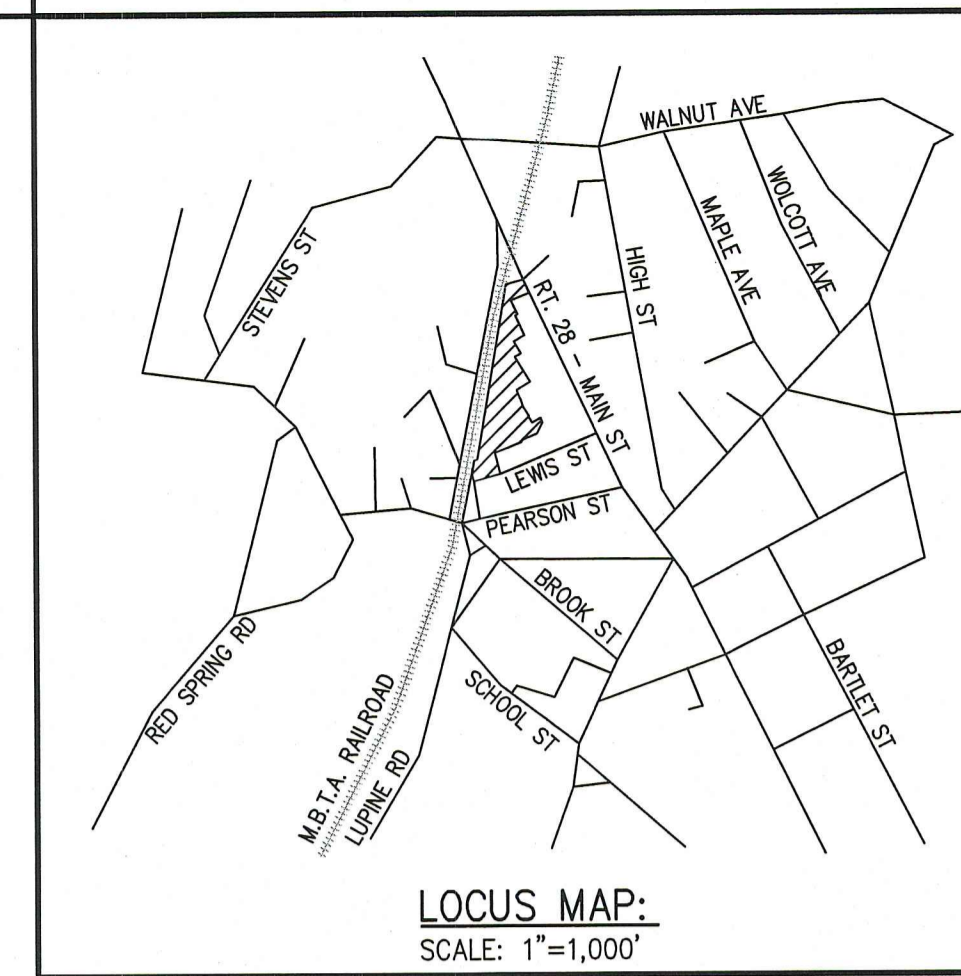


SITE DEVELOPMENT PLANS

2-4 BUXTON COURT, 7-9 & 11 LEWIS STREET, 35 PEARSON STREET & 122 NORTH MAIN STREET ANDOVER, MASSACHUSETTS (ASSESSOR'S MAP 38, LOT 32A, 16, 15, 4, & 35)



APPLICANT
ANDOVER TOWN YARD, LLC
231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT
ARROWSTREET ARCHITECTURE & DESIGN
10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.
CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
66 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-8066, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE
SPECIAL PERMIT APPLICATION

STAMP

REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

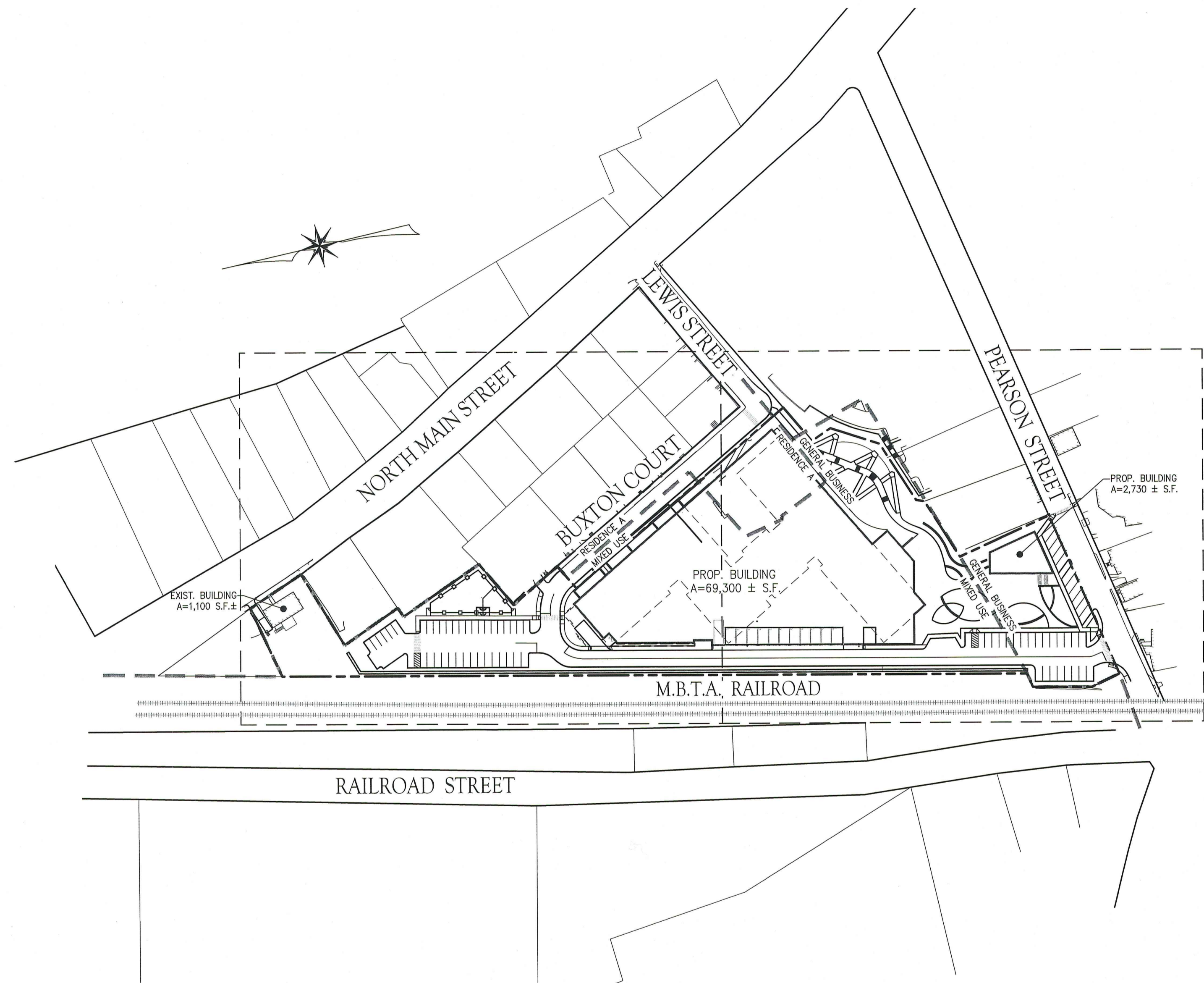
DRAWING TITLE
COVER SHEET

Project No. 4145
Drawn By LNO
Date 11/15/23
Scale AS NOTED

DRAWING NUMBER:
C1.0

SCHEDULE OF PLAN SET DRAWINGS:

- C1.0 COVER SHEET
- C1.1 GENERAL NOTES, ABBREVIATIONS, & LEGEND
- C2.0 EXISTING CONDITIONS
- C2.1 EXISTING CONDITIONS
- C2.2 PRE-DEVELOPMENT WATERSHED PLAN
- C3.0 DEMOLITION AND SITE PREPARATION PLAN
- C3.1 DEMOLITION AND SITE PREPARATION PLAN
- C4.0 ZONING ANALYSIS PLAN
- C4.1 SITE LAYOUT PLAN
- C4.2 SITE LAYOUT PLAN
- C5.0 GRADING AND DRAINAGE PLAN
- C5.1 GRADING AND DRAINAGE PLAN
- C5.2 POST-DEVELOPMENT WATERSHED PLAN
- C5.3 RATIONAL CALCULATION AREAS PLAN
- C5.4 DRAINAGE SCHEDULE PLAN
- C6.0 UTILITY PLAN
- C6.1 UTILITY PLAN
- C7.0 PROFILE PLAN
- C8.0 CONSTRUCTION DETAILS – EROSION & SEDIMENT CONTROL
- C8.1 CONSTRUCTION DETAILS – UTILITIES
- C8.2 CONSTRUCTION DETAILS – DRAINAGE
- C8.3 CONSTRUCTION DETAILS – DRAINAGE
- C8.4 CONSTRUCTION DETAILS – SITE
- C8.5 CONSTRUCTION DETAILS – SITE



APPLICANT:
ANDOVER TOWN YARD, LLC
231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

CIVIL ENGINEER:
THE MORIN-CAMERON GROUP, INC.
25 KENOZA AVENUE
HAVERHILL, MA 01830
PHONE: 978-777-8586

ARCHITECT:
ARROWSTREET INC.
10 POST OFFICE SQUARE
BOSTON, MA 02109
PHONE: 617-623-5555

LANDSCAPE ARCHITECT:
HALVORSON DESIGN PARTNERSHIP
25 KINGSTON STREET
BOSTON, MA 02111
PHONE: 617-536-0380

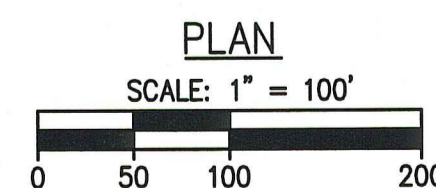
TRANSPORTATION ENGINEER:
VANASSE & ASSOCIATES, INC.
35 NEW ENGLAND BUSINESS
CENTER DRIVE – SUITE 140
ANDOVER, MA 01810-1071
PHONE: 978-474-8800

The Morin-Cameron GROUP, INC.
CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS

ARROWSTREET ARCHITECTURE & DESIGN

HALVORSON Tighe&Bond STUDIO

W Vanasse & Associates inc
Transportation Engineers & Planners



PERMIT/APPROVAL	BOARD/APPROVING AUTHORITY	APPLICABLE REGULATIONS
SITE PLAN REVIEW	ANDOVER PLANNING BOARD	TOWN OF ANDOVER ZONING BYLAW, SECTION 9.5
SPECIAL PERMIT	ANDOVER PLANNING BOARD	TOWN OF ANDOVER ZONING BYLAW, SECTION 8.5
STORMWATER PERMIT	ANDOVER PLANNING BOARD	TOWN OF ANDOVER STORMWATER MANAGEMENT & EROSION CONTROL BYLAW

FOR PERMITTING PURPOSES ONLY. NOT RELEASED FOR CONSTRUCTION.

GENERAL NOTE:
THESE PLANS ARE PREPARED FOR PERMITTING WITH THE TOWN OF ANDOVER. THE PLANS SHALL NOT BE USED FOR CONSTRUCTION OR FOR ANY OTHER PURPOSES WITHOUT WRITTEN PERMISSION FROM THE MORIN-CAMERON GROUP, INC.

**ISSUED NOVEMBER 15, 2023
REVISED ON MARCH 14, 2024**

RECORD OWNERS:

TAX MAP LOT 38-32A 15 BUXTON CT	TAX MAP 38 LOTS 4, 15, 16 & 35 35 PEARSON ST, 7-9 & 11 LEWIS ST, 2-4 BUXTON CT, 122 N MAIN ST
TOWN OF ANDOVER 36 BARTLET STREET ANDOVER, MA 01810	BUXTON REDEVELOPMENT LLC 231 SUTTON ST, SUITE 1N NORTH ANDOVER, MA 01845

GENERAL NOTES:

- THESE PLANS ARE PREPARED FOR OUR CLIENT'S USE ONLY FOR THE PURPOSE OBTAINING PERMITS AND ARE NOT TO BE USED OR RELIED FOR CONSTRUCTION WITHOUT THE WRITTEN CONSENT OF THE MORIN-CAMERON GROUP, INC.
- EXISTING CONDITION AND BOUNDARY INFORMATION FROM THIS OFFICE.

FLOOD NOTE:

THE SUBJECT PROPERTY IS PARTIALLY LOCATED IN A ZONE 'X' AS ILLUSTRATED ON FLOOD INSURANCE RATE MAP #25009C0217C, WHICH HAS AN EFFECTIVE DATE OF JULY 3, 2012.

GENERAL UTILITY NOTES:

- THE GENERAL CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE GENERAL CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE WORK.
- THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC, CABLE AND TELEPHONE COMPANIES, GAS PROVIDER AND ANDOVER MUNICIPAL UTILITY DEPARTMENTS TO VERIFY THE LOCATION, SIZE AND TYPE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE EXCAVATING OF TRENCHES, THE METHODS AND MATERIALS OF BACKFILLING, AND ALL OTHER MATTERS RELATING TO THE INSTALLATION OF WATER PIPES, SEWER LINES, STORM DRAINS, SUBSURFACE DRAINS, AND ALL OTHER UNDERGROUND UTILITIES SHALL BE CONSISTENT WITH GOOD CONSTRUCTION PRACTICES AND SHALL AT ALL TIMES BE SUBJECT TO THE INSPECTION BY THE APPLICABLE TOWN DEPARTMENTS.
- ALL TRENCHES SHALL BE TAMPED WITH A POWER TAMPER AT INTERVALS NOT GREATER THAN ONE (1) FOOT.
- ALL UTILITY PENETRATIONS AT THE FOUNDATIONS SHALL BE ADJUSTED BASED ON THE FINAL CONSTRUCTION DRAWINGS.

SITE PREPARATION NOTES:

- ALL MATERIALS REMOVED FROM THE PREMISES SHALL BE DONE SO IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS FOR HAULING AND DISPOSAL.
- COORDINATE ANY UTILITY DIS-CONNECTIONS WITH APPROPRIATE SERVICE PROVIDERS.
- ALL TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. AVOID HEAVY MACHINERY WITHIN ROOT BALL FOOTPRINT.
- COORDINATE WITH TOWN OF ANDOVER WATER AND SEWER DIVISION.

RECORD KEEPING, AS-BUILTS & LAYOUT NOTES:

- THE SITE CONTRACTOR SHALL MAINTAIN TIES AND EXTENSIVE PHOTOS OF ALL BURIED UTILITIES. WHENEVER POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEER OF INSPECTION MILESTONES SO UTILITIES CAN BE INSPECTED PRIOR TO BACKFILLING.
- ALL AS-BUILT SURVEYS AND LAYOUT NECESSARY DURING CONSTRUCTION SHALL BE COORDINATED WITH THE SURVEYOR. PROVIDE AT LEAST 72 HOURS ADVANCED NOTICE.

