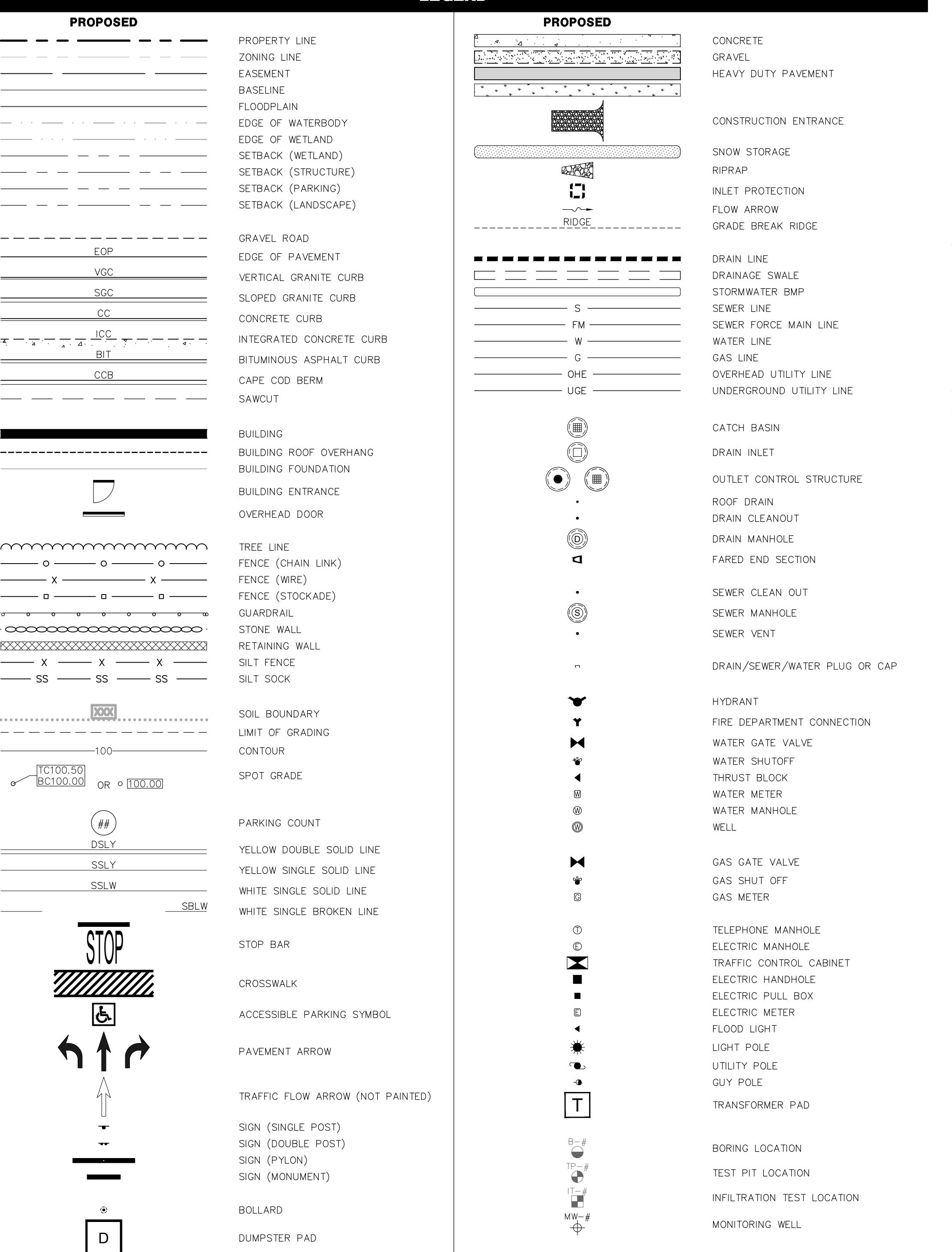


<h3 style="margin: 0;">GENERAL INFORMATION</h3> <p>OWNER/APPLICANT MAP 198 LOT 11, 12, 14, 15, 16 COLBEA ENTERPRISES, LLC 695 GEORGE WASHINGTON HIGHWAY LINCOLN, RI 02802 (401) 490-2209</p> <p>RESOURCE LIST</p> <p>PLANNING/ZONING DEPARTMENT 12 SCHOOL STREET HUDSON, NH 03051 (603) 886-6008</p> <p>CONSERVATION COMMISSION 12 SCHOOL STREET HUDSON, NH 03051 000-000-0000 WILLIAM COLLINS, CHAIRMAN</p> <p>INSPECTIONAL SERVICES DEPT. 12 SCHOOL SCHOOL HUDSON, NH 03051</p> <p>CODE ENFORCEMENT 12 SCHOOL SCHOOL HUDSON, NH 03051 (603) 886-6008 CHRIS SULLIVAN</p> <p>PUBLIC WORKS 2 CONSTITUTION DRIVE HUDSON, NH 03051 (603) 886-6018 JAY TWARDOSKY</p> <p>POLICE DEPARTMENT 1 CONSTITUTION DRIVE HUDSON, NH 03051 (603) 886-6011 TAD DIONNE, POLICE CHIEF</p> <p>FIRE DEPARTMENT 35 TERRY STREET HUDSON, NH 03051 (603) 886-6021 SCOTT TICE, FIRE CHIEF</p> <p>NHDES AOT 29 HAZEN DRIVE; PO BOX 95 CONCORD, NH 03302 603-271-3501</p> <p>LIBERTY UTILITIES 116 NORTH MAIN STREET CONCORD, NH 03301 (603) 782-2321 ANDREW MORGAN, MANAGER III</p>	<p>ASSOCIATED PROFESSIONALS</p> <p>ARCHITECT HARRISON FRENCH & ASSOCIATES 31 HAYWARD STREET; SUITE E-1 FRANKLIN, MA 02038 (401) 265-2535 STEVE PEDRO, SR. ARCHITECT</p> <p>GEOTECHNICAL SERVICES SW COLE ENGINEERING, INC. 13 DELTA DRIVE, UNIT 8 LONDONDERRY, NH 03053 (603) 716-2111 x4965 COURTNEY MATTISON, PE</p> <p>TRAFFIC ENGINEER TFMORAN INC. 48 CONSTITUTION DRIVE BEDFORD, NH 03110 (603) 472-4488 JEN PORTER, PE</p> <p>LIGHTING DESIGN LSI INDUSTRIES 10000 ALLIANCE ROAD CINCINNATI, OH 45242 (513) 372-3368 MIKE ELLISON, TECHNICAL DESIGN SERVICES SPECIALIST</p> <p>UNDERGROUND FUEL STORAGE SYSTEM GPI - GREENMAN PEDERSEN, INC. 21 DANIEL SQUARE, 2ND FLOOR PORTSMOUTH, NH 03801 (603) 527-7488 HUSEYIN SEVINCIL</p> <p>CANOPY DESIGN AUSTIN MOHAWK AND COMPANY, LLC 2175 BECHGROVE PLACE ALBANY, NY 12501 (315) 793-3000 SUSANNE M. WILSON</p>	<h1 style="text-align: center; margin: 0;">PROPOSED GAS STATION AND CONVENIENCE STORE</h1> <p style="text-align: center; margin: 0;">91-97 LOWELL ROAD HUDSON, NEW HAMPSHIRE</p> <p style="text-align: center; margin: 0;">OCTOBER 28, 2025</p> <div style="text-align: center; margin: 10px 0;"> <h3 style="margin: 0;">VICINITY PLAN</h3>  </div>																																																
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ABBREVIATIONS

GENERAL		UTILITIES	
ABAN	ABANDON	EP	EDGE OF PAVEMENT
AC	ACRES	EXIST	EXISTING
ADJ	ADJUST	FFE	FINISHED FLOOR ELEVATION
APPROX	APPROXIMATE	FND	FOUNDATION
BC	BOTTOM OF CURB	HP	HIGH POINT
BIT	BITUMINOUS	INV	INVERT ELEVATION
BK/PG	BOOK & PAGE	IT	INFILTRATION TEST
BLDG	BUILDING	LF	LINEAR FEET
BMP	BEST MANAGEMENT PRACTICE	LSA	LANDSCAPE AREA
BS	BOTTOM OF SLOPE	MAX	MAXIMUM
BW	BOTTOM OF WALL	MIN	MINIMUM
COORD	COORDINATE	N/F	NOW OR FORMERLY
DIA	DIAMETER	NHFG	NEW HAMPSHIRE FISH & GAME
ELEV	ELEVATION	NTS	NOT TO SCALE

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GENERAL NOTES

- THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
- THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, TFMORAN, INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- AN ON-SITE PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE TOWN ENGINEER OR DESIGNATED REPRESENTATIVE PRIOR TO INITIATING EARTH MOVING ACTIVITIES AND AFTER PERIMETER EROSION CONTROL MEASURES, PROTECTIVE FENCING, WASTE DISPOSAL AND CONSTRUCTION ACCESS PADS HAVE BEEN INSTALLED.
- THE SITE LAYOUT PLAN SHALL BE RECORDED IN THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS.
- ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE HUDSON PLANNING BOARD.
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO TOWN OF HUDSON APPROVED OF PUBLIC WORKS STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE TOWN AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE TOWN, COUNTY, AND/OR STATE AGENCY.
- THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ENV-WQ 1500. THE SITE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF EACH STORMWATER FACILITY TO COORDINATE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL TAKE PROGRESS PHOTOS DURING CONSTRUCTION OF ALL STORMWATER DRAINAGE COMPONENTS AND SEND TO THE ENGINEER.
- SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
- SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS.
- PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
- SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
- TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
- ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS.
- REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF BUILDING FOUNDATIONS AND CONCRETE ELEMENTS WHICH ABUT THE BUILDING SUCH AS STAIRS, SIDEWALKS, LOADING DOCK RAMPS, PADS, AND COMPACTOR PADS. DO NOT USE SITE PLANS FOR LAYOUT OF FOUNDATIONS.
- IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- CONTRACTOR'S GENERAL RESPONSIBILITIES:
 - BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS AND CONDITIONS OF ALL PROJECT-SPECIFIC PERMITS AND APPROVALS AS LISTED ON THE COVER SHEET TO THESE PLANS OR OTHERWISE REQUIRED.
 - NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
 - EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
 - TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST, AND UNTIDY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT MONDAY - SATURDAY BETWEEN THE HOURS OF 7:00 AM AND 7:00 PM, IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL ORDINANCES AND REGULATIONS OF THE TOWN OF HUDSON, NEW HAMPSHIRE.
 - Maintain EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
 - IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
 - COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
 - PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SITE CONTRACTOR OR ENGINEER SHALL NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR LATER BE INCORPORATED IN THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING, CONTAINING, AND DULY REMOVING ALL CONSTITUENTS OF CONCERN BROUGHT TO THE SITE BY CONTRACTOR, SUBCONTRACTORS, SUPPLIER, OR ANYONE ELSE FOR WHOM CONTRACTOR IS RESPONSIBLE, AND FOR ANY ASSOCIATED COSTS; AND FOR THE COSTS OF REMOVING AND REMEDIATING AND HAZARDOUS ENVIRONMENTAL CONDITION CREATED BY THE PRESENCE OF ANY SUCH CONSTITUENTS OF CONCERN.
 - CONTRACTOR SHALL NOT IMPORT ANY FILL OVER THE AMOUNT OF 10 CUBIC YARDS CUMULATIVE TOTAL PER SOURCE TO ANY JOB SITE IN THE TOWN OF HUDSON WITHOUT PRIOR APPROVAL BY ENGINEERING DEPARTMENT STAFF. DOCUMENTATION SUCH AS TEST REPORTS, CERTIFICATIONS AND SIEVE ANALYZES OF FILL SHALL BE PROVIDED TO THE ENGINEERING DEPARTMENT FOR APPROVAL PRIOR TO TRANSPORTING THE MATERIAL TO HUDSON.
 - WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
 - VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE AND/OR WETLAND SETBACKS PRIOR TO COMMENCING ANY FOUNDATION CONSTRUCTION.
 - PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE PLANNING DIRECTOR AND PER TOWN REGULATIONS.

N. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.

UTILITY NOTES

- LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
- ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL INSTALLATION, TERMINATION, EXCAVATION, BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS, CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
- COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
- THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE UTILITY COMPANY.
- 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 THE UTILITY INSTALLATION COMPLETE AND OPERATIONAL.
- ALL UTILITY COMPANIES REQUIRE INDIVIDUAL CONDUITS. CONTRACTOR TO COORDINATE WITH TELEPHONE, CABLE, AND ELECTRIC COMPANIES REGARDING NUMBER, SIZE, AND TYPE OF CONDUITS REQUIRED PRIOR TO INSTALLATION OF ANY CONDUIT.
- SANITARY SEWER SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS AS SHOWN ON THESE PLANS. ALL SEWER MAINS AND FITTINGS SHALL BE PVC AND SHALL CONFORM TO ASTM F 679 (SDR 35 MINIMUM). FORCE MAINS AND FITTINGS SHALL CONFORM TO NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. SANITARY MANHOLES SHALL CONFORM TO NHDES WATER DIVISION WASTEWATER ENGINEERING BUREAU STANDARDS AND SPECIFICATIONS SHOWN HEREON.
- ON-SITE WATER DISTRIBUTION SHALL BE TO TOWN OF HUDSON STANDARDS AND SPECIFICATIONS. WATER MAINS SHALL HAVE A MINIMUM OF 5.5' COVER, WHERE WATER PIPES CROSS SEWER LINES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER SHALL BE 10' MINIMUM, WHERE A SANITARY LINE CROSSES A WATER LINE, SEWER LINE MUST BE CONSTRUCTED OF FORCE MAIN MATERIALS (PER ENV-WQ 704.08) FROM BUILDING OR MANHOLE TO MANHOLE, OR SUBSTITUTE RUBBER-GASKETED PRESSURE PIPE FOR THE SAME DISTANCE. WHEN SANITARY LINES PASS BELOW WATER LINES, LAY PIPE SO THAT NO JOINT IN THE SANITARY LINE WILL BE CLOSER THAN 6' HORIZONTALLY TO THE WATER LINE.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL LOCATIONS WHERE WATER LINE CHANGES DIRECTIONS OR CONNECTS TO ANOTHER WATER LINE.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE.
- ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES.
- THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING, AND RELATED SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE INDICATED.
- PROVIDE PERMANENT PAVEMENT REPAIR FOR ALL UTILITY TRENCHES IN EXISTING ROAD OR PAVEMENT TO REMAIN. SAW CUT TRENCH, PAVEMENT, AND GRANULAR BASE THICKNESS TO MATCH EXISTING PAVEMENT. OBTAIN ALL PERMITS REQUIRED FOR TRENCHING.
- UNLESS OTHERWISE SPECIFIED, ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC. SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO VEHICLE LOADS.
- THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE	PRIVATE/MUNICIPAL
SEWER	MUNICIPAL
WATER	MUNICIPAL
GAS	LIBERTY UTILITIES
ELECTRIC	EVERSOURCE
TELEPHONE	CONSOLIDATED COMMUNICATIONS
CABLE	CONSOLIDATED COMMUNICATIONS

WILDLIFE PROTECTION NOTES (ENV-WQ 1504.17)

- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT (603) 271-2461 AND BY EMAIL AT NHFW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB23-3206, Proposed Gas Station, Wildlife Species Observation.
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG&C IN DIGITAL FORMAT FOR VERIFICATION AS FEASIBLE.
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HARASSED, OR HARMED. ANY ACTIVITY PRIOR TO CONSULTATION WITH NHFG&C AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG&C, IF ANY, TO ASSURE THE PROJECT DOES NOT APPROPRIATELY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04.
- THE NHFG&C, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

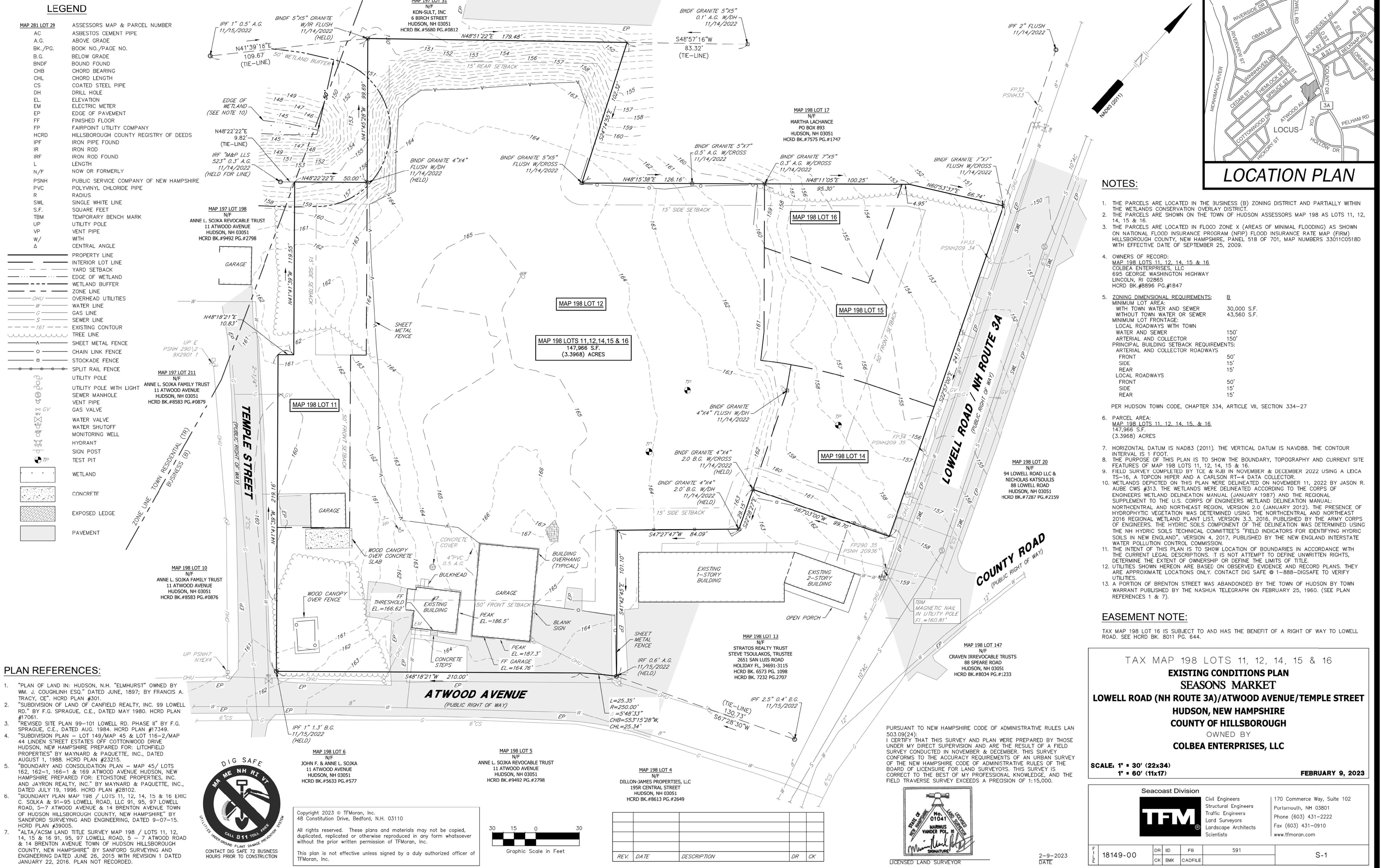
NOTES & LEGEND

PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

SCALE: NTS

OCTOBER 28, 2025

Seacoast Division			
Civil Engineers	170 Commerce Way, Suite 102	Structural Engineers	Portsmouth, NH 03801
Traffic Engineers	Phone (603) 431-2222	Land Surveyors	Fax (603) 431-0910
Landscape Architects	www.tfmoran.com	Scientists	
1 12/22/2025	REV DATE	JKC	C-01
18149.00	DR CCR	FB	
REV DATE	DESCRIPTION	DR CCR	





A diagram showing a coordinate system. A horizontal line extends from the left, with a black rectangular block at its end labeled "NAD83 (2011)". A vertical line extends downwards from the center, with a black triangular block at its end. The two lines intersect at their midpoints, forming a right angle. There are small tick marks on both lines to indicate orientation.

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

AERIAL PLAN

PROPOSED GAS STATION & CONVENIENCE STORE

1-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

"=200' (11"x17")

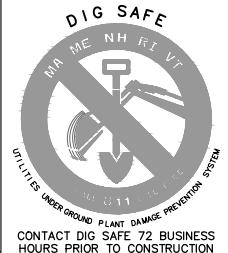
 The logo consists of the letters 'TFM' in a large, bold, white, sans-serif font. To the right of 'TM' is a registered trademark symbol (®). The entire logo is set against a solid black rectangular background.	Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists	170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com
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.00	DR	JKC	FB	—	S-02
	CK	CRR	CADFILE	18149-00 AERIAL	

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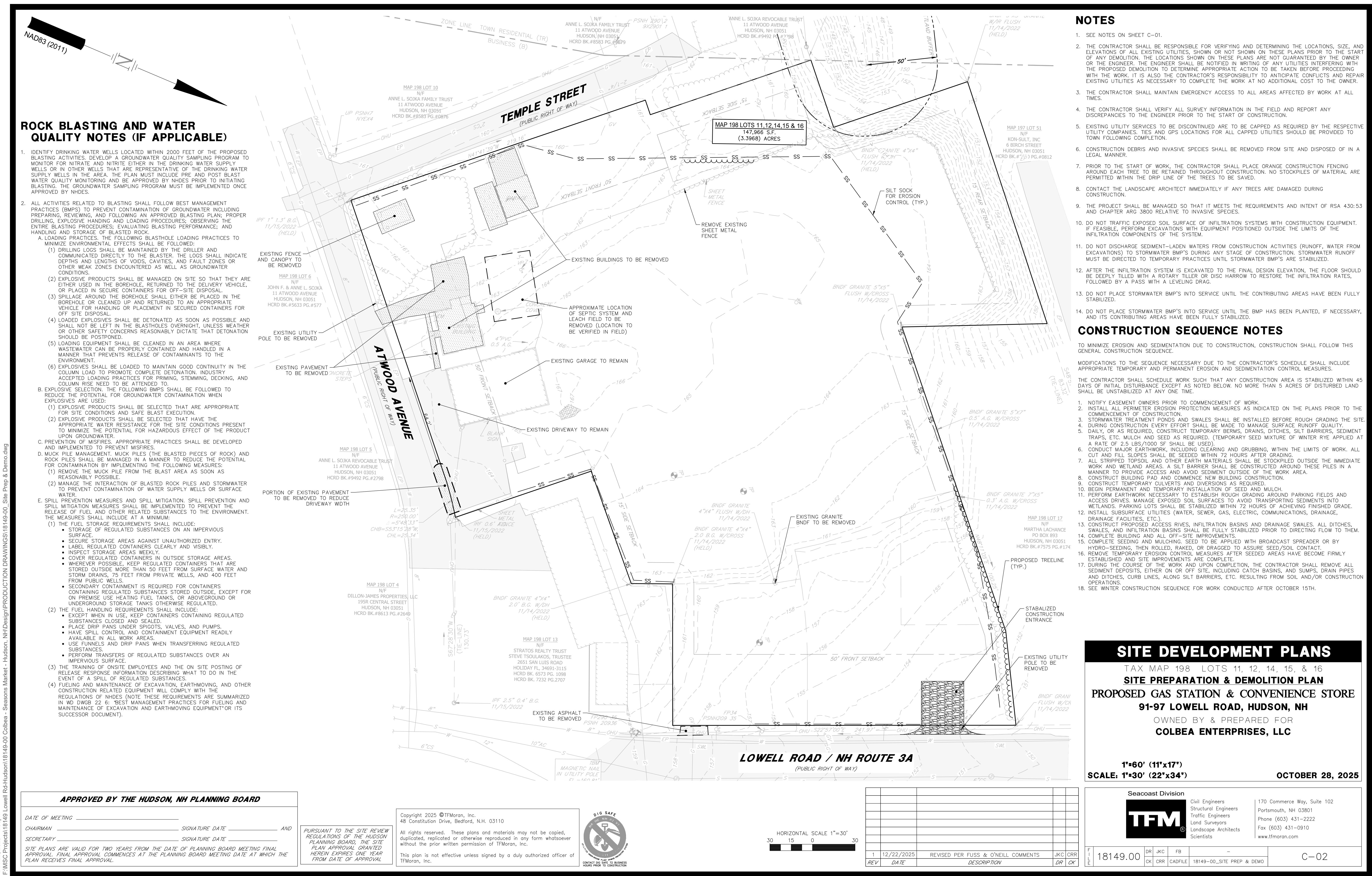
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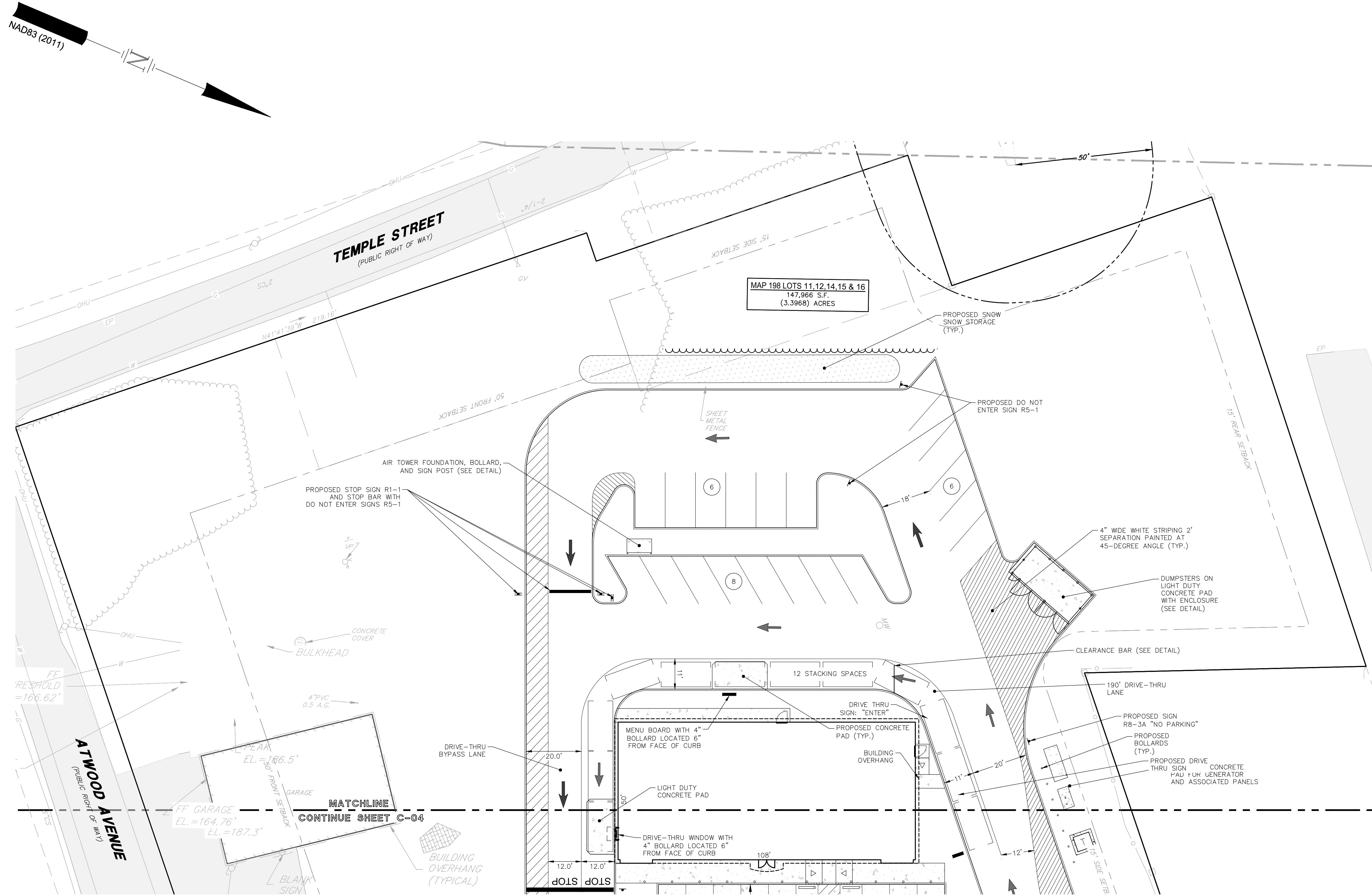
<p><i>PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL</i></p>	<p>Copyright 2025 ©TFMoran, Inc. 48 Constitution Drive, Bedford, N.H. 03110</p> <p>All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of TFMoran, Inc.</p> <p>This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.</p>
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HORIZONTAL SCALE 1"=100'

1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC CRR
<i>REV</i>	<i>DATE</i>	<i>DESCRIPTION</i>	<i>DR</i> <i>CK</i>





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CHAIRMAN _____	AND
SECRETARY _____	SIGNATURE DATE _____

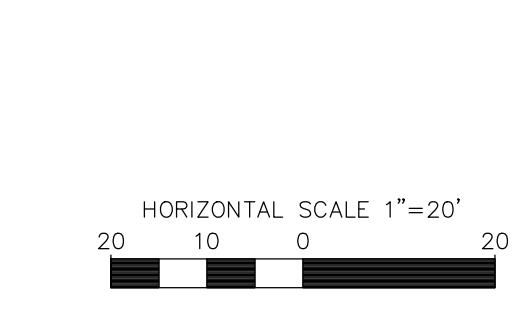
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DIG SAFE
APPROVED FOR THIS PLAN
BY THE NH RTV
CONTACT THE RTV 72 BUSINESS HOURS PRIOR TO CONSTRUCTION



REV	DATE	DESCRIPTION	JKC	CRR
1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS		

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

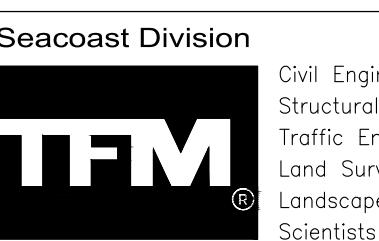
SITE LAYOUT PLAN

PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

1"=40' (11'X17')
SCALE: 1"=20' (22'X34')

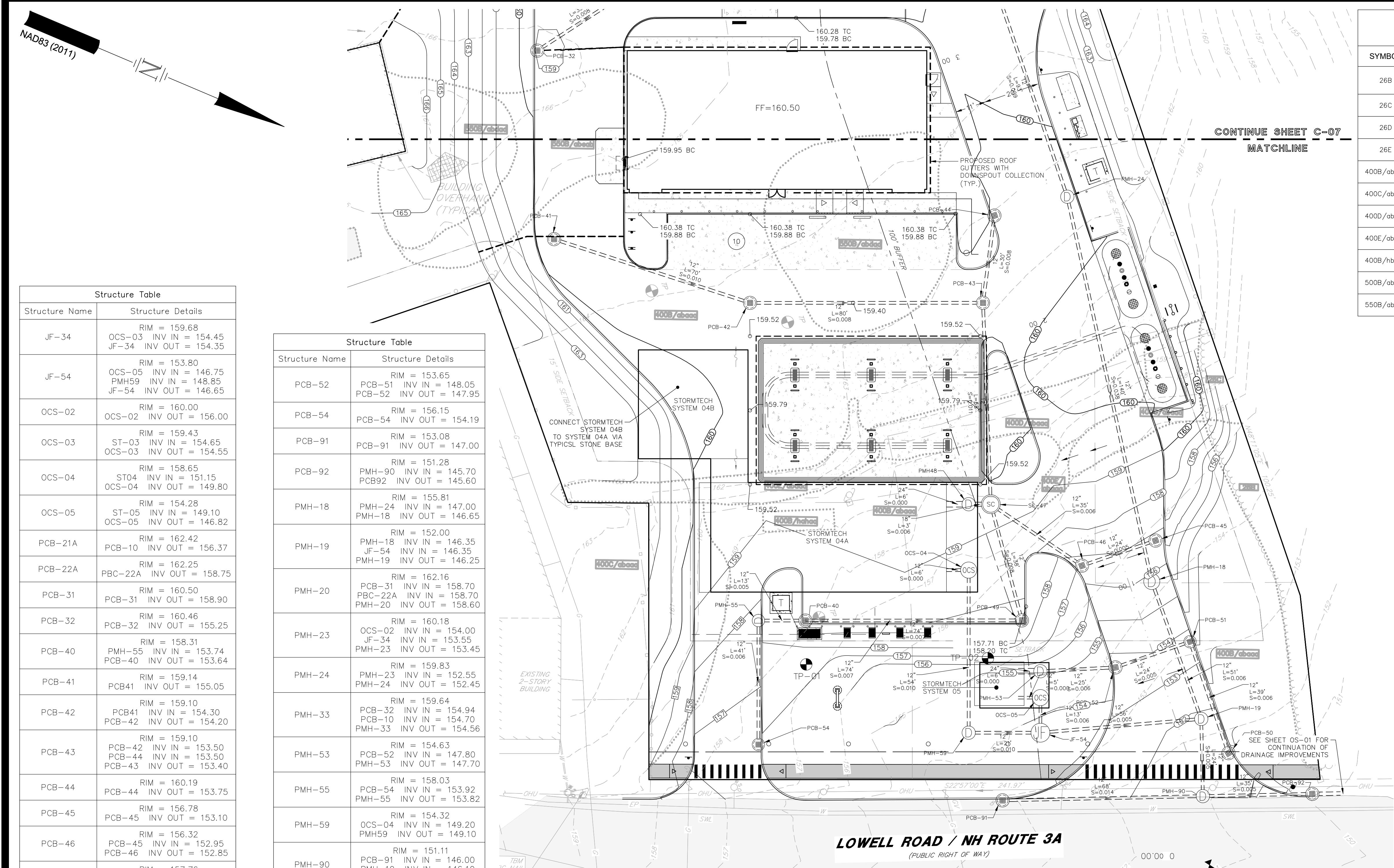
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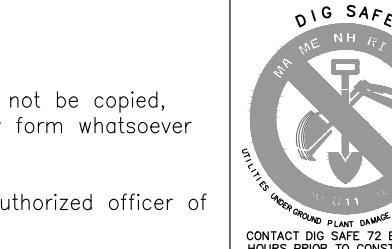
F	18149.00	DR	JKC	FB	-
E		CK	CRR	CADFILE	18149-00_SITE LAYOUT PLAN

C-05



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HORIZONTAL SCALE 1"=20'				
20	10	0	10	20
1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR
REV	DATE	DESCRIPTION	DR	CK

SOIL LEGEND (PER SITE SPECIFIC SOIL SURVEY)				
SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP	SLOPE CLASS	DRAINAGE CLASS
26B	WINDSOR LOAMY SAND	A	0-8%	EXCESSIVELY
26C	WINDSOR LOAMY SAND	A	8-15%	EXCESSIVELY
26D	WINDSOR LOAMY SAND	A	15-25%	EXCESSIVELY
26E	WINDSOR LOAMY SAND	A	25%+	EXCESSIVELY
400B/abaa	UDORTHENTS, SANDY	A	0-8%	EXCESSIVELY
400C/abaa	UDORTHENTS, SANDY	A	8-15%	EXCESSIVELY
400D/abaa	UDORTHENTS, SANDY	A	15-25%	EXCESSIVELY
400E/abaa	UDORTHENTS, SANDY	A	25%+	EXCESSIVELY
400B/hbha	UDORTHENTS, SANDY	A	0-8%	UNDETERMINABLE
500B/abdd	UDORTHENTS, BEDROCK SUBSTRATE	D	0-8%	EXCESSIVELY
550B/abeab	UDORTHENTS, BEDROCK SUBSTRATE	B	0-8%	EXCESSIVELY

NOTES

- SEE NOTES ON SHEET C-01.
- ALL DOORS SHALL BE AT FINISHED FLOOR ELEVATION UNLESS OTHERWISE NOTED.
- PROPOSED SPOT GRADES ARE PROVIDED TO THE NEAREST 0.01. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE FINISHED GRADES MEET ADA STANDARDS FOR WHEEL CHAIR RAMPS, HANDICAP SPACES AND ACCESS AISLES, CROSSWALKS, SIDEWALKS, ETC.
- ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
- ALL PROPOSED DRAINAGE PIPES SHALL BE 12" AND HDPE, UNLESS OTHERWISE NOTED ON THE PLAN.
- DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP CATCH BASIN (SEE DETAILS).
- THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND ARCHITECTURAL PLANS FOR SUBDRAINAGE SYSTEMS FOR THE BUILDING FOUNDATION, SUBDRAINAGE MUST DAYLIGHT OR TIE INTO THE STORMWATER MANAGEMENT SYSTEM. COORDINATE SUBDRAINAGE SYSTEM DESIGN WITH THE ENGINEER OF RECORD.
- OIL SEPARATORS SHALL BE INSTALLED ON CATCH BASINS DISCHARGING TO INFILTRATION SYSTEM 01 (SEE DETAIL).

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

GRADING & DRAINAGE PLAN

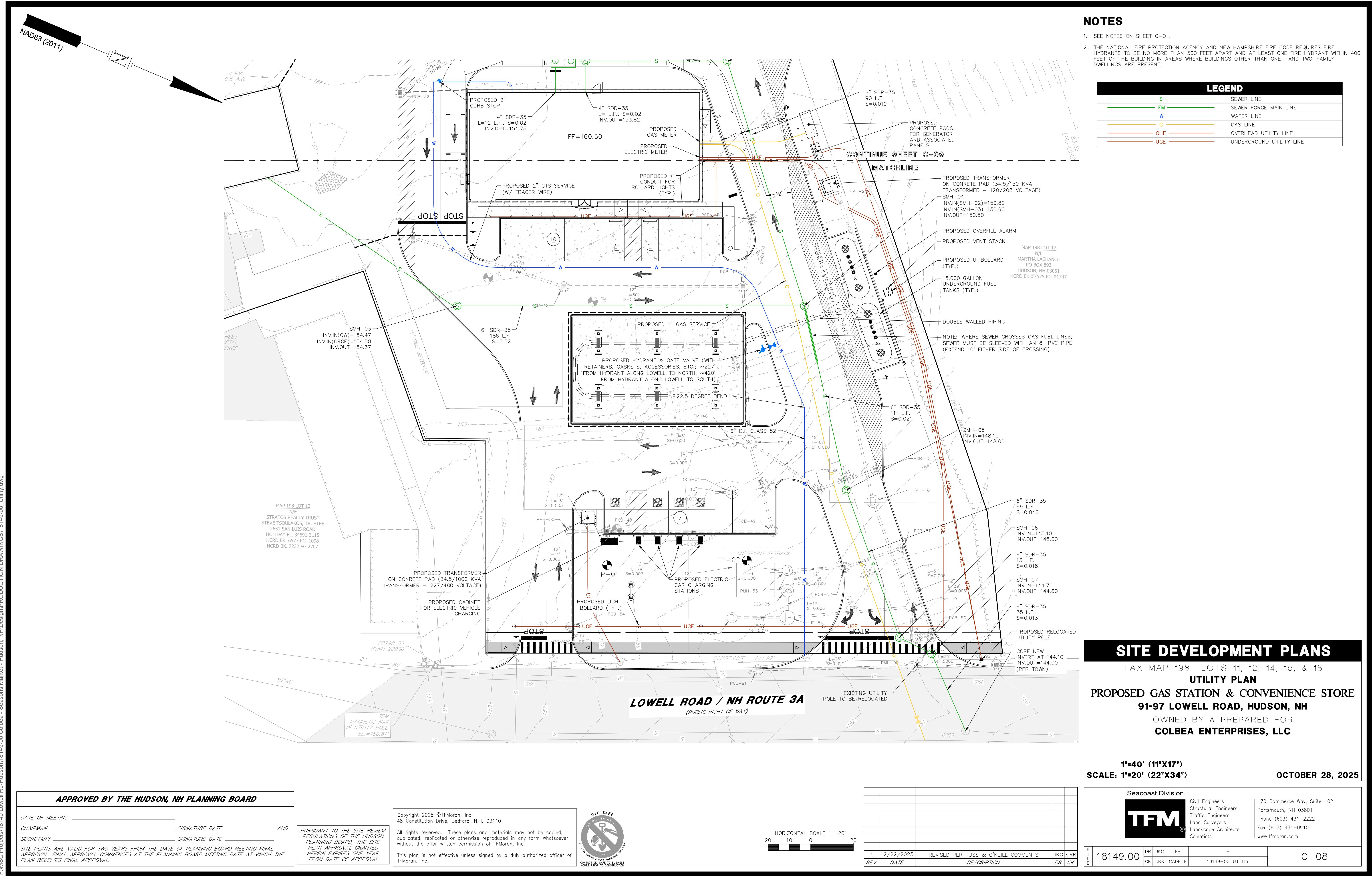
**PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH**

