

# NORWAY PLAINS ASSOCIATES, INC.

SURVEYORS • SEPTIC SYSTEM DESIGNERS • ENGINEERS

P.O. Box 249  
Continental Blvd. (03867)  
Rochester, NH 03866-0249  
Phone (603) 335-3948  
www.norwayplains.com



P. O. Box 268  
31 Mooney St.  
Alton, NH 03809  
Phone & Fax (603) 875-3948

February 23, 2024

Shanna Saunders, Planning Director  
Department of Planning and Development  
33 Wakefield Street  
Rochester, NH 03867-1917

## **Re: Non- Residential Site Plan Application; 27 Maple Street - Tax Map 121, Lot 191**

Dear Mrs. Saunders:

On behalf of the Rochester School District, we hereby submit plans and nonresidential site plan application for a proposed paved parking lot at 27 Maple Street. The Rochester School District is looking to construct a new parking lot for staff, visitors and parents of the students that attend the Maple Street Magnet School.

The 1.8+/- acre property is owned by the City of Rochester and located within the Residential 2 (R-2) zoning district. The property is known as Tax Map 121, Lot 191 on the Rochester Assessing maps. The parcel is located on the west side of Maple Street. The site is developed with the Maple Street School, with access to the site via loop driveway off of Maple Street. Although the locations of the services are unknown, the existing School is serviced by City water and sewer systems.

The Rochester School district is proposing to construct a new parking lot to accommodate 18 parking spaces. The proposal will also include widening the loop driveway for easier access and circulation. Currently, the paved loop access is barely wide enough for pick-up trucks or small vehicles. As such, the proposed widening will improve access for maintenance and for emergency vehicles. The proposed parking lot is designed in a one-way traffic direction, with angled parking spaces. The exit to Maple Street will require reconstructing the existing sidewalk to create tip-downs at each side.

In addition to the new parking lot and widen drop-off lane, the School Department is suggesting a shift in the existing crosswalk from Waldon Street across Maple Street. Currently, the painted crosswalk is on a diagonal, which isn't the best orientation. The proposed crosswalk will be a more traditional perpendicular walkway on Maple Street. To accommodate this shift, the northern sidewalk on Maple Street will need to have a new tip-down installed.

The stormwater from the new parking lot will be directed towards a catch basin that will flow into a subsurface stormwater management system. Storm water will be treated utilizing a Stormtech system designed to infiltrate water into the ground. The system has been designed such that there will be no increases in volume or rate leaving the site for the 50 year storm event. Please find attached drainage summary letter with HydroCAD modeling included.

Other than the aforementioned drainage infrastructure, there are no changes proposed to the utilities.

We look forward to discussing this project with staff at the next available TRG meeting. Thank you in advance for your support and assistance with this project.

Sincerely,

**NORWAY PLAINS ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read "Scott A. Lawler". The signature is fluid and cursive, with the first name "Scott" and last name "Lawler" clearly distinguishable.

By:

Scott A. Lawler, PE, Project Engineer

cc: Rochester School District, David Totty



## **NONRESIDENTIAL SITE PLAN APPLICATION**

### **City of Rochester, New Hampshire**

Date: 1/16/24 Is a conditional use needed? Yes:      No: x Unclear:       
(If so, we encourage you to submit an application as soon as possible.)

#### **Property information**

Tax map #: 121; Lot #(s): 191; Zoning district: R2

Property address/location: 27 Maple Street

Name of project (if applicable): Proposed Parking Lot

Size of site: 1.8+/- acres; overlay zoning district(s)?     

#### **Property owner**

Name (include name of individual): City of Rochester; Rochester School District; David Totty, Director of Facilities

Mailing address: 150 Wakefield Street, Suite 8, Rochester, NH 03867

Telephone #: 603 332-3678 Email: totty.d@sau54.org

#### **Applicant/developer** (if different from property owner)

Name (include name of individual):     

Mailing address:     

Telephone #:      Email:     

#### **Engineer/designer**

Name (include name of individual): Norway Plains Associates, Inc.; Scott A. Lawler, PE

Mailing address: PO Box 249, Rochester, NH 03866

Telephone #: 603-335-3948 Fax #:     

Email address: slawler@norwayplains.com Professional license #: 10026

#### **Proposed activity** (check all that apply)

New building(s):      Site development (other structures, parking, utilities, etc.): x

Addition(s) onto existing building(s):      Demolition:      Change of use:

Describe proposed activity/use: Proposal is to construct a new parking lot to contain 18 parking spaces for the Maple

Street School

Describe existing conditions/use (vacant land?): The property is developed with Maple Street School, parking

is mostly street with a few spaces within the parcel.

### Utility information

City water? yes ☒ no ☐; How far is City water from the site? \_\_\_\_\_

City sewer? yes ☒ no ☐; How far is City sewer from the site? \_\_\_\_\_

If City water, what are the estimated total daily needs? N/A gallons per day

If City water, is it proposed for anything other than domestic purposes? yes ☐ no ☒

If City sewer, do you plan to discharge anything other than domestic waste? yes ☐ no ☒

Where will stormwater be discharged? Stormtech System via closed drainage

### Building information

Type of building(s): N/A

Building height: \_\_\_\_\_ Finished floor elevation: \_\_\_\_\_

### Other information

# parking spaces: existing: 9 total proposed: 26; Are there pertinent covenants? No

Number of cubic yards of earth being removed from the site 125 cy

Number of existing employees: \_\_\_\_\_; number of proposed employees total: \_\_\_\_\_

Check any that are proposed: variance ☐; special exception ☐; conditional use ☐

Wetlands: Is any fill proposed? No; area to be filled: \_\_\_\_\_; buffer impact? \_\_\_\_\_

Proposed <u>post-development</u> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	8,121	10.36
Parking and vehicle circulation	20,130	25.67
Planted/landscaped areas (excluding drainage)	4,486	5.72
Natural/undisturbed areas (excluding wetlands)		
Wetlands		
Other – drainage structures, outside storage, etc.	45,671	58.25

## Comments

Please feel free to add any comments, additional information, or requests for waivers here:

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## Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

*I (we) hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.*

Signature of property owner:

 David Torry as Director of Facilities

Date: 1/16/24

Signature of applicant/developer:



Date:

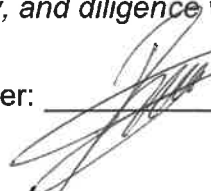
Signature of agent:

Date: 1/17/24

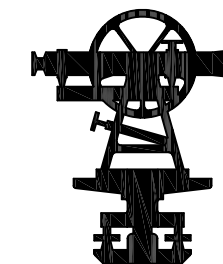
## Authorization to enter subject property

*I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.*

Signature of property owner:

 David Torry as Director of Facilities

Date: 1/16/24



## MAPLE STREET MAGNET SCHOOL

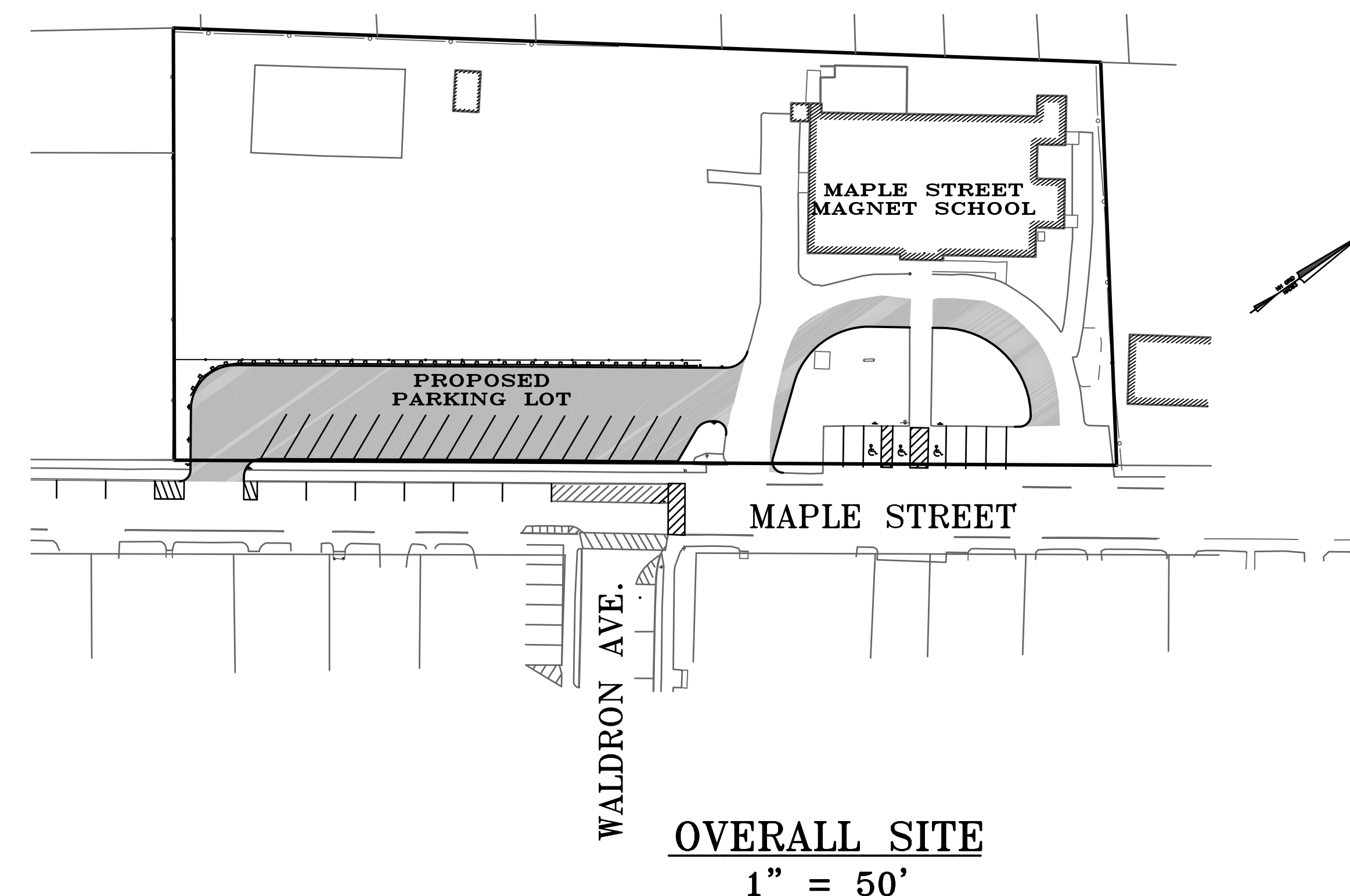
27 MAPLE STREET, ROCHESTER, NH

TAX MAP 121 LOT 191

PREPARED FOR

ROCHESTER SCHOOL DISTRICT

FEBRUARY 2024



## CIVIL ENGINEERS

NORWAY PLAINS ASSOCIATES, INC.  
2 CONTINENTAL BOULEVARD  
ROCHESTER, NEW HAMPSHIRE 03867  
(603) 335-3948

## APPLICANT

ROCHESTER SCHOOL DISTRICT  
150 WAKEFIELD STREET, SUITE 8  
ROCHESTER, NH 03867  
(603) 332-3678

## OWNER OF RECORD

TAX MAP 121, LOT 191  
OWNER OF RECORD:  
CITY OF ROCHESTER  
31 WAKEFIELD STREET  
ROCHESTER, NH 03867

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

FILE NO. 252  
PLAN NO. C-3451  
DWG. NO. 23157 SP-1

31 Mooney Street, Alton, N.H. 603-875-3948

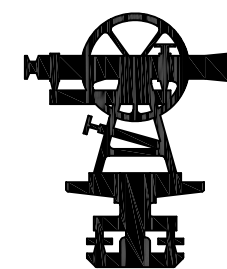
NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