CONSTRUCTION SEQUENCE:

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

- THE GENERAL CONTRACTOR SHALL COORDINATE A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY WITH THE OWNER (OWNER'S REPRESENTATIVE), PLANNING DEPARTMENT REPRESENTATIVE AND ANY OTHER INTERESTED TOWN DEPARTMENT REPRESENTATIVES.
- STABILIZATION PRACTICES FOR EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. PLACE EROSION CONTROLS AT LOCATIONS INDICATED ON THE SITE DEVELOPMENT PLANS. AN EPA CONSTRUCTION GENERAL PERMIT AND STORMWATER POLLUTION PREVENTION PLAN MUST BE ACTIVATED PRIOR TO CONSTRUCTION ACTIVITIES.
- IN PREPARING TO REMOVE MATERIALS FROM THE WORK AREA ON THE SITE, CAREFUL CONSIDERATION SHOULD BE MADE TO THE EXTENT OF DISTURBANCE SO AS NOT TO DISTURB MORE OF THE SITE THAN WHAT IS INTENDED TO BE IMMEDIATELY DEVELOPED AND RE-STABILIZED.
- LOAM AND TOP SOIL EXCAVATED FROM THE WORK AREA SHALL BE STOCKPILED AT THE LOCATIONS SHOWN ON THE PLANS. IF MATERIALS ARE STOCKPILED ON THE SITE WHERE THEY WILL NOT INTERFERE WITH CONSTRUCTION ACTIVITIES, THEY SHALL BE LOCATED SO AS TO MINIMIZE THE POTENTIAL FOR EROSION INTO EXISTING DRAINAGE INFRASTRUCTURE OR WETLAND RESOURCE AREAS. STOCKPILES SHALL BE STABILIZED WITH HAYBALES, SILT FENCING OR EQUIVALENT. STOCKPILES LEFT FOR GREATER THAN 14 DAYS SHALL BE SEEDED WITH AN EROSION CONTROL MIX. STOCKPILES SHALL BE SITUATED OUTSIDE THE WETLAND BUFFER ZONES WHEREVER POSSIBLE.
- REMOVAL OF ALL DEBRIS OR MATERIAL FROM THE WORK AREA SHALL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS UNDER THE OVERSIGHT OF A LICENSED SITE PROFESSIONAL (LSP) HIRED BY THE OWNER IF APPLICABLE.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT THE LOCATIONS NOTED.
- ALL CATCH BASINS SHALL BE PROTECTED WITH SILT SACK SEDIMENT TRAPS.
- REMOVAL OF ALL EXISTING UTILITIES TO BE CUT AND CAPPED, AND COORDINATED WITH APPROPRIATE UTILITY COMPANIES.

CONSTRUCTION PRACTICES:

ALL CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE FOLLOWING CONDITIONS:

- ALL REASONABLE ACTION SHALL BE TAKEN TO MINIMIZE THE NEGATIVE EFFECTS OF CONSTRUCTION ON ABUTTERS. ADVANCE NOTICE SHALL BE PROVIDED TO ALL ABUTTERS IN WRITING AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE PROJECT.
- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE PLANNING BOARD, AND IN ACCORDANCE WITH ANY AND ALL RULES, REGULATIONS, AND ORDINANCES OF THE TOWN OF ANDOVER.
- THE OWNER SHALL PROMPTLY NOTIFY THE BOARD OF HEALTH OF ANY ENVIRONMENTAL CONDITIONS ENCOUNTERED DURING CONSTRUCTION THAT MAY ADVERSELY IMPACT THE ABUTTERS TO THE SITE.
- ALL PROVISIONS IN THE TOWN OF ANDOVER'S CODE OF ORDINANCE, CHAPTER 22, NOISE CONTROL, SHALL BE STRICTLY ADHERED TO. IF STRICTER MEASURES ARE REQUIRED BY THIS DECISION, THE STRICTER MEASURES SHALL APPLY.
- ANY ROCK HAMMERING, DRILLING, OR BLASTING SHALL BE LIMITED TO MONDAY-FRIDAY BETWEEN 8:00 AM UNTIL 5:00 PM. THERE SHALL BE NO DRILLING OR BLASTING ON SATURDAYS, SUNDAYS, OR HOLIDAYS. BLASTING SHALL BE UNDERTAKEN IN ACCORDANCE WITH ALL LOCAL AND STATE REGULATIONS.
- ADVANCE NOTICE SHALL BE PROVIDED TO ALL ABUTTERS IN WRITING AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF BLASTING ACTIVITY. NOTICE SHALL BE PROVIDED AGAIN AFTER BLASTING INACTIVITY FOR SEVEN (7) OR MORE DAYS.
- ALL ONSITE ROCK HAMMERING SHALL BE CONDUCTED FOR THE PURPOSE OF DECREASING THE SIZE OF BLASTED OR EXCAVATED ROCK. ALL ROCK SHALL BE TRANSPORTED OFFSITE TO BE CRUSHED AND PROCESSED ELSEWHERE, EXCEPT IN LIMITED CIRCUMSTANCES WHERE THERE IS VERBAL OR WRITTEN PRE-APPROVAL FROM THE CLERK OF THE WORKS. THIS LIMITED ON-SITE ROCK CRUSHING ACTIVITY SHALL BE CONDUCTED AT THE MAXIMUM PRACTICABLE DISTANCE FROM OCCUPIED BUILDINGS.
- WHERE PRACTICAL, ALL ONSITE MATERIAL SHALL BE USED AS BACK FILL AND FOR OTHER USES ON SITE.
- ALL CONSTRUCTION VEHICLES LEFT OVERNIGHT AT THE SITE MUST BE LOCATED COMPLETELY ON THE SITE.
- ALL CONSTRUCTION VEHICLES SHALL BE CLEANED PRIOR TO LEAVING THE SITE SO THAT THEY DO NOT LEAVE DIRT AND/OR DEBRIS ON SURROUNDING ROADWAYS.
- ALL CONSTRUCTION WILL OCCUR ON SITE; NO CONSTRUCTION WILL OCCUR OR BE STAGED WITHIN TOWN RIGHT OF WAY. ANY DEVIATION FROM THIS SHALL BE APPROVED BY THE DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT PRIOR TO CONSTRUCTION.
- ANY ROADWAYS, DRIVEWAYS, SIDEWALKS, OR LANDSCAPING DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE OWNER. THE TOWN ENGINEER, ALONG WITH THE CLERK OF THE WORKS SHALL DETERMINE THE CONDITION OF THE ROADWAYS DIRECTLY IMPACTED BY CONSTRUCTION AND RELATED TRAFFIC AND DETERMINE THE TYPES OF REPAIRS REQUIRED BY THE OWNER.

EROSION AND SEDIMENTATION CONTROL:

WIDELY ACCEPTED PRACTICES FOR REDUCING EROSION AND SEDIMENTATION WILL BE EMPLOYED IN THE DEVELOPMENT OF THIS SITE. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN FOR THE PROJECT.

- THE DEVELOPMENT OF THE SITE HAS BEEN PLANNED TO MATCH EXISTING TOPOGRAPHY AND GROUND COVER. EXISTING DRAINAGE PATTERNS OF THE SITE HAVE BEEN MAINTAINED TO THE EXTENT PRACTICABLE.
- NATURAL WETLANDS WILL BE PRESERVED AND PROTECTED, AND EXISTING VEGETATION WILL BE RETAINED AND PROTECTED TO THE EXTENT POSSIBLE.
- STEEP SLOPES, WHERE POSSIBLE, WILL NOT BE DISTURBED.
- THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED LAND TO THE EXTENT FEASIBLE.
- SEDIMENT CONTROL MEASURES WILL BE APPLIED TO CONTROL ANY SEDIMENTS THAT MAY BE PRODUCED AS A RESULT OF SITE CONSTRUCTION ACTIVITIES. EROSION AND DEPOSITION OF SEDIMENT WILL BE CLOSELY MONITORED DURING CONSTRUCTION.
- TEMPORARY EROSION CONTROL MEASURES WILL INCLUDE, BUT NOT BE LIMITED TO, FILTER FABRIC SILT FENCES, SEEDING AND MULCHING, SEEDED FILTER STRIPS AND SILT SACKS IN CATCH BASINS (EXISTING AND NEWLY INSTALLED).
- TOPSOIL STRIPPED FROM THE SITE WILL BE STOCKPILED FOR LOAMING AND SEEDING AT LATER CONSTRUCTION STAGES. THE STOCKPILES SHALL BE LOCATED SO AS TO ACT AS TEMPORARY DIVERSIONS, GENERALLY ON AN UPHILL SLOPE.
- SITE DEVELOPMENT WILL NOT COMMENCE UNTIL ALL TEMPORARY EROSION CONTROL MEASURES ARE IN PLACE. THESE MEASURES SHALL BE EMPLOYED UNTIL FINAL PAVING AND ADEQUATE VEGETATION HAS BEEN ESTABLISHED.
- THE CONSTRUCTION PHASE MUST COMPLY WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROTOCOLS. AN EPA NOTICE OF INTENT SHALL BE FILLED OUT AT LEAST 2 WEEKS PRIOR TO THE START OF CONSTRUCTION.
- NOTIFY THE TOWN OF ANDOVER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL SLOPES 3:1 AND/OR GREATER SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.
- SOIL SHALL NOT BE STOCKPILED OVER ANY STORMWATER RETENTION BASINS.

STORM DRAIN NOTES:

- STORMWATER CONVEYANCE PIPES SHALL BE (ADS N-12) OR HDPE PROJECT CIVIL ENGINEER APPROVED EQUIVALENT UNLESS OTHERWISE NOTED.
- BACKFILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY BY AASHTO T-180D METHOD.
- SHEETING, IF USED, SHALL BE REMOVED PRIOR TO BACKFILLING TRENCH.
- UNSUITABLE SOIL BELOW THE INVERT (CLAY, ORGANICS, DEBRIS, ETC) SHALL BE REMOVED AND REPLACED WITH APPROVED MATERIAL AND SHALL NOT BE REUSED AS BACKFILL.
- ROOF DRAINS SHALL BE DIRECTED TO THE DRAINAGE SYSTEM IN THE LOCATIONS SHOWN. COORDINATE LOCATIONS WITH THE PROJECT ARCHITECT AND LANDSCAPE ARCHITECT.
- REPAIR BROKEN OR DAMAGED DRAIN PIPES IN KIND.

SEWER NOTES:

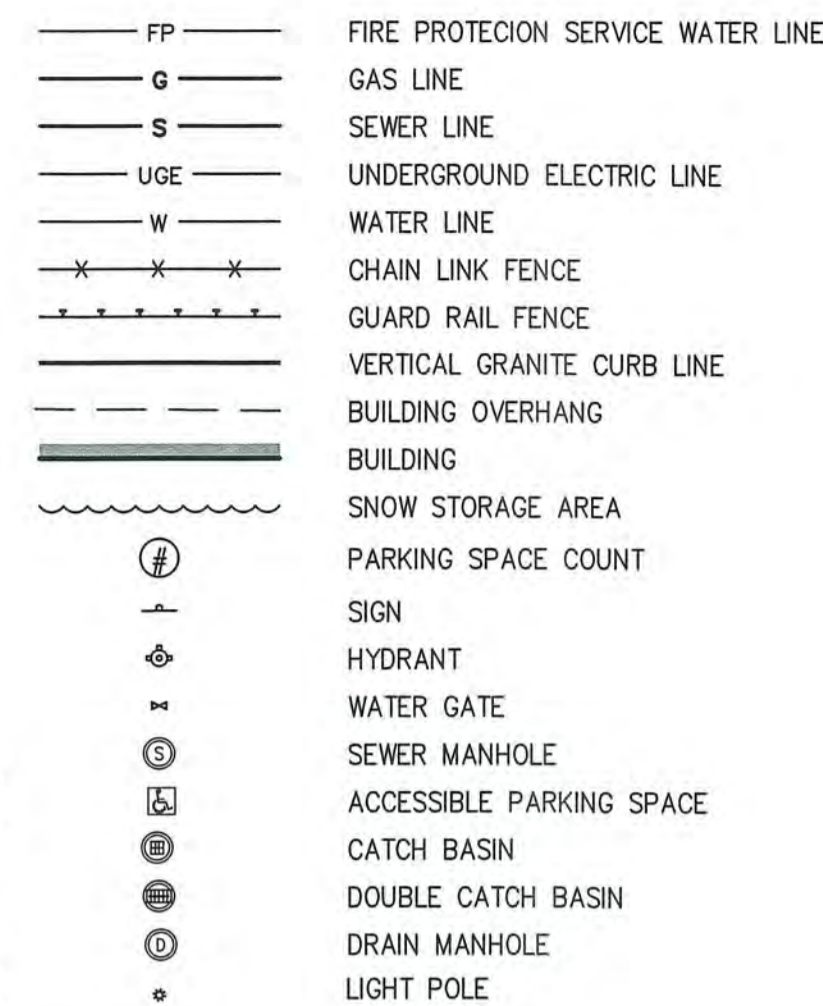
- A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER PIPES AND WATER PIPES. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER PIPE, THE WATER PIPE SHALL BE SLEEVED FOR A DISTANCE OF AT LEAST 10' ON EACH SIDE.
- ALL GRAVITY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35 UNLESS OTHERWISE NOTED.
- WHERE SANITARY SEWERS CROSS WATER SERVICES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER PIPE. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER PIPE SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER PIPE SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER PIPE AND THE SEWER PIPE SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- SANITARY SEWER LINES WITH LESS THAN 4 FEET OF COVER SHALL BE INSULATED TO PREVENT FREEZING.

DEMOLITION NOTES:

- CONTRACTOR TO CUT AND CAP ALL EXISTING UTILITY SERVICES PROPOSED TO BE REMOVED AT THE MAIN, IN ACCORDANCE WITH TOWN BUILDING DEMOLITION REGULATIONS, PRIOR TO CONSTRUCTION. TEE SERVICE CONNECTIONS SHALL BE REMOVED FROM THE MAIN AND REPLACED WITH A MINIMUM OF 4 FT. OF NEW CLDI PIPE.
- ALL EXISTING BUILDING FLOOR DRAINS SHALL BE CAPPED AND ABANDONED.
- HYDRANT CONNECTIONS FOR WATER USE DURING DEMOLITION SHALL BE COORDINATED WITH THE TOWN OF ANDOVER ENGINEERING DEPARTMENT.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ANDOVER MUNICIPAL LIGHT DEVELOPMENT FOR ANY WORK IN THE VICINITY OF OVERHEAD WIRES.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITIES DISCONNECTION WITH PRIVATE SERVICE PROVIDERS.