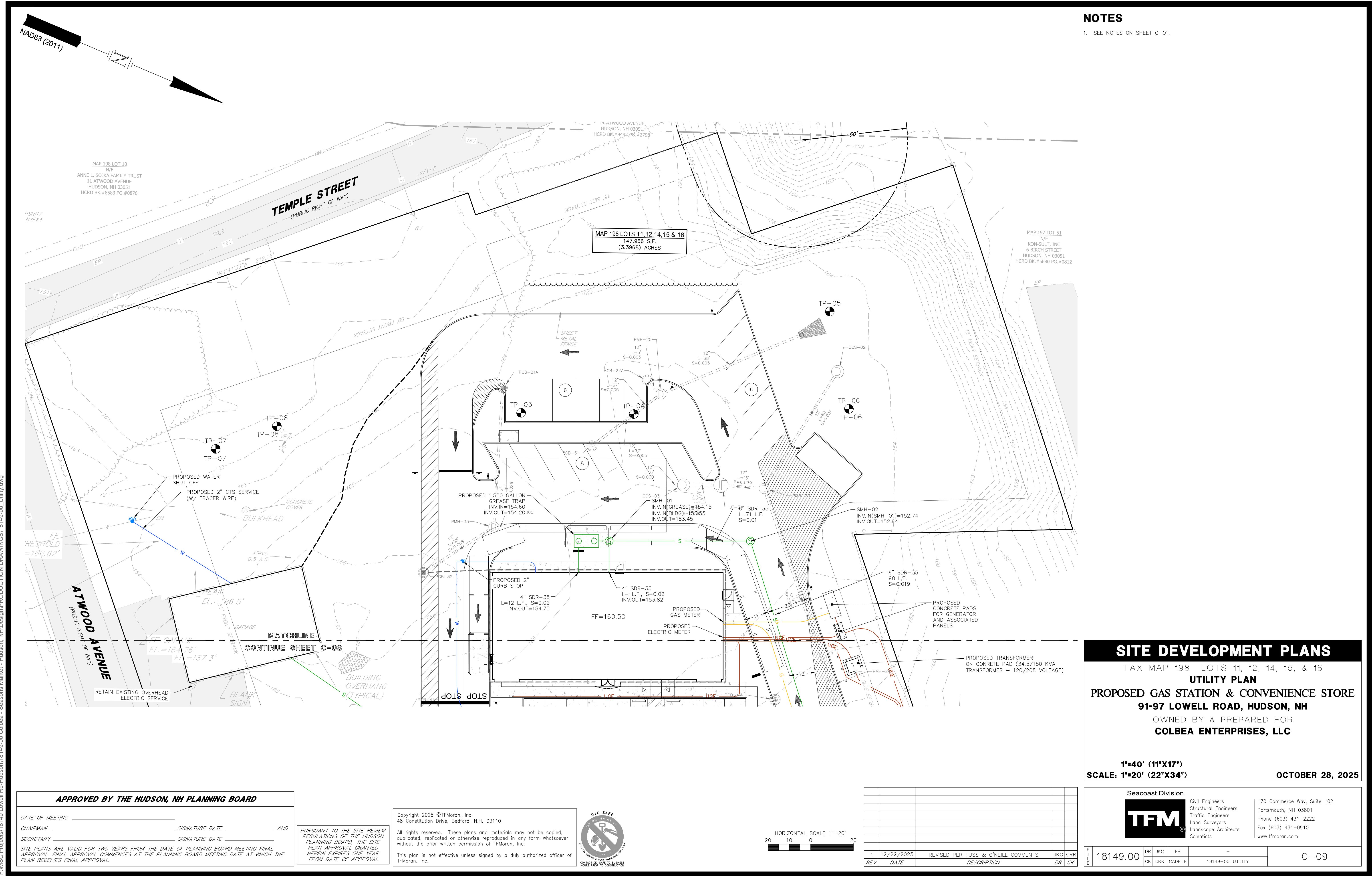
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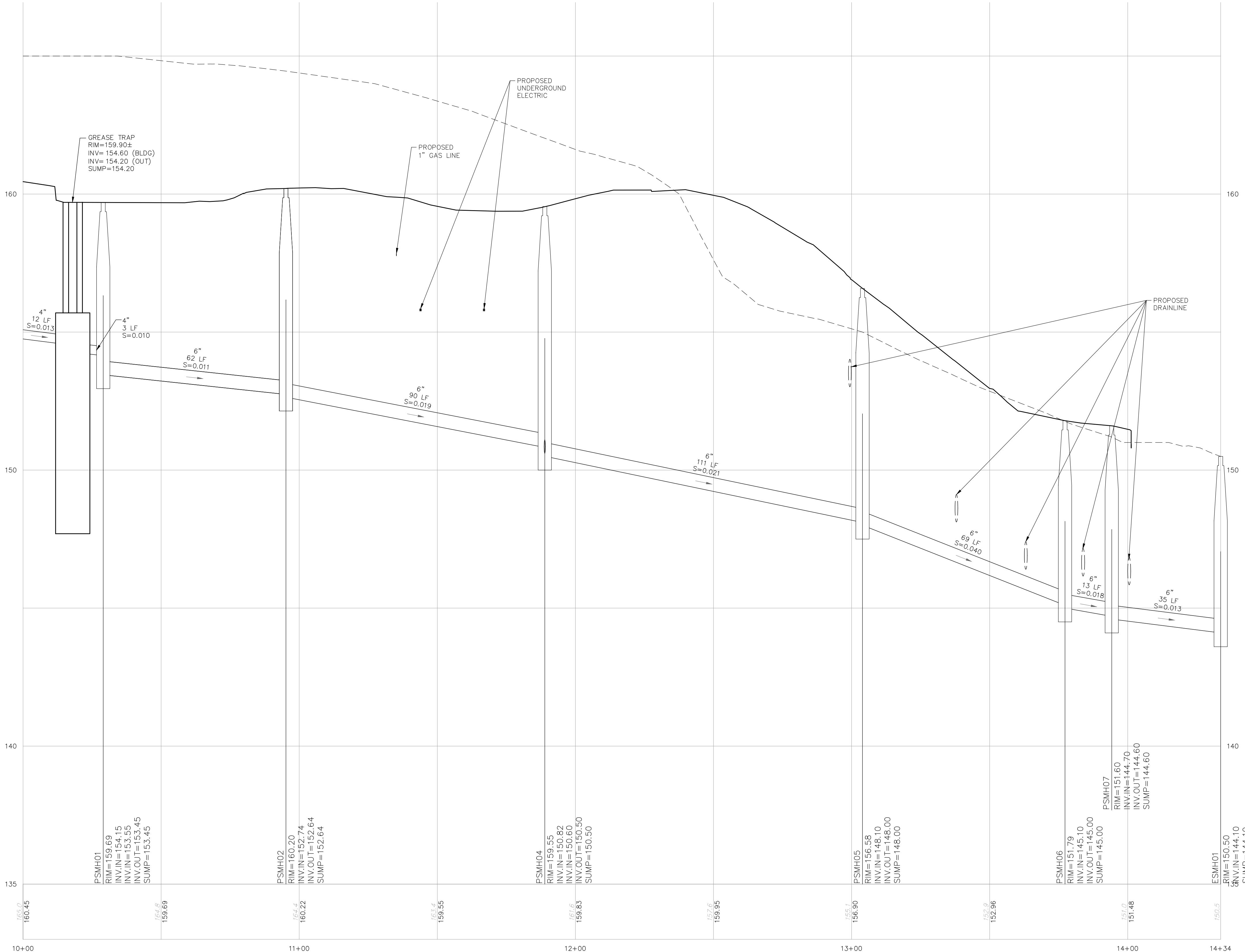
1"=40' (11'X17')
SCALE: 1"=20' (22'X34')

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C-06		



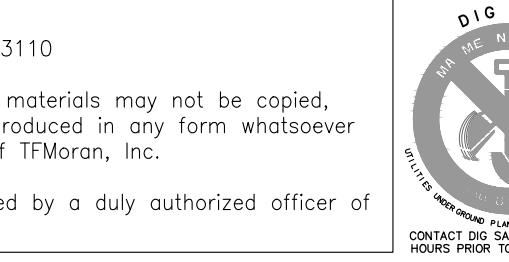




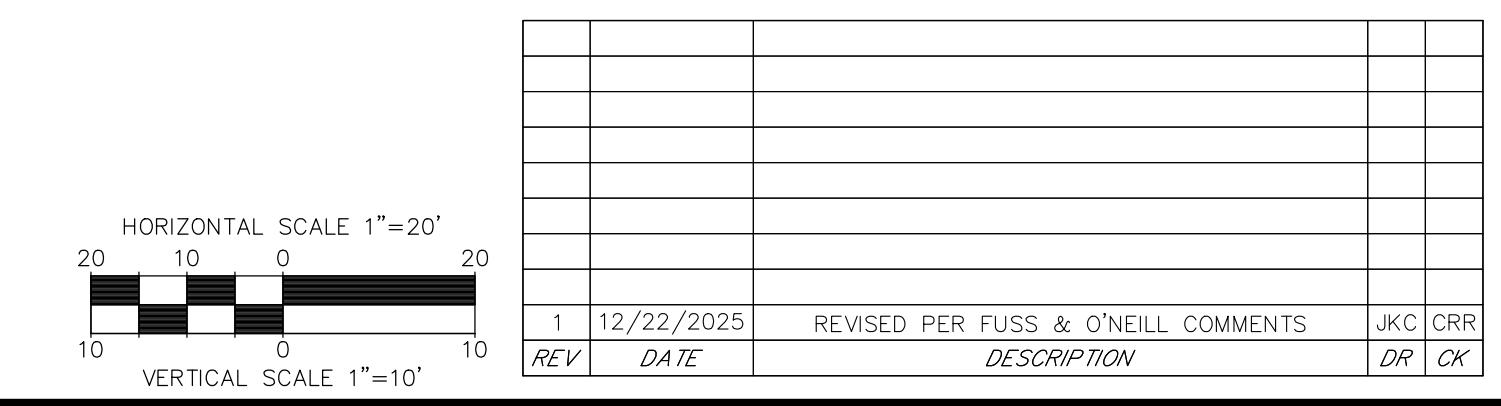
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SECRETARY _____	SIGNATURE DATE _____
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PSW01



SEWER STRUCTURE TABLE

GREASE TRAP RIM=159.90± INV= 154.60 (BLDG) INV= 154.20 (OUT) SUMP=154.20	SMH-04 RIM=160.00± INV=150.82 (IN) INV=150.50 (OUT)	SMH-07 RIM=151.80± INV=144.70 (IN) INV=144.60 (OUT)
SMH-01 RIM=159.90± INV= 154.14 (GREASE) INV= 153.55 (BLDG) INV=153.45	SMH-05 RIM=156.60± INV=148.10 (IN) INV=148.00 (OUT)	SMH-06 RIM=151.40± INV=145.10 (IN) INV=145.00 (OUT)
SMH-02 RIM=160.30± INV=152.74 (IN) INV=152.64 (OUT)		

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

UTILITY PROFILE (SEWER)

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

1"=40' (11'X17')
SCALE: 1"=20' (22'X34')

OCTOBER 28, 2025

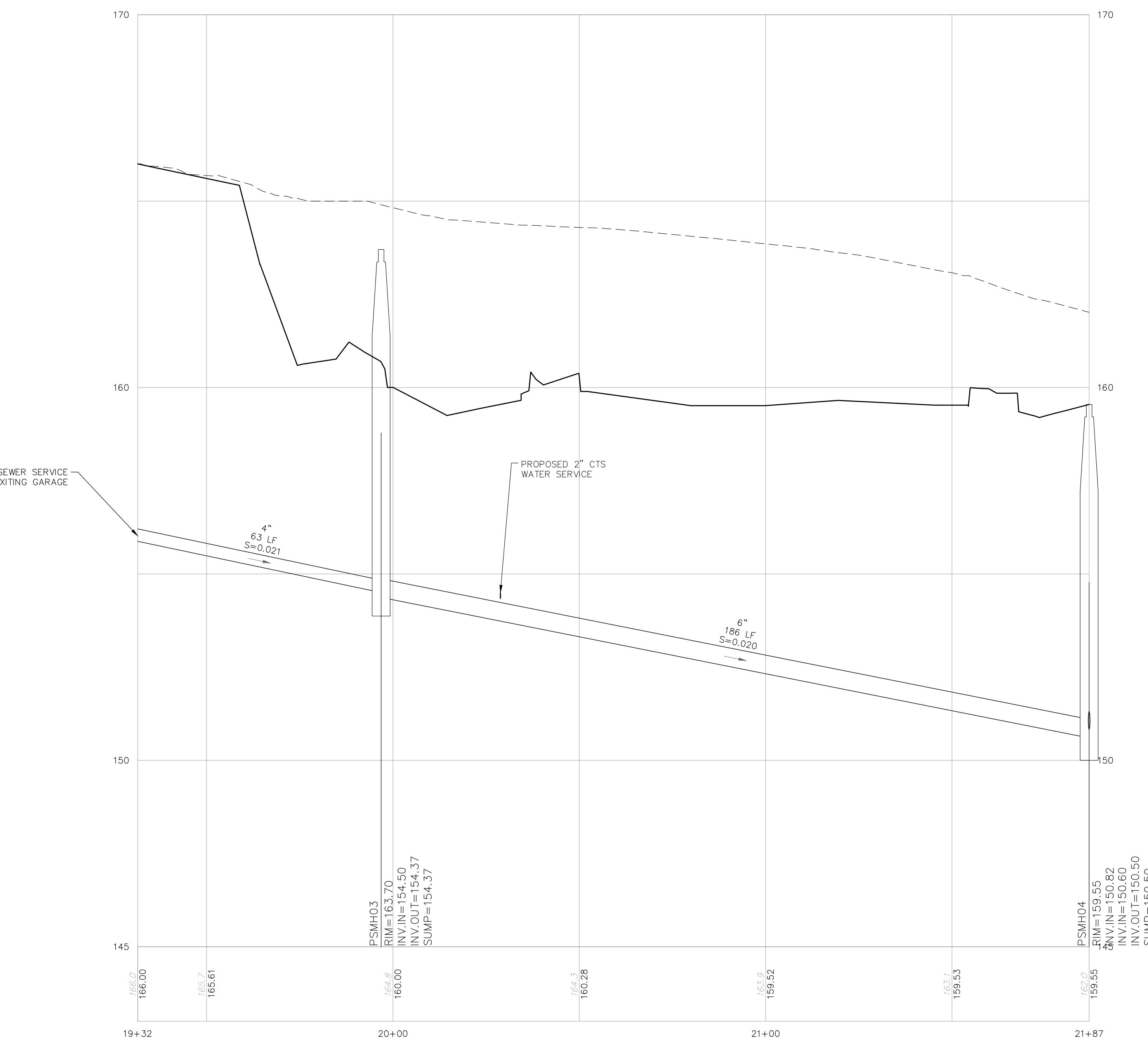
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CK	CRR	CADFILE	18149-00_SEWER PROFILE		C-10A

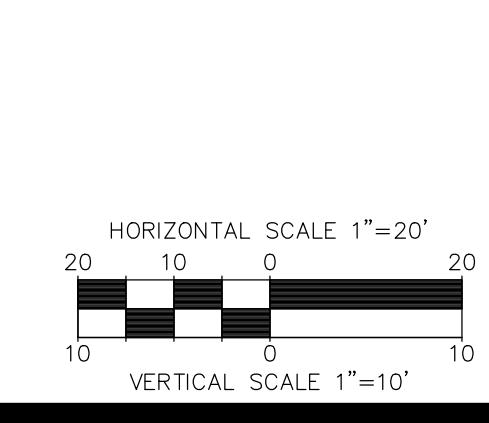


PSW02

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F	18149.00	DR	JKC	FB	-
1	CK	CRR	CADFILE	18149-00_SEWER PROFILE	C-10B

SEWER STRUCTURE TABLE

SMH-03
RIM=160.69±
INV=154.47 (IN)
INV=154.50 (IN)
INV=154.37 (OUT)

SMH-04
RIM=160.00±
INV=150.82 (IN)
INV=150.50 (OUT)

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

UTILITY PROFILE (SEWER)

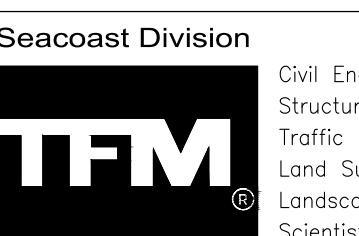
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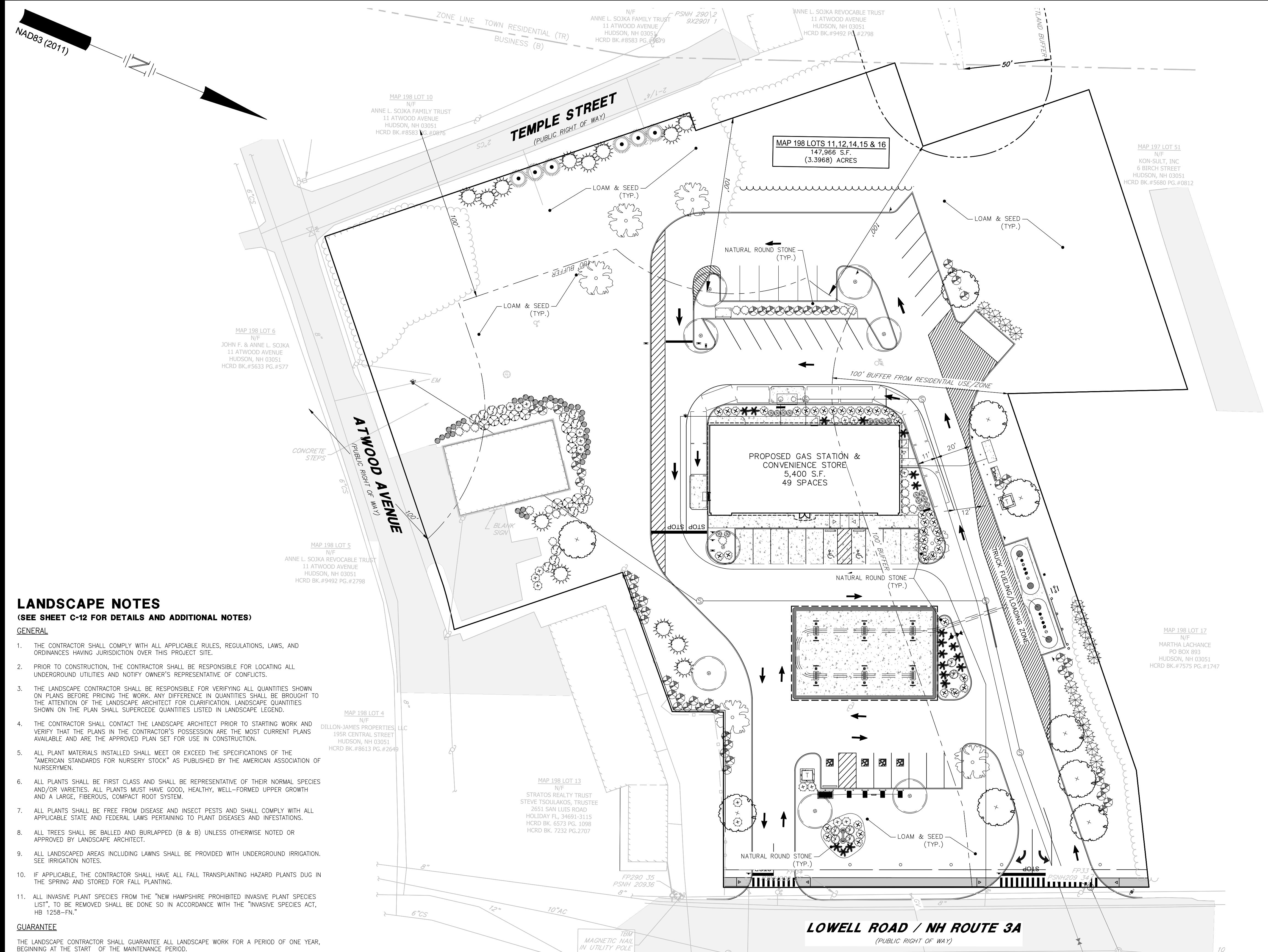
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OCTOBER 28, 2025



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

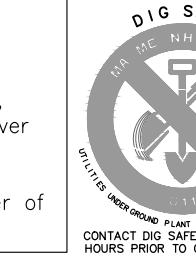
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SECRETARY _____	SIGNATURE DATE _____
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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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12/22/2025

REV

DATE

DESCRIPTION

DR

CK

JKC

CRR

FB

-

DR

CK

18149.00

DR

CRR

CADFILE

18149-00_Landscape

LANDSCAPE LEGEND

SYMBOL (TREES)	QTY	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
	6	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2" TO 3" CAL.	B&B
	9	QUERCUS RUBRA RED OAK	2 1/2" TO 3" CAL.	B&B
	8	ULMUS AMERICANA 'PRINCETON' PRINCETON AMERICAN ELM	2 1/2" TO 3" CAL.	B&B
	6	PICEA GLAUCA WHITE SPRUCE	6' TO 7'	B&B
	13	PINUS STROBOS WHITE PINE	6' TO 7'	B&B
	16	THUJA P. 'GREEN GIANT' WESTERN GREEN GIANT ARBORVITAE	5' TO 6'	B&B
	1	AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY	4' TO 5' MULTI-STEM	B&B
SYMBOL (SHRUBS)	QTY	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
	16	CALAMAGROSTIS A. 'KARL FOERSTER' KARL FOERSTER FEATHER REED GRASS	3 GAL.	CONT.
	36	CEANOTHUS AMERICANUS NEW JERSEY TEA	3 GAL.	CONT.
	11	CLETHRA ALNIFOLIA SUMMERSWEET	3 GAL.	CONT.
	56	FORSYTHIA 'LYNNWOOD GOLD' LYNNWOOD GOLD FORSYTHIA	3 GAL.	CONT.
	18	ILEX G. 'DENSIA' DENSIA INKBERRY	3 GAL.	CONT.
	41	JUNIPERUS H. 'PLUMOSA COMPACTA' YOUNGTOWN JUNIPER	3 GAL.	CONT.
	20	JUNIPERUS C. 'SEAGREEN' SEAGREEN JUNIPER	3 GAL.	CONT.
	6	PINUS MUGO 'PUMILIO' DWARF MUGO PINE	5 GAL.	CONT.
	14	RUBUS ODOARATUS FLOWERING RASPBERRY	3 GAL.	CONT.
	19	SPIRAEA X B. 'ANTHONY WATERER' ANTHONY WATERER SPIREA	3 GAL.	CONT.

LANDSCAPE REQUIREMENTS

- INTERIOR PARKING LANDSCAPE AREA REQUIREMENTS:
(275-8.C7) OF SITE PLAN REG.5)
INTERIOR PARKING LOT: 10% LANDSCAPE AREA REQUIRED.
TOTAL PAVED PARKING AREAS = 35,742 SF (10%) = 3,574 SF
REQUIRED: 3,574 SF
PROVIDED: 5,566 SF (15.6%)
- REQUIRED SHADE TREES: 1 TREE PER 1,600 SF OR 1 TREE PER 5 SPACES, WHICHEVER IS GREATER.
TOTAL PAVED PARKING AREA = 35,742 SF/1,600 SF = 23 TREES
REQUIRED: 23 SHADE TREES
PROVIDED: 23 SHADE TREES
- REQUIRED SHRUBS: 1 SHRUB PER 200 SF OR 1.6 SHRUBS PER 1 SPACE.
TOTAL PARKING = 49 SPACES (1.6) = 88 SHRUBS OR 47,342 SF/200 SF = 237 SHRUBS
REQUIRED: 237 SHRUBS
PROVIDED: 237 SHRUBS

- LANDSCAPE SCREENING REQUIREMENTS:
(275-8.C8) OF SITE PLAN REG.5)
SCREENING SHALL BE PROVIDED FOR VISUAL SEPARATION OF INCOMPATIBLE USES. SCREENING SHALL BE REQUIRED BETWEEN PARKING OR LOADING AREAS AND, IF PRESENT, AN ABUTTING RESIDENTIAL ZONE. SCREENING MAY ALSO BE REQUIRED BETWEEN ABUTTING NONRESIDENTIAL SITES.
PROVIDED: 34 EVERGREEN TREES

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

LANDSCAPE PLAN

PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

1"=60' (11'x17')

SCALE: 1"=30' (22'x34')

OCTOBER 28, 2025

Seacoast Division

Civil Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

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C-11

LANDSCAPE NOTES

SITE AND SOIL PREPARATION

- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR LEDGE, NOTIFY LANDSCAPE ARCHITECT/ENGINEER BEFORE PLANTING.
- ALL DISTURBED AREAS & PLANTING AREAS, INCLUDING AREAS TO BE SODDED, SHALL RECEIVE THE FOLLOWING SOIL PREPARATION PRIOR TO PLANTING: A MINIMUM OF 6 INCHES OF LIGHTLY COMPACTED TOPSOIL SHALL BE INSTALLED OVER THE SUBSOIL IF TOPSOIL HAS BEEN REMOVED OR IS NOT PRESENT.
- LOAM SHALL CONSIST OF LOOSE, FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN TWO INCHES (2") IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.0. LOAM SHALL CONTAIN A MINIMUM OF 50 PERCENT (50%) ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. SOIL TEXTURE SHALL BE SLOW CLAY LOAM OR SANDY LOAM WITH CLAY CONTENT BETWEEN 15 AND 25%, AND A COMBINED CLAY/SILT CONTENT OF NO MORE THAN 55%. NOT MORE THAN SIXTY-FIVE PERCENT (65%) SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE #4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
- NATURAL TOPSOIL NOT CONFORMING TO THE PARAGRAPH ABOVE OR CONTAINING EXCESSIVE AMOUNTS OF CLAY OR SAND SHALL BE TREATED BY THE CONTRACTOR TO MEET THOSE REQUIREMENTS.
- SUBMIT TEST RESULTS OBTAINED FROM SOURCE TO ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL, PRIOR TO SPREADING OPERATIONS.
- APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT TO USE THE TOPSOIL WILL DEPEND UPON THE RESULTS OF THE SOIL TESTS.
- THE BURDEN OF PROOF OF SOIL AMENDMENT INSTALLATION RESTS WITH THE CONTRACTOR. SOIL TESTS MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE IN ORDER TO CONFIRM AMENDMENT INSTALLATION.

SEEDING

- ROUGH GRADING SHALL BE COMPLETED PRIOR TO THE START OF PLANTING IN ANY GIVEN AREA OF THE PROJECT SITE.
- SEEDING SHALL BE DONE BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 15, EXCEPT FOR RESEEDING OF BARE SPOTS AND MAINTENANCE. ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVING OR AREAS THAT HAVE NOT BEEN OTHERWISE DEVELOPED SHALL BE SEDED ON SODDED. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. AFTER OCTOBER 15 DISTURBED SOILS SHALL BE PROTECTED IN ACCORDANCE WITH THE WINTER CONSTRUCTION NOTES.

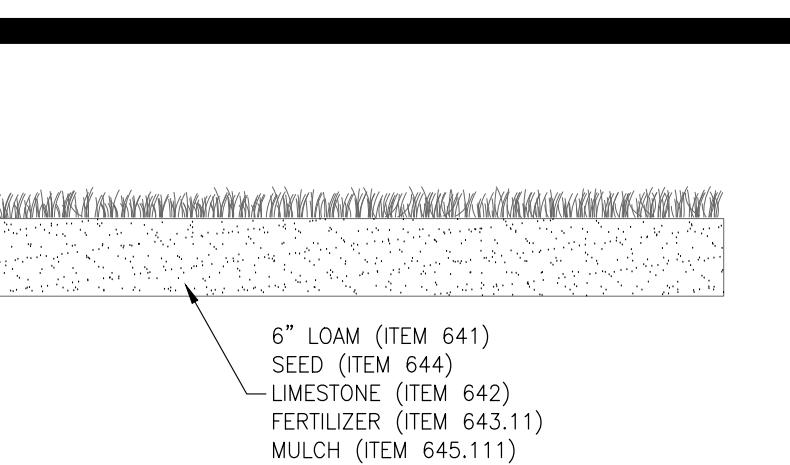
ACCEPTABLE SEED MIXES ARE AS FOLLOWS:

PARK SEED MIX (NHDOT TYPE 44) MIN. 135 LBS/ACRE;
 33% CREEPING RED FESCUE (MIN. 45 LBS/ACRE)
 42% PERENNIAL RYEGRASS (MIN. 55 LBS/ACRE)
 21% KENTUCKY BLUEGRASS (MIN. 30 LBS/ACRE)
 4% REDTOP (MIN. 5 LBS/ACRE)

TEMPORARY LAWN MIX: (MIN. 47 LBS/ACRE)
 100% ANNUAL RYE

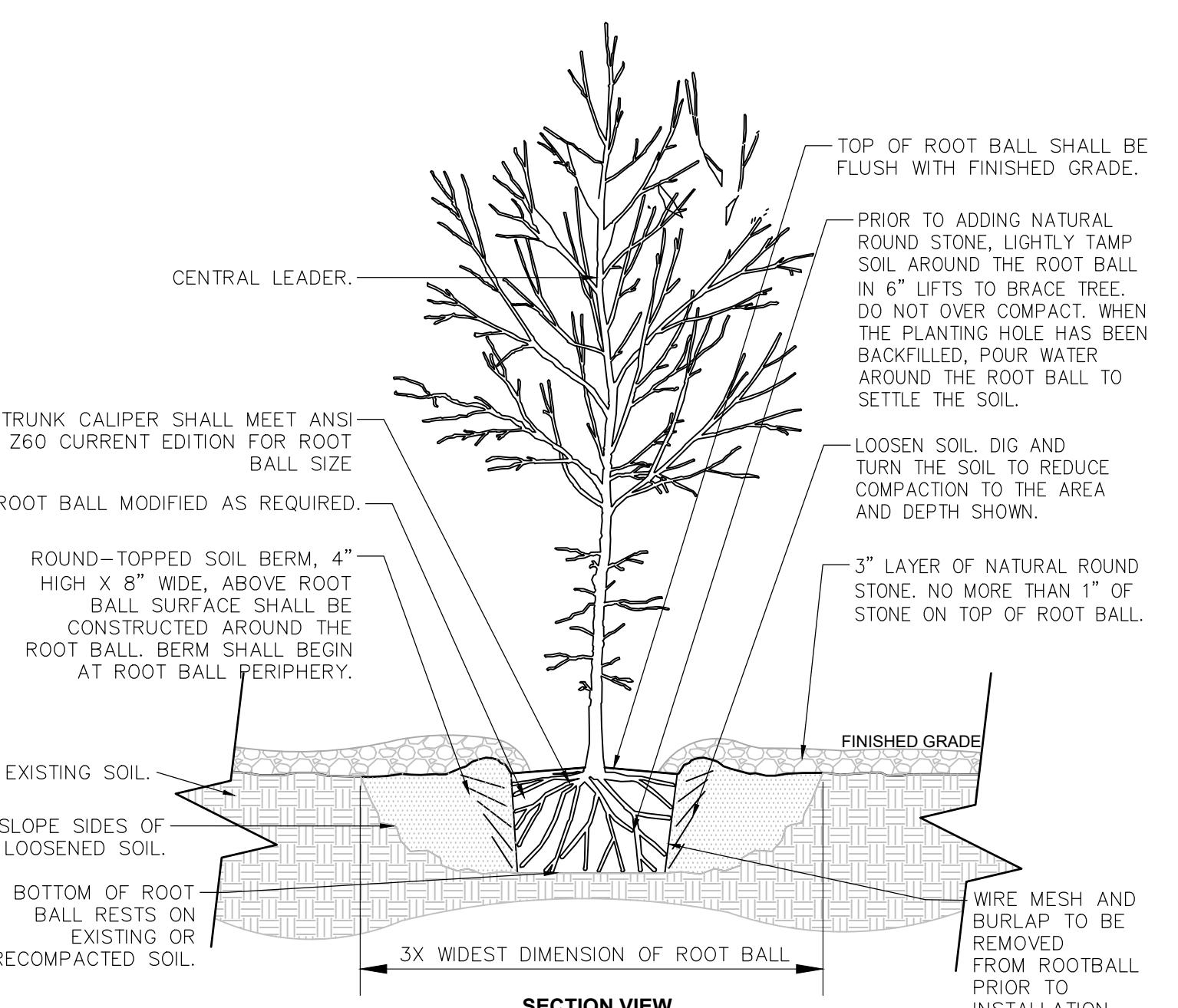
PLANTING

- EXCAVATE PITS, PLANTERS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
- ANY LEDGE OR RUBBLE MATERIAL SHALL BE FRACTURED TO A DEPTH OF 3 FEET AND EXCAVATED TO A DEPTH OF 30 INCHES FOR TREE POCKETS AND 18 INCHES FOR SHRUB BEDS. THIS PROCEDURE SHALL BE HANDLED BY THE SITE CONTRACTOR. SITE SOIL SHALL BE DEPOSITED IN ALL EXCAVATED POCKETS.
- DISPOSE OF SUBSOIL REMOVED FROM PLANTING EXCAVATIONS. DO NOT MIX WITH PLANTING SOIL OR USE AS BACKFILL.
- FILL EXCAVATIONS FOR TREES AND SHRUBS WITH WATER AND ALLOW TO PERCOLATE OUT BEFORE PLANTING.
- TREEGATOR WATERING SYSTEM OR APPROVED EQUAL SHALL BE INSTALLED FOR ALL DECIDUOUS TREES AT TIME OF PLANTING AND REMOVED BEFORE FROST. WATERING RATE TO BE APPLIED PER MANUFACTURER'S SPECIFICATIONS.
- ALL PLANT MATERIALS SHALL HAVE DEAD OR DAMAGED BRANCHES REMOVED AT TIME OF PLANTING. ALL TAGS AND RIBBONS SHALL BE REMOVED AT THIS TIME.
- THE CONTRACTOR SHALL REQUEST A FINAL OBSERVATION BY THE OWNER'S REPRESENTATIVE UPON COMPLETION OF INSTALLATION.



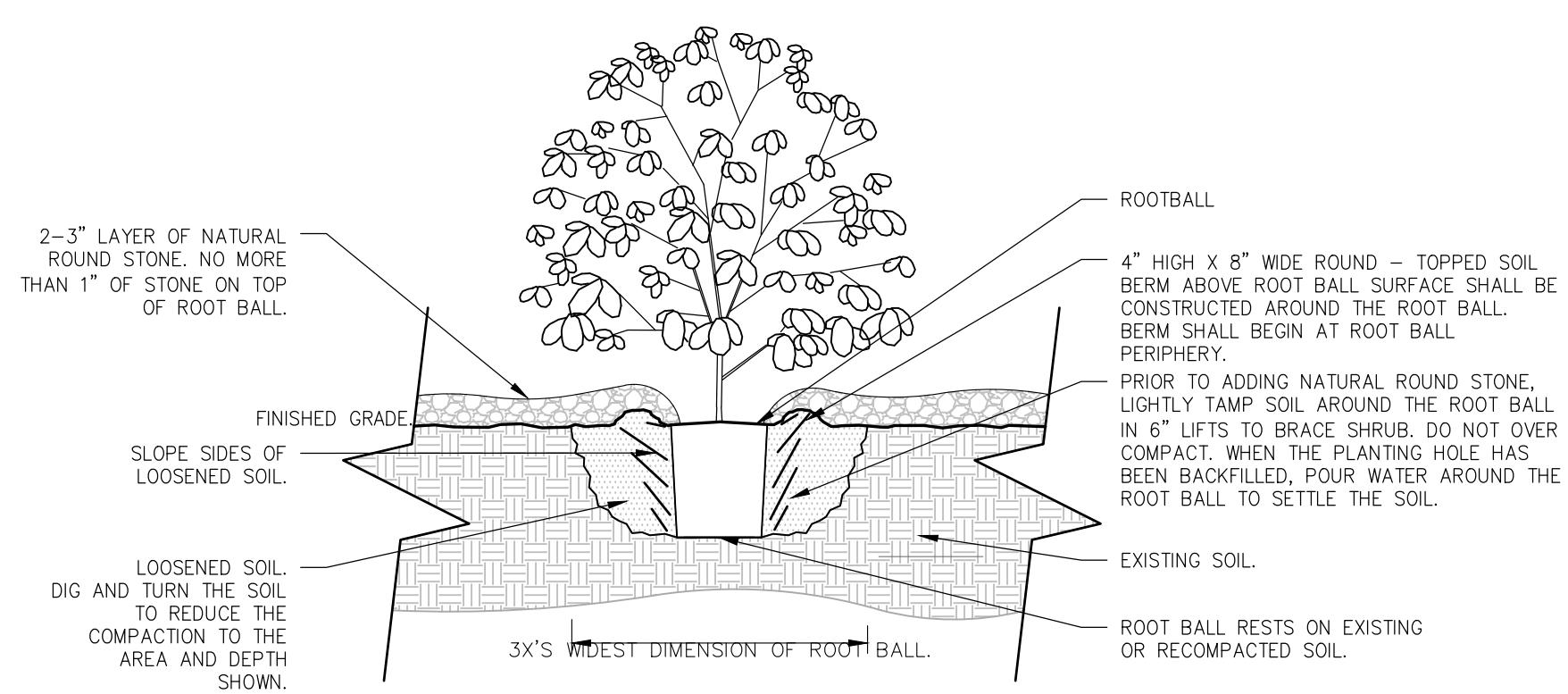
LOAM & SEED

NOT TO SCALE



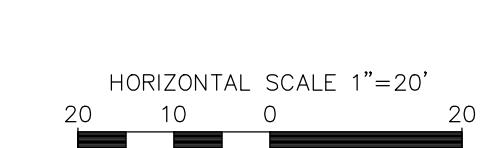
TREE PLANTING DETAIL

NOT TO SCALE



SHRUB PLANTING

NOT TO SCALE



HORIZONTAL SCALE 1"=20'

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING _____
 CHAIRMAN _____ SIGNATURE DATE _____ AND
 SECRETARY _____ SIGNATURE DATE _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

LANDSCAPE DETAILS

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
 COLBEA ENTERPRISES, LLC

SCALE: NTS

OCTOBER 28, 2025

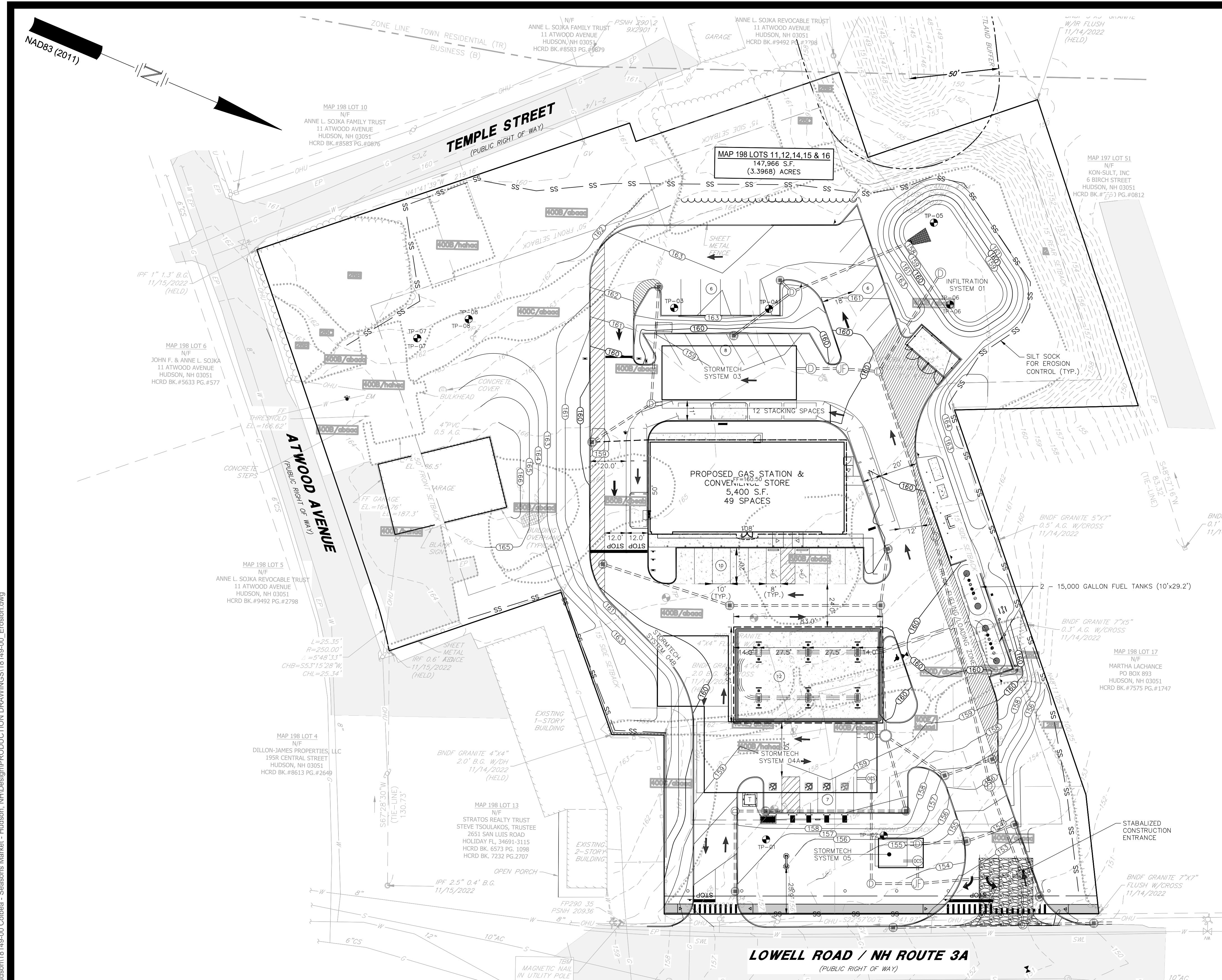


Civil Engineers
 Structural Engineers
 Traffic Engineers
 Land Surveyors
 Landscape Architects
 Scientists

170 Commerce Way, Suite 102
 Portsmouth, NH 03801
 Phone (603) 431-0910
 Fax (603) 431-0910
 www.tfmoran.com

1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR
REV	DATE	DESCRIPTION	DR	CK

FILE	18149.00	DR	JKC	FB	-
CK	CRR	CADFILE	18149-00_Landscape		C-12



NOTES

- SEE NOTES ON SHEET C-01, EROSION CONTROL NOTES ON SHEET C-15, EROSION CONTROL DETAILS, AND THE APPROVED SWPPP, AS APPLICABLE.
- INSTALL SILT BARRIER ALONG THE PERIMETER OF THE AREA TO BE DISTURBED AS FIRST ORDER OF WORK.
- PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS, AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED. INLET PROTECTION BARRIERS SHALL BE IN PLACE AT ALL CATCH BASINS PRIOR TO THE DISTURBANCE OF SOIL.
- DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IT SHALL BE ACCOMPLISHED BY THE UNIFORM APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF 1-1/2 POUNDS PER SQUARE YARD BY MEANS OF A LIME SPREADER OR OTHER APPROVED METHOD. WATER MAY ALSO BE USED FOR DUST CONTROL, AND APPLIED BY SPRINKLING WITH WATER TRUCK DISTRIBUTORS, AS REQUIRED.
- THE SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION IF THE DISTURBANCE EXCEEDS ONE ACRE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA REGULATIONS, AND THE CONSTRUCTION GENERAL PERMIT WHICH SHALL REQUIRE THE SITE OWNER AND CONTRACTOR TO PURSUE THE SITE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN ENO AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE FOR, OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- SILT PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS CONTAINED IN THIS PLAN SET.
- CONSTRUCT JUTE MATTING ON ALL SLOPES STEEPER THAN 3:1, DISTURBED AREAS SLOPING TOWARDS WETLANDS AND ALL LOCATIONS SHOWN ON PLAN.
- INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN STORM OF 0.10" OR GREATER. REPAIR/MODIFY SILT BARRIER AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REMOVE SEDIMENT WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
- PROVIDE SILT BARRIERS AT THE BASE OF CUT AND FILL SLOPES UNTIL COMPLETION OF THE PROJECT OR UNTIL VEGETATION BECOMES ESTABLISHED ON SLOPES. EROSION PROTECTION BELOW FILL SLOPES SHALL BE PLACED IMMEDIATELY AFTER CLEARING, PRIOR TO EMBANKMENT CONSTRUCTION.
- ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SEDED WITHIN 72 HOURS AFTER GRADING.
- ALL WORK AREAS TO BE STABILIZED AT THE END OF EACH WORK DAY AND PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, ARE INSTALLED IN AREAS TO BE PAVED
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- ALL CATCH BASINS, MANHOLES, AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER ALL AREAS HAVE BEEN STABILIZED.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY DURING CONSTRUCTION.
- THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

EROSION CONTROL PLAN

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

SCALE:

OCTOBER 28, 2025

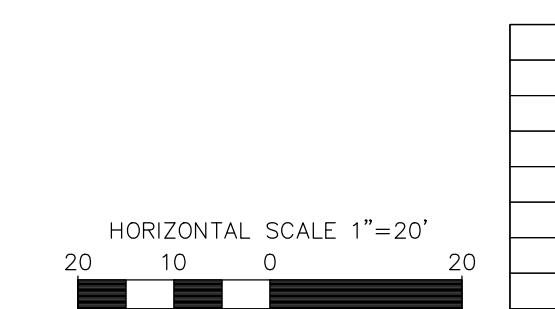
APPROVED BY THE HUDSON, NH PLANNING BOARD	
DATE OF MEETING	SIGNATURE DATE
CHAIRMAN	SIGNATURE DATE
SECRETARY	SIGNATURE DATE
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.	

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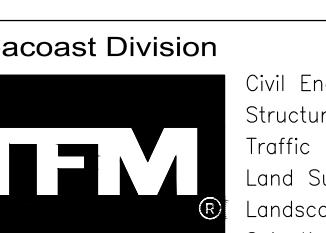
This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.

DIG SAFE
DO NOT DIG IN THIS AREA
THERE IS A PLANE FLYING OVER THIS AREA
CONTACT TFMORAN 72 BUSINESS HOURS PRIOR TO CONSTRUCTION



REV	DATE	REvised per Fuss & O'Neill Comments	JKC	CRR
1	12/22/2025			

1	18149.00	DR	JKC	FB	-
		CK	CRR	CADFILE	18149-00_EROSION



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C-13

SOIL CHARACTERISTICS

THE SOIL IN THE VICINITY OF THE SITE CONSIST OF WINDSOR LOAMY SAND, THE MAJORITY OF THE SOIL IS HSG TYPE A. DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 126,438 SQUARE FEET (2.86 ACRES) AND AN ADDITIONAL 6,600 S.F. (.15 ACRES) FOR OFF-SITE IMPROVEMENTS. THIS TOTAL DOES NOT INCLUDE DISTURBANCE RELATED TO OFF-SITE DRAINAGE IMPROVEMENTS. CONSTRUCTION SHALL BE PHASED TO LIMIT DISTURBED AREAS TO LESS THAN 5 ACRES. CONSTRUCTION IS EXPECTED TO TAKE 6-9 MONTHS. THE TIMELINE OF CONSTRUCTION HAS YET TO BE DETERMINED.

Critical Note: This drawing is provided for general guidance. All special erosion control measures must be executed in accordance with applicable current state and local regulations, approved SWPPP, and permit requirements.

SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL PERIMETER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, AND TEMPORARY EROSION CONTROL MEASURES PER APPROVED SITE DEVELOPMENT PLANS, PERMITS, OR SWPPP IF REQUIRED, PRIOR TO EARTH MOVING OR OFF-SITE IMPROVEMENTS.
2. DEMOLISH EXISTING SITE WORK DESIGNATED FOR REMOVAL.
3. INSTALL STORMWATER TREATMENT PONDS AND SWALES BEFORE ROUGH GRADING THE SITE.
4. COMPLETE MAJOR GRADING OF SITE.
5. CONSTRUCT BUILDING PAD, STORMWATER SYSTEM, AND SITE UTILITIES.
6. CONSTRUCT PARKING AREAS.
7. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE ALL INLET PROTECTION, SILT BARRIERS, AND SEDIMENT THAT HAS BEEN TRAPPED BY THESE DEVICES.
8. CONSULT APPLICABLE REGULATIONS, PERMITS, CONDITIONS, AND APPROVED SWPPP FOR CONDITIONS RELATED TO NOTICE OF TERMINATION, IF REQUIRED.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL 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. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

1. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION 2016, ITEM 304.2, HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

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 BARRIERS. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIPRAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE EROSION VELOCITIES ARE ENCOUNTERED.

OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

INSTALLATION, MAINTENANCE, AND INSPECTION OF EROSION AND SEDIMENT CONTROLS**A. GENERAL**

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

1. STABILIZATION OF ALL SWALES, DITCHES, AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
2. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDED AT ONE TIME. (5 AC MAX)
3. ALL CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH APPLICABLE REGULATIONS, PERMITS, AND CONDITIONS AND FOR PROJECTS REQUIRING AN NHDES AOT PERMIT AND NHPDDES EPA GCP, DISCHARGING TO A SENSITIVE WATERBODY, AT LEAST EVERY 7 DAYS AND AFTER A 0.25 INCH RAIN EVENT OR GREATER, AND INSPECTIONS SHALL BE CONDUCTED BY THE ENVIRONMENTAL MONITOR IF ONE IS REQUIRED, PURSUANT TO ENV-WQ 1505.03(B).
4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT BARRIER WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE BARRIER.
6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING AN ENVIRONMENTAL MONITOR, IF ONE IS REQUIRED, PURSUANT TO ENV-WQ 1505.03(B), IS CONTRACTED.

B. FILTERS / BARRIERS**1. SILT SOCKS**

A. KNOTTED MESH NETTING MATERIAL SHALL BE DELIVERED TO SITE IN A 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" MATERIAL, FILLED WITH COMPOST CONFORMING TO THE FOLLOWING REQUIREMENTS:

PHYSICAL PROPERTY	TEST	REQUIREMENTS
PH	TMCC 04.11-A	5.0 TO 8.0

PARTICLE SIZE	TMCC 02.02-B	2" SIEVE AND MIN. 60% GREATER THAN THE 8" SIEVE
---------------	--------------	---

MOISTURE CONTENT	STND TESTING	< 60%
------------------	--------------	-------

MATERIAL SHALL BE RELATIVELY FREE OF INERT OR FOREIGN MAN-MADE MATERIALS

MATERIAL SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, FREE FROM ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH.

- B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SILT SOCK.
- C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

2. SEQUENCE OF INSTALLATION

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

3. MAINTENANCE

- A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.

- B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING _____

CHAIRMAN _____ SIGNATURE DATE _____ AND

SECRETARY _____ SIGNATURE DATE _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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NOTICE: THIS PLAN IS NOT VALID UNTIL APPROVED BY THE PLANNING BOARD. CONTACT TFMORAN, INC. 100 BUSINESS HOURS PRIOR TO CONSTRUCTION

LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

- C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEADED.

C. MULCHING**1. TIMING**

IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:

- A. APPLY MULCH PRIOR TO ANY STORM EVENT.

THIS IS APPLICABLE WHEN WORKING WITHIN 100' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.

- B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF THE YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

3. MAINTENANCE

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.

D. VEGETATIVE PRACTICE

1. AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE SHALL BE AT A DEPTH OF 4", THEN FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THE PLANS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND REROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY THE SITE SUBCONTRACTOR.
2. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER, AND OTHER FOREIGN MATERIAL, AS WELL AS STONES OVER 1" IN DIAMETER, SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.
3. THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS, AND GRADING TO ELIMINATE WATER POCKETS AND IRRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRRREGULARITIES TO LOW POINTS.
4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.
5. ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEDED.
6. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
7. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
8. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.
9. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKER. IMMEDIATELY BEFORE SOWING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4" AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.
10. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SOWING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.
11. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEDED, AND ALL NOXIOUS WEEDS REMOVED.
12. THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.

13. UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK. IN NO CASE SHALL THE SEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. FOR TEMPORARY PLANTINGS AFTER SEPTEMBER 30, TO EARLY SPRING AND FOR TEMPORARY PROTECTION OF DISTURBED AREAS:

- A. FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS.
- B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

WINTER RYE (FALL SEEDING)	2.5 LBS/1,000 SF
OATS (SPRING SEEDING)	2.0 LBS/1,000 SF
MULCH	1.5 TONS/ACRE

E. CATCH BASIN INLET PROTECTION**1. INLET BASKET STRUCTURE**

- A. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO DISTURBING PAVEMENT AND SHALL REMAIN IN PLACE AND MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

- B. MOLD 6X6, 42 LB. WIRE SUPPORT AROUND INLET FRAME AND GRATE AND EXTEND 6" BEYOND SIDES. SECURE FILTER FABRIC TO WIRE SUPPORT.

- C. THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:

GRAB STRENGTH: 45 LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682)
MULLEN BURST STRENGTH: MIN. 60PSI (ASTM D774)

- D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 GPM.

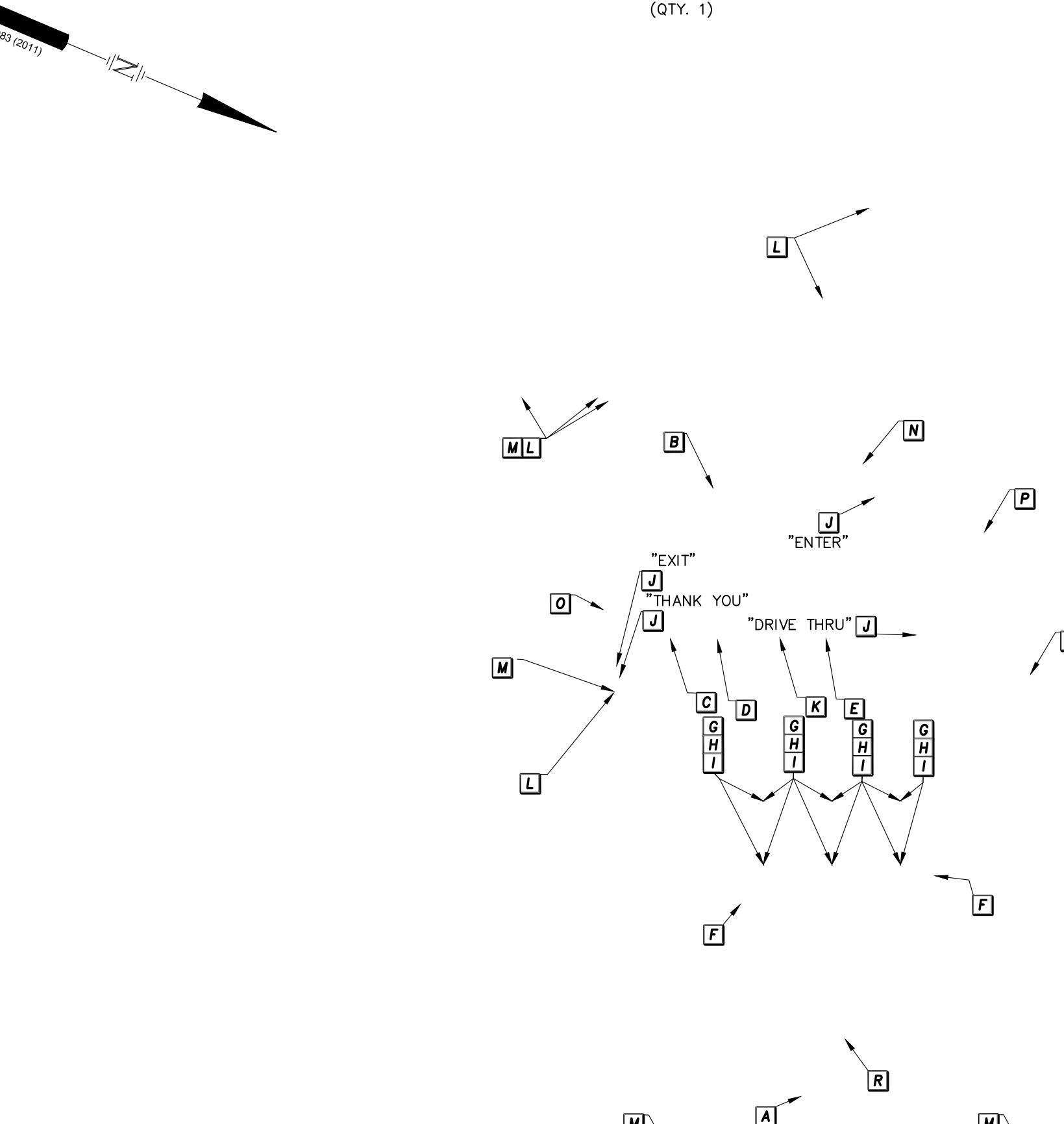
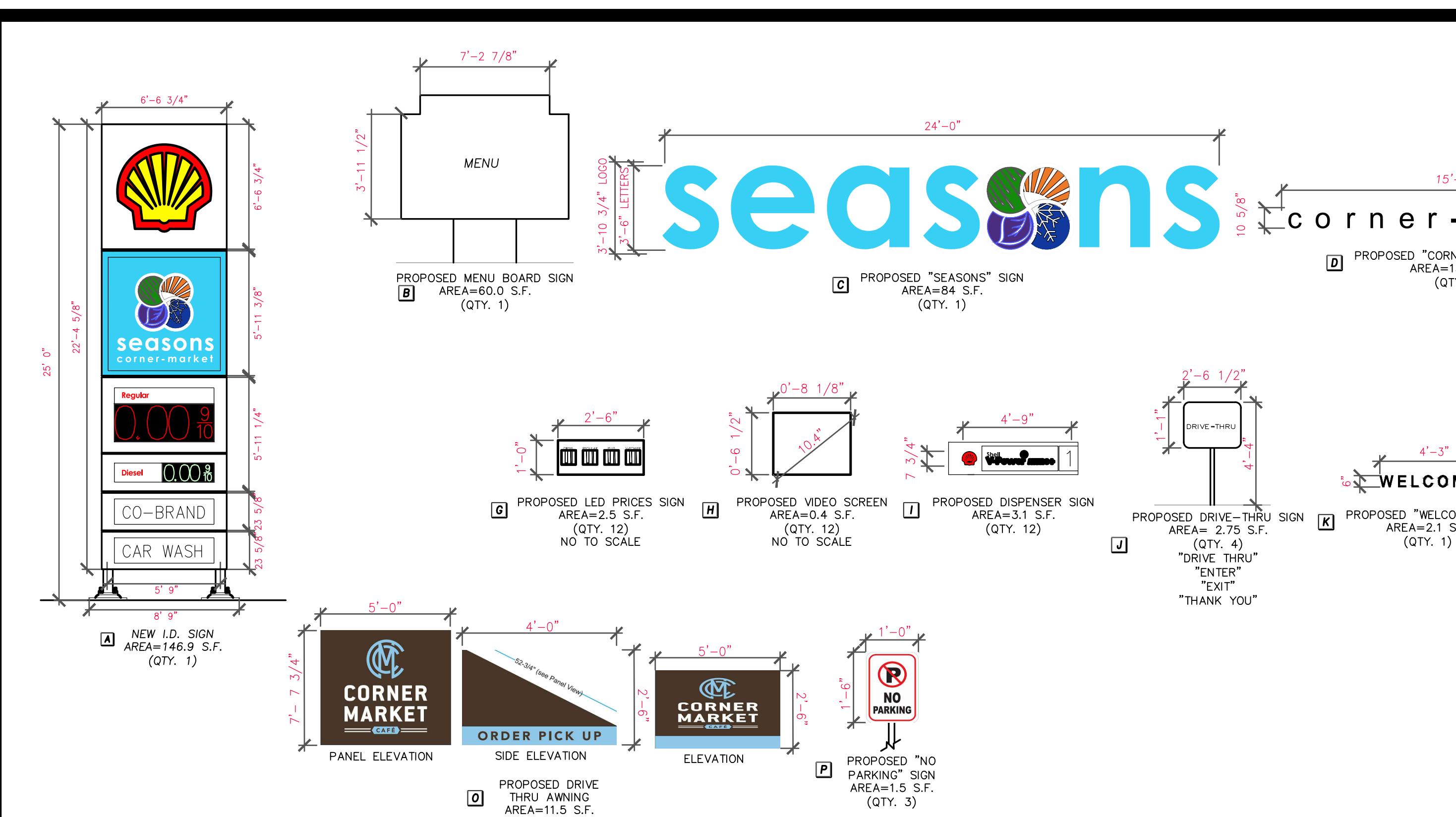
- E. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.

- F. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

F. WINTER CONSTRUCTION SEQUENCE

1. ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, 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 PLACEMENT 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 EVENT.

2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH



SITE PLAN

APPROVED BY THE HUDSON, NH PLANNING BOARD

PURSUANT TO THE SITE REVIEW
REGULATIONS OF THE HUDSON
PLANNING BOARD, THE SITE
PLAN APPROVAL GRANTED
HEREIN EXPIRES ONE YEAR
FROM DATE OF APPROVAL

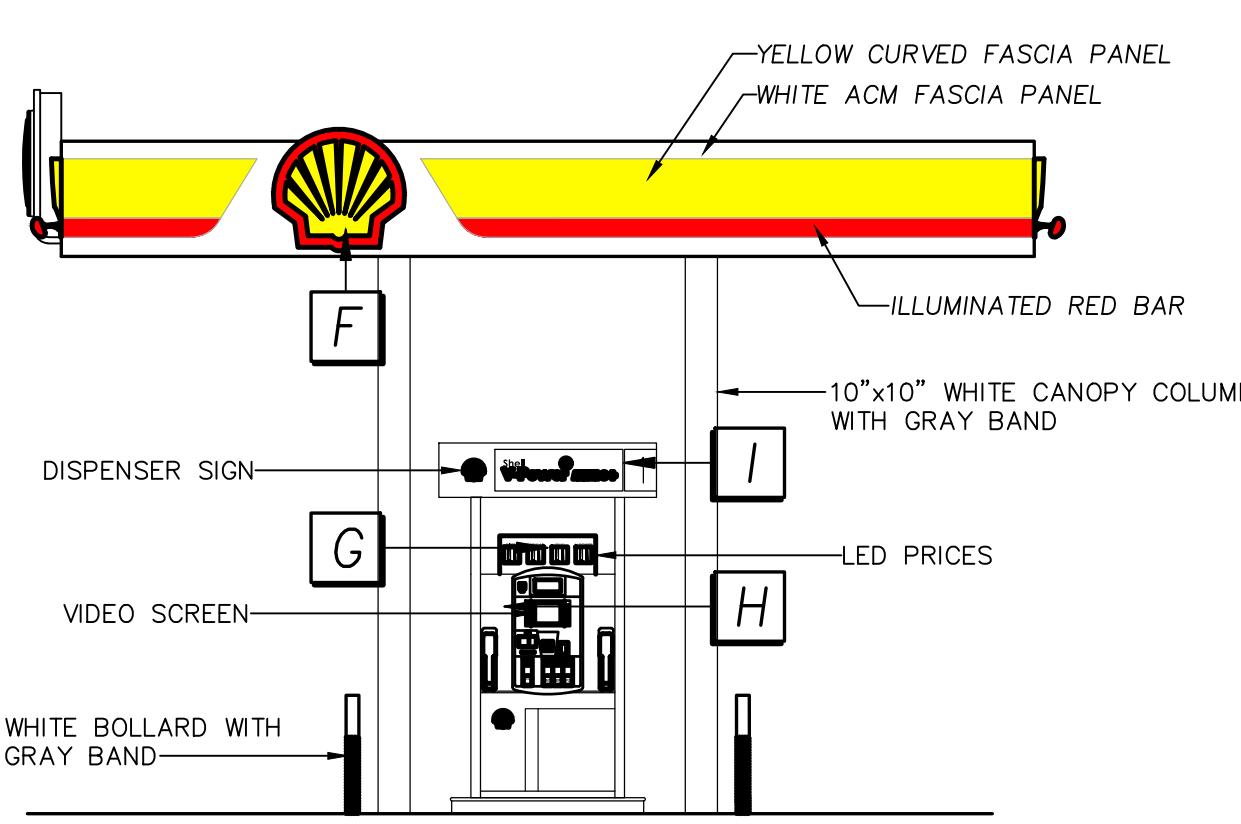
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ed in any form whatsoever
oran, Inc.

R PROPOSED CHARGING BAY SIGN
(NON-ILLUMINATED)
AREA=17.2 S.F.
(QTY. 1)

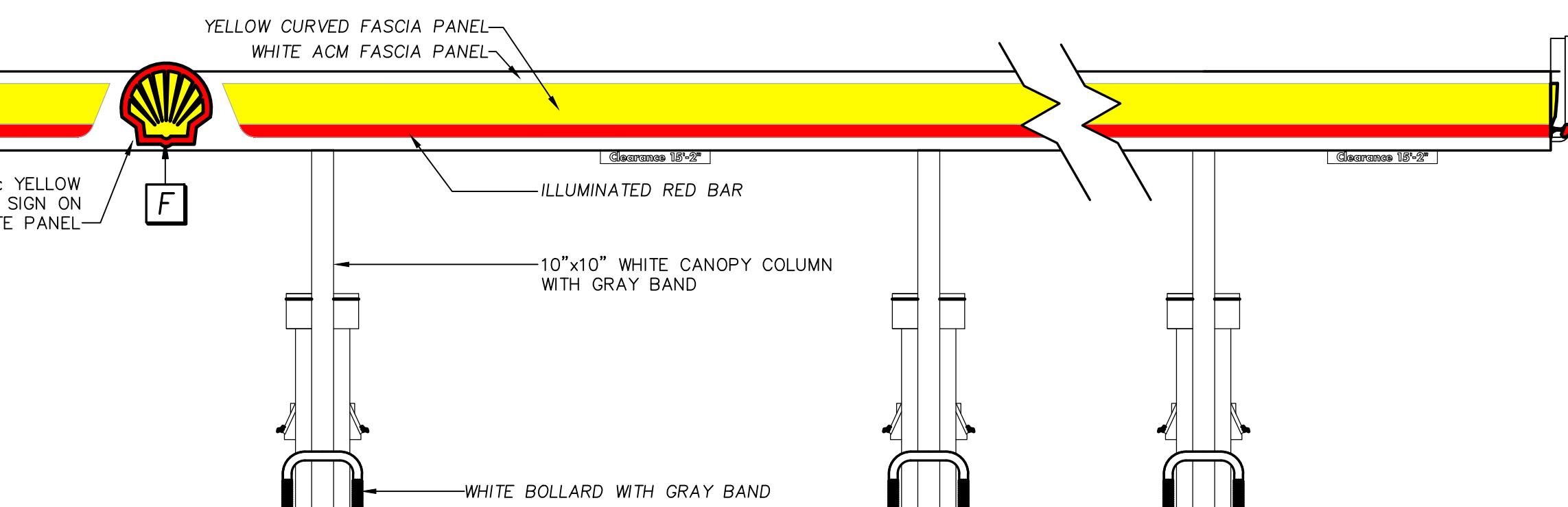
PROPOSED NORTH CANOPY ELEVATION

SCALE: $3/16'' = 1'-0''$



PROPOSED EAST CANOPY ELEVATION

SCALE: 3/16"=1'-0"



SITE DEVELOPMENT PLANS

AX MAP 198 | OTS 11 12 14 15 & 16

GNAGE PLAN & ELEVATIONS

PROPOSED GAS STATION & CONVENIENCE STORE

97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

CALE: NTS

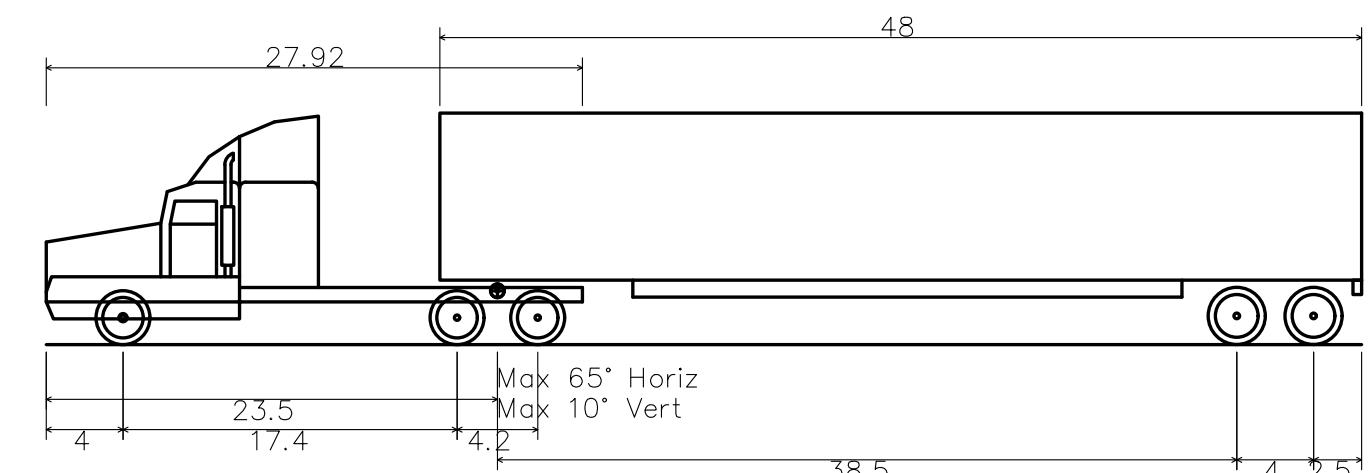
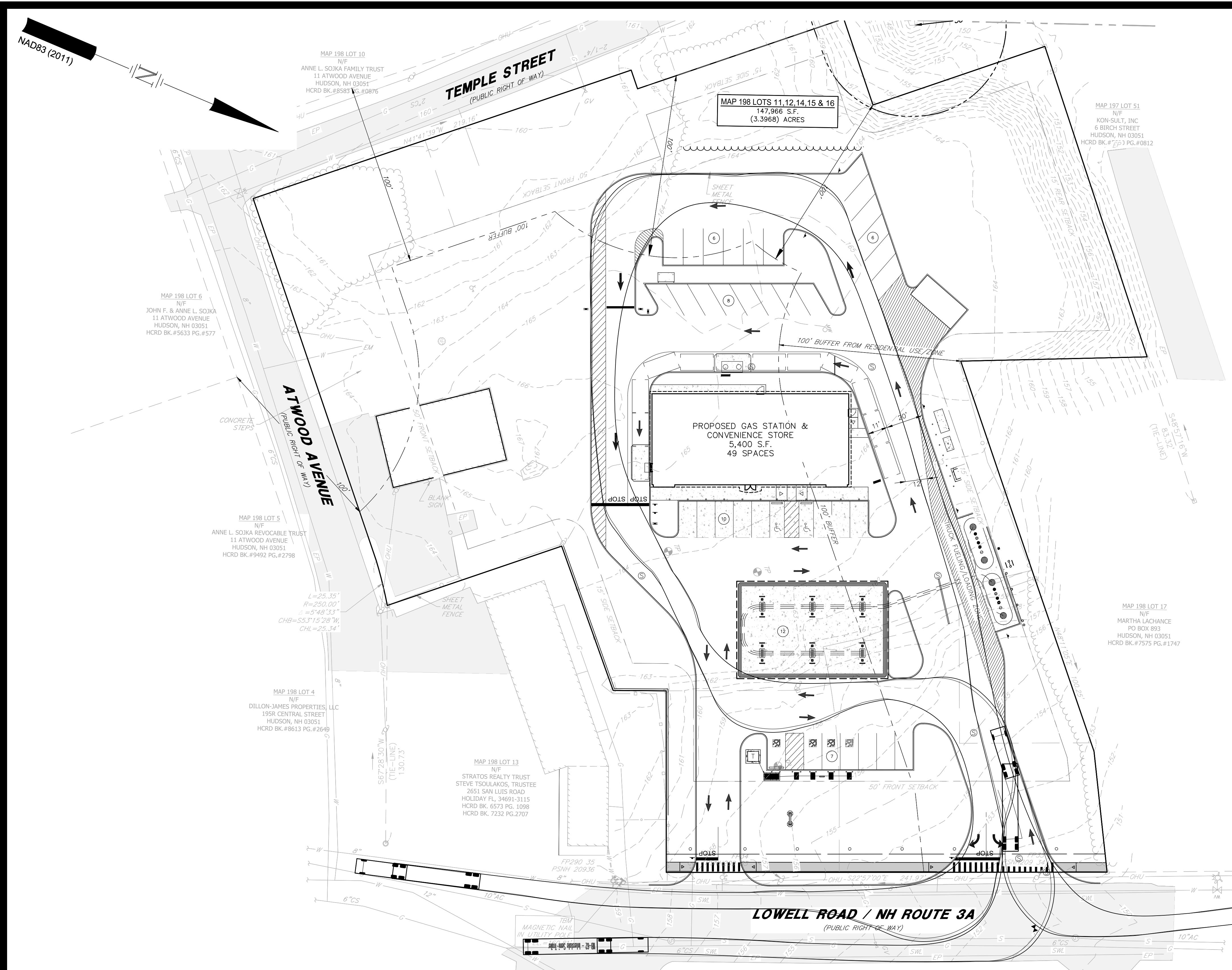
APRIL 18, 2024



Engineers
al Engineers
Engineers
urveyors
pe Architects
ts

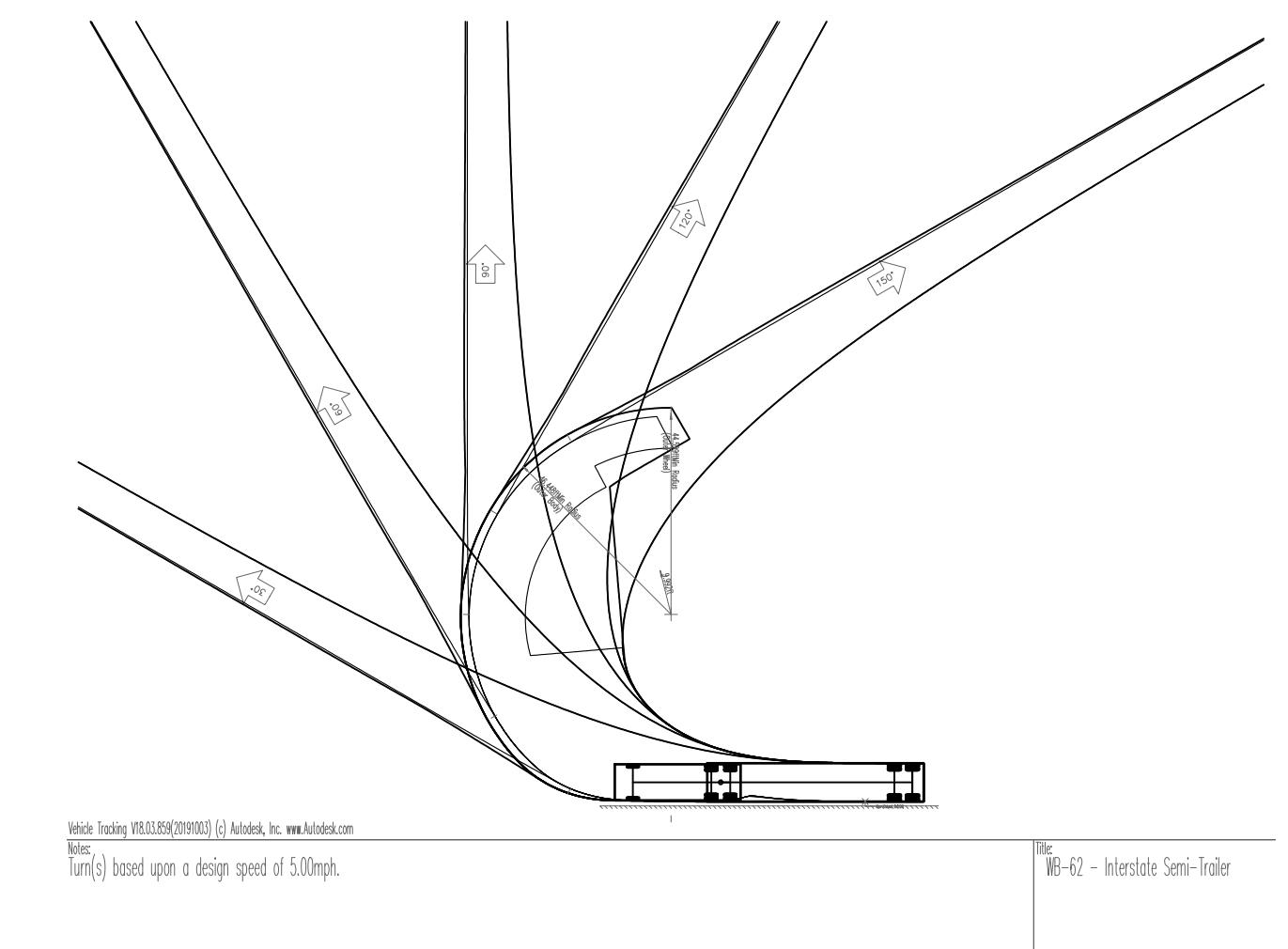
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

-	C-15
18149-00_SIGN	



WB-62 – Interstate Semi-Trailer
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock-to-lock time
Max Steering Angle (Virtual)

68.500ft
8.500ft
12.052ft
1.334ft
8.500ft
6.00s
28.40°



SITE DEVELOPMENT PLANS

AX MAP 198 LOTS 11, 12, 14, 15, & 16

-62 TRUCK MOVEMENT PLAN

**PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC**

60' (11" x 17")
30' (22" x 34")

OCTOBER 28, 2025

APPROVED BY THE HUDSON, NH PLANNING BOARD

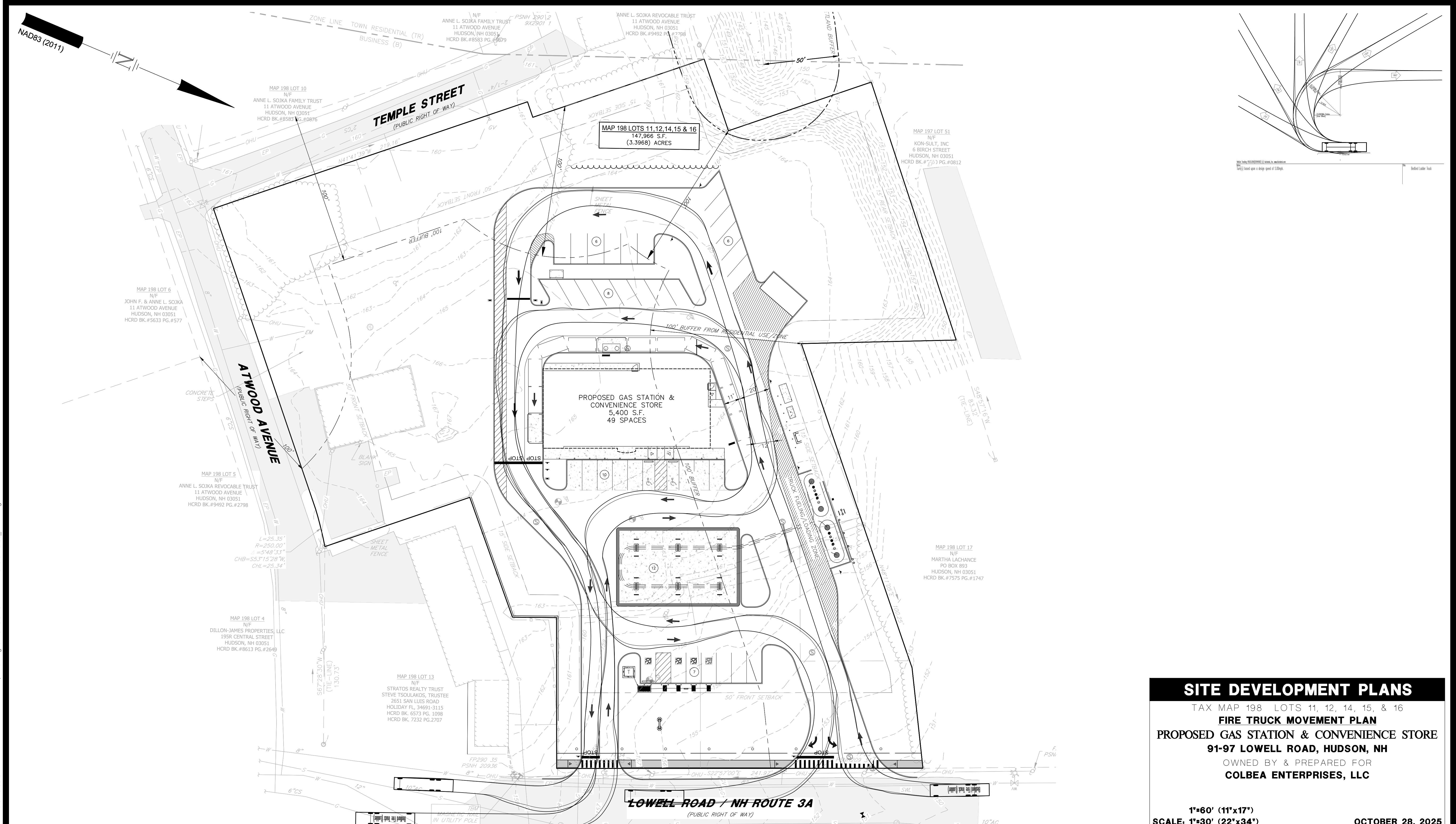
<p><i>PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL</i></p>	<p>Copyright 2025 ©TFMoran, Inc. 48 Constitution Drive, Bedford, N.H. 03110</p> <p>All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of TFMoran, Inc.</p> <p>This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.</p>
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Civil Engineers
Structural Engineers
Traffic Engineers
and Surveyors
Landscape Architects
Scientists

Commerce Way, Suite 102
Ltsmouth, NH 03801
ne (603) 431-2222
(603) 431-0910
y tfmorgan.com

E:\MSC Projects\18149 Lowell Rd-Hudson\18149-00 Colbea - Seasons Market - Hudson. NH\Design\PRODUCTION DRAWINGS\18149-00 Truck dwa



ITE DEVELOPMENT PLANS

X MAP 198 LOTS 11, 12, 14, 15, & 16

TRUCK MOVEMENT PLAN

PROPOSED GAS STATION & CONVENIENCE STORE

LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
OLBEA ENTERPRISES, LLC

60' (11" x 17")
60' (22" x 34")

OCTOBER 28, 2025

APPROVED BY THE HUDSON, NH PLANNING BOARD

PURSUANT TO THE SITE REVIEW
REGULATIONS OF THE HUDSON
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HEREIN EXPIRES ONE YEAR
FROM DATE OF APPROVAL

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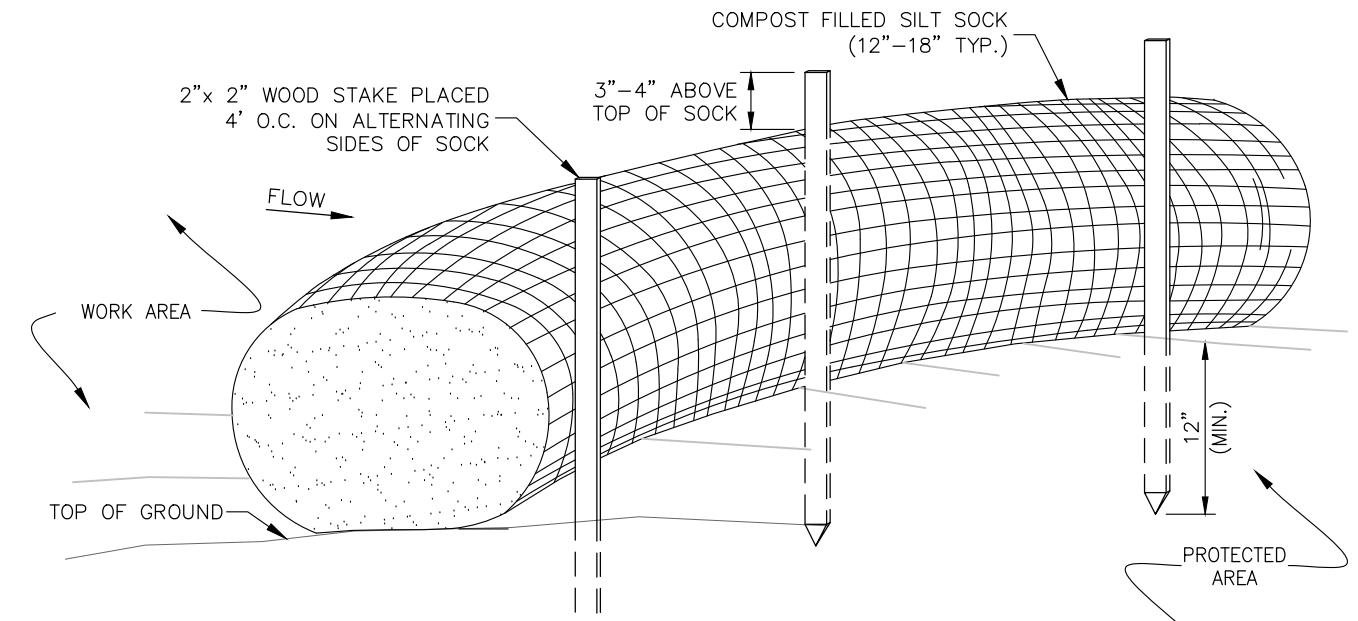
acoast Division

Engineers
Architects
Surveyors
Architects
s

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Portsmouth, NH 03801
Phone (603) 431-2222
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Dec 22, 2025 - 4:10pm
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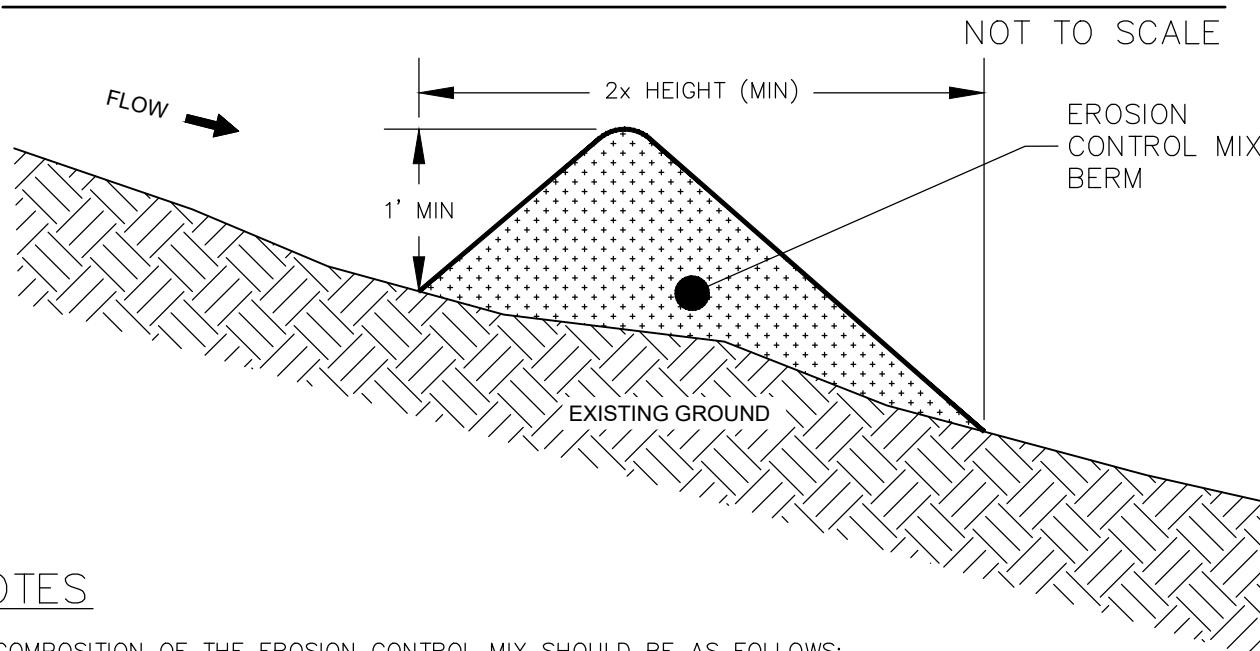
NOTES

1. SILT SOCK SHALL BE FILTREXXTM SILTOSXXTM OR APPROVED EQUIVALENT.
2. SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.

SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.

COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

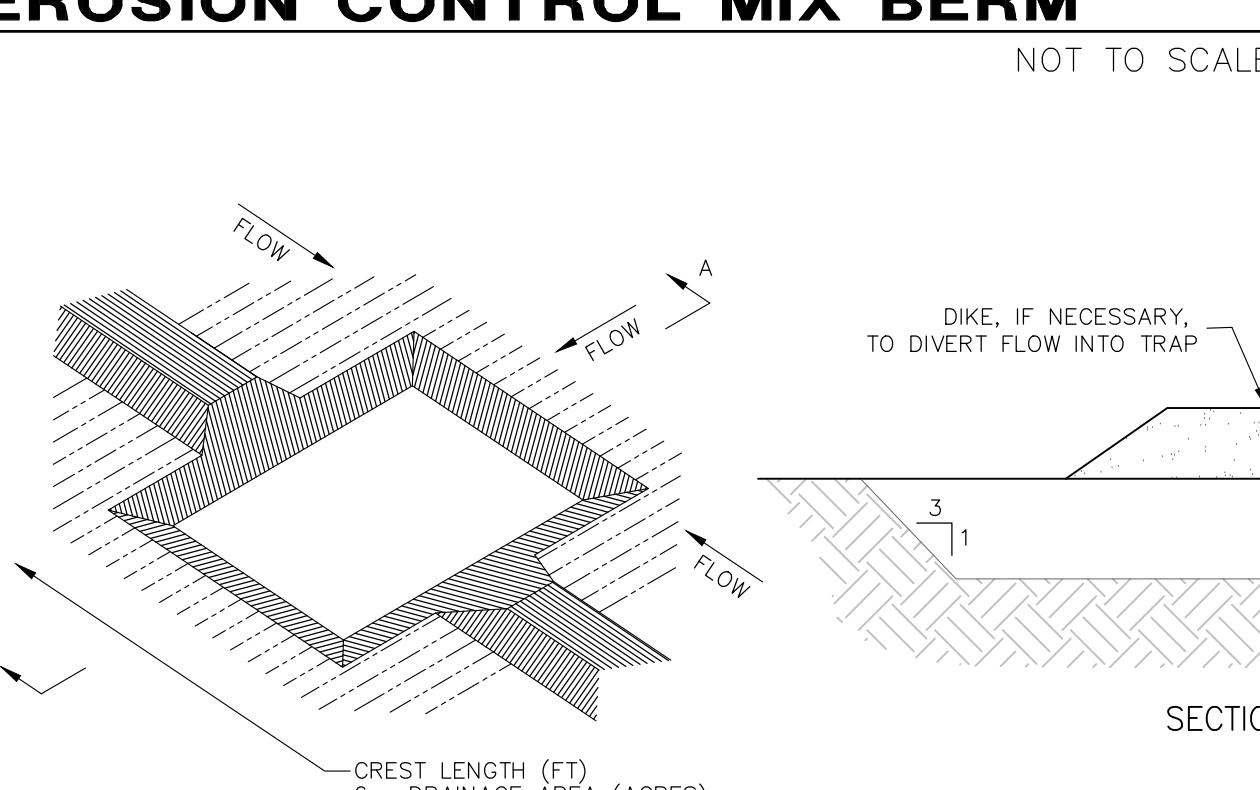
SILT SOCK



NOTES

1. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:
 - EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRANDED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25% AND 65%, DRY WEIGHT BASIS.
 - PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1" SCREEN, 70% TO 100% PASSING A $\frac{3}{4}$ " SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A $\frac{1}{2}$ " SCREEN.
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
 - SOLUBLE SALTS CONTENT SHOULD BE < 4.0 mmhos/cm.
 - THE pH SHOULD BE BETWEEN 5.0 AND 8.0.
2. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING Voids AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
3. THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.

EROSION CONTROL MIX BERM

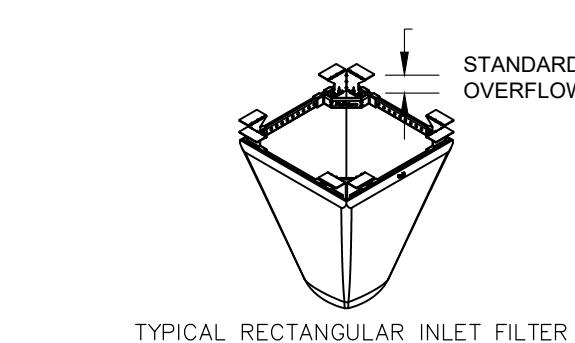


NOTES

1. SEDIMENT TRAP TO BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED. IF IT IS DETERMINED THAT CONSTRUCTION OF A SEDIMENT TRAP IS WARRANTED, CONSULT WITH ENGINEER TO DETERMINE APPROPRIATE NUMBER AND DIMENSIONS.