## SHEET INDEX

	COVER	
SHEET E-1	EXISTING FEATURES PLAN	1" = 20'
SHEET C-1	OVERALL SITE PLAN	1" = 20'
SHEET C-2	GRADING AND DRAINAGE PLAN	1" = 20'
SHEET C-3	CONSTRUCTION DETAILS	AS SHOWN
SHEET C-4	STORMTECH DETAILS (SC-310)	AS SHOWN





LEGEND

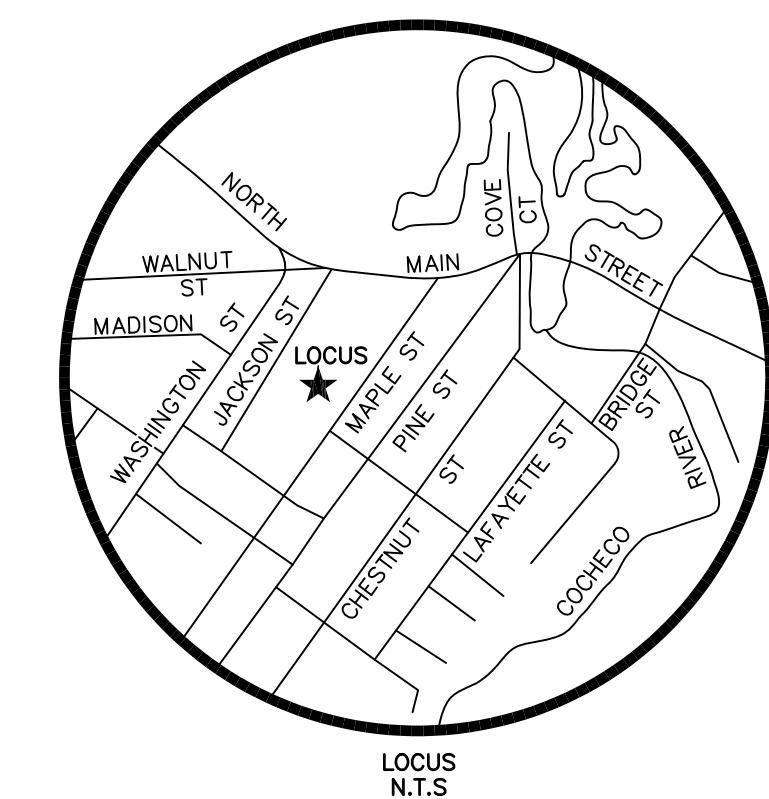
- PROPERTY LINE
- 258--- EXISTING CONTOUR LINE (NAVD88)
- OHW--- EXISTING OVERHEAD WIRES
- EP--- EXISTING EDGE OF PAVEMENT
- //--- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING CATCH BASIN
- EXISTING SEWER MANHOLE
- EXISTING DRAIN MANHOLE
- EXISTING GAS VALVE
- EXISTING MONUMENT
- EXISTING BENCHMARK
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING BOLLARD

TEST PIT LOG  
PERFORMED BY ASHLEY ROWE  
NH SEPTIC DESIGNER #1857 ON NOVEMBER 22, 2023

TEST PIT 1  
0' - 11' 10YR3/2 TOPSOIL.  
11' - 19' LOAMY FINE SAND, GRANULAR, VERY FRABLE.  
19' - 30' 10YR3/1 TOPSOIL.  
30' - 68' LOAMY FINE SANDS, SINGLE GRAIN, LOOSE.  
68' NO REFUSAL, NO OBSERVED WATER, NO APPARENT S.H.W.T.  
PERC. 2 MPI @ 30'

TEST PIT 2  
0' - 6' 10YR3/2 TOPSOIL.  
6' - 12' GRAVELLY SANDS, SINGLE GRAIN, LOOSE.  
12' - 21' 10YR3/1 TOPSOIL.  
21' - 64' LOAMY FINE SANDS, SINGLE GRAIN, LOOSE.  
64' NO REFUSAL, NO OBSERVED WATER, NO APPARENT S.H.W.T.  
PERC. 2 MPI @ 30'

- ① SMH #1  
RIM = 225.69'  
INV. IN = 214.6' (8" PVC)  
INV. OUT = 214.5' (8" PVC)
- ② SMH #2  
RIM = 227.39'  
INV. IN = 216.3' (8" PVC)  
INV. OUT = 216.2' (8" PVC)



FILE NO. 252  
PLAN NO. C-3451  
DWG. NO. 23157 SP-1

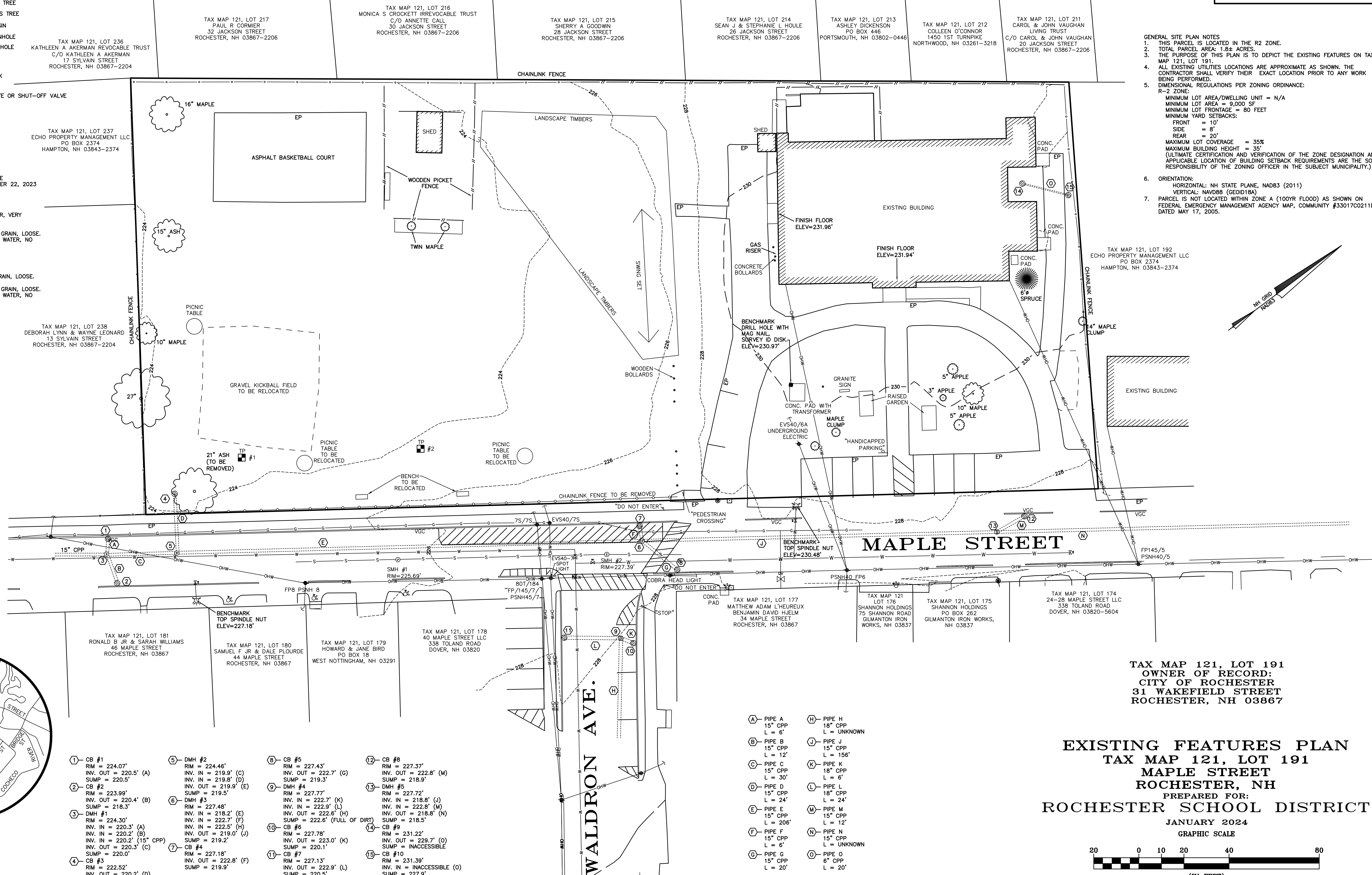
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

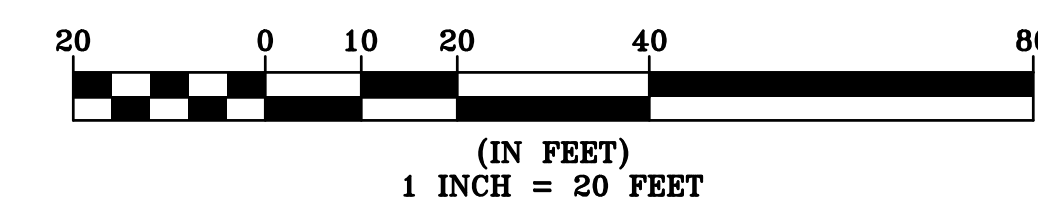
2 Continental Blvd., Rochester, N.H. 603-335-3948

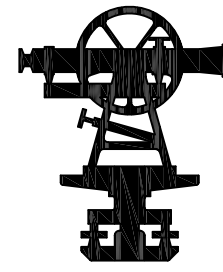
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

- GENERAL SITE PLAN NOTES
- THIS PARCEL IS LOCATED IN THE R2 ZONE.
  - TOTAL PARCEL AREA: 1.8± ACRES.
  - THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING FEATURES ON TAX MAP 121, LOT 191.
  - ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
  - DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:  
R-2 ZONE:  
MINIMUM LOT AREA/DWELLING UNIT = N/A  
MINIMUM LOT AREA = 9,000 SF  
MINIMUM LOT FRONTAGE = 80 FEET  
MINIMUM YARD SETBACKS:  
FRONT = 10'  
SIDE = 8'  
REAR = 20'  
MAXIMUM LOT COVERAGE = 35%  
MAXIMUM BUILDING HEIGHT = 35'  
(ULTIMATE CERTIFICATION AND VERIFICATION OF THE ZONE DESIGNATION AND APPLICABLE LOCATION OF BUILDING SETBACK REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE ZONING OFFICER IN THE SUBJECT MUNICIPALITY.)
  - ORIENTATION:  
HORIZONTAL: NH STATE PLANE, NAD83 (2011)  
VERTICAL: NAVD88 (GEOID18A)
  - PARCEL IS NOT LOCATED WITHIN ZONE A (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP, COMMUNITY #33017C0211D DATED MAY 17, 2005.