WATER NOTES:

- WATER LINES WILL HAVE AT LEAST FIVE (5) FEET OF COVER.
- THERE MUST BE AT LEAST SIX (6) INCHES OF CLEARANCE BETWEEN A NEW WATER LINE AND ANY UNDERGROUND ROCK FORMATION.
- ALL WATER MAIN COMPONENTS SHALL MEET AWWA STANDARDS. "ALL DUCTILE IRON PIPE SHALL BE COATED WITH A LAYER OF ARC-SPRAYED ZINC PER ISO 8179. THE MASS OF THE ZINC APPLIED SHALL BE 200 G/M². A FINISHING TOPCOAT SHALL BE APPLIED TO THE ZINC. INTERIOR LINING FOR POTABLE WATER MAIN SHALL HAVE AN INTERIOR PROTECTIVE LINING OF CEMENT-MORTAR IN ACCORDANCE WITH ANSI/AWWA A21.4/C104, WATER AND FIRE PROTECTION MAINS FOUR (4) INCH AND GREATER SHALL BE CLASS 52 DUCTILE IRON CEMENT LINED PIPE AND ZINC COATED. POLYETHYLENE ENCASEMENT SHALL BE INSTALLED AS ADDITIONAL MEANS OF PROTECTION. "POLYETHYLENE ENCASEMENT" POLYETHYLENE ENCASEMENT SHALL BE POLYETHYLENE CONSISTING OF THREE LAYERS OF CO-EXTRUDED LINEAR LOW DENSITY POLYETHYLENE (LLDPE), FUSED INTO A SINGLE THICKNESS OF NOT LESS THAN 8 (EIGHT) MILS."
- ALL MECHANICAL JOINT COMPONENTS WILL BE INSTALLED USING RETAINING GLANDS, SUCH AS, GRIP RING, MEGA LUG OR STAR GRIP. ALL FITTINGS (TEES, BENDS, SOLID SLEEVE ETC.) WILL BE ZINC COATED AS WELL FOR PROTECTION PER ISO 8179-2, ZINC RICH PAINT SHALL HAVE A ZINC CONTENT OF AT LEAST 85% BY WEIGHT AND SHALL BE FINISHED WITH AN EXTERIOR BITUMINOUS COATING. " T" BOLTS WILL BE USED TO CONNECT ANY APPURTENANCE THAT REQUIRES THE USE OF " T" BOLTS FOR ASSEMBLY.
- THE SERVICE CONNECTIONS SHALL BE PERPENDICULAR TO THE MAIN AND FOLLOW A STRAIGHT LINE INTO THE BUILDING.
- GATE VALVES WILL BE DUCTILE IRON EPOXY COATED (AWWA C550), WITH O-RING SEALS, URETHANE COATED WEDGE, STAINLESS STEEL NUTS AND BOLTS, AND ANTI-ROTATION SEATS TO PREVENT T-BOLTS FROM TURNING. VALVES WILL BE OPEN RIGHT USING A TWO (2) INCH OPERATING NUT WITH AN ARROW CAST IN THE METAL.
- ALL WATER VALVE BOX COVERS SHALL BE LABELED 'WATER'.
- ALL WATER METERS MUST BE PURCHASED FROM THE ANDOVER WATER & SEWER DEPARTMENT. SHUT OFF VALVES ARE REQUIRED BOTH BEFORE AND AFTER THE METER. ALL METERS MUST BE INSTALLED OR REMOVED BY AN EMPLOYEE OF THE ANDOVER WATER & SEWER DEPARTMENT ONLY. ALL METERS MUST BE LOCATED WITHIN THREE (3) FEET OF WHERE THE SERVICE ENTERS THE BUILDING AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPAIR.
- NO WATER WILL BE SUPPLIED TO ANY CONTRACTOR OR BUILDER THROUGH A WATER SERVICE WHICH HAS NOT BEEN PLACED "IN SERVICE" BY THE ANDOVER WATER & SEWER DEPARTMENT. NO DISTRIBUTION SYSTEM COMPONENT WILL BE OPERATED BY ANYONE OTHER THAN ANDOVER WATER & SEWER DEPARTMENT PERSONNEL.
- WATER LINES (MAINS AND SERVICE CONNECTIONS) SHALL BE PRESSURE TESTED TO 150 PSI AND HELD FOR ONE HOUR AND WITNESSED BY THE ANDOVER WATER & SEWER DEPARTMENT CONSTRUCTION FOREMAN OR HIS DESIGNEE. ALL INSTALLATIONS MUST BE INSPECTED BY THE WATER CONSTRUCTION FOREMAN OR HIS DESIGNEE. PROVIDE THE ANDOVER WATER & SEWER DEPARTMENT WITH AT LEAST 72 HOURS NOTICE FOR THE INSPECTION.
- AS-BUILT PLANS (HARD COPIES AND DIGITAL) ARE REQUIRED PRIOR TO PLACING A NEW WATER SYSTEM IN SERVICE. AS-BUILT PLANS (CORNER TIES) AND PAYMENTS ARE DUE PRIOR TO TURNING A WATER SERVICE ON. CONTACT THE SURVEYOR AT LEAST 72 HOURS PRIOR TO INSTALLATION TO COORDINATE AN AS-BUILT SURVEY.
- A BACKFLOW PREVENTOR SHALL BE INSTALLED ON BOTH THE FIRE AND DOMESTIC WATER SERVICES AND REGISTERED WITH THE DEPARTMENT OF PUBLIC SERVICE.



ABBREVIATION:

ACR	ACCESSIBLE CURB RAMP
BWLL	BROKEN WHITE LANE LINE
C	COMPACT CAR PARKING SPACE
CB	CATCH BASIN
CIP	CAST-IN-PLACE
CLF	CHAIN-LINK FENCE
CW	CROSSWALK
DMH	DRAIN MAHOLE
DWLL	4" DOUBLE WHITE LANE LINE
DSYL	DOUBLE SOLID YELLOW LINE
FF	FINISH FLOOR
FCC	FORMED CONCRETE CURB
HC	HANDICAP PARKING SPACE
INV.	INVERT
(M)	MEASURED
PCC	PRE CAST CONCRETE CURB
(R)	RECORD
R#	CURB RADIUS
RT-1	STOP SIGN
SB	SPEED BUMP
SSA	SNOW STORAGE AREA
SL	10" STOP LINE
SMH	SEWER MANHOLE
SWLL	4" SOLID WHITE LANE LINE
T	PAD MOUNT TRANSFORMER 13'x13'
TBR	TO BE REMOVED
TYP	TYPICAL
VGC	VERTICAL GRANITE CURB

APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROW STREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
86 ELM STREET, DANVERS, MASSACHUSETTS 01923
P: 978-777-8586, W: WWW.MORINCAMERON.COM

PROJECT INFORMATION

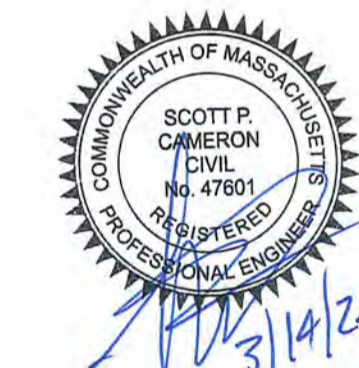
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

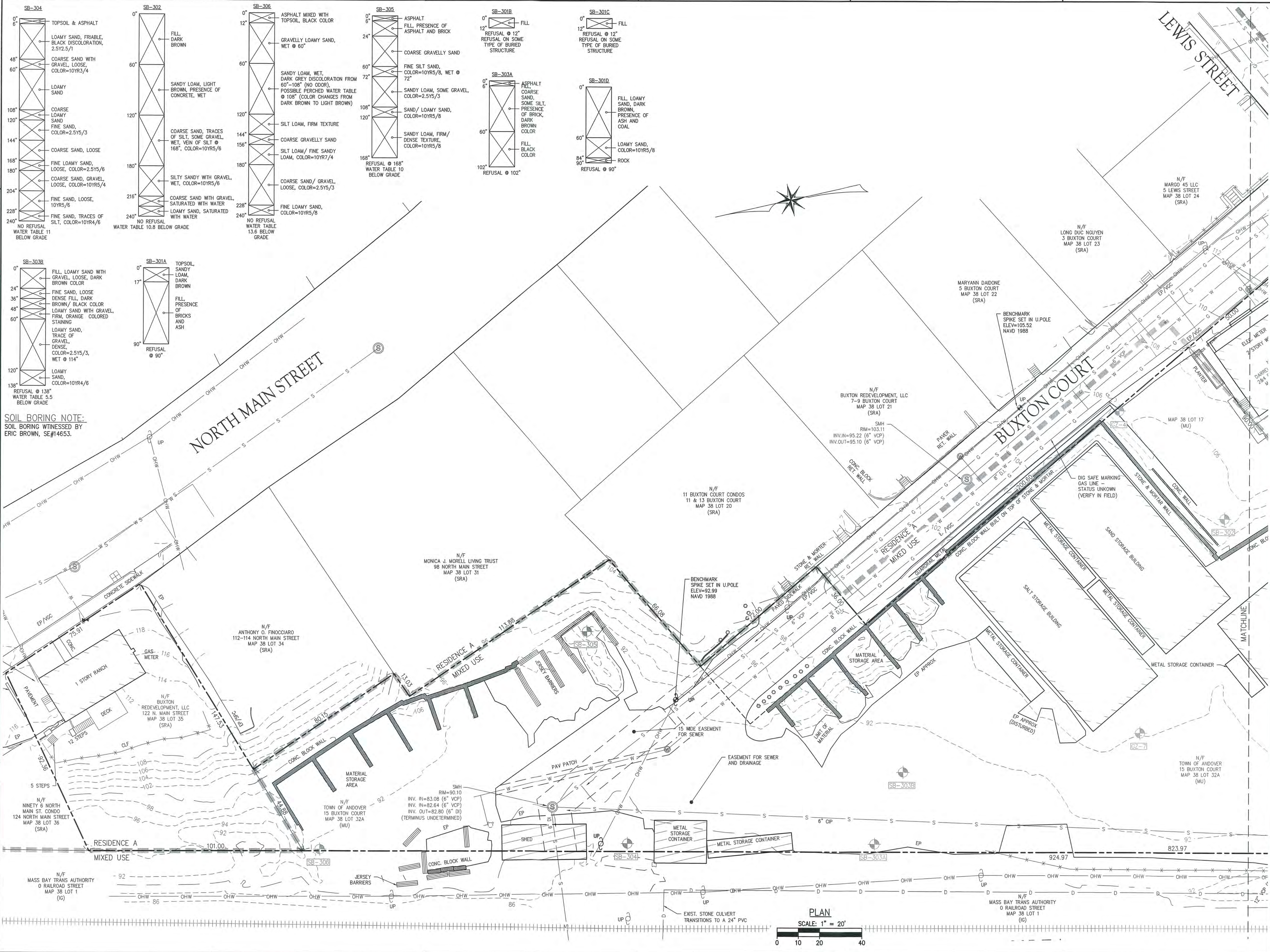
GENERAL NOTES, LEGEND & ABBREVIATIONS

Project No.	4145
Drawn By	LNO
Date	11/15/23
Scale	AS NOTED

DRAWING NUMBER:

C1.1

© Copyright Arrowstreet Inc.



SOIL BORING NOTE:
 SOIL BORING WITNESSED BY
 ERIC BROWN, SE#14653.

APPLICANT
ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
 NORTH ANDOVER, MA 01845

ARCHITECT
ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
 SUITE 700N
 BOSTON MA 02109
 617.623.5555
 arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.
 CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
 LAND SURVEYORS | LAND USE PLANNERS
 66 ELM STREET, DANVERS, MASSACHUSETTS 01923
 P. 978-777-8506, W. WWW.MORIN-CAMERON.COM

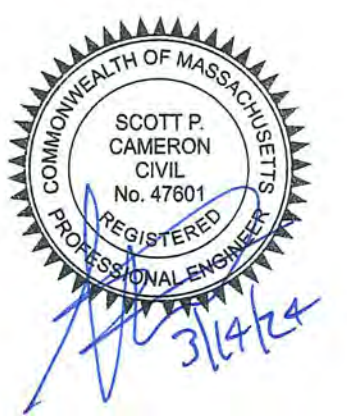
PROJECT INFORMATION
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



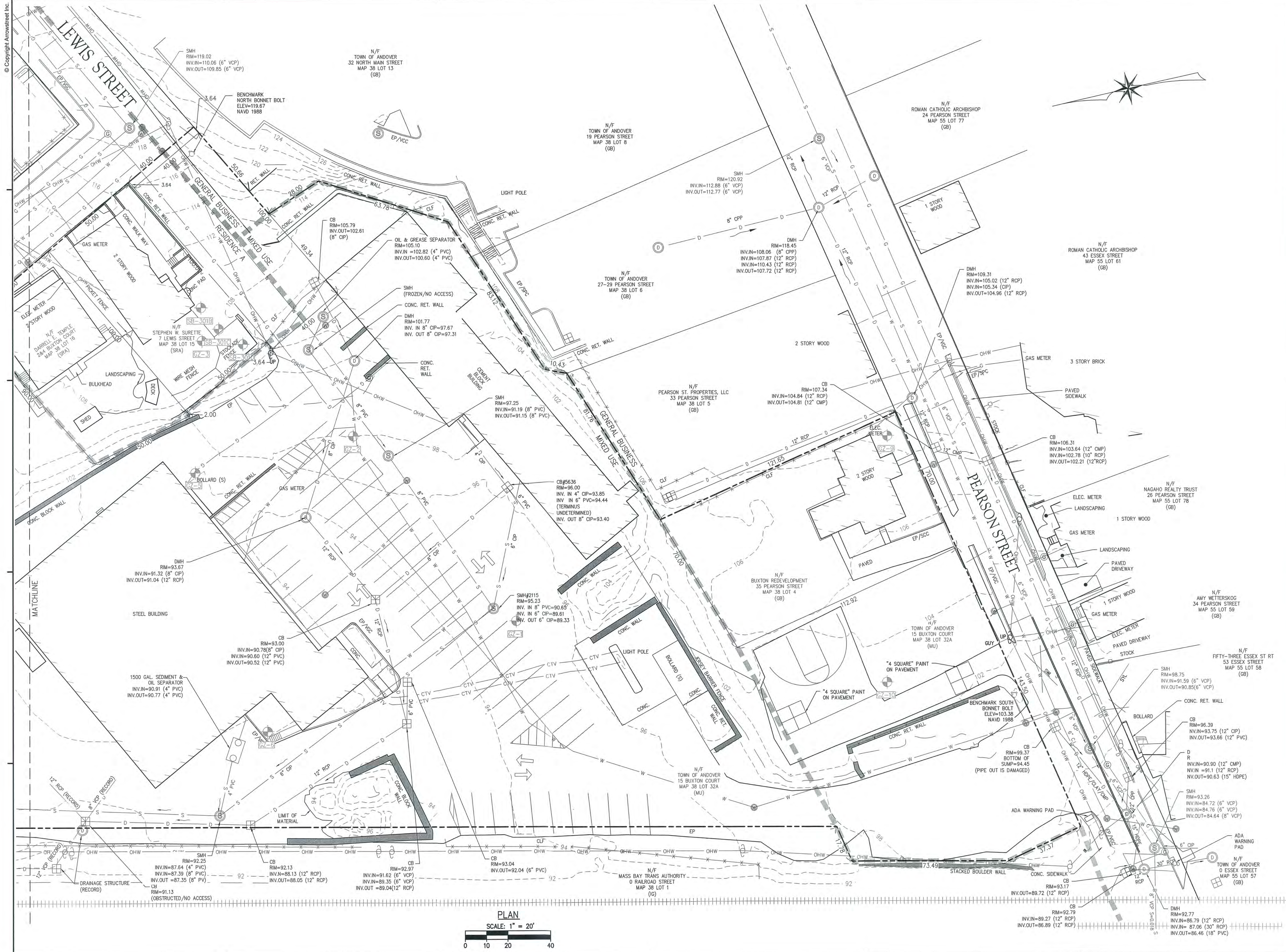
REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE
EXISTING CONDITIONS PLAN