SEDIMENT TRAP

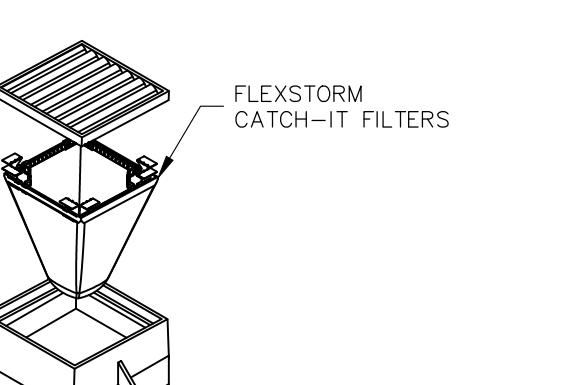
APPROVED BY THE HUDSON, NH PLANNING BOARD	
DATE OF MEETING _____	SIGNATURE DATE _____ AND
CHAIRMAN _____	SIGNATURE DATE _____
SECRETARY _____	SIGNATURE DATE _____
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.	



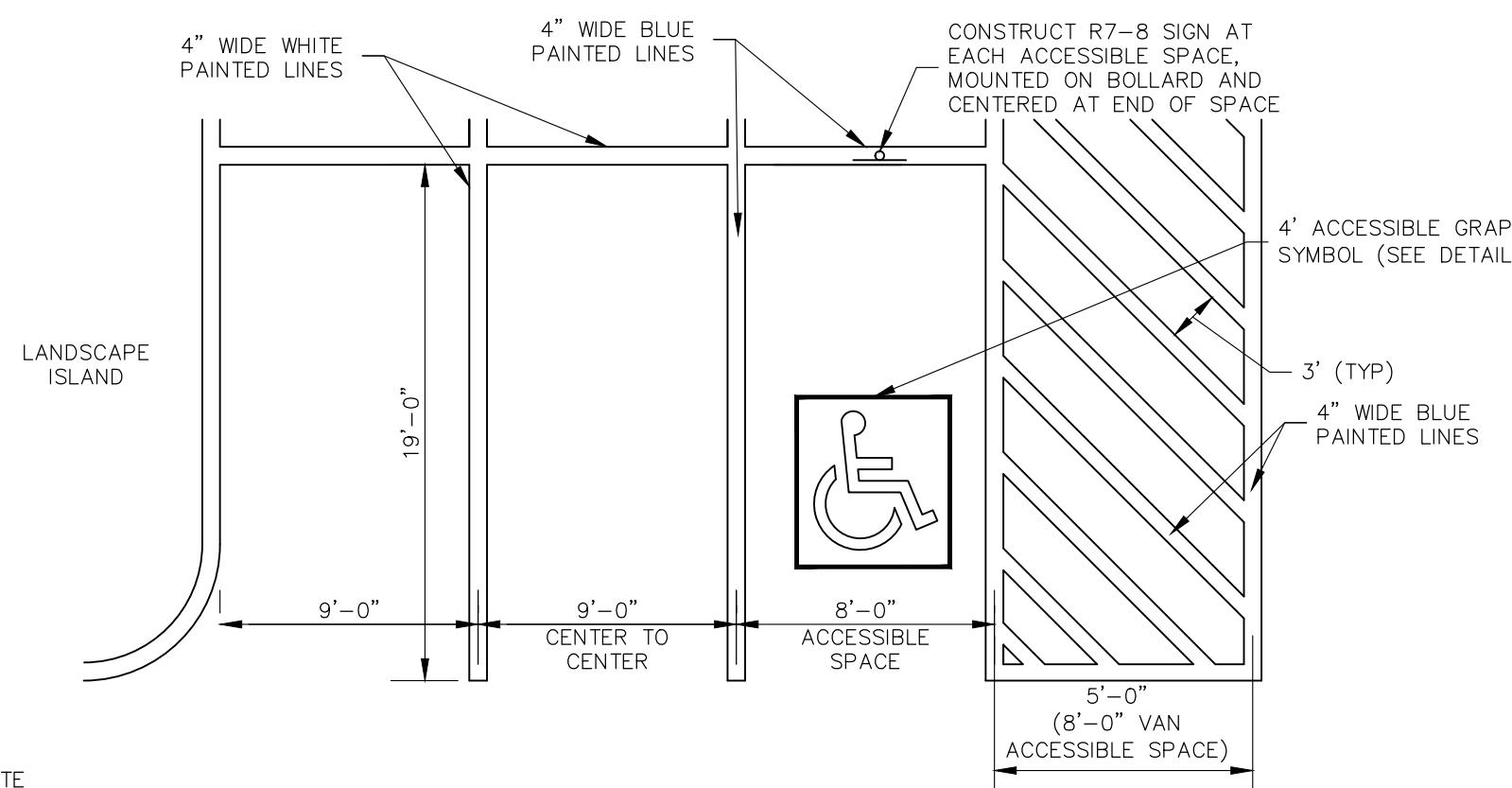
NOTES:

1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT > 4".
3. EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS.
4. REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
5. REPLACE BAG IF TORN OR PUNCTURED TO > 3" DIAMETER ON LOWER HALF OF BAG.

INLET PROTECTION



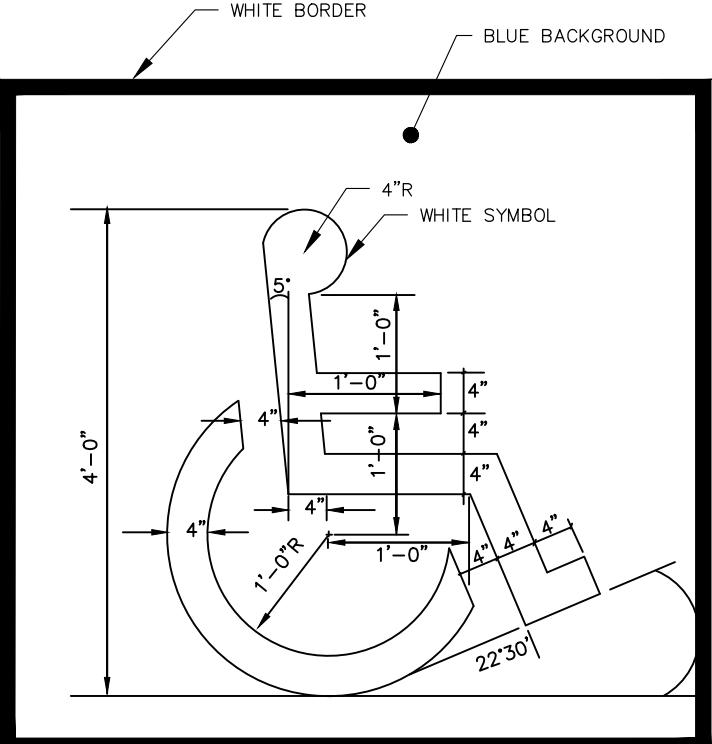
ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC., A DIVISION OF ADS, INC. WWW.INLETFILTERS.COM (866) 287-8655 INFO@INLETFILTERS.COM



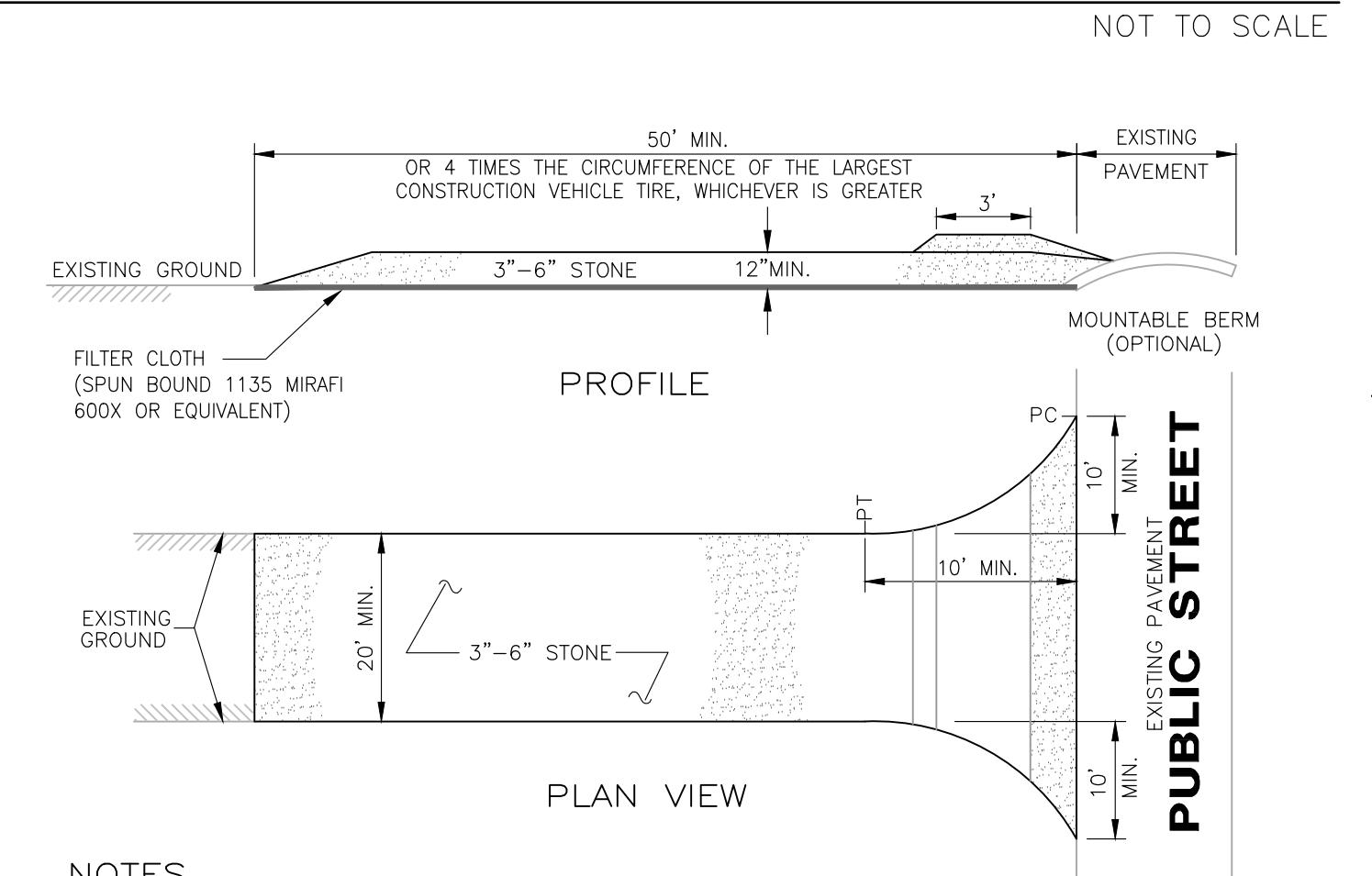
NOTES

1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.

2. SYMBOLS AND PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.



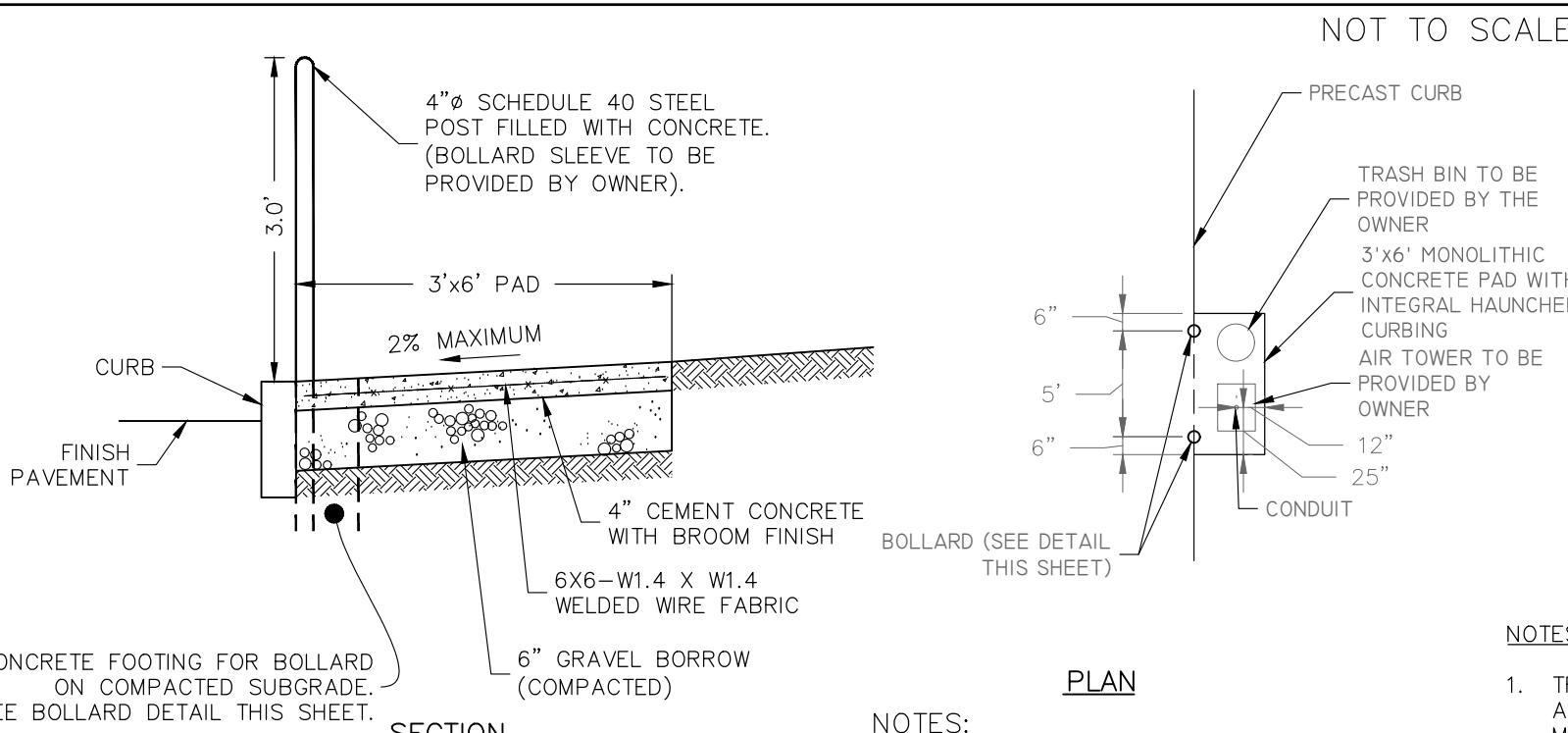
ACCESSIBLE GRAPHIC SYMBOL



NOTE

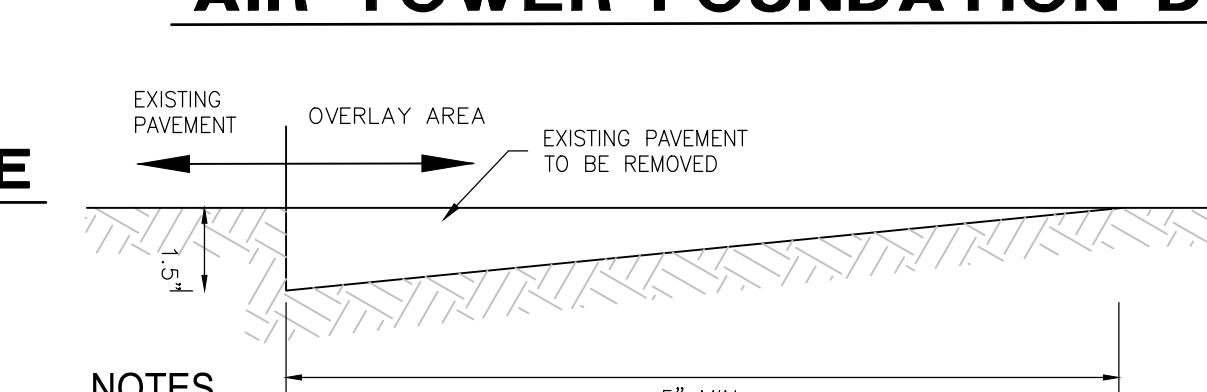
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2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.
3. ALL PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES AT 3'-0" OC BORDERED BY 4" WIDE LINES.
4. 2% MAXIMUM CROSS SLOPE ALLOWED IN ACCESSIBLE PARKING SPACES AND ACCESS AISLES.

TYPICAL PARKING LAYOUT



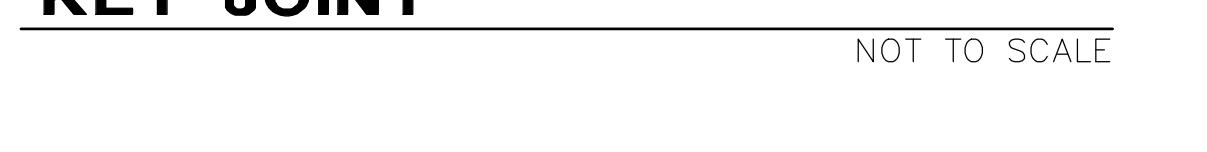
1. AIR TOWER AND SIGN INSTALLED BY OWNER.

AIR TOWER FOUNDATION DETAIL



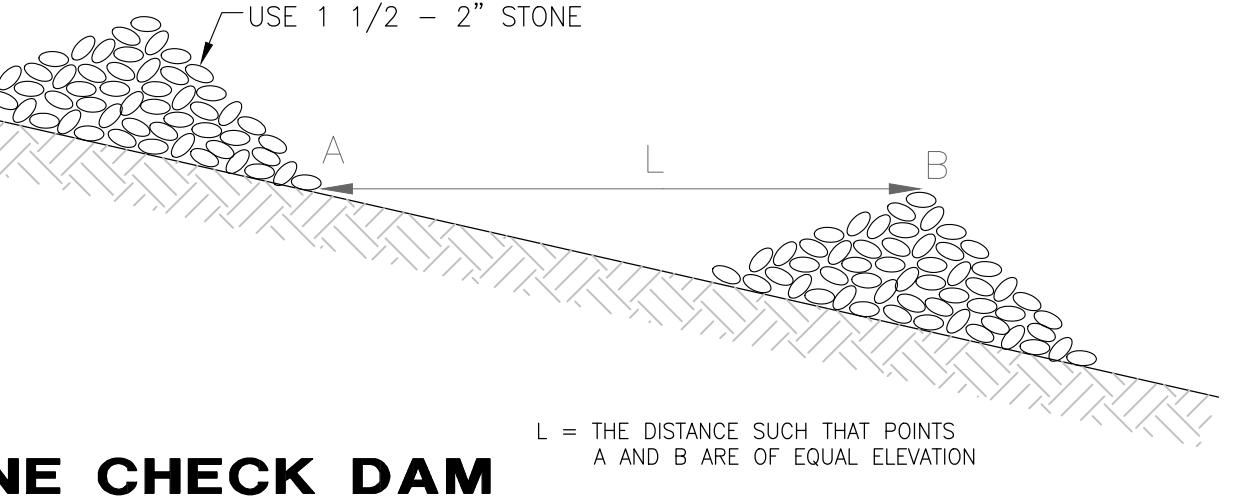
1. USE KEY JOINT AT ALL LOCATIONS WHERE OVERLAY MEETS EXISTING PAVEMENT OR CONCRETE.
2. NEW PAVEMENT SHALL BE FLUSH WITH EXISTING PAVEMENT AND SHALL MEET OVERLAY GRADE WHERE IT ABUTS EXISTING PAVEMENT TO BE OVERLAYER.

KEY JOINT

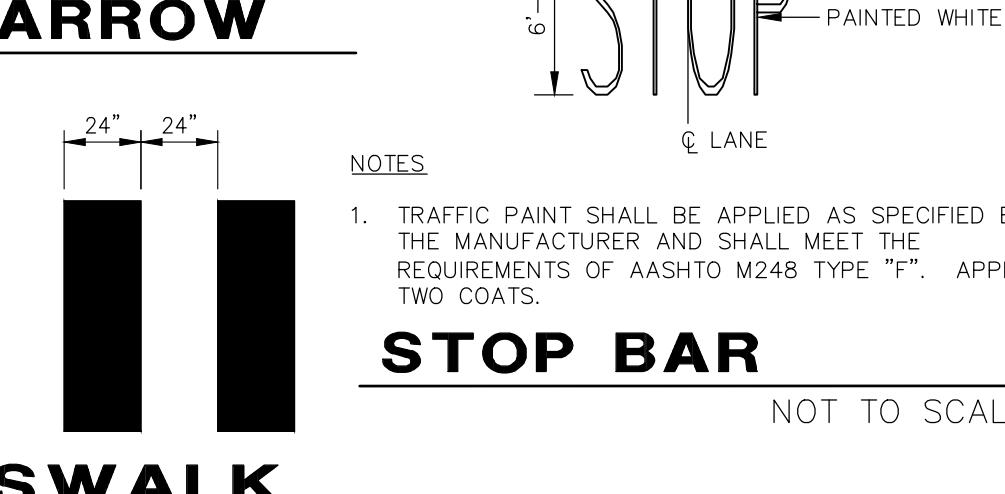
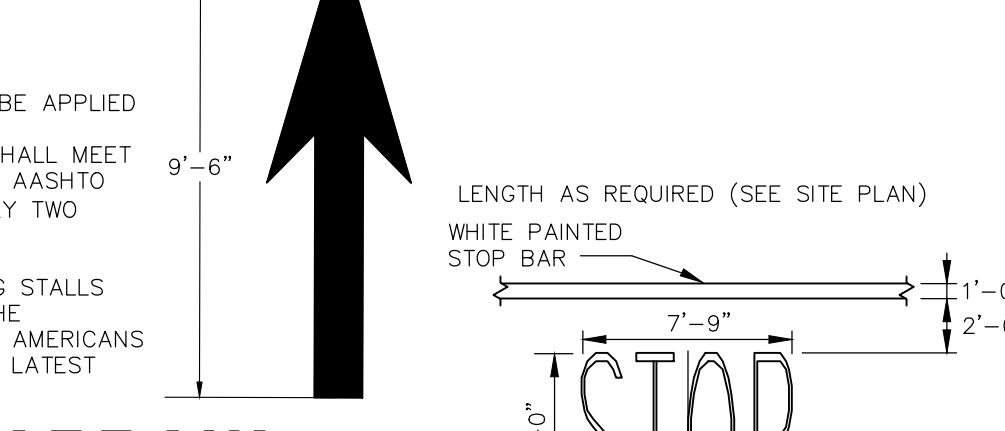
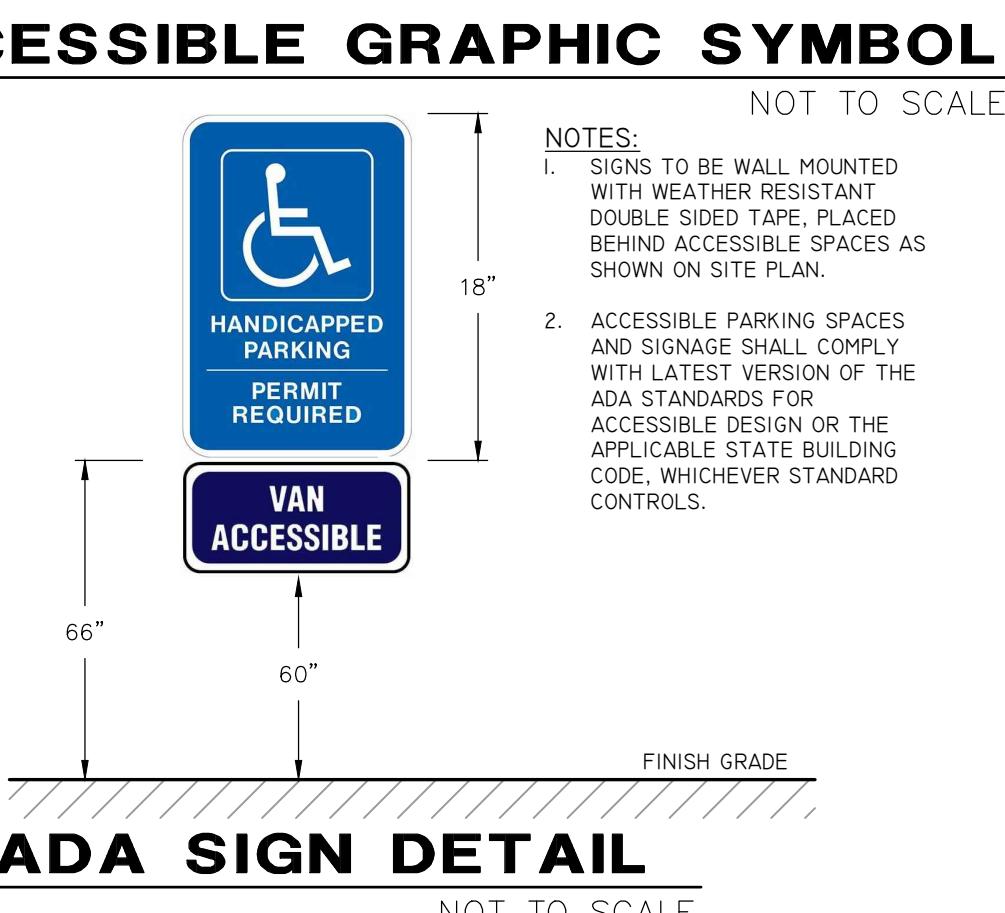


1. USE KEY JOINT AT ALL LOCATIONS WHERE OVERLAY MEETS EXISTING PAVEMENT OR CONCRETE.
2. NEW PAVEMENT SHALL BE FLUSH WITH EXISTING PAVEMENT AND SHALL MEET OVERLAY GRADE WHERE IT ABUTS EXISTING PAVEMENT TO BE OVERLAYER.

STONE CHECK DAM



L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION



1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.

STOP BAR



1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.

LADDER CROSSWALK



1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

DETAILS

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR

COLBEA ENTERPRISES, LLC

OCTOBER 28, 2025

SCALE: NTS

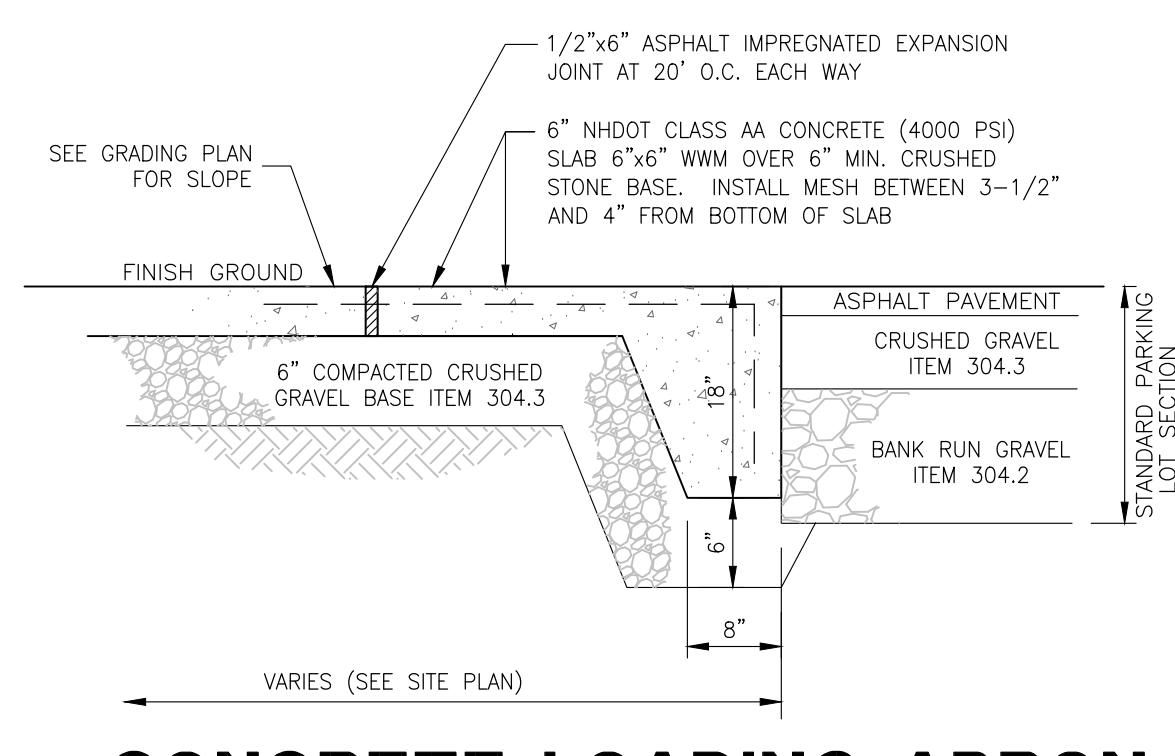
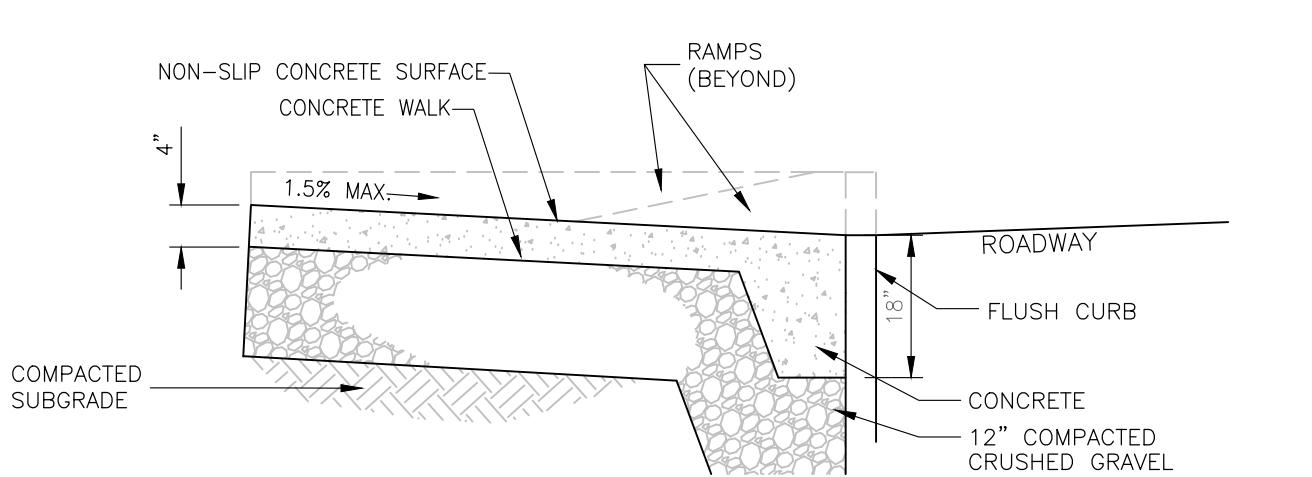
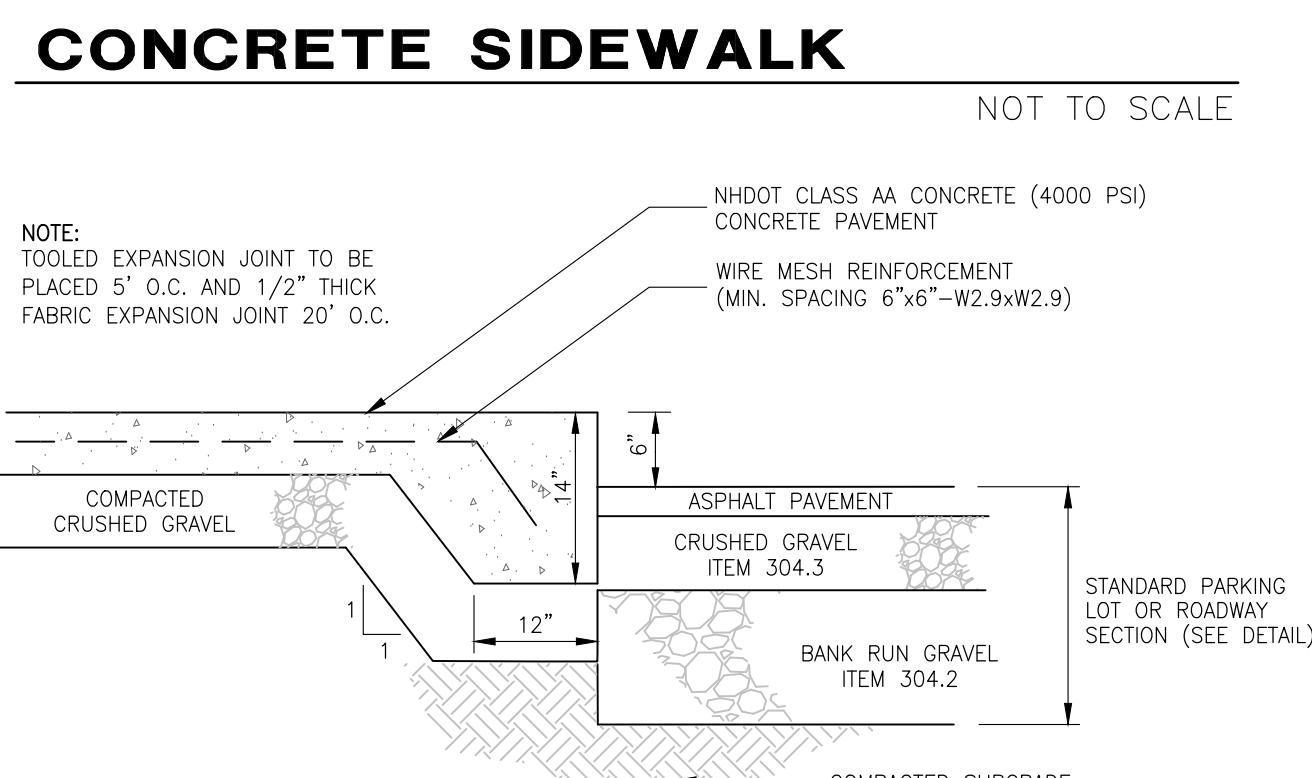
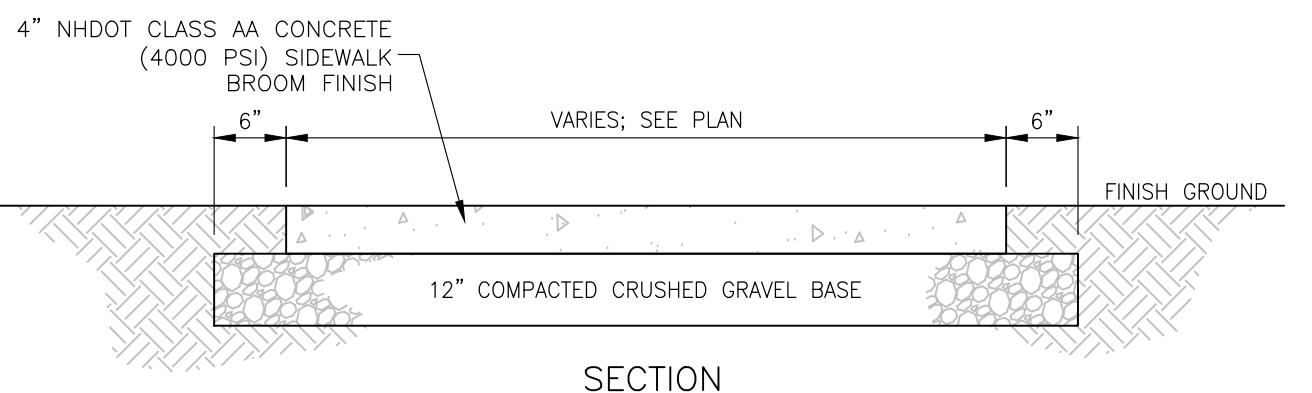
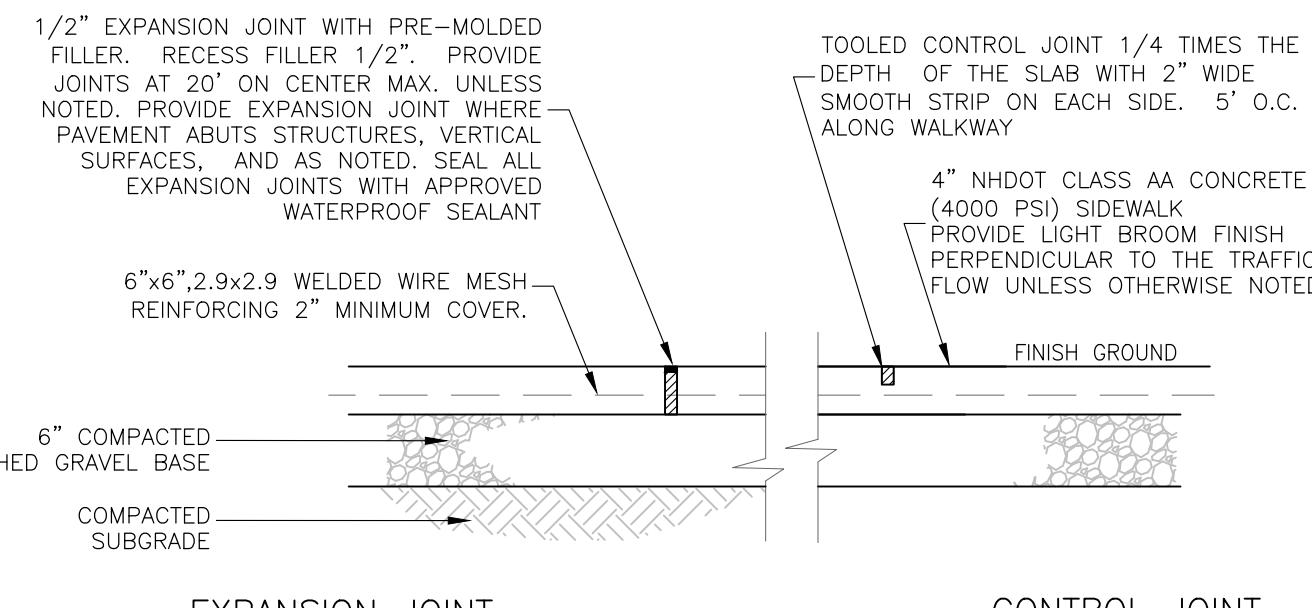
Seacoast Division

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

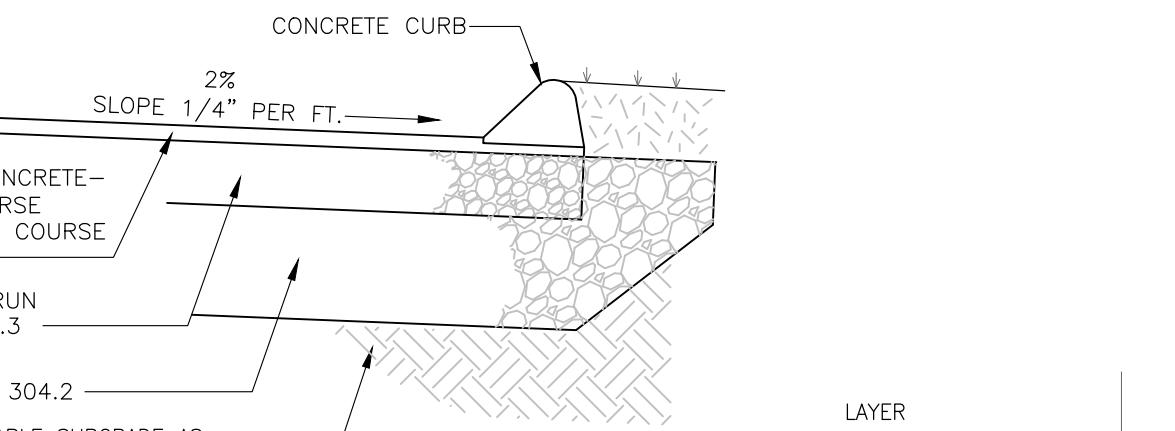
TFM[®]

F 18149.00 DR JKC FB -
REV CCR CADFILE 18149-00 DETAILS C-18



CONCRETE LOADING APRON

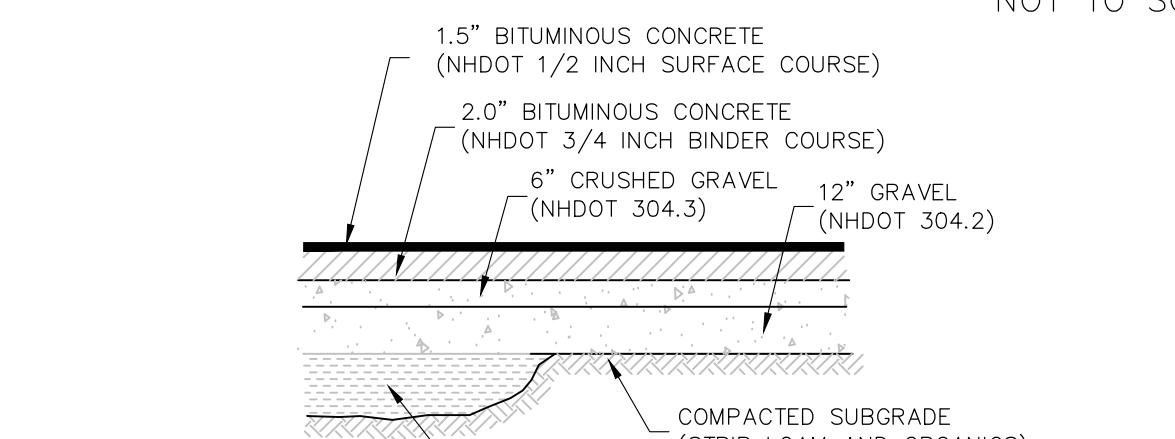
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NOTES	LAYER	1-1/2"	2-1/2"	6"	12"
1. SEE GRADING & DRAINAGE PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.	TOP/WEARING COURSE	1-1/2"			
2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.	BINDER	2-1/2"			
3. REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.	CRUSHED GRAVEL	6"			
4. ALL PAVEMENT, BASE MATERIALS AND WORKMANSHIP TO BE IN COMPLIANCE WITH N.H.D.O.T. "STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION.	BANK RUN GRAVEL	12"			
5. BITUMINOUS CONCRETE SHALL BE COMPAKTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.					
6. PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPAKTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.					
7. PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPAKTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.					
8. THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.					
9. IT IS THE RESPONSIBILITY OF THE OWNER TO HIRE A TESTING AGENCY TO INSPECT PAVEMENT SUBGRADE AREAS DURING CONSTRUCTION.					
10. ALL PAVEMENT TO MEET AASHTO H-20 LOADING.					

