

Ryan Taber Eastern Development
P.O. Box 2671
Concord, NH 03302
(603) 333-0147
ryan@eastern-development.com

September 17, 2025

City of Concord
AnneMarie Skinner
41 Green Street
Concord, NH 03301
Sent via email

Re: Request for Appeal and Agenda Placement, October 15, 2025 Planning Board Meeting

Dear Ms. Skinner,

Eastern Development, LLC respectfully requests that this appeal be placed on the Planning Board's October 2025 agenda. The appeal seeks modification of conditions imposed on the final approval of the above-referenced project relating to:

1. Curbing
2. Street Trees
3. Roadway Length
4. Pavement Thickness

Grounds for Appeal

1. Curbing

Concord's Subdivision Regulations 20.13 allow curbing on residential common private drives to be vertical granite, sloped granite, concrete, or asphaltic concrete (Cape Cod berm), constructed per the city's Construction Standards. Vertical granite is required only where a sidewalk is within four feet of the drive, or at public-street intersections (21.07).

The project's common private drive does not contain sidewalks, and all maintenance responsibility rests with the homeowners' association (20.11). Requiring vertical granite throughout exceeds the regulation and imposes unnecessary costs without added safety or drainage benefit.

Cape Cod berm has been authorized and installed by the city in comparable settings, including Palm Street (2025) and Hot Hole Pond Road, confirming its acceptance as a standard curbing treatment.

Requested Action: Approve substitution of Cape Cod berm (asphaltic concrete) for vertical granite curb throughout the common private drive.

2. Street Trees

Section 28.04(6) requires street trees only “where appropriate” and credits existing non-invasive trees within ten (10) feet of the right-of-way. Placement must also avoid sight-distance hazards and conflicts with overhead or underground utilities (28.04(6)(d)–(e)). Section 28.02 directs the city to preserve existing vegetation, not impose duplicative plantings.

This corridor is heavily wooded, with continuous canopy and existing buffers. Overhead utilities run along the frontage, and driveway aprons require clear sight triangles. Adding new trees along the entire road is redundant, unsafe, and contrary to the preservation mandate.

Requested Action: Waive the requirement for street trees along the full length of the road. Limit any new plantings to the cul-de-sac area, with existing trees along the approach credited toward compliance under 28.04(6).

3. Roadway Length: Consistency, Proportionality, and Equal Protection

The Planning Board denied relief for a roadway length exceeding 1,000 feet, thereby limiting the subdivision layout. However, in 2023 the city approved the Shelburne Lane subdivision, located in the same zoning district and under nearly identical conditions, with no public water or sewer service and a rural character, with a roadway extending beyond 1,000 feet. In addition, Farmwood Road and Coventry Road both exceed 1,000 feet in length and are likewise not served by public water or sewer.

This disparate treatment constitutes inconsistent application of subdivision standards. Selective enforcement undermines RSA 676:4, I(h) (requiring written findings) and RSA 674:36 (requiring equal application of subdivision regulations).

From a planning perspective, the proposed extension is proportional to the size and design of the parcel, will remain privately maintained, and does not increase municipal burden. The intent of the 1,000-foot limitation, to avoid long public roads that strain city services, is not implicated.

Equal protection principles under Part I, Article 12 of the New Hampshire Constitution reinforce that similarly situated landowners must be treated alike. Allowing roadway length for Shelburne Lane but denying it here violates that standard.

Requested Action: Approve the roadway length over 1,000 feet, consistent with prior approvals, ensuring equal and proportional application of Concord’s subdivision regulations.

4. Pavement Thickness: Code, Standards, and Engineering Basis

Code and City Standards:

Concord’s Subdivision Regulations 21.05 state: “*Common private drives shall be surfaced with a minimum of three (3) inches of hot bituminous pavement per State specifications.*” The project

proposes exactly that standard, 1.5" binder and 1.5" wearing course, compacted to 3 inches total, consistent with NHDOT Section 401 Plant-Mixed Pavements, which Concord expressly references. The city's 2020 Construction Standards & Details also specify for driveways a section of 6" crushed gravel plus 3" hot bituminous pavement in two lifts, aligning with 21.05's minimum requirement for common private drives.

Planning Board Record: May 15, 2024:

At the May 15, 2024, meeting, the city objected to the 3" pavement thickness but did not present factual evidence or engineering data. The minutes reflect:

- An acknowledged inconsistency between the Subdivision Regulations (3") and a Construction Standards detail (4").
- The city Engineer's statement that 3" is the state minimum standard for rural residential roads and sufficient for low-volume facilities.
- Staff noted they intended to "fix" the verbiage to require 4" in the future, but no such amendment had been adopted.
- Several Board members recognized that 3" was acceptable and that any inconsistency would not affect the city, since the roadway is private and HOA-maintained.

This demonstrates the denial was based on policy preference, not on technical findings, contrary to RSA 676:3, I, which requires written findings grounded in fact.

Engineering Consensus:

The Federal Highway Administration (FHWA) emphasizes that pavement performance depends more on subgrade preparation, base design, and drainage control than on asphalt thickness. The AASHTO flexible pavement design method shows that 3" of HMA over a 12" aggregate base yields a Structural Number of ~3.0, sufficient for low-volume residential traffic. Adding an extra inch of asphalt provides minimal additional capacity compared to strengthening the base.

State Standard and Adoption:

NHDOT Section 401 establishes 3" compacted HBP as the statewide baseline for flexible pavements. By incorporating Section 401, Concord's 21.05 adopts the same standard. Requiring 4" for a private, HOA-maintained drive is inconsistent with both the city's regulations and state practice.

Jurisdiction and Fairness:

Common private drives are privately maintained (20.11). The city has no responsibility for future repair or replacement. Requiring public-road standards for private facilities imposes undue costs on homeowners without any municipal benefit.

Lack of Evidence Supporting 4" Compacted Pavement:

Neither Concord nor NHDOT has produced findings that 4" performs materially better than 3" for private, low-volume roads. Absent unusual conditions (heavy truck use, poor soils, drainage issues), there is no engineering or legal justification for exceeding the codified 3" minimum.

Requested Action: Approve the project's 3" compacted HBP pavement section as compliant with:

- Concord Subdivision Regulations 21.05 (minimum 3" requirement),
- NHDOT Section 401 (state standard).

Legal Authority

- Concord Subdivision Regulations: 20.11, 20.13, 21.05, 28.02, 28.04(6).
- Concord Construction Standards & Details (2020).
- RSA 674:36, II(n): Authorizes waivers where strict conformity creates hardship or where conditions show a waiver furthers the regulations' intent.
- RSA 676:3, I: Requires written factual findings to support conditions.
- Case Law: *Tidd v. Alton*, 148 N.H. 424 (2002); *Trustees of Dartmouth College v. Hanover*, 171 N.H. 497 (2018).

Proposed Findings

- **Curbing:** Cape Cod berm is permitted under 20.13 and consistent with city practice.
- **Street Trees:** Limiting plantings to the cul-de-sac complies with 28.02 and 28.04(6) while preserving safety and utilities.
- **Roadway Length:** Approving >1,000' ensures equal treatment with similar subdivisions and avoids unequal enforcement.
- **Pavement Thickness:** A 3" HBP section satisfies 21.05 and state standards, is endorsed by the city Engineer as the minimum state standard and is technically sufficient for private HOA-maintained drives.

Sincerely,

Ryan Taber
Eastern Development, LLC

Granite Ridge Estates: Amendment to Major Subdivision

15 Hot Hole Pond Road, Concord, NH

Applicant: Eastern Development, LLC

Tax Map Lot: 11Z 25-1

I. PROJECT DESCRIPTION

The applicant requests an amendment to the approved major subdivision application and recorded subdivision plat to grant certain waivers from the Subdivision Regulations at 15 Hot Hole Pond Road, as outlined below. The proposed development consists of an 8-unit detached single-family residential cluster on a private common drive, served by utilities, drainage, and associated site improvements.

Zoning and Overlay Compliance:

- Zoning District: Open Space Residential (RO)
- Existing Use: Vacant
- Proposed Use: Single-Family Residential
- Overlay Districts: Flood Hazard (FH), Shoreland Protection (SP), Historic (HI), Penacook Lake Watershed (WS), Aquifer Protection (AP) – **Not applicable.**
- Wetlands / Buffers: **None impacted.**

Plan Set Reference: Altus Engineering, 29 sheets, dated September 20, 2023, with revisions through March 18, 2025; plus 4-page waiver request and appeal, Eastern Development, LLC, September 17, 2025.

II. PROJECT HISTORY

- **November 15, 2023:** Planning Board deemed application complete for a 9-unit major subdivision; not a development of regional impact.
- **March 20, 2024:** Conditional major subdivision approval granted for 8-unit cluster condominium, including certain waivers.
- **May 15, 2024:** Planning Board amended conditions, granting certain waivers from the Subdivision Regulations.
- **March 19, 2025:** Two-year extension granted for conditional approvals; expiration set to March 20, 2027.
- **June 2, 2025:** Final approval for 8-unit detached single-family cluster, new common private driveway, and site improvements.

- **June 16, 2025:** Condominium site plan, declaration, and bylaws recorded at Merrimack County Registry of Deeds.

III. COMPLIANCE ANALYSIS

Engineering & Staff Review Summary:

- Zoning compliance: Open Space Residential (RO), density within permitted limits.
- Site Plan compliance: All prior conditions satisfied; no new site plan required.
- Utilities & Fire Department: Road designed to exceed minimum emergency vehicle width by 50%; cul-de-sac and driveway slopes meet operational safety standards.
- Landscape compliance: Proposed plantings, combined with existing non-invasive trees, satisfy 28.04(6) intent.
- Staff noted prior denial of 3" pavement waiver (Figure 20-2), but this appeal addresses technical justification and statutory authority under RSA 674:36(II)(n) and Section 35.08 of the Subdivision Regulations.

IV. LEGAL BASIS FOR WAIVERS

State Law:

- **RSA 674:36, II(n):** Planning Board may grant waivers where strict conformity causes unnecessary hardship, provided public safety and intent are maintained.
- **RSA 677:15:** Any person aggrieved by a Planning Board decision may petition the Superior Court within 30 days; the applicant has fully preserved rights.

City Regulations:

- Concord Subdivision Regulations 19.09, 20.12, 20.13, 28.04(6), Figure 20-2, 35.08, 35.19.
- 19.09 and 35.08 explicitly allow waivers for undue hardship, physical constraints, or where equivalent public benefit is maintained.
- 35.04 Conflict Rule: If multiple standards apply, the most restrictive controls; waiver does not compromise public safety.

V. Precedent:

While Farmwood Road and Coventry Road were constructed over 25 years ago, they provide a clear and relevant precedent for roads exceeding 1,000 feet in length. Historical data speaks for itself: these extended cul-de-sacs have safely accommodated fire apparatus and emergency

vehicles for more than two decades without incident, demonstrating that road length alone does not compromise public safety when proper design standards are met.

Additional precedents reinforce this conclusion:

- Hot Hole Pond Road: This existing private road is narrower and steeper than the proposed roadway, yet it is safely navigable by Fire Department trucks, demonstrating that properly engineered longer roads can be accessed without safety issues.
- Shelburne Lane: Approved through a conditional multi-phase process (2019/2023), this project illustrates the Planning Board's flexibility in approving private roads with non-standard configurations while maintaining emergency access and public safety. While the project is not fully complete and the secondary egress is not yet constructed due to its phased development, homes along the road have already been sold and occupied. Despite the incomplete egress, the Fire Department has had no operational safety concerns, demonstrating that emergency access remains adequate. This supports the conclusion that the safety factor claimed by the FD for extended roads should remain consistent with real-world experience.

Comparative Safety of Proposed Road:

The proposed road exceeds the Fire Department minimum width by 50%, features a properly designed cul-de-sac, and maintains moderate slopes. These factors provide enhanced safety margins relative to the older precedents.

Functional Validation:

The long-term, incident-free operation of Farmwood Road, Coventry Road, and Hot Hole Pond Road demonstrates that private roads exceeding 1,000 feet can safely serve emergency and residential traffic when engineered according to accepted standards.

Conclusion:

Given the historical performance of these roads, there is no reasonable basis for the Fire Department to assert a safety concern regarding the proposed private road. In fact, the proposed design exceeds the safety standards of these established precedents, ensuring reliable emergency access and full compliance with the intent of the regulations.

VI. WAIVER REQUESTS

A. Cape Cod Berm in Lieu of Granite Curbing

Project Context:

The proposed roadway is approximately 1,000 linear feet in length, a private, low-volume residential street serving eight single-family homes. It is constructed to full structural standards, ensuring compliance with safety, drainage, and durability requirements. The Cape Cod berm provides a practical, safe, and contextually appropriate edge treatment for the private roadway.

Waiver Criteria Analysis:

1. No Detriment to Public Safety, Health, or Welfare

- The Cape Cod berm design meets all safety and drainage objectives.
- It provides continuous pavement protection, directs runoff to drainage swales, and clearly defines the road edge for drivers and emergency responders.
- The cul-de-sac has been designed to accommodate fire department apparatus, with turning radii verified to meet or exceed NFPA and local standards.
- The berm's beveled slope reduces potential tire or snowplow damage, enhancing safety.

2. Unique Conditions

- The road is privately maintained, low-volume, and serves only eight homes.
- Granite curbing is unnecessary for this context; Cape Cod berm is functionally adequate for drainage and pavement protection.

3. Unnecessary Hardship

- Granite curbing costs 3-4 times more than Cape Cod berms (\$40,000–\$50,000 additional), with no measurable improvement in safety or durability.
- For a homeowner-maintained road, this cost constitutes a clear and disproportionate hardship.
- Granite curbing provides no additional safety, drainage, or structural benefit over Cape Cod berms, so the mandated installation is a hardship without measurable public benefit.

4. Consistency with Spirit and Intent of the Regulations

- 20.13 aims for safe, drained, structurally stable roads.
- The proposed berm meets these objectives efficiently and economically, reflecting proportional design standards for private roads.

5. No Conflict with Other Provisions

- Granting this waiver does not conflict with the Zoning Ordinance, Master Plan, or Official Map.

Conclusion:

The Cape Cod berm fully satisfies all five waiver criteria and maintains the safety, drainage, and functional intent of the Subdivision Regulations. Approval is requested under 19.09 and RSA 674:36(II)(n).

B. Street Trees

Project Context:

Existing non-invasive trees (≥ 4 " diameter within 10 feet of ROW) are proposed to satisfy the street tree requirement. Full planting along the entire driveway is impractical due to steep slopes and the presence of utility lines, which could compromise tree survival and safe utility maintenance.

Waiver Criteria Analysis:

1. No Detriment to Public Safety, Health, or Welfare

- Proposed tree planting within the cul-de-sac, supplemented by existing mature trees, maintains erosion control, aesthetics, and safe emergency access.
- 2. **Unique Conditions**
 - Steep slopes and utility conflicts are unique to this property and not generally applicable to other properties.
- 3. **Unnecessary Hardship**
 - Strict compliance would require excessive grading or removal of existing vegetation, creating hardship without significant public benefit.
 - Strict compliance could be environmentally counterproductive.
- 4. **Consistency with Spirit and Intent of the Regulations**
 - The waiver preserves the intent of 28.04(6) to enhance aesthetics, maintain erosion control, and support neighborhood character.
- 5. **No Conflict with Other Provisions**
 - The waiver does not conflict with the Zoning Ordinance, Master Plan, or Official Map.

Conclusion:

The waiver ensures compliance with the intent of 28.04(6) while addressing practical limitations, balancing safety, aesthetics, and feasibility.

C. Road Length (>1,000 ft)

Project Context:

The proposed private road extends approximately 1,150 feet, exceeding the 1,000-foot limit in 20.12. The road is designed 50% wider than the Fire Department minimum requirements, features a properly designed cul-de-sac, and maintains moderate slopes.