EXISTING FEATURES PLAN  
TAX MAP 121, LOT 191  
MAPLE STREET  
ROCHESTER, NH  
PREPARED FOR:  
ROCHESTER SCHOOL DISTRICT  
JANUARY 2024  
GRAPHIC SCALE

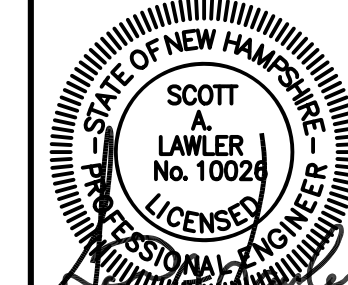




LEGEND

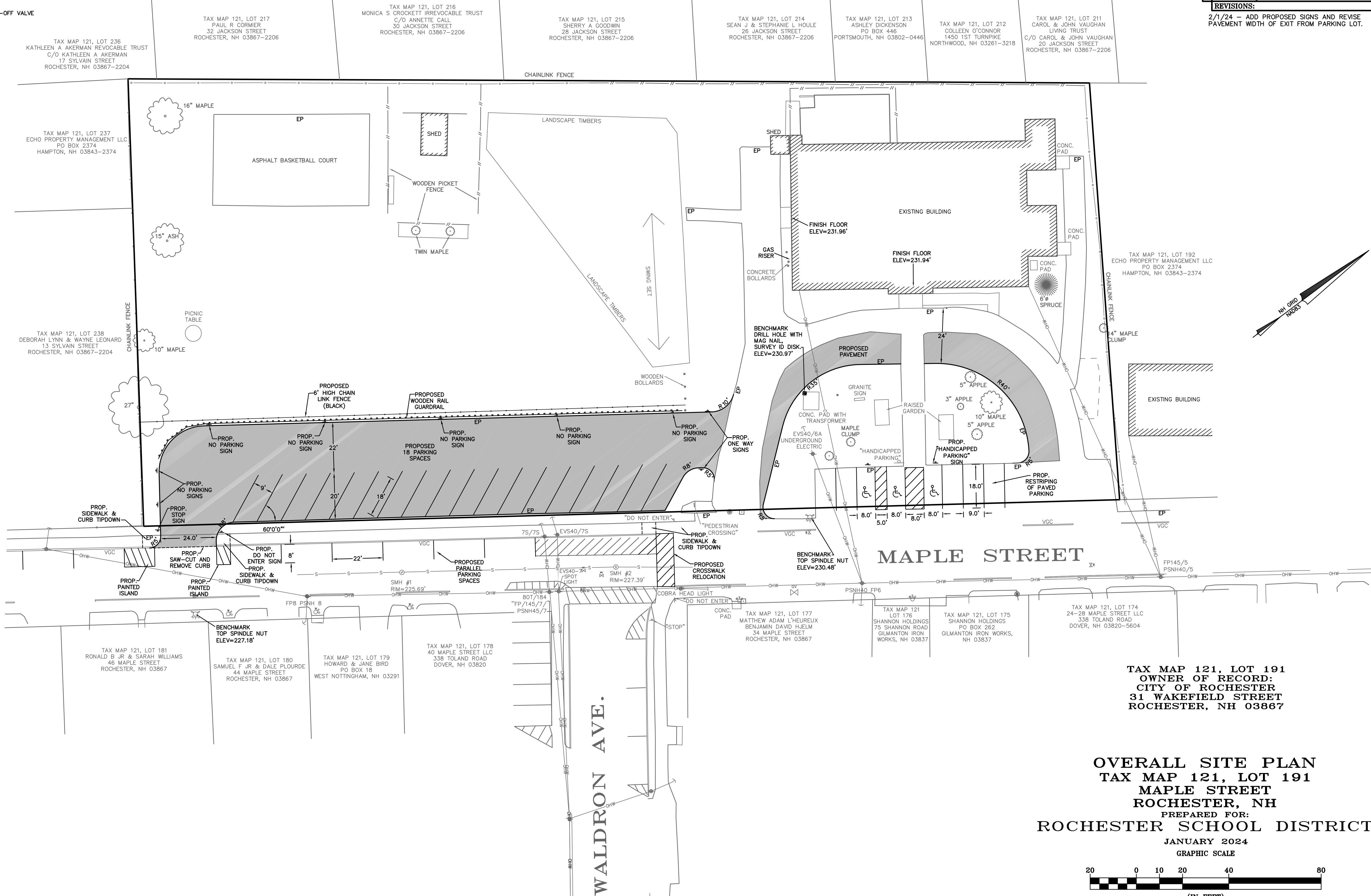
- PROPERTY LINE
- OHW — EXISTING OVERHEAD WIRES
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- W — EXISTING WATERLINE
- S — EXISTING SEWERLINE
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLES
- PROPOSED PAVEMENT
- PROPOSED GUARDRAIL

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)–335–3948.



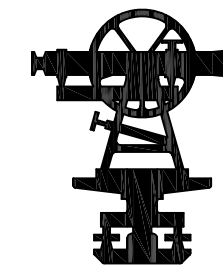
REVISIONS:

2/1/24 – ADD PROPOSED SIGNS AND REVISE PAVEMENT WIDTH OF EXIT FROM PARKING LOT.

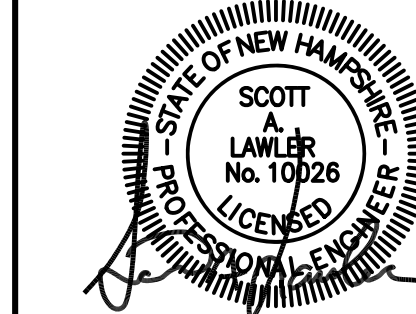


FILE NO. 252  
 PLAN NO. C-3451  
 DWG. NO. 23157 SP-1



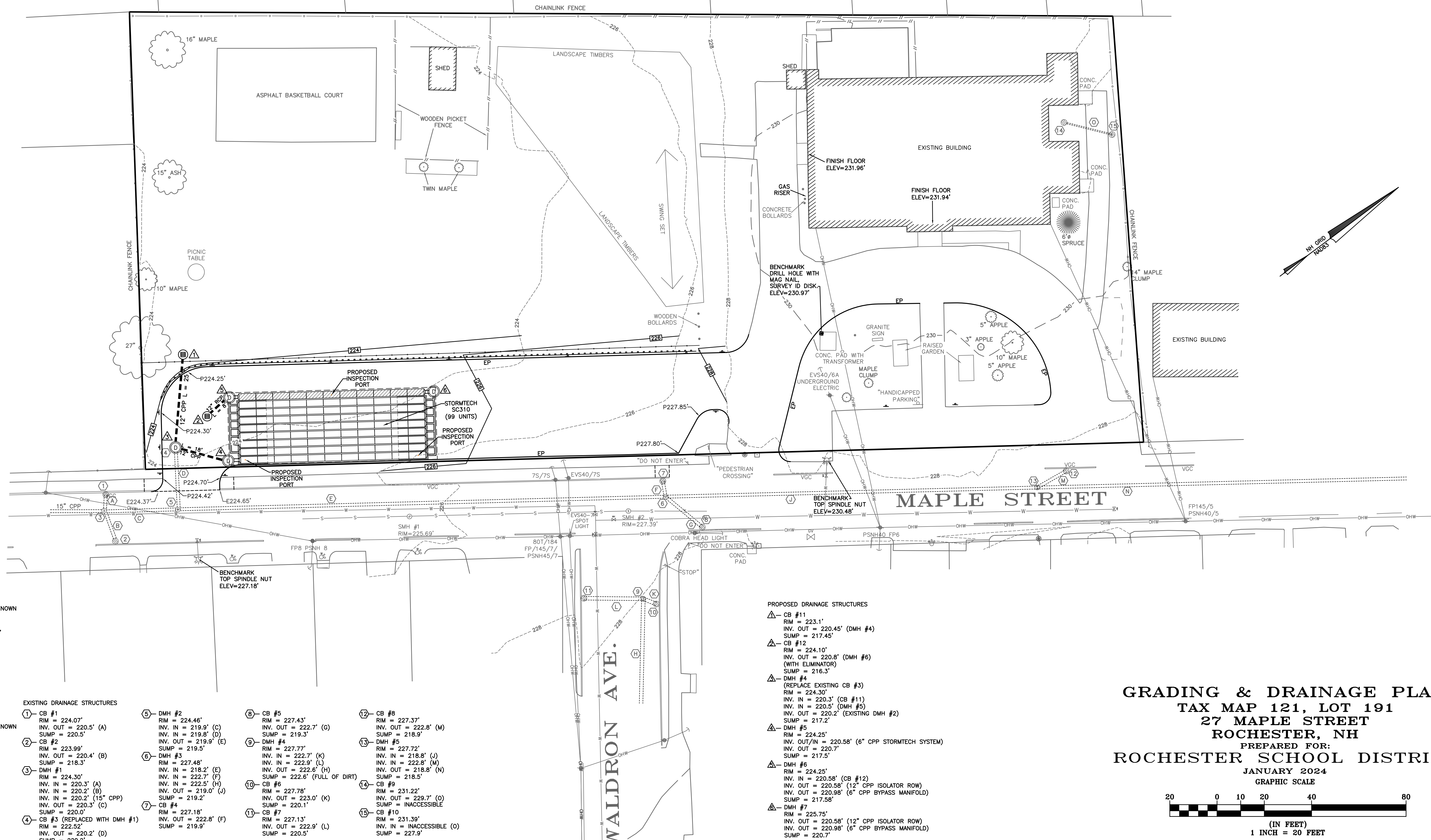


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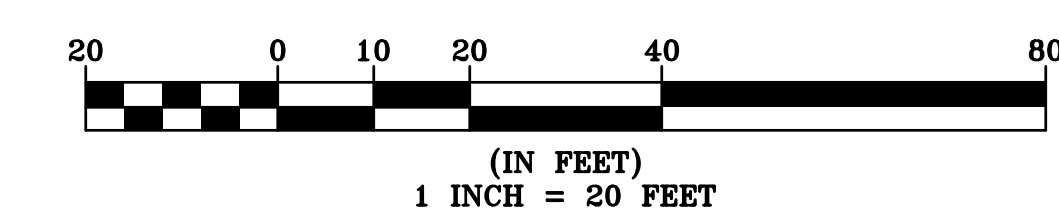


REVISIONS:  
2/1/24 - REVISE PAVEMENT WIDTH OF EXIT FROM PARKING LOT AND PARKING LOT AND DRAINAGE STRUCTURE GRADES. ADD PROPOSED SPOT ELEVATIONS.