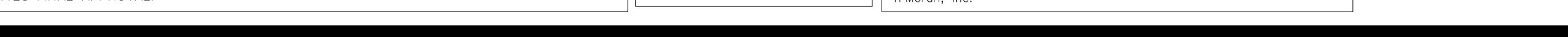
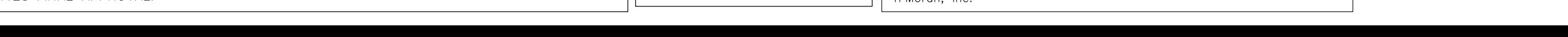
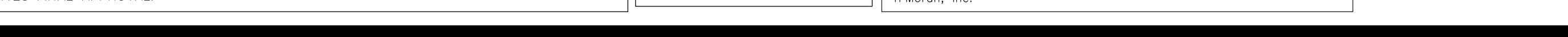
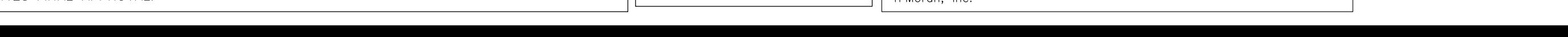
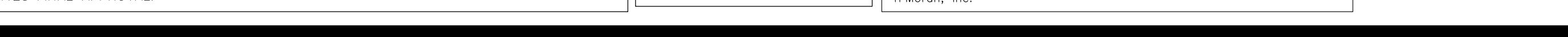
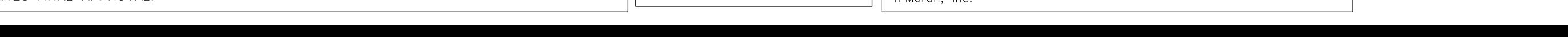
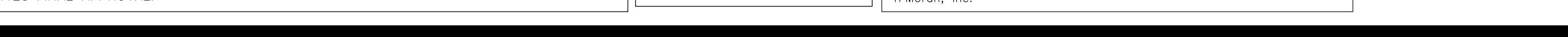
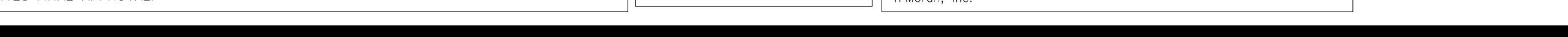
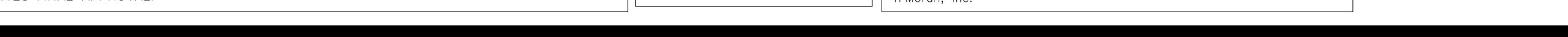
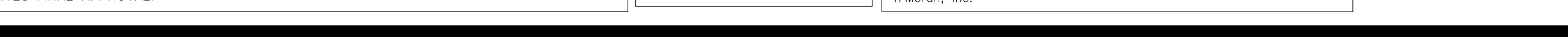
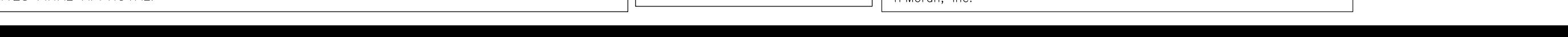
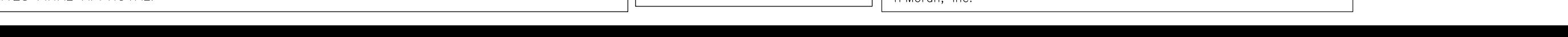
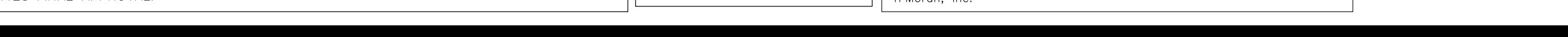
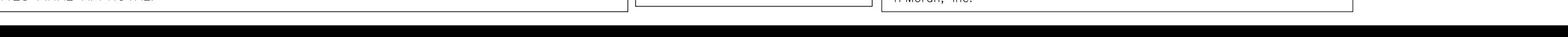
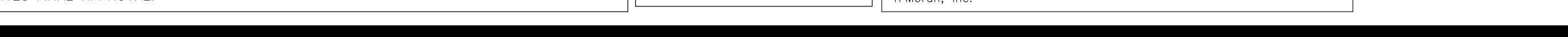
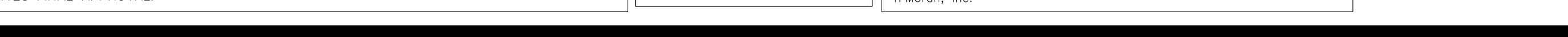
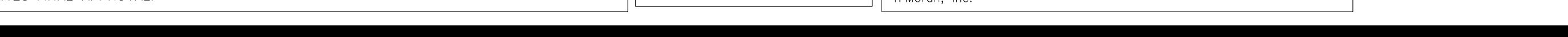
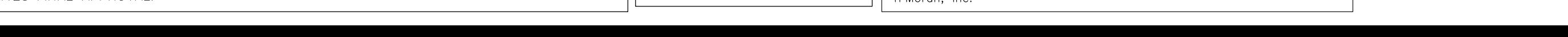
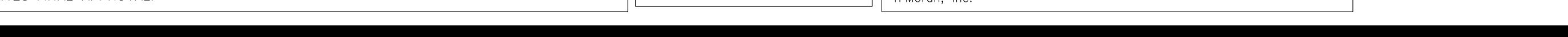
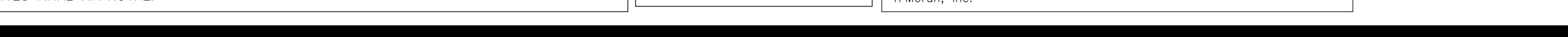
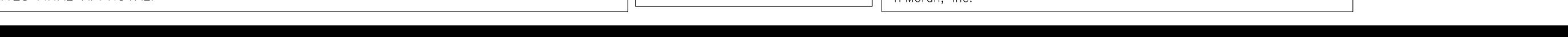
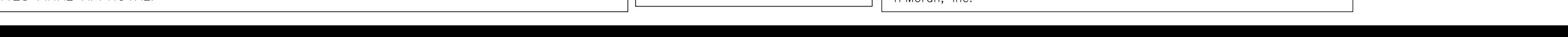
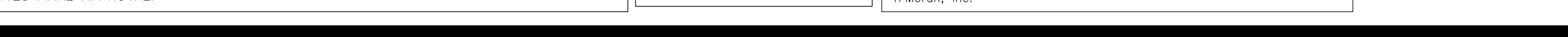
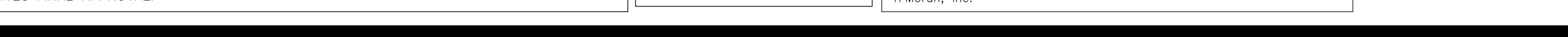
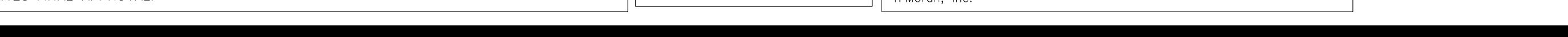
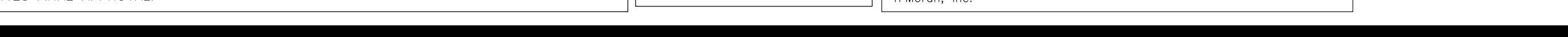
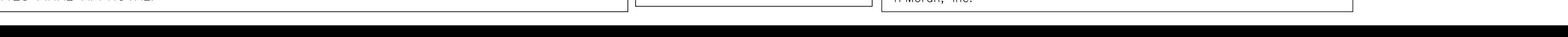
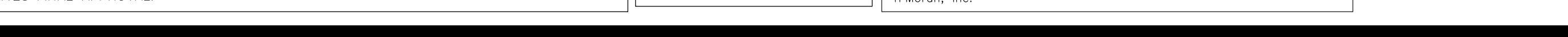
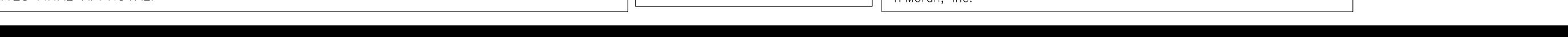
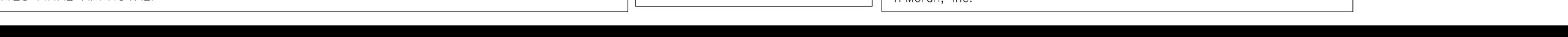
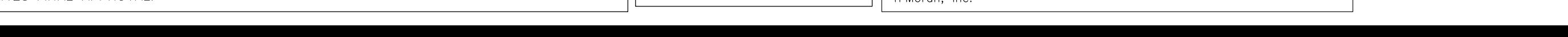
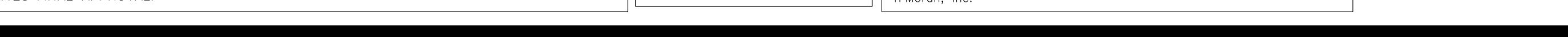
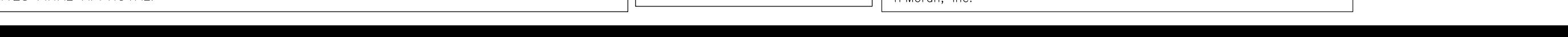
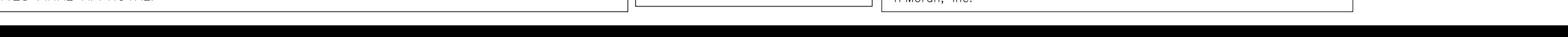
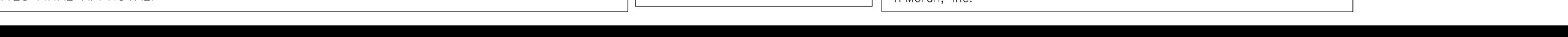
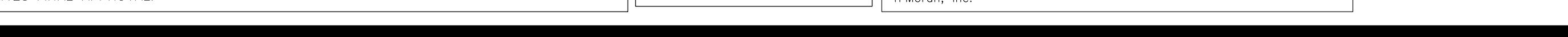
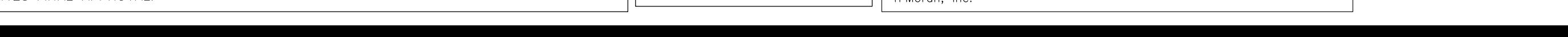
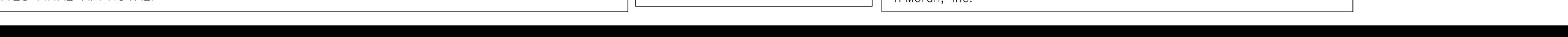
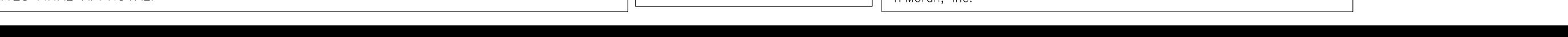
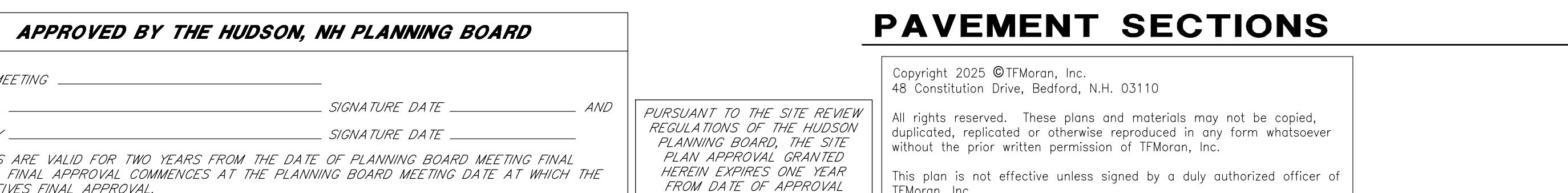
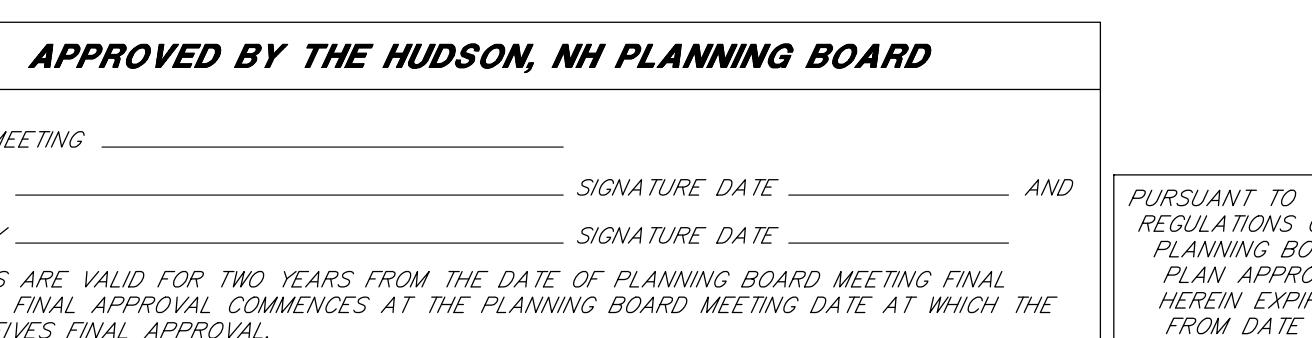
PARKING LOT SECTION

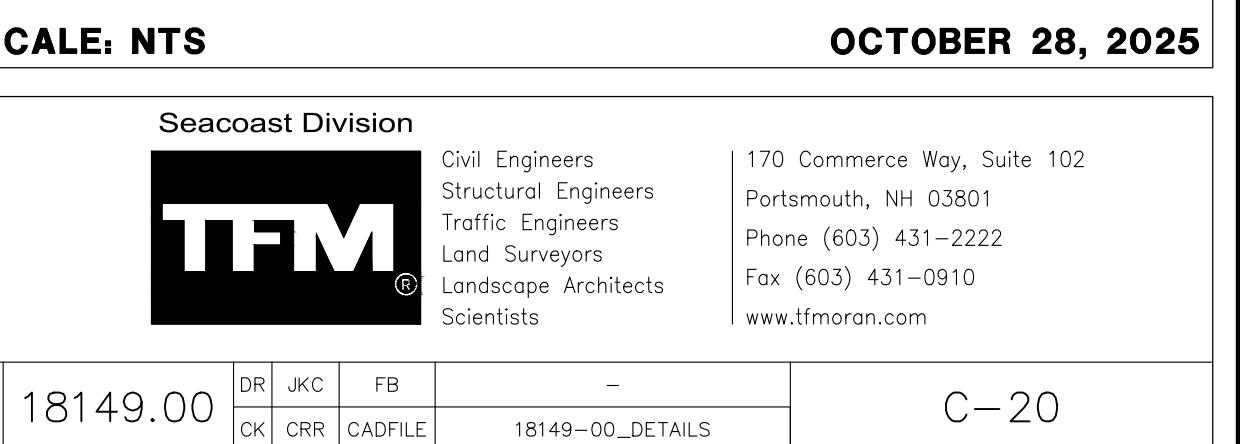
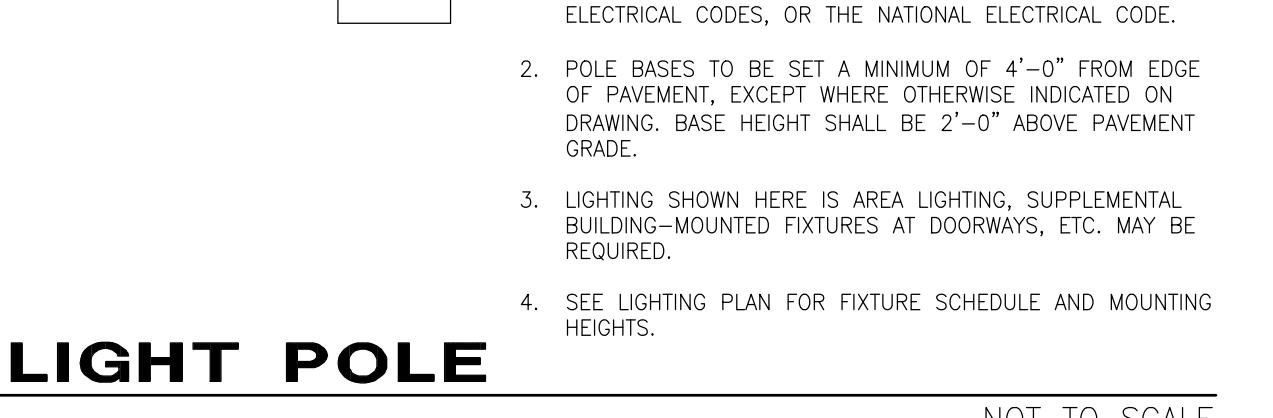
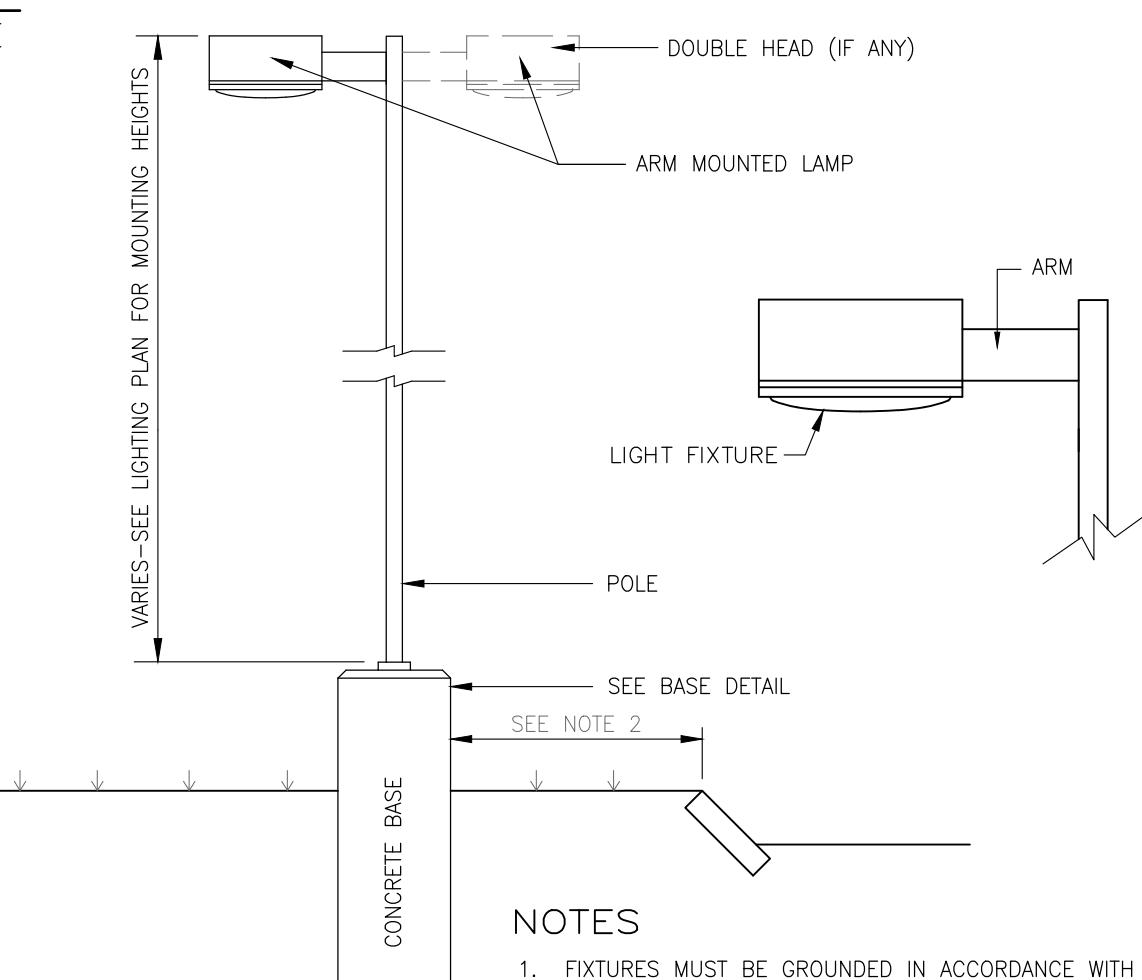
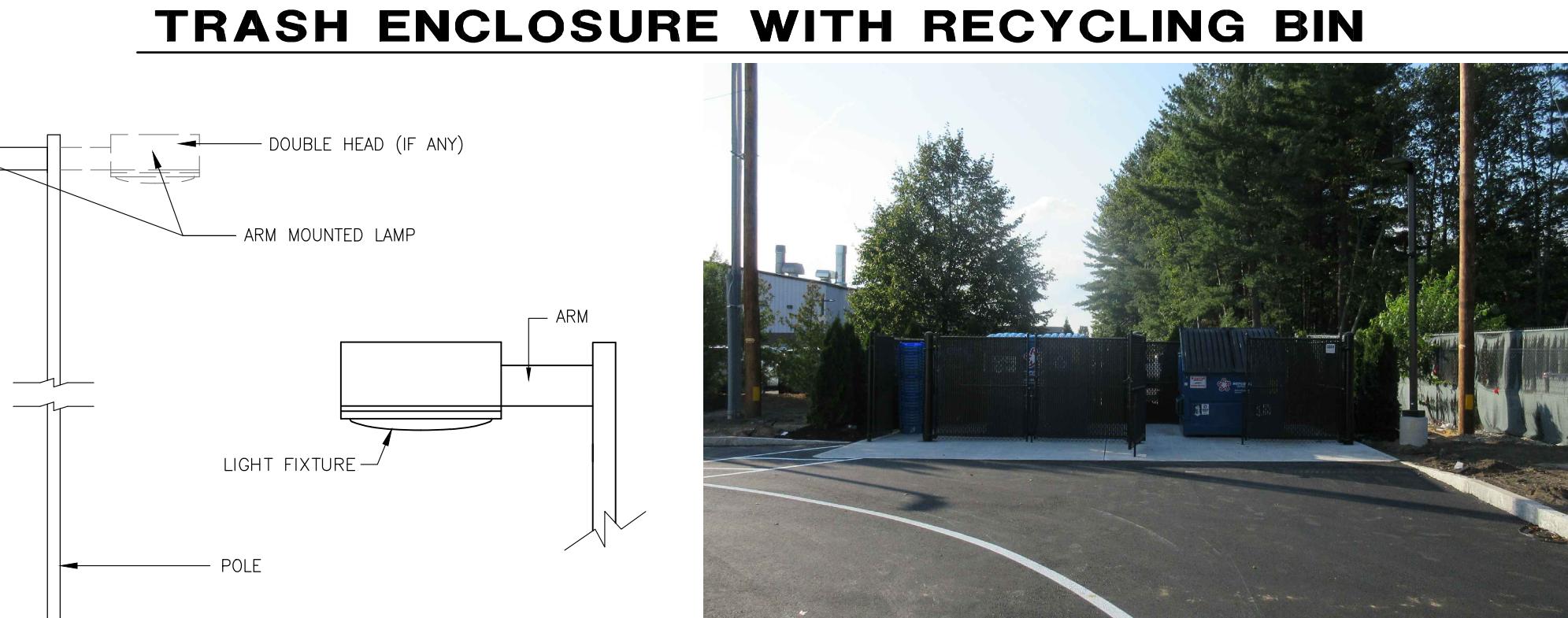
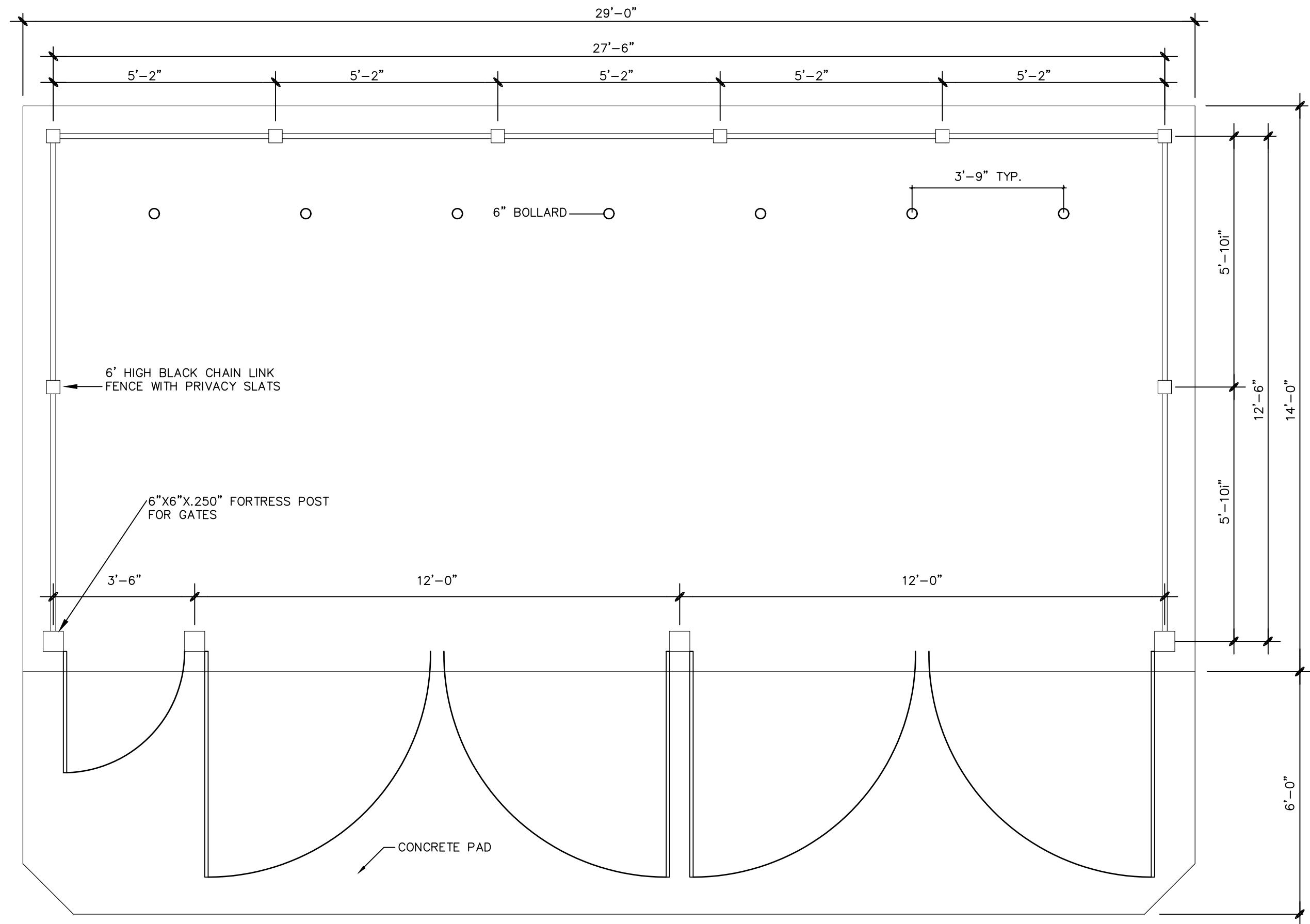
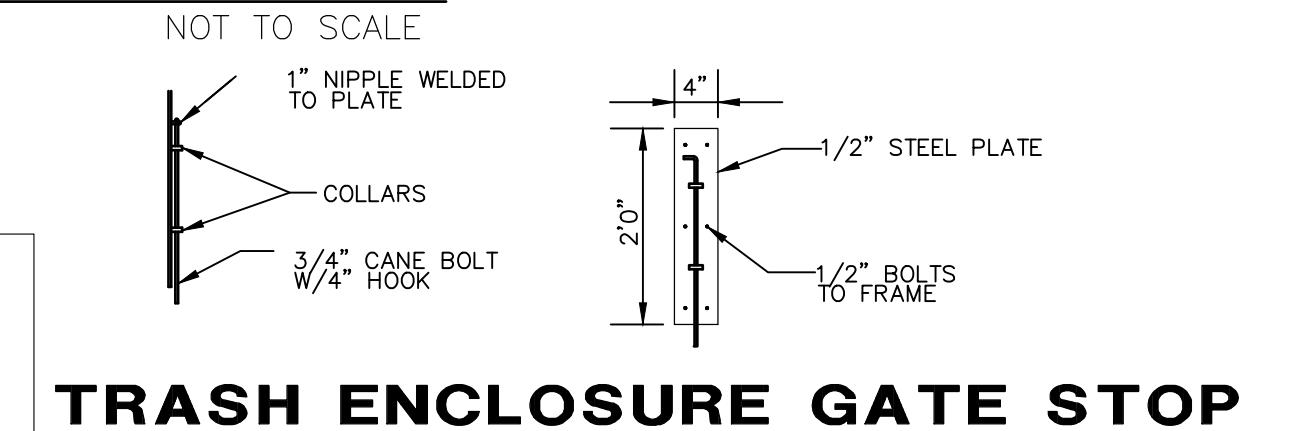
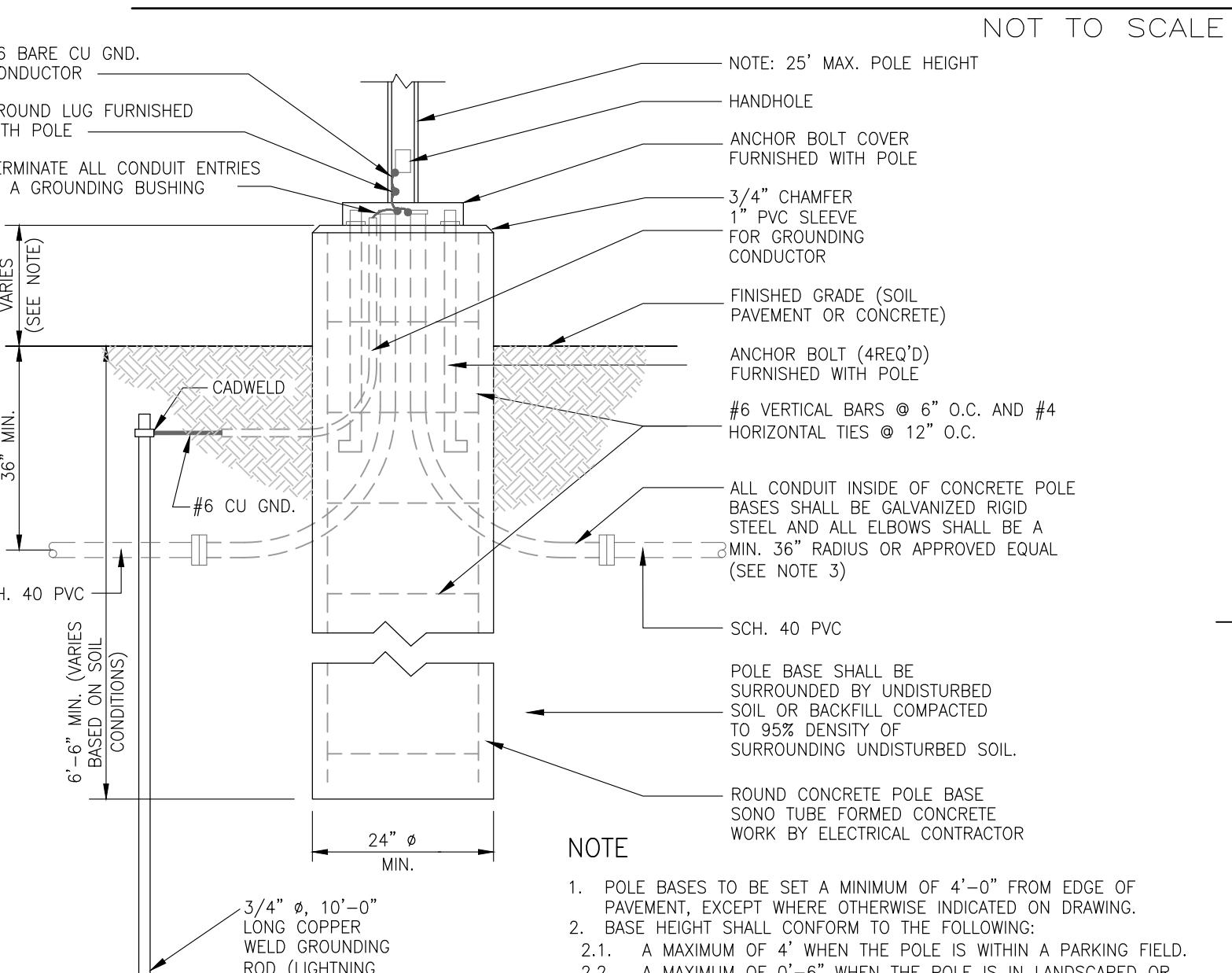
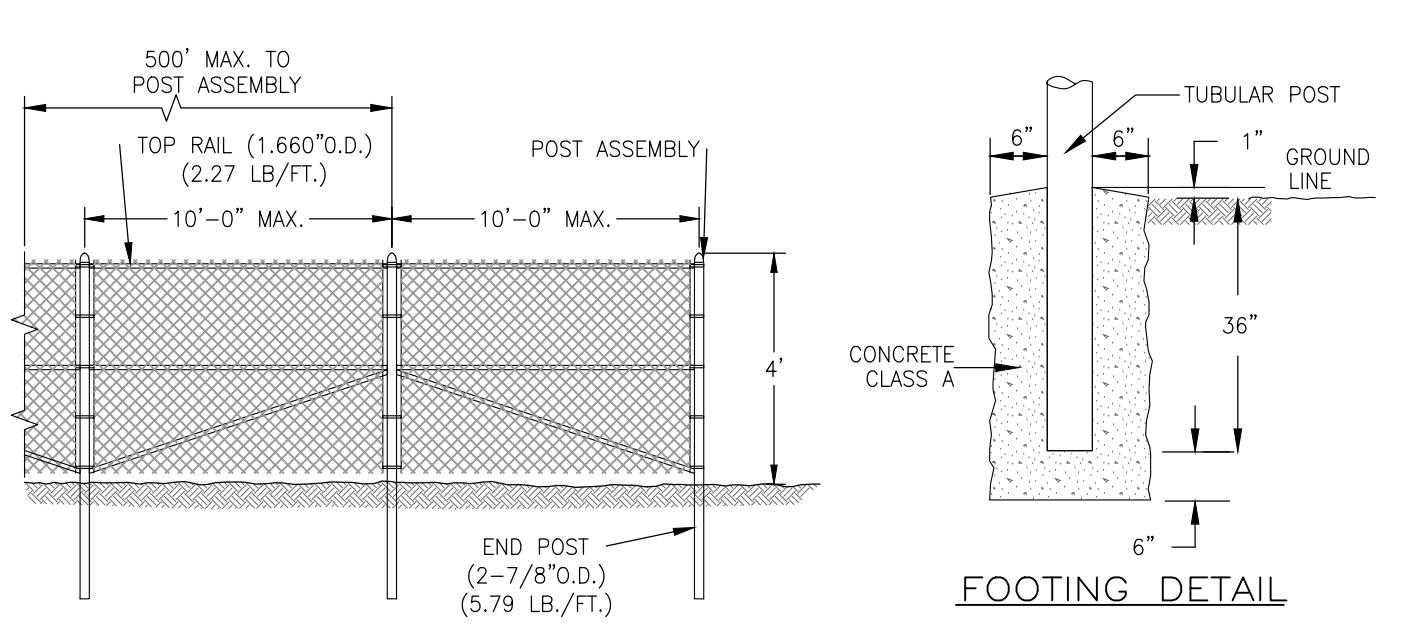
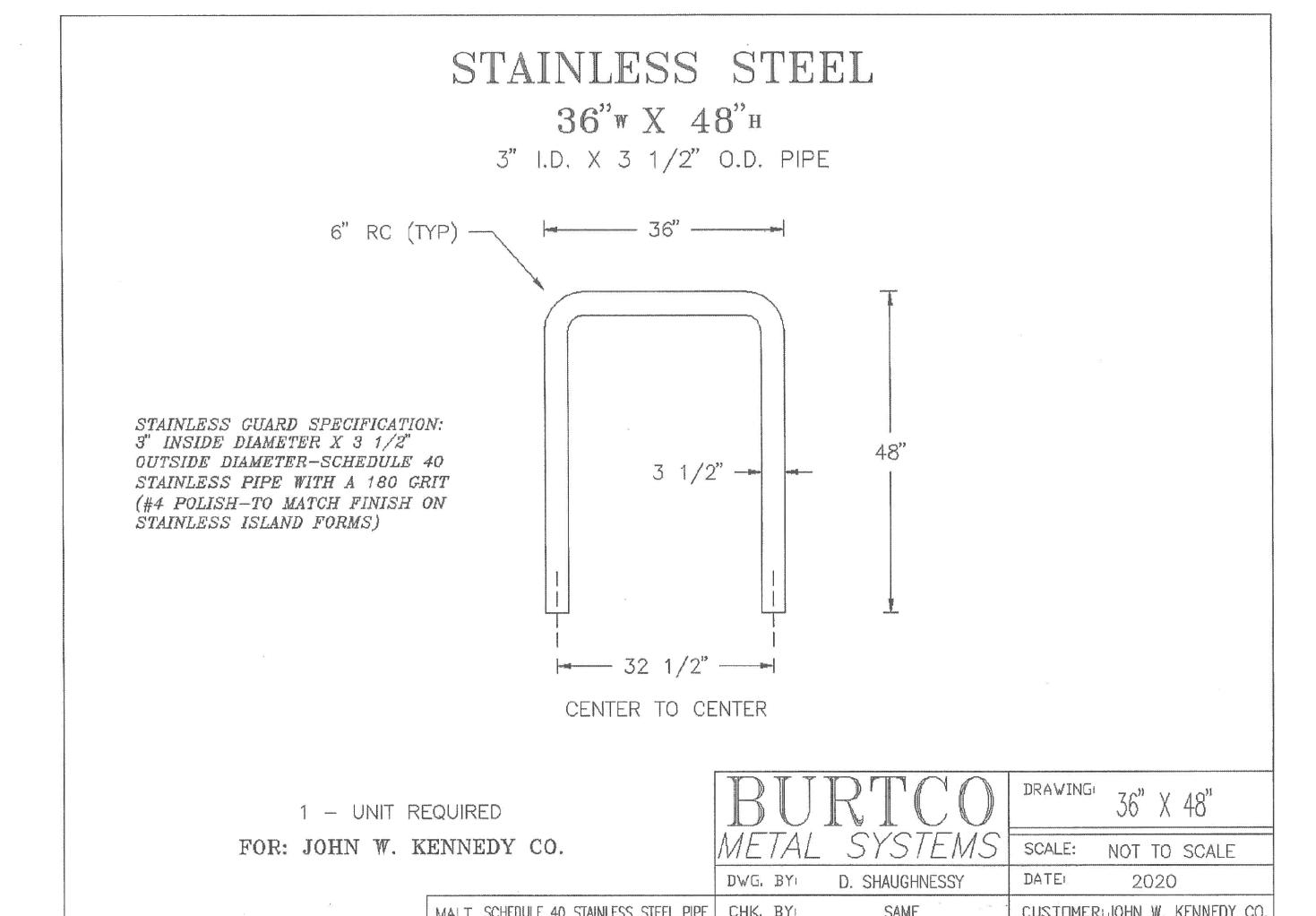
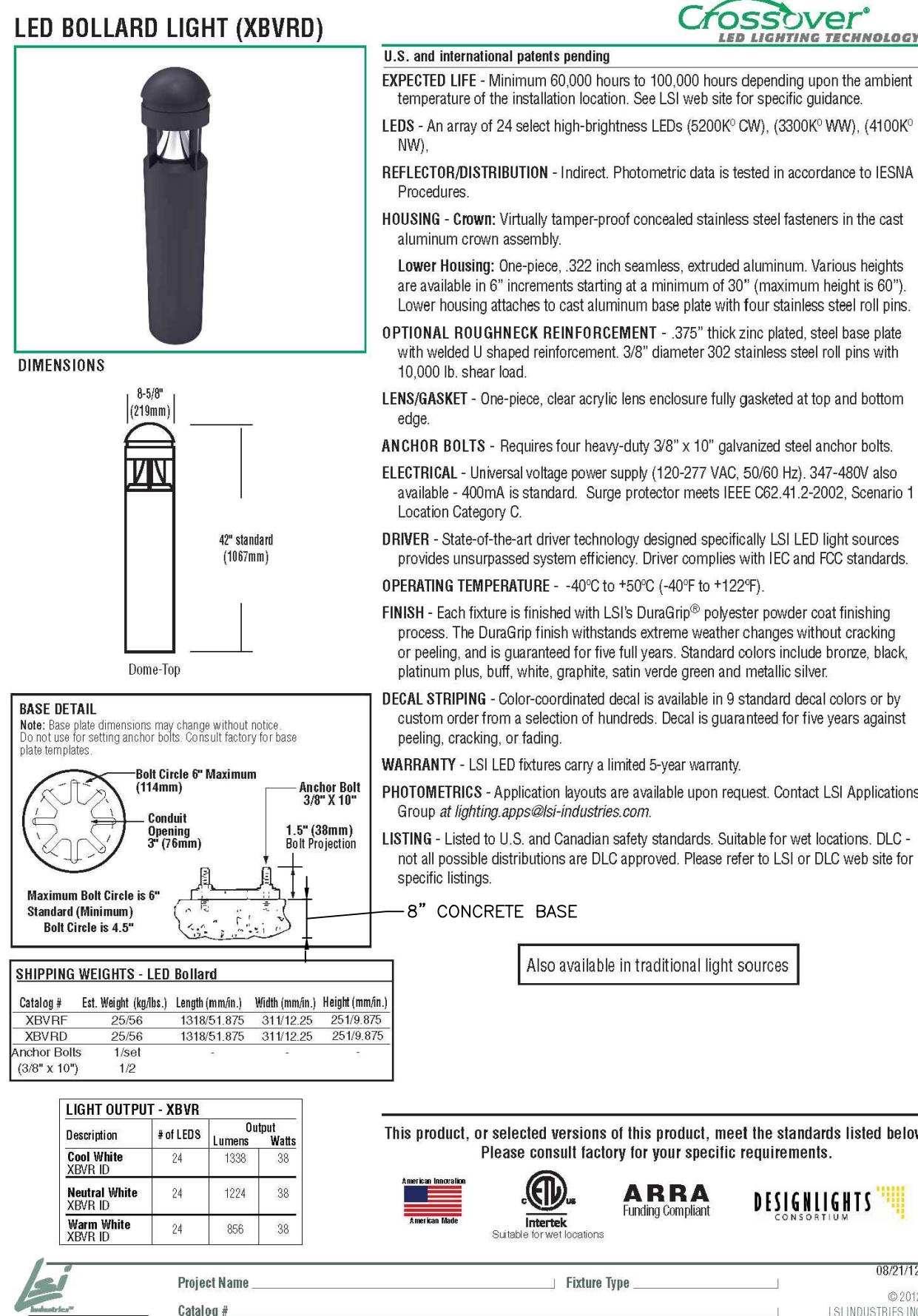
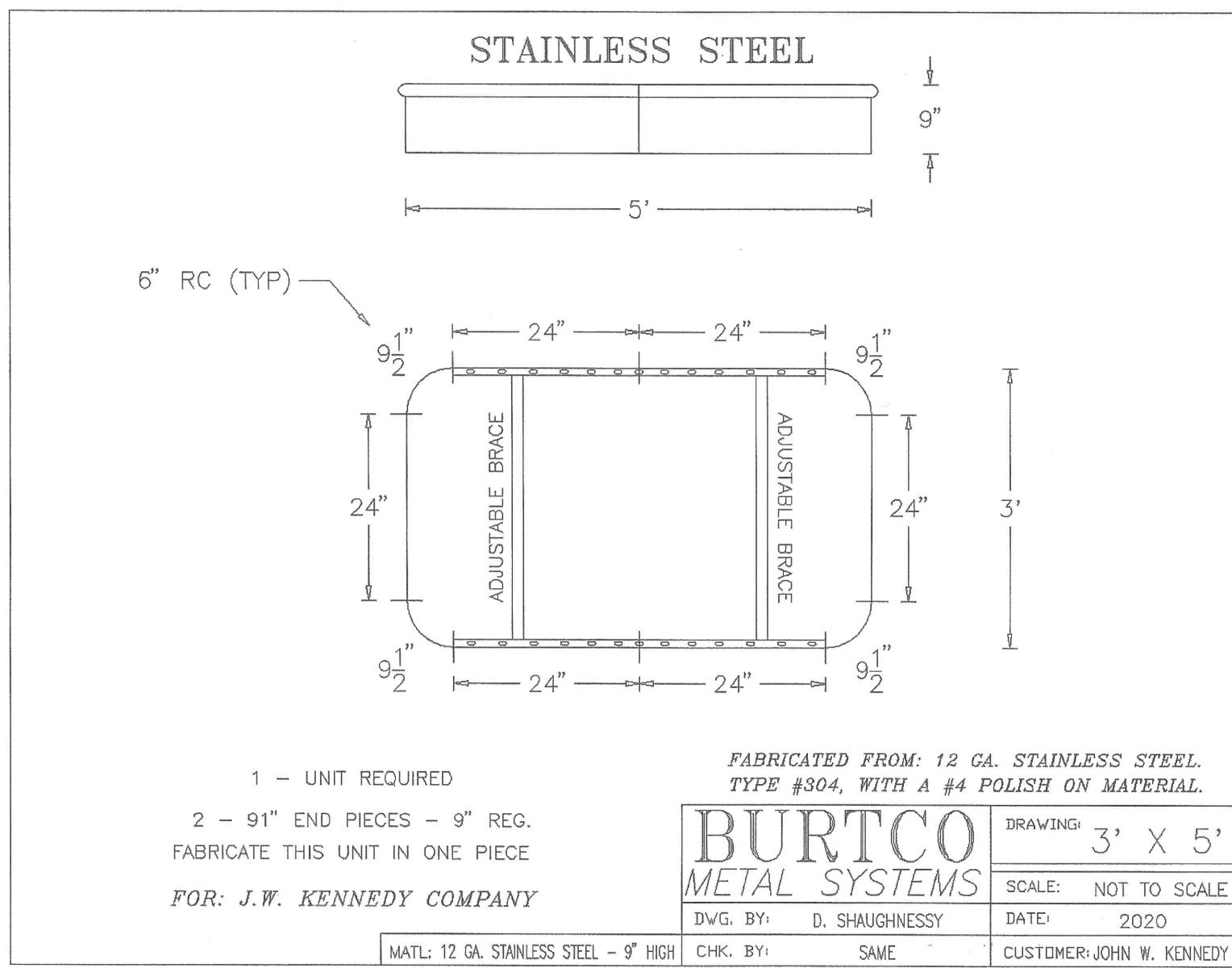
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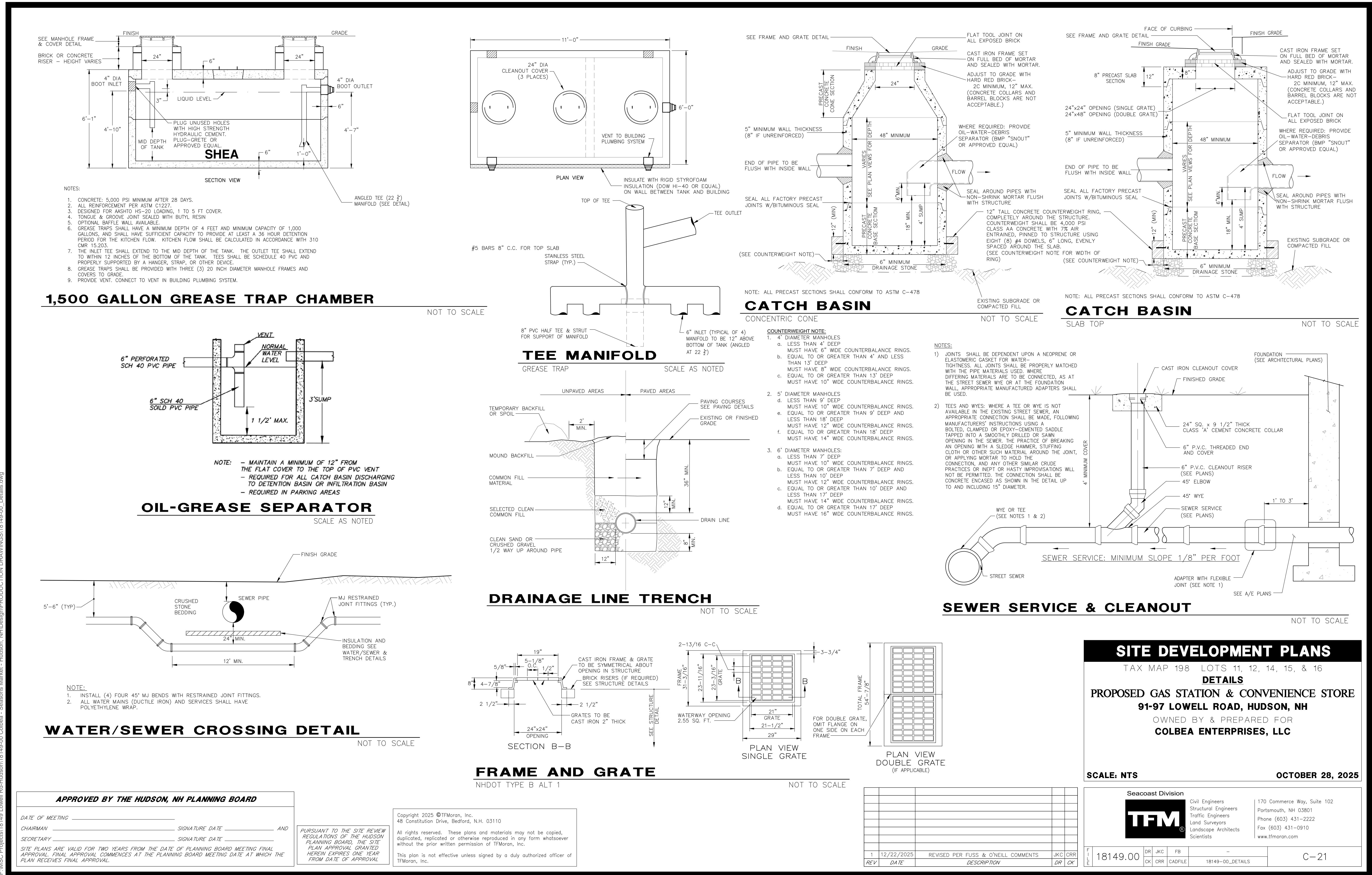