Project No. 4145
 Drawn By LNO
 Date 11/15/23
 Scale AS NOTED

DRAWING NUMBER:
C2.0



APPLICANT
ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
 NORTH ANDOVER, MA 01845

ARCHITECT
ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
 SUITE 700N
 BOSTON MA 02109
 617.623.5555
 arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
 LAND SURVEYORS | LAND USE PLANNERS
 69 ELM STREET, DANVERS, MASSACHUSETTS 01923
 P. 978-777-5566, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

EXISTING CONDITIONS PLAN

Project No.	4145
Drawn By	LNO
Date	11/15/23
Scale	AS NOTED

DRAWING NUMBER:

C2.1

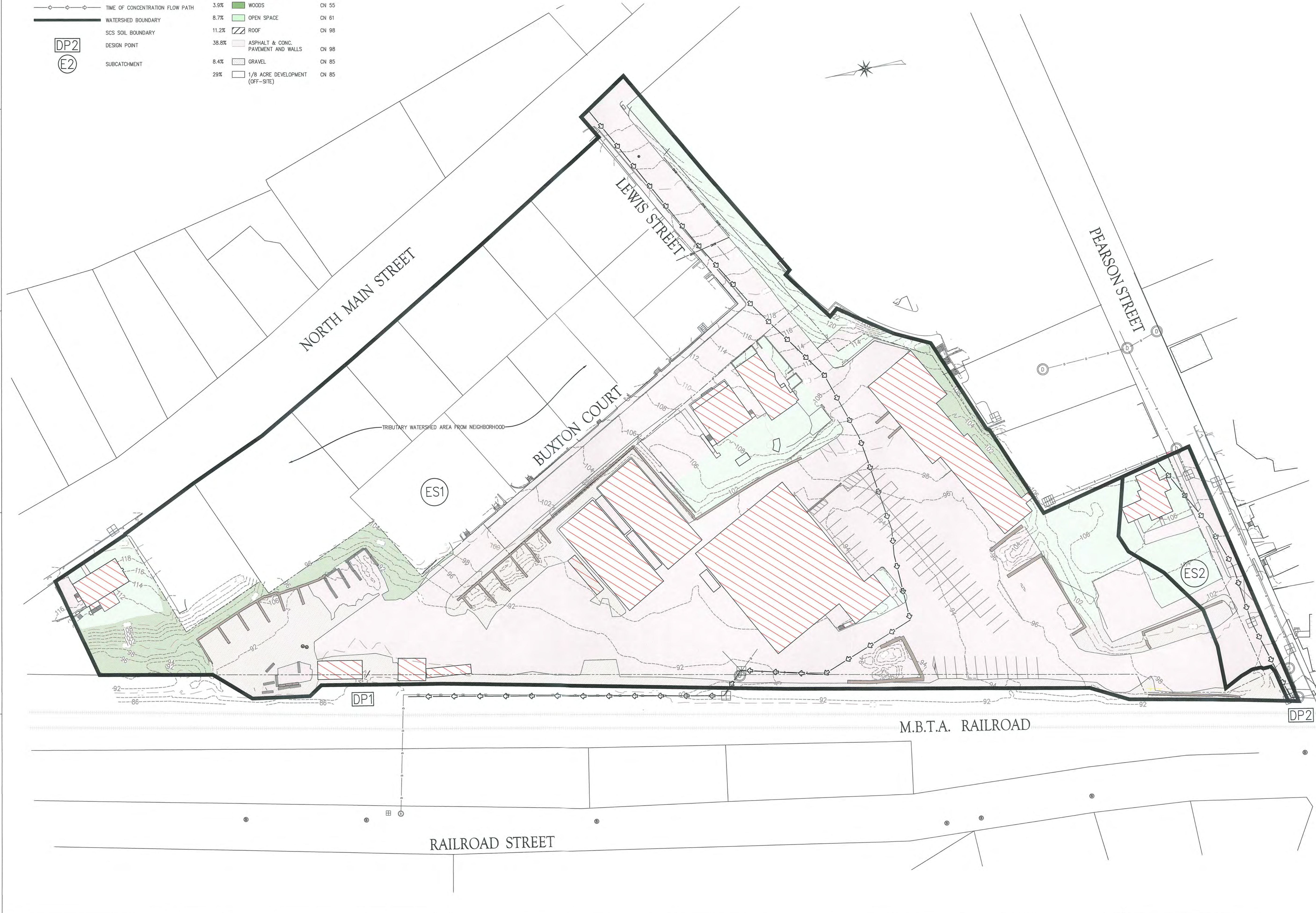
SCS SOIL DESCRIPTIONS
100% 602: URBAN LAND, HSG B

WATERSHED LEGEND

- TIME OF CONCENTRATION FLOW PATH
- WATERSHED BOUNDARY
- SCS SOIL BOUNDARY
- DP2 DESIGN POINT
- E2 SUBCATCHMENT

WATERSHED LEGEND

- 3.9% WOODS CN 55
- 8.7% OPEN SPACE CN 61
- 11.2% ROOF CN 98
- 38.8% ASPHALT & CONC. PAVEMENT AND WALLS CN 98
- 8.4% GRAVEL CN 85
- 29% 1/8 ACRE DEVELOPMENT (OFF-SITE) CN 85



APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
45 ELM STREET, BANGOR, MASSACHUSETTS 01921
P: 978-777-8586, W: WWW.MORINCAMERON.COM

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

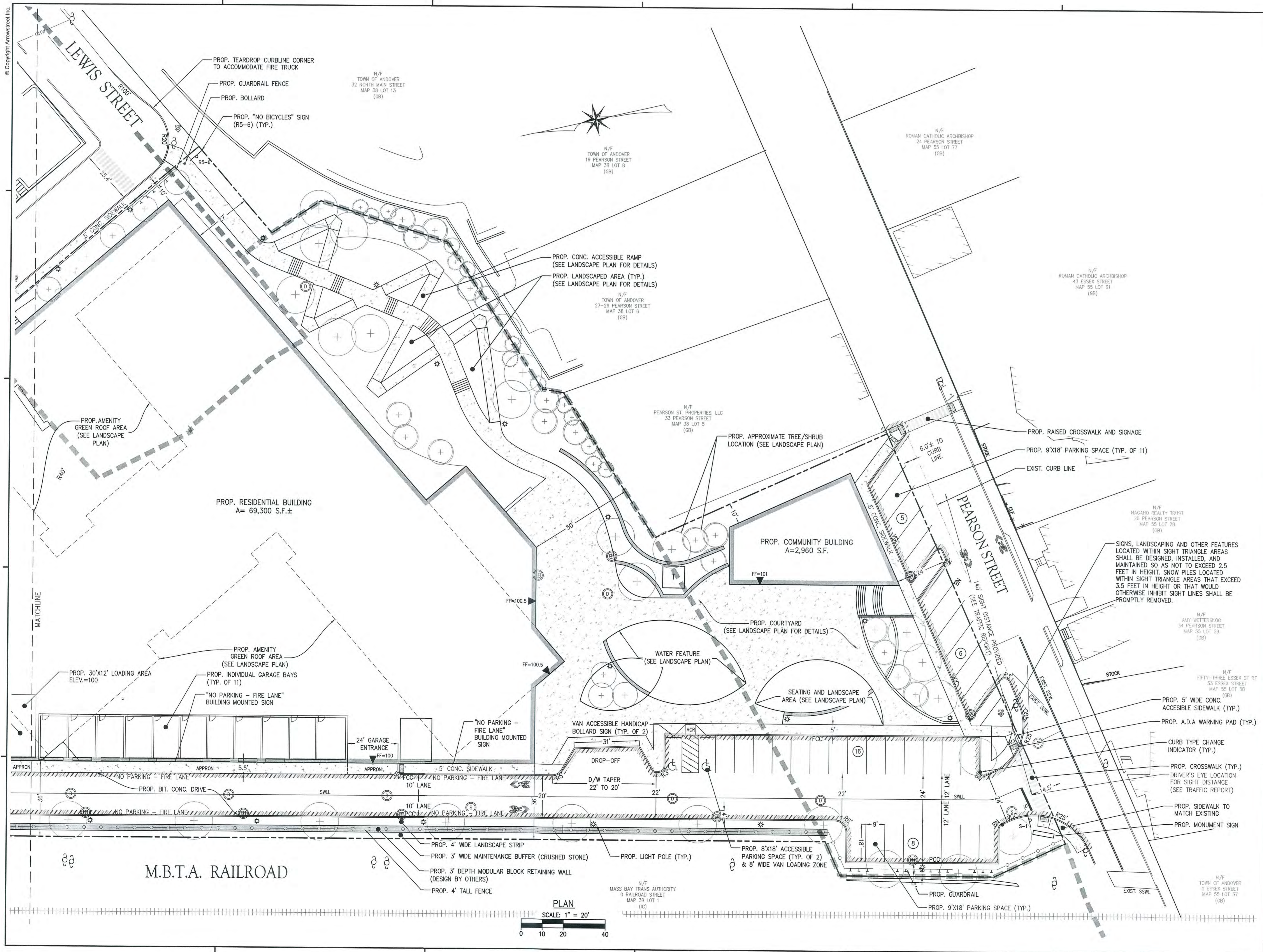
DRAWING TITLE

PRE-DEVELOPMENT WATERSHED

Project No.	4145
Drawn By	LNO
Date	11/15/23
Scale	AS NOTED

DRAWING NUMBER:

C2.2



APPLICANT
ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
 NORTH ANDOVER, MA 01845

ARCHITECT
ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
 SUITE 700N
 BOSTON MA 02109
 617.623.5555
 arrowstreet.com

CONSULTANT
The Morin-Cameron GROUP, INC.
 CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
 LAND SURVEYORS | LAND USE PLANNERS
 66 ELM STREET, CAMBRIDGE, MASSACHUSETTS 02142
 P: 978-777-8586, W: WWW.MORINCAMERON.COM

PROJECT INFORMATION
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE
SPECIAL PERMIT APPLICATION

STAMP

 SCOTT P. CAMERON
 CIVIL
 No. 47801
 REGISTERED
 PROFESSIONAL ENGINEER

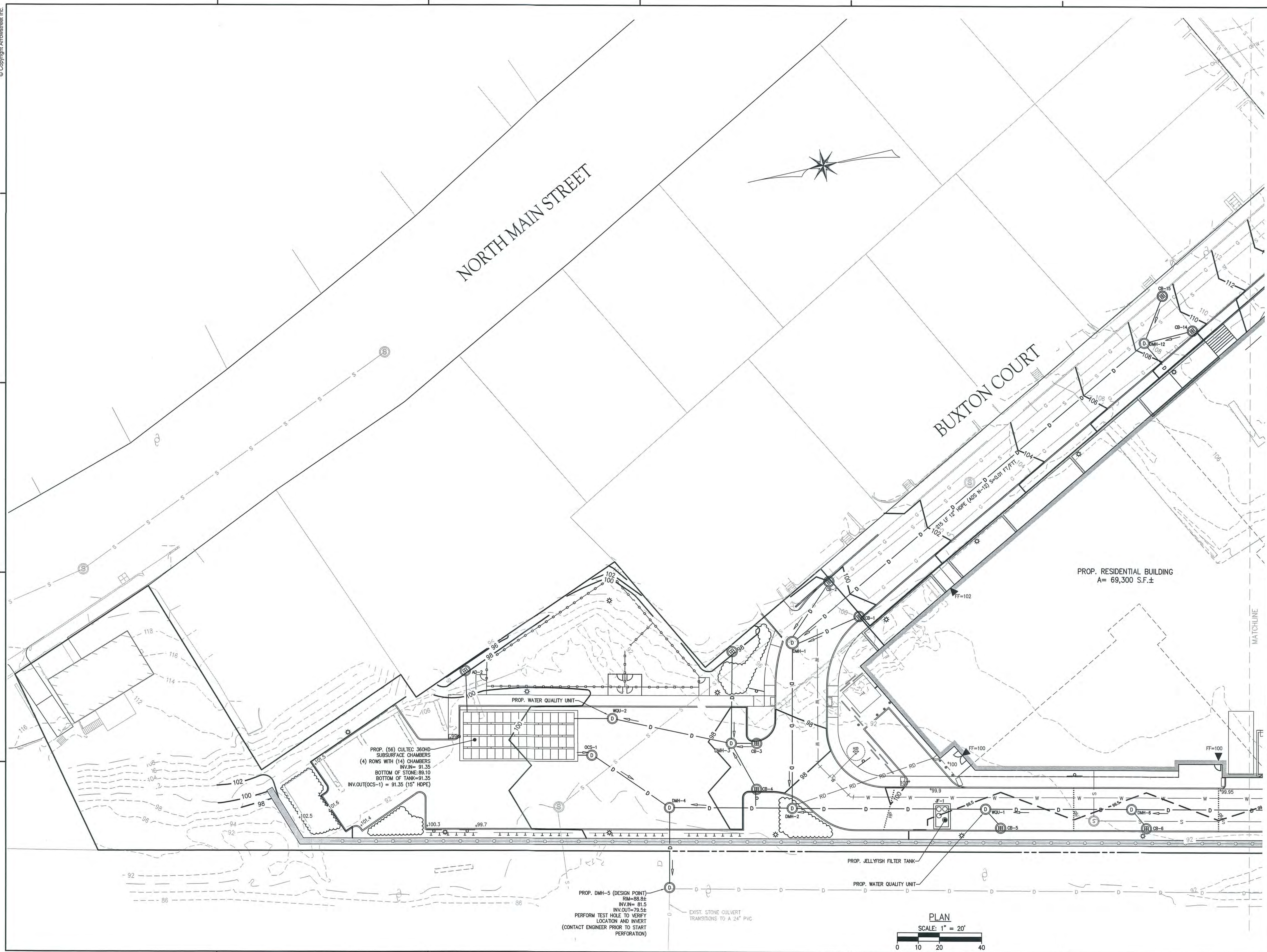
REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE
SITE LAYOUT PLAN

Project No. 4145
 Drawn By LNO
 Date 11/15/23
 Scale AS NOTED

DRAWING NUMBER:
C4.2



APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
86 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-6596, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

