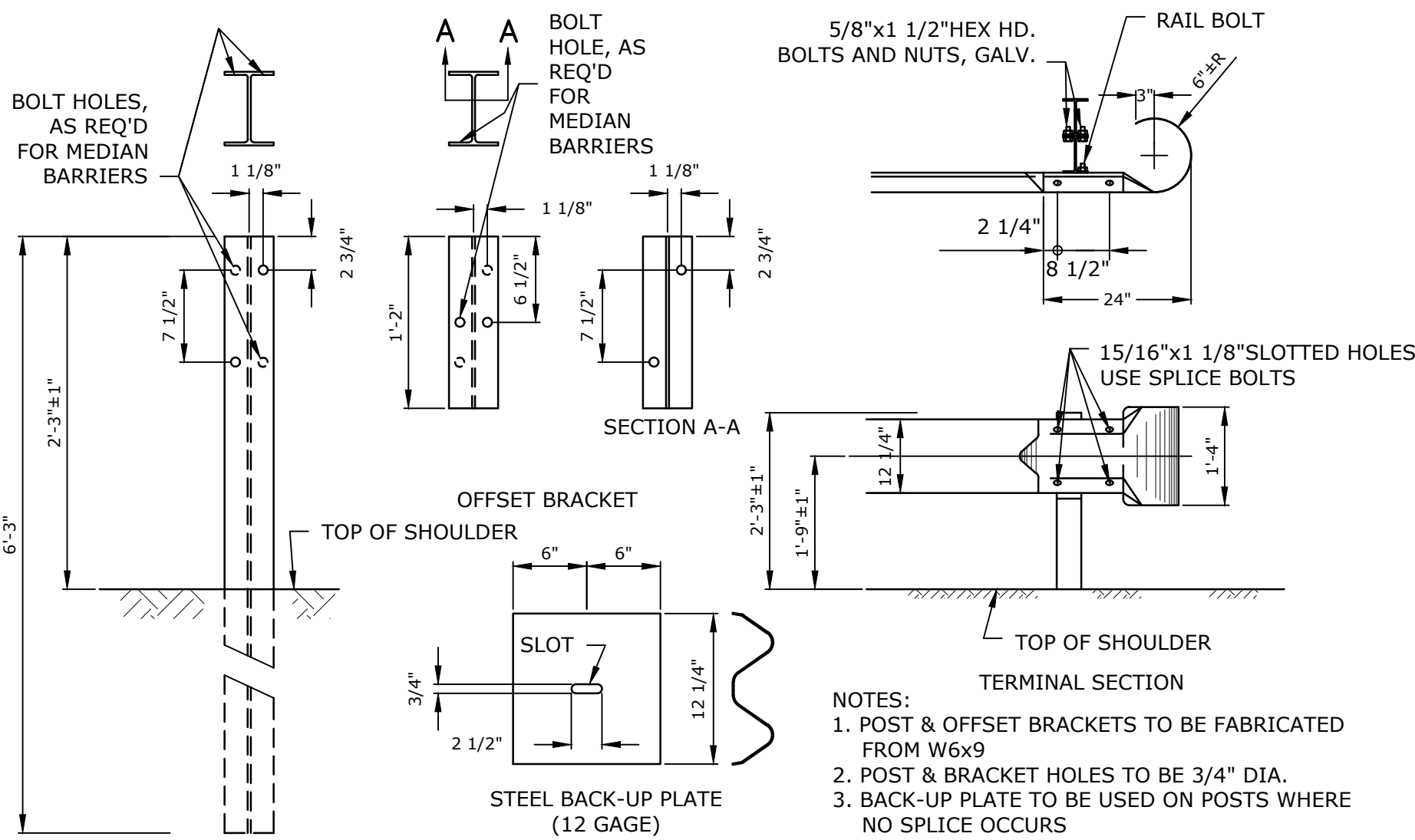
- NOTE:
- SIDEWALK DESIGN SHALL BE COORDINATED WITH THE LANDSCAPE DRAWINGS.
 - SIDEWALKS SHALL HAVE 2% MAX CROSS SLOPE

CONCRETE SIDEWALK WITH MONOLITHIC CURB
NOT TO SCALE

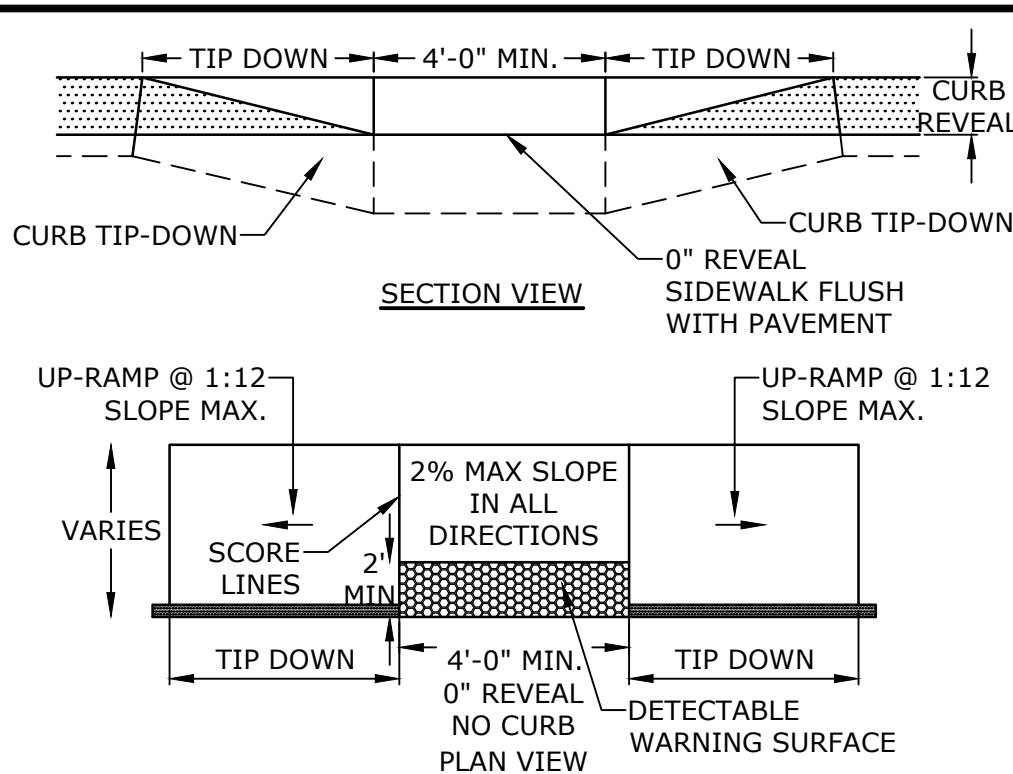
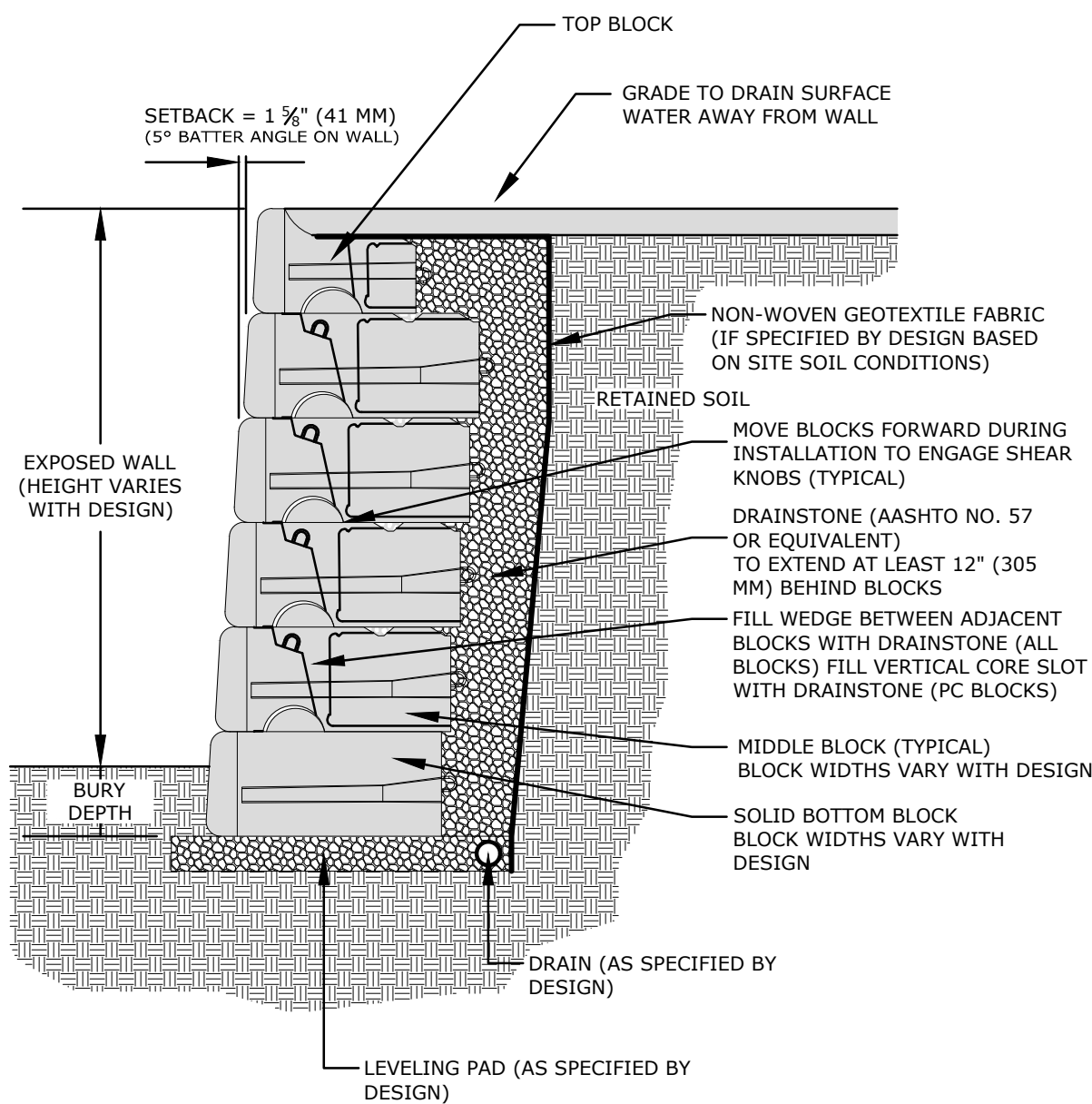


- NOTES:
- ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 - SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
 - FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

STALL STRIPING - SINGLE STRIPE
NO SCALE

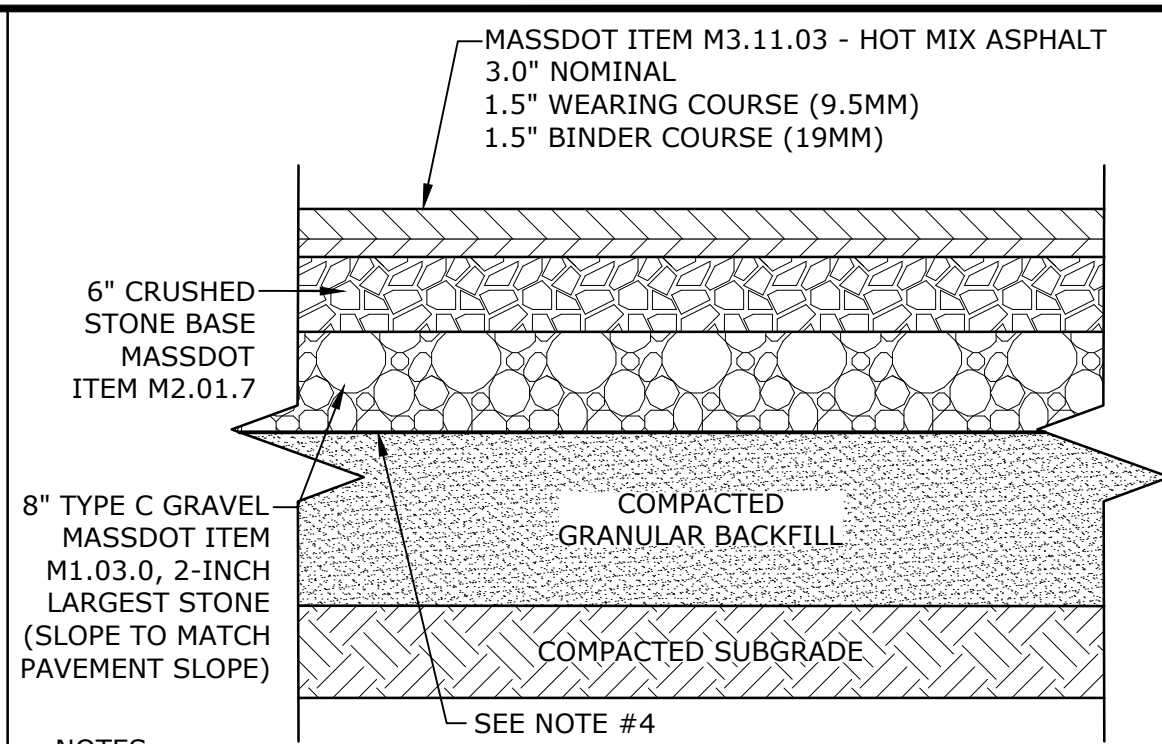


- NOTES:
- RETAINING WALL SHALL BE REDI ROCK OR APPROVED EQUAL.
 - THE CONTRACTOR SHALL SUBMIT DESIGN AND CALCULATIONS FOR THE RETAINING WALL THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
 - MINIMUM DESIGN PARAMETERS:
 - GLOBAL STABILITY FACTOR OF SAFETY = 1.3
 - OVERTURNING FACTOR OF SAFETY = 2.0
 - SLIDING FACTOR OF SAFETY = 1.5
 - GEOGRID PULLOUT FACTOR OF SAFETY = 1.5
 - SEISMIC FACTOR OF SAFETY = 1.1
 - WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, BUILDING LOADS, GUARDRAIL AND/OR FENCING AS REQUIRED.
 - WALL DESIGN ENGINEER SHALL CONSIDER HEIGHT AND SPECIFY SAFETY RAIL WHERE REQUIRED
 - ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
 - THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
 - CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
 - ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
 - CONTRACTOR SHALL SUPPLY SAMPLE TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.
 - FINAL DESIGN PLANS OF WALL SHOWING FENCING, GUARDRAIL ETC. SHALL BE SUBMITTED WITH THE FINAL DESIGN PLANS.
 - RETAINING WALL DESIGN SHALL BE FROM THE WALL MANUFACTURER AND SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
 - FINAL STRUCTURAL DESIGN TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL WILL ALL CALCULATIONS AND PLANS.
 - STRUCTURAL DESIGN TO BE COMPLETED AND STAMPED BY A MASSACHUSETTS LICENSED STRUCTURAL ENGINEER. DESIGN ENGINEER SHALL INSPECT WALL DURING CONSTRUCTION AND CERTIFY THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS SUBMITTED AS PART OF THE BUILDING PERMIT.
 - AN AS-BUILT PLAN SHOWING WALL LOCATION AND DIMENSIONS SHALL BE SUBMITTED TO THE OWNER UPON COMPLETION.

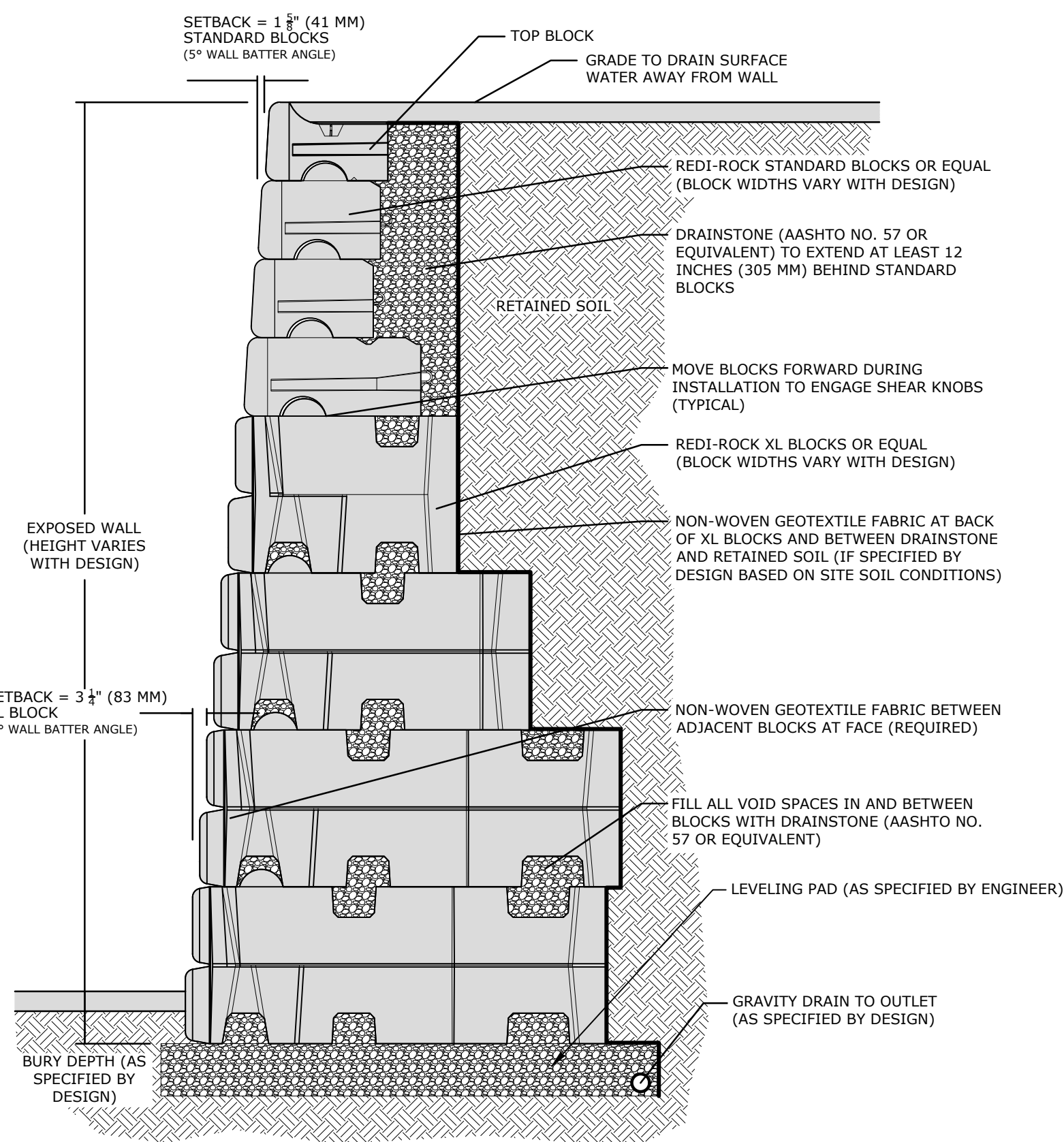


- NOTES:
- RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
 - AN 8" COMPACTED BANK GRAVEL BASE SHALL BE PROVIDED BENEATH RAMPS.
 - DETECTABLE WARNING PANEL SHALL BE ADA SOLUTIONS, INC. OR EQUAL, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. (CONTRACTOR SHALL COORDINATE WITH OWNER FOR WARNING PANEL MATERIAL AND COLOR.)