Waiver Criteria Analysis:

1. **No Detriment to Public Safety, Health, or Welfare**
 - The road width and cul-de-sac accommodate fire apparatus safely.
 - Hot Hole Pond Road, narrower and steeper, is safely navigable by FD trucks.
 - Farmwood Road and Coventry Road (>1,000 ft) have operated safely for over 25 years, demonstrating long-term public safety.
 - Shelburne Lane (2019/2023, phased project) shows emergency access remains safe even before secondary egress completion, and homes are already occupied.
2. **Unique Conditions**
 - The ~150-foot extension is necessary to accommodate the unique site geometry and lot layout.
 - Other properties in the area do not share this configuration.
3. **Unnecessary Hardship**
 - Limiting the road to 1,000 feet would prevent access to certain portions of the property, effectively rendering parts of the land unusable for homes, driveways, or utilities and preventing the owner from using the land as originally intended.
 - Reduced usable land translates directly to fewer saleable lots and lost revenue, creating a disproportionate financial burden.

4. Consistency with Spirit and Intent of the Regulations

- The intent is to ensure safe, properly designed roads with emergency access.
- The proposed road exceeds width and emergency access standards, fully meeting the regulation's purpose.

5. No Conflict with Other Provisions

- Development complies with zoning, density, setbacks, and Master Plan goals.

Conclusion:

The road length waiver satisfies all five criteria, ensures safety, and supports responsible, well-planned development.

D. Pavement Thickness Reduction (Figure 20-2)

Project Context:

A 3-inch compacted HMA pavement section is proposed in lieu of the 4-inch standard for the private road.

Waiver Criteria Analysis:

1. No Detriment to Public Safety, Health, or Welfare

- Provides full structural support for residential, delivery, and emergency traffic.
- Engineering analysis confirms adequacy; drainage meets city standards; no FD access concerns.

2. Unique Conditions

- Small, low volume privately maintained subdivision; HOA ownership; limited traffic.

3. Unnecessary Hardship

- Strict adherence to 4-inch standard adds \$12,000–\$15,000 without measurable benefit.
- Larger asphalt volume results in higher embodied carbon and energy consumption during construction, conflicting with sustainable development principles.
- Extra asphalt is effectively unused structural capacity in a low-volume context, representing wasteful resource use.
- Adds maintenance complexity over time (e.g., thermal expansion/contraction differences between pavement layers).

4. Consistency with Spirit and Intent of the Regulations

- 21.05 aims for safe, durable, serviceable roads.
- The proposed 3-inch HMA, combined with proper subbase and compaction, meets the intended purpose.

5. No Conflict with Other Provisions

- Complies with Master Plan goals, zoning, and city mapping requirements.

Conclusion:

The pavement thickness waiver fully satisfies all five criteria, avoids unnecessary hardship, preserves safety, and aligns with the intent of the regulations.

VII. CONCLUSION & REQUEST FOR RELIEF

The applicant respectfully requests that the Planning Board:

1. **Approve all four requested waivers:**
 - Cape Cod Berm in lieu of granite curbing
 - Street Trees
 - Road Length
 - Pavement Thickness
2. **Find that each waiver fully satisfies applicable standards**, including 19.09, 35.08, and RSA 674:36(II)(n), and that granting the waivers will not compromise public safety, health, or welfare. Each request has been carefully designed to meet the intent of the regulations while accommodating the unique characteristics of the site.
3. **Recognize that strict compliance would create unnecessary hardship.** Denial of the waivers would impose significant cost, engineering, and practical burdens on the applicant and future homeowners that are not justified by any measurable public benefit. Similar waivers have been granted historically under comparable circumstances, establishing a clear precedent for flexible application when technical standards and public safety are maintained.
4. **Confirm that approval aligns with the spirit and intent of the regulations and statutory authority.** The requested waivers reflect best practices in low-volume residential road design, preserve environmental and safety standards, and ensure efficient use of resources consistent with City and State guidelines.

Granting these waivers will uphold the City's regulatory objectives, protect public interests, and allow for a safe, functional, and economically reasonable development.

Sincerely,

Eastern Development

Granite Ridge Estates Cluster Subdivision

15 Hot Hole Pond Road
Concord, New Hampshire

Assessor's Parcel 11Z, Lot 25-1
ISSUED FOR FINAL APPROVAL

APPROVED

UNDER THE PROVISIONS OF R.S.A 674:35 AND 674:36

PLANNING BOARD

CITY OF CONCORD, NEW HAMPSHIRE

IN ACCORDANCE WITH A VOTE OF THE BOARD DATED:

APPROVAL OF THIS PLAT IS LIMITED TO LOTS AS SHOWN

CLERKCHAIR

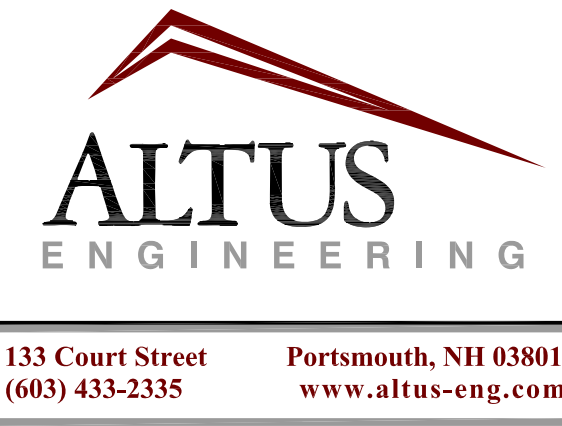
Owner:
EASTERN DEVELOPMENT, LLC

P.O. BOX 2671
CONCORD, NH 03302
(603) 333-0147

Applicant:
EASTERN DEVELOPMENT, LLC

P.O. BOX 2671
CONCORD, NH 03302
(603) 333-0147

Civil Engineer:



Surveyor:



Soil Scientist:

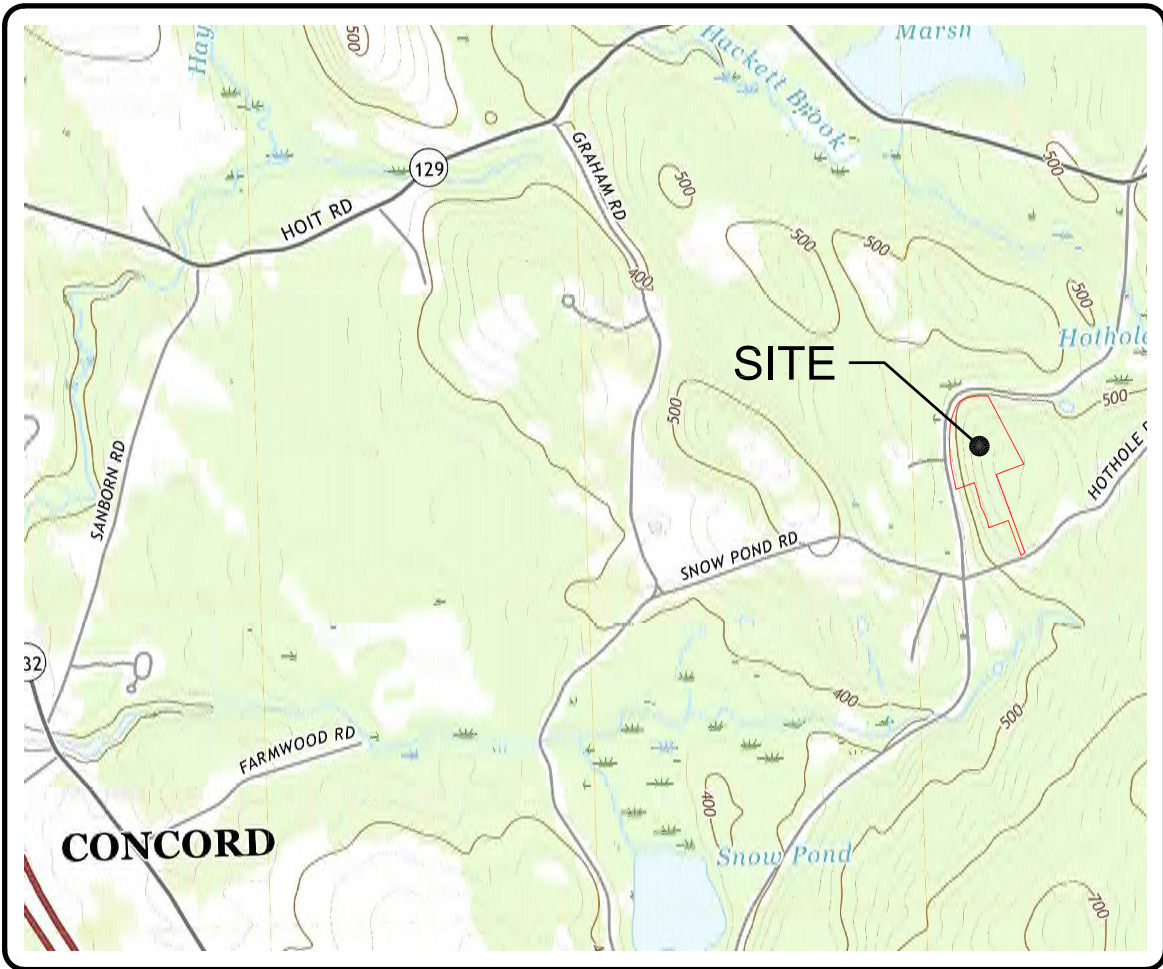
BAG LAND CONSULTANTS
43 ROCKINGHAM STREET
CONCORD, NH 03301
(603) 228-5775

Plan Issue Date:

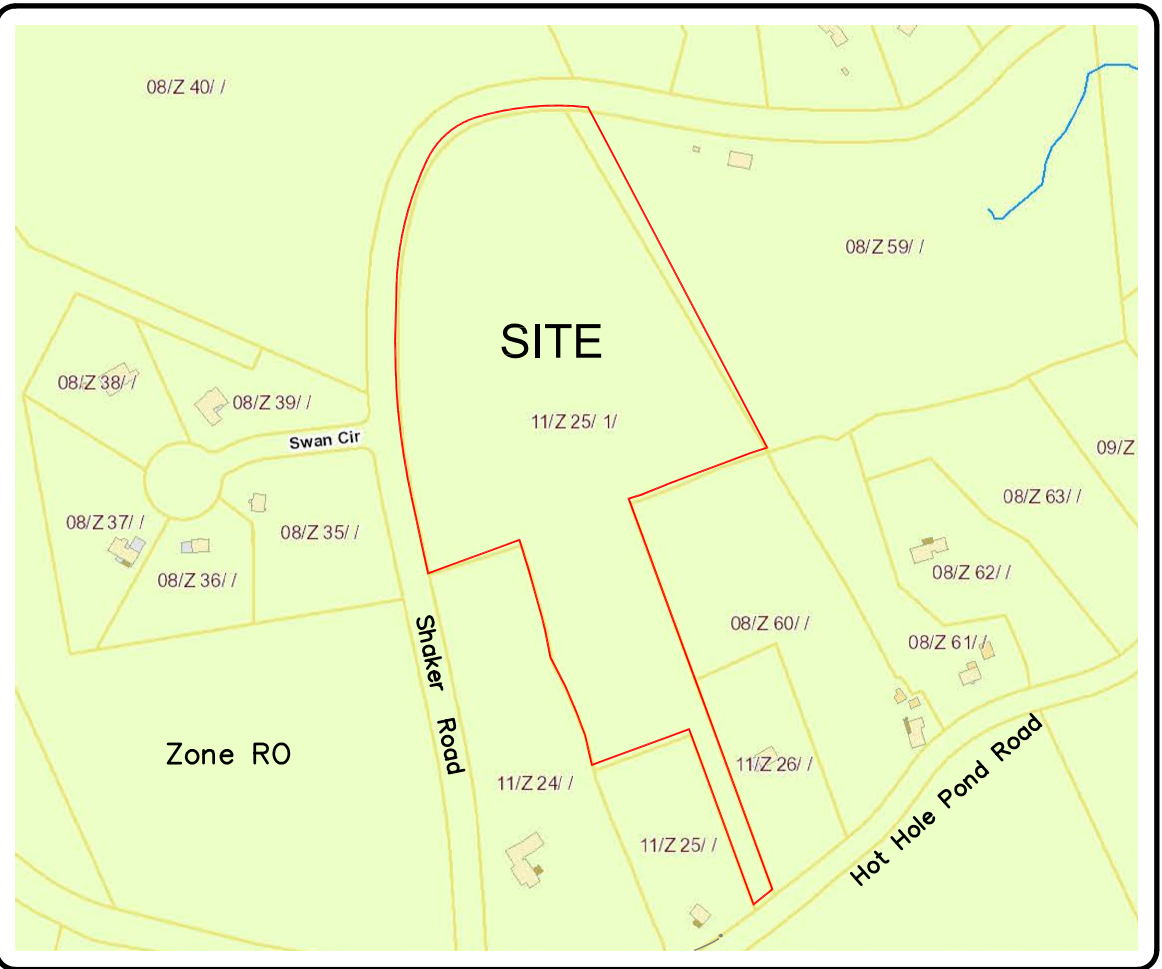
Original: September 20, 2023
Revised: October 18, 2023
February 23, 2024
June 10, 2024
July 30, 2024
October 21, 2024
December 17, 2024
January 9, 2025
February 19, 2025
Current: March 18, 2025

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Existing Condition Plat	4 of 7	0	03/11/20
Existing Condition Plat	5 of 7	0	03/11/20
Existing Condition Plat	6 of 7	0	03/11/20
Existing Condition Plat	7 of 7	0	03/11/20
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Soils and Topography Plan	C-1.2	5	12/17/24
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Detail Sheet	C-11	6	12/17/24
Detail Sheet	C-12	6	12/17/24
Detail Sheet	C-13	2	02/19/25
Landscaping Plan	L1.0	1	02/23/24
Landscape Details	L1.1	1	02/23/24