GRADING AND DRAINAGE PLAN

Project No.	4145
Drawn By	LNO
Date	11/15/23
Scale	AS NOTED

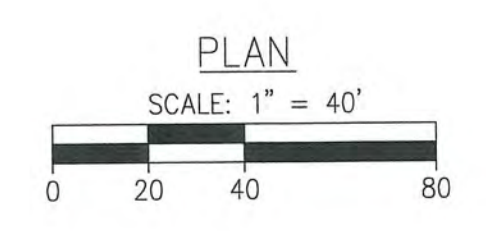
DRAWING NUMBER:

C5.0

SCS SOIL DESCRIPTIONS
100% 602 URBAN LAND, HSG UNKNOWN

WATERSHED LEGEND		WATERSHED LEGEND	
	TIME OF CONCENTRATION FLOW PATH		WOODS CN 55
	WATERSHED BOUNDARY		GRASS/OPEN SPACE CN 79
	SCS SOIL BOUNDARY		ROOF CN 98
	DESIGN POINT		ASPHALT & CONC. PAVEMENT AND WALLS CN 98
	SUBCATCHMENT		GRAVEL CN 85
			1/8 ACRE DEVELOPMENT (OFF-SITE) CN 85

DP2
E2



APPLICANT
ANDOVER TOWN YARD, LLC
231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT
ARROWSTREET ARCHITECTURE & DESIGN
10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT
The Morin-Cameron GROUP, INC.
CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
66 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-8586, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE
SPECIAL PERMIT APPLICATION

STAMP

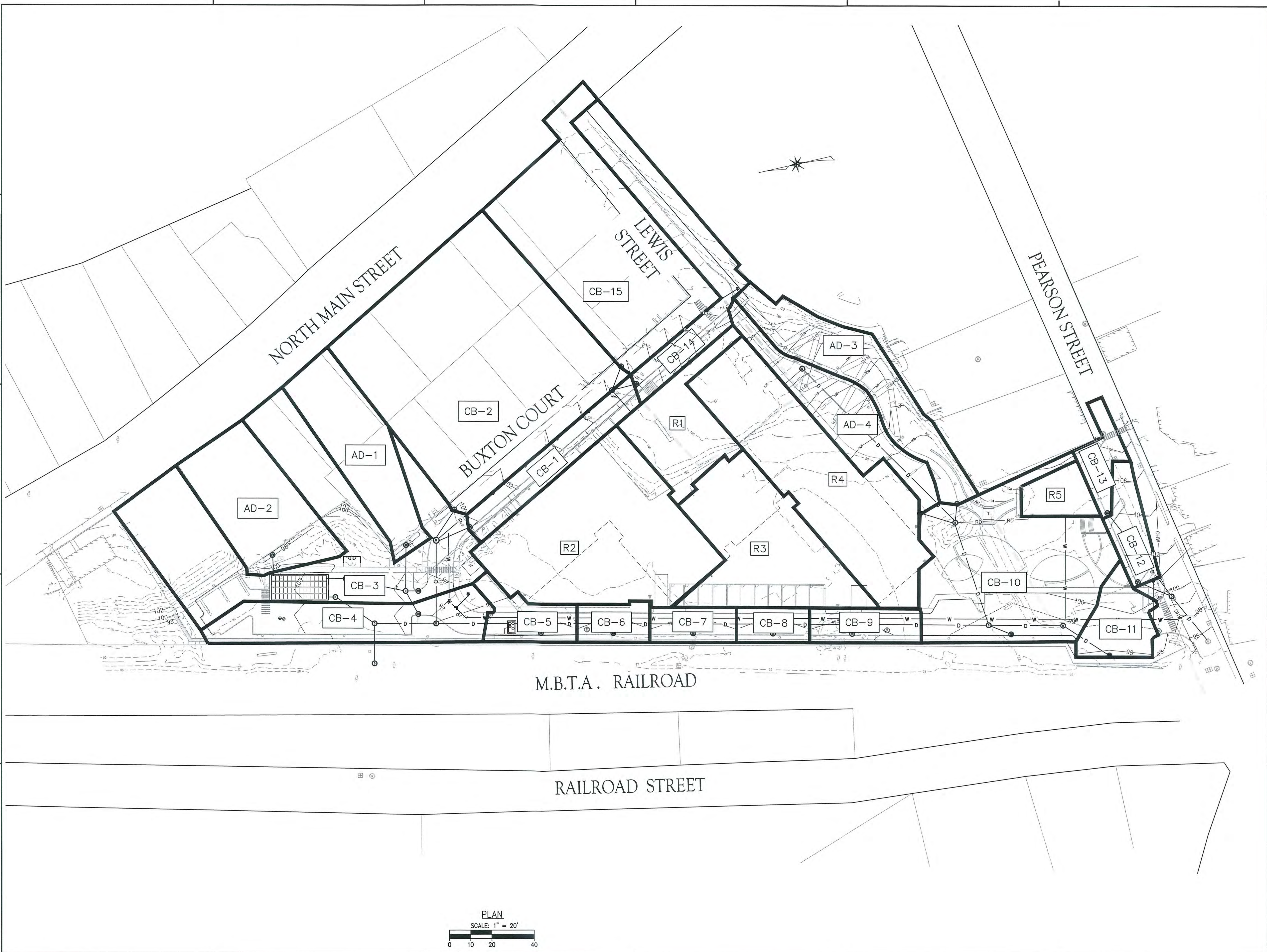
REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE
POST DEVELOPMENT WATERSHED

Project No. 4145
Drawn By LNO
Date 11/15/23
Scale AS NOTED

DRAWING NUMBER:
C5.2



APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
66 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-6586, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

RATIONAL CALCULATION AREAS PLAN

Project No.	4145
Drawn By	LNO
Date	11/15/23
Scale	AS NOTED

DRAWING NUMBER:

C5.3

DRAINAGE SCHEDULE									
UPSTREAM			CONNECTING PIPE		DOWNSTREAM STRUCTURE	PIPE INFORMATION			
ID	RIM	SUMP	INVERT START	INVERT END		LENGHT	DIAMETER	SLOPE	TYPE
CB-14	109.60	100.60	104.60	104.20	DMH-12	20	12	0.020	HDPE
CB-15	109.60	100.60	104.60	104.20	DMH-12	20	12	0.020	HDPE
DMH-12	108.20	-	103.30	95.60	DMH-1	215	12	0.035	HDPE
CB-1	99.90	92.40	96.40	95.80	DMH-1	30	12	0.020	HDPE
CB-2	99.90	92.40	96.40	95.80	DMH-1	30	12	0.020	HDPE
DMH-1	99.20	-	95.00	93.90	DMH-2	74	15	0.020	HDPE
DMH-2	98.20	-	90.20	88.58	DMH-4	54	18	0.030	HDPE
OCS-1	98.60	90.35	91.35	90.50	DMH-4	41	15	0.020	HDPE
DMH-4	88.80	-	83.00	81.50	DMH-5	29	18	0.052	HDPE
CB-3	97.50	89.30	93.30	93.16	DMH-3	7	12	0.020	HDPE
CB-4	97.50	89.30	93.30	92.90	DMH-3	20	12	0.020	HDPE
AD-1	97.90	-	93.70	93.10	DMH-2	41	12	0.015	HDPE
DMH-3	97.80	-	92.80	92.10	WQU-2	54	12	0.015	HDPE
AD-2	95.90	-	91.69	91.35	I.SYSTEM	17	12	0.020	HDPE
WQU-2	98.70	-	91.75	91.35	I.SYSTEM	16	12	0.025	HDPE
I.SYSTEM	99	-	91.35	91.35	OCS-1	5	18	0.010	HDPE
CB-11	97.90	91.10	95.10	94.81	DMH-11	48	12	0.006	HDPE
CB-10	98.50	91.70	95.70	95.32	DMH-11	19	12	0.020	HDPE
DMH-11	99.10	-	94.75	94.35	DMH-10	66	12	0.006	HDPE
DMH-14	112.20	-	95.50	95.50	DMH-13	198	12	0.020	HDPE
AD-4	112.10	-	95.78	95.78	DMH-13	28	12	0.015	HDPE
AD-3	100.40	-	95.92	92.92	DMH-13	9	12	0.020	HDPE
DMH-13	100.30	-	94.55	94.55	DMH-10	105	15	0.010	HDPE
DMH-10	101.00	-	93.47	93.47	DMH-9	132	15	0.006	HDPE
CB-9	100.40	90.86	94.86	94.86	DMH-9	7	12	0.020	HDPE
DMH-9	99.40	-	92.93	92.93	DMH-8	71	15	0.006	HDPE
CB-8	99.25	90.86	94.86	94.86	DMH-8	7	12	0.020	HDPE
DMH-8	99.40	-	92.40	92.40	DMH-7	71	15	0.006	HDPE
CB-7	99.25	90.86	94.86	94.86	DMH-7	7	12	0.020	HDPE
DMH-7	99.40	-	91.87	91.87	DMH-6	71	15	0.015	HDPE
CB-6	99.25	90.86	94.86	94.86	DMH-6	7	12	0.020	HDPE
DMH-6	99.40	-	91.38	91.38	WQU-1	65	18	0.006	HDPE
CB-5	99.25	90.86	94.86	94.86	WQU-1	7	12	0.020	HDPE
WQU-1	99.40	-	91.22	91.22	JF-1	10	18	0.006	HDPE
JF-1	99.50	-	90.32	90.32	DMH-2	66	18	0.006	HDPE
CB-12	104.50	95.16	99.16	95.80	DMH-C	96	12	0.035	HDPE
CB-13	100.4	91.92	95.92	95.30	DMH-C	31	12	0.020	HDPE
DMH-C	99.3	-	92.10	91.10	EXIST. DMH	49	12	0.020	HDPE

APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
66 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-8586, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

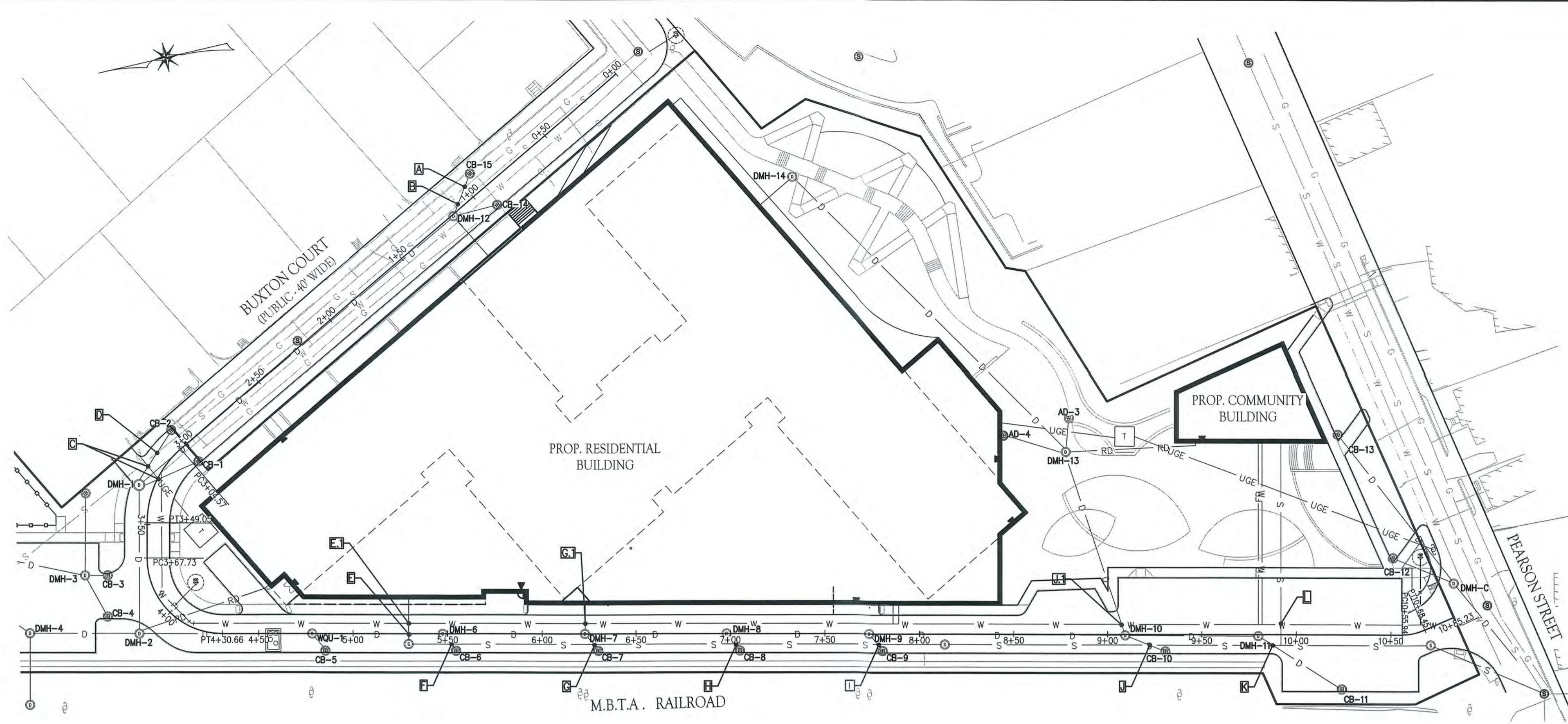
DRAWING TITLE

PROFILE PLAN

Project No. 4145
Drawn By LNO
Date 11/15/23
Scale AS NOTED

DRAWING NUMBER:

C5.4



PROFILE NOTE:

UNDERGROUND ELECTRIC, TRAFFIC LOOPS AND TELECOMMUNICATION CONDUITS NOT SHOWN. CONTRACTOR TO CONFIRM ALL UTILITIES WITH SERVICE PROVIDERS PRIOR TO CONSTRUCTION.