CONCRETE WHEELCHAIR ACCESSIBLE RAMP
NO SCALE



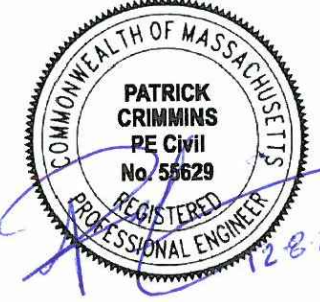
- NOTES:
- SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 - SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
 - A GEOSYNTHETIC REINFORCEMENT, SUCH AS MIRAFI RSI SERIES, TENSAR TRIAX TR SERIES, OR SIMILAR, SHOULD BE USED TO IMPROVE DISTRIBUTION OF THE EXPECTED VEHICULAR LOADS, IN PAVED AREAS OF THE SITE WHERE GRADES ARE NOT EXPECTED TO BE RAISED BY MORE THAN 18 INCHES, IF UNSUITABLE SOILS ARE ENCOUNTERED AT THE PROPOSED PAVEMENT SUBGRADE.
 - CRUSHED STONE BASE CAN BE REDUCED TO 4-INCHES THICK AND GRAVEL SUB BASE CAN BE REDUCED TO 6-INCHES THICK WITH USE OF MIRAFI RST SERIES, TENSAR TRIAX TR SERIES, OR EQUAL, BELOW SUBGRADE.



- NOTES:
- RETAINING WALL SHALL BE REDI ROCK OR APPROVED EQUAL.
 - THE CONTRACTOR SHALL SUBMIT DESIGN AND CALCULATIONS FOR THE RETAINING WALL THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
 - MINIMUM DESIGN PARAMETERS:
 - GLOBAL STABILITY FACTOR OF SAFETY = 1.3
 - OVERTURNING FACTOR OF SAFETY = 2.0
 - SLIDING FACTOR OF SAFETY = 1.5
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 - SEISMIC FACTOR OF SAFETY = 1.1
 - WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, BUILDING LOADS, GUARDRAIL AND/OR FENCING AS REQUIRED.
 - WALL DESIGN ENGINEER SHALL CONSIDER HEIGHT AND SPECIFY SAFETY RAIL WHERE REQUIRED
 - ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
 - THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
 - CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
 - ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
 - CONTRACTOR SHALL SUPPLY SAMPLE TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.
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 - FINAL STRUCTURAL DESIGN TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL WILL ALL CALCULATIONS AND PLANS.
 - STRUCTURAL DESIGN TO BE COMPLETED AND STAMPED BY A MASSACHUSETTS LICENSED STRUCTURAL ENGINEER. DESIGN ENGINEER SHALL INSPECT WALL DURING CONSTRUCTION AND CERTIFY THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS SUBMITTED AS PART OF THE BUILDING PERMIT.
 - AN AS-BUILT PLAN SHOWING WALL LOCATION AND DIMENSIONS SHALL BE SUBMITTED TO THE OWNER UPON COMPLETION.

TYPICAL XL GRAVITY WALL SECTION
NO SCALE

Tighe&Bond



Shingle Mill Multi-Family Development

Shinglemill, LLC

**75 - 79 Pond Street
Rockland,
Massachusetts**

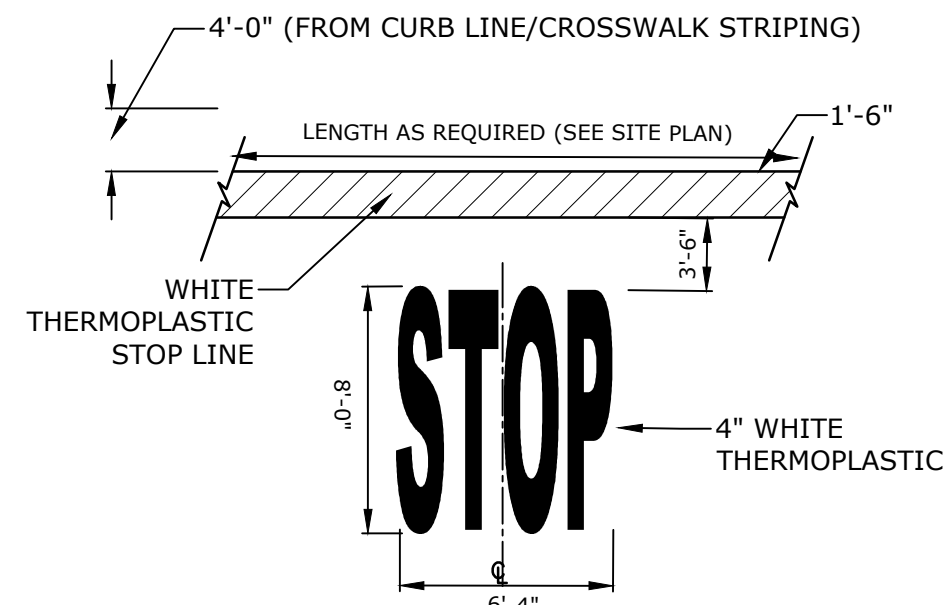
MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/4/2020	Supplemental Comprehensive Permit Submitted for Comprehensive Permit
A	7/13/2020	
PROJECT NO:		J5019-002
DATE:		7/13/2020
FILE:		J5019-002-C-DETAILS.DWG
DRAWN BY:		CML
CHECKED:		PMC
APPROVED:		BLM

DETAILS SHEET

SCALE: AS SHOWN

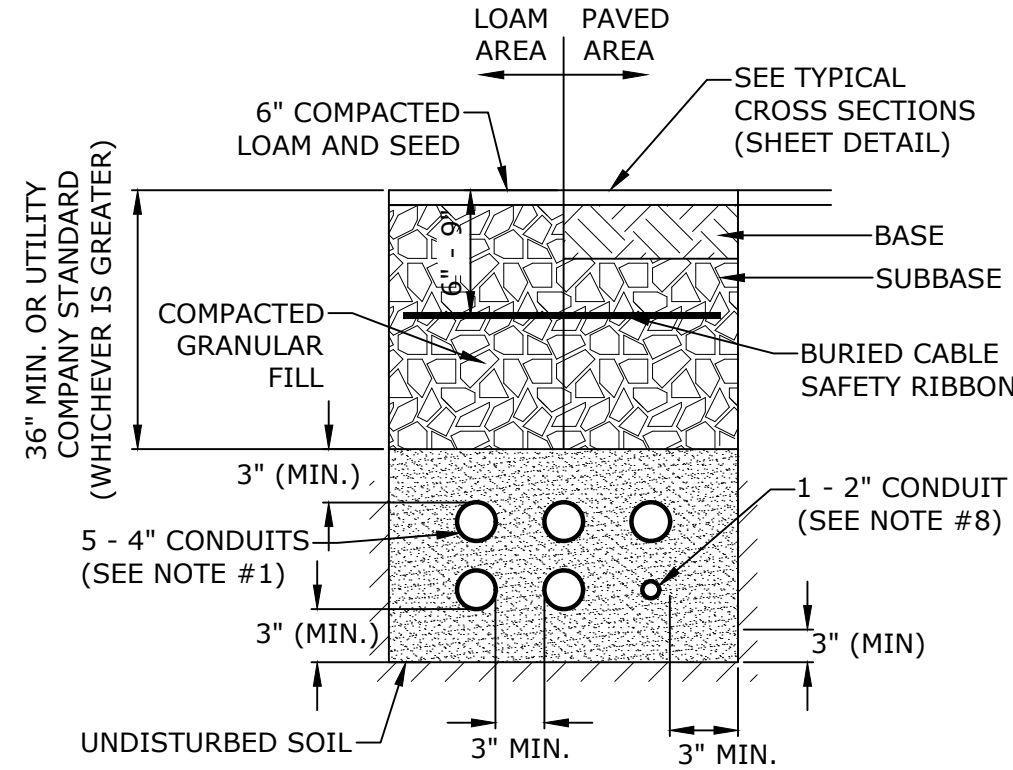
C-502

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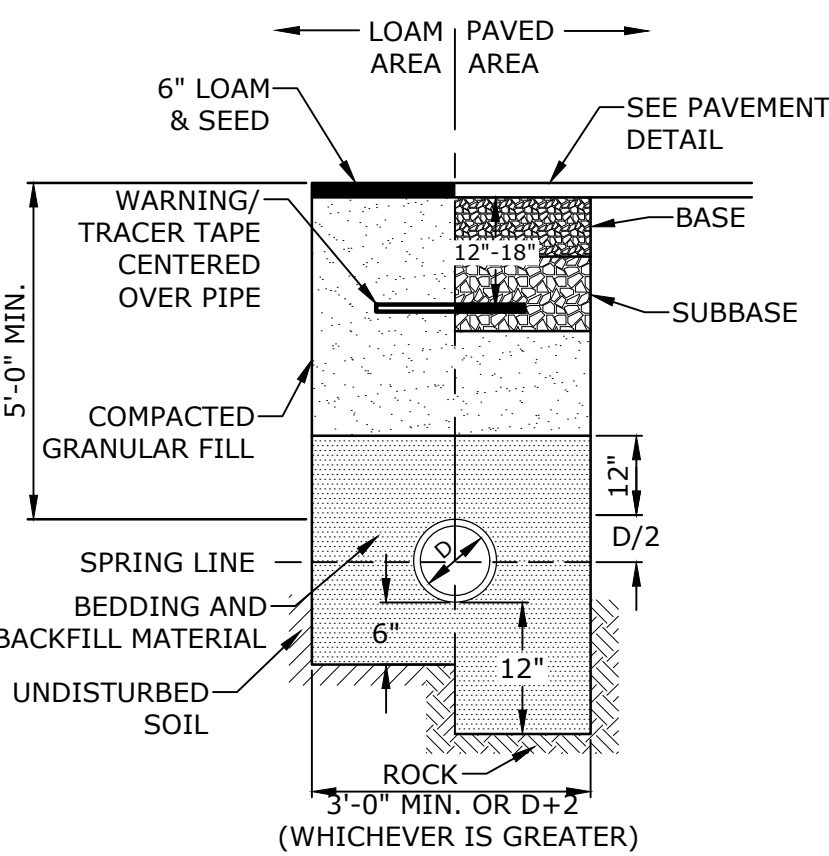
- NOTES:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
 2. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505.

STOP BAR AND LEGEND
NO SCALE



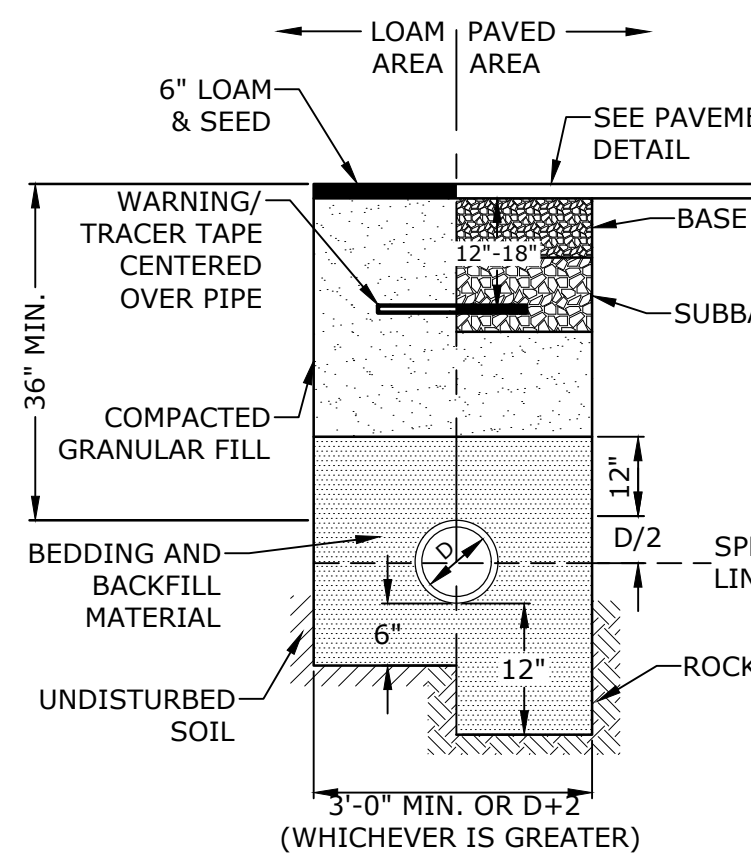
TYPICAL ELECTRICAL AND COMMUNICATION CONDUIT
NO SCALE

- NOTE:
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY.
 2. DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
 3. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
 4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
 5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
 6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
 7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.
 8. PROVIDE 2" CONDUIT FOR FIRE ALARM WIRE CONNECTION. (COORDINATE WITH FIRE DEPARTMENT)



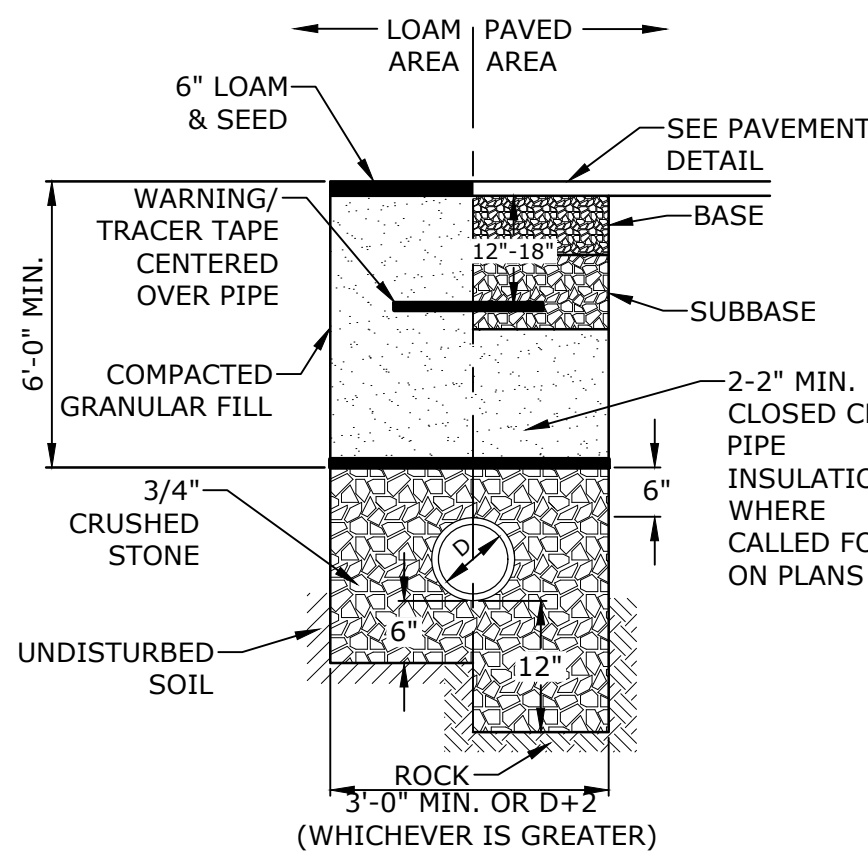
- NOTES:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. WATER MAIN SHALL BE INSTALLED PER TOWN OF ROCKLAND STANDARD.

WATER TRENCH
NO SCALE



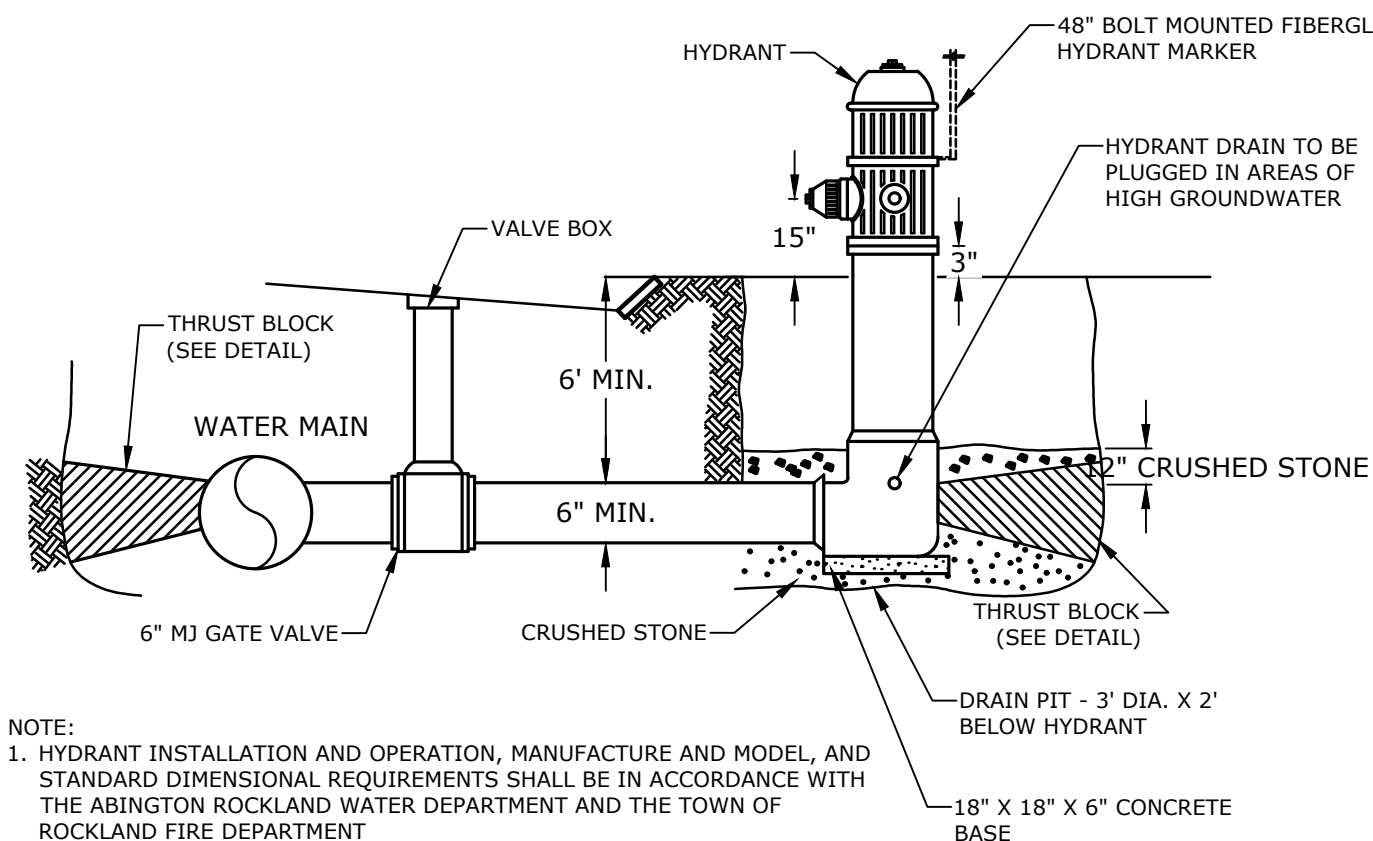
- NOTE:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
 2. GAS SHALL BE INSTALLED PER NATIONAL GRID STANDARDS. COORDINATE ALL INSTALLATIONS WITH NATIONAL GRID AND THE TOWN OF ROCKLAND.