- LEGEND**
- PROPERTY LINE
  - - - EXISTING DRAIN LINE
  - - - EXISTING CONTOUR LINE (NAVD88)
  - ⊕ EXISTING TEST PIT
  - E234.1' EXISTING SPOT GRADE
  - P234.25' PROPOSED SPOT GRADE
  - - - PROPOSED DRAIN LINE
  - - - [232] PROPOSED CONTOUR LINE
  - ⊙ PROPOSED CATCH BASIN
  - ⊙ PROPOSED DRAIN MANHOLE
  - CPP CORRUGATED POLYETHYLENE PIPE
  - CB CATCH BASIN
  - DMH DRAIN MANHOLE

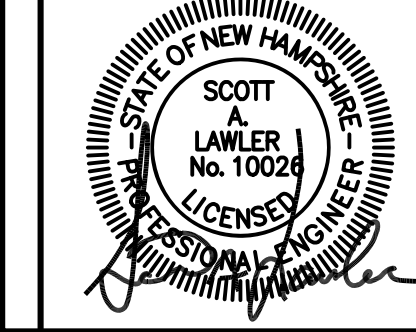
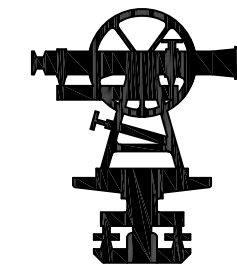


**GRADING & DRAINAGE PLAN**  
**TAX MAP 121, LOT 191**  
**27 MAPLE STREET**  
**ROCHESTER, NH**  
 PREPARED FOR:  
**ROCHESTER SCHOOL DISTRICT**  
 JANUARY 2024  
 GRAPHIC SCALE

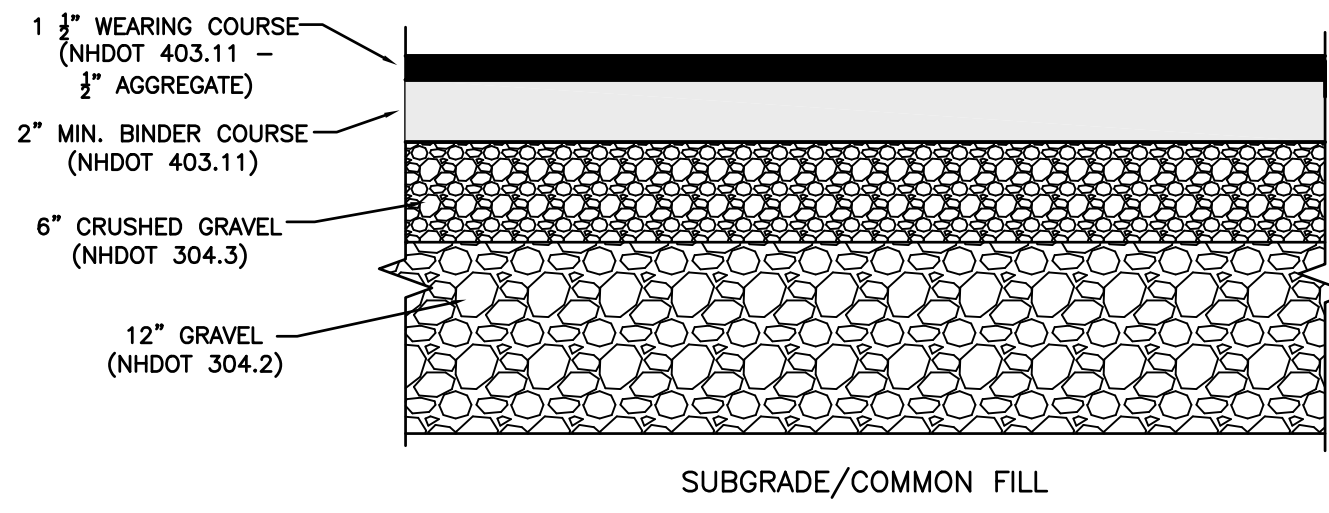


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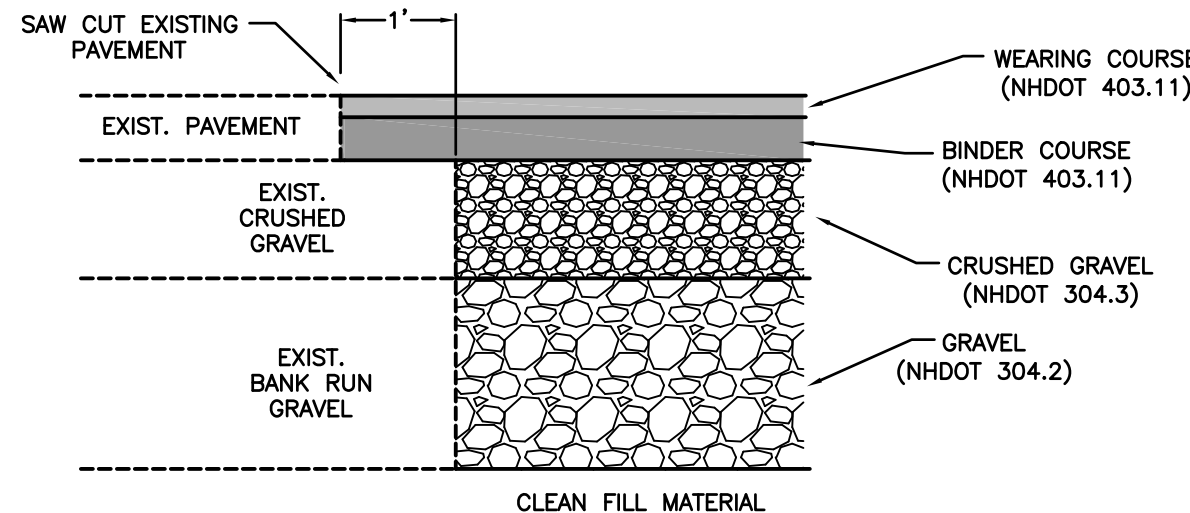


REVISIONS:  
2/1/24 - ADD SIGNAGE DETAILS.



**PARKING LOT CROSS-SECTIONS**

NOT TO SCALE

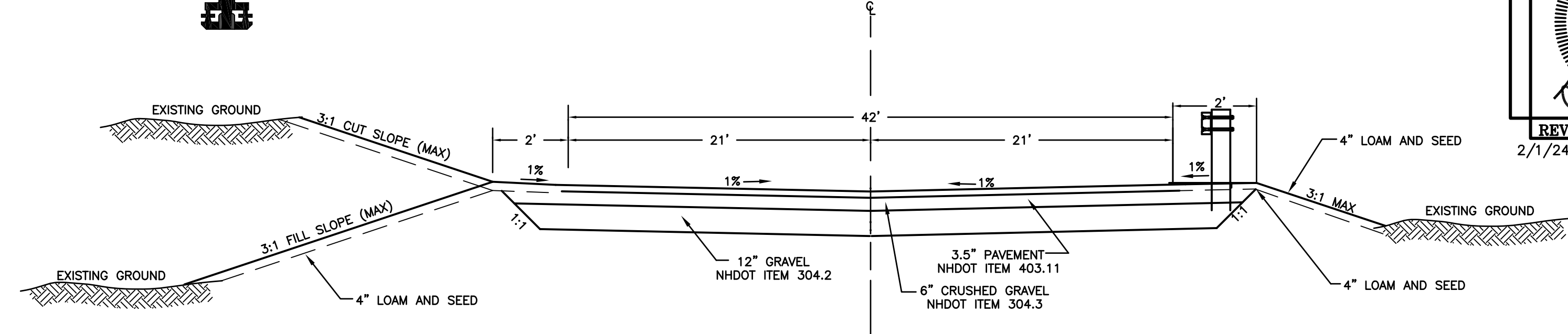


**TYPICAL PAVEMENT MATCHING DETAIL**

NOT TO SCALE

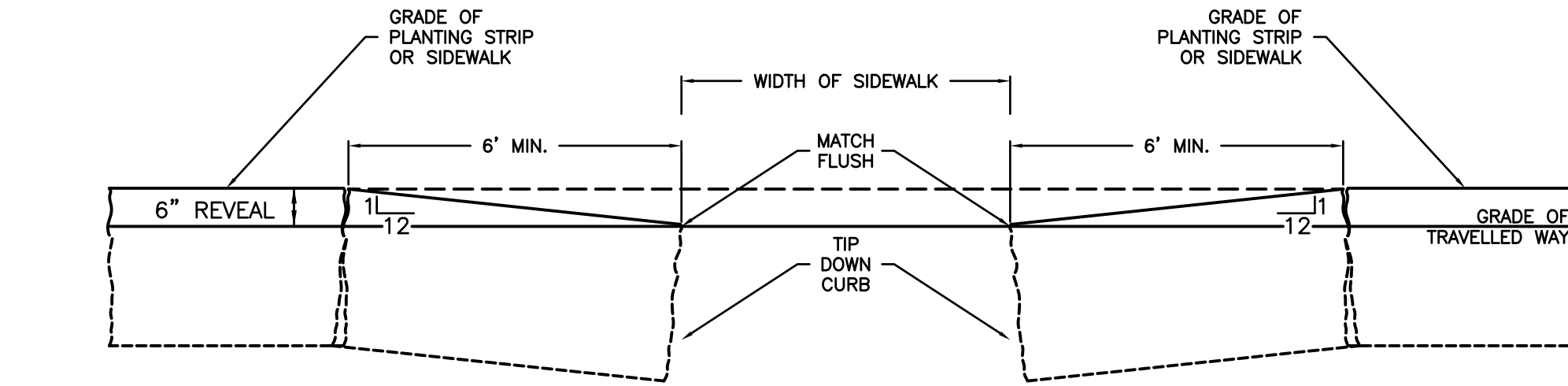
**PAVEMENT NOTES:**

1. PLACE COMMON FILL IN 12 INCH LIFTS. COMPACT COMMON FILL TO 95% MAXIMUM PROCTOR DENSITY.
2. PLACE GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
3. PLACE CRUSHED GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
4. PAVEMENT MUST BE INSTALLED IN TWO COURSES, A BINDER COURSE AND A WEARING COURSE.