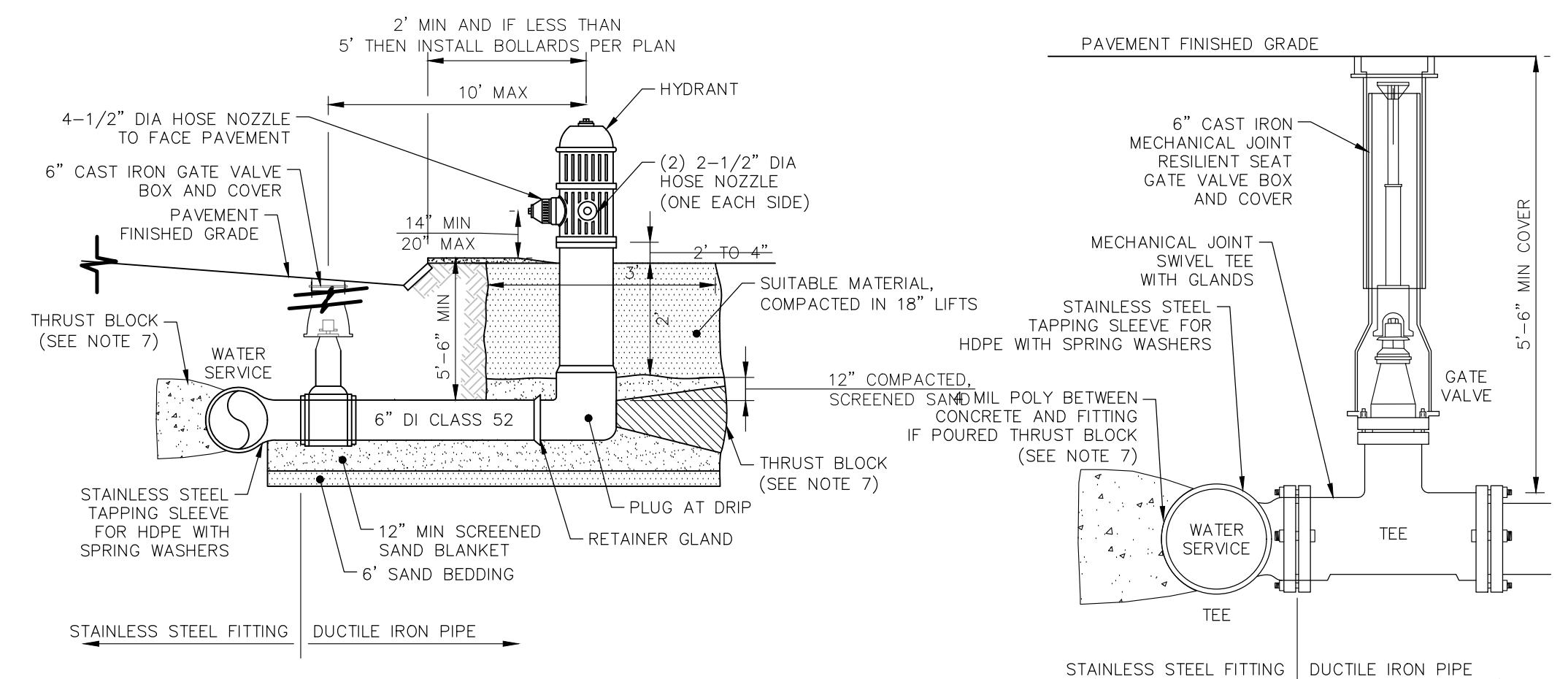
NOTES

- SEE GRADING & EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
- PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.
- REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.
- BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SECTION 401.
- BITUMINOUS CONCRETE SHALL BE COMPAKTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.
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- PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPAKTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.
- ALL PARKING SPACES SHALL BE STANDARD DUTY. ALL OTHER LOCATIONS SHALL BE HEAVY DUTY.







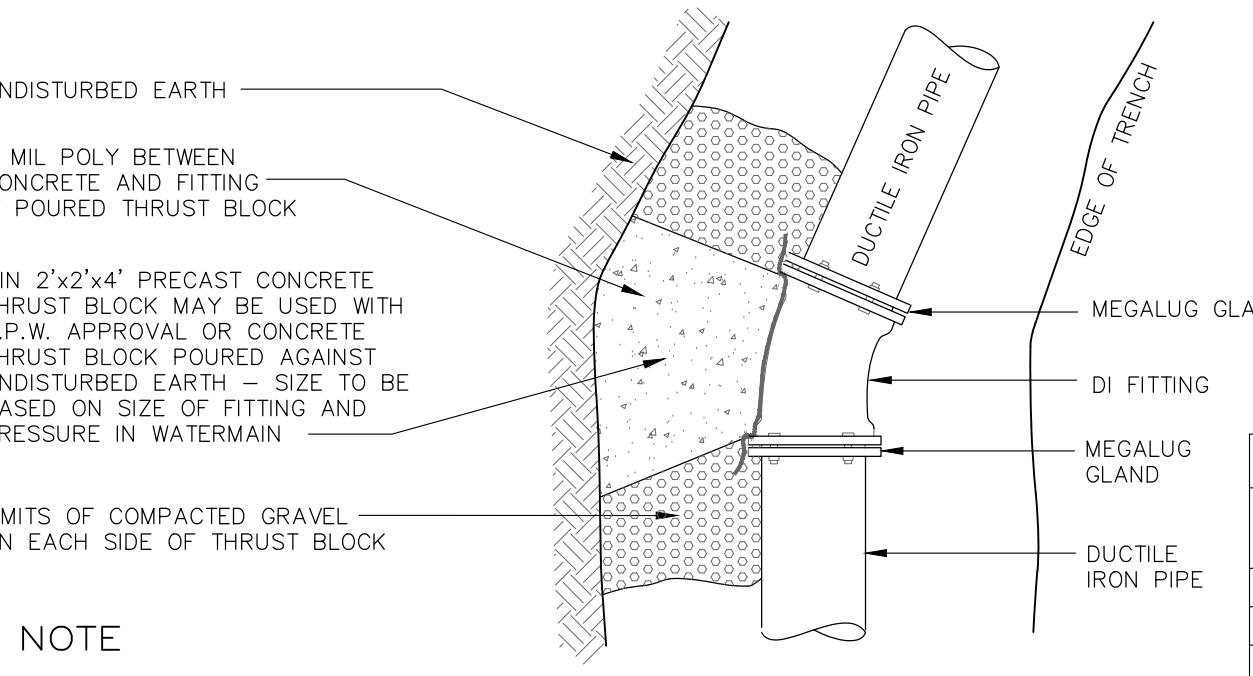


NOTES:

1. ALL MATERIALS, INSTALLATION, OPERATION, MANUFACTURER AND MODEL, AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CITY/TOWN'S ESTABLISHED RULES AND PROCEDURES.
2. HYDRANT SHALL BE PAINTED PER CITY/TOWN REQUIREMENTS.
3. HYDRANT SHALL CONFORM TO AWWA C502 AND CITY/TOWN SPECIFICATIONS AND PROCEDURES.
4. HYDRANT SHALL BE FURNISHED WITH A TEFLOON-COATED 5-1/4 INCH VALVE, ONE 4-INCH STEAMER CONNECTION, TWO 2-1/2 INCH HOSE CONNECTIONS, PLUGGED DRAIN HOLES, AND SHALL OPEN LEFT.
5. HYDRANT INLET SHALL HAVE MECHANICAL JOINTS CONFORMING TO ANSI A21.11/AWWA C111.
6. THE STAINLESS STEEL TAPPING SLEEVE SHALL BE BOLTED DIRECTLY TO THE A DUCTILE IRON GATE VALVE. ALL MATERIAL FROM THE GATE VALVE TO HYDRANT SHALL BE DUCTILE IRON.
7. MINIMUM 2'x2'4" PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH CITY/TOWN APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN (SEE ASSOCIATED DETAIL).

FIRE HYDRANT AND GATE VALVE

NOT TO SCALE

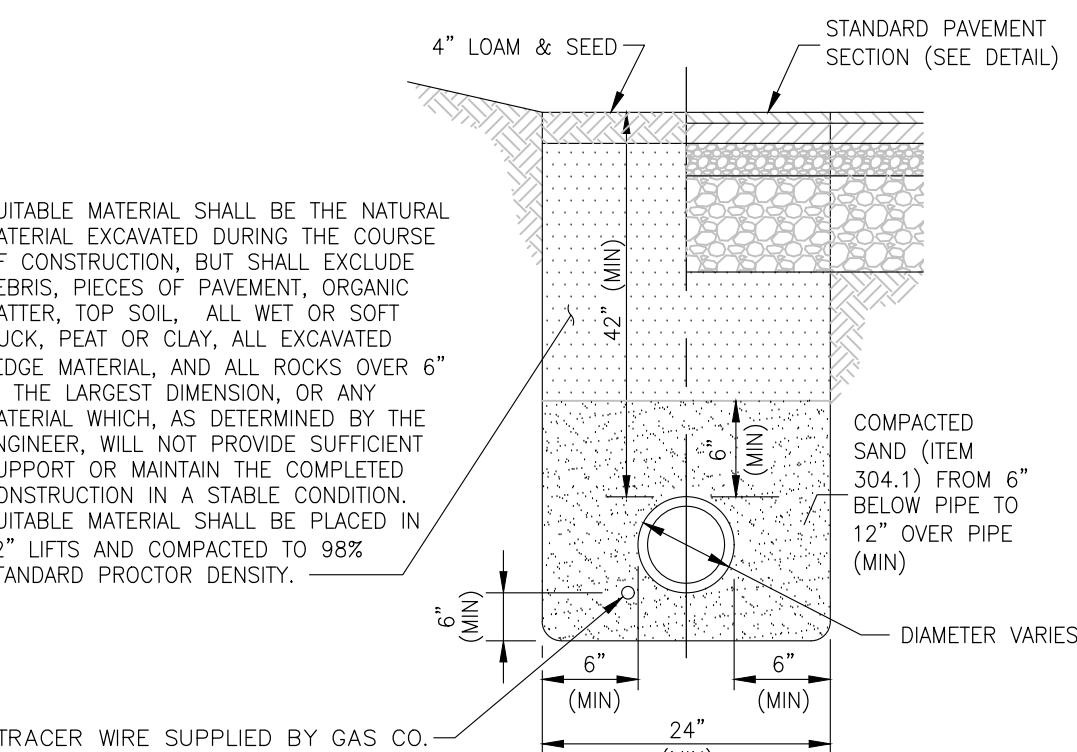


NOTE

1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO HOOKSETT CENTRAL WATER PRECINCT TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

THRUST BLOCKING BEHIND FITTINGS INSTALLATION

NOT TO SCALE



GAS MAIN TRENCH

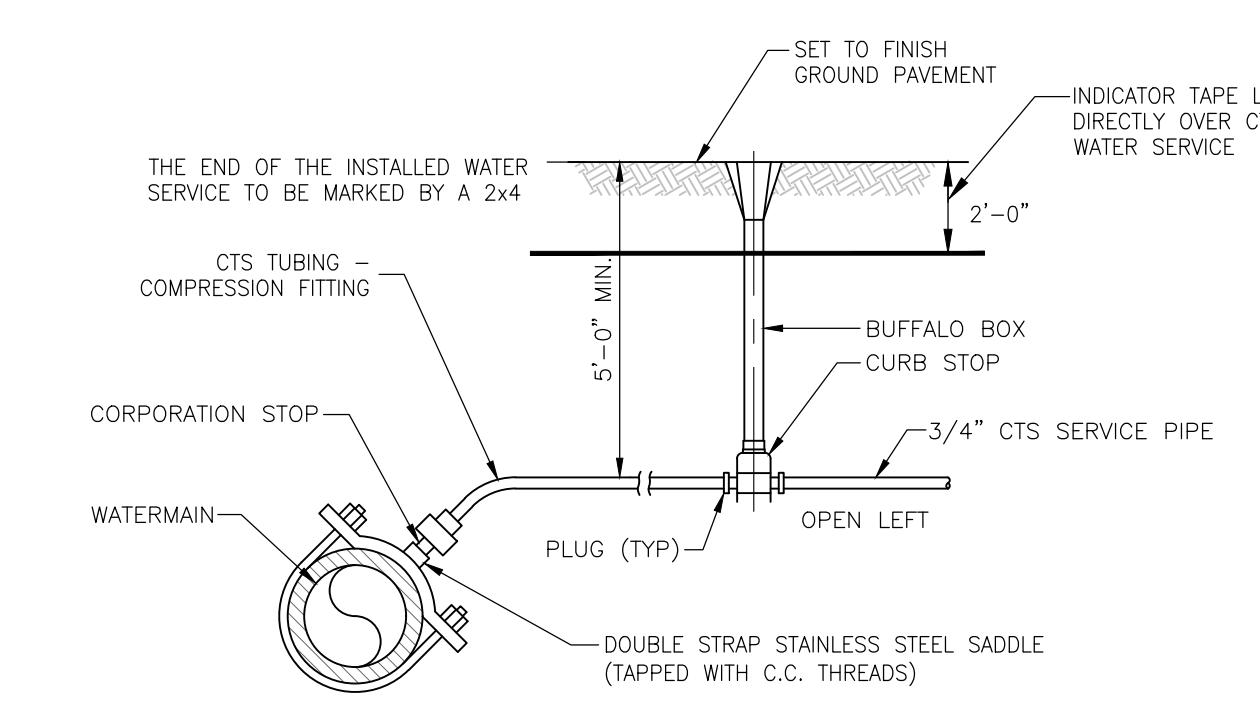
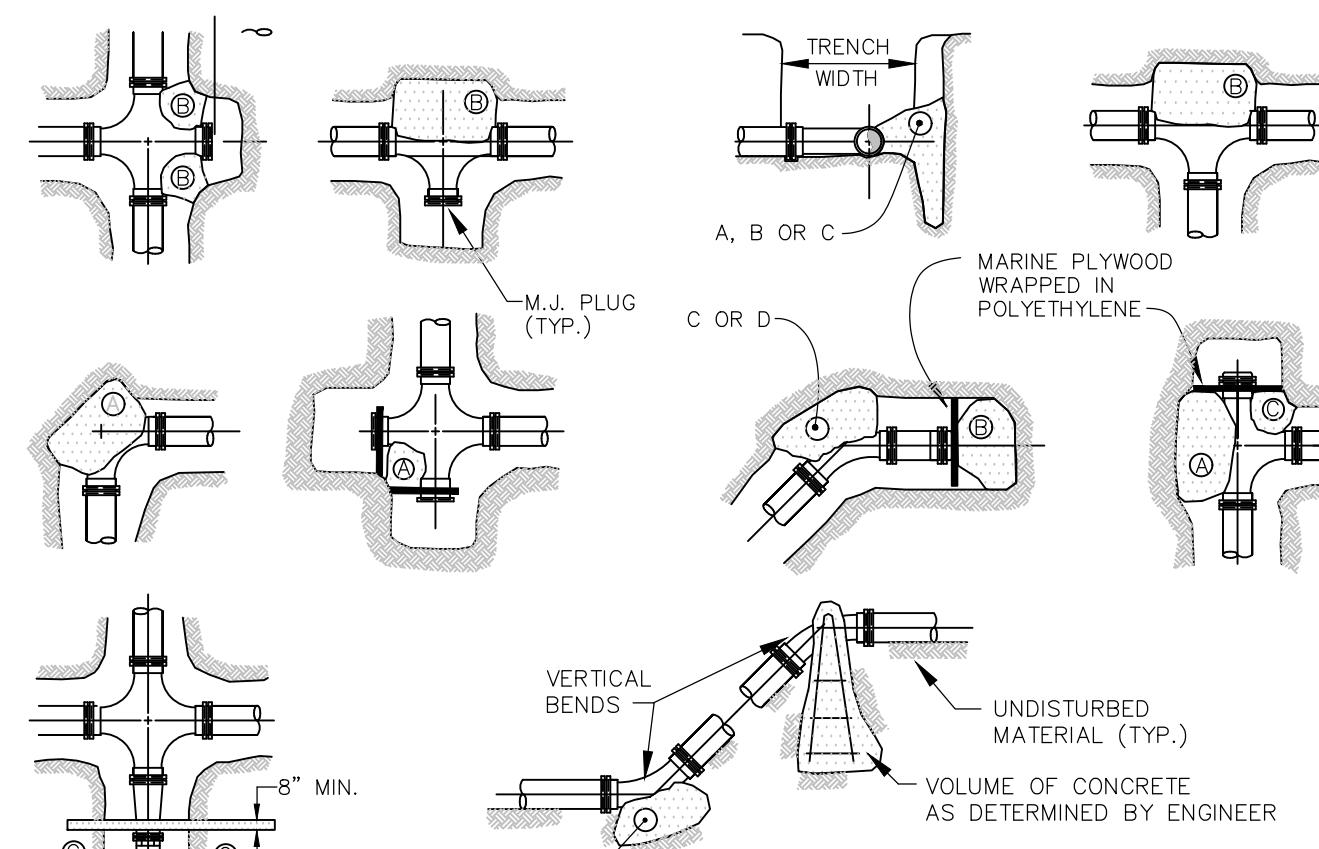
NOT TO SCALE

APPROVED BY THE HUDSON, NH PLANNING BOARD	
DATE OF MEETING	SIGNATURE DATE
CHAIRMAN	SIGNATURE DATE
SECRETARY	SIGNATURE DATE
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.	

PAVEMENT TRENCH PATCH

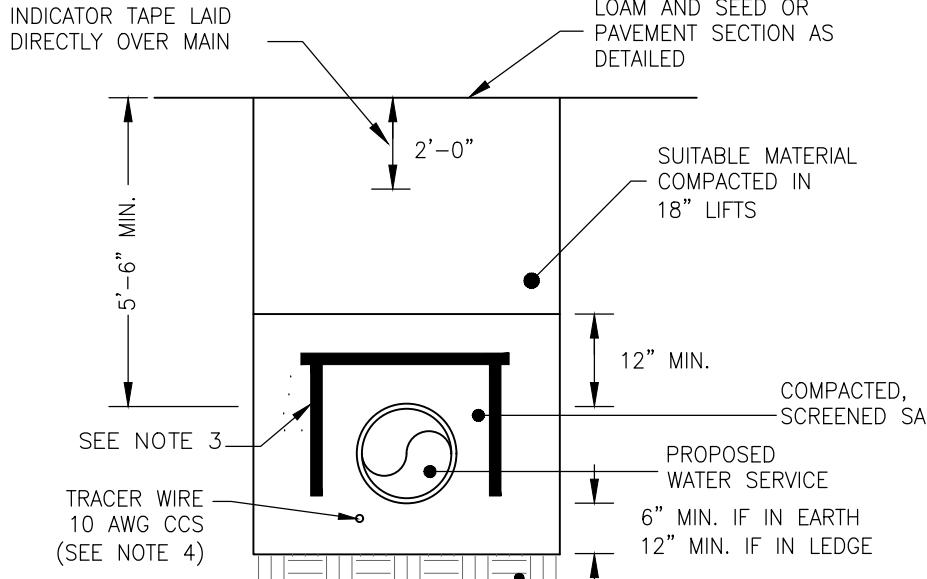
FLUSH NOT TO SCALE

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WATER SERVICE CONNECTION

NOT TO SCALE



WATER TRENCH

NOT TO SCALE

1. A MINIMUM 2'x2'4" PRECAST CONCRETE THRUST BLOCK IS PREFERRED BY TNWD.
2. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO PIPE JOINTS SHALL BE COVERED WITH CONCRETE.
3. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
4. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS. PLACE ROOFING FELT AROUND HYDRANT ELBOW BEFORE POURING THRUST BLOCKS AND ENSURE CONCRETE DOES NOT PLUG HYDRANT DRAIN PORTS.
5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE TNWD ESTABLISHED RULES AND PROCEDURES.

TEST PRESSURE = 200psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL					
	REACTION TYPE	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24	
B 180°	0.65	1.55	2.78	8.38	12.00	
C 45°	0.48	1.19	2.12	6.02	9.32	
D 22-1/2°	0.25	0.60	1.06	3.08	4.74	
E 11-1/4°	0.13	0.30	0.54	1.54	2.58	

THRUST BLOCKS

NOT TO SCALE

THE FOLLOWING ARE TNWD ACCEPTABLE MANUFACTURERS FOR WATER MATERIALS:

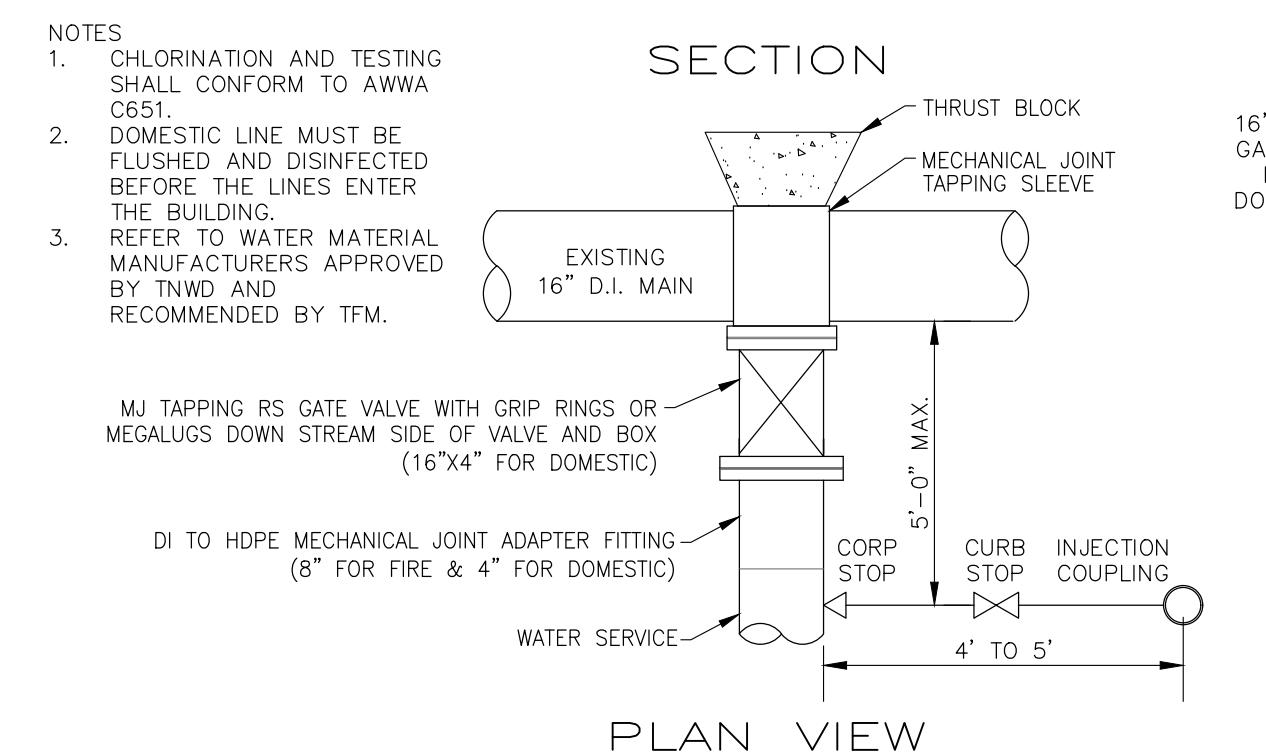
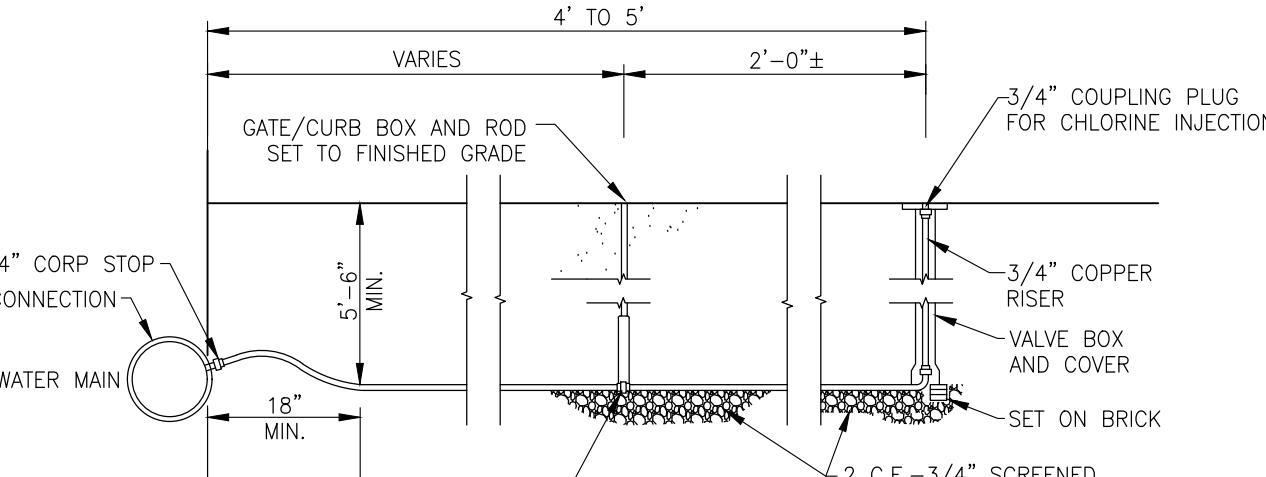
- DUCTILE IRON PIPE - ATLANTIC STATES U.S. PIPE AND GRIFFIN DUCTILE IRON PIPE AND APPROVED EQUAL
- VALVE BOXES - TYLER OR APPROVED EQUAL
- JOINT RESTRAINTS - GRIP RINGS BY ROMAC BY EJ PRESCOTT OR MEGALUG BY EBBA
- HYDRANTS - AMERICAN DARLING B-84-B BY EJ PRESCOTT BLOW-OFF HYDRANT - MANGUARD BY EJ PRESCOTT
- 8" GATE VALVES - AMERICAN FLOW CONTROL BY EJ PRESCOTT OR MUELLER
- 2" GATE VALVES - MUELLER 2" MECHANICAL JOINT RESILIENT VALVE GATE VALVE
- BRASS CORPORATION, CURB STOPS, UNIONS, AND FITTINGS - FORD AND MCDONALD
- SADDLES - ROMAC 305-H BY EJ PRESCOTT, FORD, OR MUELLER BR15

THE FOLLOWING ARE TFM-RECOMMENDED MANUFACTURERS FOR WATER MATERIALS:

- STAINLESS STEEL TAPPING SLEEVE - ROMAC SST BY EJ PRESCOTT
- MECHANICAL JOINT TAPPING SLEEVE - AMERICAN FLOW CONTROL BY EJ PRESCOTT
- MECHANICAL JOINT ADAPTER FITTING - INTEGRIFUSE BY EJ PRESCOTT
- MECHANICAL JOINT RETAINER GLAND - FORD BY EJ PRESCOTT

WATER MATERIAL MANUFACTURERS

NOT TO SCALE



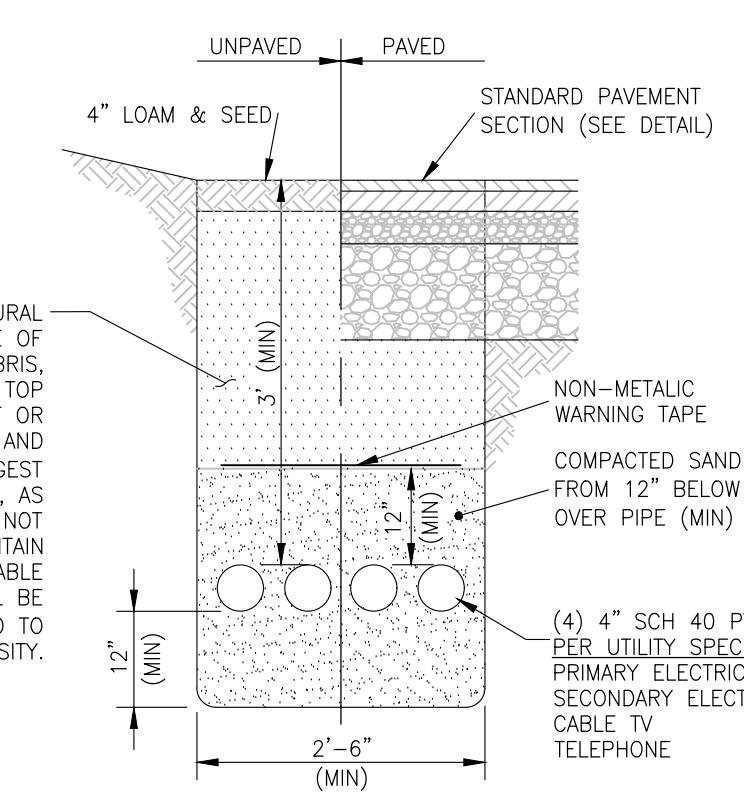
CHLORINE INJECTION CONNECTION

NOT TO SCALE

1. CHLORINATION AND TESTING SHALL CONFORM TO AWWA C651.
2. DOMESTIC LINE MUST BE FLUSHED AND DISINFECTED BEFORE THE LINES ENTER THE BUILDING.
3. REFER TO WATER MATERIAL MANUFACTURERS APPROVED BY TNWD AND RECOMMENDED BY TFM.

DOMESTIC SERVICE WET TAP INSTALLATION

NOT TO SCALE



ELECTRIC/COMMUNICATIONS TRENCH

NOT TO SCALE

1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR
REV	DATE	DESCRIPTION	DR	CK

SCALE: NTS

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

DETAILS

PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

GENERAL NOTES

1. IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHIC IN PLACE, REINFORCEMENT, APPROVED MANHOLE. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20) LOADING WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.

2. BARRELS, CONE SECTIONS AND CONCRETE GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AND SHALL CONFORM ENV-W 704.12 & 704.13.

3. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478-06.

4. BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.

5. MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.

6. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL.

7. ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.

8. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

9. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS WITH A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT. APPROVED ELASTOMERIC SEALANTS ARE:

- SIKAFLEX-12-SL
- SONNEBORN BUILDING PRODUCTS-SONOLASTIC SL-1

10. THE MINIMUM INTERNAL DIAMETER OF MANHOLES SHALL BE 48 INCHES; FOR SEWERS LARGER THAN 24-INCH DIAMETER, MANHOLE DIAMETERS SHALL BE INCREASED SO AS TO PROVIDE AT LEAST 12-INCHES OF SHELF ON EACH SIDE OF THE SEWER.

11. LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE TO ENV-WQ 704.17.

(a) ALL MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD IN EFFECT WHEN THE TESTING IS PERFORMED.

(b) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:

- 1. INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg.
- 2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR 1-INCH Hg PRESSURE DROP TO 9 INCHES SHALL BE:

 - A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP.
 - B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP.
 - C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.

(c) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (b) ABOVE.

(d) INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETE.

(e) FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.

13. BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32-05, CLAY OR SHALE, FOR GRADE SS HARD BRICK.

MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:

- (a) 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
- (b) 4.5 PARTS SAND, 1 PART CEMENT AND 0.5 PART HYDRATED LIME

CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05. HYDRATED LIME SHALL BE TYPE S CONFORMING TO ASTM C207-06. "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES". SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO ASTM C33-03 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES".

14. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED OR PRECAST CONCRETE SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOOR AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.

15. FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN, CLASS 30, CONFORMING TO ASTM A114-08M AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH WORD (MINIMUM HEIGHT) LEADS AND 24" PLATE CAST INTO THE TOP SURFACE. THE CASTING SHALL BE OF EVEN GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BUSTERS, SAND HOLES AND DEFECTS. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.

16. BEDDING: PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPAKED BEDDING MATERIAL THAT CONFORMS TO ASTM C33-03 NO. 67 STONE AND FREE FROM CLAY, LOAM AND ORGANIC MATTER. THE EXCAVATION SHALL BE PROPERLY Dewatered WHILE PLACING BEDDING MATERIAL AND SETTING OF THE BASE IN PLACE. CONCRETE WATER-STOPS SHALL BE USED AT THE HORIZONTAL JOINT OF THE CAST-IN-PLACE MANHOLES.

100% PASSING 1" SCREEN
90-100% PASSING 3/4" SCREEN
20-55% PASSING 3/8" SCREEN
0-10% PASSING #4 SIEVE
0-5% PASSING #8 SIEVE

17. FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION: (a) WITHIN 48 INCHES FOR REINFORCED CONCRETE PIPE (RCP). (b) WITHIN 60 INCHES FOR PVC PIPE LARGER THAN 15" DIAMETER.

18. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DUCTILE IRON PIPE OR PVC PIPE UP THROUGH 15-INCH DIAMETER.

19. PIPE TO MANHOLE JOINTS SHALL BE ONLY AS FOLLOWS:

- A. ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.
- B. CASE INTO WALL OR SECURED WITH STAINLESS STEEL CLAMPS.
- C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH THE SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING.
- D. ON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.

20. THE INVERT OF THE INCOMING PIPE SHALL BE NO MORE THAN 6 INCHES ABOVE THE OUTGOING PIPE UNLESS A DROP ENTRY IS USED.

APPROVED BY THE HUDSON, NH PLANNING BOARD

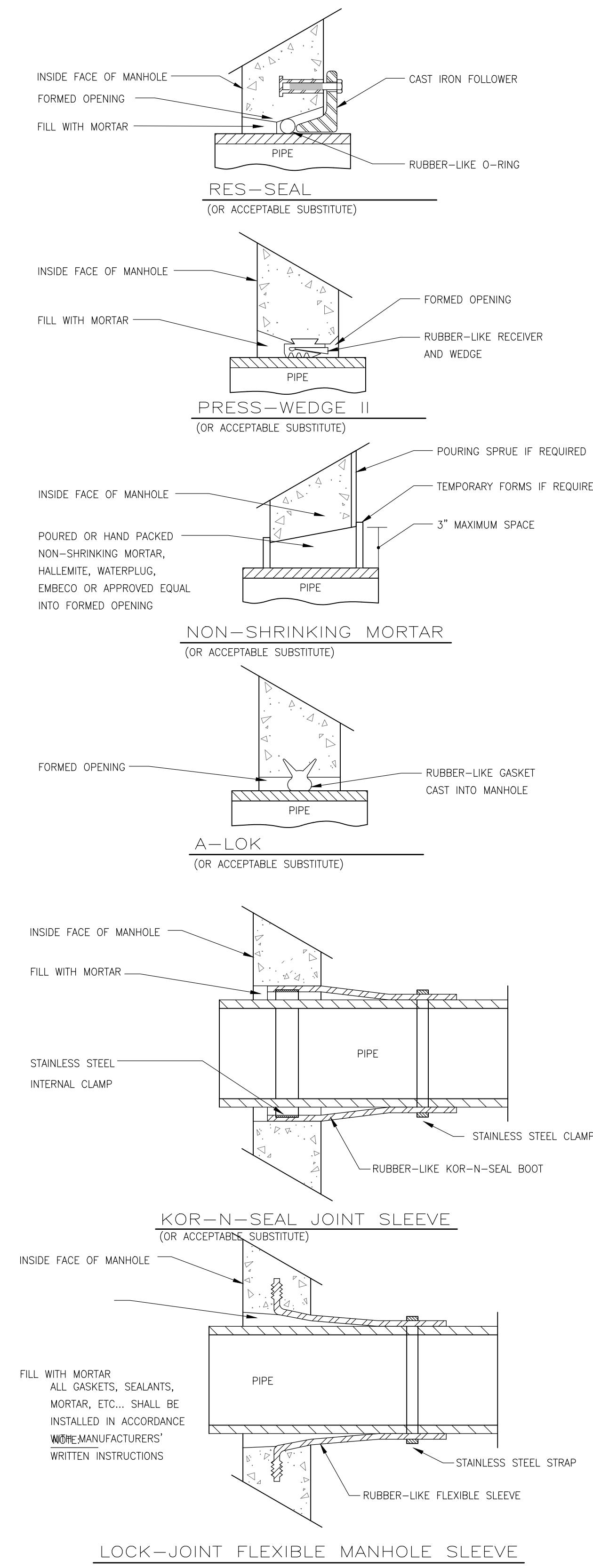
DATE OF MEETING	SIGNATURE DATE
CHAIRMAN	SIGNATURE DATE
SECRETARY	SIGNATURE DATE

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.