GAS TRENCH
NO SCALE



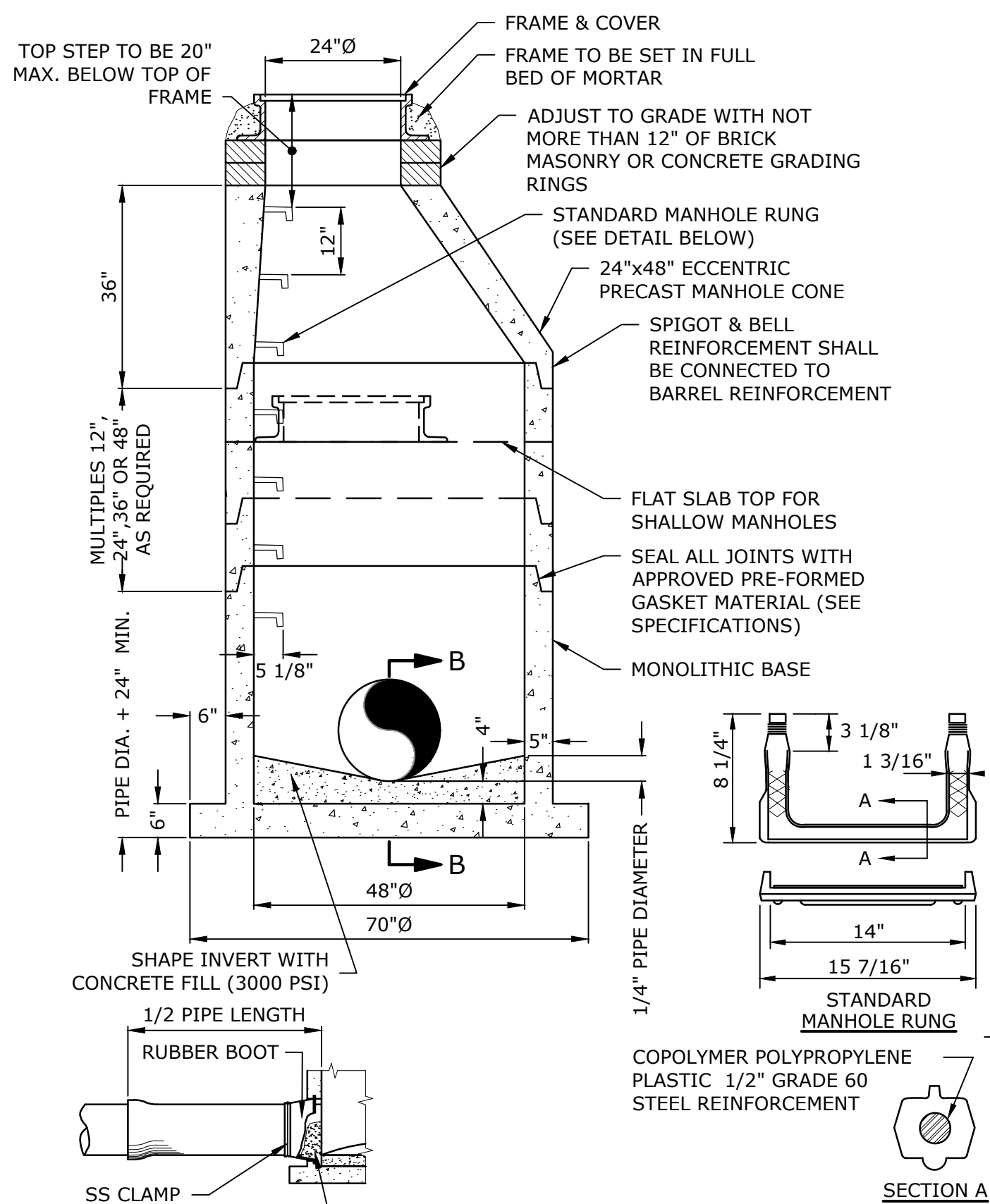
- NOTE:
1. CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK. CRUSHED STONE SHALL ALSO COMPLETELY ENCASE THE PIPE AND COVER THE PIPE TO A GRADE 6" OVER THE TOP OF THE PIPE FOR THE ENTIRE WIDTH OF THE TRENCH.
 2. COORDINATE ALL INSTALLATIONS WITH THE TOWN OF ROCKLAND.
 3. ALL (PIPE JOINTS) LATERAL CONNECTIONS OR UNIONS BE ENCASED IN CONCRETE (OR SOME OTHER AGREED UPON MATERIAL) TO ENSURE THE INTEGRITY OF THE CONNECTION(S) SHOULD THERE BE ANY SHIFTING OR FURTHER SETTLING OF THE PACKED SOIL ON-SITE. PHOTOGRAPHS SHOULD BE TAKEN BEFORE AND AFTER THE INSTALLATION(S), INSPECTED AND SIGNED OFF BY THE ROCKLAND SEWER SUPERINTENDENT.

SEWER SERVICE TRENCH
NO SCALE



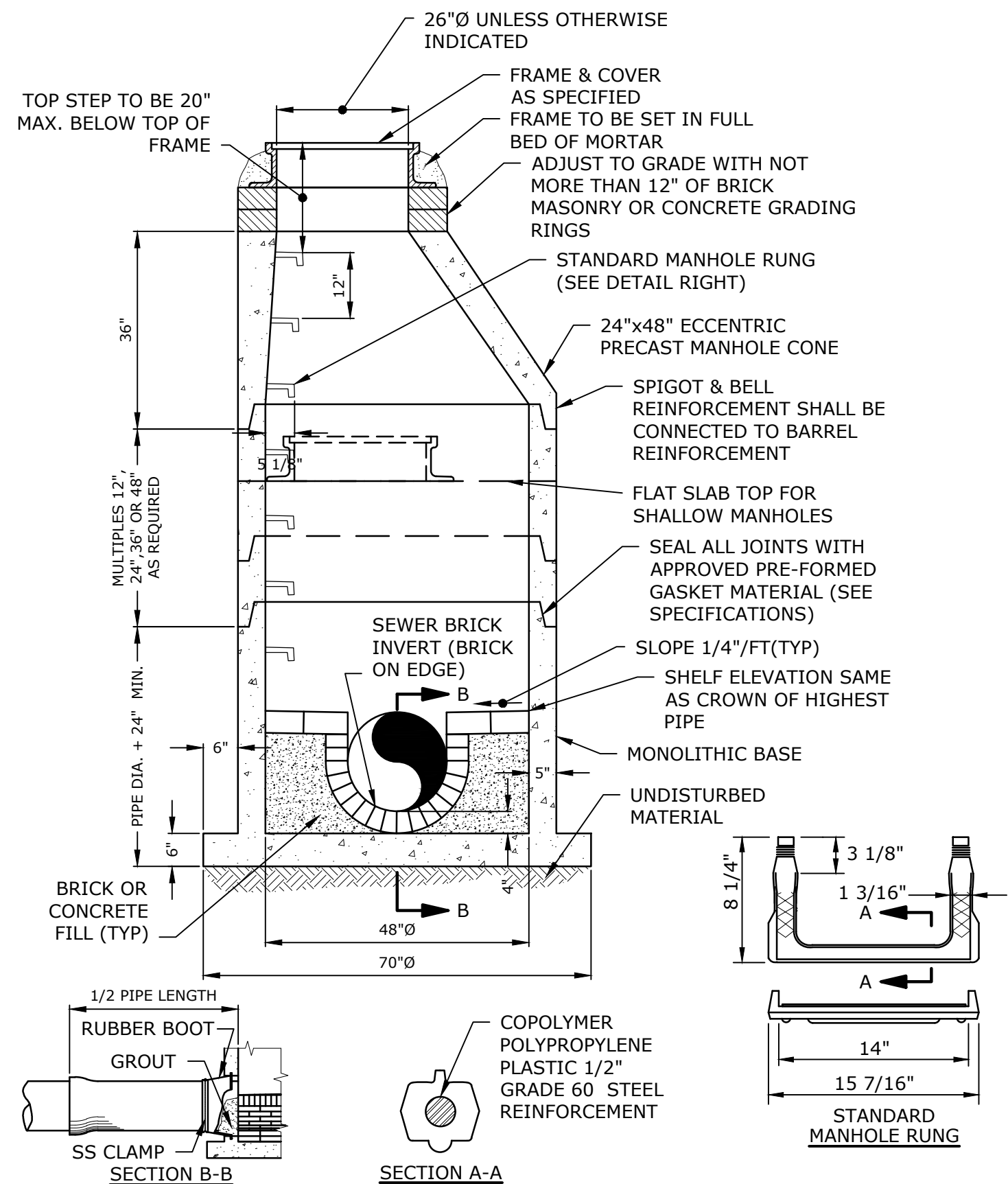
- NOTE:
1. HYDRANT INSTALLATION AND OPERATION, MANUFACTURE AND MODEL, AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE ABBINGTON ROCKLAND WATER DEPARTMENT AND THE TOWN OF ROCKLAND FIRE DEPARTMENT

TYPICAL FIRE HYDRANT
NO SCALE



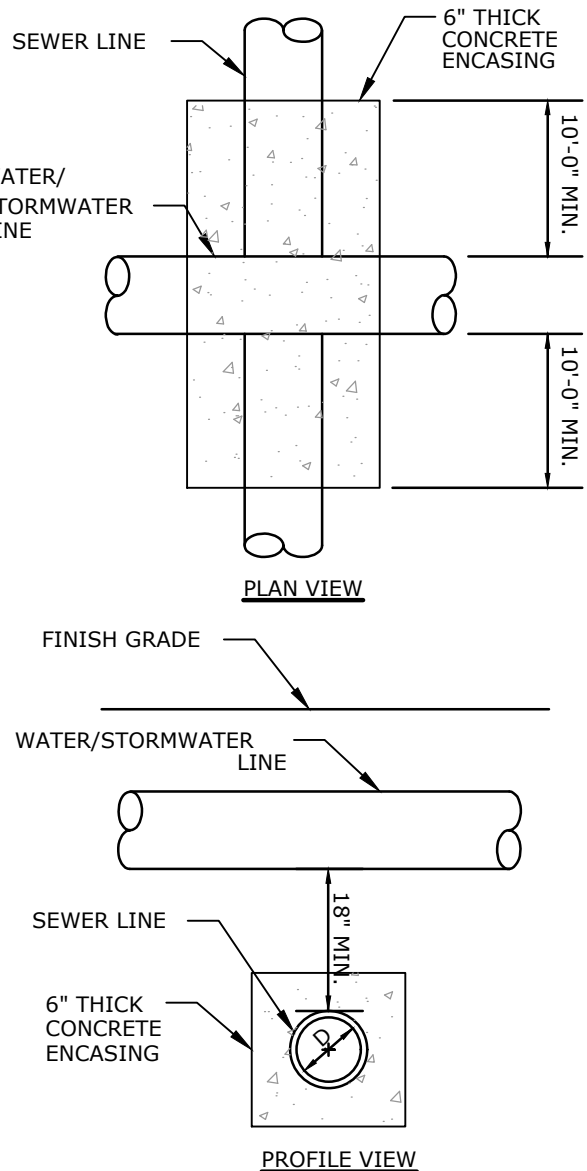
- NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 4. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)
 6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

48" PRECAST DRAIN MANHOLE
NO SCALE



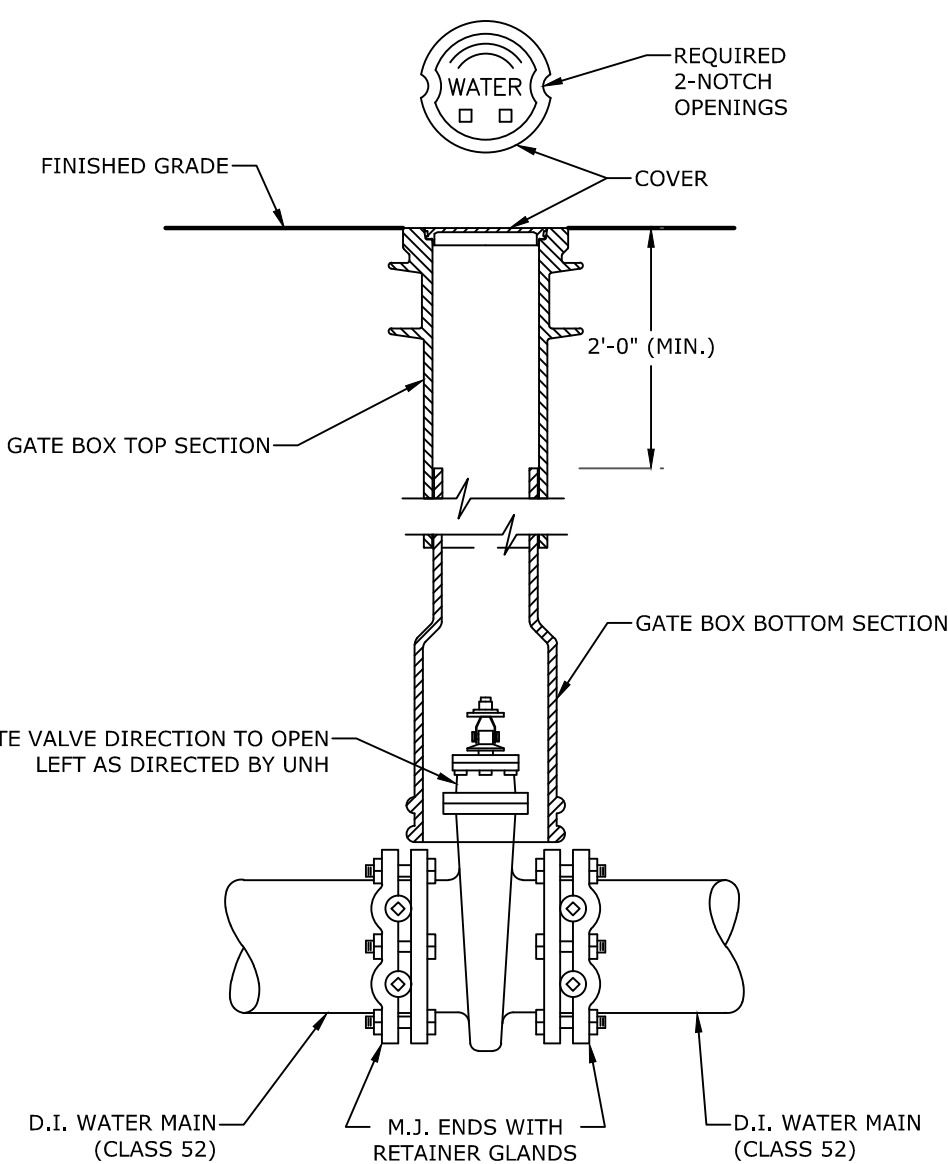
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48" PRECAST SANITARY SEWER MANHOLE
NO SCALE



- NOTE:
1. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER/STORMWATER AND SANITARY SEWER LINES. AN 18" MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/STORMWATER AND SANITARY SEWER CROSSINGS. WHERE SEWER AND WATER CROSS, ENCASE SEWER IN CONCRETE 6" THICK OR SUBSTITUTE RUBBER GASKETED PRESSURE PIPE WITH JOINTS FOR A MINIMUM DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING. CROSSING SHALL CONFORM TO TOWN OF ROCKLAND WATER DEPARTMENT STANDARDS AND SPECIFICATIONS.

WATER & SEWER CROSSING
NOT TO SCALE



WATER GATE VALVE
NO SCALE

Tighe&Bond



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

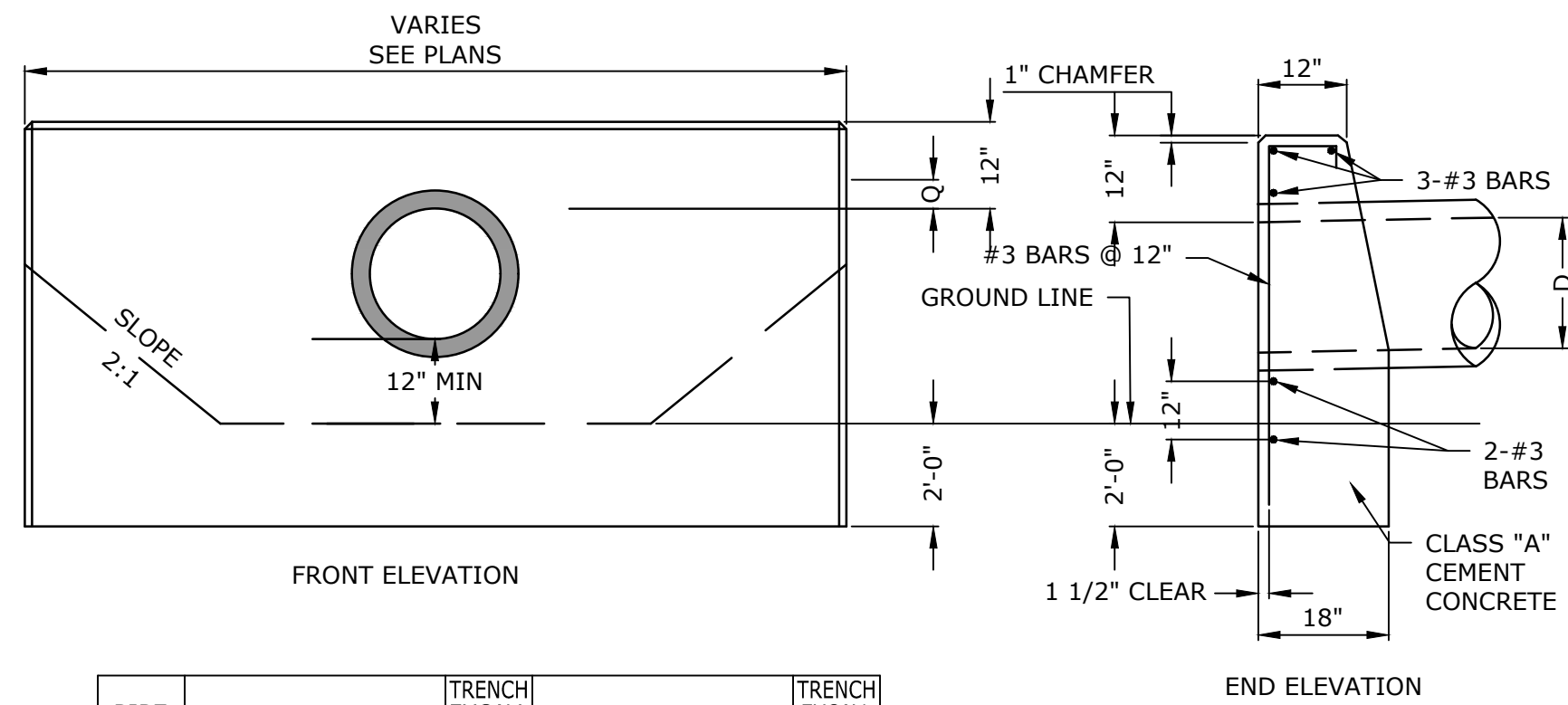
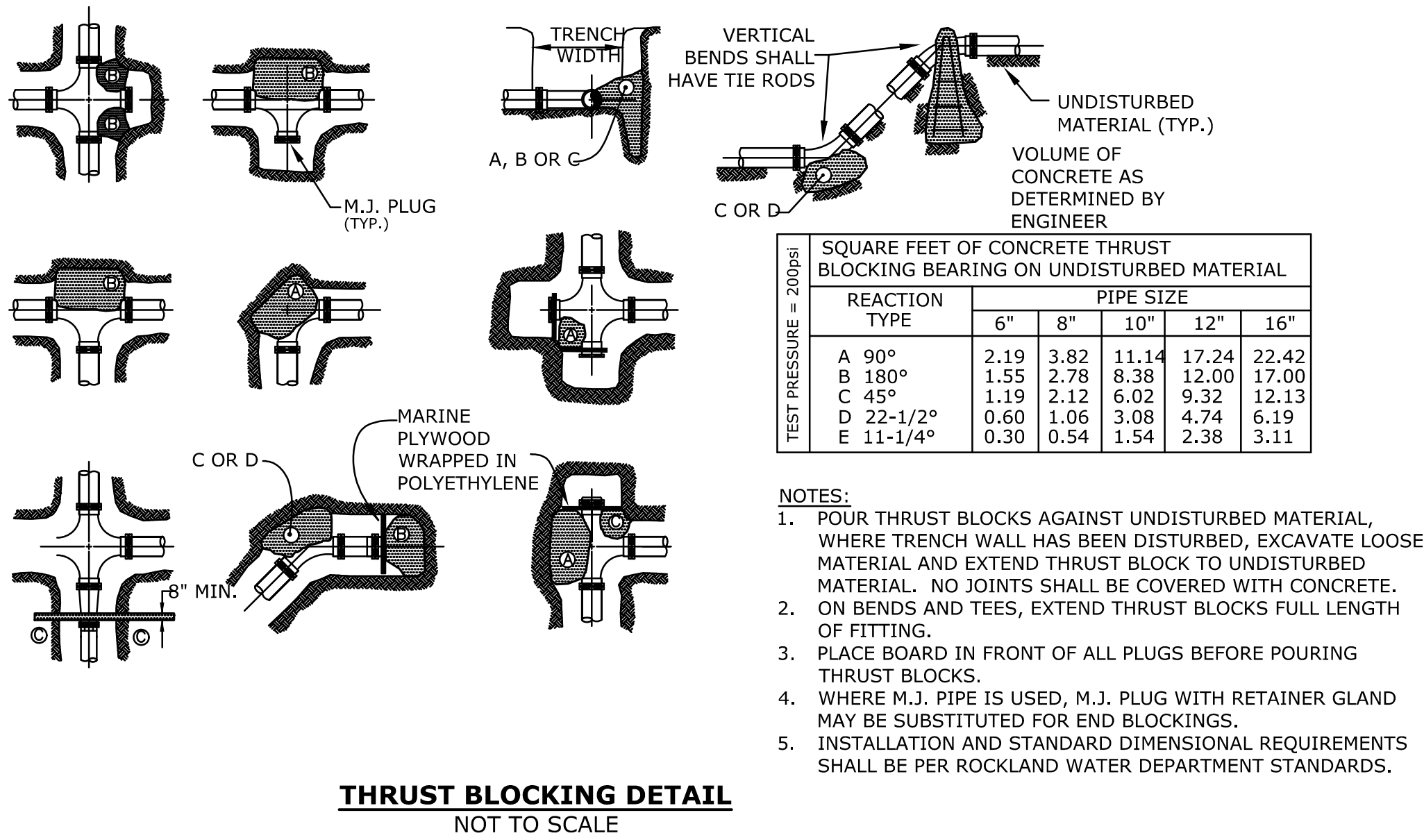
MARK	DATE	DESCRIPTION
D	12/8/2020	Supplemental Comprehensive Permit - 2
C	11/30/2020	Conservation Commission Submission
B	9/4/2020	Supplemental Comprehensive Permit
A	7/13/2020	Submitted for Comprehensive Permit