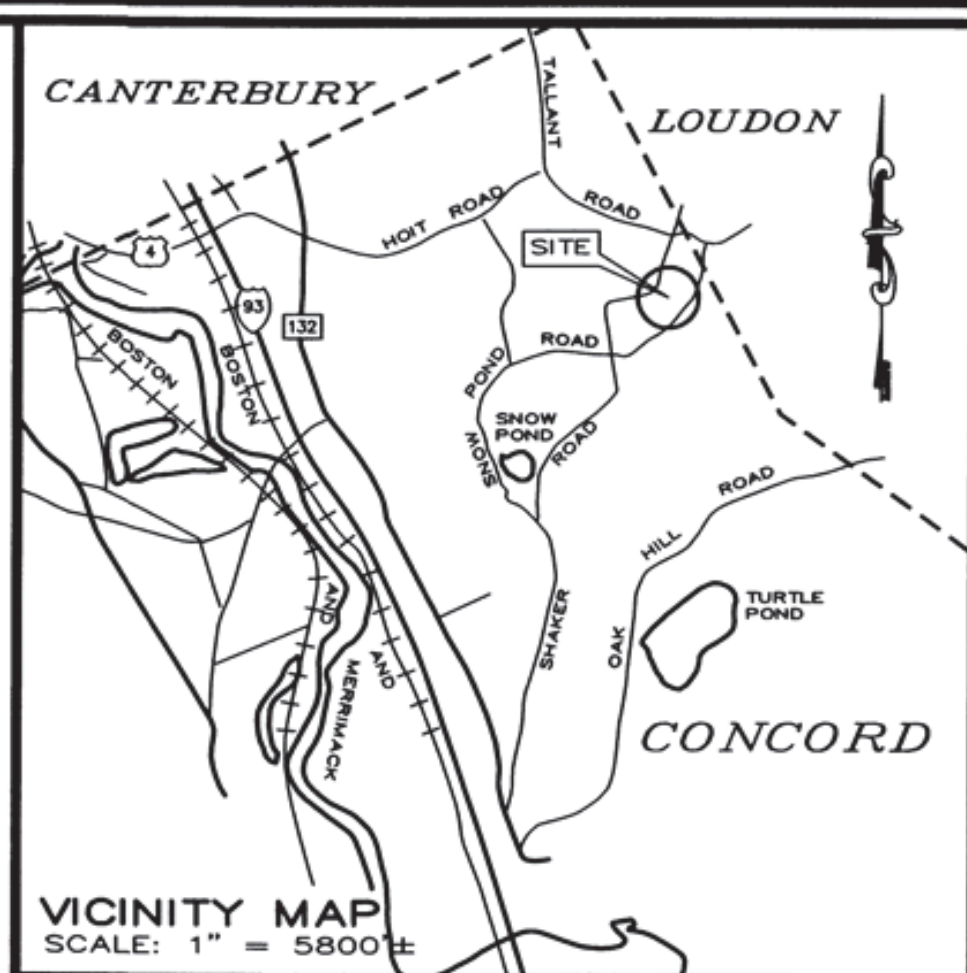
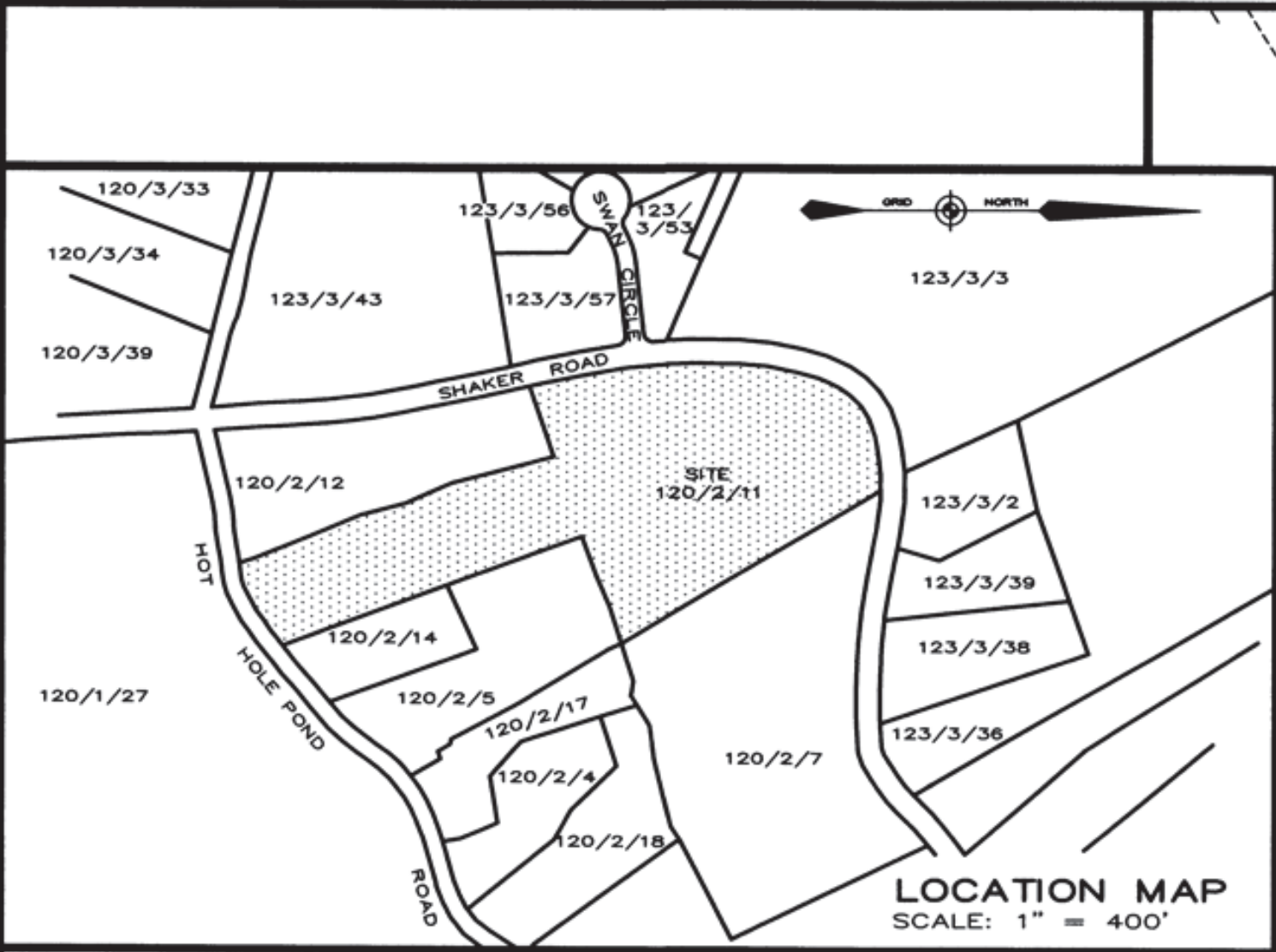
Permit Summary	Submitted	Received
Concord Subdivision Approval	09/20/23	03/20/24
NHDES Subdivision Approval	04/29/24	01/03/25
NHDES Subsurface Approval	By individual unit owners prior to construction	
EPA Notice of Intent	By Contractor 14 days prior to construction	



VICINITY PLAN 1" = 2,000'



LOCATION PLAN 1" = 400'
















Map 11Z, Lot 26
Robert G. & Barbara B. Anderson
21 Hot Hole Pond Road
Concord, NH 03301
Book 1728, Page 631

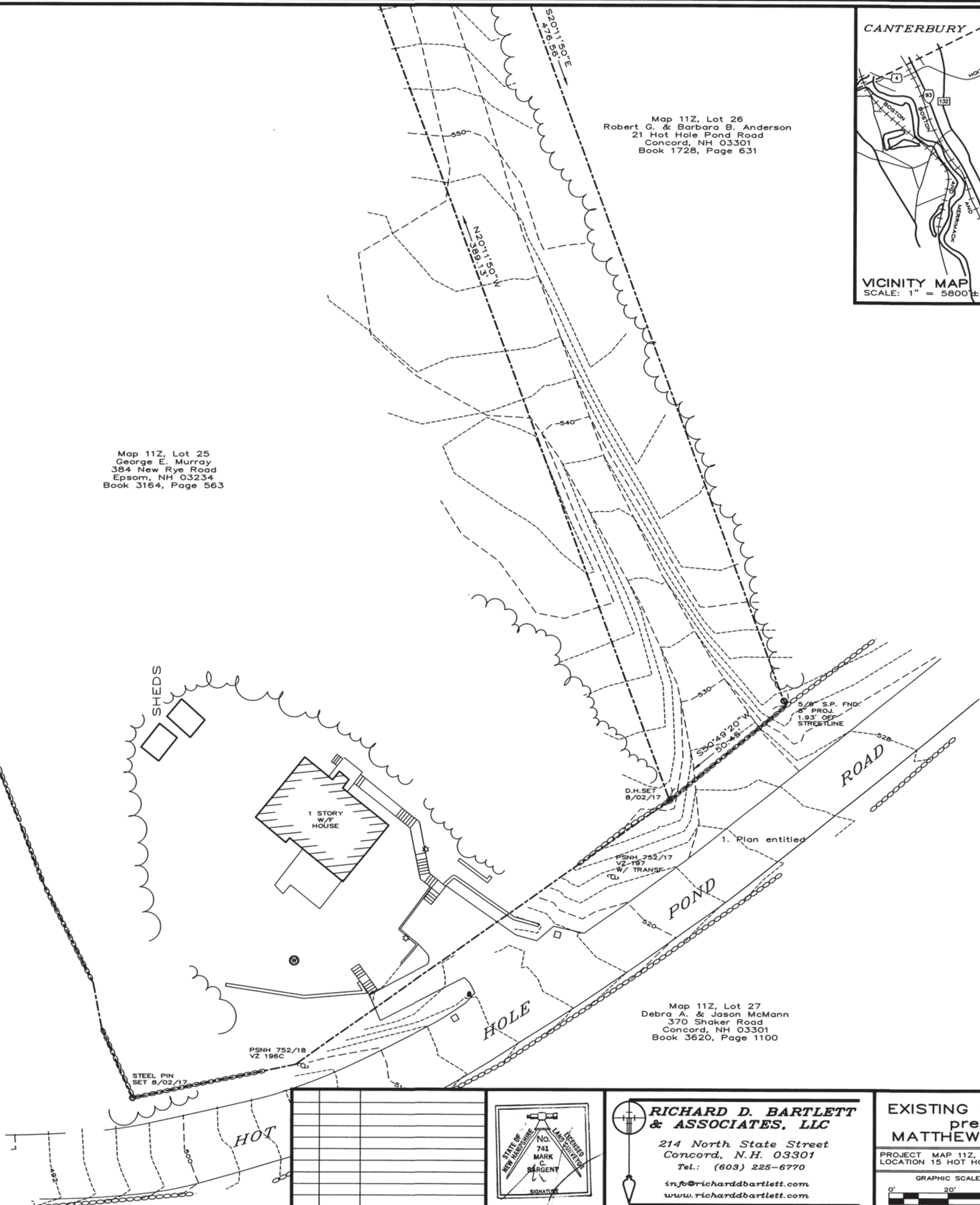
Map 11Z, Lot 25
George E. Murray
384 New Rye Road
Epsom, NH 03234
Book 3164, Page 563

NOTES

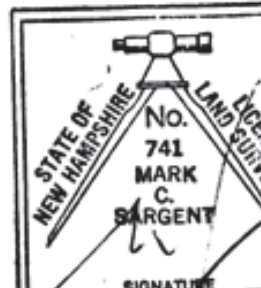
1. Survey by total station on June 13 & 14, 2017, with Control Traverse error of closure of 1:96,489. Additional survey between the dates of January 27 and February 5, 2020 with a control traverse error of closure of 1:20,473.
2. Horizontal datum is based on New Hampshire State Plane Coordinate System NAD 83.
3. Vertical datum is based on NAVD 88.
4. Owner of record: Matthew & Erin Berry 267 Main Street Candia, NH 03034 Vol. 3647, Page 1390, Total Area: 639,794 sq. ft. or 14.69 acres.
5. Parcel is within the Open Space Residential Zoning District (RO), Minimum lot size = 2 acres, Minimum buildable land = 20,000 sq. ft., Minimum frontage = 200', Building setbacks: front=50'; rear=50'; side=40', Maximum lot coverage = 10%, Minimum useable area = 8,712 sq. ft.
6. The underground utilities depicted herein have been located from field survey information and plotted from existing drawings. The surveyor makes no guarantee that the underground utilities depicted comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although they are located as accurately as possible from the information available. The surveyor has not physically located the underground portion of the utilities. All contractors should notify, in writing, any utility company and appropriate governmental agencies prior to any excavation work and call DIG-SAFE at 1-888-344-7233.
7. The subject premises is with Zone X, areas determined to be outside the 0.2% annual chance floodplain, depicted on the Flood Insurance Rate Map, Merrimack County, panel 348 of 705, Map no. 33013C0345E with an effective date of April 19, 2010.
8. The intent of this plat is to depict the existing conditions of Map 11Z, Lot 25-1
9. Reference plat entitled "Subdivision of Land Belonging to Marvin H. Caswell, Florence Martin, and Pearl Stortstrom" dated May 22, 1982 by Gilbert C. Castle and recorded at the MCRD as plan no. 7152.

LEGEND

- | | | | |
|---|------------------------|---|--------------------------------------|
|  | PROPERTY LINE |  | STONE WALL |
|  | EDGE OF PAVEMENT |  | EDGE OF WOODS |
|  | EDGE OF GRAVEL |  | CONCRETE |
|  | OVERHEAD UTILITY LINES |  | WELL |
|  | DOUBLE YELLOW LINE |  | IRON PIPE OR REBAR |
|  | SOIL BOUNDARY |  | GRANITE OR CONCRETE BOUND (GB OR CB) |
| | |  | UTILITY POLE |



Map 11Z, Lot 27
Debra A. & Jason McMann
370 Shaker Road
Concord, NH 03301
Book 3620, Page 1100

[illegible]

FOR: RICHARD D. BARTLET
& ASSOCIATES, L.L.C.



**RICHARD D. BARTLETT
& ASSOCIATES, LLC**


214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770

info@richarddbartlett.com
www.richarddbartlett.com

LICENSED LAND SURVEYORS

EXISTING CONDITION PLAT
prepared for:
MATTHEW & ERIN BERRY

PROJECT MAP 11Z, LOT 25-1	
LOCATION 15 HOT HOLE POND RD CONCORD, NH	
<p>GRAPHIC SCALE</p> <p>0' 10' 20' 40'</p> <p>SCALE: 1" = 20'</p>	<p>DATE: MARCH 11, 2020</p> <p>JOB NO.: 1219.213</p> <p>SHEET 1 OF 7</p>

[illegible]

**RICHARD D. BARTLETT
& ASSOCIATES, LLC**

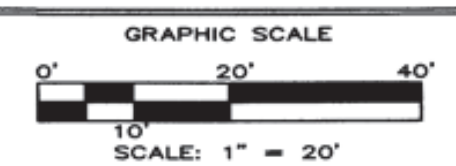
214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770

info@richarddbartlett.com
www.richarddbartlett.com

LICENSED LAND SURVEYORS

EXISTING CONDITION PLAT
prepared for:
MATTHEW & ERIN BERRY

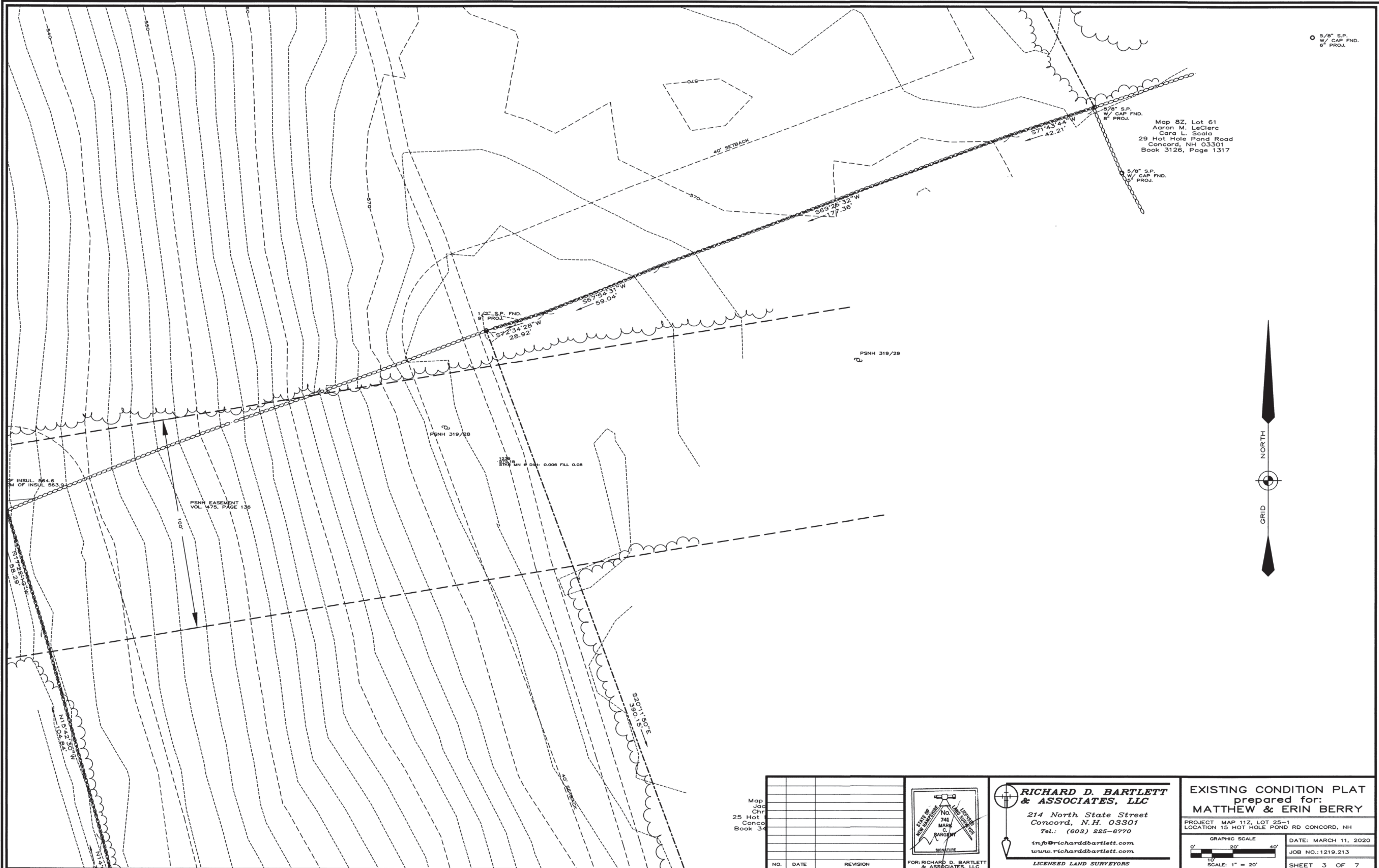
PROJECT MAP 11Z, LOT 25-1
LOCATION 15 HOT HOLE POND RD CONCORD, NH