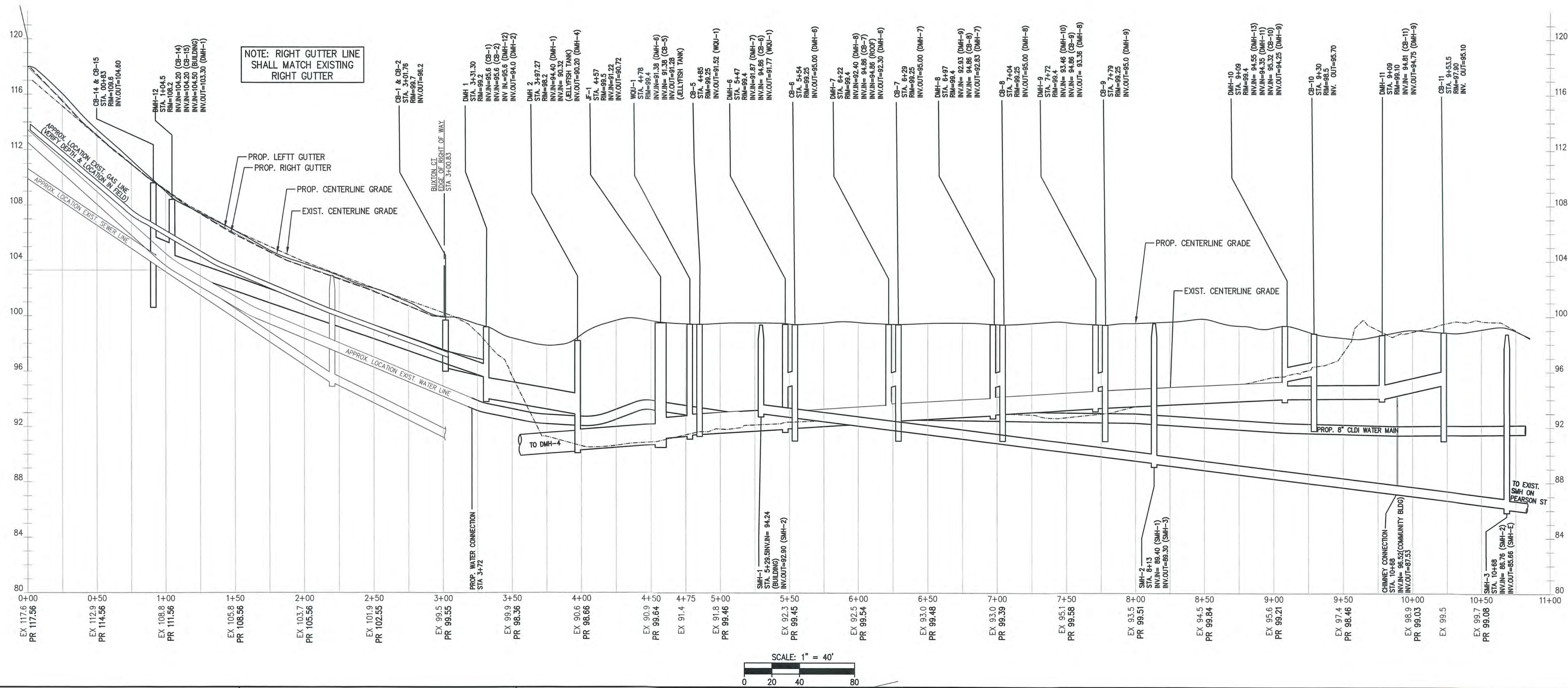
CATCH BASIN/MANHOLE NOTE:

CATCH BASIN GRATES SHALL BE SET AT THE GUTTERLINE AT THE TOE OF THE CURB. RIGHT/LEFT MEASUREMENTS FOR CATCH BASINS SHOWN HEREON ARE TO THE BACK CENTER OF THE GRATE. RIGHT/LEFT MEASUREMENTS FOR MANHOLES ARE SHOWN HEREON TO THE CENTER OF THE STRUCTURE.

GRADING NOTE:

ALL EXISTING AND FINISHED GRADES SHOWN HEREON SHALL BE FIELD VERIFIED BY THE SITE CONTRACTOR. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER PRIOR TO CONSTRUCTION.

UTILITY CROSSING SCHEDULE					
CROSSING	TOP OF SEWER OR GAS	BOTTOM OF SEWER OR GAS	BOTTOM OF DRAIN OR WATER	TOP OF DRAIN OR WATER	SEPARATION
A		106.0 (GAS)		105.5	0.5
B		101.94		100.45	1.5
C					
D	90.97		96.05		5.1
E		94.18		93.03	1.2
E.1		94.35		92.85 (WATER)	1.5
F	93.38		94.85		1.5
G	92.67		94.95		3.4
G.1			94.84	93.20 (WATER)	1.6
H	91.54		94.95		4.5
I	90.41		94.95		5.7
J	89.37		95.55		7.3
J.1			94.55	93.05 (WATER)	1.5
K	89.39		92.60		5.4
L		93.6		92.1 (WATER)	1.5



APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
86 BIA STREET, DANVERS, MASSACHUSETTS 01923
P: 978-777-8556, F: 978-777-8557

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

PROFILE PLAN

Project No. 4145

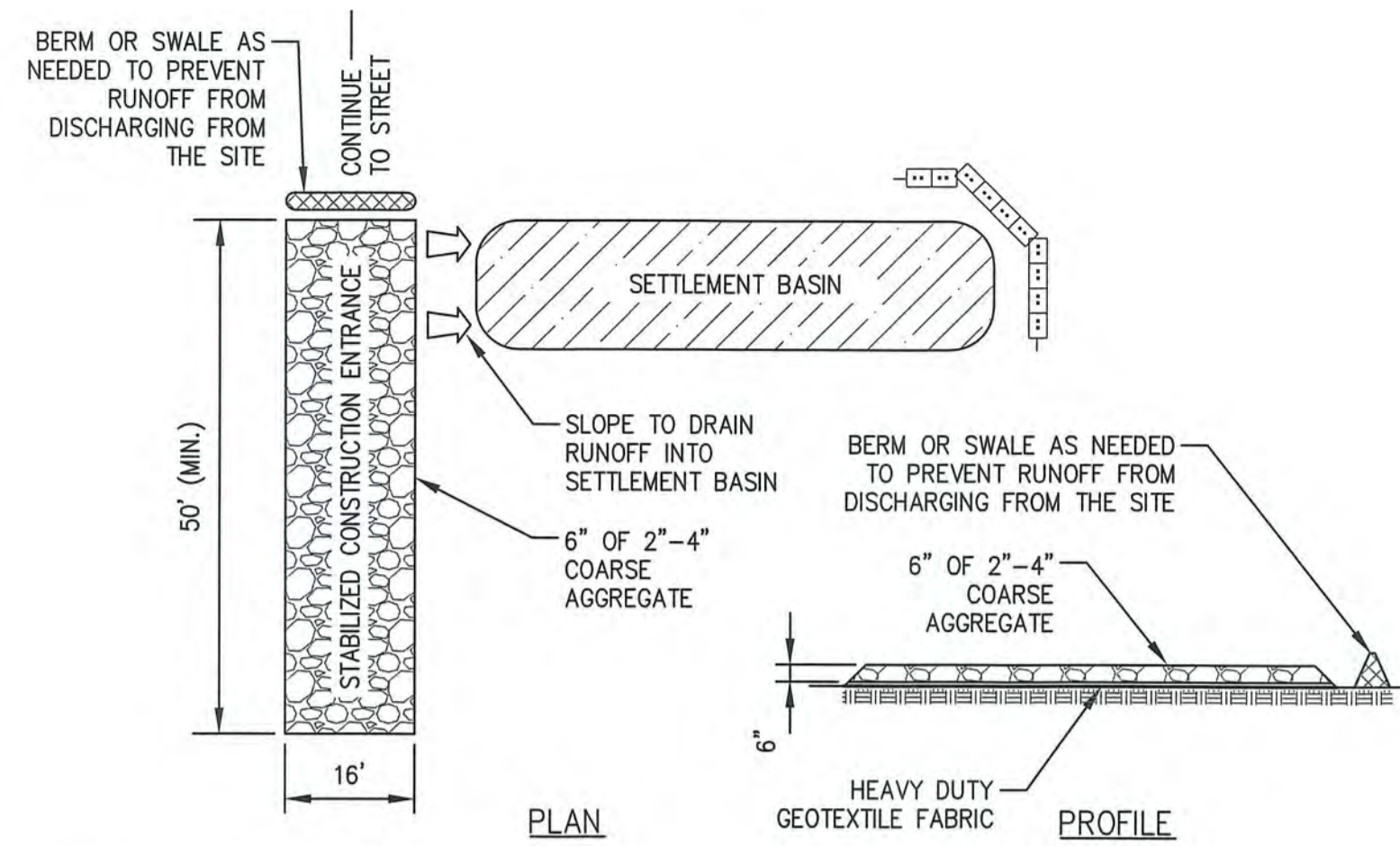
Drawn By LNO

Date 11/15/23

Scale AS NOTED

DRAWING NUMBER:

C7.0

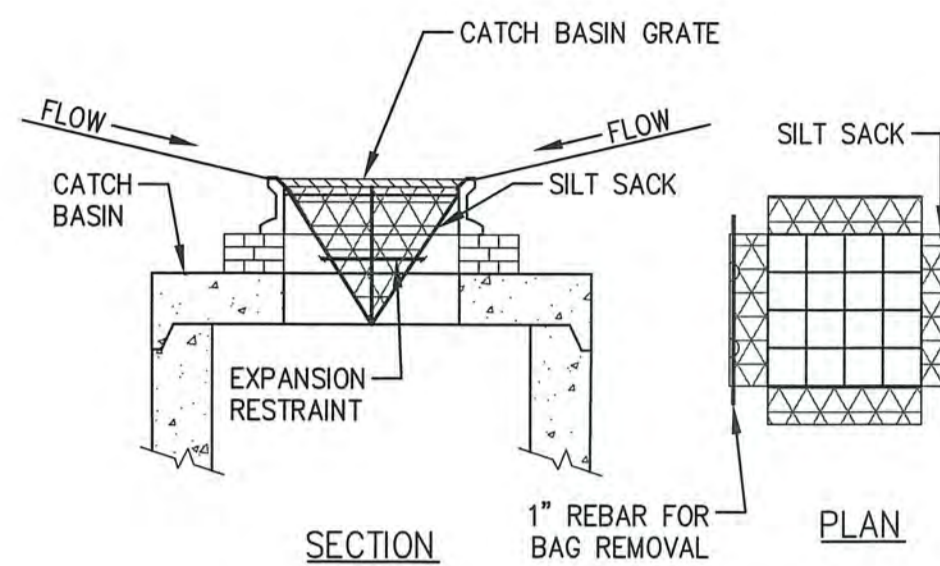


- SITE CONSTRUCTION EXIT SPECIFICATIONS FOR BOSTON WAY:**
1. STONE FOR STABILIZATION CONSTRUCTION ENTRANCE SHALL BE 2"-4" STONE.
 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 40 FEET.
 3. THE WIDTH OF THE ENTRANCE SHALL BE NO LESS THAN THE WIDTH OF THE INGRESS OR EGRESS DRIVE, OR 16 FEET, WHICHEVER IS GREATER.
 4. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
 5. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH MINIMUM 1 TO 5 SLOPES THAT CAN BE CROSSED BY VEHICLES CAN BE SUBSTITUTED.
 6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SEDIMENT SPILLED, WASHED OR TRACKED ONTO THE RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.

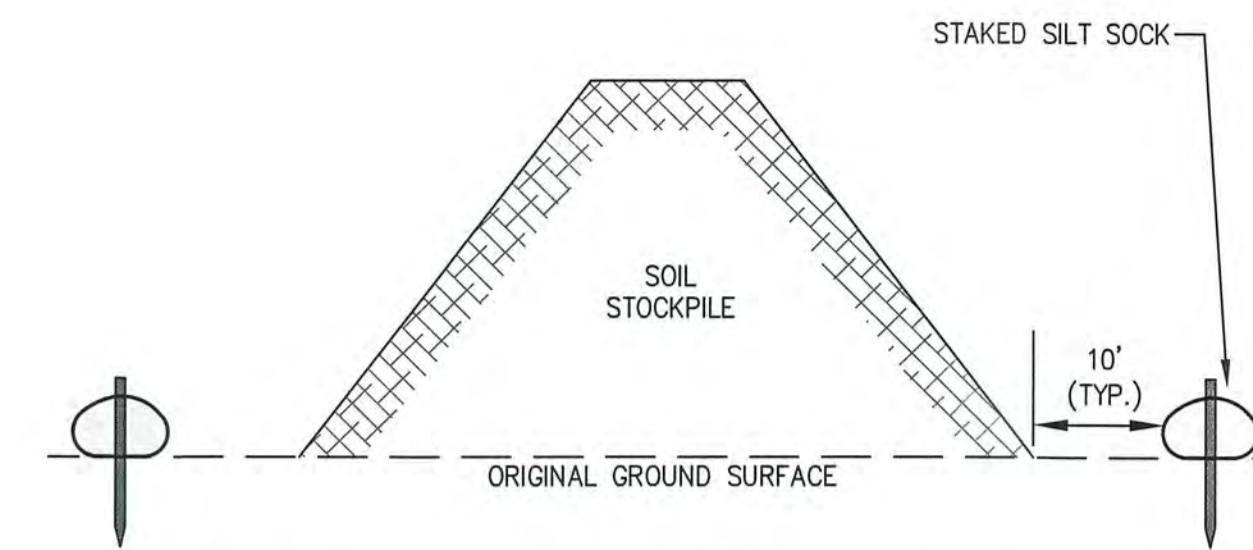
STABILIZED CONSTRUCTION ENTRANCE DETAIL
(NOT TO SCALE)

SILT SACK NOTES:

1. INSTALL SILT SACKS IN EXISTING CATCH BASINS. INSTALL SILT SACKS IN NEW CATCH BASINS AFTER INSTALLATION.
2. GRATES TO BE PLACED OVER SILT SACKS.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED WHEN DEPTH OF SEDIMENT IS WITHIN 6" OF GRATE.