PROJECT NO:	J5019-002
DATE:	7/13/2020
FILE:	J5019-002-C-DETAILS.DWG
DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

SCALE: AS SHOWN

C-503

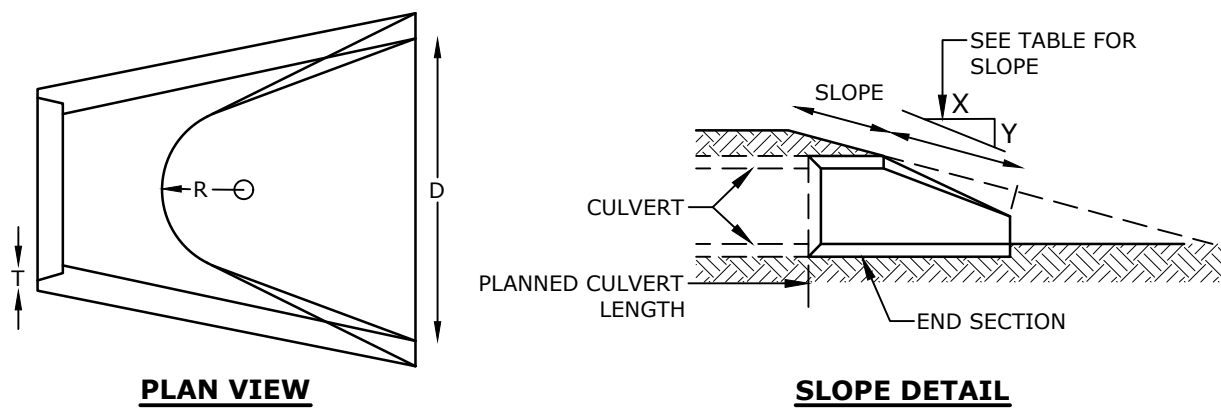


PIPE DIAM.		1 1/2:1 SLOPE				2:1 SLOPE			
D	L	CONC. OR F.S.M. CU. YDS.	STEEL LBS.	CU. FT.	TRENCH EXCAV. 1'-0" DEPTH	D	L	CONC. OR F.S.M. CU. YDS.	STEEL LBS.
8"	4'-2"	0.77	15	21.60	5'-10"	10"	4'-10"	0.92	20
10"	4'-10"	0.92	20	23.91	6'-8"	12"	5'-6"	1.08	21
12"	5'-6"	1.08	21	26.25	7'-6"	15"	6'-6"	1.34	24
15"	6'-6"	1.34	24	29.75	8'-9"	18"	7'-6"	1.61	30
18"	7'-6"	1.61	30	33.25	10'-0"	21"	8'-6"	1.95	34
21"	8'-6"	1.95	34	37.35	11'-6"	24"	9'-3"	2.16	35
24"	9'-3"	2.16	35	39.38	12'-6"	30"	10'-6"	2.63	44
30"	10'-6"	2.63	44	43.75	15'-0"	Q	4"	FOR 1 1/2:1 SLOPE	6" FOR 2:1 SLOPE

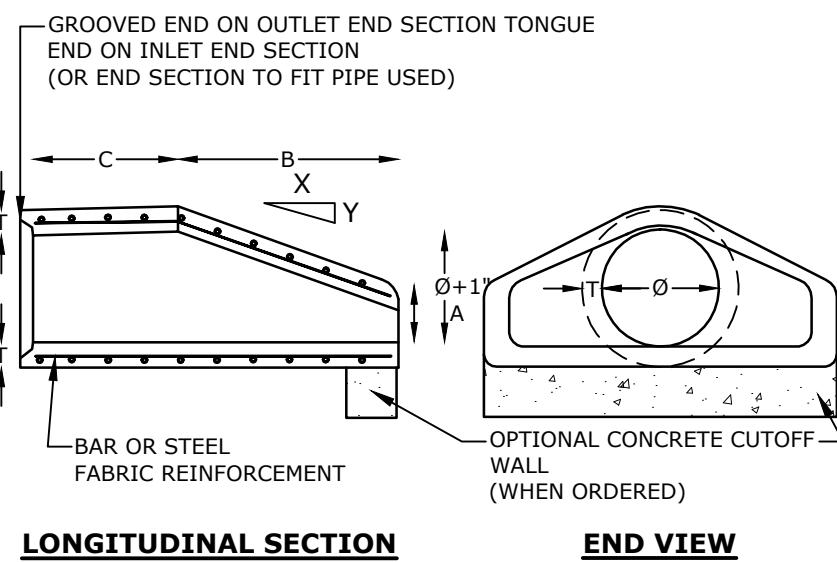
- NOTES:**
- PORTLAND CEMENT CONCRETE SHALL BE 3000 PSI, 1 1/2" MAX AGGREGATE.
 - STEEL REINFORCEMENT SHALL CONFORM TO AASHTO M-31, GRADE 400.
 - ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM.
 - FOR ADDITIONAL DETAILS SEE MHD 206.4.0

TYPICAL HEADWALL DETAIL
NO SCALE

PIPE Ø	APPROX. SLOPE X to Y	A	B	C	D	R	T
12"	3 to 1	4"	24"	48-7/8"	24"	9"	2"
15"	3 to 1	6"	27"	46"	30"	11"	2-1/4"
18"	3 to 1	9"	27"	46"	36"	12"	2-1/2"
24"	3 to 1	9-1/2"	43-1/2"	30"	48"	14"	3"
30"	3 to 1	12"	54"	19-3/4"	60"	15"	3-1/2"
36"	3 to 1	15"	63"	33"	72"	20"	4"
42"	3 to 1	21"	63"	33"	78"	22"	4-1/2"
48"	3 to 1	24"	72"	24"	84"	22"	5"

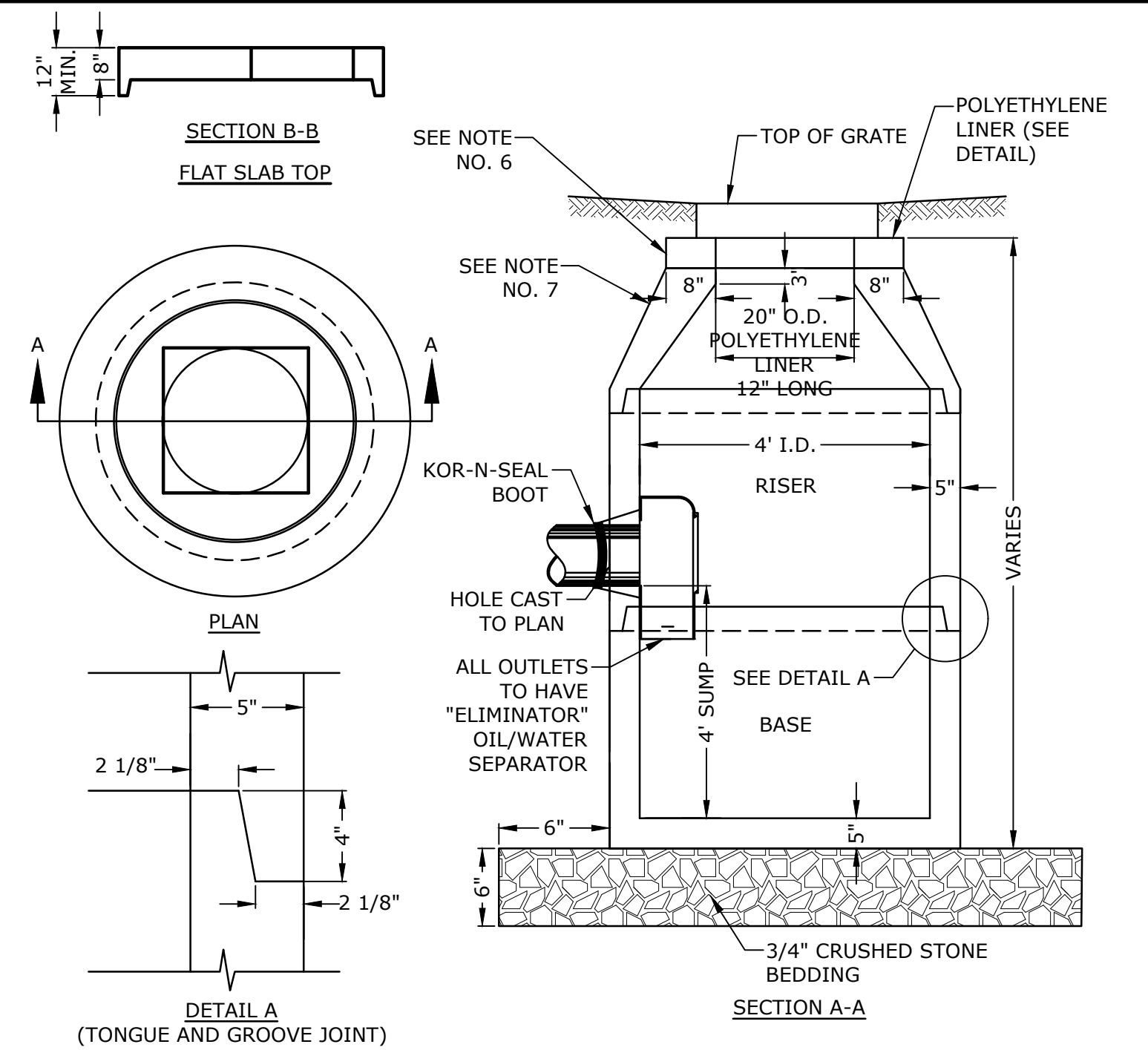


CONCRETE END SECTION
NOT TO SCALE



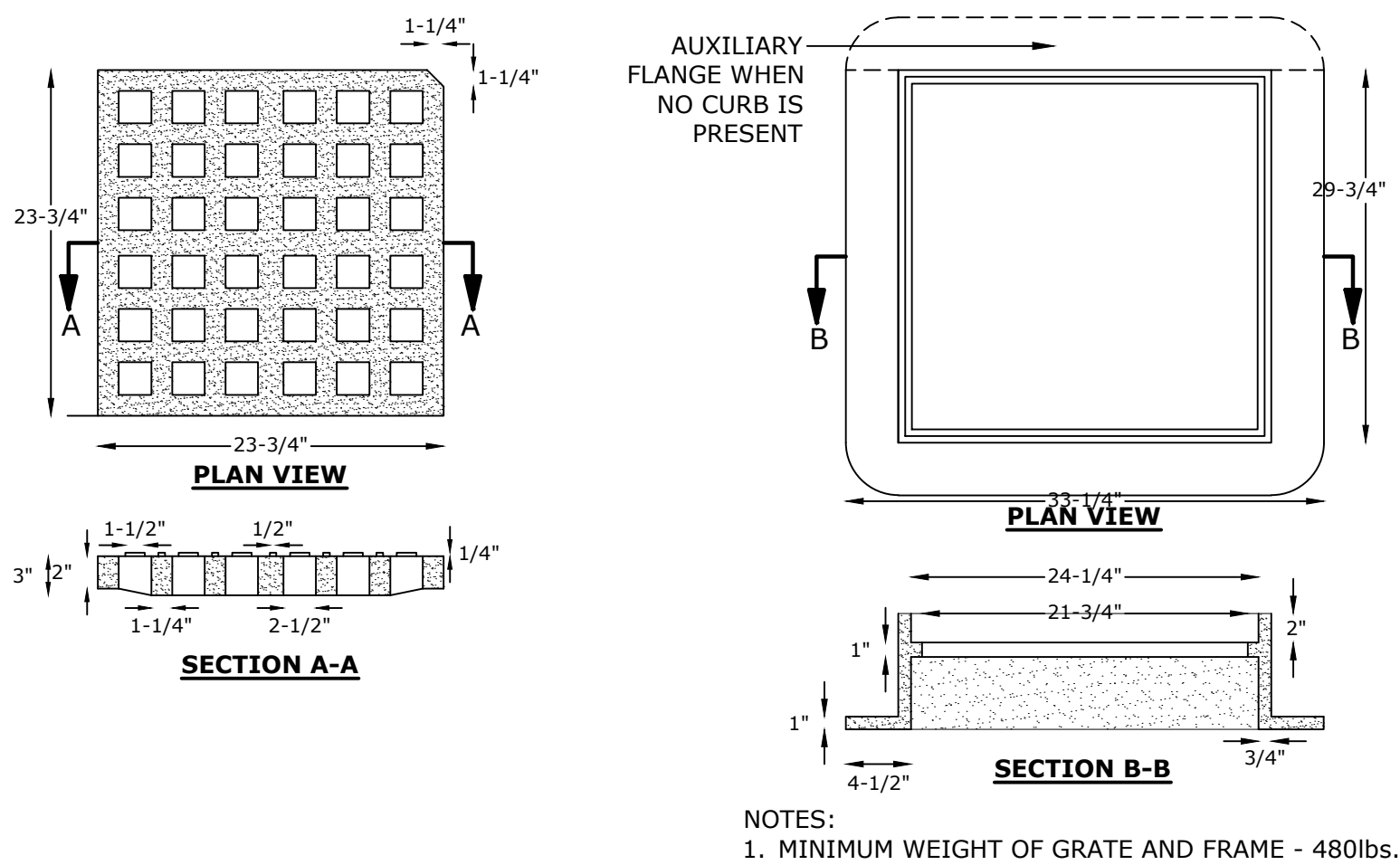
- NOTES:**
- DESIGN OF END SECTION SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE.
 - CUT OFF WALL TO BE POURED IN FIELD, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

CATCHBASIN FRAME & GRATE
NO SCALE

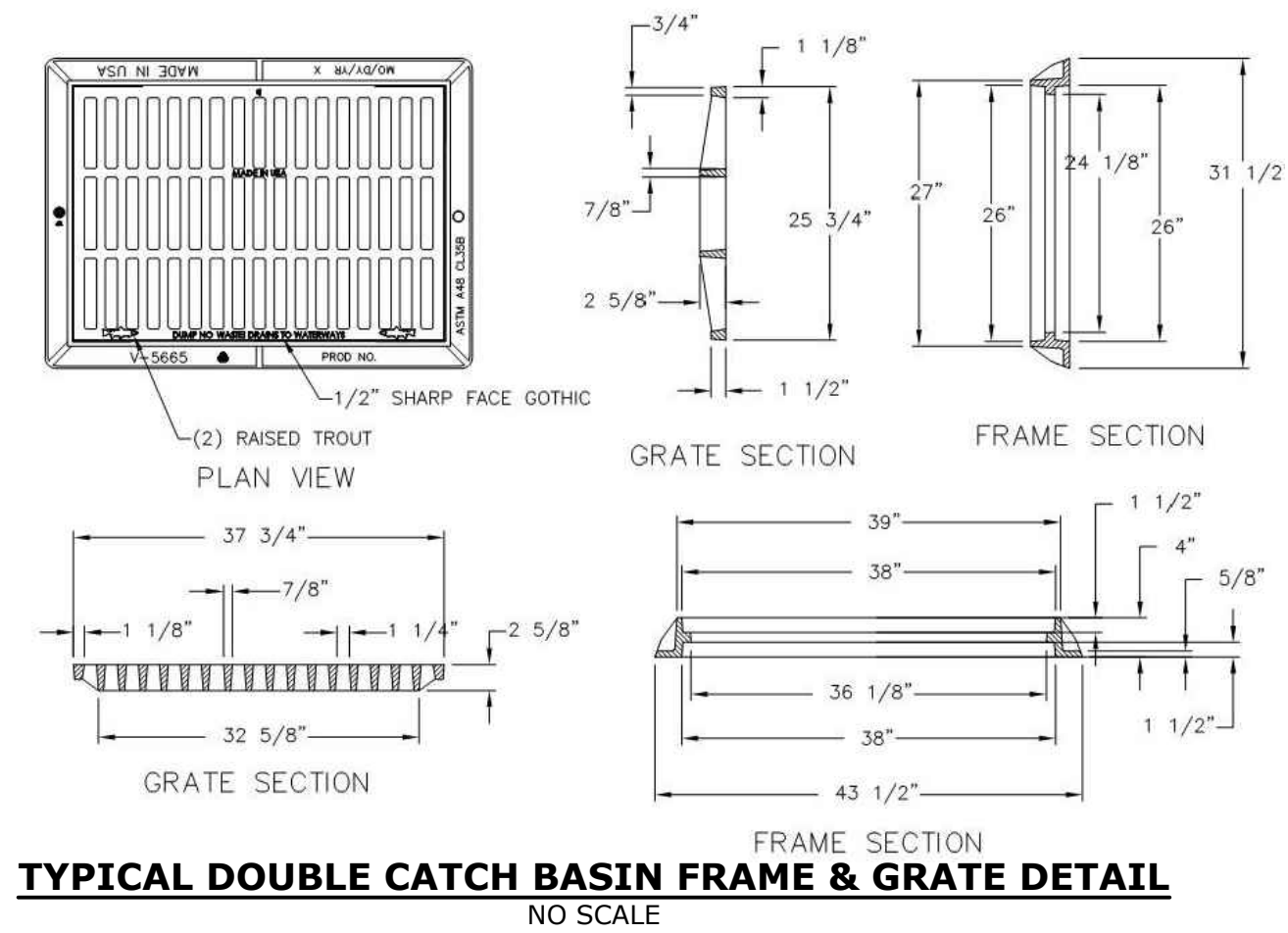


- NOTES:**
- ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
 - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 - THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 - RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 - FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
 - CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 - PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 - OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 - PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 - "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.

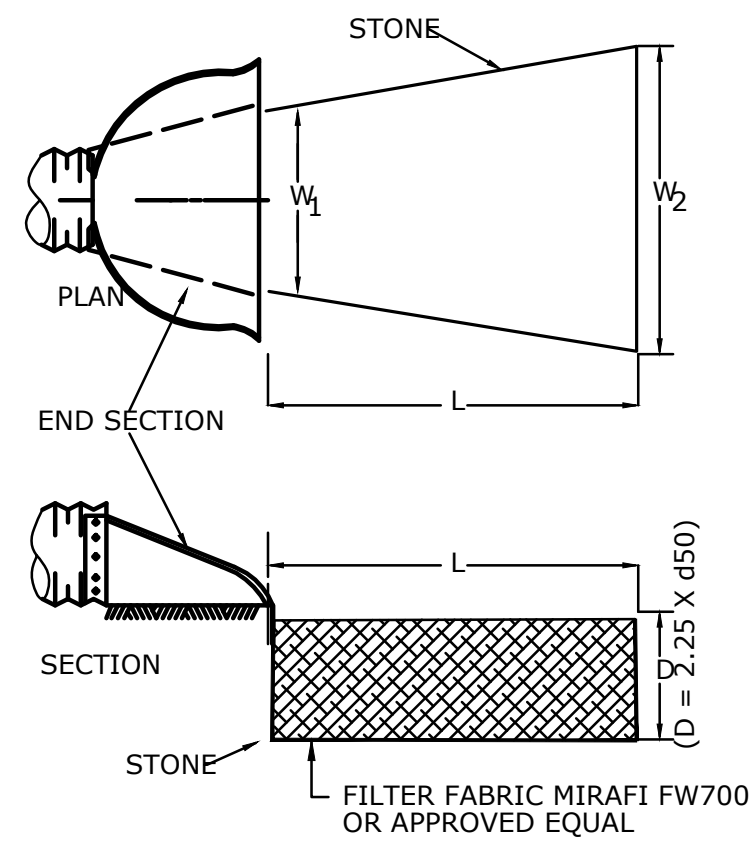
4' DIAMETER CATCHBASIN
NO SCALE



- NOTES:**
- MINIMUM WEIGHT OF GRATE AND FRAME - 480lbs.