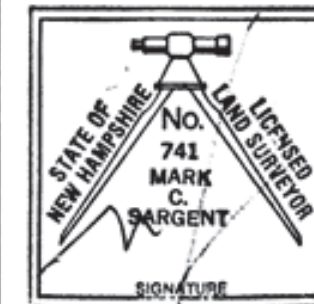


DATE: MARCH 11, 2020


JOB NO.: 1219.213

SHEET 2 OF 7



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FOR: RICHARD D. BARTLET
& ASSOCIATES, LLC



**RICHARD D. BARTLETT
& ASSOCIATES, LLC**

214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770

info@richarddbartlett.com
www.richarddbartlett.com

LICENSED LAND SURVEYORS

EXISTING CONDITION PLAT
prepared for:
MATTHEW & ERIN BERRY

PROJECT MAP 11Z, LOT 25-1
LOCATION 15 HOT HOLE POND RD CONCORD, NH

GRAPHIC SCALE

0' 20' 40'

10'

SCALE: 1" = 20'

DATE: MARCH 11, 2020
JOB NO.: 1219.213
SHEET 4 OF 7



Map 8Z, Lot 35
Jonathan D. & Jennifer L. Uhouse
13 Swan Circle
Concord, NH 03301
Book 3644, Page 2555

PSNH 319/26

S.P. W/CAP FND.
5" PROJ.

NYNEX 1322/6
PSNH 756/5

N 42° 30' W
183.51'

S 66° 49' 58" W
202.49'

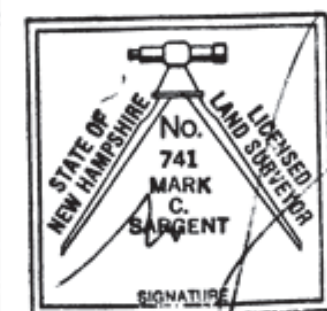
TOP OF INSUL. 564.6
BOTTOM OF INSUL. 563.9

PSNH 319/27

PSNH EASEMENT
VOL. 475, PAGE 136

Map 11Z, Lot 24
Susan E. McLaughlin-Beltz
Pete McGinnis
3 Hot Hole Pond Road
Concord, NH 03301
Book 3577, Page 379

NO.	DATE	REVISION



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prepared for:
MATTHEW & ERIN BERRY

PROJECT: MAP 11Z, LOT 25-1
LOCATION: 15 HOT HOLE POND RD CONCORD, NH

GRAPHIC SCALE
0' 20' 40'
1" = 20'

DATE: MARCH 11, 2020

JOB NO.: 1219.213

SHEET 5 OF 7



Map 8Z, Lot 39
Huthinson Joint Rev. Trust
6 Swan Circle
Concord, NH 03301
Book 3448, Page 2001

S.P. W/CAP FND.
12" PROJ.

S.P. W/CAP FND.

NYNEX 1322/4-110
PSNH 751/1
W/ DROPS

SHAKER ROAD

NO 12515°E

R = 457.00
L = 502.32
Δ = 1235.10°

BENCHMARK
NAIL SET IN
11" RED OAK
ELEV. = 545.25

NO.	DATE	REVISION



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LICENSED LAND SURVEYORS

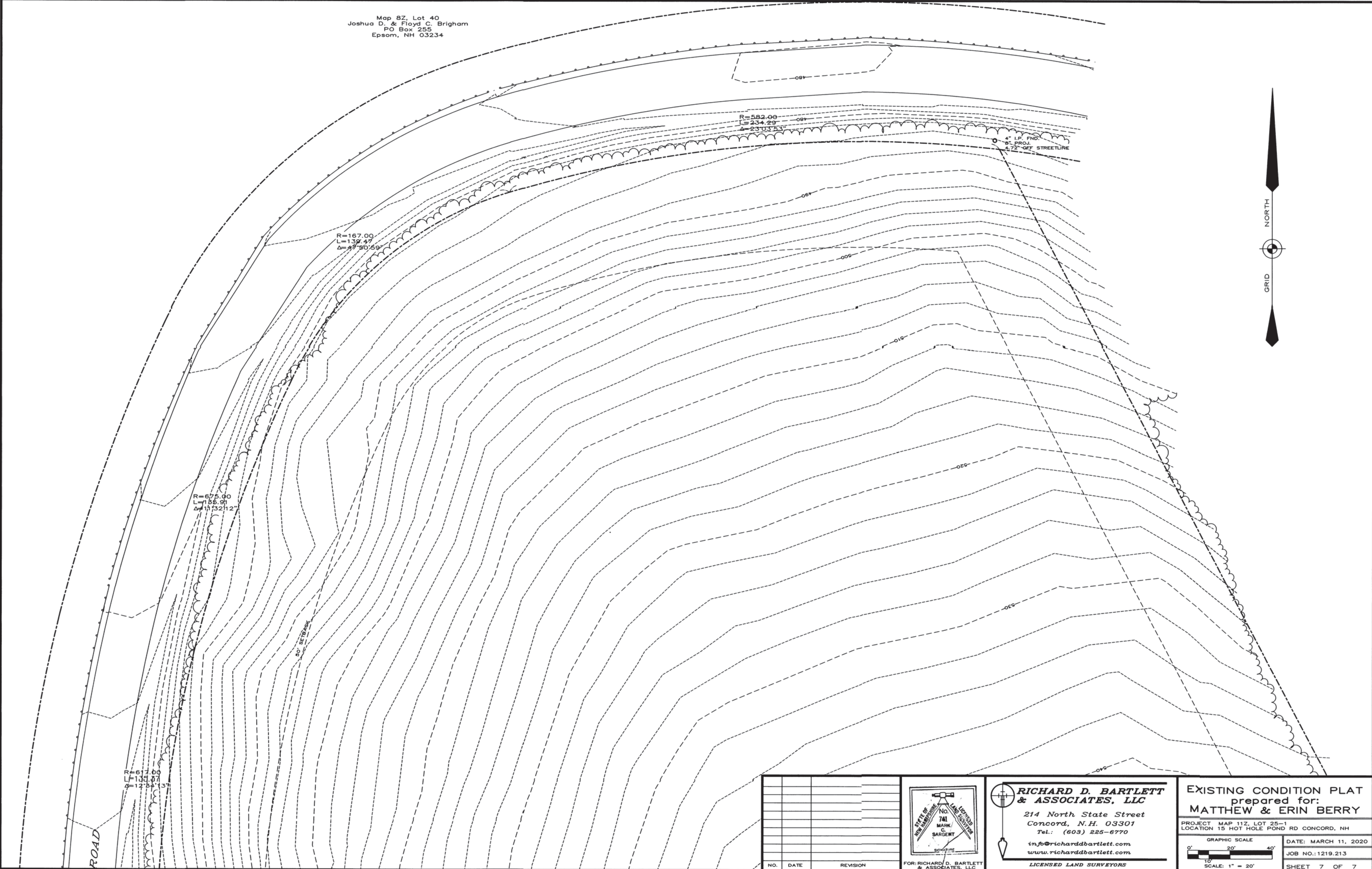
EXISTING CONDITION PLAT
prepared for:
MATTHEW & ERIN BERRY

PROJECT: MAP 11Z, LOT 25-1
LOCATION: 15 HOT HOLE POND RD CONCORD, NH

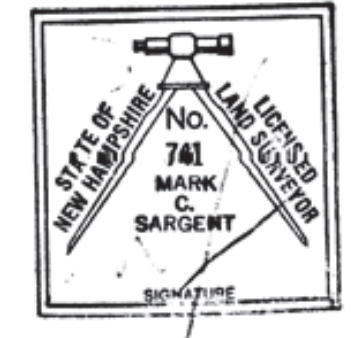
GRAPHIC SCALE
0' 20' 40'
1" = 20'

DATE: MARCH 11, 2020
JOB NO.: 1219.213
SHEET 6 OF 7

Map 8Z, Lot 40
Joshua D. & Floyd C. Brigham
PO Box 255
Epsom, NH 03234



NO.	DATE	REVISION



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LICENSED LAND SURVEYORS

EXISTING CONDITION PLAT
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MATTHEW & ERIN BERRY

PROJECT MAP 11Z, LOT 25-1
LOCATION 15 HOT HOLE POND RD CONCORD, NH

GRAPHIC SCALE
0' 20' 40'
1" = 20'

DATE: MARCH 11, 2020
JOB NO.: 1219.213
SHEET 7 OF 7

MATCH TO SHEET 6

MATCH TO SHEET 4

EXISTING CONDITIONS AND SOILS NOTES

1. THIS PLAN IS INTENDED TO PROVIDE A GENERAL OVERVIEW OF THE SITE'S EXISTING CONDITIONS. SEE EXISTING CONDITIONS PLANS PREPARED BY RICHARD D. BARTLETT AND ASSOCIATES, LLC, DATED MARCH 11, 2020 FOR ADDITIONAL DETAIL. NO SURVEY WAS PERFORMED BY THIS OFFICE.
2. THE PARCEL IS IDENTIFIED AS CONCORD ASSESSOR'S MAP 11Z, LOT 25-1.
3. DEED REFERENCE: MCRD BOOK 3866, PAGE 2039.
4. LOT AREA: 639,794 S.F. (±14.69 AC.)
5. ZONE: RO (OPEN SPACE RESIDENTIAL DISTRICT). THERE ARE NO ZONING DISTRICT BOUNDARIES IN PROXIMITY TO THE SITE.
6. HORIZONTAL DATUM NH STATE PLANE NAD 83, VERTICAL DATUM NAVD 88.
7. PER THOMAS E. SOKOLOSKI, CWS #127 OF TES ENVIRONMENTAL, LLC, NO WETLANDS HAVE BEEN OBSERVED ON THE SUBJECT PARCEL.
8. HIGH INTENSITY SOILS MAPPING WAS PERFORMED BY BRUCE A. GILDAY, CSS OF BAG LAND CONSULTANTS IN AUGUST 2023.
9. PARCEL IS IN ZONE X PER FIRM PANEL 33013C0345E DATED APRIL 19, 2020.

HIGH INTENSITY MAP SYMBOL: 523BH

DRAINAGE CLASS

1. EXCESSIVELY DRAINED
2. WELL DRAINED
3. MODERATELY WELL DRAINED
4. SOMEWHAT POORLY DRAINED
5. POORLY DRAINED
6. VERY POORLY DRAINED
7. NOT DETERMINABLE

PARENT MATERIAL

1. GLACIOFLUVIAL
2. GLACIAL TILL
3. MARINE OR GLACIOLACUSTRINE VERY FINE SAND AND SILT
4. MARINE OR GLACIOLACUSTRINE LOAMY/SANDY OVER SILT/CLAY
5. MARINE OR GLACIOLACUSTRINE SILT AND CLAY
6. EXCAVATED, REGRADED, OR FILLED
7. ALLUVIAL DEPOSITS
8. ORGANIC MATERIALS FRESH WATER
9. ORGANIC MATERIALS TIDAL MARSH

IDENTIFIER

H. INDICATES HIGH INTENSITY SOIL MAP
P. INDICATES PRELIMINARY MAP

SLOPE CLASS

B. 0 TO 8%
C. 8 TO 15%
D. 15 TO 25%
E. 15 TO 25%
F. 35%+

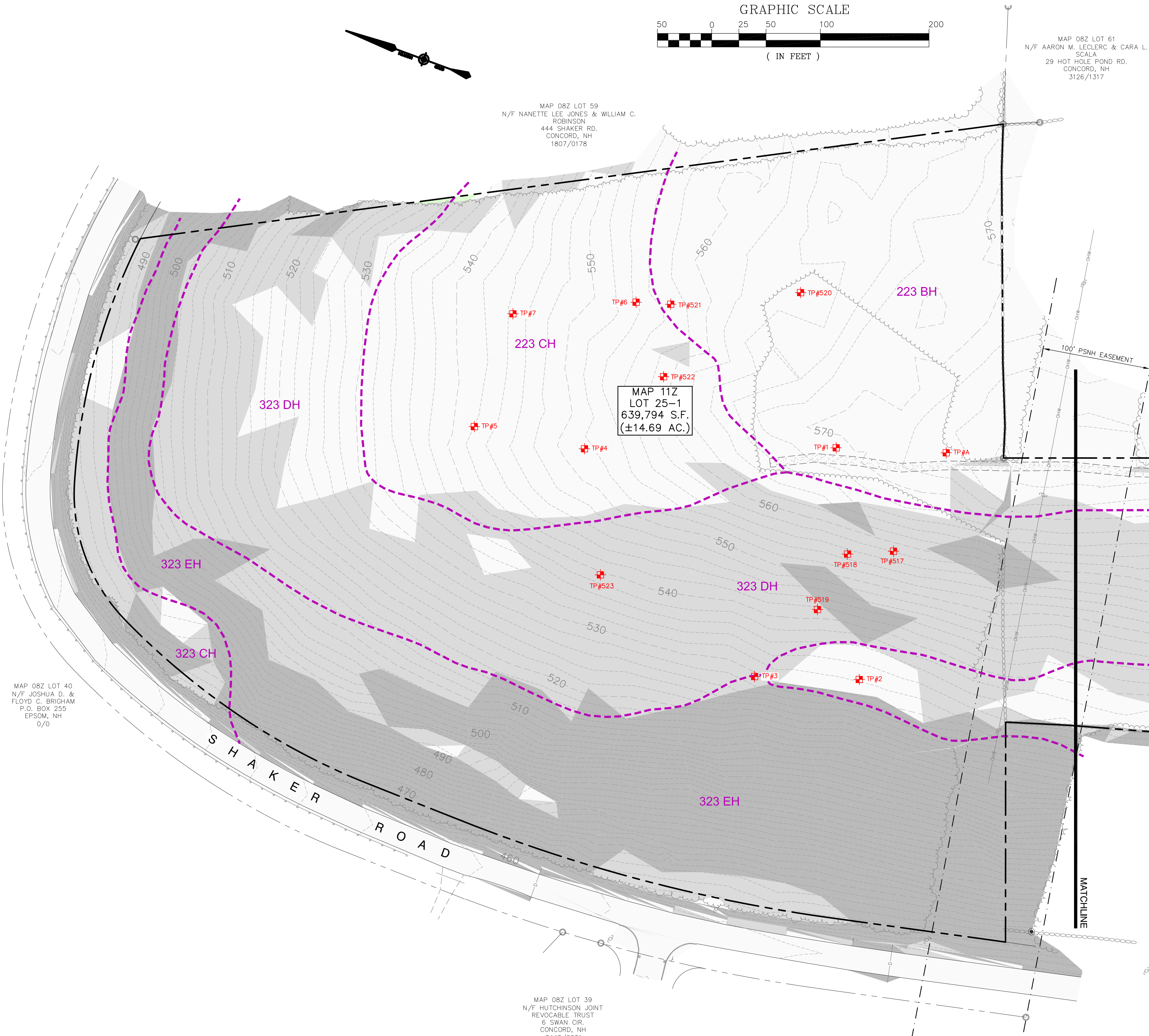
RESTRICTIVE FEATURE

1. NONE
2. BOULDERY, WITH MORE THAN 15% OF SURFACE COVERED
3. MINERAL RESTRICTIVE LAYER(S) ARE PRESENT AT LESS THAN 40" DEPTH
4. BEDROCK 0" TO 20" DEPTH
5. SUBJECT TO FLOODING
6. DOES NOT MEET FILL STANDARDS
7. BEDROCK 20-40" DEPTH
8. DEPTH TO BEDROCK VARIABLE, COMPLEX OF SOIL TYPES

EXAMPLE: HIGH INTENSITY MAP SYMBOL 523BH INDICATES A POORLY DRAINED GLACIAL TILL SOIL WITH A RESTRICTIVE FEATURE, ON A SLOPE OF 0 TO 8%.