DETAIL "A" - PIPE TO MANHOLE JOINTS



STANDARD MANHOLE

NOT TO SCALE

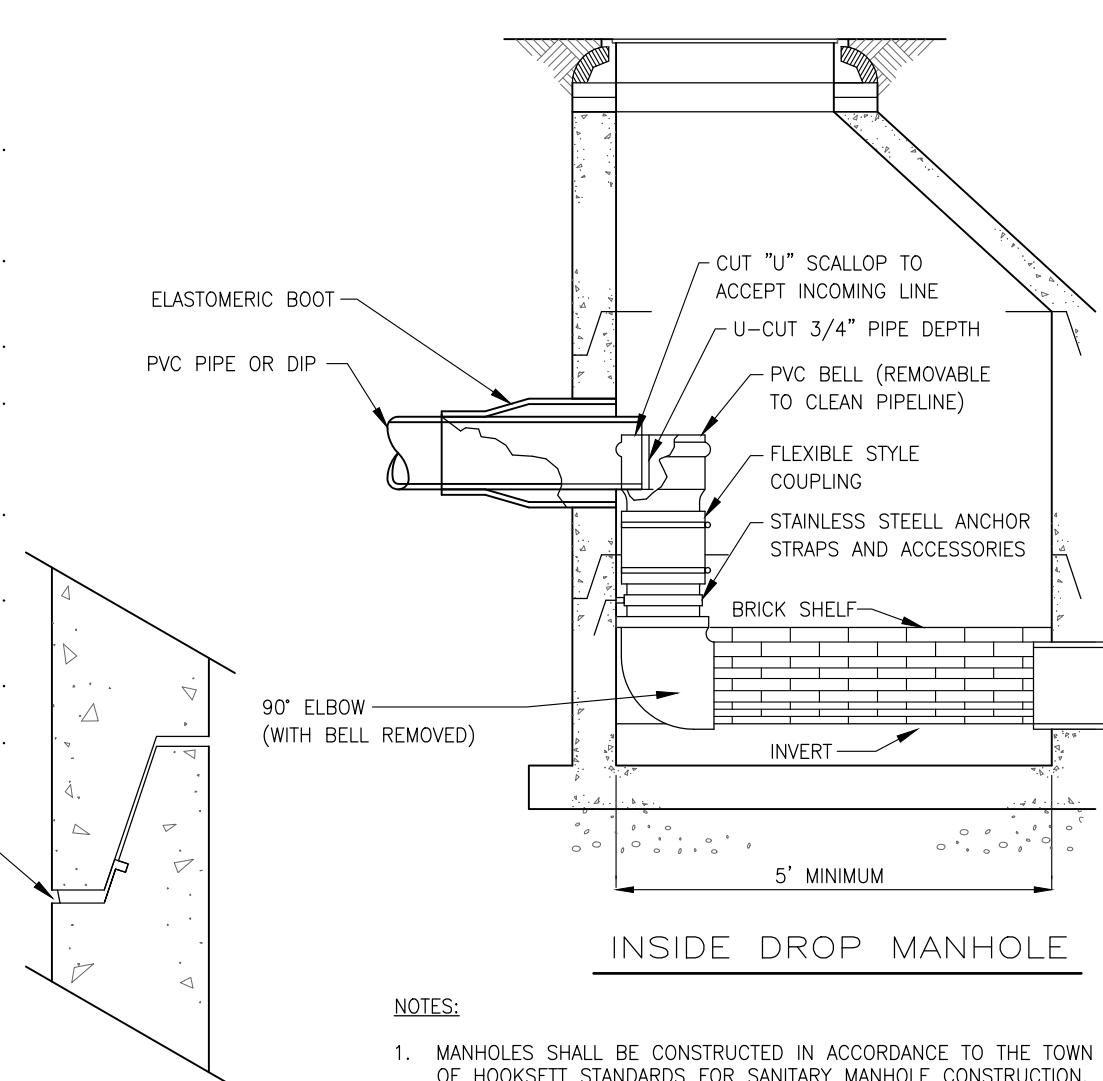
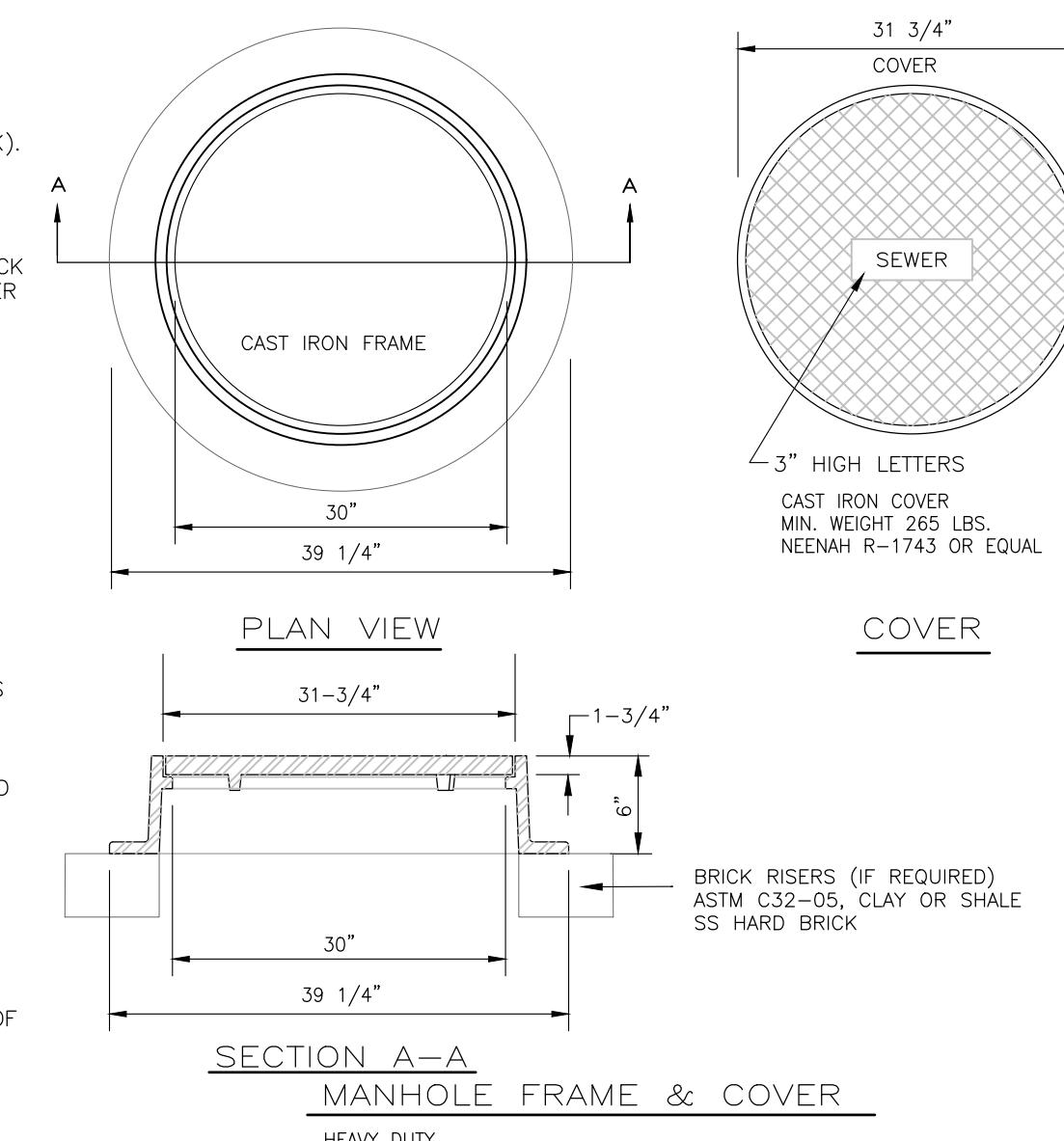
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TYPICAL MANHOLE - PLAN VIEW

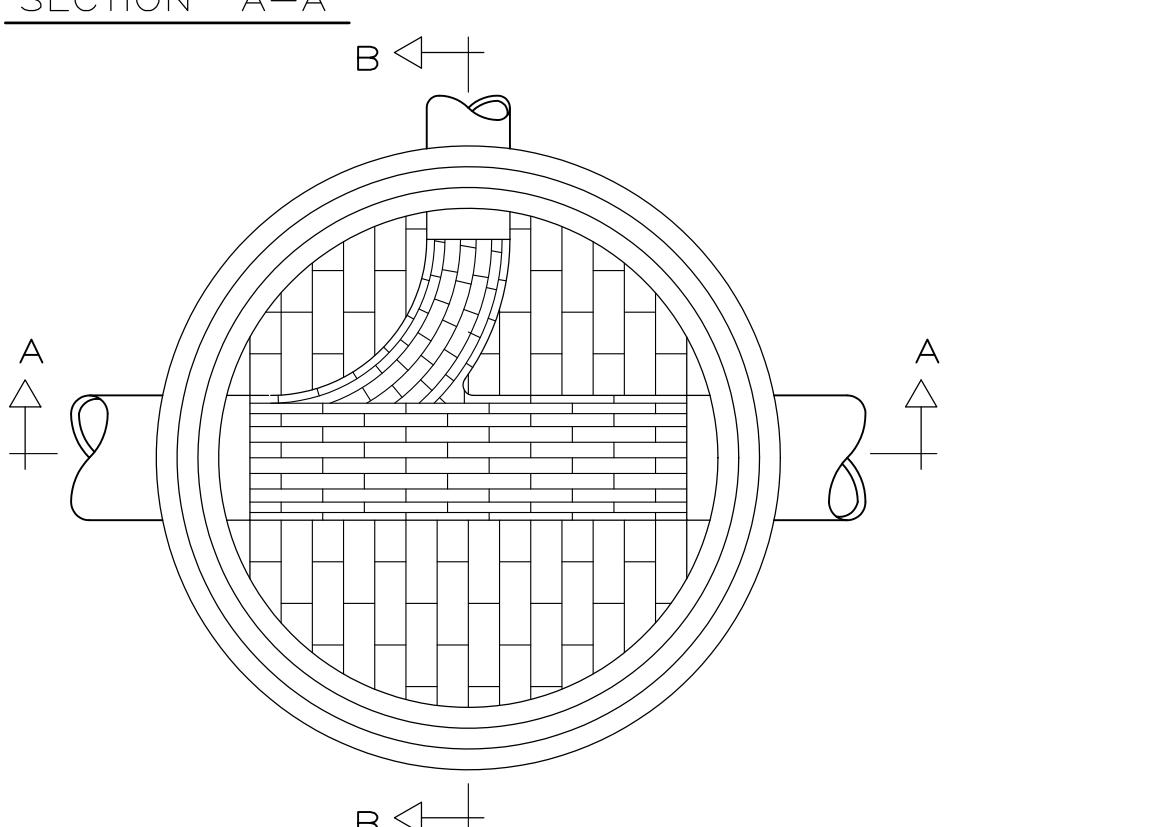
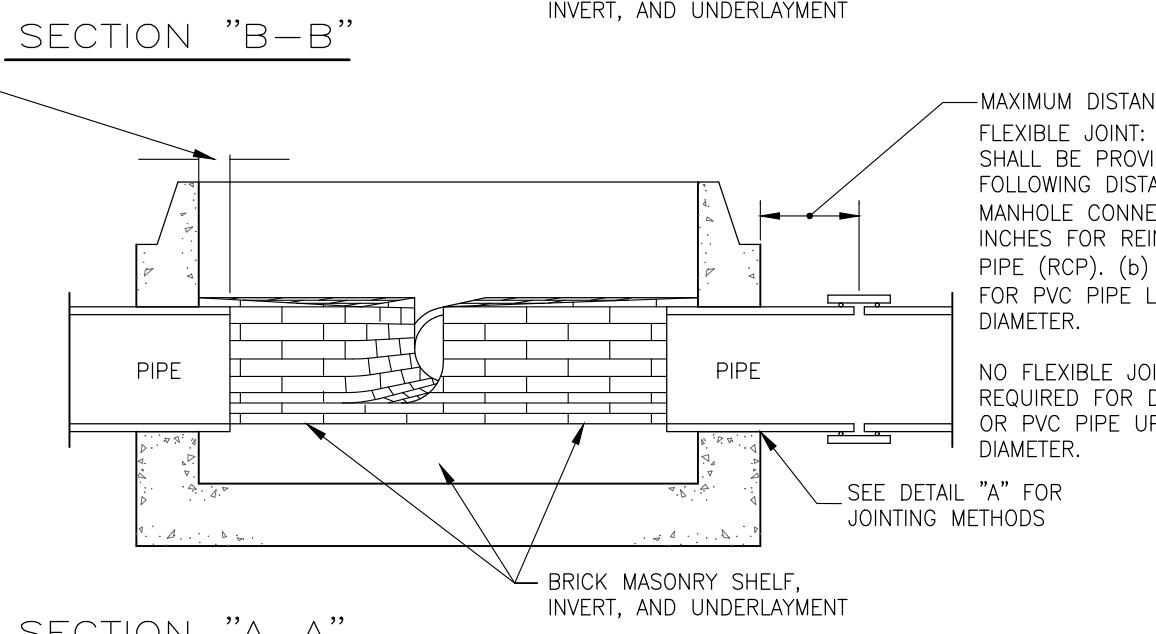
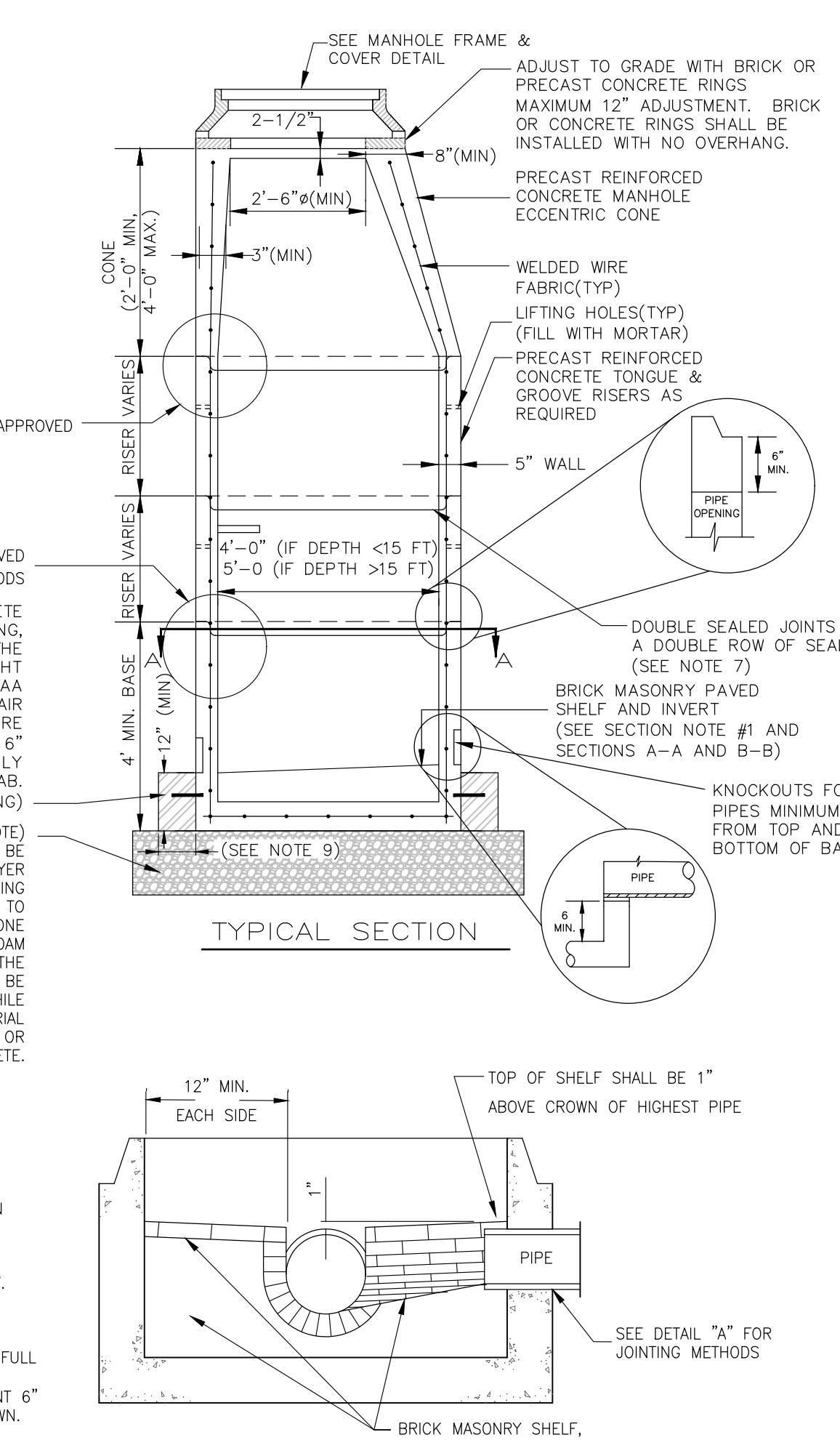
1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR
REV	DATE	DESCRIPTION	DR	CK

NOTES

- UNDERLAYMENT OF MANHOLE INVERT AND SHELF SHALL BE BRICK MASONRY PER ENV-WQ 704.12(K).
- INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
- CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
- INVERT BRICKS SHALL BE LAID ON EDGE.
- PRECAST CONCRETE MANHOLES SHALL MEET AASHTO M199-93 / ASTM C478-90B, RATED FOR HS-20 LOADING WITH CONCRETE STRENGTH OF 4000 PSI OR GREATER.
- ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
- ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.



DETAIL "B" - HORIZONTAL JOINTS



SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

DETAILS

PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

SCALE: NTS

Seacoast Division		Civil Engineers	Structural Engineers	170 Commerce Way, Suite 102
TFM	®	Traffic Engineers	Land Surveyors	Portsmouth, NH 03801
		Landscape Architects	Scientists	Phone (603) 431-2222
				Fax (603) 431-0910
				www.tfmoran.com

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REV	DATE	CK	CRR	CADFILE	18149-00_DETAILS

SEWER SERVICE NOTES

1) MINIMUM SIZE PIPE FOR SEWER SERVICE SHALL BE FOUR INCHES.

2) PIPE AND JOINT MATERIALS:

A. PLASTIC SEWER PIPE:

1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	*PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
D2680	*ABS (COMPOSITES WALL)	8" THROUGH 15"

*PVC: POLY VINYL CHLORIDE

*ABS: ACRYLONITRILE-BUTADIENE-STYRENE

2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON, BELL AND SPICOT TYPE.

ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).

JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE: A21.50 TRENCHING DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.

A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.

2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:

A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS

3) DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4) JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERENT MATERIALS ARE TO BE CONNECTED, AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.

5) TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A BOLTED, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER.

6) SEWER SERVICE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.

THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4" INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO Dewater THE TRENCH.

7) TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECT TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.

B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.

C. DRY FLUORESCENE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.

LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.

8) ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FLOOR DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.

9) WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.

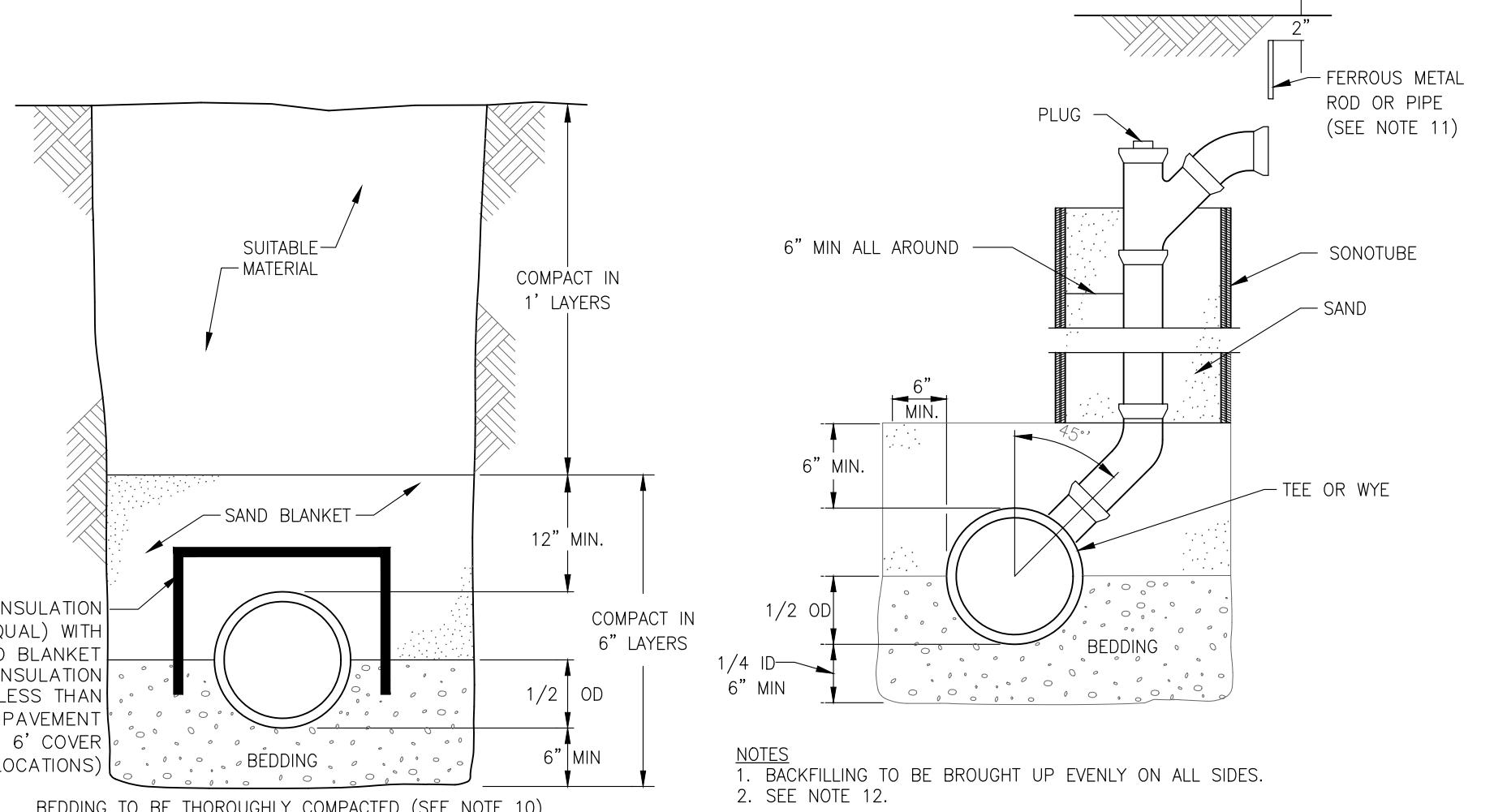
10) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%-55% PASSING	3/8 INCH SCREEN
0%-10% PASSING	#6 SIEVE
0%-5% PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

11) LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPEFINDER.

12) CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE SEWER CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.



TRENCH CROSS-SECTION

NOT TO SCALE

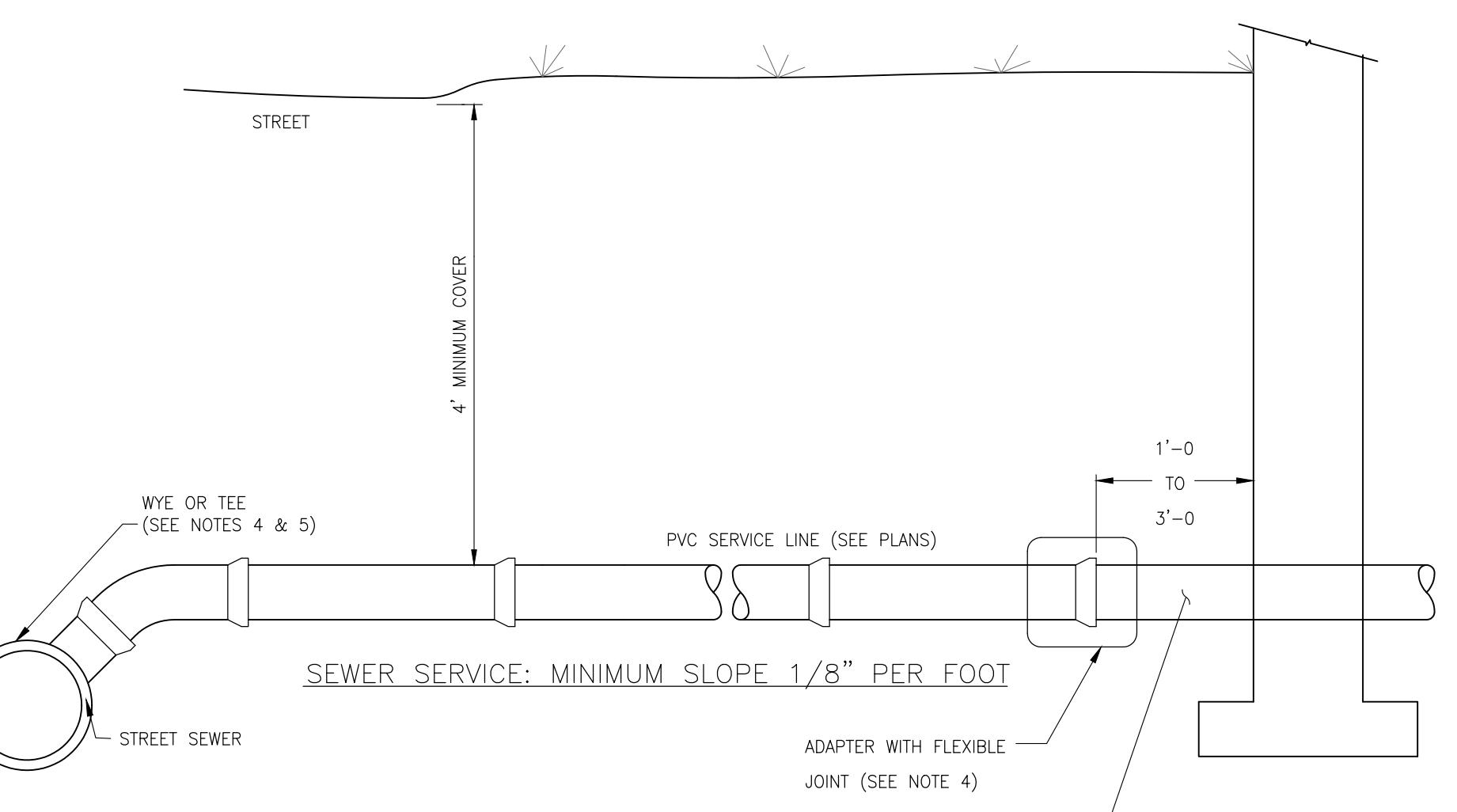
NOTES:

1. BACKFILLING TO BE BROUGHT UP EVENLY ON ALL SIDES.

2. SEE NOTE 12.

CHIMNEY

NOT TO SCALE



SEWER SERVICE

NOT TO SCALE

NOTES:

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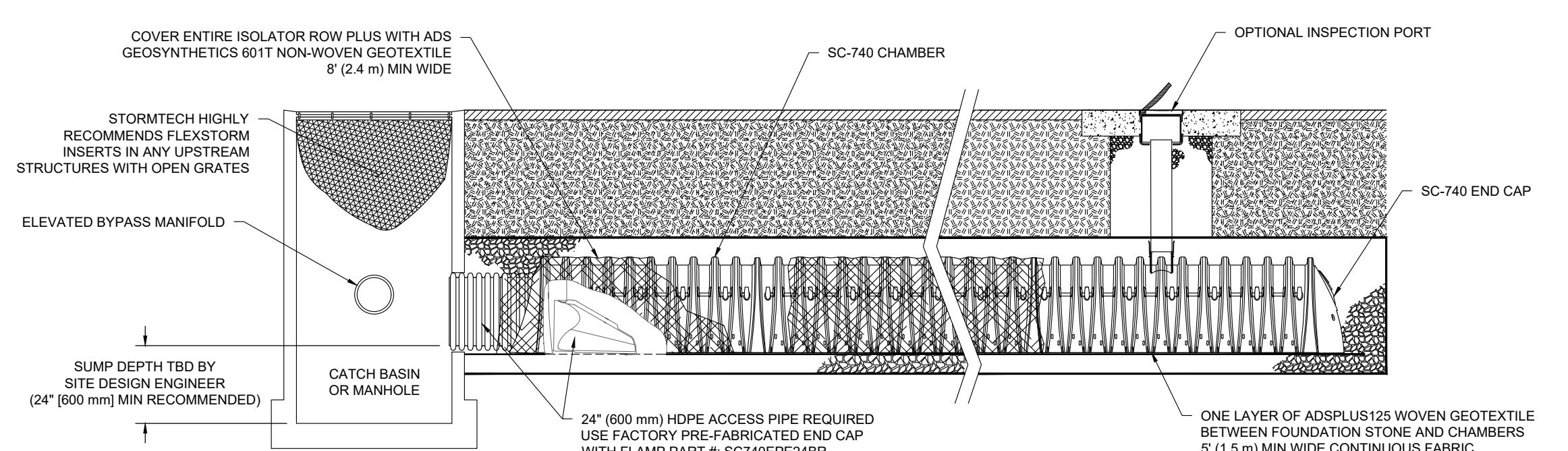
85. SEE A/E PLANS

86. SEE A/E PLANS

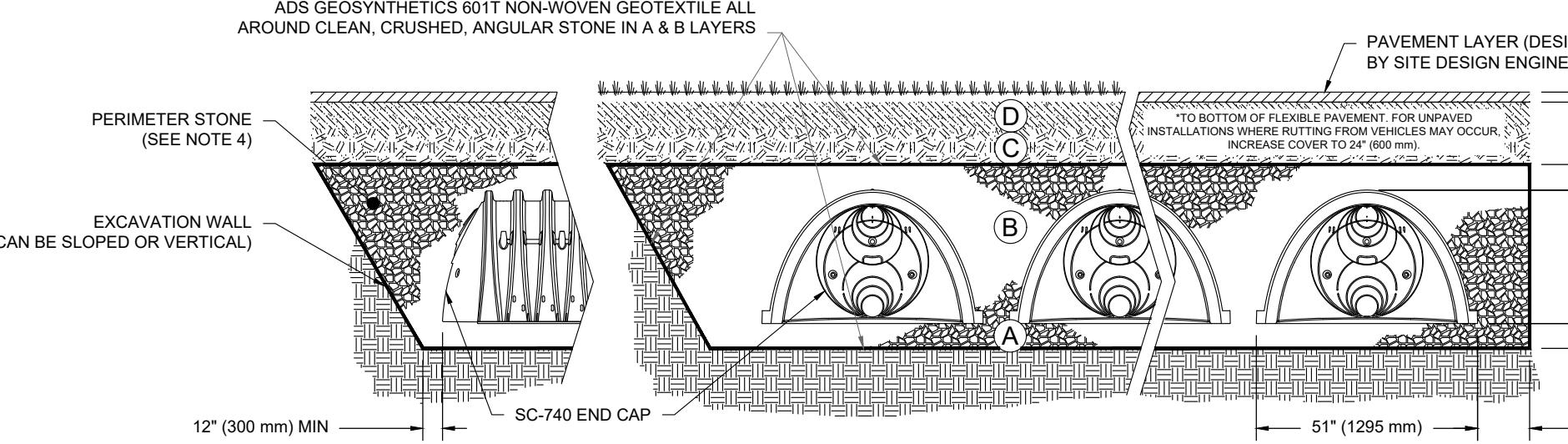
87. SEE A/E PLANS

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINOR COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWING:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2418, AND SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

**SC-740 ISOLATOR ROW PLUS DETAIL**

NOT TO SCALE

**SC-740 TYPICAL CROSS SECTION DETAIL**

NOT TO SCALE

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 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.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING _____	SIGNATURE DATE _____
CHAIRMAN _____	SIGNATURE DATE _____
SECRETARY _____	SIGNATURE DATE _____

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

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

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

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILLED SUBGRADE IN ACCORDANCE WITH THE "STORMTECH SC-310SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 30" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

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

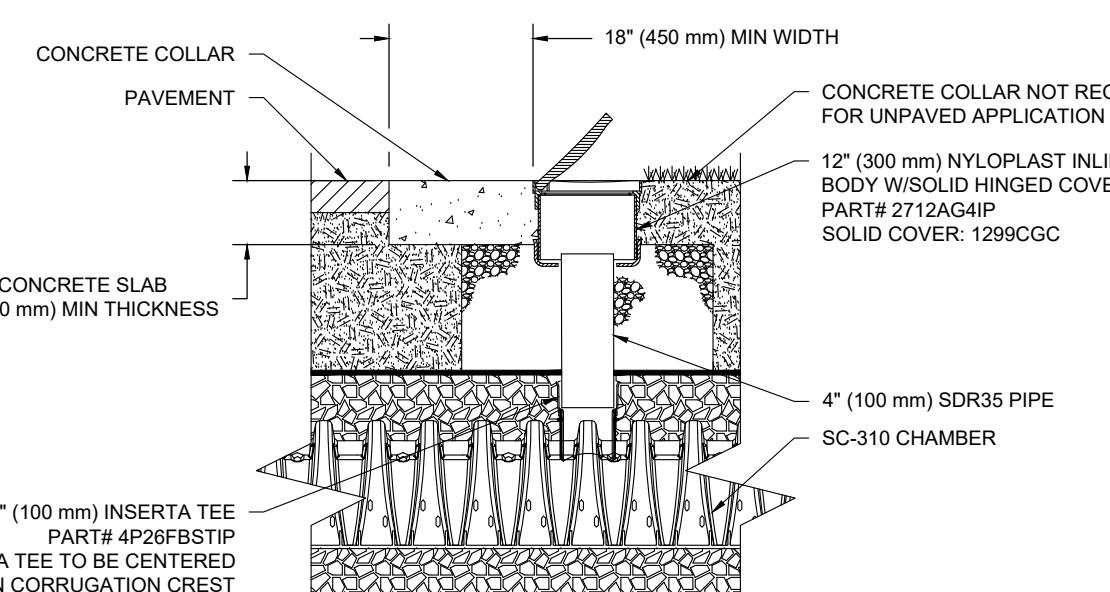
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

1. 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.

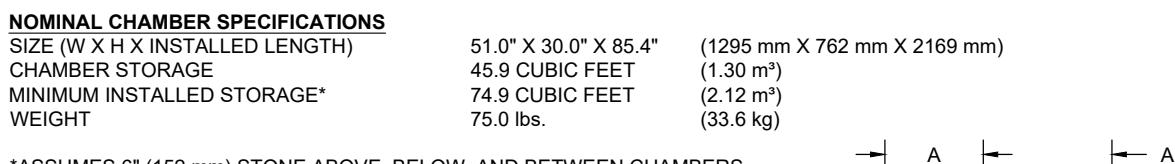
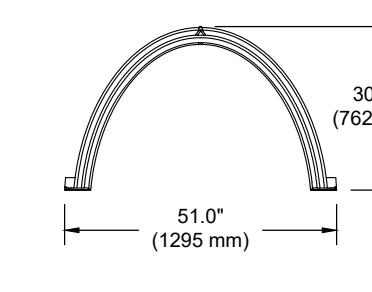
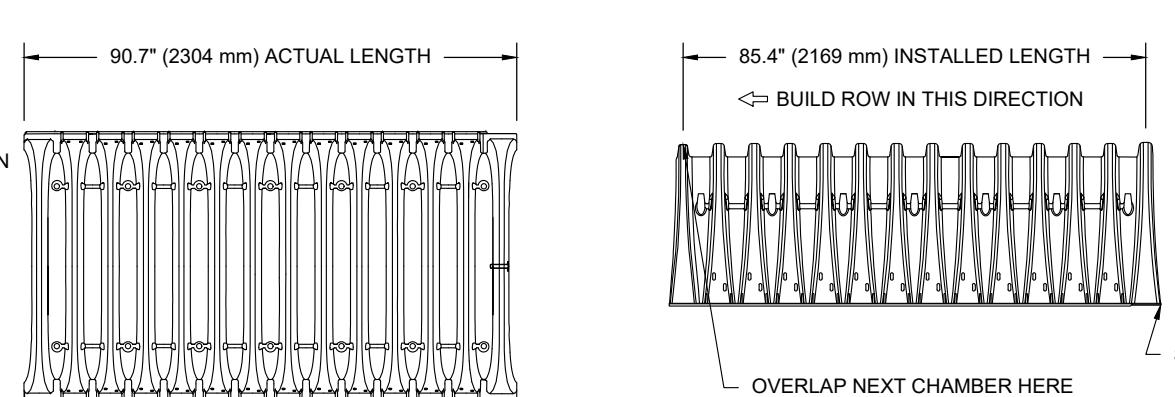
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

INSPECTION & MAINTENANCE

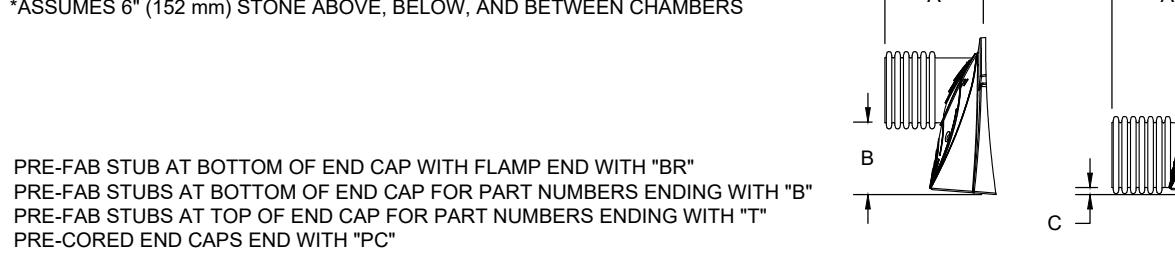
- INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - REMOVAL OF 12" (300 mm) NYLONPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- ALL ISOLATOR PLUS ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - OLLOW 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.

**4" INSPECTION PORT DETAIL**

NOT TO SCALE



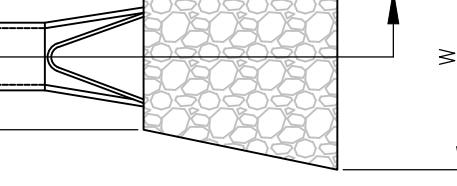
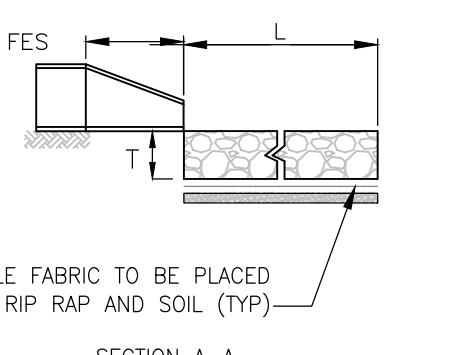
*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	...
SC740EPE09B / SC740EPE09BPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	...
SC740EPE08T / SC740EPE08TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	...
SC740EPE10B / SC740EPE10BPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	...
SC740EPE12B / SC740EPE12BPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	...
SC740EPE15T / SC740EPE15TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	24" (600 mm)	18.5" (470 mm)	...	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	0.1" (3 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



LOCATION	FES-01	FES-01
d50 STONE SIZE:	6"	0.5"
LENGTH OF APRON (L):	12.0'	12"
WIDTH OF APRON (W):	8.0'	8"
DEPTH OF RIP RAP (T):	9"	9"

% OF WEIGHT SMALLER THAN THE GIVEN SIZE OF STONE (INCHES)

100 9.00 TO 12.00

85 7.80 TO 10.80

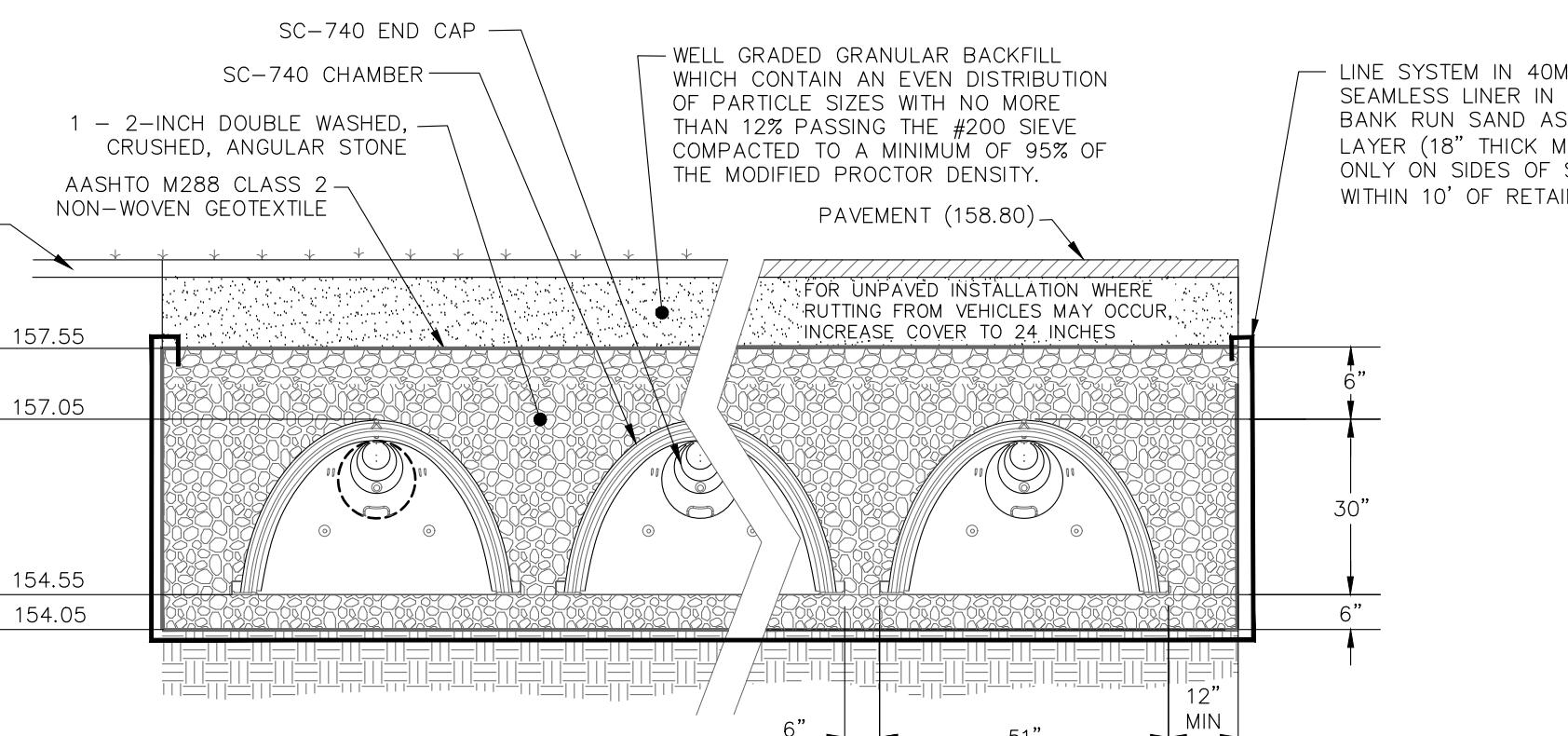
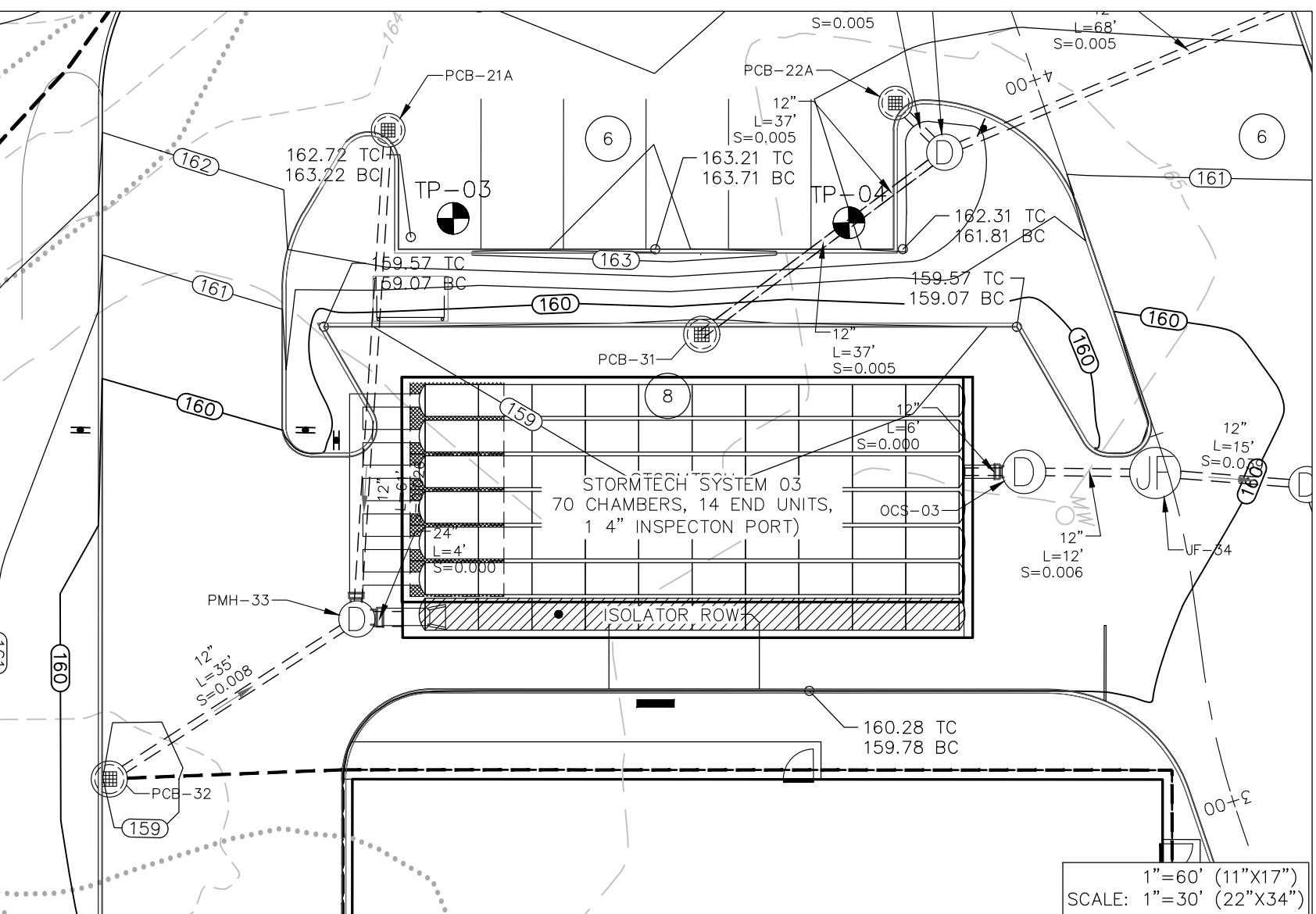
50 6.00 TO 9.00