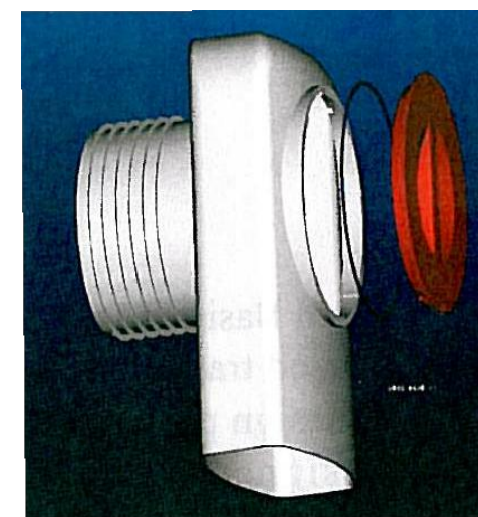


TYPICAL DOUBLE CATCH BASIN FRAME & GRATE DETAIL
NO SCALE



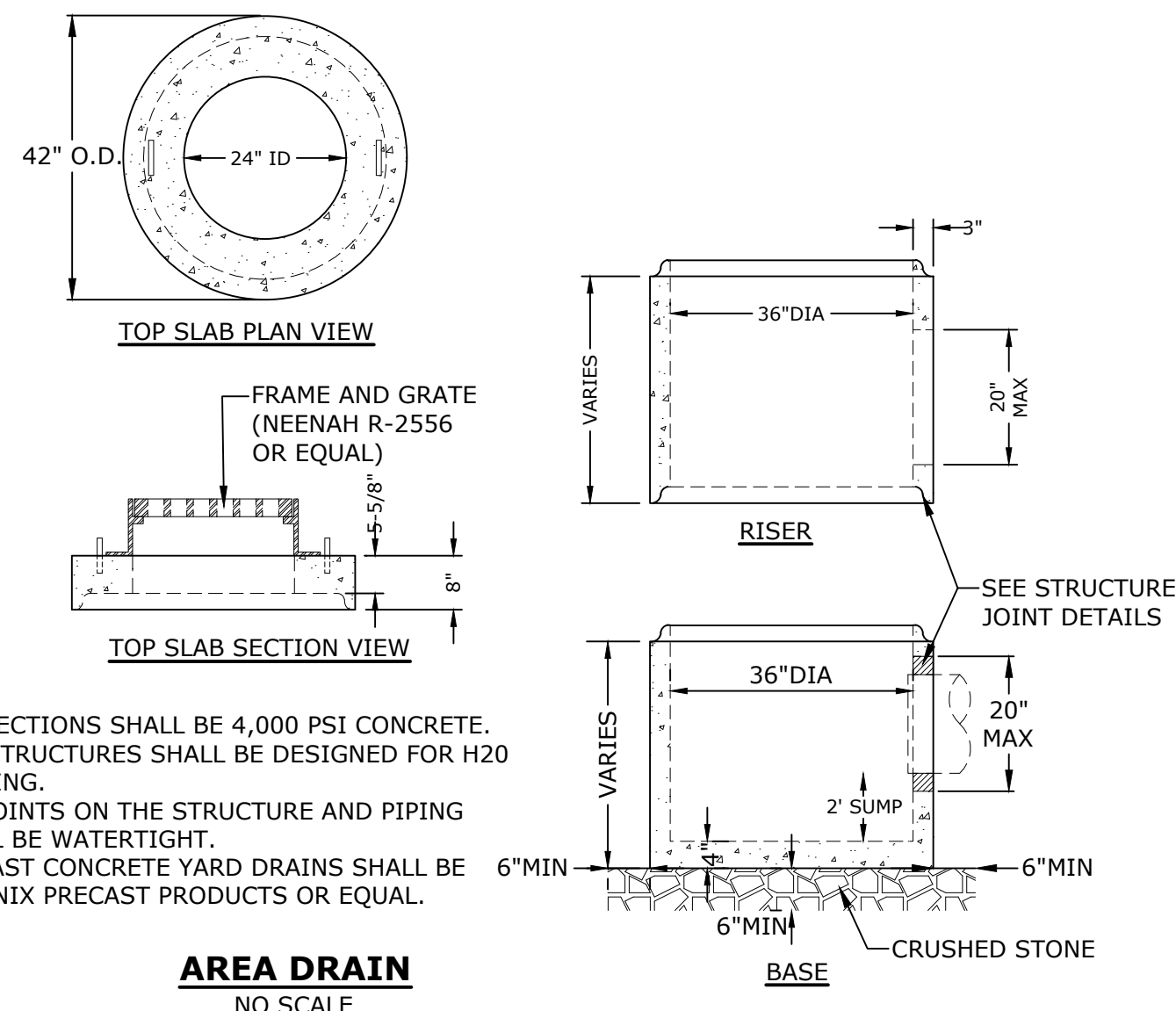
- NOTES:**
- STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
 - RIP RAP STONE SHALL MEET THE REQUIREMENTS OF MASSDOT ITEM M2.02.3.

RIP-RAP APRON
NO SCALE



- NOTES:**
- ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL).
 - INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
 - 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP

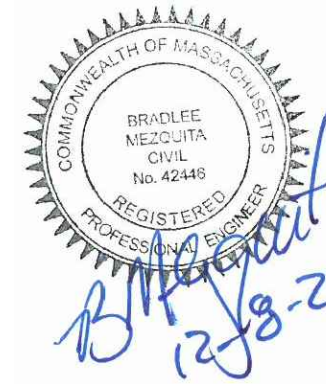
"ELIMINATOR" OIL FLOATING DEBRIS TRAP



- NOTES:**
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.
 - PRECAST CONCRETE YARD DRAINS SHALL BE PHOENIX PRECAST PRODUCTS OR EQUAL.

AREA DRAIN
NO SCALE

Tighe&Bond



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

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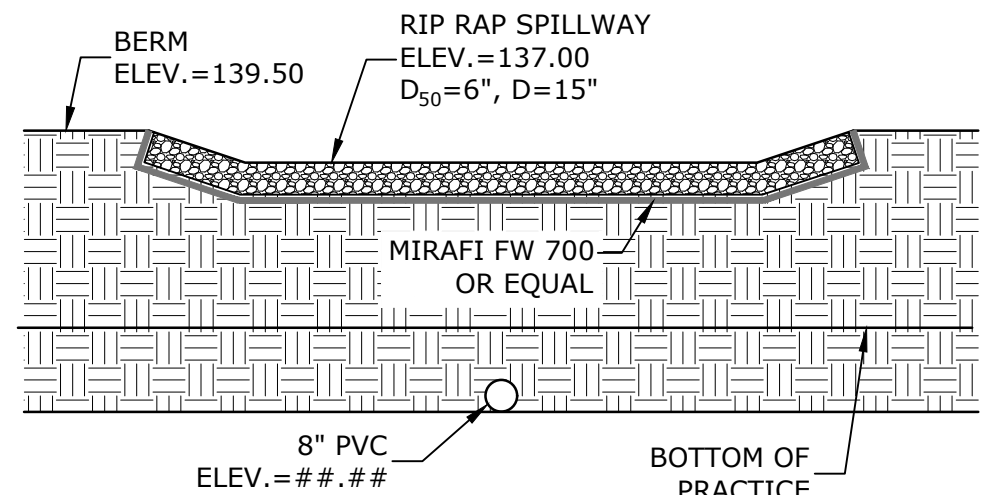
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CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

SCALE: AS SHOWN

C-504

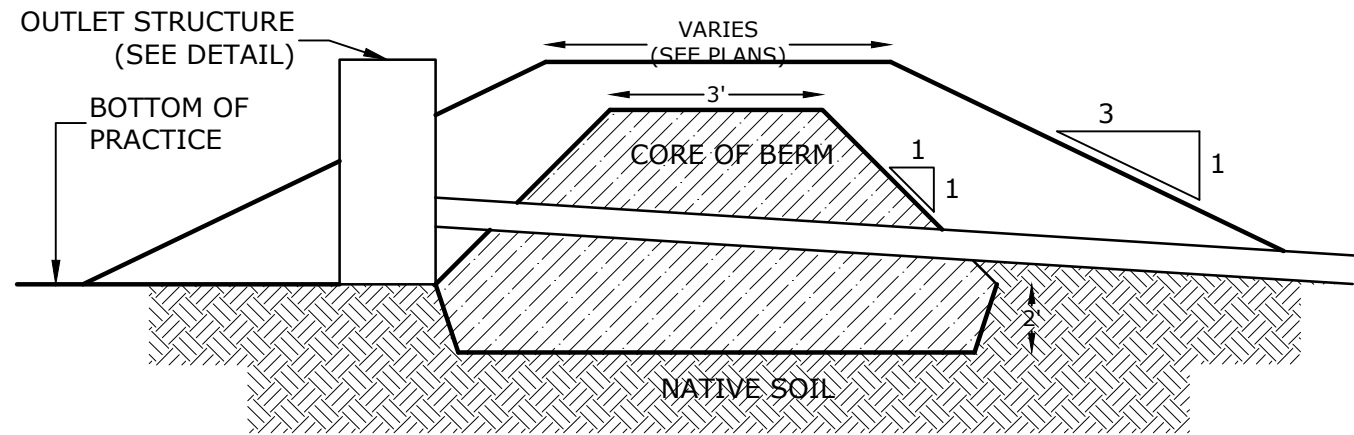
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Plot Date: Monday, December 07, 2020 Plotted By: Craig M. Langston
File Location: J:\35019 Jones Street\002 Pond St, Rockland\Drawings - Figures\AutoCAD\Sheet\5019-002-C-Details.dwg Layout Tab: C-505



NOTE:
1. SEE GRADING & DRAINAGE PLAN(S) FOR LOCATION(S) AND DIMENSIONS.

RIP RAP SPILLWAY

NO SCALE



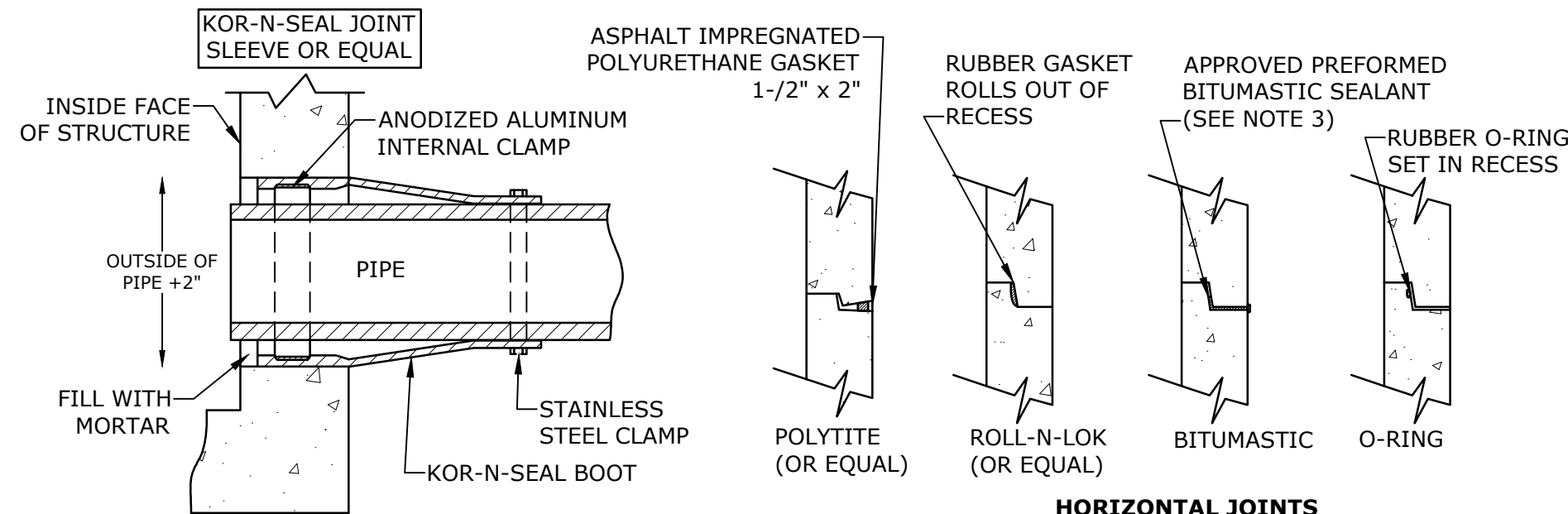
NOTES:
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
# 200	50 -100.

2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM

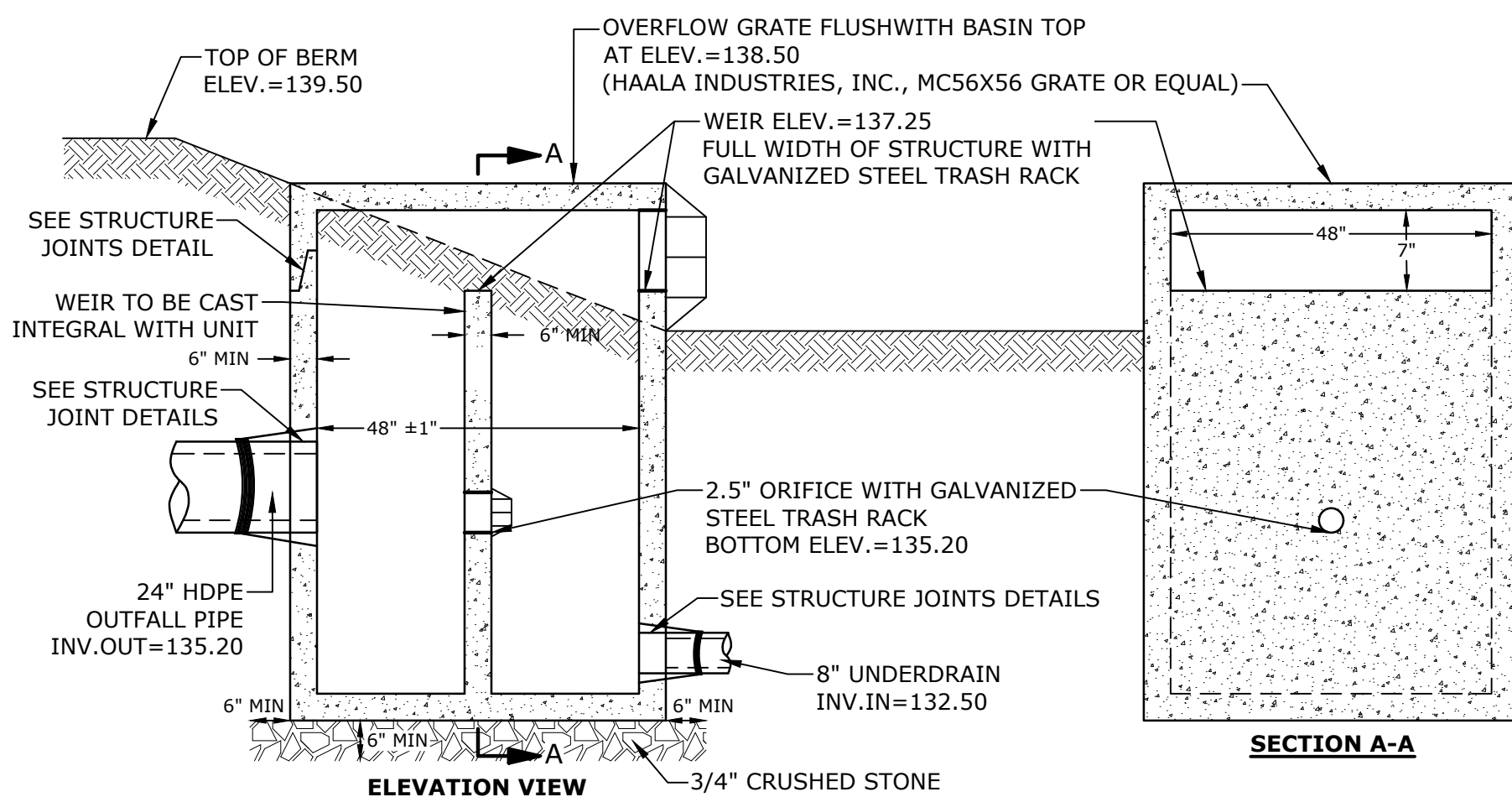
NO SCALE



NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER TOWN OF ROCKLAND DPW STANDARD AND SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER TOWN OF ROCKLAND STANDARD.
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

STRUCTURE JOINTS

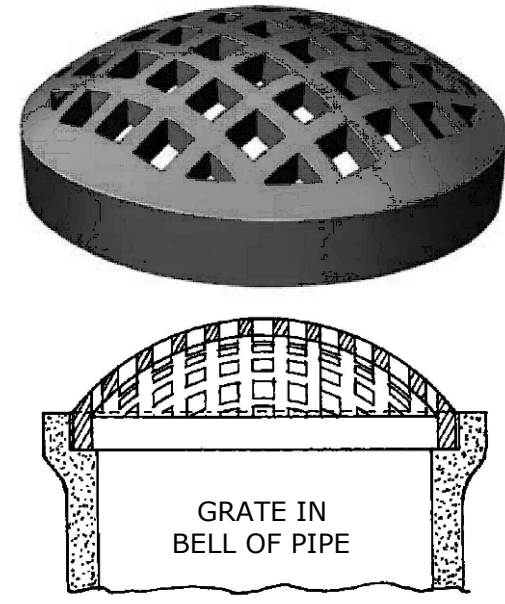
NO SCALE



NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

OUTLET STRUCTURE #1

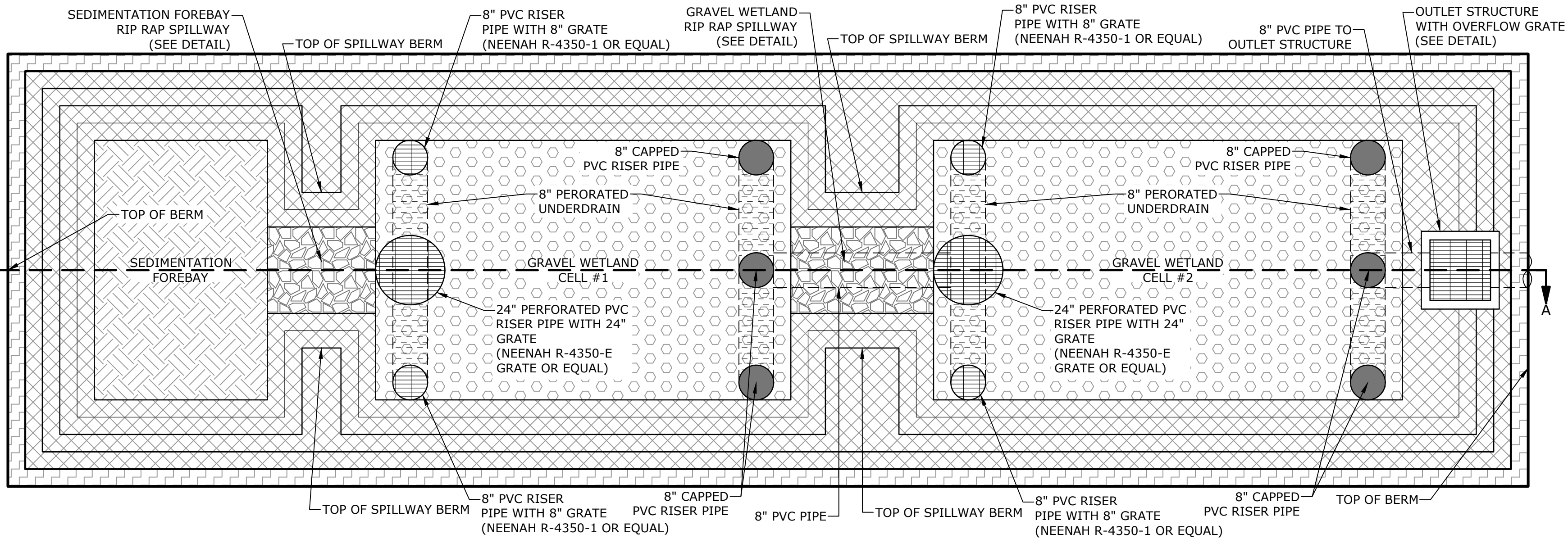
NO SCALE



NOTES:
1. 8" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-1 GRATE OR EQUAL.
2. 24" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-E GRATE OR EQUAL.