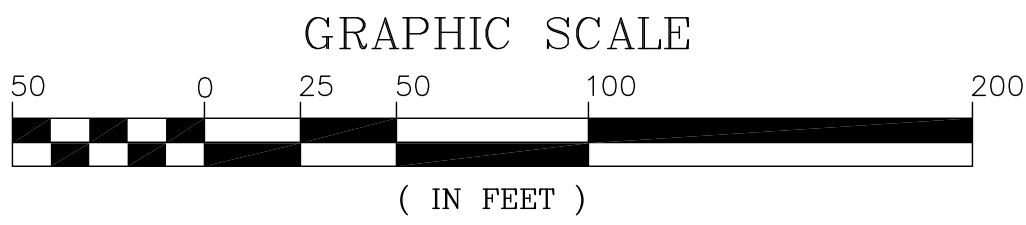


MAP 08Z LOT 40
N/F JOSHUA D. &
FLOYD C. BRIGHAM
P.O. BOX 255
EPSOM, NH
07033

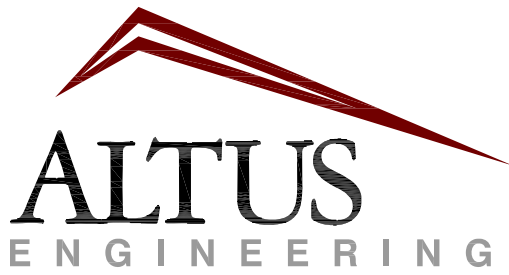


MAP 08Z LOT 59
N/F NANETTE LEE JONES & WILLIAM C.
ROBINSON
444 SHAKER RD.
CONCORD, NH
03301

MAP 08Z LOT 39
N/F HUTCHINSON JOINT
REVOCABLE TRUST
6 SWAN CIR.
CONCORD, NH
03301



MAP 08Z LOT 61
N/F AARON M. LECLERC & CARA L.
SCALA
29 HOT HOLE POND RD.
CONCORD, NH
03301



133 Court Street
(603) 433-2335
Portsmouth, NH 03801
www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:
FINAL APPROVAL

ISSUE DATE:
DECEMBER 17, 2024

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	SUBMISSION	EBS 09/20/23
1	REV. HISS TABLE	EBS 09/23/23
2	REVISED PER COMMENTS	EBS 02/23/24
3	CONDITIONS OF APPROVAL	EBS 06/10/24
4	REVISED PER COMMENTS	EBS 10/21/24
5	REV. DEED REF.	EBS 12/17/24

DRAWN BY: _____ EBS
APPROVED BY: _____ EBS
DRAWING FILE: 5470-SITE.dwg

SCALE:
22" x 34" - 1" = 50'
11" x 17" - 1" = 100'

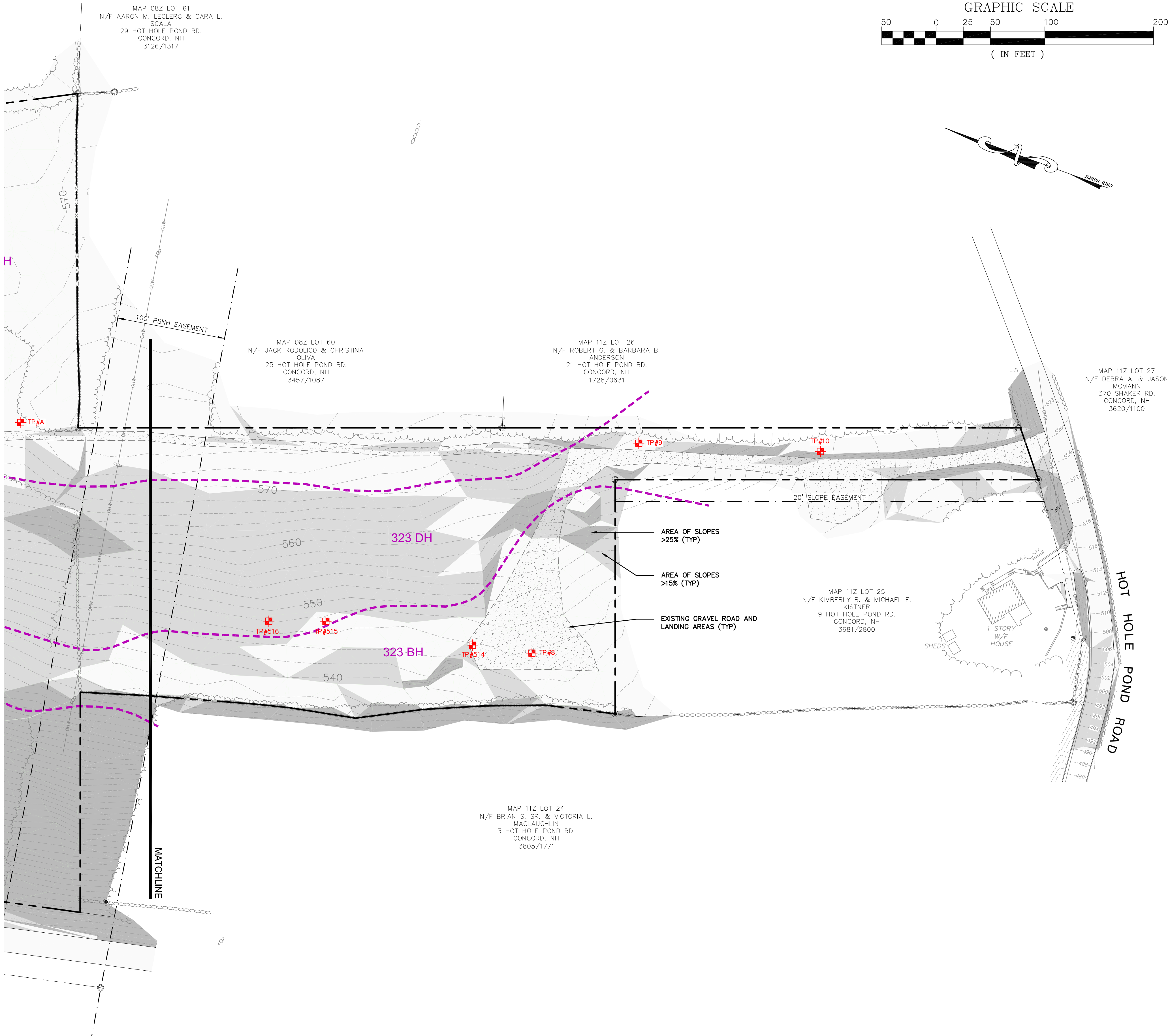
OWNER:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

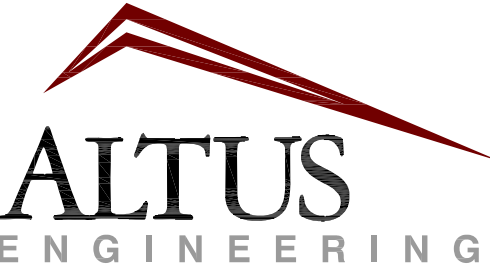
APPLICANT:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:
SOILS AND
TOPOGRAPHY PLAN

SHEET NUMBER:
C-1.1





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Portsmouth, NH 03801
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3	CONDITIONS OF APPROVAL	EBS 06/10/24
4	REVISED PER COMMENTS	EBS 10/21/24
5	REV. PROJECT NAME	EBS 12/17/24

DRAWN BY: EBS

APPROVED BY: EBS

DRAWING FILE: 5470-SITE.dwg

SCALE:

22" x 34" - 1" = 50'

11" x 17" - 1" = 100'

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

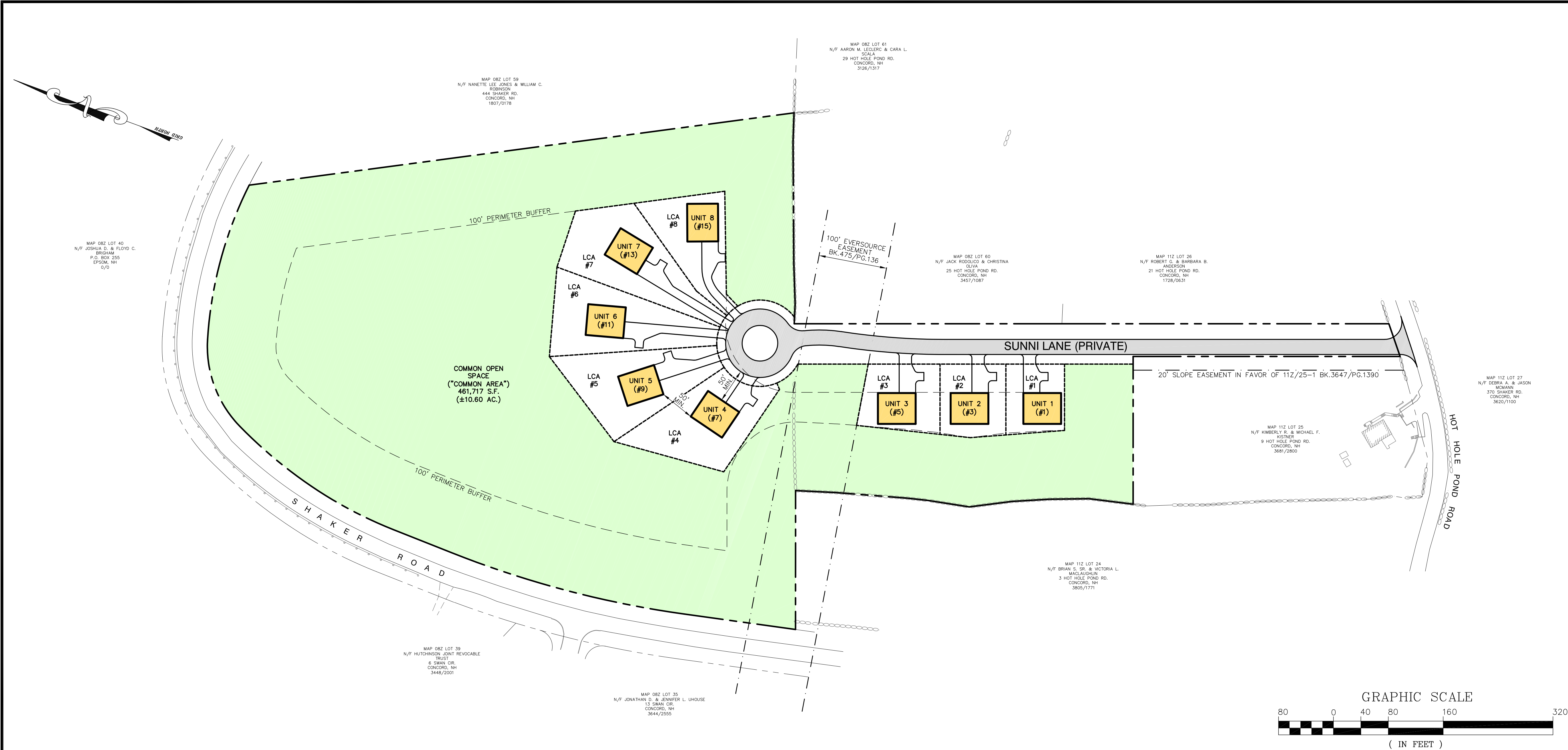
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

SOILS AND
TOPOGRAPHY PLAN

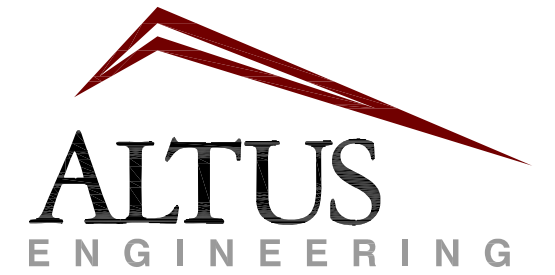
SHEET NUMBER:

C-1.2



NOTES

1. THIS PLAN IS INTENDED TO PROVIDE A GENERAL OVERVIEW OF THE PROJECT AND IS NOT INTENDED FOR RECORDING. SEE SHEETS C-3 AND C-4 FOR RECORDING PLANS.
2. SPECIFICATION REFERENCES THAT MAY BE USED IN THIS PLAN SET:
 - (1) REFERENCE TO CITY STANDARDS SHALL MEAN THE CITY OF CONCORD CONSTRUCTIONS STANDARDS AND DETAILS, AS MOST RECENTLY PUBLISHED.
 - (2) REFERENCE TO STATE SPECIFICATIONS SHALL MEAN STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE NHDOT, AS MOST RECENTLY PROMULGATED.
 - (3) REFERENCE TO MUTCD SHALL MEAN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AS MOST RECENTLY PUBLISHED.
 - (4) REFERENCE TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE NHDES SHALL MEAN THE CONSTRUCTION STANDARDS FOR SANITARY SEWER AND WATER SUPPLY SYSTEMS OF THE NHDES, AS MOST RECENTLY ADOPTED.
 - (5) REFERENCE TO THE ARCHITECTURAL BARRIER FREE CODE SHALL MEAN THE ACCESSIBLE AND USEABLE BUILDING AND FACILITIES CODE OF THE INTERNATIONAL CODE COUNCIL, AS MOST RECENTLY ADOPTED BY THE CITY.
 - (6) REFERENCE TO THE ALTERATIONS OF TERRAIN STANDARDS SHALL MEAN THE NHDES ALTERATION OF TERRAIN (Aot) (CHAPTER ENV-WQ 1500).
 - (7) REFERENCE TO STANDARDS FOR SEWER DISCHARGE PERMITS SHALL MEAN THE NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWERAGE AND WASTEWATER TREATMENT FACILITIES (CHAPTER ENV-WQ 700).
 - (8) REFERENCE TO STANDARDS FOR SEPTIC SYSTEMS SHALL MEAN THE NHDES SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES (CHAPTER ENV-WQ 1000).
 - (9) REFERENCE TO STANDARDS FOR POTABLE WELLS SHALL MEAN NH WATER WELL BOARD STANDARDS FOR THE CONSTRUCTION, MAINTENANCE AND ABANDONMENT OF WELLS (CHAPTER ENV-WQ 600).