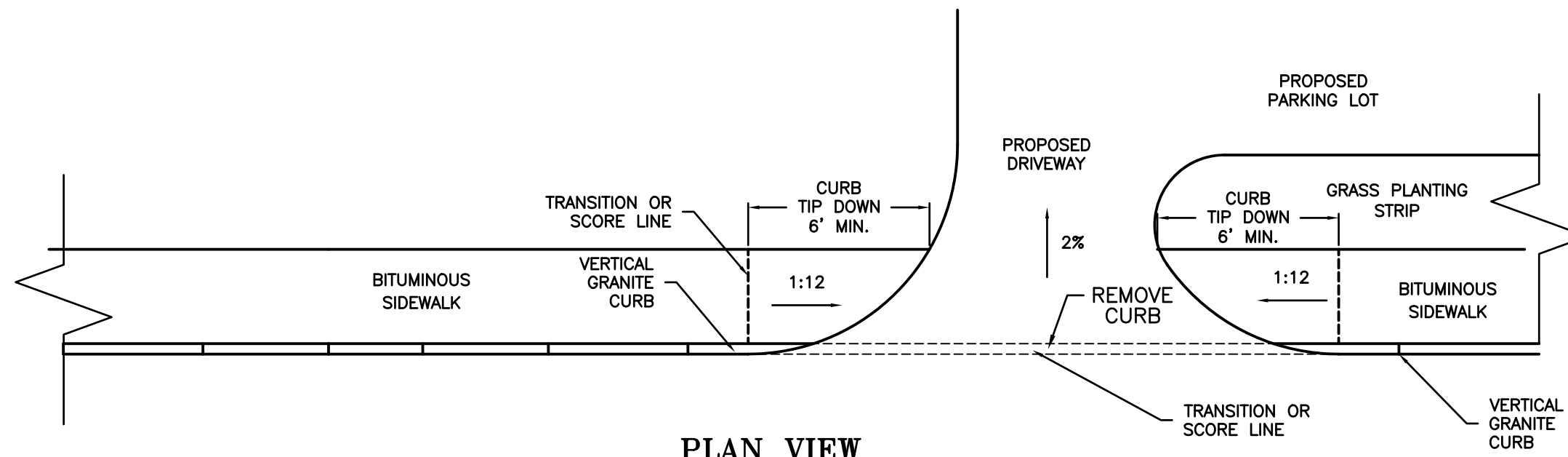


**PARKING LOT CROSS-SECTION**

NOT TO SCALE



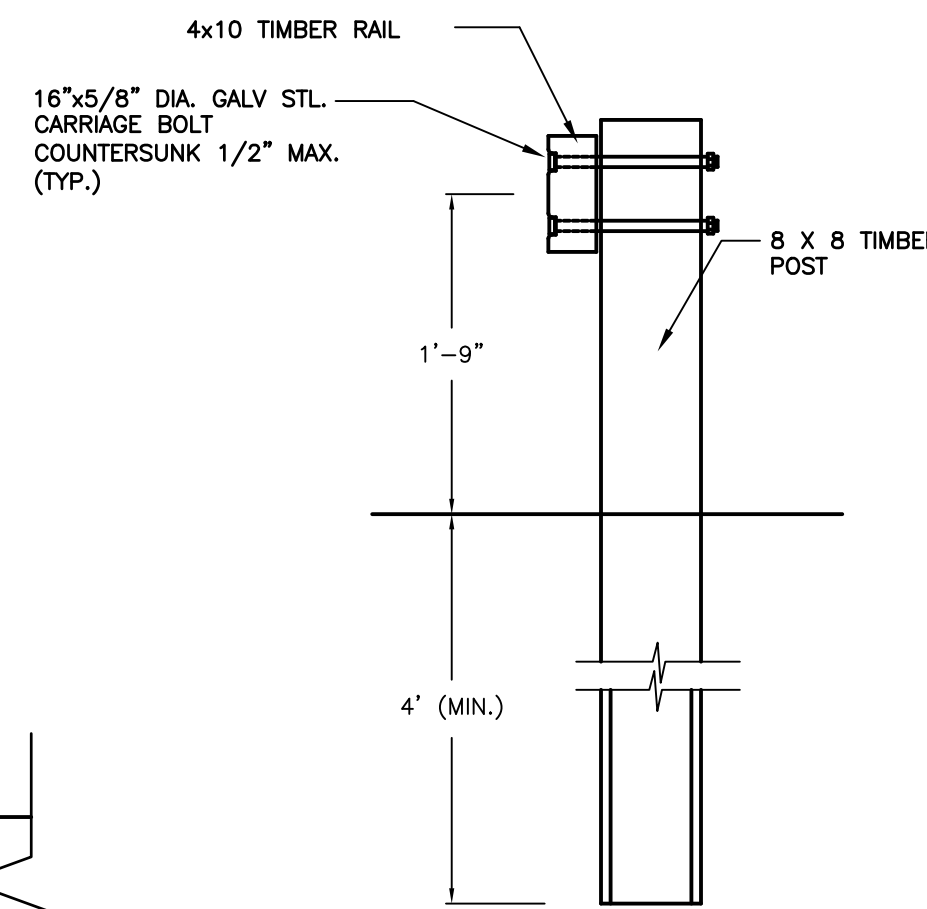
**TIP-DOWN PROFILE**



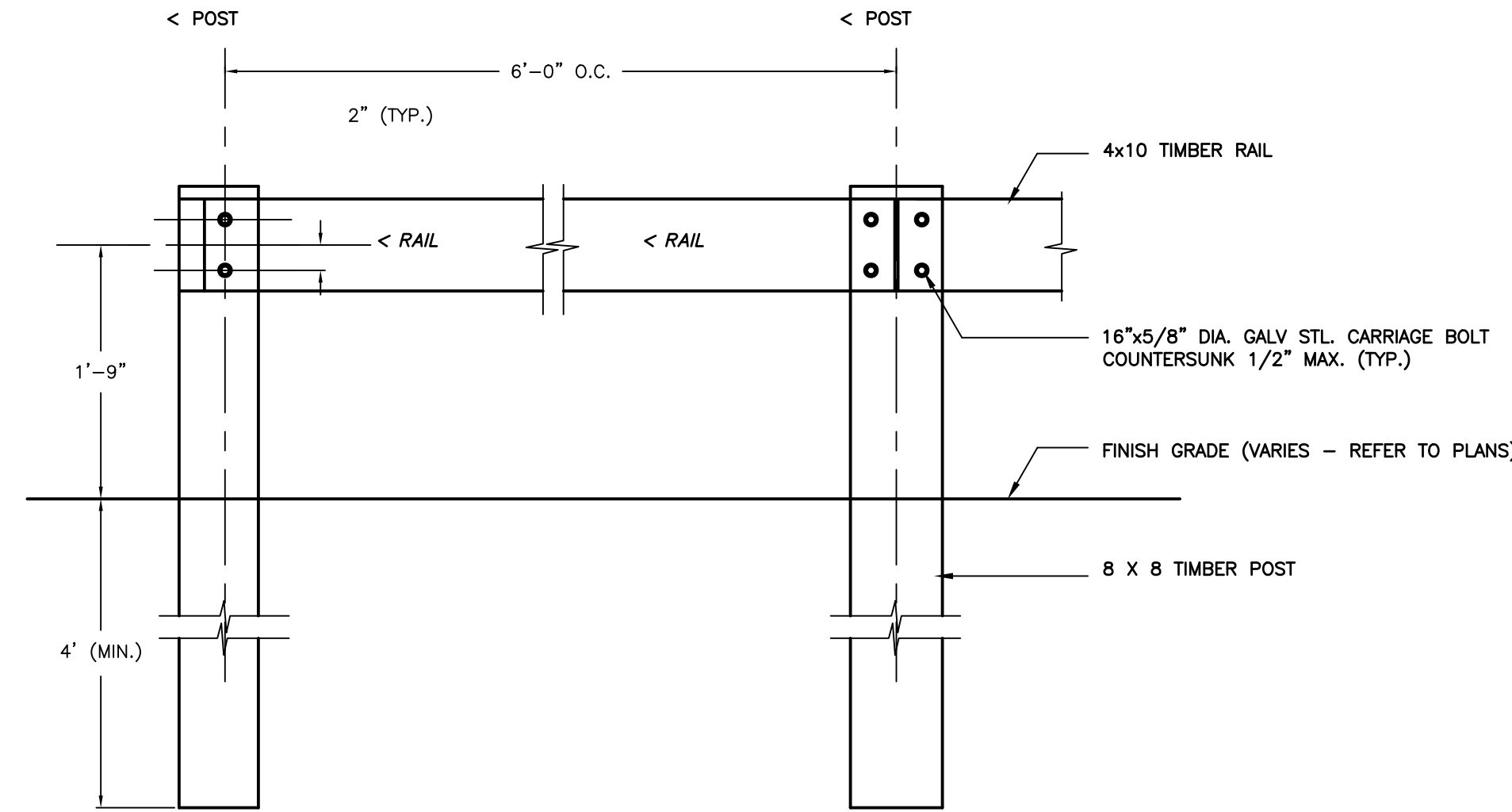
**PLAN VIEW**

**CURB TIP-DOWN PLAN & PROFILE DETAIL**

NOT TO SCALE



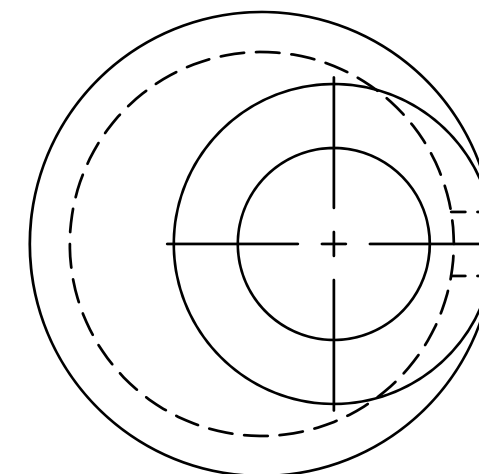
**SIDE VIEW**



**FRONT VIEW**

**WOOD GUARDRAIL DETAIL**

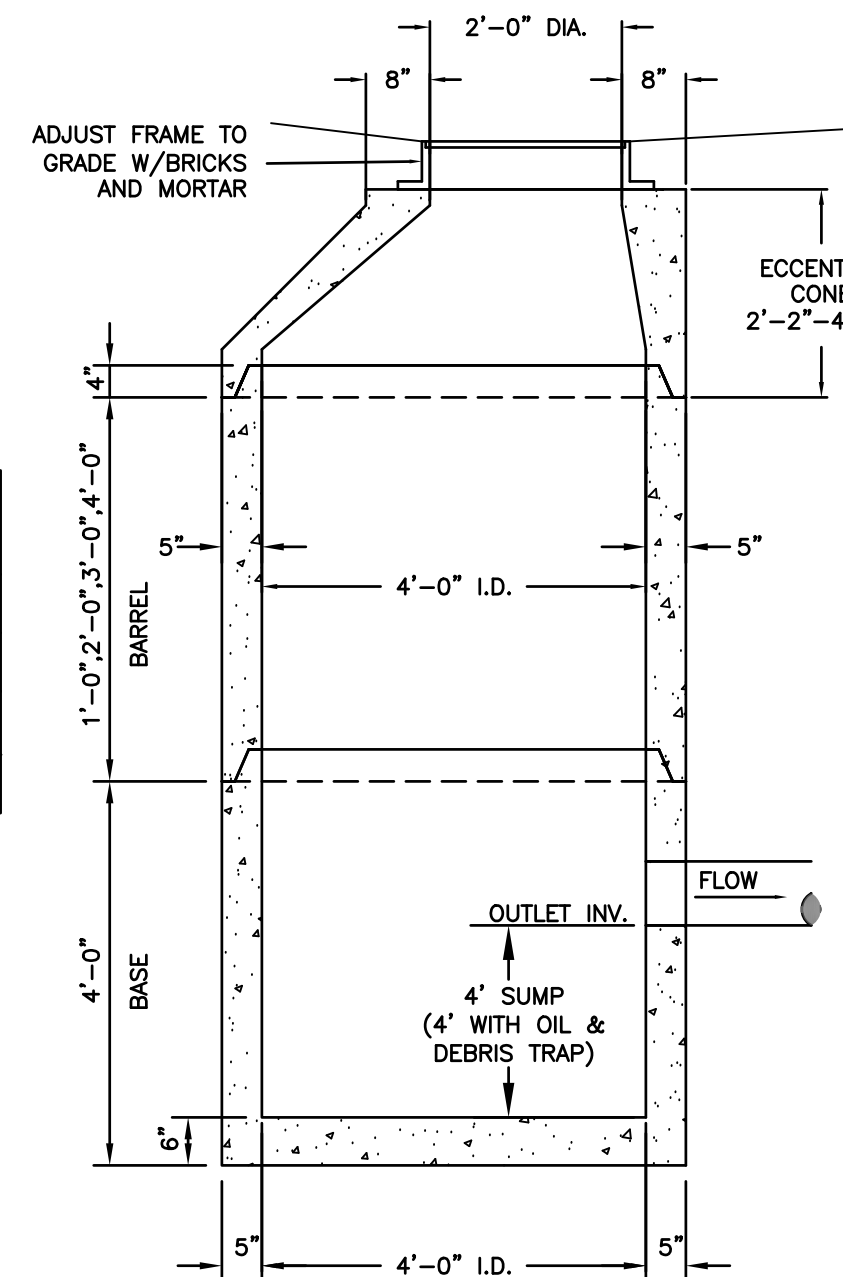
NOT TO SCALE



**PLAN VIEW**

DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

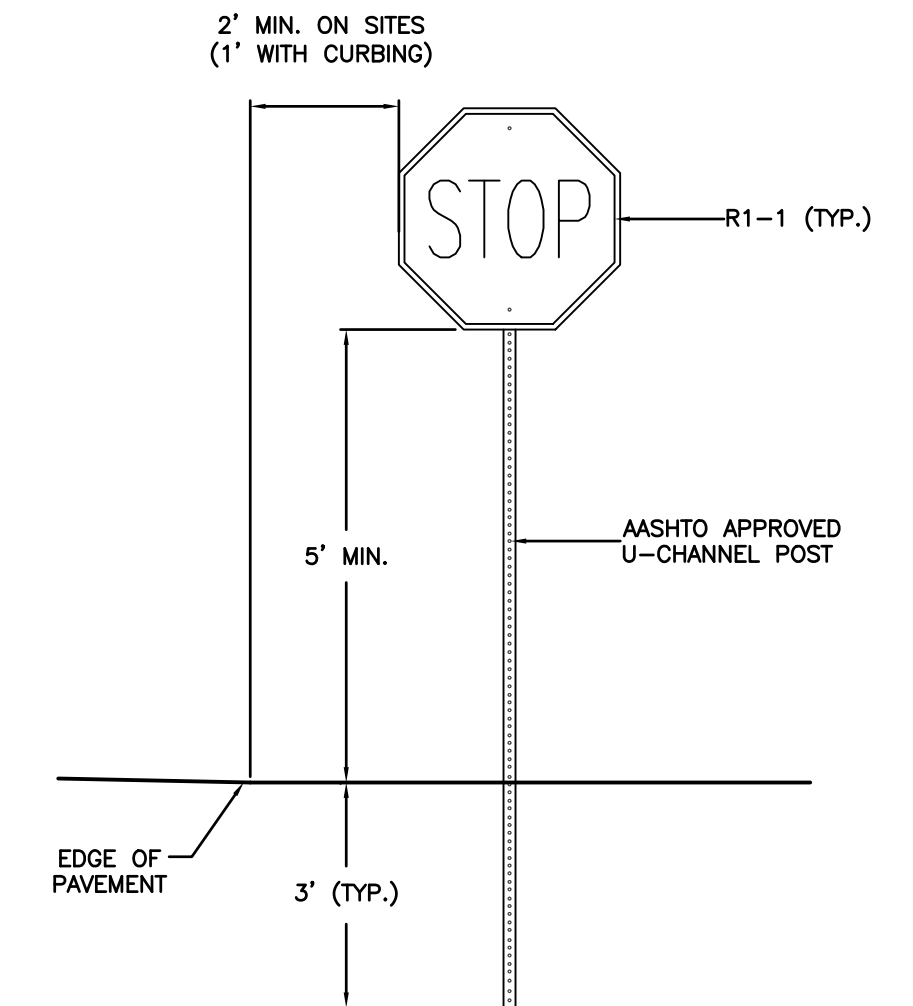
- NOTES:**
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
  2. REINFORCING: SHALL BE PROVIDED FOR H-20 LOADING.
  3. SHIPLAP JOINTS SEALED WITH 1 STRIP OF BUTYL RUBBER SEALANT.
  4. PIPE OPENINGS CAST IN AS REQUIRED.