15 1.80 TO 3.00

NOTE: INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

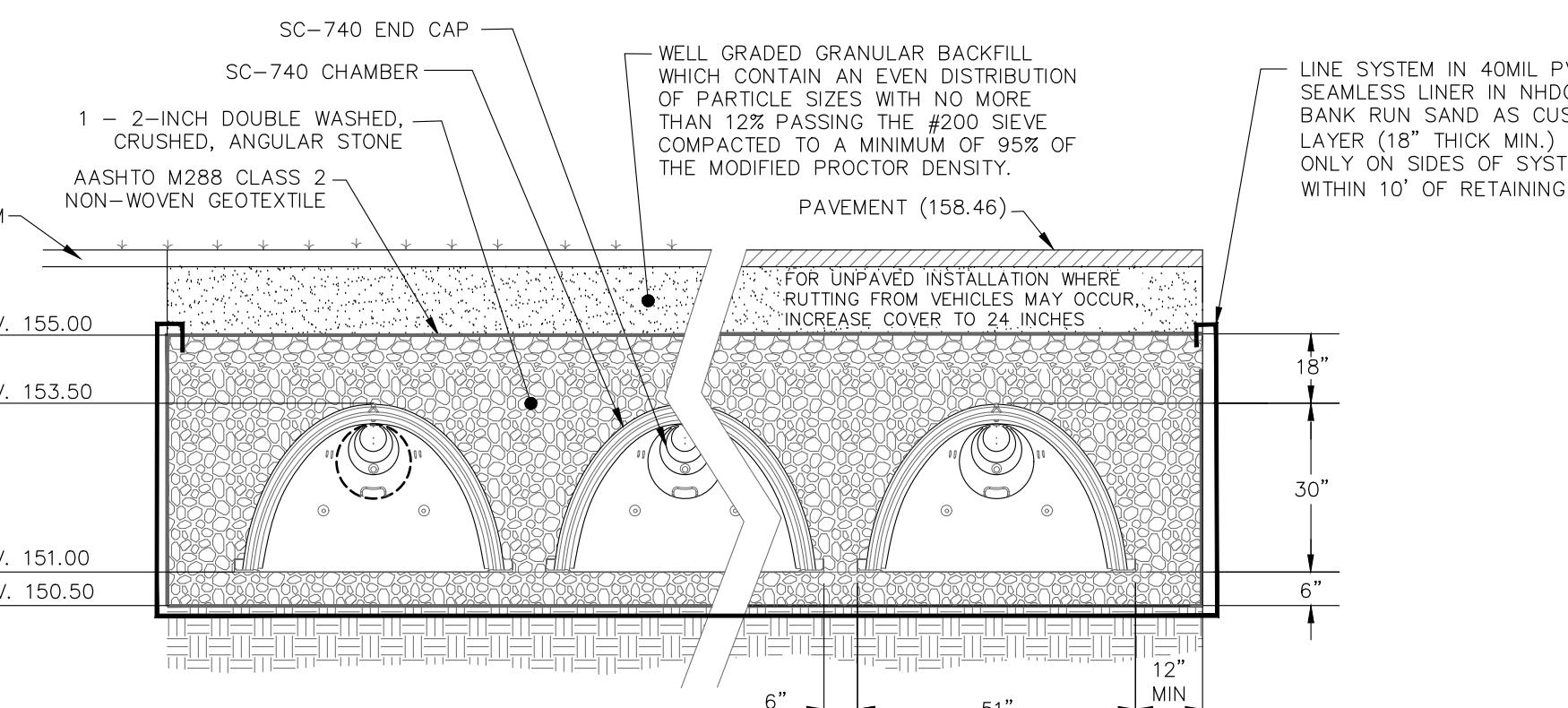
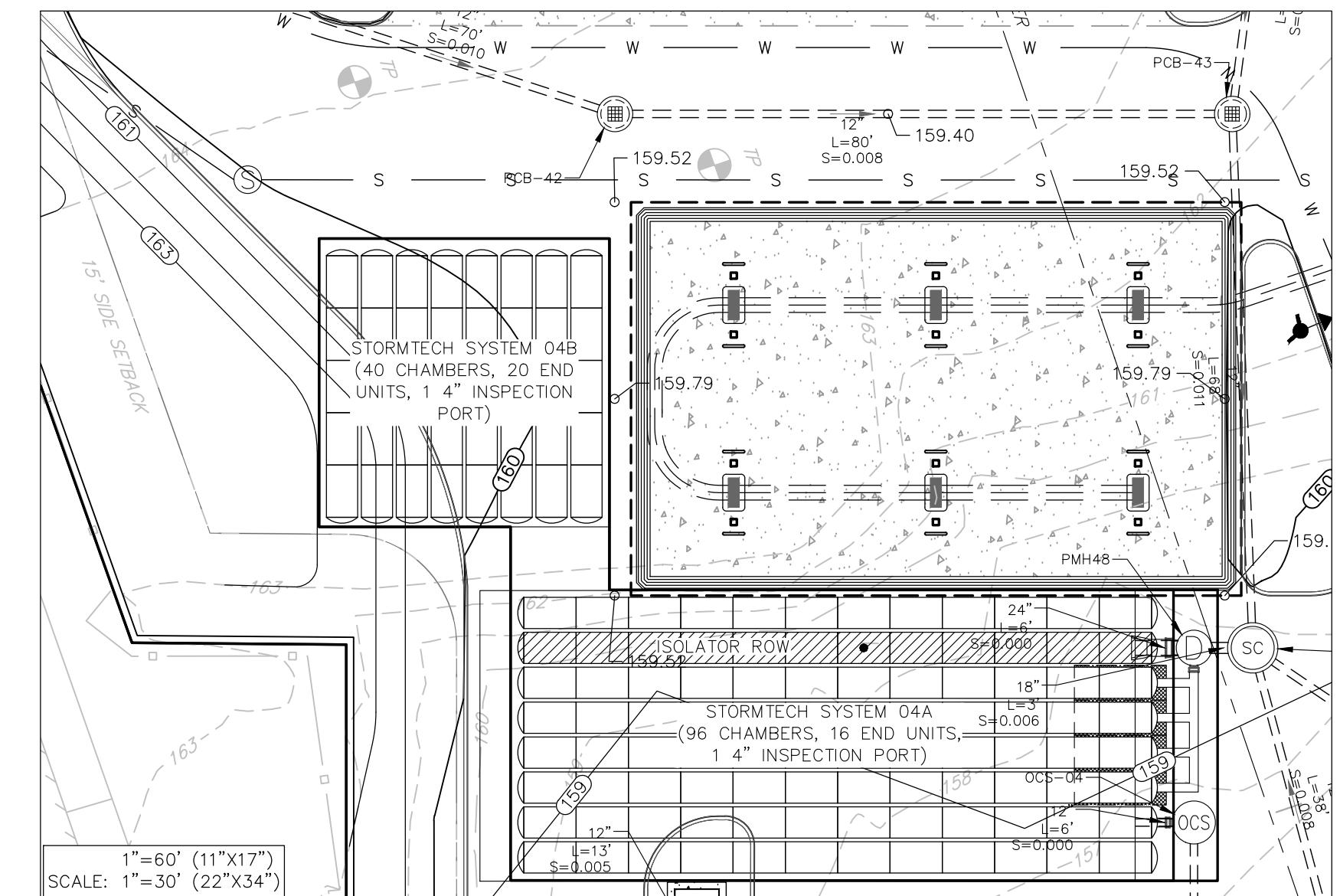
ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	ASHTO 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.	ASHTO M145 ¹ A-1, A-2-A, A-3 OR ASHTO M43 ² 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 89, 9, 10	BEGIN COMPACTION 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.	ASHTO M43 ³ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAM		



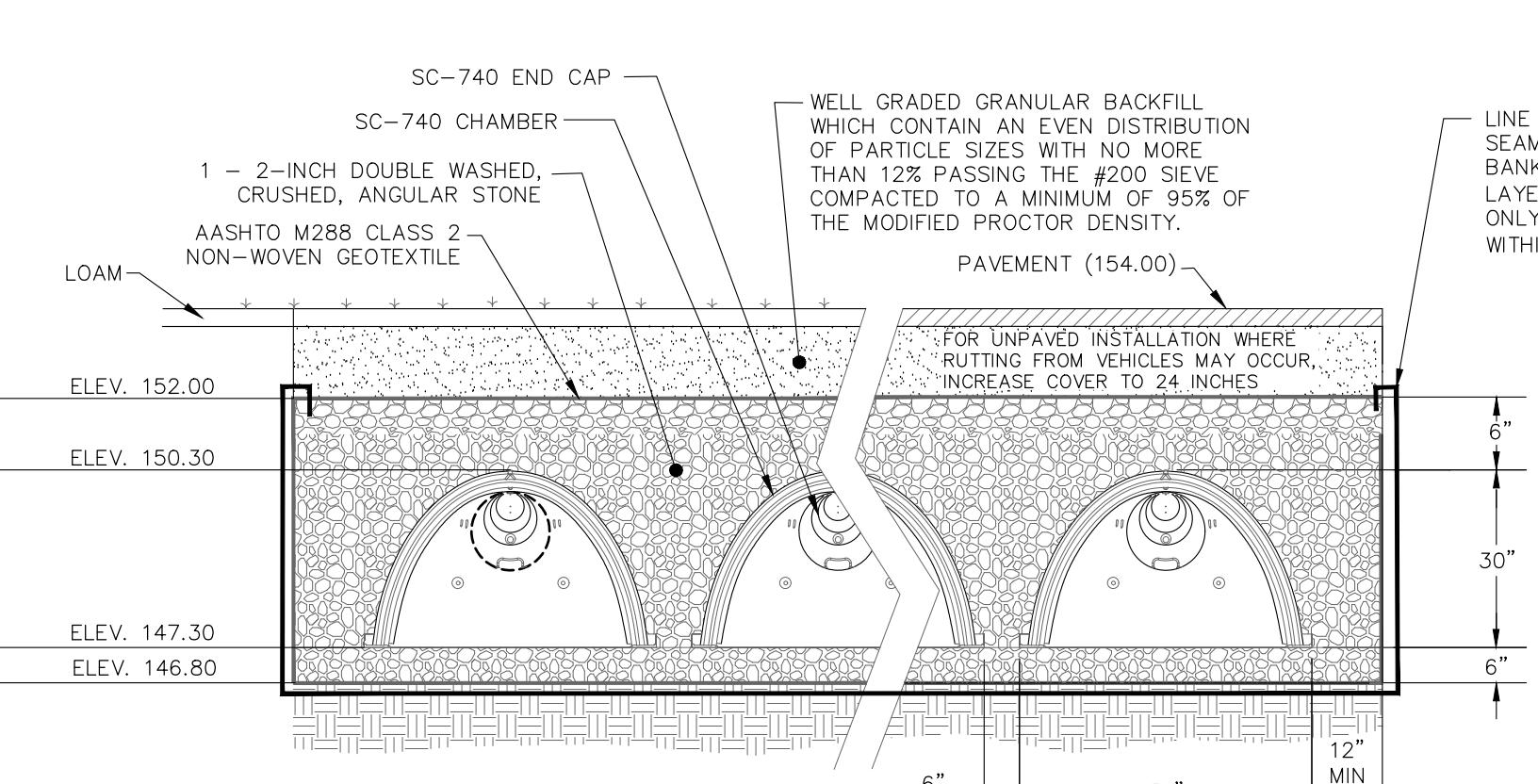
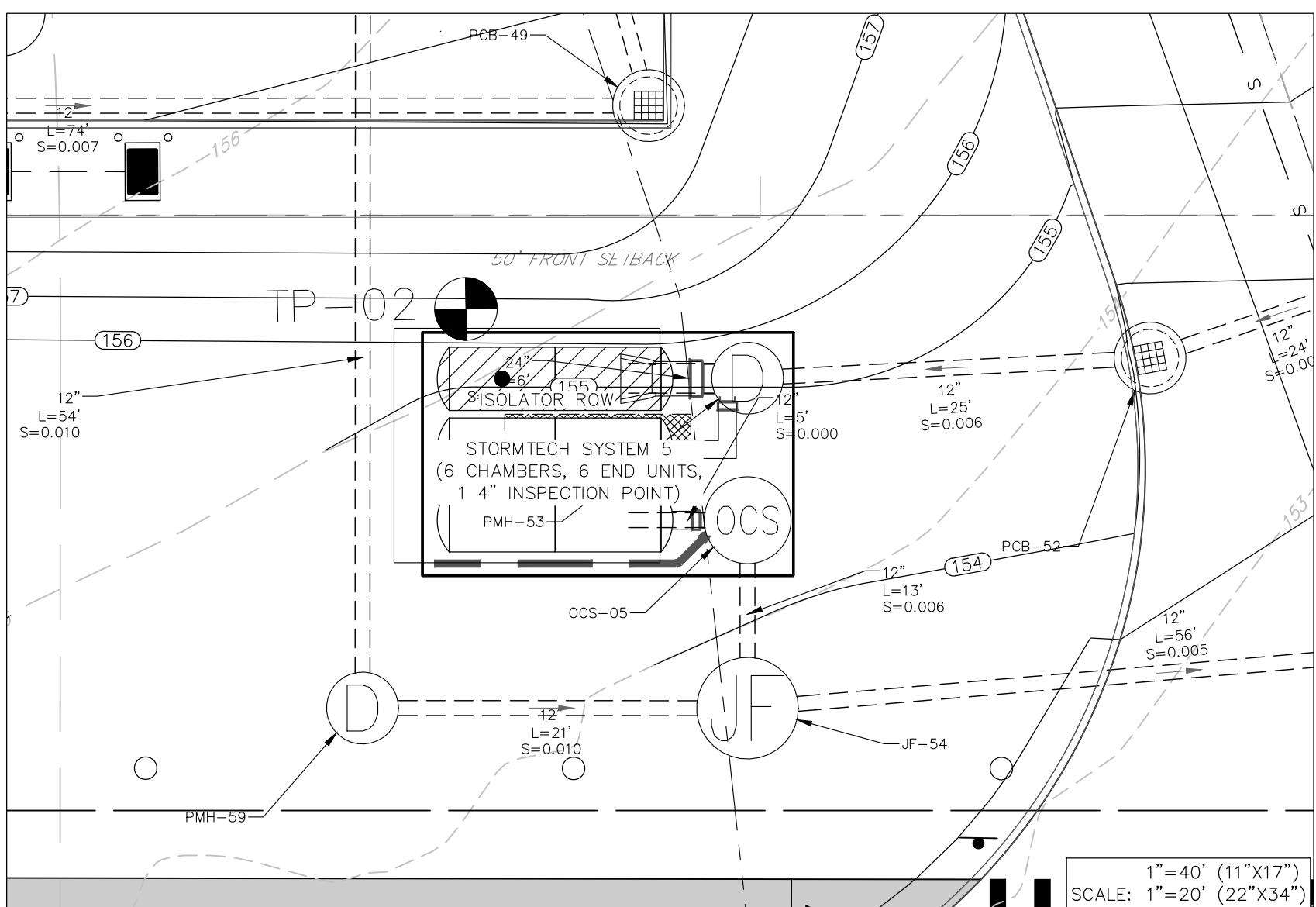
**STORMTECH SC-740 CHAMBER
SYSTEM CROSS SECTION DETAIL
STORMTECH SYSTEM #3 (LINED)**

NOT TO SCALE



**STORMTECH SC-740 CHAMBER
SYSTEM CROSS SECTION DETAIL
STORMTECH SYSTEM #4 (LINED)**

NOT TO SCALE



**STORMTECH SC-740 CHAMBER
SYSTEM CROSS SECTION DETAIL
STORMTECH SYSTEM #5 (LINED)**

NOT TO SCALE

APPROVED BY THE HUDSON, NH PLANNING BOARD

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CHAIRMAN _____	SIGNATURE DATE _____	
SECRETARY _____	SIGNATURE DATE _____	
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SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

DETAILS

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

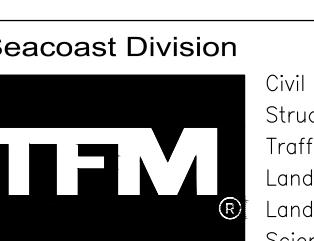
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

SCALE: NTS

OCTOBER 28, 2025

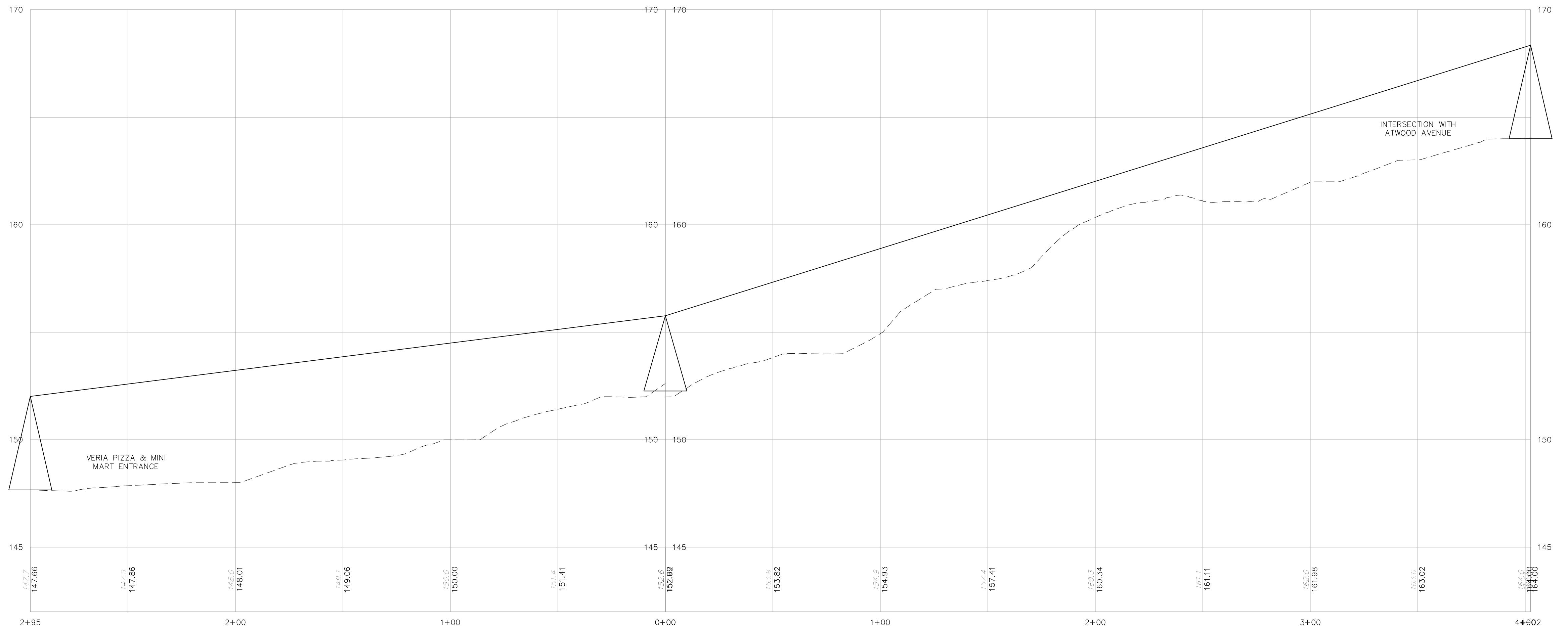
REV	DATE	DESCRIPTION	DR	CK
1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR

18149.00	DR	JKC	FB	-
CK	CRR	CADFILE	18149-00_DETAILS	C-27

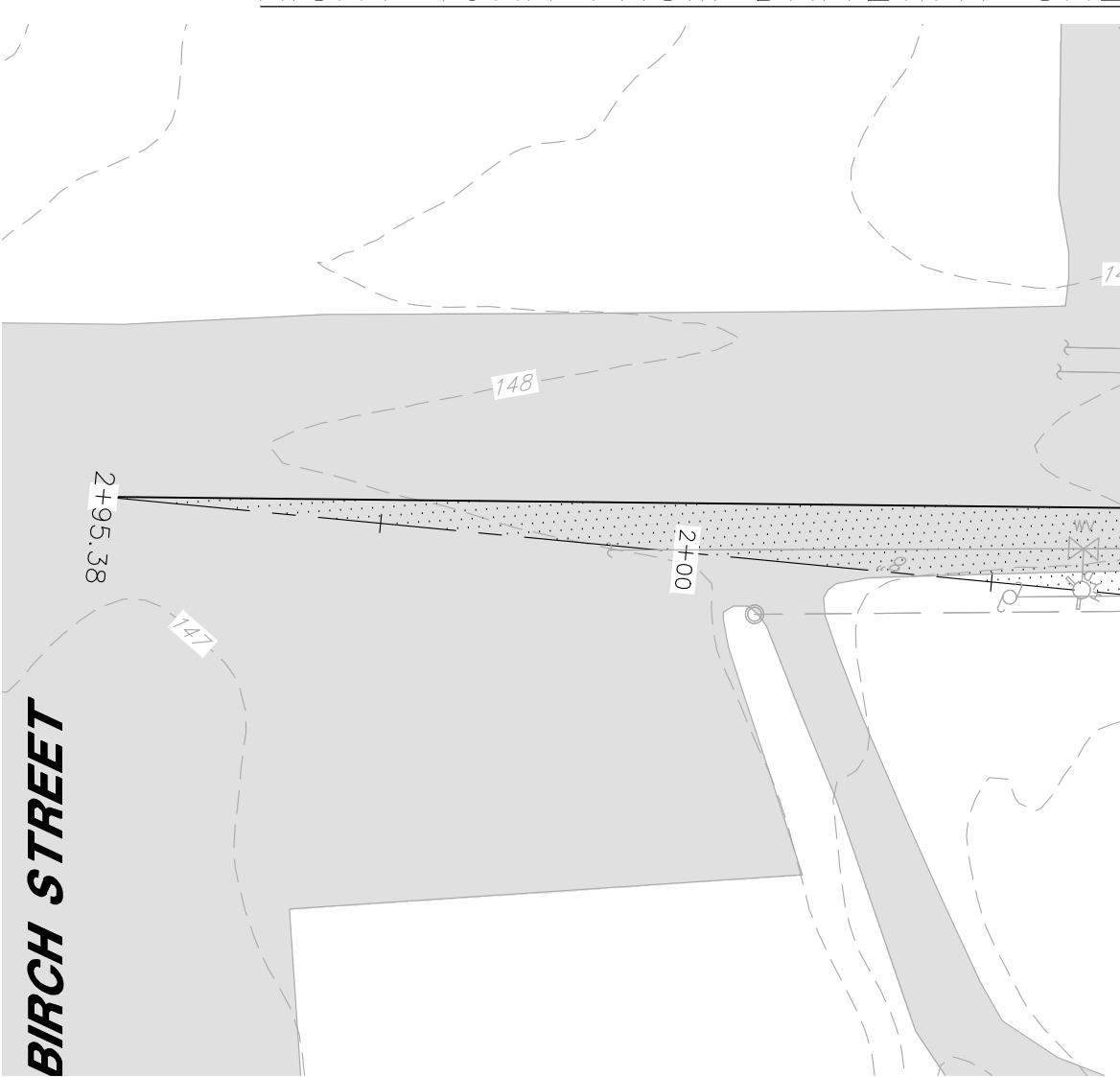


Seacoast Division

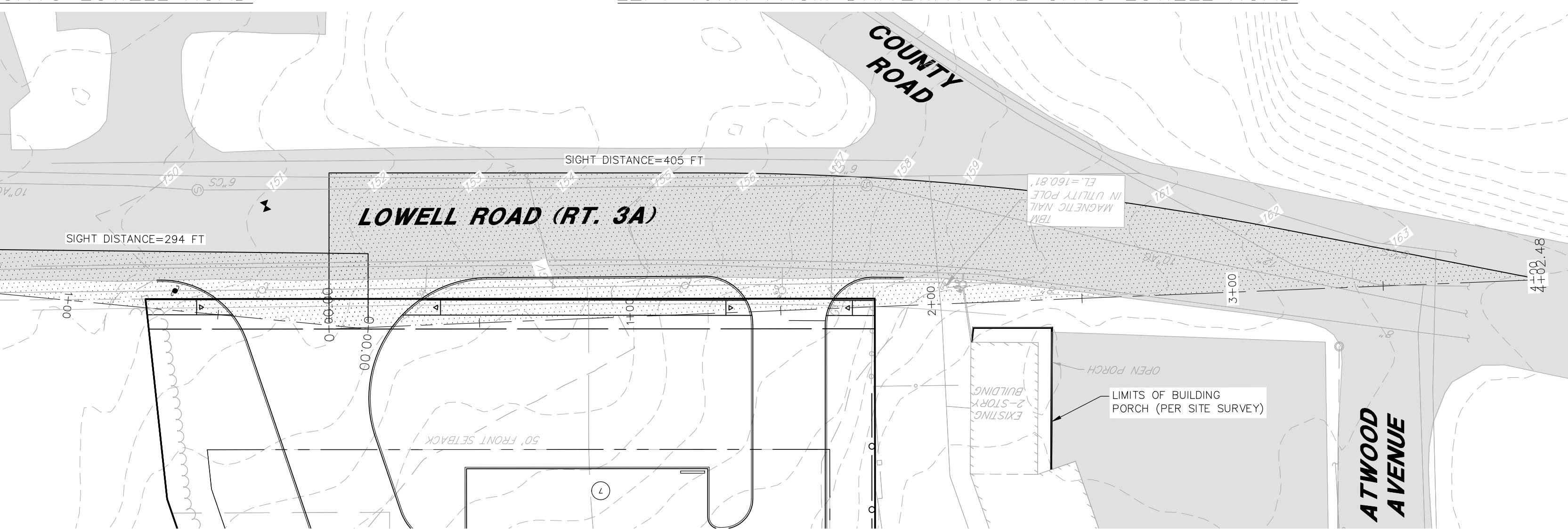
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-0910
Fax (603) 431-0910
www.tfmoran.com



RIGHT TURN FROM DRIVEWAY ONE ONTO LOWELL ROAD



LEFT TURN FROM DRIVEWAY ONE ONTO LOWELL ROAD



SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

DRIVEWAY 1 SIGHT DISTANCE PLAN

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

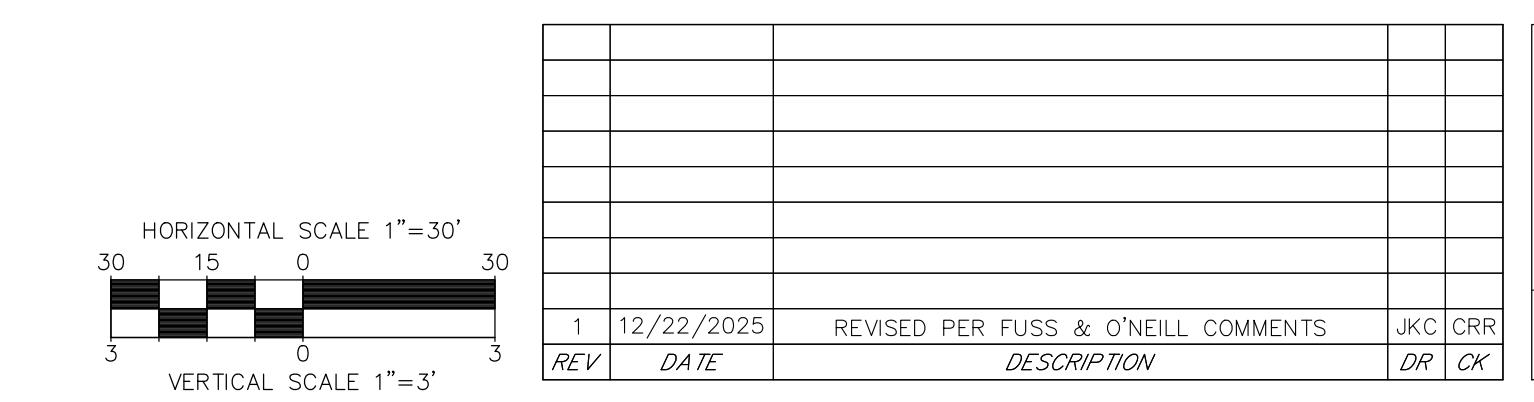
1"=60' (11"x17")
SCALE: 1"=30' (22"x34")

OCTOBER 28, 2025

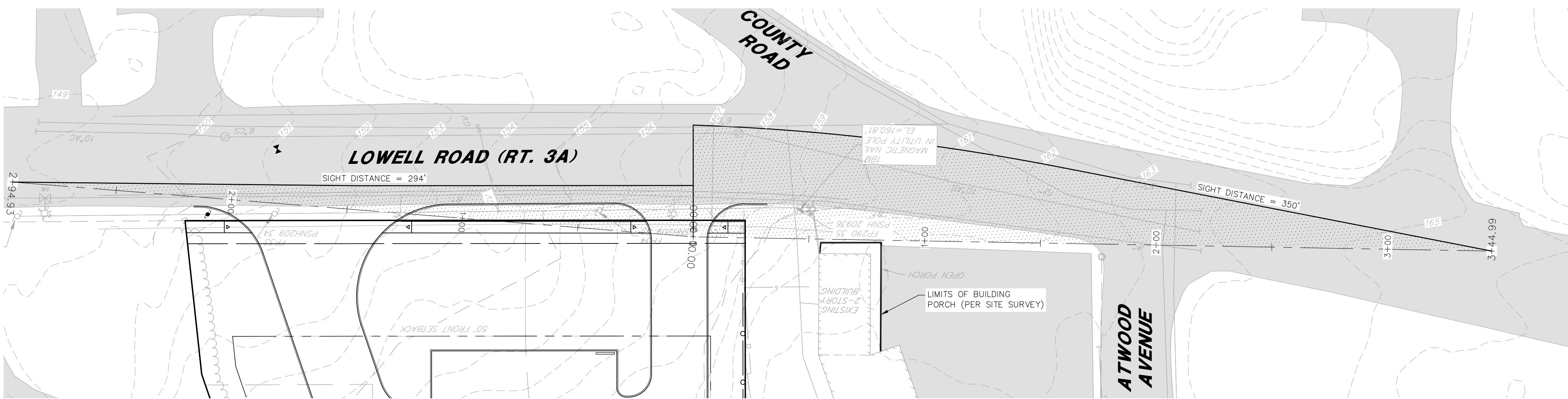
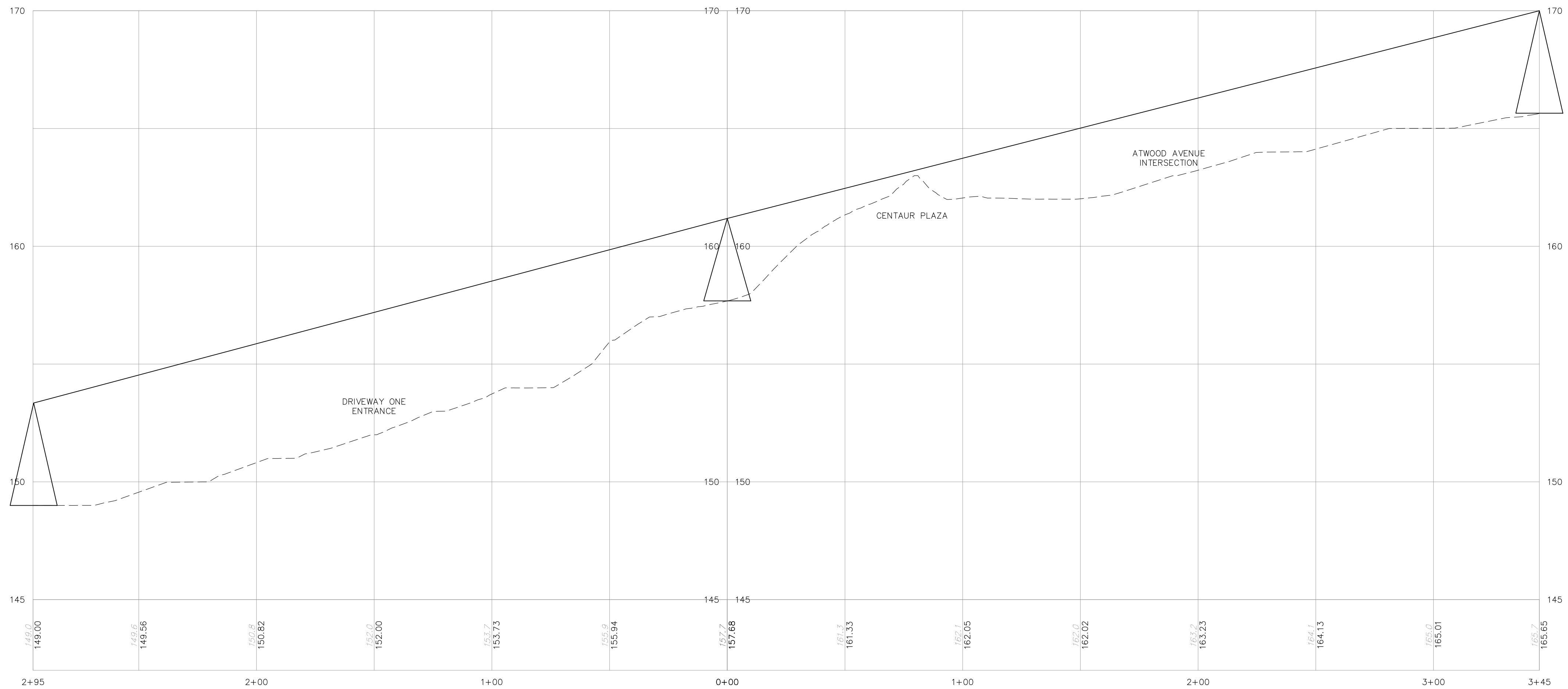
APPROVED BY THE HUDSON, NH PLANNING BOARD	
DATE OF MEETING	SIGNATURE DATE
CHAIRMAN	SIGNATURE DATE
SECRETARY	SIGNATURE DATE
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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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Seacoast Division			
Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists			
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TFM	®		
F 18149.00	DR JKC	FB	-
CK	CRR	CADFILE	18149-00_SIGHT DISTANCE
C-28			



SITE DEVELOPMENT PLANS
TAX MAP 198 LOTS 11, 12, 14, 15, & 16
DRIVEWAY 2 SIGHT DISTANCE PLAN
PROPOSED GAS STATION & CONVENIENCE STORE
91-97 LOWELL ROAD, HUDSON, NH
OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

1"=60' (11"x17")
SCALE: 1"=30' (22"x34")

OCTOBER 28, 2025

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING _____	SIGNATURE DATE _____	AND
CHAIRMAN _____	SIGNATURE DATE _____	
SECRETARY _____	SIGNATURE DATE _____	

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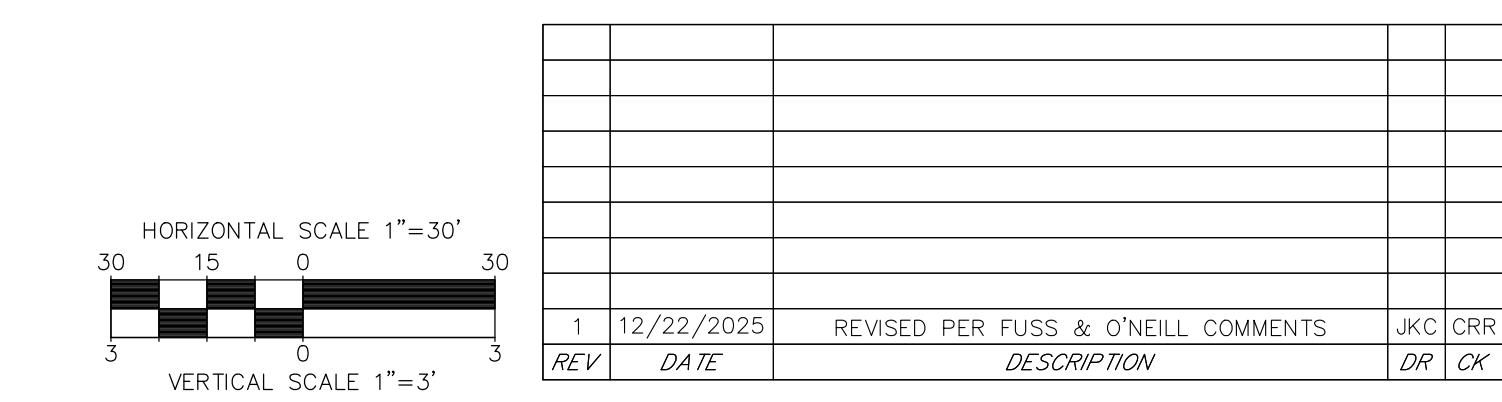
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PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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DIG SAFE
IF YOU ARE HAVING WORK DONE
IN THE AREA OF THIS PLAT
CONTACT THE PLAT 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

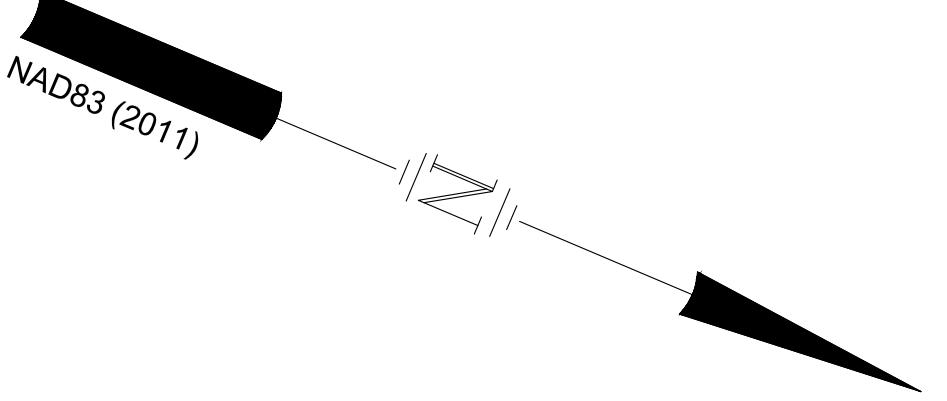


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F	18149.00	DR	JKC	FB	-
	CK	CRR	CADFILE	18149-00_SIGHT DISTANCE	C-29



NOTES

1. PROPOSED PROJECT TO INCLUDE IMPROVEMENTS TO OFF-SITE DRAINAGE. ALL OFF-SITE WORK TO BE COORDINATED WITH THE TOWN OF HUDSON INCLUDING INSTALLATION AND SUPPLY OF CATCH BASINS.
2. ALL WORK TO BE LOCATED WITHIN THE RIGHT-OF-WAY. AREAS OF DISTURBANCE ARE TO BE RESTORED AFTER INSTALLATION.

SITE DEVELOPMENT PLANS

TAX MAP 198 LOTS 11, 12, 14, 15, & 16

OFF-SITE DRAINAGE

PROPOSED GAS STATION & CONVENIENCE STORE

91-97 LOWELL ROAD, HUDSON, NH

OWNED BY & PREPARED FOR
COLBEA ENTERPRISES, LLC

1"=100 (11"x17")
SCALE: 1"=50' (22"x34")

OCTOBER 28, 2025

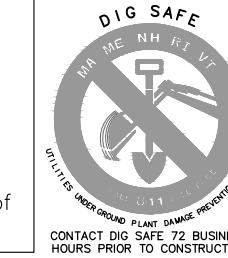
APPROVED BY THE HUDSON, NH PLANNING BOARD	
DATE OF MEETING	
CHAIRMAN	SIGNATURE DATE
SECRETARY	SIGNATURE DATE
SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.	

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48 Constitution Drive, Bedford, NH. 03110

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

This plan is not effective unless signed by a duly authorized officer of TFMoran, Inc.

DIG SAFE
DO NOT DIG
THIS PLAN IS FOR OFFICIAL USE ONLY
CONTACT THE PLANNING BOARD 72 BUSINESS HOURS PRIOR TO CONSTRUCTION



HORIZONTAL SCALE 1"=50'
50 25 0 50

REV	DATE	DESCRIPTION	DR	CK
1	12/22/2025	REVISED PER FUSS & O'NEILL COMMENTS	JKC	CRR

Seacoast Division

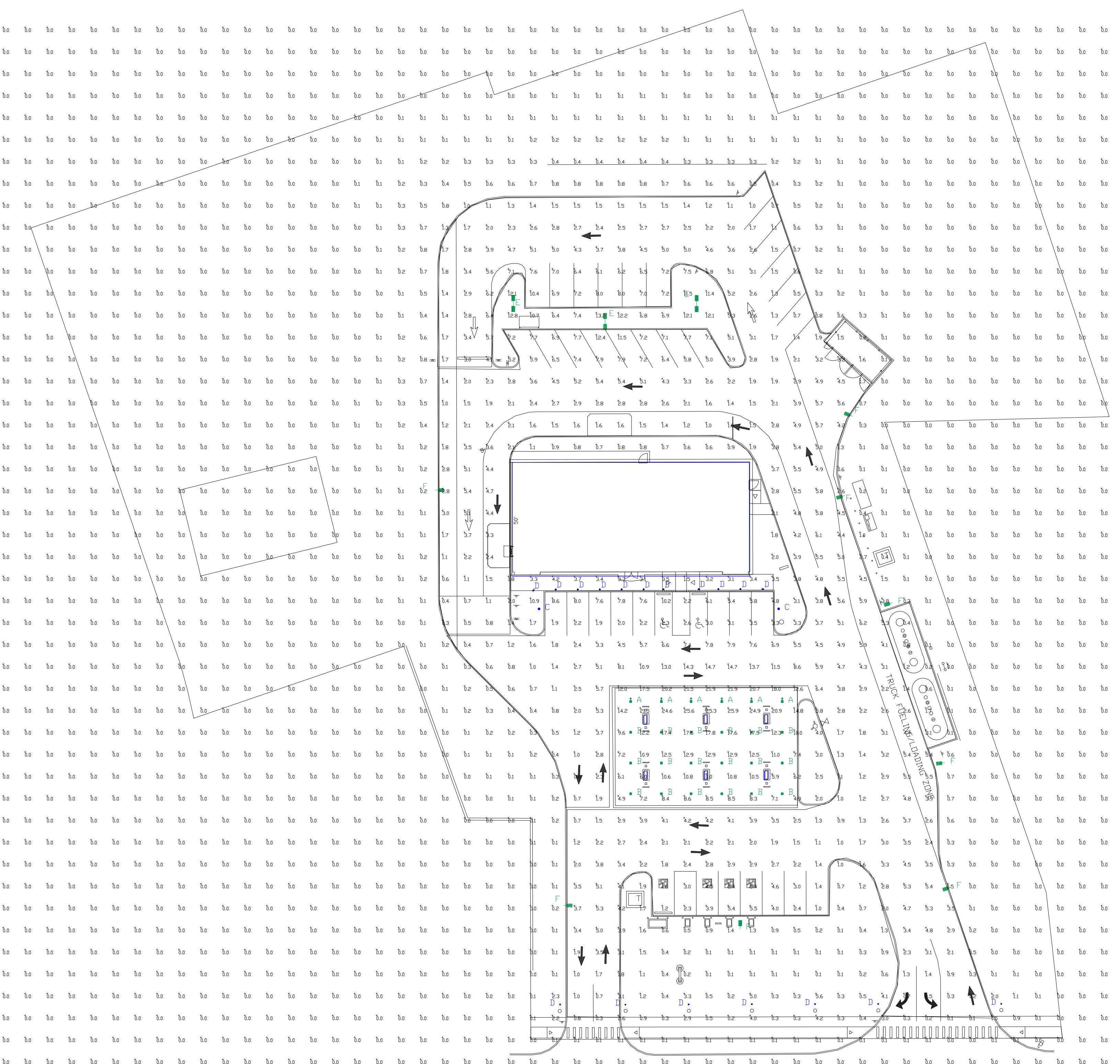
TFM ©

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

1 18149.00 DR JKC FB -
REV DATE DESCRIPTION DR CK
18149.00 DR CRR CADFILE 18149-00 OFF-SITE DRAINAGE

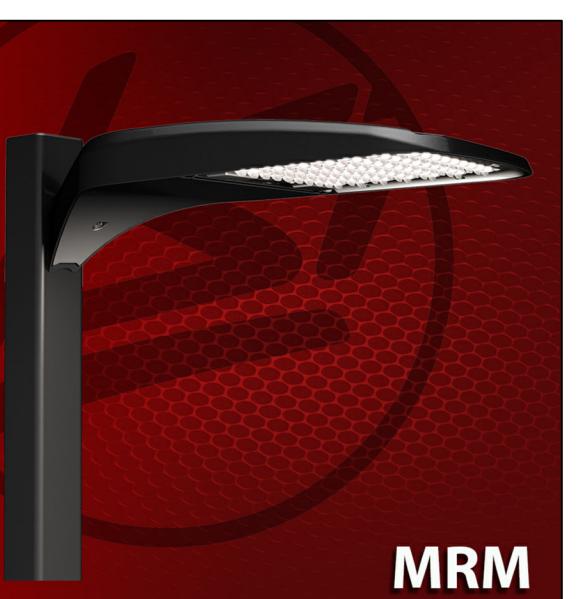
OS-01



PHOTOMETRIC EVALUATION NOT FOR CONSTRUCTION

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions. This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with the Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

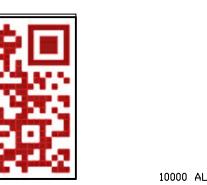
The IES no longer uses the Cutoff Classification System for LED fixtures. The IES classifies LED fixtures with the BUG rating which refers to the Backlight-Uplight-Glare system. An Uplight of 'U0' most closely matches the old Full Cutoff rating.



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	114	25.9	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	12.51	25.9	0.0	N.A.	N.A.
INSIDE CURB	Illuminance	Fc	3.52	14.7	0.1	35.20	147.00

Dimensions of drawings that have been scaled or converted from PDF files or scanned /submitted images are approximate.

Total Project Watts
Total Watts = 4298.4



0000 ALLIANCE RD, CINCINNATI, OH 45244 USA
0520-792-3762 x 472-0602

LIGHTING PROPOSAL LO-159314-5

SEASONS CORNER MARKET
LOWELL ROAD/NH RDUTE 34
HUDSON,NH

BYMK	DATE 12/12/23	REV 12/17/23	SHEET 1 OF 1
SCALE: 1'=30'	0	30	