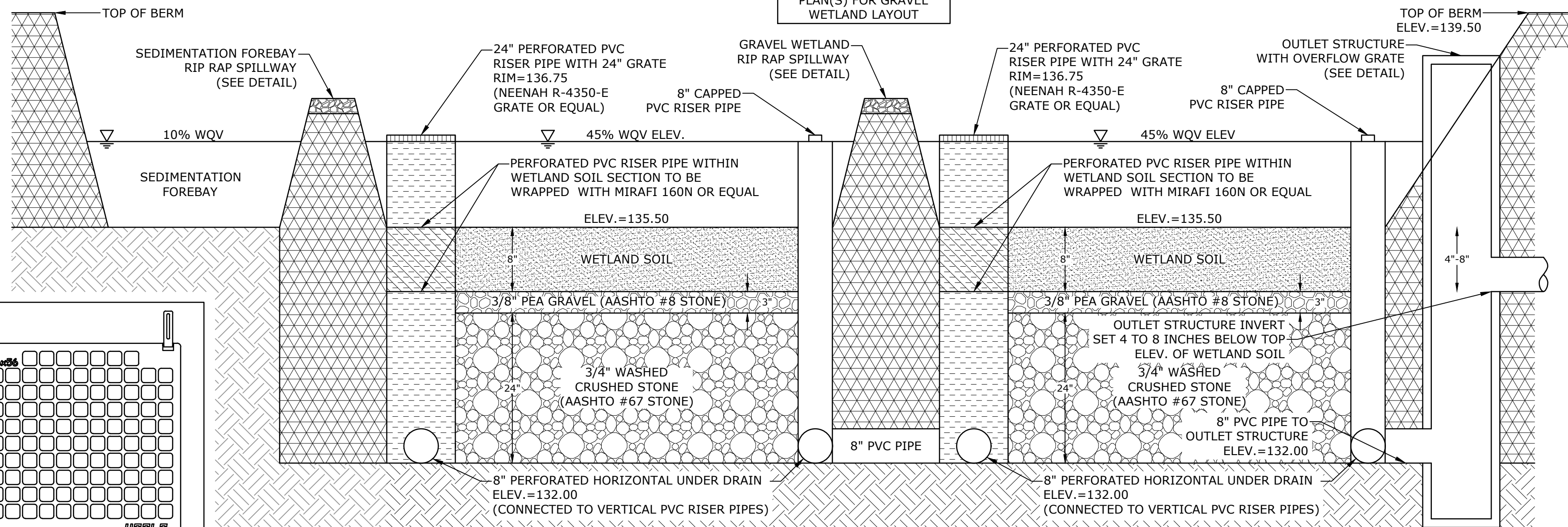
NEENAH R-4350 SERIES GRATE

NO SCALE

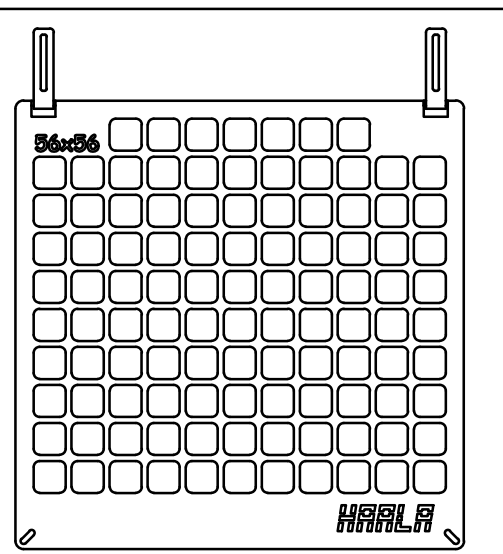


TYPICAL PLAN VIEW

SEE GRADING & DRAINAGE PLAN(S) FOR GRAVEL WETLAND LAYOUT



TYPICAL SECTION A-A VIEW



NOTES:
1. OUTLET STRUCTURE GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

HAALA MC56X56 GRATE

NO SCALE

NOTES:
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
2. INFILTRATION TESTING OF THE NATIVE SOILS AT THE SUBGRADE OF THE PROPOSED GRAVEL WETLAND SHALL OCCUR PRIOR TO THE INSTALLATION OF THE GRAVEL WETLAND AND SHALL BE COORDINATED WITH THE ENGINEER. IF THE NATIVE SOILS EXCEED A PERMEABILITY RATE OF 0.03 FT/DAY THE SOILS SHOULD AMENDED OR LINER ADDED AS DETERMINED BY THE ENGINEER.
3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".

GRAVEL WETLAND #1 DETAIL SHEET

NO SCALE

GRAVEL WETLAND #1

NO SCALE

GRAVEL WETLAND INSPECTION / MAINTENANCE REQUIREMENTS		
INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT GRAVEL WETLAND FUNCTIONS EFFECTIVELY AFTER STORMS	FOUR (4) TIMES ANNUALLY (QUARTERLY) AND 0 AFTER ANY RAINFALL EVENT EXCEEDING 2.5" IN A 24-HR PERIOD	- TRASH AND DEBRIS TO BE REMOVED - ANY REQUIRED MAINTENANCE SHALL BE ADDRESSED - INSPECT SOIL AND REPAIR ERODED AREAS, ESPECIALLY ON SLOPES. - CHECK INLETS, OUTLETS, AND OVERFLOW SPILLWAY FOR BLOCKAGE, STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION.
INSPECT VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL GRAVEL WETLAND VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES - COORDINATE WITH UNH STORMWATER CENTER FOR FURTHER VEGETATION MANAGEMENT GUIDELINES
INSPECT DRAWDOWN TIME - THE SYSTEM SHALL DRAWDOWN WITHIN 48-HOURS FOLLOWING A RAINFALL EVENT.	ANNUALLY	- HIRE QUALIFIED PROFESSIONAL TO ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE THE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER.

NOTES:
1. SEE LANDSCAPE PLANS FOR GRAVEL WETLAND PLANTINGS



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
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DETAILS SHEET

SCALE: AS SHOWN

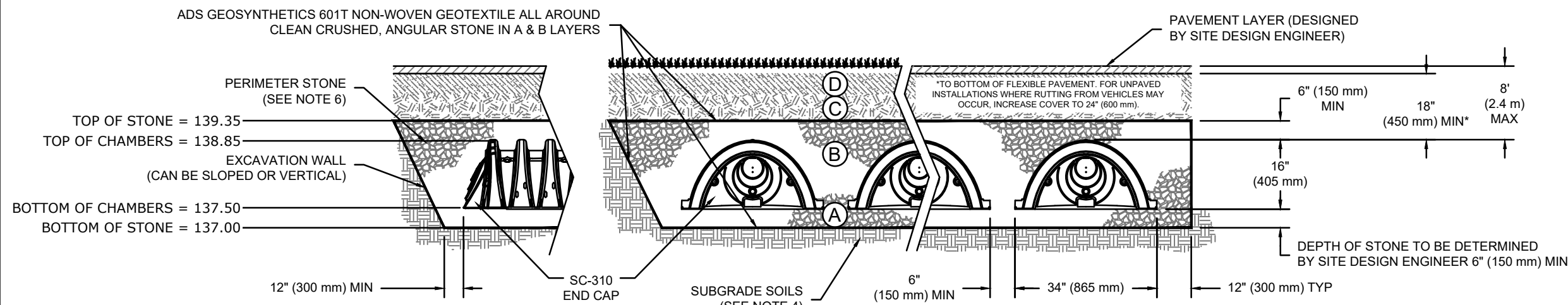
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ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

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.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ¹ *

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- 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 EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

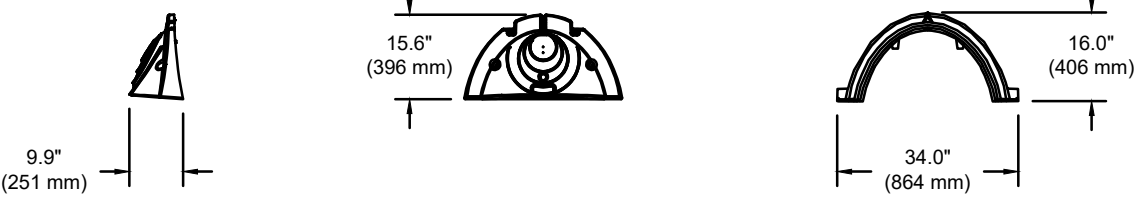
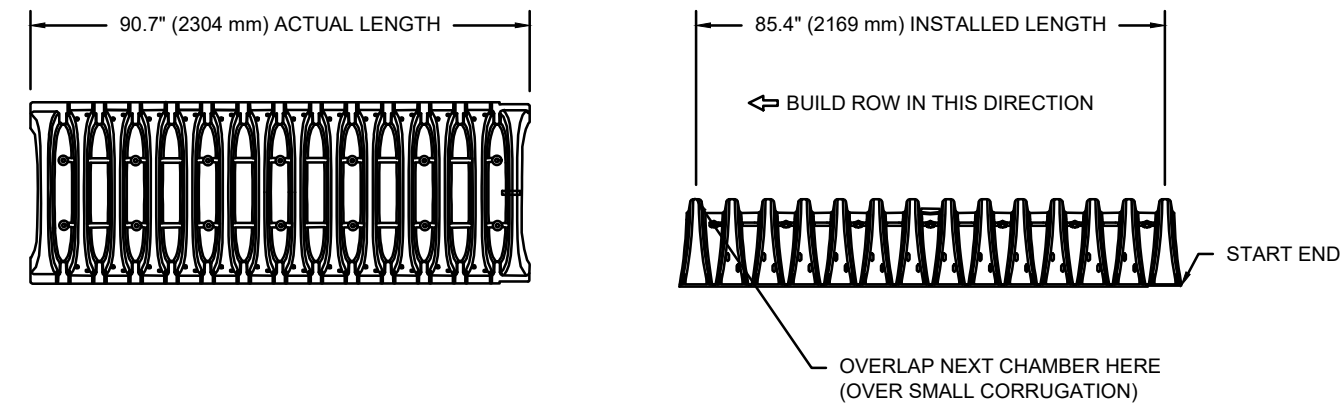


NOTES:

- STORMTECH CHAMBERS ARE DESIGNED IN ACCORDANCE WITH SECTION 12.12 OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS. THIS DOCUMENT ESTABLISHES REQUIREMENTS FOR PROFILE WALL, THERMOPLASTIC STRUCTURES FOR BOTH LIVE LOADS AND PERMANENT EARTH LOADS. PROPER USE OF THE AASHTO DESIGN METHOD REQUIRES THAT LOAD MULTIPLIERS FOR IMPACT AND MULTIPLE PRESENCES ARE APPLIED TO THE AASHTO DESIGN TRUCK (HS20) LIVE LOAD. ADDITIONAL FACTORS ARE APPLIED TO THE LOAD AND EARTH LOADS TO PROVIDE THE FULL SAFETY FACTORS FOR BOTH LIVE AND EARTH LOADS. WHEN INSTALLED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS SPECIFIED IN THE STORMTECH INSTALLATION INSTRUCTIONS, STORMTECH CHAMBERS MEET OR EXCEED THE AASHTO REQUIREMENTS FOR BOTH LIVE LOAD AND EARTH LOAD DESIGN.
- SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS
- 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
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 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.

SC-310 TECHNICAL SPECIFICATION

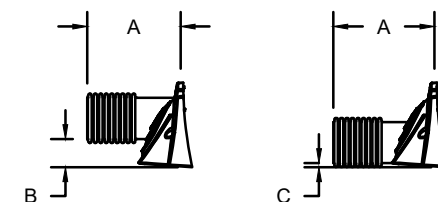
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4" (864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET (0.42 m ³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET (0.88 m ³)
WEIGHT	35.0 lbs. (16.8 kg)

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



PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"

PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC	---	---	---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC	---	---	---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC	---	---	---	0.7" (18 mm)
SC310EPE12B	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

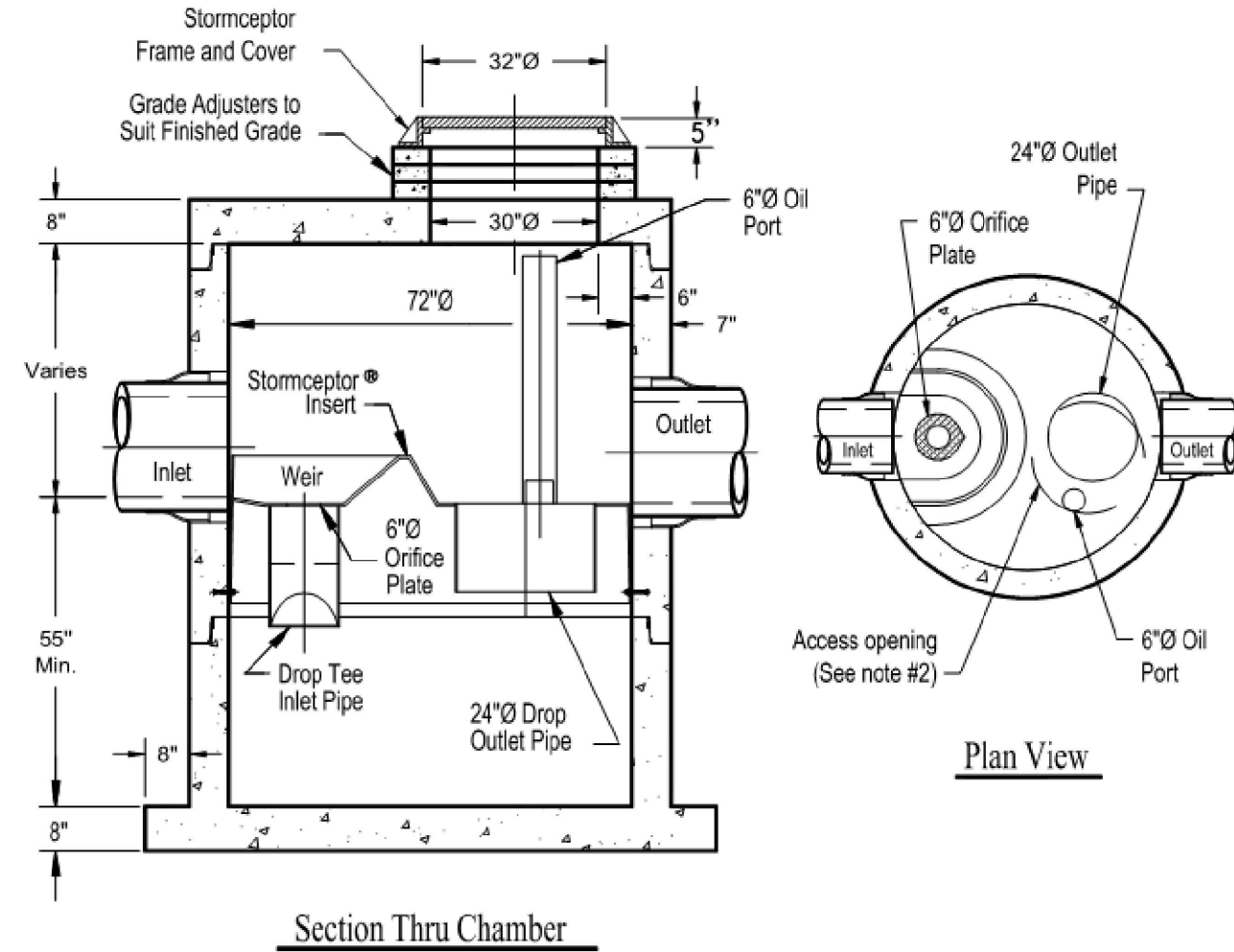
ALL STUBS, EXCEPT FOR THE SC310EPE12B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* 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.

NOTE: ALL DIMENSIONS ARE NOMINAL

STC 900 Precast Concrete Stormceptor®

(900 U.S. Gallon Capacity)

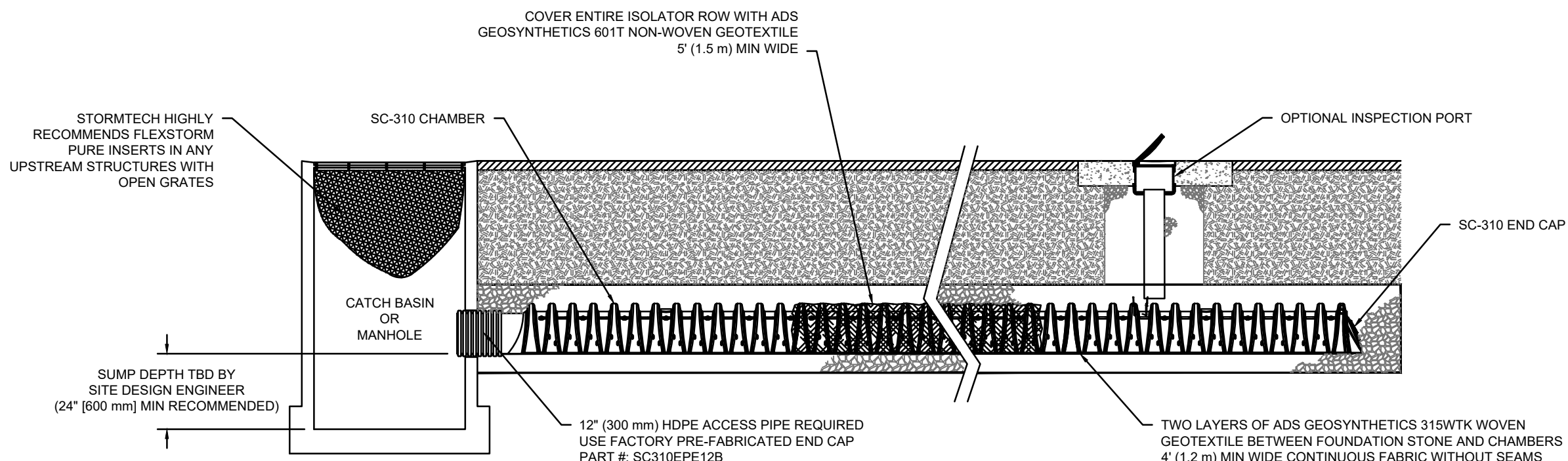


NOTES:

- STORMCEPTOR SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

STORMCEPTOR

NOT TO SCALE

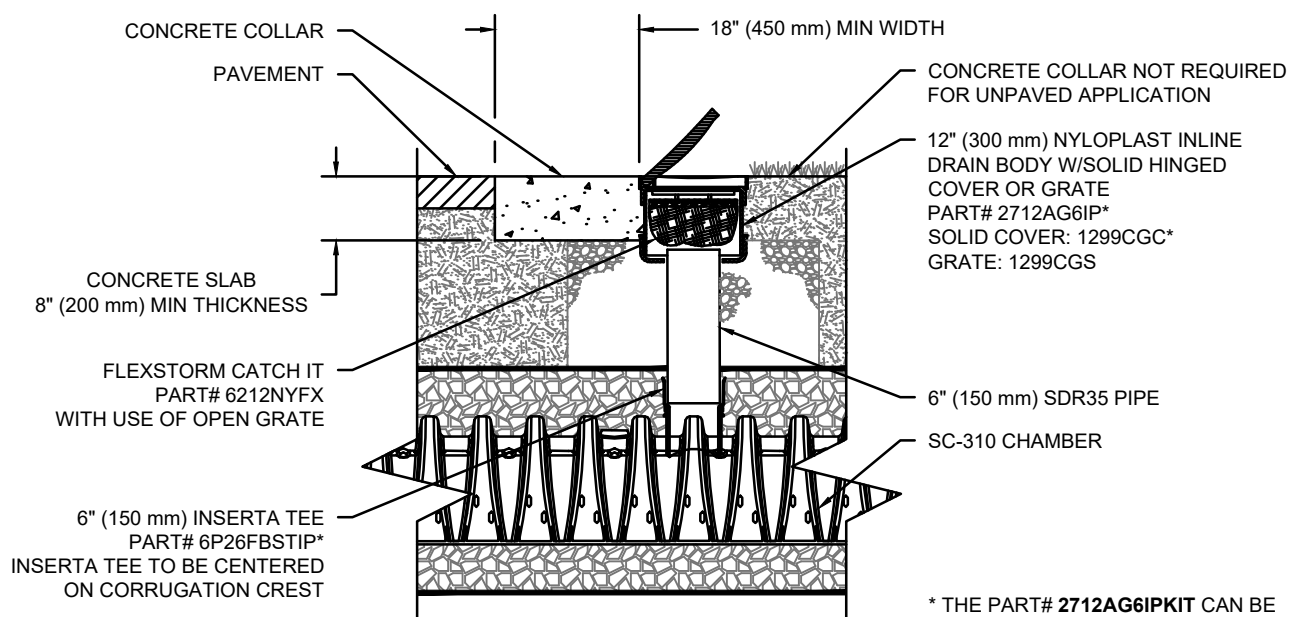


SC-310 ISOLATOR ROW DETAIL

NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- A. ALL ISOLATOR ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.