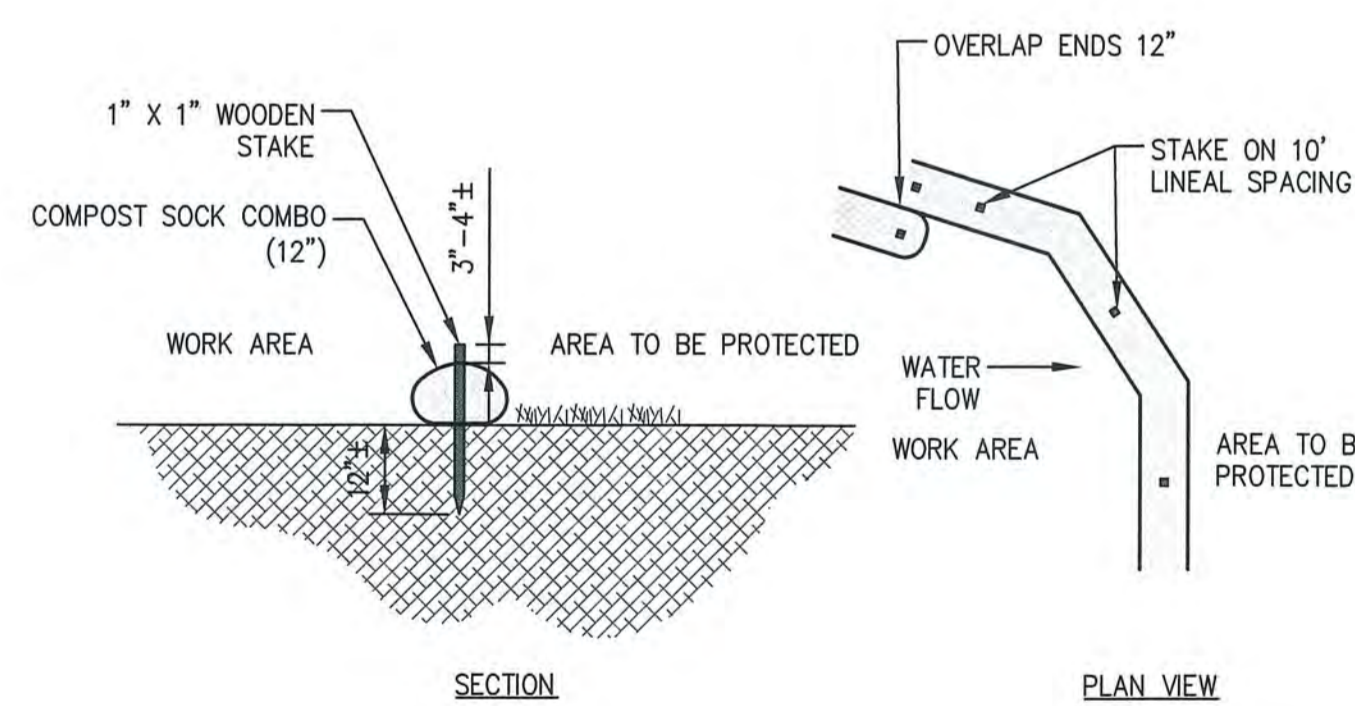


SILT SACK SEDIMENT TRAP
(NOT TO SCALE)

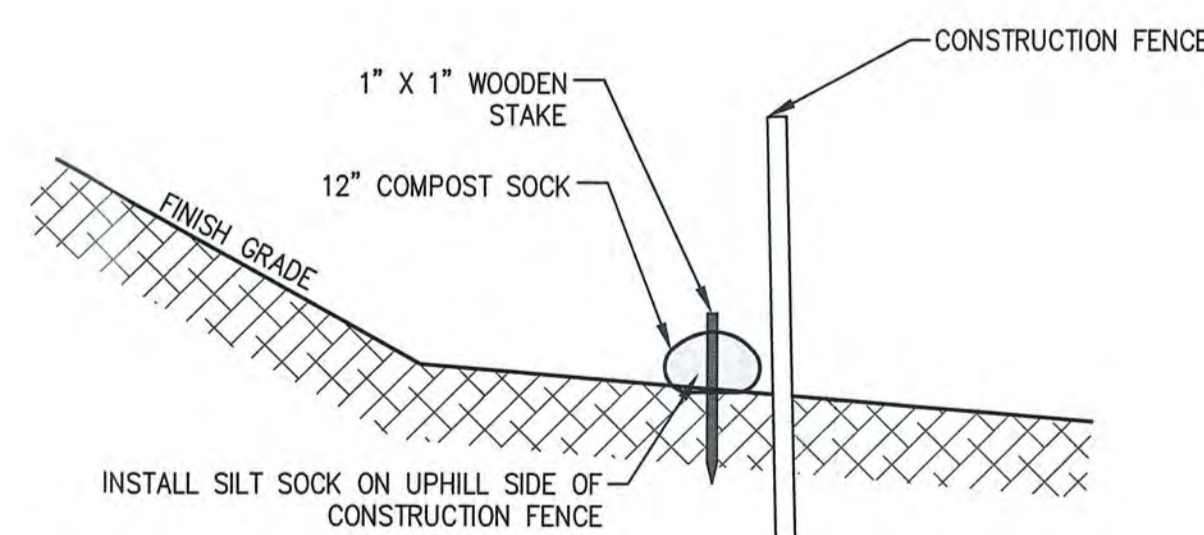


- NOTES:**
1. SILT SOCK TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE IF ON LEVEL GROUND OR TO EXTEND AROUND DOWNGRADIENT PORTION STOCKPILE IS ON SLOPE.
 2. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS IT SHALL BE STABILIZED WITH AN EROSION CONTROL BLANKET OR SEED (IF LOAM).
 3. INSPECTION OF SILT SOCKS SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT OF SILT SOCK SHALL BE MADE PROMPTLY AS NEEDED.
 4. SEDIMENT TRAPPED BY SILT SOCKS SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN SEDIMENT DEPTH REACHES 12".
 5. SILT SOCKS SHALL BE MAINTAINED UNTIL STOCKPILE IS ELIMINATED.

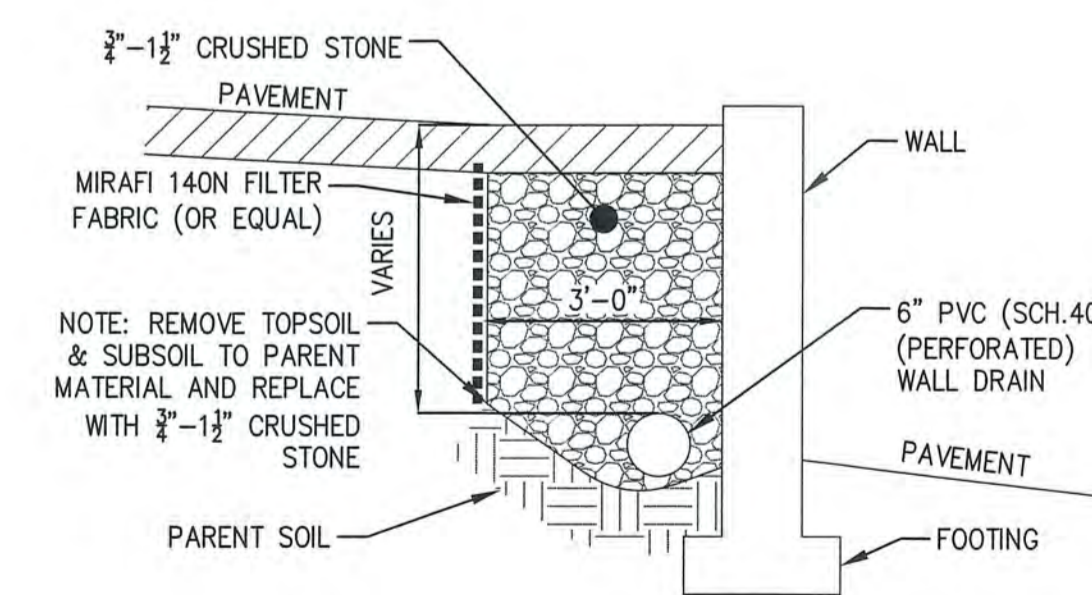
TEMPORARY SOIL STOCKPILE
(NOT TO SCALE)



COMPOST SOCK
(NOT TO SCALE)



COMPOST SOCK BACKED WITH CONSTRUCTION FENCE
(NOT TO SCALE)



WALL DRAIN DETAIL
(NOT TO SCALE)

APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
98 ELM STREET, DANVERS, MASSACHUSETTS 01923
P. 978-777-8586, W. WWW.MORINCAMERON.COM

PROJECT INFORMATION

ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

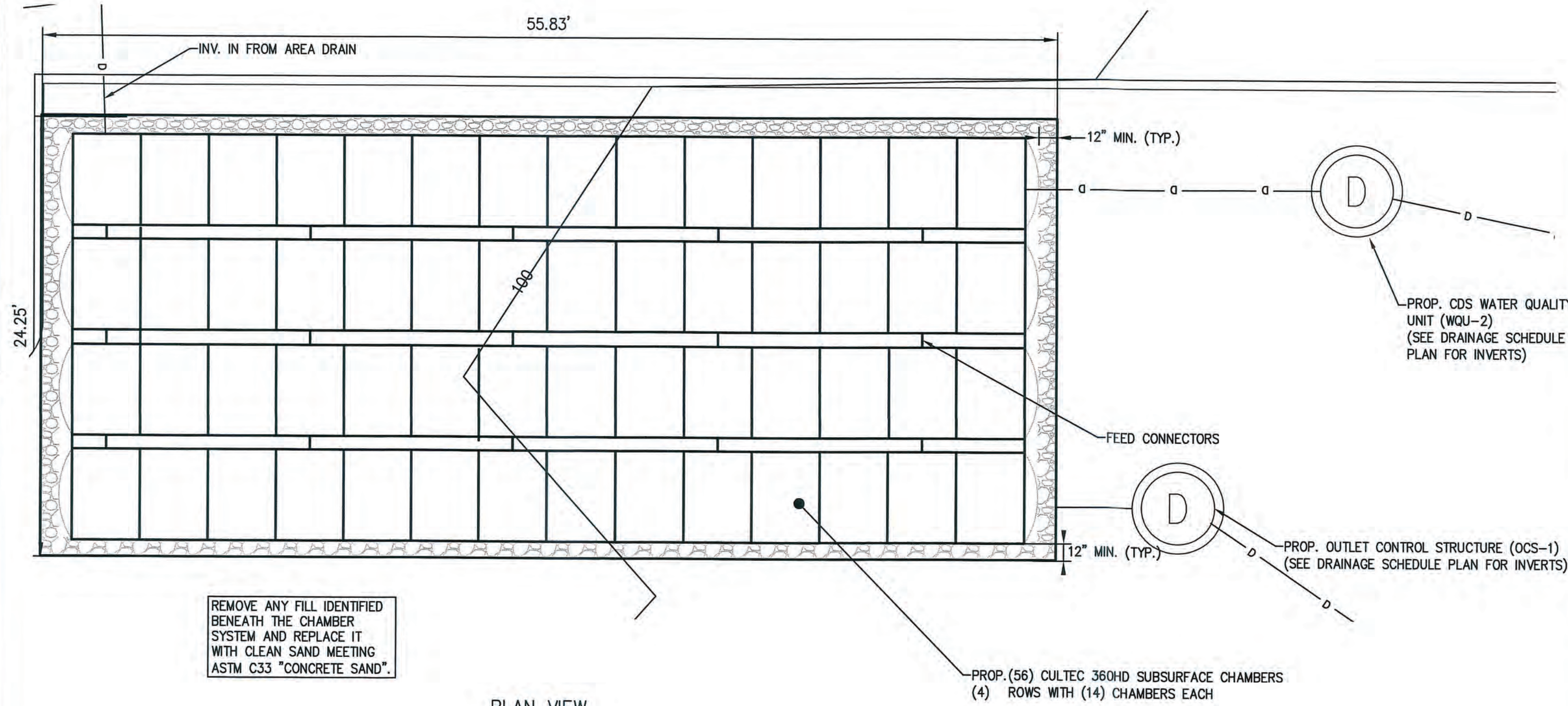
DRAWING TITLE

CONSTRUCTION DETAILS - EROSION CONTROL

Project No. 4145
Drawn By LNO
Date 11/15/23
Scale AS NOTED

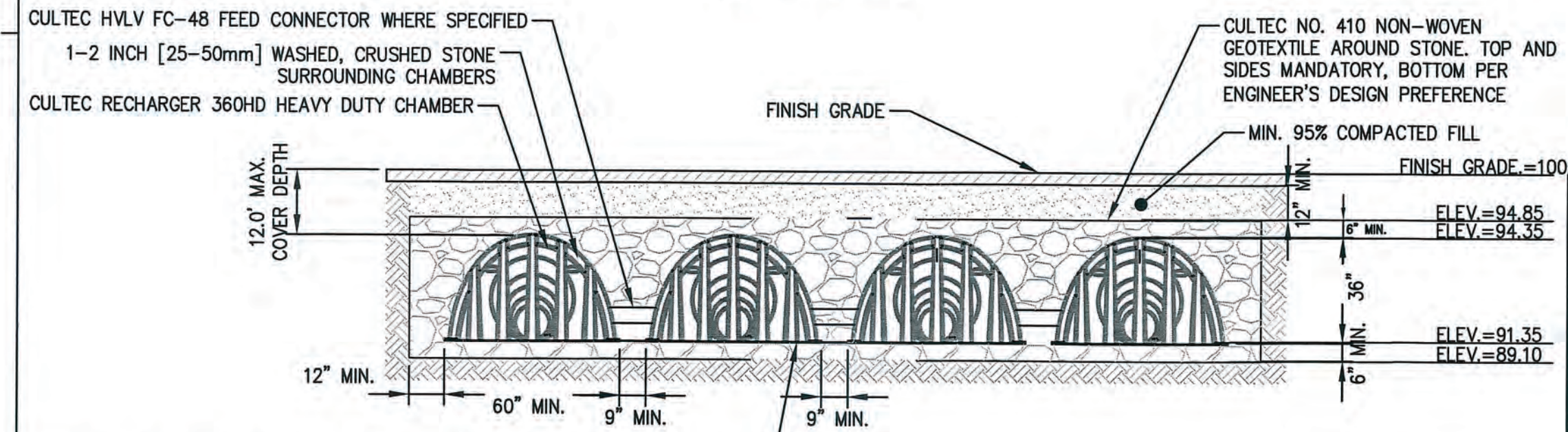
DRAWING NUMBER:

C8.0



REMOVE ANY FILL IDENTIFIED BENEATH THE CHAMBER SYSTEM AND REPLACE IT WITH CLEAN SAND MEETING ASTM C33 "CONCRETE SAND".