  5. RISER HEIGHT VARIES 1', 2', 3' OR 4' TO REACH DESIRED DEPTH.
  6. PIPE CONNECTIONS SHALL BE MORTARED.
  7. PRECAST SECTIONS SHALL CONFORM TO ASTM C-478.
  8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING SLAB TOPS, I.E. DOUBLE GRATE AND FRAME STRUCTURES.



**SECTION VIEW**

**PRE-CAST REINFORCED CATCH BASIN**

NOT TO SCALE



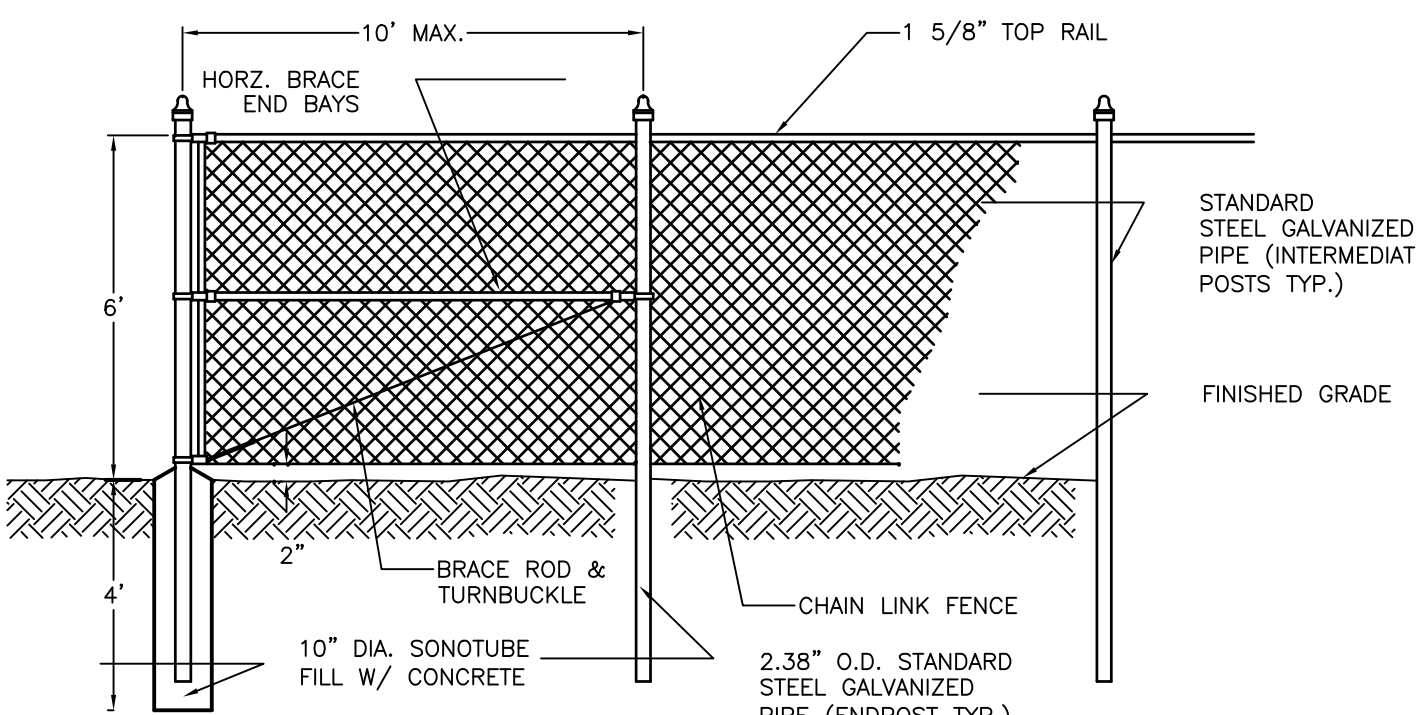
- NOTES:**
1. SIGN POST SHALL BE AASHTO APPROVED U-CHANNEL OR OTHER PER AASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORT OF HIGHWAY SIGNS, LUMINARIES AND SIGNALS", LATEST EDITION.
  2. SIGNS SHALL BE MOUNTED 5 FT. FROM GROUND TO BOTTOM EDGE WHERE PARKING AND PARKING LOT MOVEMENTS TAKE PLACE.
  3. SIGNS SHALL BE PLACED SO THAT NEAREST EDGE IS 2 FT. FROM EDGE OF PAVEMENT UNLESS CURBED.