SC-310 6" INSPECTION PORT DETAIL

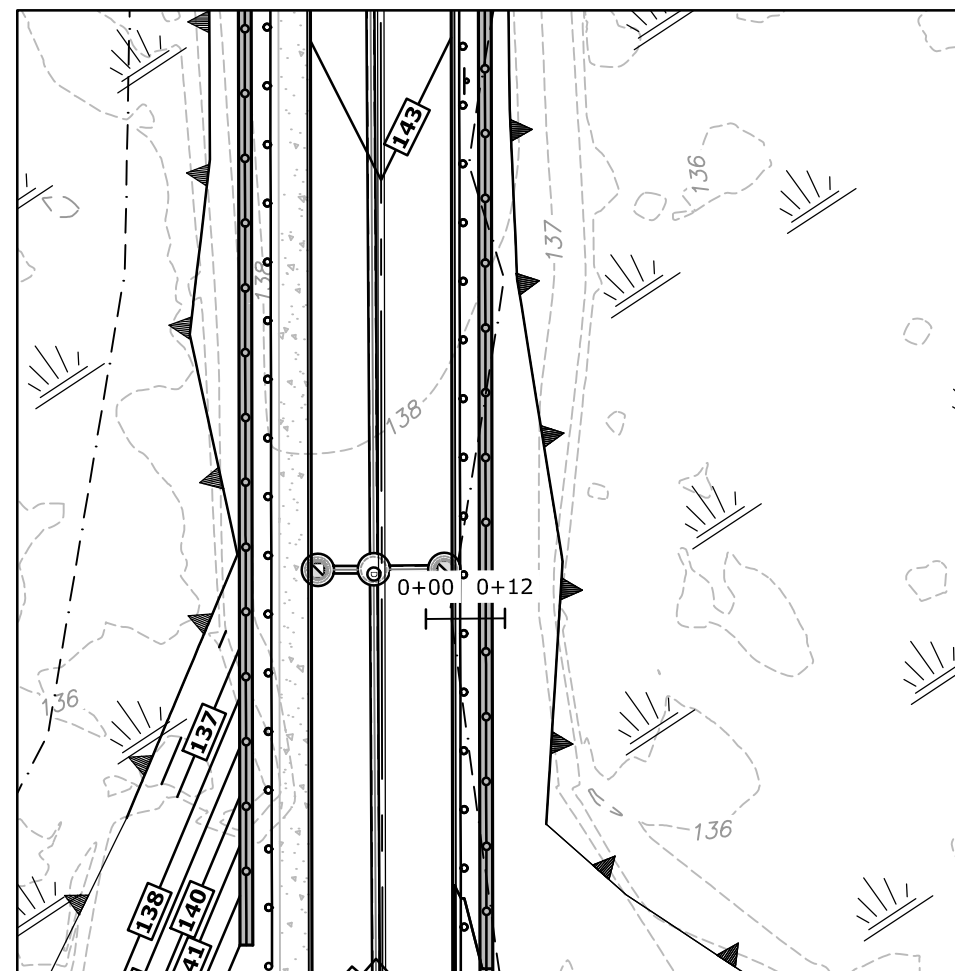
NTS

NOTES

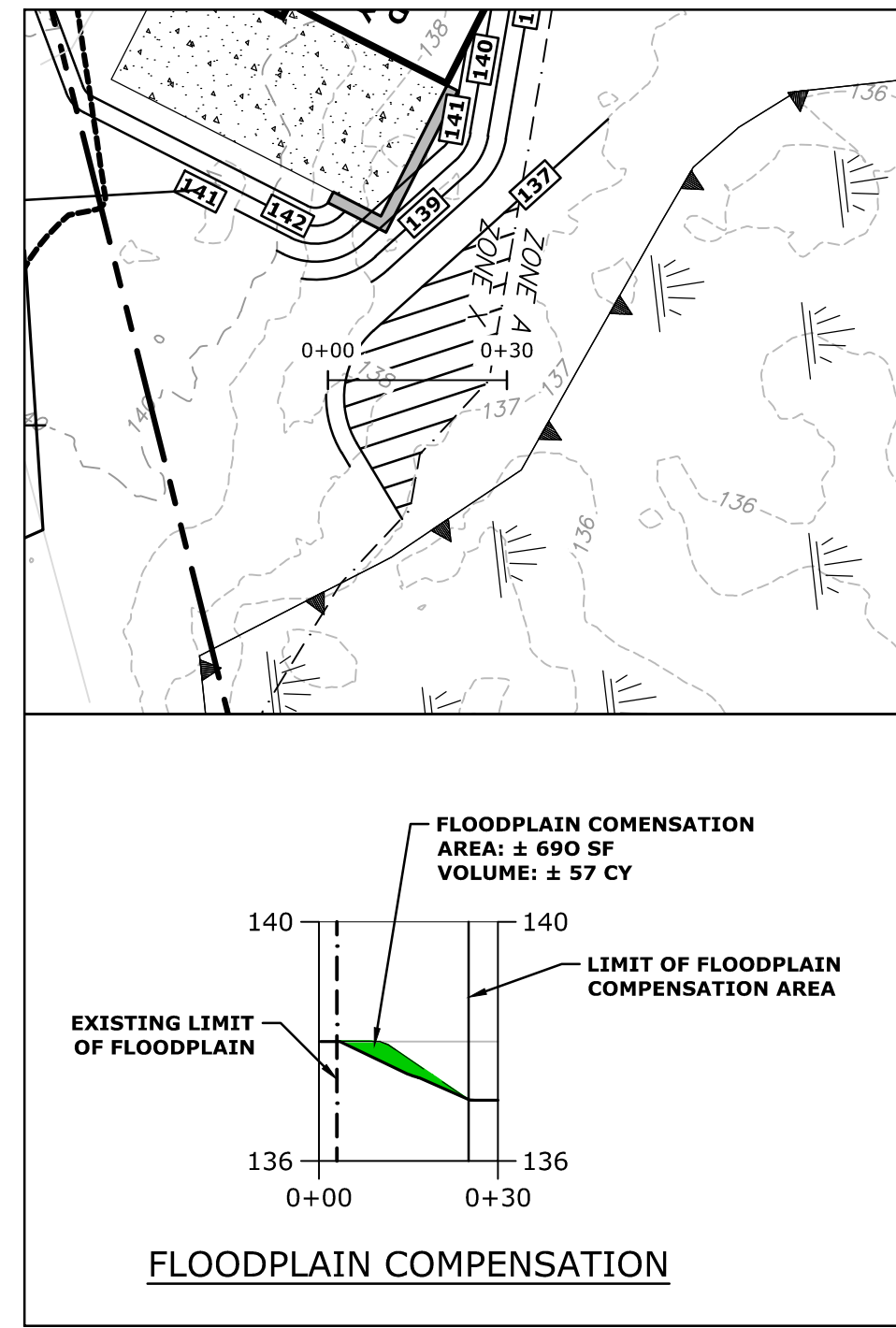
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

STORMTECH SC-310 CHAMBER SYSTEM

NOT TO SCALE



FLOODPLAIN IMPACT



FLOODPLAIN COMPENSATION

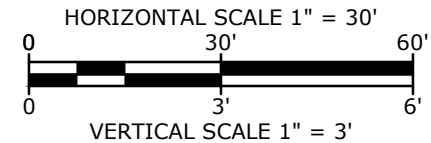
FLOODPLAIN IMPACT AND REPLICATION SUMMARY		
	IMPACTED	REPLICATION
AREA	±320 SF	±690 SF
VOLUME	±19.2 CY	±57 CY
SEEDING	NE WETLAND MIX AT RATE OF 1 LB/2500 SF	

NOTES:

- FLOODSTORAGE COMPENSATION AREA WILL BE EXCAVATED 6" BELOW PROPOSED FINISHED GRADED AND BACKFILLED WITH 6" OF LOAM AND COMPOST, MIXED AT A RATIO OF 5:1.

FLOODPLAIN IMPACT & REPLICATION DETAIL

NO SCALE



Tighe&Bond



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Shinglemill, LLC

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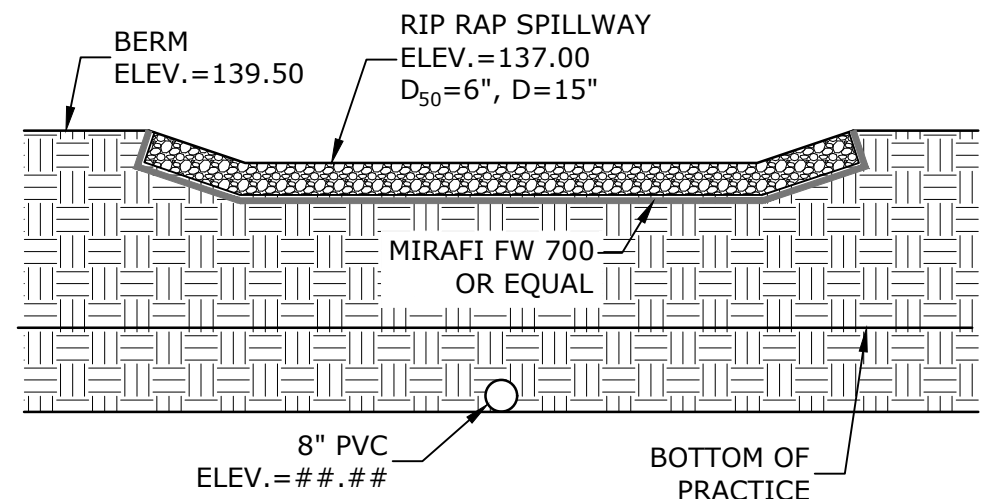
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DETAILS SHEET

SCALE: AS SHOWN

C-506

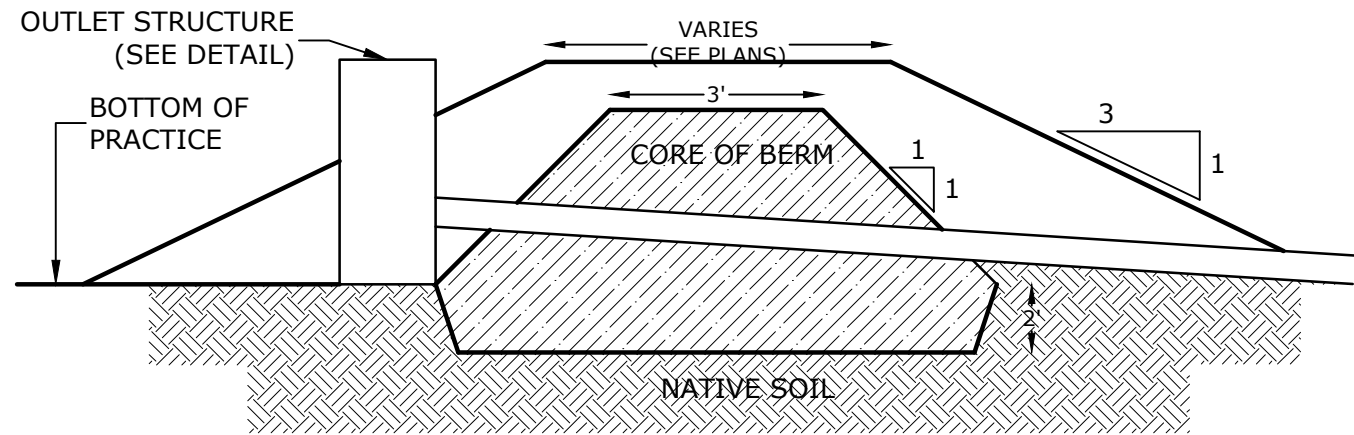
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NOTE:
1. SEE GRADING & DRAINAGE PLAN(S) FOR LOCATION(S) AND DIMENSIONS.

RIP RAP SPILLWAY

NO SCALE



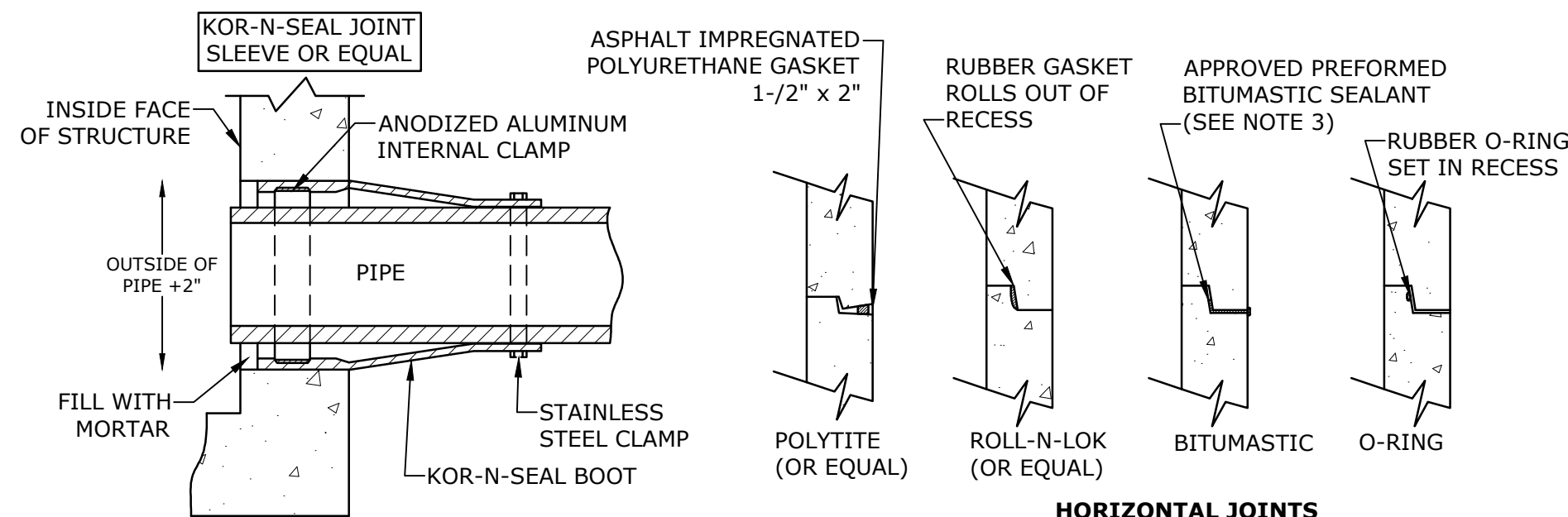
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2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM

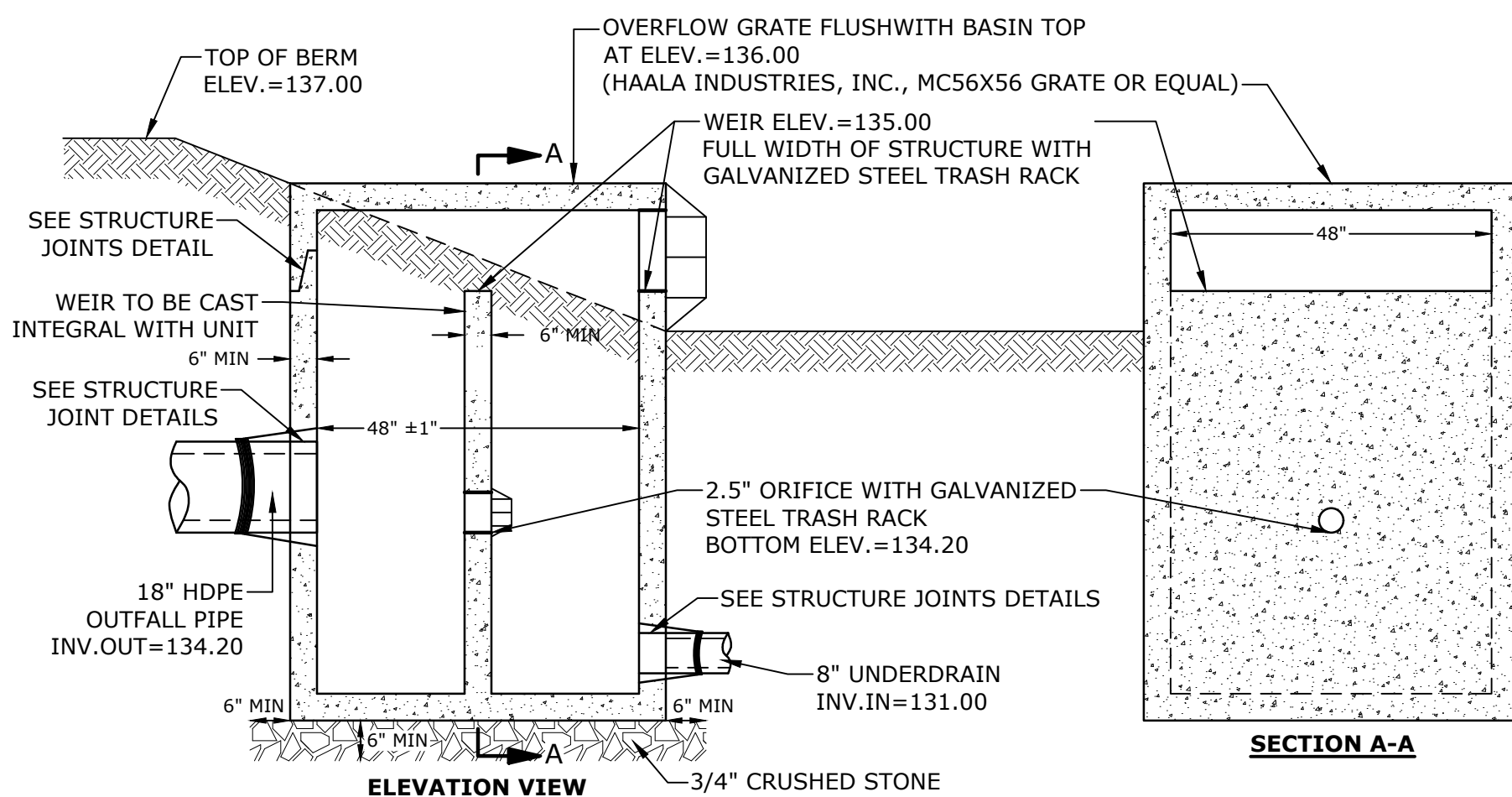
NO SCALE



NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER TOWN OF ROCKLAND DPW STANDARD AND SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER TOWN OF ROCKLAND STANDARD.
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