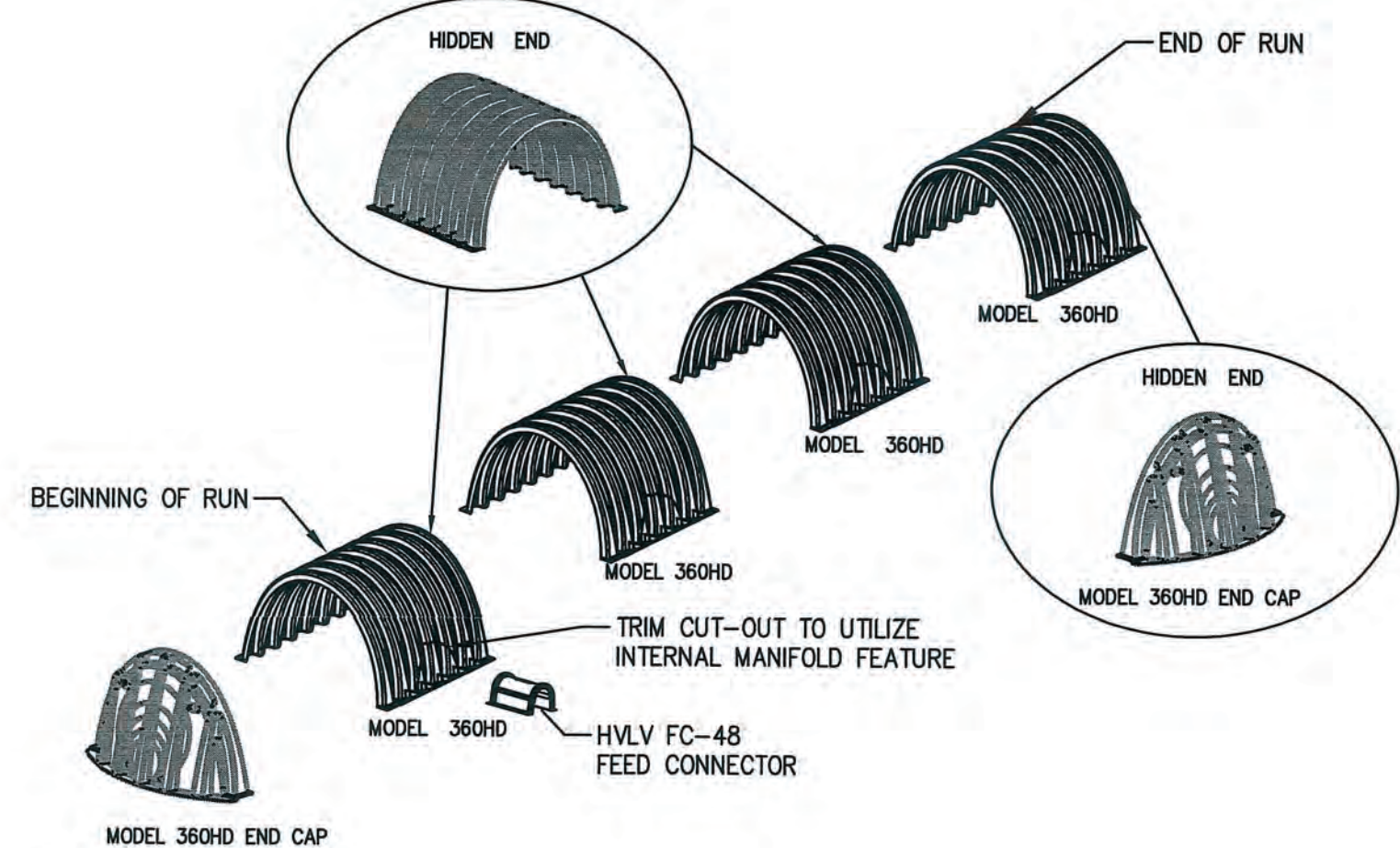
PLAN VIEW
(SCALE: 1"=5')



CROSS SECTION

INSPECTION NOTE: SYSTEM INSPECTION REQUIRES A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE CIVIL ENGINEER TO CONDUCT THE FOLLOWING INSPECTIONS:

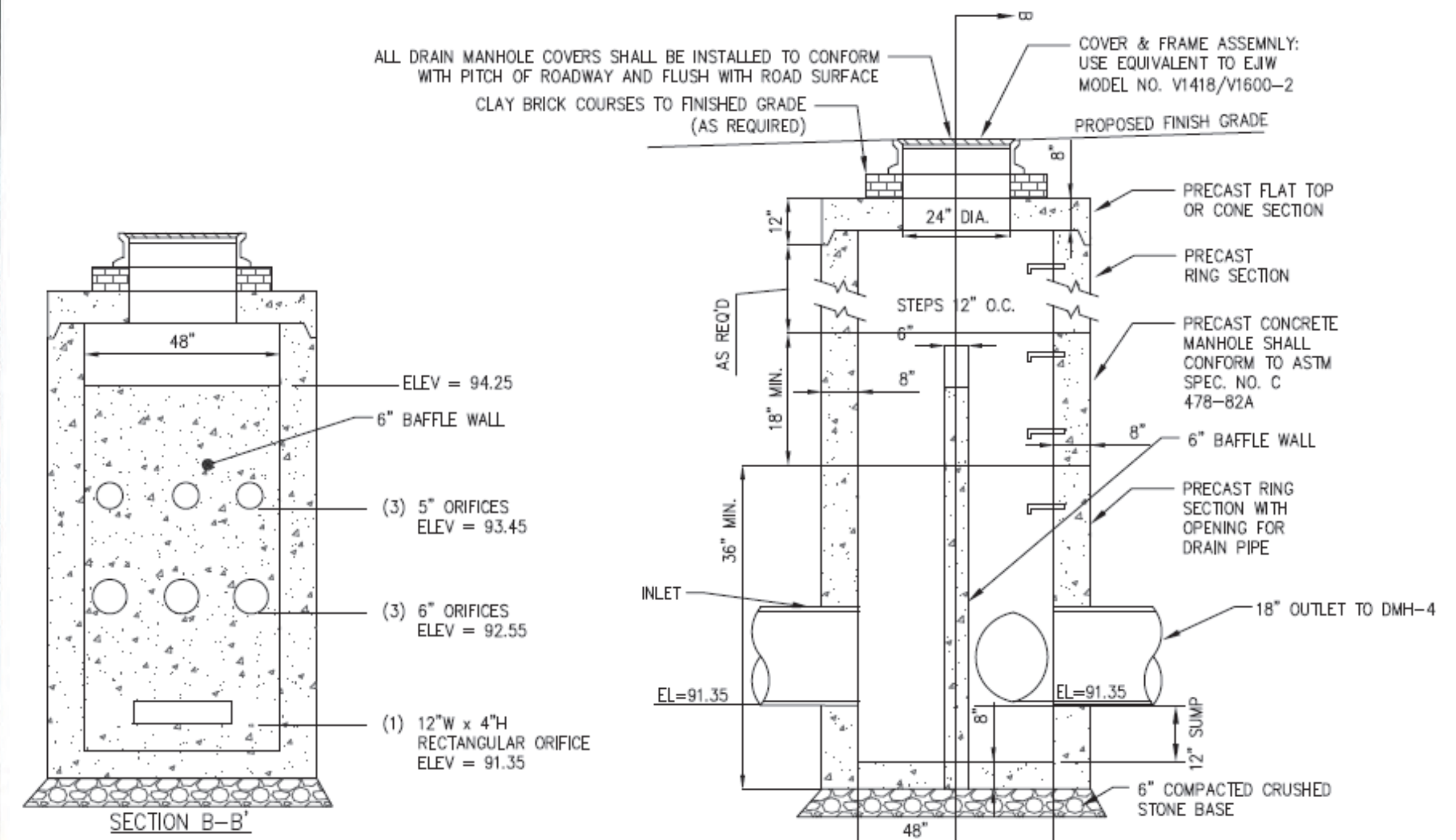
- BOTTOM OF EXCAVATION PRIOR TO BACKFILLING.
- AFTER INSTALLATION, PRIOR TO COVERING THE CHAMBERS.
- COMPLETION OF CONSTRUCTION.



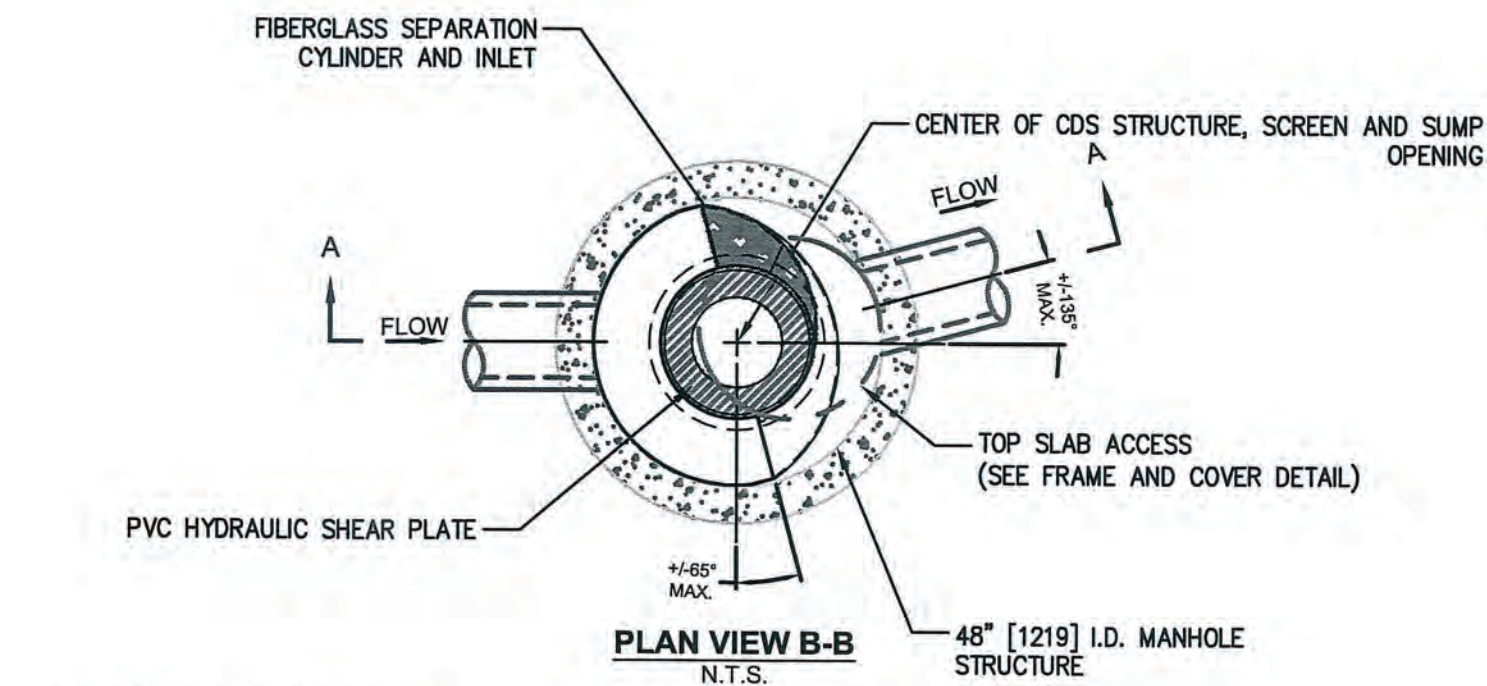
NOTES:

- THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
 - INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
 - MAXIMUM PERMANENT (50-YEAR) COVER LOAD
 - 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
- THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
 - THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
 - THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
 - THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

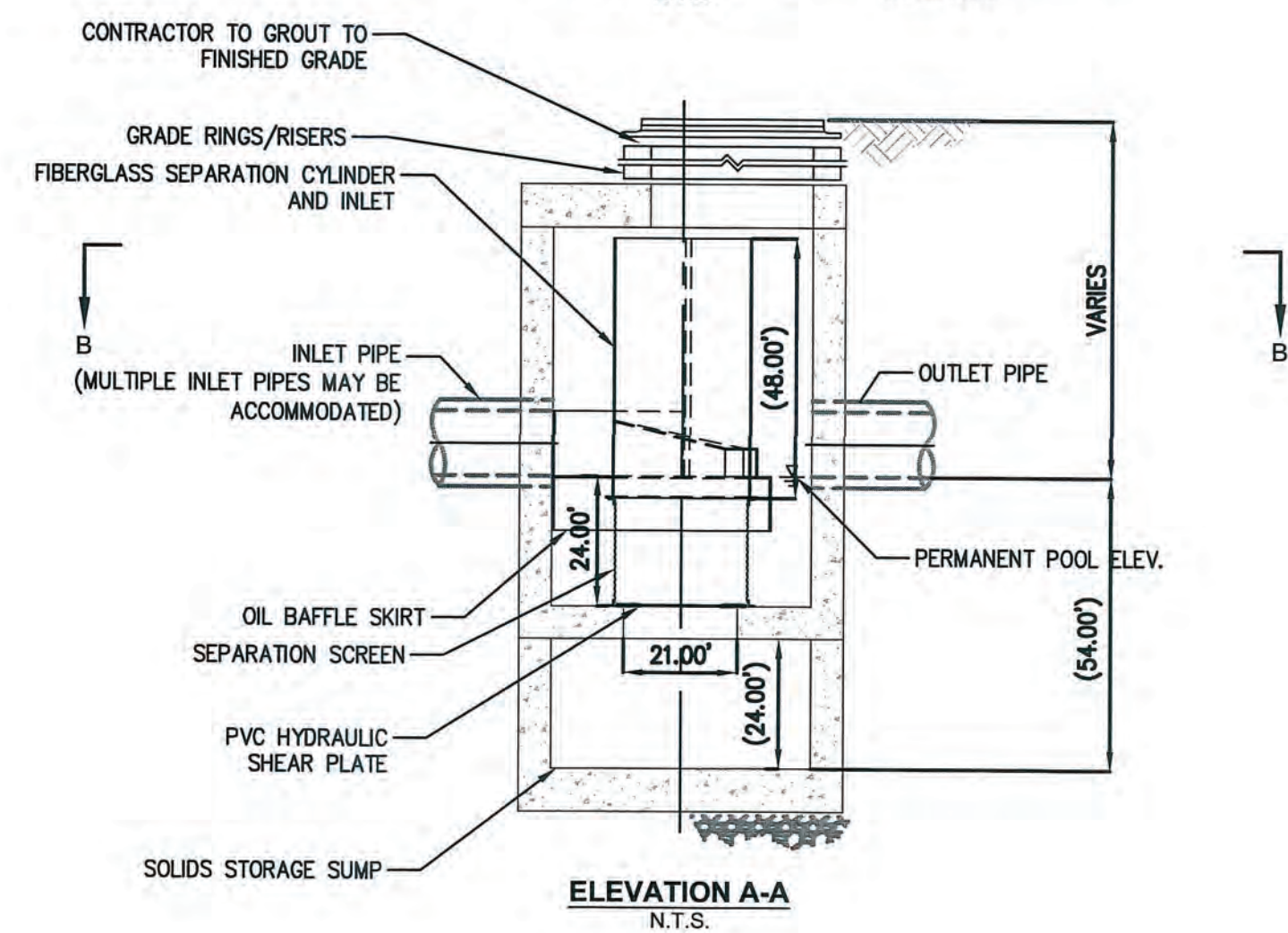
ROOF RECHARGE SYSTEM (CULTEC RECHARGER 360HD)
(NOT TO SCALE)



OUTLET CONTROL STRUCTURE (OCS-1)
(NOT TO SCALE)



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS WATER QUALITY UNIT
(NOT TO SCALE)

APPLICANT

ANDOVER TOWN YARD, LLC

231 SUTTON STREET, SUITE 1B
NORTH ANDOVER, MA 01845

ARCHITECT

ARROWSTREET ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700H
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT

The Morin-Cameron GROUP, INC.

CIVIL ENGINEERS | ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS | LAND USE PLANNERS
108 ELM STREET, DANVERS, MASSACHUSETTS 01923
P: 978-777-8586, W: WWW.MORINCAMERON.COM

PROJECT INFORMATION

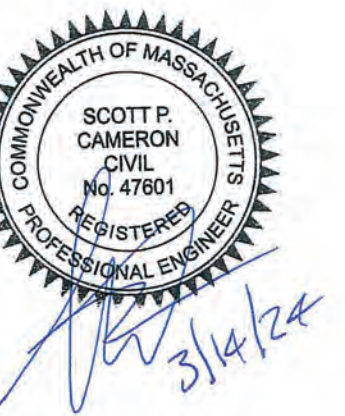
ANDOVER TOWN YARD

11 LEWIS ST, ANDOVER, MA 01810

ISSUANCE

SPECIAL PERMIT APPLICATION

STAMP



REVISIONS

No.	Date	Description
1	02/20/24	ADDRESS PUBLIC COMMENTS
2	03/14/24	ADDRESS PUBLIC COMMENTS

DRAWING TITLE

CONSTRUCTION DETAILS - DRAINAGE

Project No. 4145
Drawn By LNO
Date 11/15/23
Scale AS NOTED

DRAWING NUMBER:

C8.3