**TYPICAL TRAFFIC SIGN**

NOT TO SCALE

R1-1	30"	30"	STOP	1
R5-1	30"	30"	DO NOT ENTER	1
R7-1	18"	12"	NO PARKING ANY TIME	7
R6-1	12"	36"	ONE WAY	2

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**TYPICAL CHAINLINK FENCE**

NOT TO SCALE

**ELIMINATOR CATCH BASIN OIL AND DEBRIS TRAP DETAIL**

NOT TO SCALE

**NOTES:**

1. HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA., TEL. 617-773-1128. ON THE WEB @ WWW.KLEANSTREAM.COM
2. AVAILABLE IN 8", 10", 12", 15" AND 18" DIAMETERS.

FILE NO. 252  
PLAN NO. C-3451  
DWG. NO. 23157 SP-1

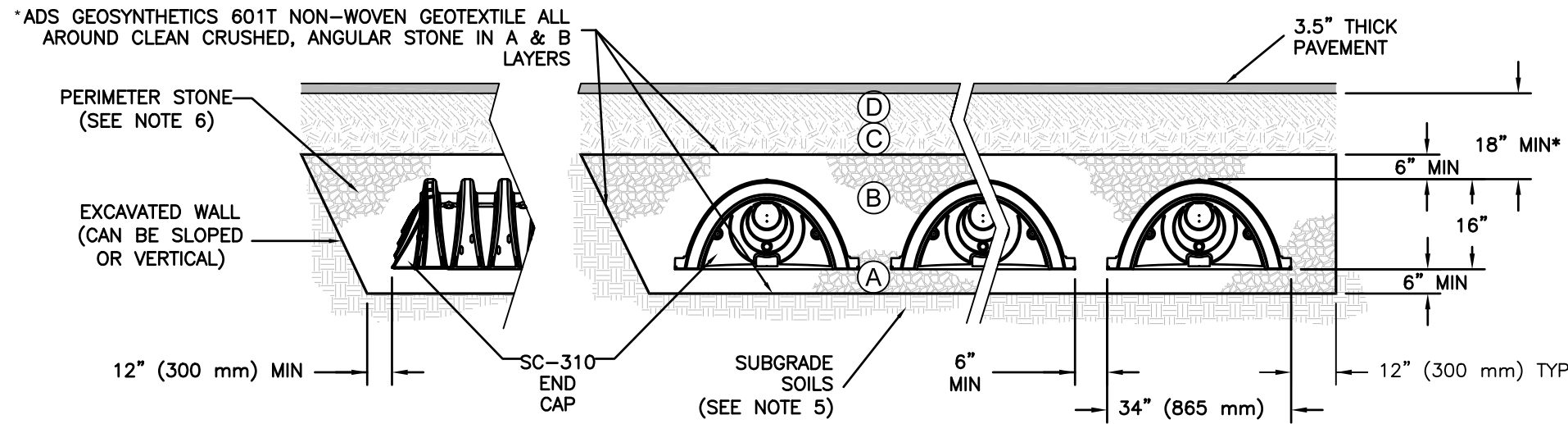


## ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER	AASHTO M145 <sup>1</sup> A-1, A-2, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 90% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE 'C' LAYER ABOVE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>1</sup> *

## PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



## NOTES:

- SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- SEE SHEET C-3 FOR LOCATION OF STORMTECH LOCATION
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

## SC-310 CROSS SECTION AND END SECTION

NOT TO SCALE

## LAYOUT

(99) STORMTECH SC-310 CHAMBERS  
(18) STORMTECH SC-310 END CAPS  
INSTALLED WITH 6" COVER STONE, 6" BASE STONE, 40% STONE VOID  
INSTALLED SYSTEM VOLUME: 3,238 CF  
AREA OF SYSTEM: 2,568 FT<sup>2</sup>  
PERIMETER OF SYSTEM: 226 FT

## PROPOSED ELEVATIONS

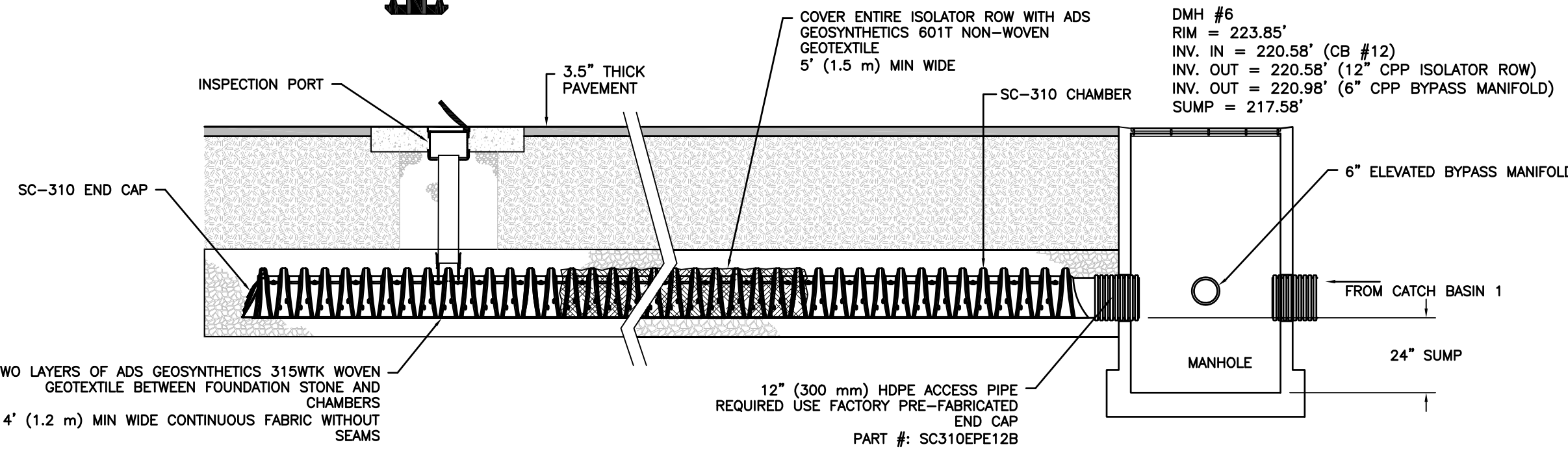
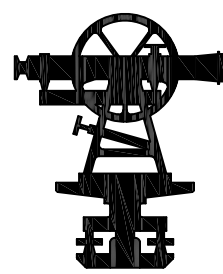
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):  
TOP OF STONE:  
TOP OF CHAMBER:  
6" TOP CONNECTION INVERT:  
12" BOTTOM / ISOLATOR ROW CONNECTION INVERT:  
BOTTOM OF CHAMBER:  
BOTTOM OF STONE:

224.00 (3.5" of asphalt) FINISH GRADE WILL VARY WITH LOCATION  
222.71 (12" gravel minimum)  
222.21 (6" stone)  
221.36  
220.96  
220.63 (16" chamber)  
220.13 (6" stone bed)

## PROPOSED DRAINAGE STRUCTURES

- △ CB #11  
RIM = 223.1'  
INV. OUT = 220.45' (DMH #4)  
SUMP = 217.45'
- △ CB #12  
RIM = 224.10'  
INV. OUT = 220.8' (DMH #6)  
(WITH ELIMINATOR)  
SUMP = 216.3'
- △ DMH #4  
(REPLACE EXISTING CB #3)  
RIM = 224.30'  
INV. IN = 220.3' (CB #11)  
INV. IN = 220.5' (DMH #5)  
INV. OUT = 220.2' (EXISTING DMH #2)  
SUMP = 217.2'
- △ DMH #5  
RIM = 224.25'  
INV. OUT/IN = 220.58' (6" CPP STORMTECH SYSTEM)  
INV. OUT = 220.7'  
SUMP = 217.5'
- △ DMH #6  
RIM = 224.25'  
INV. IN = 220.58' (CB #12)  
INV. OUT = 220.58' (12" CPP ISOLATOR ROW)  
INV. OUT = 220.98' (6" CPP BYPASS MANIFOLD)  
SUMP = 217.58'
- △ DMH #7  
RIM = 225.75'  
INV. OUT = 220.58' (12" CPP ISOLATOR ROW)  
INV. OUT = 220.98' (6" CPP BYPASS MANIFOLD)  
SUMP = 220.7'

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



## SC-310 ISOLATOR ROW DETAIL

NOT TO SCALE

## INSPECTION &amp; MAINTENANCE

## STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

- A. INSPECTION PORTS (IF PRESENT)  
A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN  
A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED  
A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG  
A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)  
A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.  
B. ALL ISOLATOR ROWS  
B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW  
B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE(J) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY(J) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE  
B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

## STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS

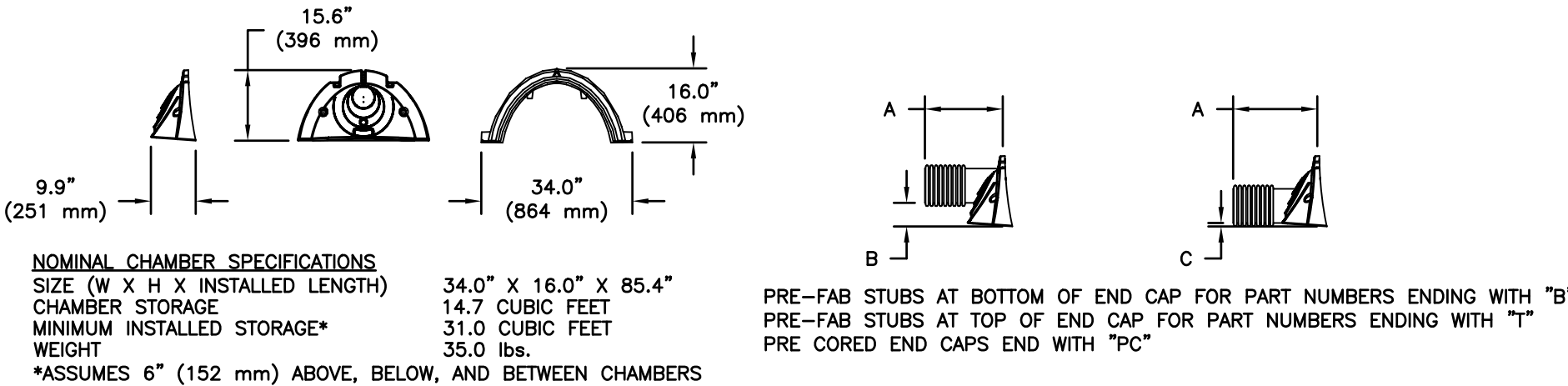
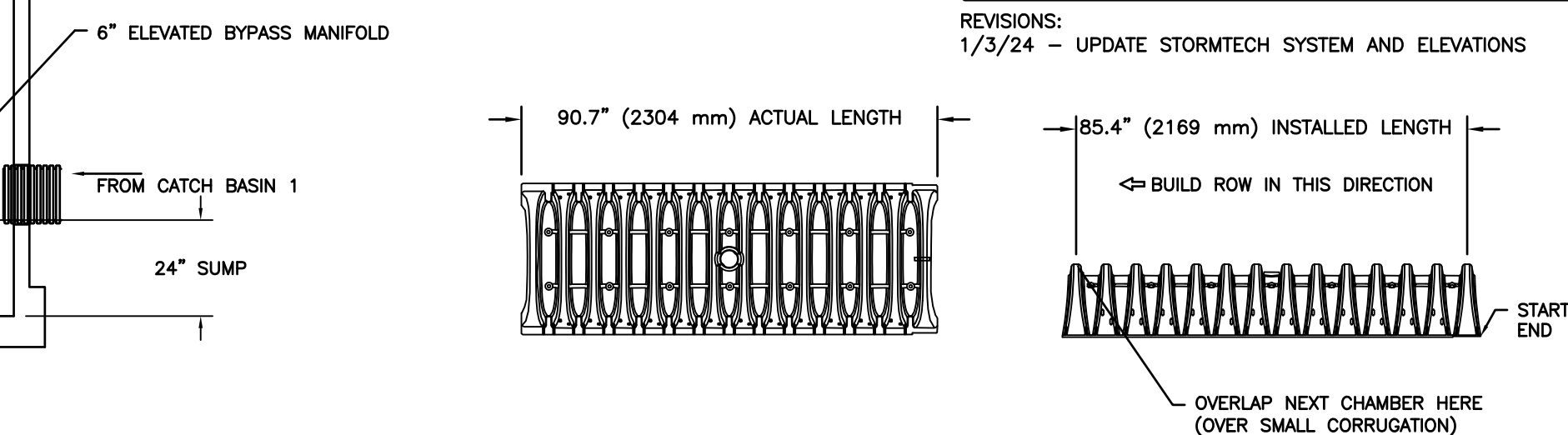
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED  
B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN  
C. VACUUM STRUCTURE SUMP AS REQUIRED

## STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

## STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

## NOTES

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



## SC-310 TECHNICAL SPECIFICATION

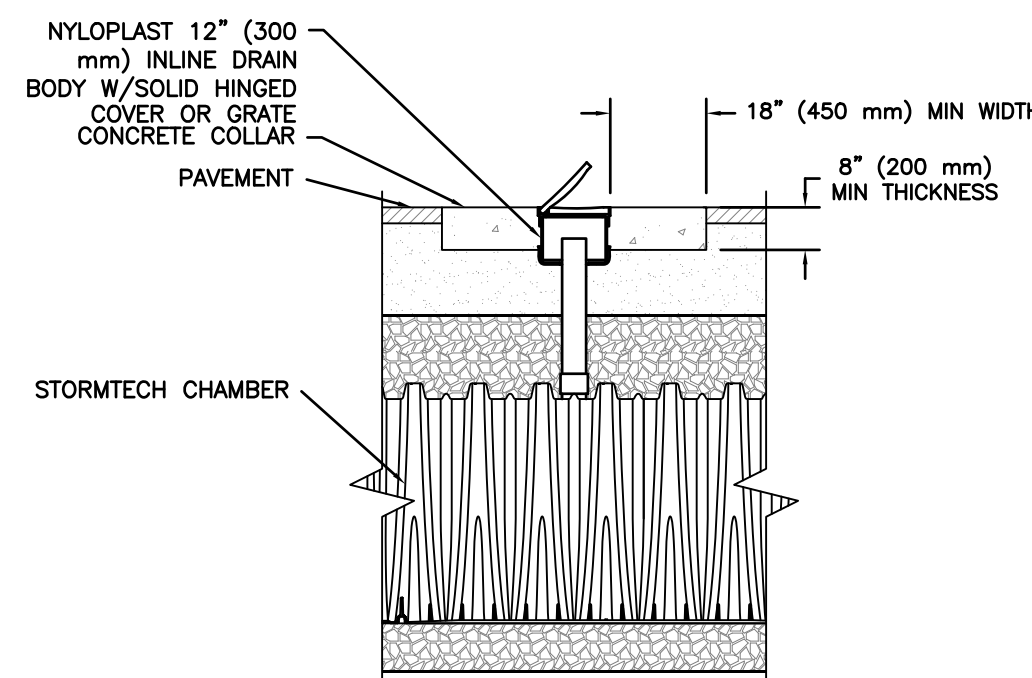
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PART #	STUB	A	B	C
SC310EPE067 / SC310EPE08TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	0.9" (23 mm)
SC310EPE068 / SC310EPE08BPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	0.6" (15 mm)
SC310EPE087 / SC310EPE08TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	0.7" (18 mm)
SC310EPE107 / SC310EPE10TPC	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)
SC310EPE108 / SC310EPE10BPC	---	---	---	---
SC310ECEZ	---	---	---	---

ALL STUBS, EXCEPT FOR THE SC310ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\* FOR THE SC310ECEZ THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

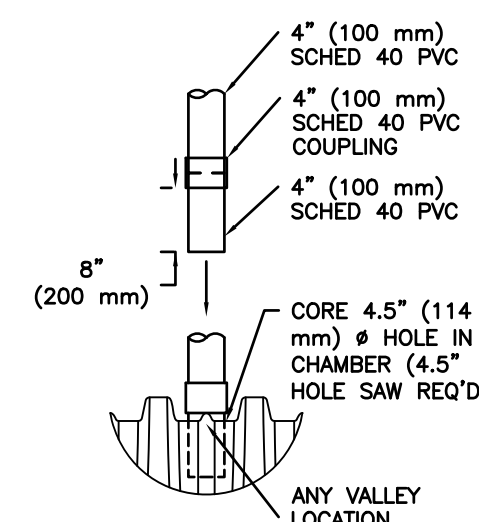
NOTE: ALL DIMENSIONS ARE NOMINAL



- NOTES:
- INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY
  - ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.

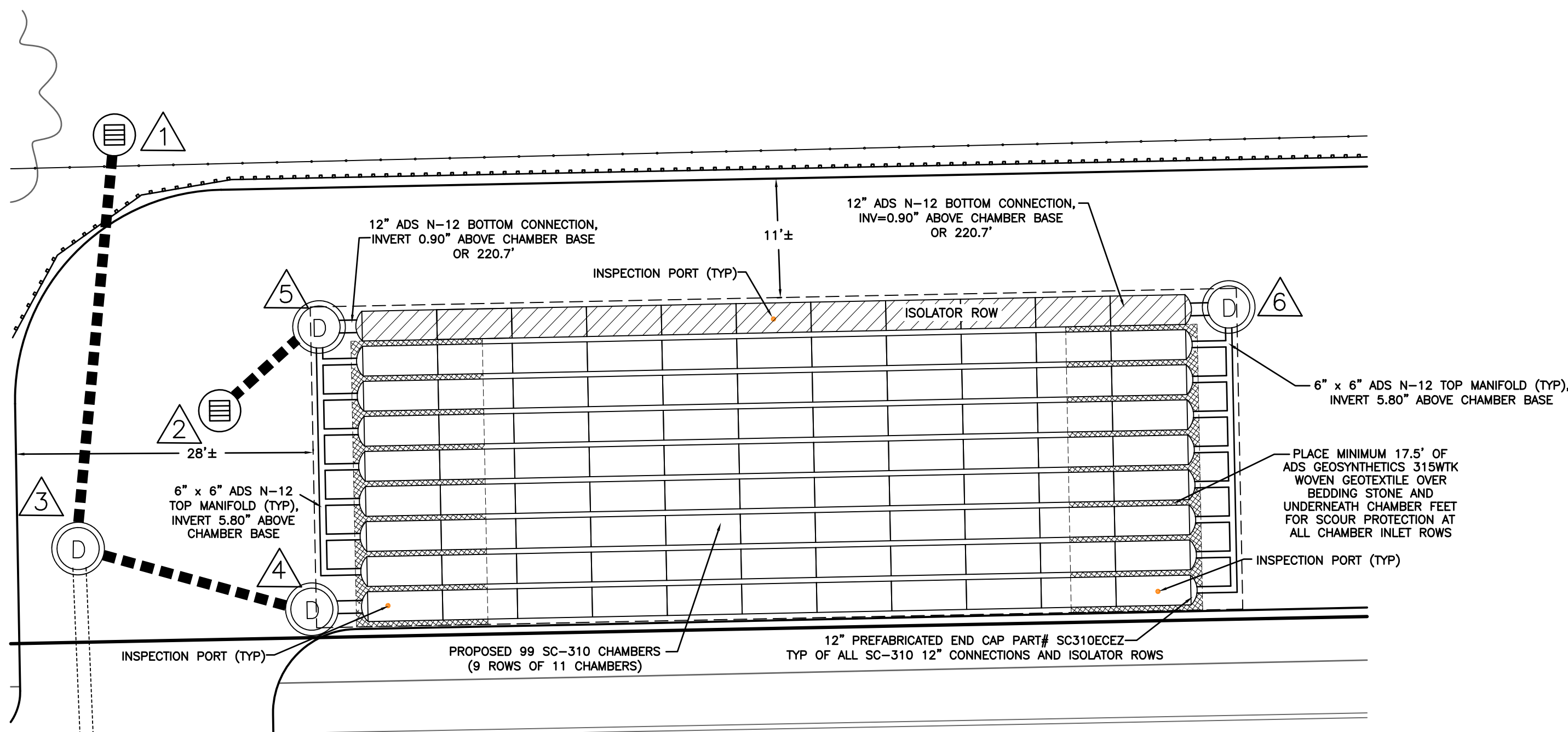
## 4" INSPECTION PORT DETAIL

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## CONNECTION DETAIL

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## PLAN VIEW OF STORMTECH CHAMBERS

1" = 10'

FILE NO. 382  
PLAN NO. C-3473  
DWG. NO. 22364 SP-1  
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

STORMTECH DETAILS SC-310  
TAX MAP 121, LOT 191  
27 MAPLE STREET  
ROCHESTER, NH  
PREPARED FOR:  
ROCHESTER SCHOOL DISTRICT  
JANUARY 2024

C-4

2 Continental Blvd., Rochester, N.H. 603-335-3948