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ISSUE DATE:
DECEMBER 17, 2024

REVISIONS				
NO.	DESCRIPTION	BY	DATE	
0	SUBMISSION	EBS	09/20/23	
1	ADDED LCA'S	EBS	10/18/23	
2	REVISED PER COMMENTS	EBS	02/23/24	
3	CONDITIONS OF APPROVAL	EBS	06/10/24	
4	REV. PROJ. & RD. NAMES	EBS	12/17/24	

DRAWN BY: _____ EBS
APPROVED BY: _____ EBS
DRAWING FILE: _____ 5470-SITE.dwg

SCALE:
22" x 34" - 1" = 80'
11" x 17" - 1" = 160'

OWNER:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-2

SITE NOTES

- DESIGN INTENT – THIS PLAN SET IS INTENDED TO DEPICT THE DEVELOPMENT OF THE SITE FOR A SINGLE-FAMILY RESIDENTIAL CONDOMINIUM CLUSTER SUBDIVISION SERVED BY A PRIVATE COMMON DRIVEWAY AND INDIVIDUAL PRIVATE WELLS AND SUBSURFACE SANITARY DISPOSAL SYSTEMS.
2. DIMENSIONAL REQUIREMENTS (FOR CLUSTER SUBDIVISION w/o LOTS, ZONE RO)
- | | |
|-----------------------|--|
| MIN. LOT AREA/UNIT: | 21,780 S.F. "BUILDABLE LAND" (270,668 S.F. PROVIDED) |
| MIN. STREET FRONTAGE: | 150' (1,303.03' PROVIDED) |
| SETBACK FROM ROW: | 30' (>30' PROVIDED) |
| BUILDING SEPARATION: | 50' MIN. (50' MIN. PROVIDED) |
| PRIVATE YARD: | 500 S.F. MIN. PER UNIT (500 S.F. PROVIDED) |
| MAX. BUILDING HEIGHT: | 35' (<35' TO BE PROVIDED) |
| MAX. LOT COVERAGE: | 10% (0% EXISTING, 9.3%/59,640 S.F. PROPOSED) |
| MIN. OPEN SPACE: | 60% (40% MUST BE "BUILDABLE LAND", SEE NOTE #7) |
| PERIMETER BUFFER: | 100' (100' MIN. PROVIDED) |
| WETLAND BUFFER: | 50' FOR WETLANDS >3,000 S.F. (NO WETLANDS ON SITE) |
3. CLUSTER SUBDIVISION DENSITY CALCULATIONS
- | | |
|-----------------------------------|---|
| TRACT AREA: | 639,794 S.F. |
| "UNBUILDABLE" LAND ON TRACT: | |
| FLOODPLAIN/WAY: | 0 |
| WETLANDS: | 0 |
| SURFACE WATERS: | 0 |
| SLOPES 15–25%: | 223,120 S.F. |
| SLOPES >25%: | 138,720 S.F. |
| EXISTING EASEMENTS: | 7,286 S.F. (AREA OUTSIDE SLOPES) |
| SHORELAND BUFFER: | 0 |
| TOTAL "UNBUILDABLE" | 369,126 S.F. |
| 639,794 S.F. TRACT – 369,126 S.F. | "UNBUILDABLE" = 270,668 S.F. "BUILDABLE LAND" |
- MAXIMUM PERMITTED DENSITY: 270,668 / 21,780 = 12.43 (12 UNITS MAX. (8 UNITS PROPOSED))
4. OPEN SPACE CALCULATIONS
- | |
|--|
| 639,794 S.F. TRACT AREA * 0.60 = 383,876 S.F. OPEN SPACE REQUIRED |
| 383,876 * 0.40 = 153,551 S.F. MIN. "BUILDABLE LAND" REQUIRED |
| 462,870 S.F. OPEN SPACE PROVIDED (72.3% OF SITE, 120.5% OF REQUIREMENT) |
| 180,833 S.F. "BUILDABLE" PROVIDED (39.1% OF OPEN SPACE, 117.8% OF REQUIREMENT) |
5. THE FOLLOWING WAIVERS FROM THE CONCORD SUBDIVISION REGULATIONS WERE GRANTED BY THE CONCORD PLANNING BOARD:
- TABLE 20–1 TO ALLOW A PRIVATE COMMON DRIVEWAY SLOPE OF 10% WHERE 8% IS THE MAXIMUM (GRANTED MARCH 20, 2024).
- FIGURE 20–3 TO ALLOW PRIVATE COMMON DRIVEWAY SIDE SLOPES IN EXCESS OF THE 4:1 MAXIMUM (GRANTED MARCH 20, 2024).
- SECTION 26.02(1) TO ALLOW OVERHEAD UTILITIES ON A PORTION OF THE PRIVATE COMMON DRIVEWAY WHERE UNDERGROUND IS REQUIRED (GRANTED MARCH 20, 2024).
- SECTION 17.03 TO NOT REQUIRE FLOOR PLANS (GRANTED MAY 15, 2024).
- SECTION 29.01 TO NOT REQUIRE SPRINKLER SYSTEMS (GRANTED MAY 15, 2024).
- SECTION 12.08(12) AND (22) AND SECTION 16.03(1) AND (16) TO NOT SHOW WELLS AND SEPTICS ON ABUTTING PROPERTIES (GRANTED MAY 15, 2024).
6. OVERALL AREA OF DISTURBANCE UNDER 100,000 S.F., NHDES ALTERATION OF TERRAIN PERMIT NOT REQUIRED.
7. NHDOT DRIVEWAY PERMIT NOT REQUIRED.
8. NHDES SUBDIVISION AND SUBSURFACE APPROVALS REQUIRED.
9. AREA OF DISTURBANCE OVER 43,560 SF. COVERAGE UNDER EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT REQUIRED (NOI TO BE PREPARED AND SUBMITTED BY CONTRACTOR, SWPPP AND INSPECTIONS TO BE PREPARED AND PERFORMED BY CONTRACTOR).
10. CONSTRUCTION WILL REQUIRE STREET EXCAVATION AND DRIVEWAY PERMITS FROM THE CITY OF CONCORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THESE PERMITS PRIOR TO CONSTRUCTION.
11. PAVEMENT MARKINGS SHALL BE CONSTRUCTED USING WHITE, YELLOW OR BLUE TRAFFIC PAINT (WHERE SPECIFIED) MEETING THE REQUIREMENTS OF AASHTO M248, TYPE F OR EQUAL.
12. PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
13. ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE CITY OF CONCORD & NHDOT'S STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
14. ALL BONDS AND FEES SHALL BE PAID/POSTED PRIOR TO INITIATING CONSTRUCTION.
15. THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.
16. DEVIATION FROM THE UNITS AND DRIVEWAY LAYOUTS SHOWN HERE SHALL REQUIRE AN AMENDED APPROVAL FROM THE CITY OF CONCORD. ALL UNIT AND DRIVEWAY CONSTRUCTION SHALL MEET ALL APPLICABLE CODES AND REGULATIONS. ALL UNIT OWNERS SHALL SUBMIT BUILDING AND DRIVEWAY PLANS TO THE HOA FOR APPROVAL PRIOR TO SUBMISSION TO THE CITY FOR PERMITS.
17. THERE SHALL BE A MINIMUM 50' SEPARATION BETWEEN BUILDINGS AND EACH UNIT SHALL HAVE A DEEDED 500 S.F. PRIVATE YARD AREA MAINTAINED BY THE RESPECTIVE UNITS OWNERS. LIMITED COMMON AREAS ("LCA") SHOWN HEREON SHALL BE EXCLUSIVE OF BUILDINGS AND ASSOCIATED 500 S.F. PRIVATE YARDS.
18. THE COMMON OPEN SPACE, COMMON PRIVATE DRIVEWAY AND ALL LIMITED COMMON AREAS SHALL BE SUBJECT TO BLANKET ACCESS, GRADING, DRAINAGE, UTILITY AND LANDSCAPE EASEMENTS FOR THE BENEFIT OF THE HOA. THIS SHALL INCLUDE ALL ANY PROTECTIVE WELL RADII.
19. OPEN SPACE SHALL NOT BE FURTHER SUBDIVIDED OR DEVELOPED BEYOND AS DESCRIBED IN THIS PLAN SET.
20. SUNNI LANE AND ADJACENT SHOULDERS AND SLOPES TO THE LIMITS SHOWN ON THIS PLAN SHALL BE CONSIDERED COMMON AREA.
21. THE CONTRACTOR SHALL CONVEY A PRE-CONSTRUCTION MEETING WITH THE CONCORD ENGINEERING SERVICES DIVISION TO DISCUSS CONSTRUCTION REQUIREMENTS, SITE INSPECTIONS, FEES, SCHEDULES, ETC.
22. THE COMMON PRIVATE DRIVEWAY, ASSOCIATED UTILITIES AND ALL DRAINAGE SHOWN IN THIS PLAN SET SHALL BE SUBSTANTIALLY COMPLETE PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
23. ALL ABUTTING PROPERTY LINES SHOWN ON THIS PLAN SHALL BE CONSIDERED APPROXIMATE.
24. THE WAY SHOWN ON THIS PLAN AND NAMED AS SUNNI LANE IS INTENDED BY THE SUBDIVIDER AND OWNER AND APPLICANT, EASTERN DEVELOPMENT, LLC AND THE CITY OF CONCORD PLANNING BOARD TO REMAIN AS A PRIVATE WAY. THE RECORDING OF THIS PLAT SHALL NOT BE CONSTRUED AS AN OFFER OF DEDICATION OF THE WAY NAMED AS SUNNI LANE AS A PUBLIC HIGHWAY UNDER THE NEW CONCORD COMMON LAW OF DEDICATION AND ACCEPTANCE, NOR SHALL APPROVAL OF THIS PLAT CONSTITUTE AN APPROVAL OF THE WAY NAMED AS SUNNI LANE AS A PUBLIC STREET PURSUANT TO RSA 674:40.
25. SHOP DRAWINGS/SUBMITTALS FOR ALL WORK IN THE RIGHT OF WAY SHALL BE REVIEWED AND APPROVED BY THE CONCORD ENGINEERING SERVICES DIVISION.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT DIGITAL AS-BUILT DRAWINGS TO THE CONCORD ENGINEERING SERVICES DIVISION. SAID AS-BUILTS SHALL BE TO THE SATISFACTION OF THE CONCORD ENGINEERING SERVICES DIVISION AND BE IN CONFORMANCE WITH ALL CITY REQUIREMENTS. SAID AS-BUILT SHALL BE REQUIRED PRIOR TO THE RELEASE OF ANY FINANCIAL GUARANTEES IN ACCORDANCE WITH SECTION 30.05 OF THE CONCORD SUBDIVISION REGULATIONS.

APPROVED
UNDER THE PROVISIONS OF R.S.A 674:35 AND 674:36
PLANNING BOARD
CITY OF CONCORD, NEW HAMPSHIRE
IN ACCORDANCE WITH A VOTE OF THE BOARD DATED:

APPROVAL OF THIS PLAT IS LIMITED TO LOTS AS SHOWN

CLERK _____ CHAIR _____

Surveyor:


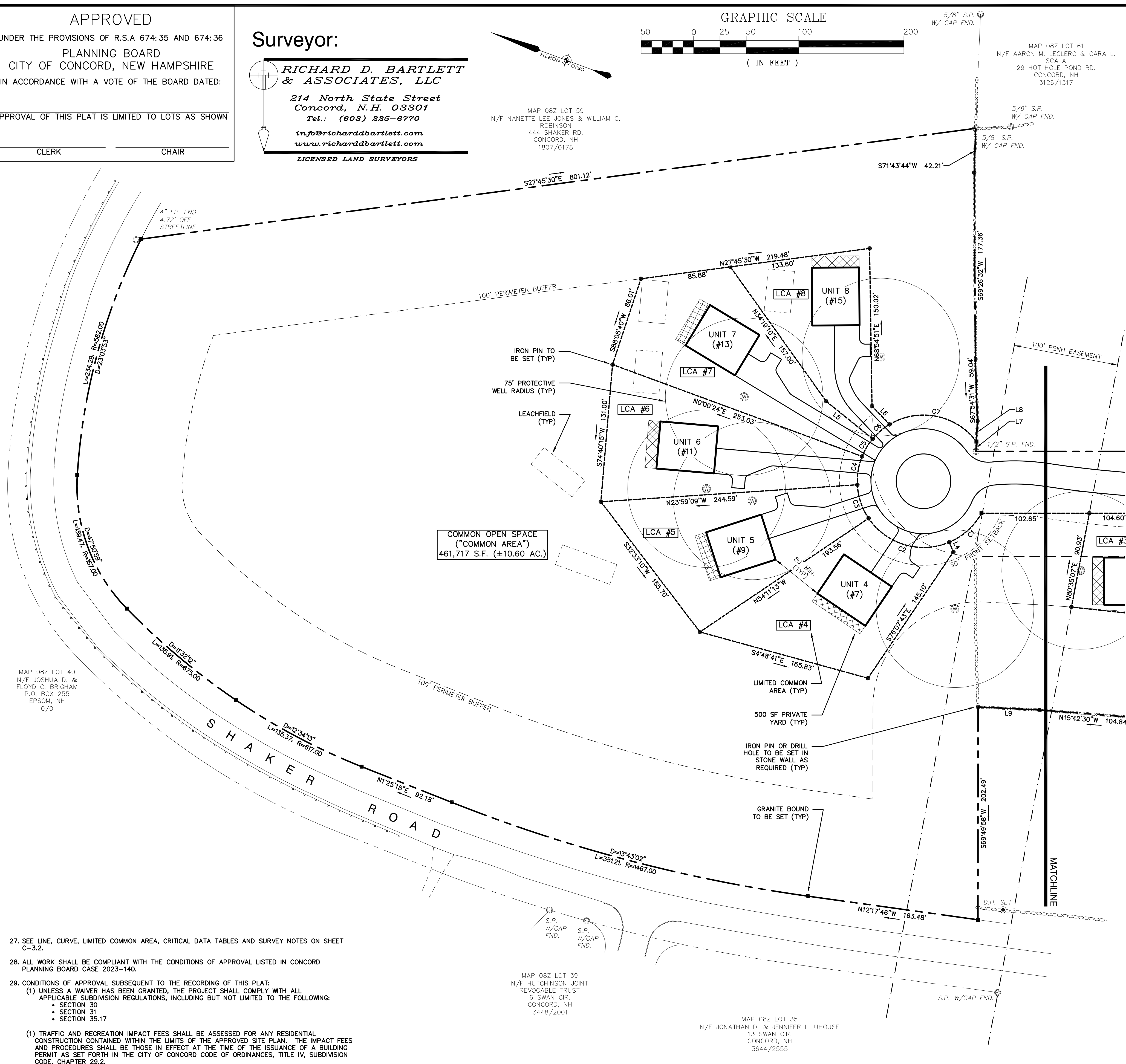


**RICHARD D. BARTLETT
& ASSOCIATES, LLC**

214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770

info@richarddbartlett.com
www.richarddbartlett.com

LICENSED LAND SURVEYORS



ALTUS
ENGINEERING

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

OCTOBER 21, 2024

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/2
1	ADDED LCA'S	EBS	10/18/2
2	REVISED PER COMMENTS	EBS	02/23/2
3	CONDITIONS OF APPROVAL	EBS	06/10/2
4	REVISED PER COMMENTS	EBS	07/30/2
5	REVISED PER COMMENTS	EBS	10/21/2

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: 5470-SITE.dwg

SCALE:

$$\begin{array}{l} 22'' \times 34'' - 1'' = 50' \\ 11'' \times 17'' - 1'' = 100' \end{array}$$

OWNER

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

**GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH**

TITLE:

CONDOMINIUM SITE PLAN

SHEET NUMBER:

C-3.1

SURVEY NOTES

1. LOT AREA: 639,794 S.F. (±14.69 AC.)
2. ZONE: RO (OPEN SPACE RESIDENTIAL DISTRICT)
3. DEED REFERENCE: MCRD BOOK 3866, PAGE 2039
4. THE PARCEL IS IDENTIFIED AS AS CONCORD ASSESSOR'S MAP 11Z, LOT 25-1.
5. HORIZONTAL DATUM NH STATE PLANE NAD 83, VERTICAL DATUM NAVD 88.
6. PARCEL IS IN ZONAL X CWS FIRM PANEL 33013C0345E DATED APRIL 19, 2020.
7. THOMAS E. SOKOLOSKI, P.E. #127 of TJS ENVIRONMENTAL CONSULTANTS, LLC EVALUATED THE SITE ON JANUARY 15, 2020 AND FOUND FOUND NO WETLANDS.
8. THESE PLANS ARE BASED ON SURVEY PLANS TITLED "EXISTING CONDITIONS PLAT PREPARED FOR BARTLETT & ERIN BERRY" DATED MARCH 11, 2020 PREPARED BY RICHARD D. BARTLETT AND ASSOCIATES, LLC. ALL "FOUND" AND "SET" MONUMENTS WERE DONE SOY BY RICHARD D. BARTLETT AND ASSOCIATES, LLC. NO SURVEY WORK OF ANY KIND WAS PERFORMED BY ALTUS ENGINEERING.
9. THE ABOVE REFERENCED SURVEY BY RICHARD D. BARTLETT AND ASSOCIATES, LLC WAS BY TOTAL STATION ON JUNE 13 & 14, 2017 WITH CONTROL TRAVERSE ERROR OF CLOSURE OF 1:96,489. ADDITIONAL SURVEY BETWEEN THE DATES OF JANUARY 27 AND FEBRUARY 5, 2020 WITH A TOTAL CONTROL TRAVERSE ERROR OF CLOSURE OF 1:20,473.
10. REFERENCE PLAT ENTITLED "SUBDIVISION OF LAND BELONGING TO MARVIN H. CASWELL, FLORENCE A. MARTIN, AND PEARL STORTSROM" DATED MAY 22, 1982 BY GILBERT C. CASTLE AND RECORDED AT MCRD AS PLAN NO. 7152.