STRUCTURE JOINTS

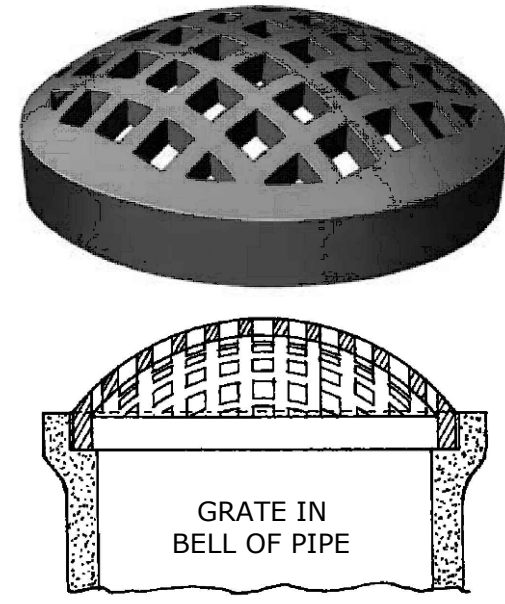
NO SCALE



NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

OUTLET STRUCTURE #2

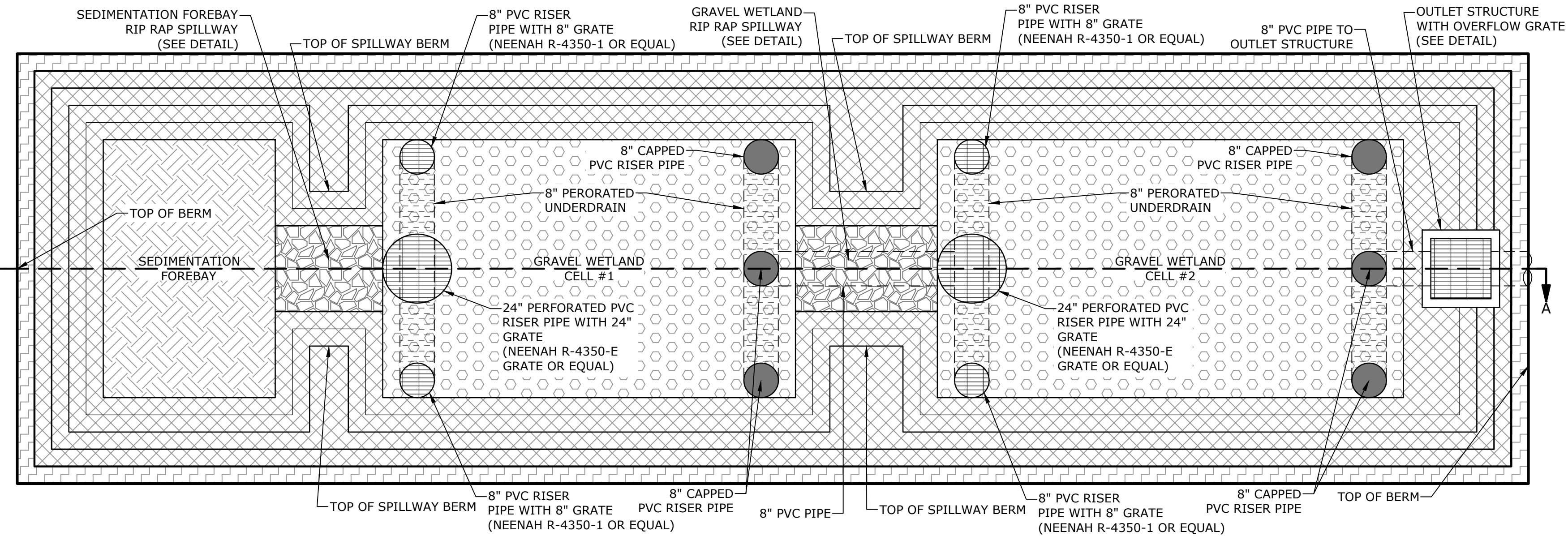
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NOTES:
1. 8" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-1 GRATE OR EQUAL.
2. 24" GRAVEL WETLAND GRATES SHALL NEENAH R-4350-E GRATE OR EQUAL.

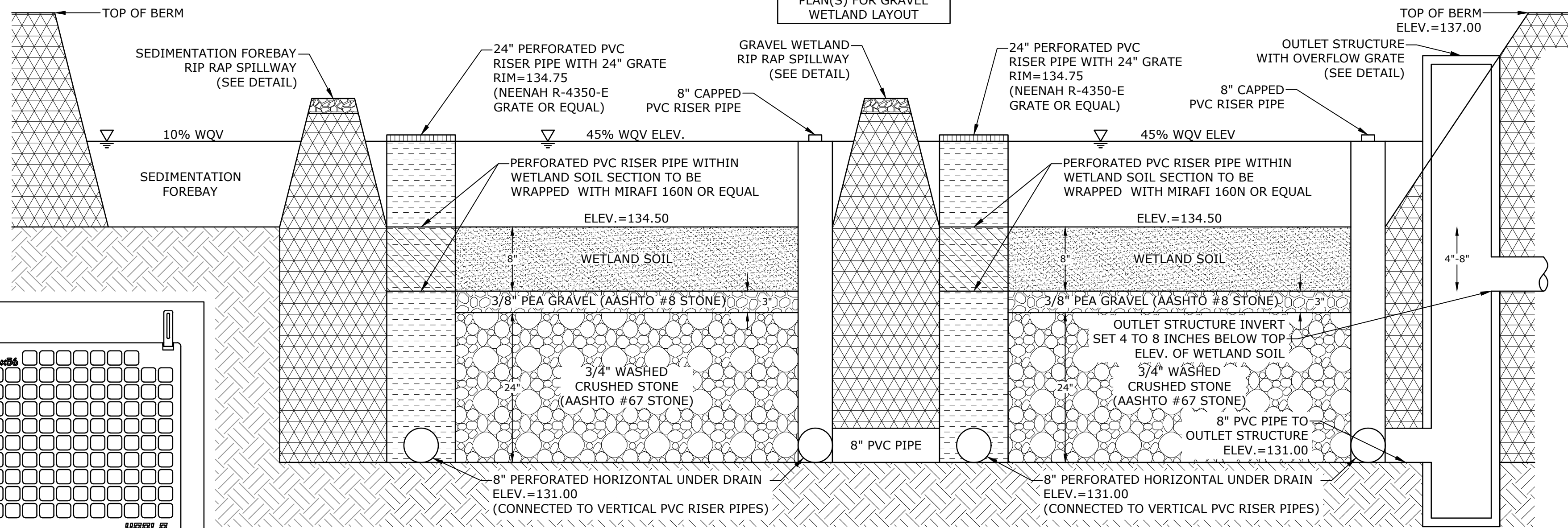
NEENAH R-4350 SERIES GRATE

NO SCALE



TYPICAL PLAN VIEW

SEE GRADING & DRAINAGE PLAN(S) FOR GRAVEL WETLAND LAYOUT



TYPICAL SECTION A-A VIEW

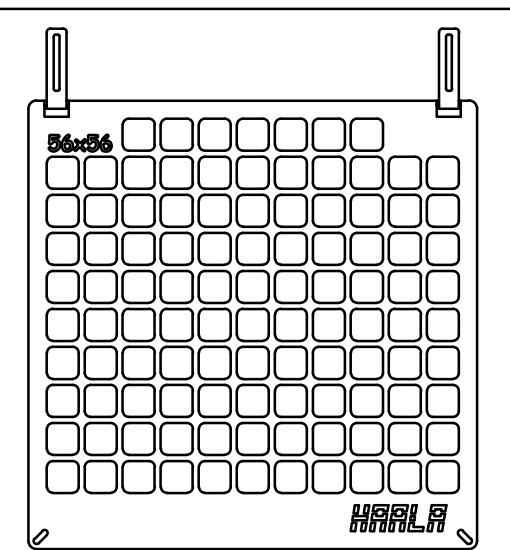
NOTES:
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
2. INFILTRATION TESTING OF THE NATIVE SOILS AT THE SUBGRADE OF THE PROPOSED GRAVEL WETLAND SHALL OCCUR PRIOR TO THE INSTALLATION OF THE GRAVEL WETLAND AND SHALL BE COORDINATED WITH THE ENGINEER. IF THE NATIVE SOILS EXCEED A PERMEABILITY RATE OF 0.03 FT/DAY THE SOILS SHOULD AMENDED OR LINER ADDED AS DETERMINED BY THE ENGINEER.
3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".

GRAVEL WETLAND #2 DETAIL SHEET

NO SCALE

GRAVEL WETLAND #2

NO SCALE



NOTES:
1. OUTLET STRUCTURE GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

HAALA MC56X56 GRATE

NO SCALE

GRAVEL WETLAND INSPECTION / MAINTENANCE REQUIREMENTS		
INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT GRAVEL WETLAND FUNCTIONS EFFECTIVELY AFTER STORMS	FOUR (4) TIMES ANNUALLY (QUARTERLY) AND 0 AFTER ANY RAINFALL EVENT EXCEEDING 2.5" IN A 24-HR PERIOD	- TRASH AND DEBRIS TO BE REMOVED - ANY REQUIRED MAINTENANCE SHALL BE ADDRESSED - INSPECT SOIL AND REPAIR ERODED AREAS, ESPECIALLY ON SLOPES. - CHECK INLETS, OUTLETS, AND OVERFLOW SPILLWAY FOR BLOCKAGE, STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION.
INSPECT VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL GRAVEL WETLAND VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES - COORDINATE WITH UNH STORMWATER CENTER FOR FURTHER VEGETATION MANAGEMENT GUIDELINES
INSPECT DRAWDOWN TIME	ANNUALLY	- HIRE QUALIFIED PROFESSIONAL TO ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE THE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER.

NOTES:
1. SEE LANDSCAPE PLANS FOR GRAVEL WETLAND PLANTINGS

Tighe&Bond



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

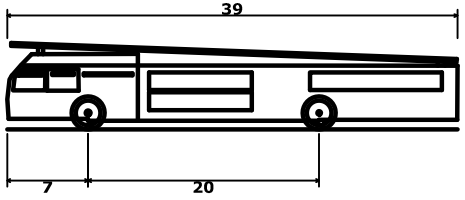
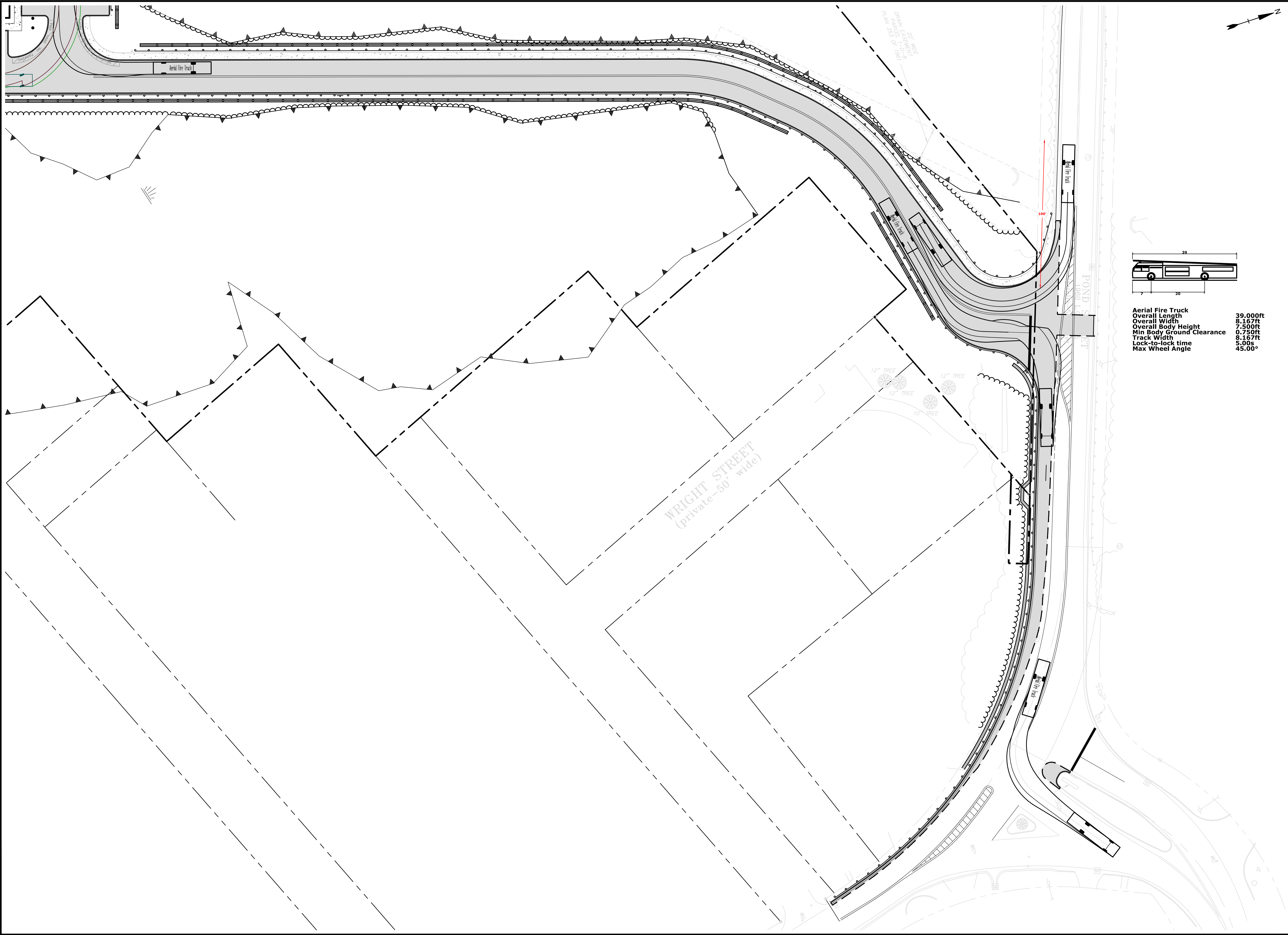
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A	11/30/2020	Conservation Commission Submission
PROJECT NO: J5019-002		
DATE: 11/30/2020		
FILE: J5019-002-C-DETAILS.DWG		
DRAWN BY: CML		
CHECKED: PMC		
APPROVED: BLM		

DETAILS SHEET

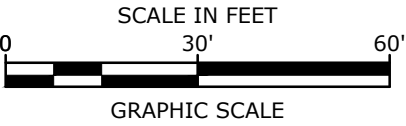
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C-507

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Aerial Fire Truck
Overall Length 39.000ft
Overall Width 7.000ft
Overall Body Height 20.000ft
Min Body Ground Clearance 0.750ft
Track Width 7.000ft
Lock-to-lock time 5.00s
Max Wheel Angle 45.00°



Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
C	12/8/2020	Supplemental Comprehensive Permit - 2
B	11/30/2020	Conservation Commission Submission
A	9/16/2020	Not Submission

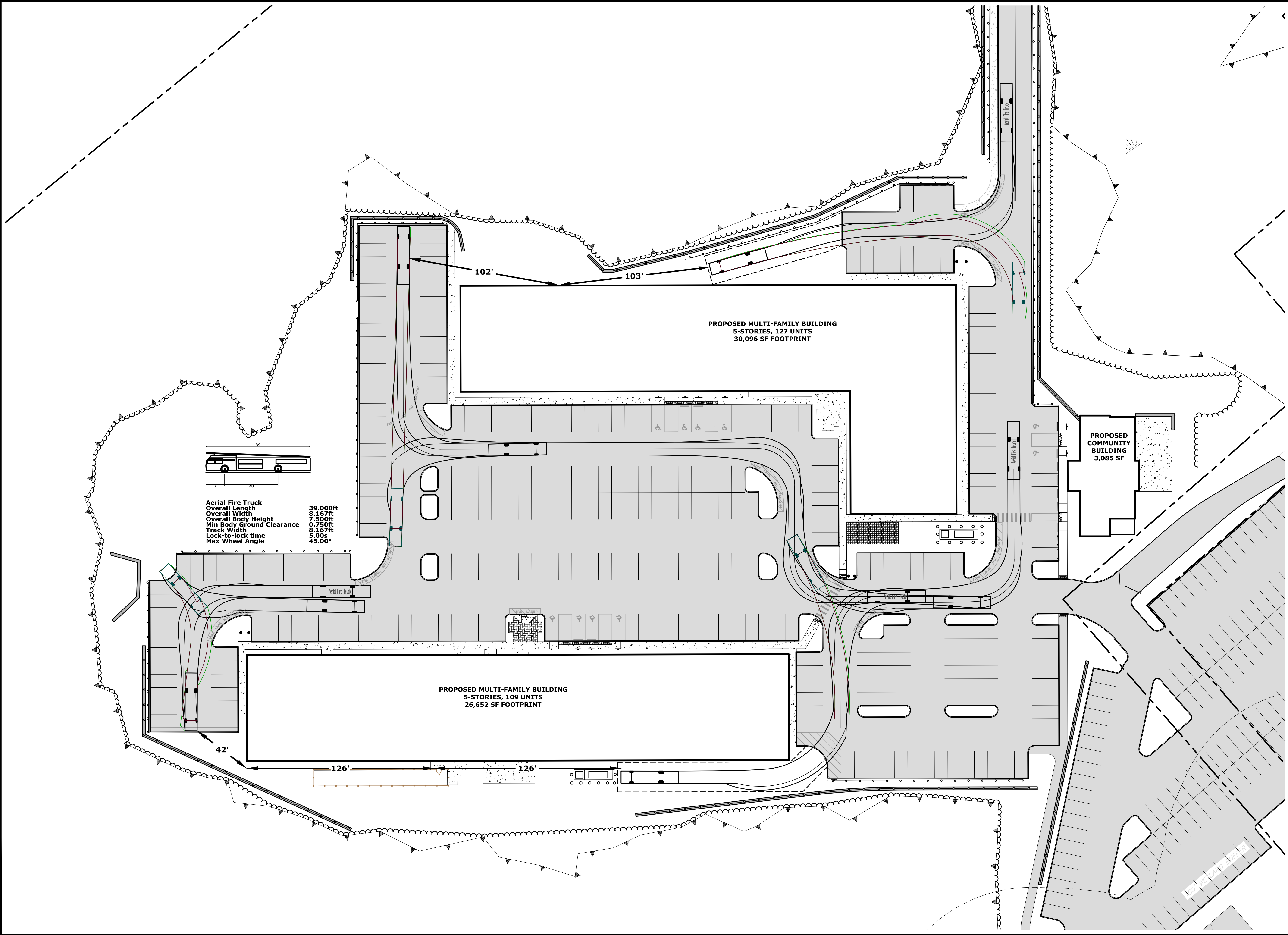
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DATE:	9/16/2020
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DRAWN BY:	CML
CHECKED:	PMC
APPROVED:	BLM

FIRE TRUCK TURNING PLAN

SCALE: AS SHOWN

C-701.1

Last Save Date: December 7, 2020 10:21 AM By: CML
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Tighe&Bond

Shingle Mill Multi-Family Development

Shinglemill, LLC

75 - 79 Pond Street
Rockland,
Massachusetts

MARK	DATE	DESCRIPTION
E	12/8/2020	Supplemental Comprehensive Permit - 2
D	11/30/2020	Conservation Commission Submission
C	9/16/2020	Not Submission
B	9/4/2020	Supplemental Comprehensive Permit Submitted for Comprehensive Permit
A	7/13/2020	

PROJECT NO: J5019-002
DATE: 7/13/2020
FILE: J5019-002-C-DESIGN.DWG
DRAWN BY: CML
CHECKED: PMC
APPROVED: BLM

FIRE TRUCK TURNING PLAN

SCALE: AS SHOWN

C-701.2