APPROVED
UNDER THE PROVISIONS OF R.S.A 674:35 AND 674:36
PLANNING BOARD
CITY OF CONCORD, NEW HAMPSHIRE
IN ACCORDANCE WITH A VOTE OF THE BOARD DATED:

APPROVAL OF THIS PLAT IS LIMITED TO LOTS AS SHOWN

CLERK

CHAIR

LEGEND

-  **PROPERTY LINE**
 **BUILDING SETBACK**
 **100' BUFFER**
 **LIMITED COMMON AREA**
 **EASEMENT**
    **MONUMENT AS DESCRIBED**

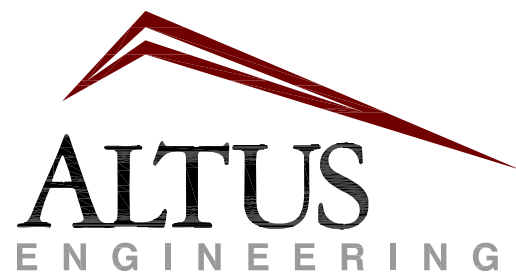
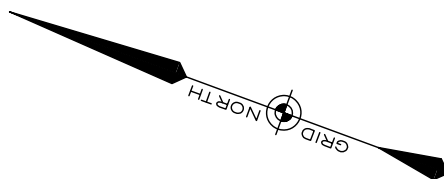
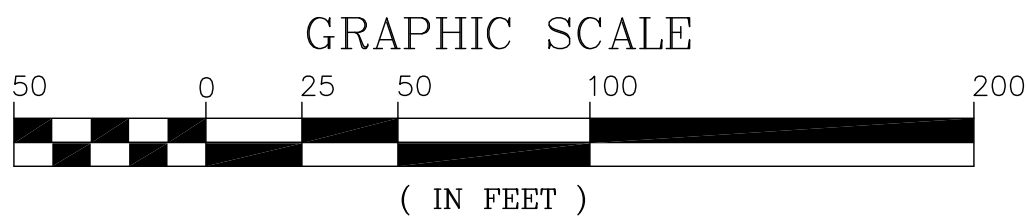
Surveyor:

*RICHARD D. BARTLETT
& ASSOCIATES, LLC*

214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770

info@richarddbartlett.com
www.richarddbartlett.com

LICENSED LAND SURVEYORS



133 Court Street
(603) 433-2335

Portsmouth, NH 03801
www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

JANUARY 9, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/2012
1	ADDED LCA'S	EBS	10/18/2012
2	REVISED PER COMMENTS	EBS	02/23/2013
3	CONDITIONS OF APPROVAL	EBS	06/10/2012
4	REVISED PER COMMENTS	EBS	07/30/2012
5	REVISED PER COMMENTS	EBS	10/21/2012
6	REVISED L13	EBS	01/09/2013

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: 5470-SITE.dwg

SCALE:

$$\begin{array}{r} 22'' \times 34'' - 1'' = 50' \\ 11'' \times 17'' - 1'' = 100' \end{array}$$

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GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION

TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

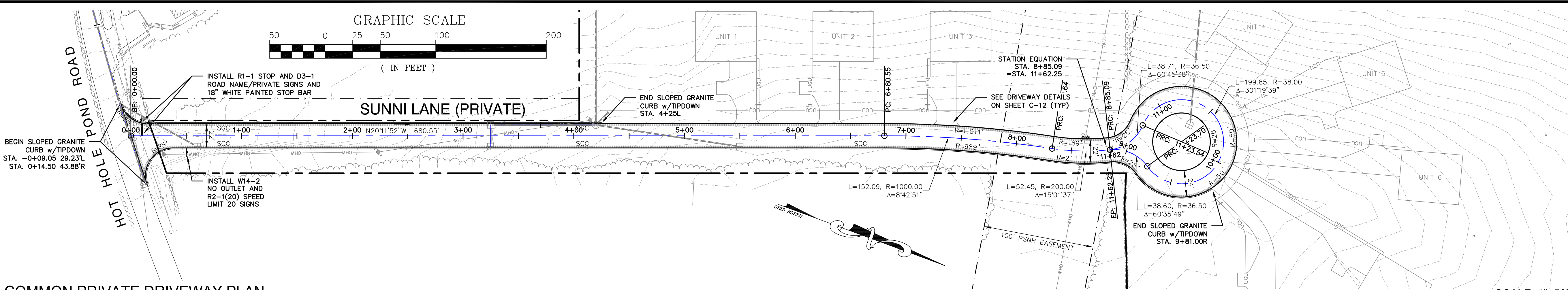
TITLE:

CONDOMINIUM SITE PLAN

SHEET NUMBER:

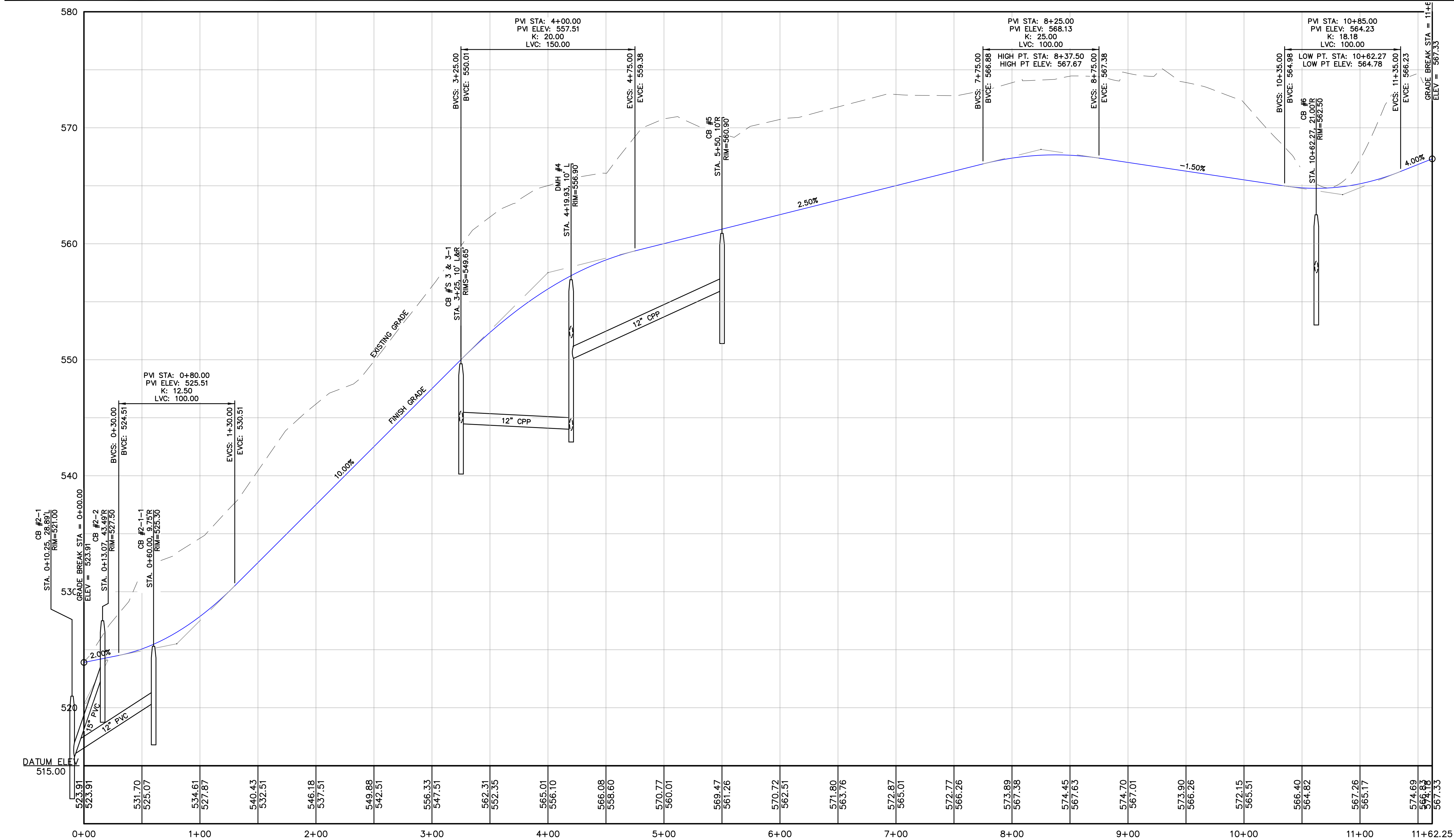
C-3.2

CRITICAL DATA		LIMITED COMMON AREAS			CURVE TABLE					LINE TABLE		
LOT AREA	639,794 SF ±14.69 AC.	UNIT	ADDRESS	AREA (SF)	CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD LENGTH	LINE	BEARING	LENGTH
"BUILDABLE" LAND	270,668 SF	1	#1	5,571	C1	63.00'	41.99'	N62°13'27"W	41.21'	L1	S69°48'08"W	69.69'
DENSITY (PERMITTED)	12 UNITS	2	#3	7,106	C2	63.00'	86.80'	N03°39'33"W	80.10'	L2	S69°48'08"W	103.21'
DENSITY (PROPOSED)	8 UNITS	3	#5	7,925	C3	63.00'	34.05'	N51°17'40"E	33.63'	L3	S69°48'08"W	102.43'
UNIT AREA (TYP)	2,475 SF	4	#7	14,878	C4	63.00'	27.57'	N79°18'54"E	27.36'	L4	N46°52'07"E	10.00'
COMMON OPEN SPACE	461,717 SF	5	#9	15,996	C5	63.00'	19.53'	S79°15'56"E	19.45'	L5	N18°49'12"E	56.90'
EXISTING BUILDINGS	NONE	6	#11	16,237	C6	63.00'	21.26'	S60°43'00"E	21.16'	L6	N26°12'14"E	24.16'
EXISTING IMPERVIOUS	NONE	7	#13	17,028	C7	63.00'	92.31'	S09°04'18"E	84.27'	L7	N72°34'28"E	9.41'
		8	#15	10,482						L8	N72°34'28"E	19.51'
										L9	S17°22'10"E	58.29'
										L10	S14°02'53"E	30.19'
										L11	S11°14'25"E	61.15'
										L12	S27°32'45"E	62.25'
										L13	S23°33'35"E	55.26'
										L14	S20°56'23"E	69.04'
										L15	S13°04'50"E	64.70'
										L16	N50°49'20"E	50.45'



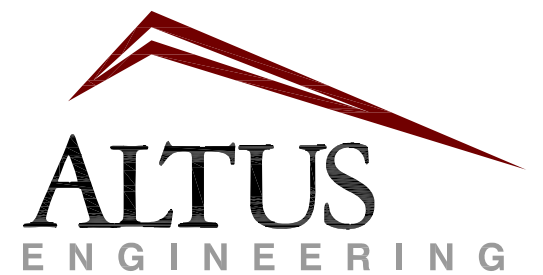
COMMON PRIVATE DRIVEWAY PLAN

SCALE: 1"=50'



COMMON PRIVATE DRIVEWAY PROFILE

SCALE: 1"=50' H, 1"=5' V



133 Court Street
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Portsmouth, NH 03801
www.altus-eng.com

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FEBRUARY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/23
1	ADJUSTED ALIGNMENT	EBS	10/18/23
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3	CONDITIONS OF APPROVAL	EBS	06/10/24
4	REVISED PER COMMENTS	EBS	10/21/24
5	ADDED OFFSITE	EBS	12/17/24
6	REVISED OFFSITE	EBS	02/19/25

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APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

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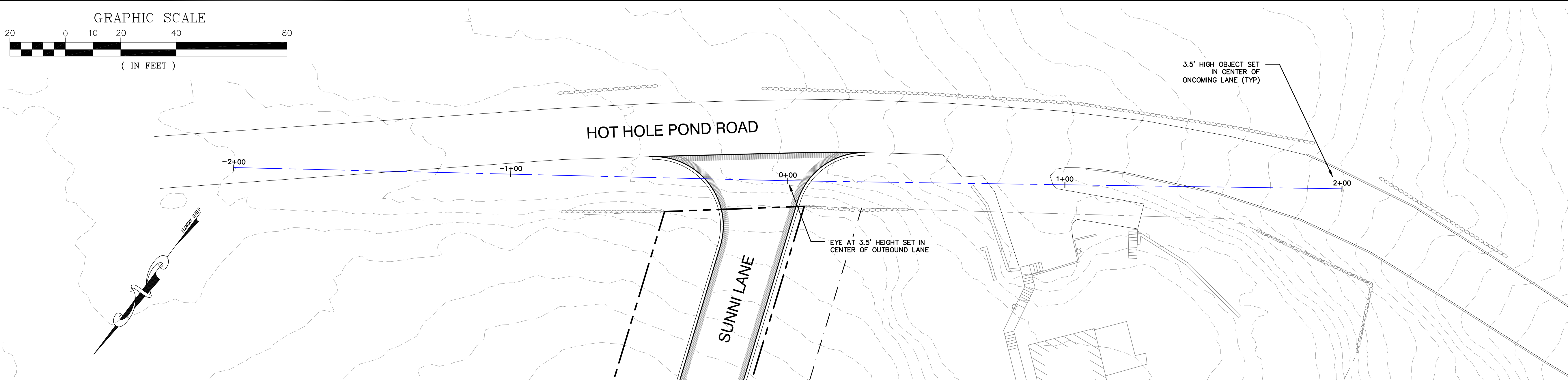
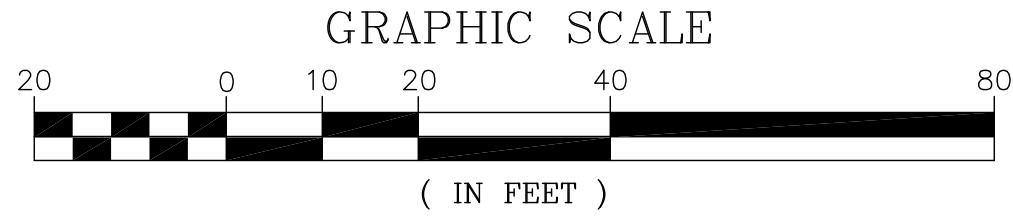
GRANITE RIDGE
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TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DRIVEWAY PLAN
AND PROFILE

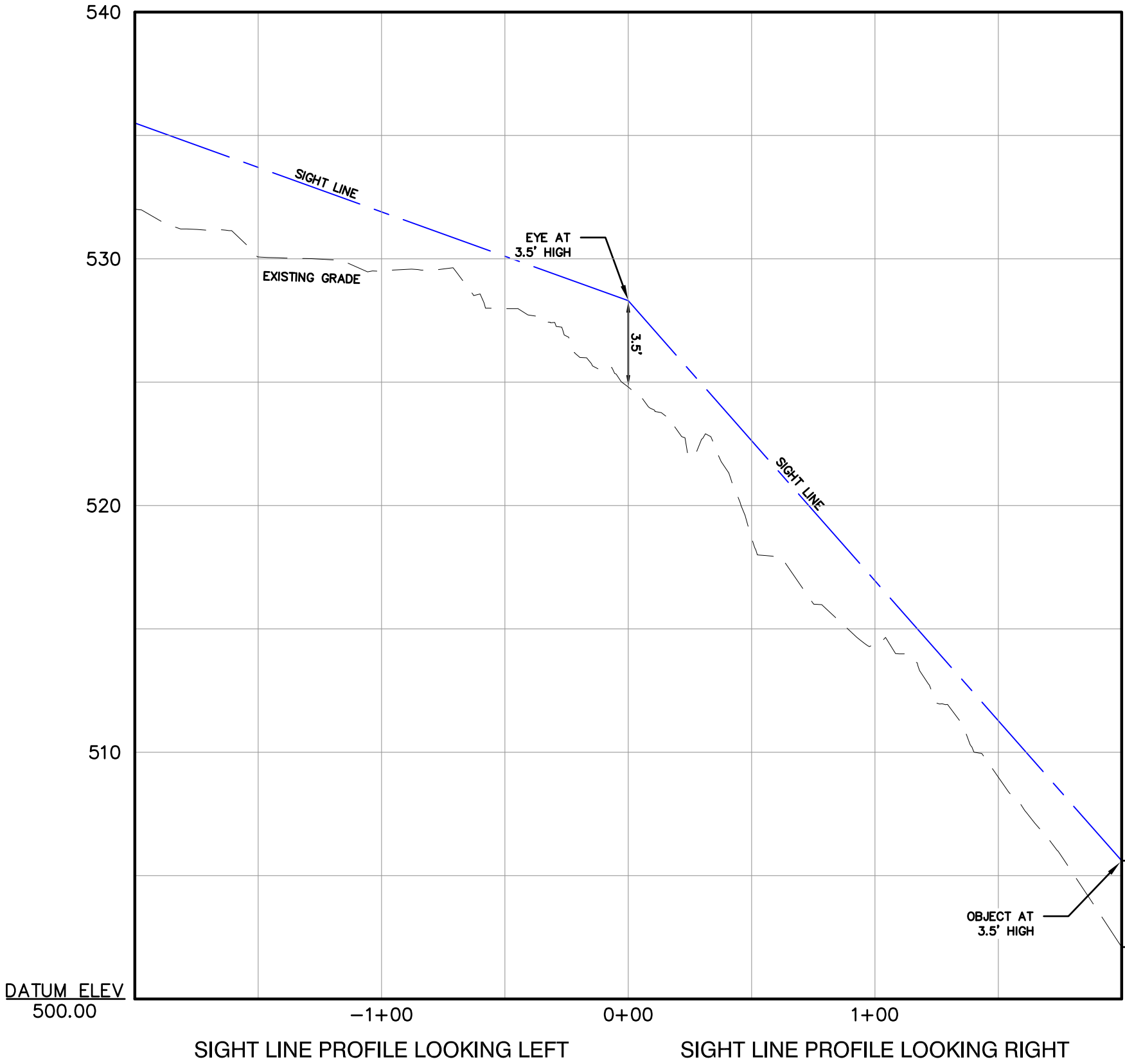
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C-4.1

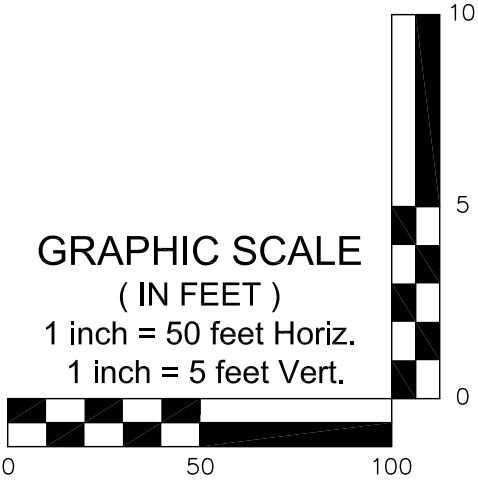


COMMON PRIVATE DRIVEWAY ACCESS PLAN

SCALE: 1"=20'



SIGHT DISTANCE PROFILE



SCALE: 1"=50' H, 1"=5' V

ALTUS
ENGINEERING

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ISSUE DATE: **DECEMBER 17, 2024**

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	CONDITIONS OF APPROVAL	EBS 06/10/24
1	REV. PROJECT NAME	EBS 12/17/24

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

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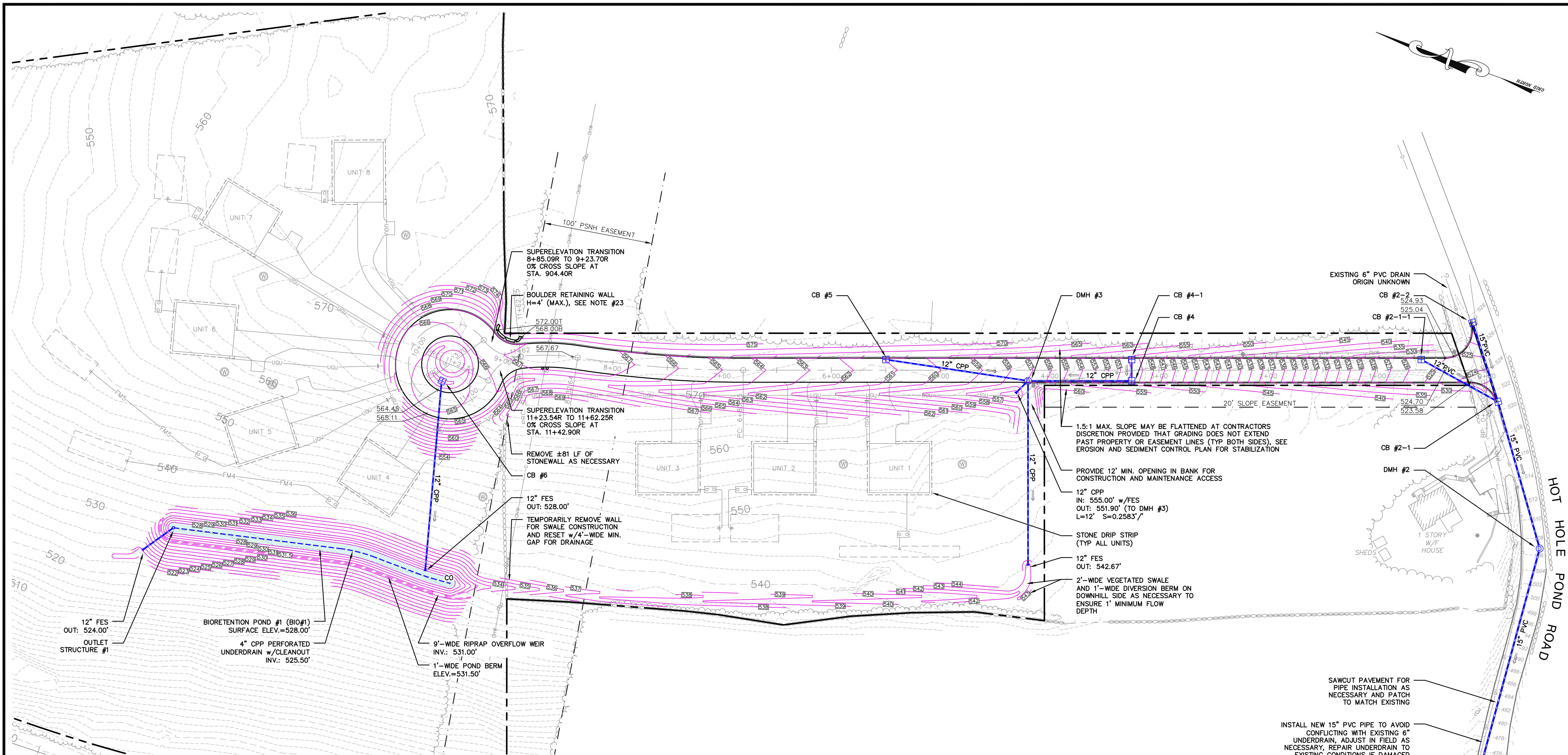
**GRANITE RIDGE
ESTATES**
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

**ROADWAY
ACCESS PLAN**

SHEET NUMBER:

C-4.2



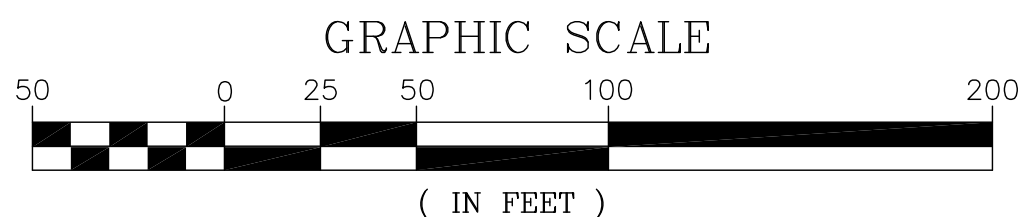
GRADING AND DRAINAGE NOTES

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- PROJECT SUBJECT TO EPA NPDES PHASE II, NOI, SWPPP, AND MINIMUM WEEKLY INSPECTIONS REQUIRED. NOI TO BE PREPARED AND SUBMITTED BY CONTRACTOR, SWPPP AND INSPECTIONS TO BE PREPARED AND PERFORMED BY CONTRACTOR. CONTRACTOR SHALL FILE NOI WITH EPA A MINIMUM OF 2 WEEKS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL READ AND FOLLOW ALL CONDITIONS OF APPROVAL IN THE SITE'S LOCAL, STATE AND FEDERAL PERMITS.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, DESIGN ENGINEER, EARTHWORK CONTRACTOR, CONCORD GENERAL SERVICES DEPARTMENT AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY AND NO LESS THAN TWO WEEKS AFTER THE POSTING OF ALL REQUIRED BONDS AND PERFORMANCE SURETIES.
- ALL BONDS AND FEES SHALL BE PAID/POSTED PRIOR TO INITIATING CONSTRUCTION.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBMS) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE LOCAL MUNICIPALITY & NHDOT'S STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. SYMBOLS MAY NOT BE INDICATIVE OF THE CENTER OF A STRUCTURE, PARTICULARLY WHEN SHOWN ADJACENT TO A CURB LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- ROCK AND LEDGE SHALL BE REMOVED FROM THE ROADWAY TO AT LEAST 2' BELOW FINISH GRADE.
- DRAINAGE PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE ("CPP", TYPE ADS N-12, HANCOR H1-Q OR APPROVED EQUAL) OR SDR 35 PVC ("PVC") AS SPECIFIED.
- ALL FLARED END SECTIONS (FES) SHALL BE METAL OR CONCRETE. HDPE END SECTIONS SHALL NOT BE ACCEPTED.
- ALL PIPES WITH SLOPES OF 9% (0.09'/') OR GREATER SHALL BE INSTALLED WITH ANTI-SEEP COLLARS AT REGULAR INTERVALS SPACED NO LESS THAN 75' APART ALONG THE PIPE RUN.
- ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
- ALL SPOT GRADES ARE AT FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
- ALL DRAINAGE INFRASTRUCTURE CONSTRUCTED WITHIN THE PROPERTY SHALL BE PRIVATELY OWNED AND MAINTAINED IN PERPETUITY.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- ANY RETAINING WALL IN EXCESS OF FOUR FEET IN HEIGHT SHALL REQUIRE A BUILDING PERMIT AND SHALL BE BUILT IN ACCORDANCE WITH A DESIGN STAMPED BY A NH LICENSED ENGINEER FAMILIAR WITH WALL DESIGN.
- SEE SHEET C-6 FOR EROSION & SEDIMENT CONTROL MEASURES AND SHEET C-11 FOR LEGEND.

DRAINAGE SCHEDULE

OUTLET STRUCTURE #1 30" I.D. CONCRETE BEEHIVE GRATE RIM=530.50 IN: 525.50 (4" UNDERDRAIN) IN: 528.90 (10" ORIFICE x2) OUT: 525.00 (TO FES) 12" CPP w/FES L=±32' S=0.0313'/' DMH #2 (PER CITY DETAIL SD-2) RIM=506.75 IN: 501.50 (15" FROM CB#2-1) OUT: 501.40 (TO FES) 15" PVC w/FES L=±262' S=±0.1370'/' (SEE NOTE #17) CB #2-1 5' I.D. CONCRETE w/3' SUMP TYPE F GRATE RIM=521.00 IN: 516.00 (12" FR. CB #2-1-1) IN: 515.75 (15" FROM CB #2-2) OUT: 515.65 (TO CB #DMH #2) 15" PVC L=136' S=0.1040'/' (SEE NOTE #17) CB #2-1-1 4' I.D. CONCRETE w/3' SUMP TYPE F GRATE RIM=525.30 OUT: 520.30 (TO CB#2-1) 12" PVC L=±77' S=0.0558'/'	CB #2-2 4' I.D. CONCRETE w/3' SUMP TYPE B GRATE RIM=527.50 OUT: 522.25 (TO CB #2-1) 15" PVC L=73' S=0.0890'/' (SEE NOTE #17) DMH #3 4' I.D. RIM=556.90' IN: 544.01 (12" FROM CB#4) IN: 550.14 (12" FROM CB#5) IN: 551.90 (12" FROM FES) OUT: 543.91 (TO SWALE) 12" CPP w/FES L=±166' S=0.0075'/' CB #4 4' I.D. CONCRETE w/3' SUMP TYPE F GRATE RIM=549.65 IN: 544.57 (12" FROM CB#4) IN: 544.47 (TO DMH #3) 12" CPP L=±92' S=0.005'/' CB #4-1 4' I.D. CONCRETE w/3' SUMP TYPE F GRATE RIM=544.65 OUT: 544.65 (TO CB#4) 12" CPP L=±16' S=0.005'/'	CB #5 4' I.D. CONCRETE w/3' SUMP TYPE B GRATE RIM=560.90 OUT: 555.90 (TO DMH#3) 12" CPP L=±128' S=0.045'/' CB #6 4' I.D. CONCRETE w/3' SUMP TYPE B GRATE RIM=562.50 OUT: 557.50 (TO FES) 12" CPP w/FES L=±172' S=0.1715'/' (SEE NOTE #17)
--	---	---

- SAWCUT PAVEMENT FOR PIPE INSTALLATION AS NECESSARY AND PATCH TO MATCH EXISTING
- INSTALL NEW 15" PVC PIPE TO AVOID CONFLICTING WITH EXISTING 6" UNDERDRAIN, ADJUST IN FIELD AS NECESSARY, REPAIR UNDERDRAIN TO EXISTING CONDITIONS IF DAMAGED
- RECONSTRUCT ANY EXISTING RIPRAP, SWALES AND VEGETATION DISTURBED BY THE WORK TO MATCH PRE-EXISTING CONDITIONS



NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

MARCH 18, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/23
1	ADJUSTED DRIVEWAY	EBS	10/18/23
2	REVISED PER COMMENTS	EBS	02/23/24
3	CONDITIONS OF APPROVAL	EBS	06/10/24
4	REVISED PER COMMENTS	EBS	07/30/24
5	REVISED PER COMMENTS	EBS	10/21/24
6	ADDED OFFSITE DRAINAGE	EBS	12/17/24
7	REV. OFFSITE DRAINAGE	EBS	02/19/25
8	REV. DMH #3 OUTFALL	EBS	03/18/25

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE:

22" x 34" - 1" = 50'
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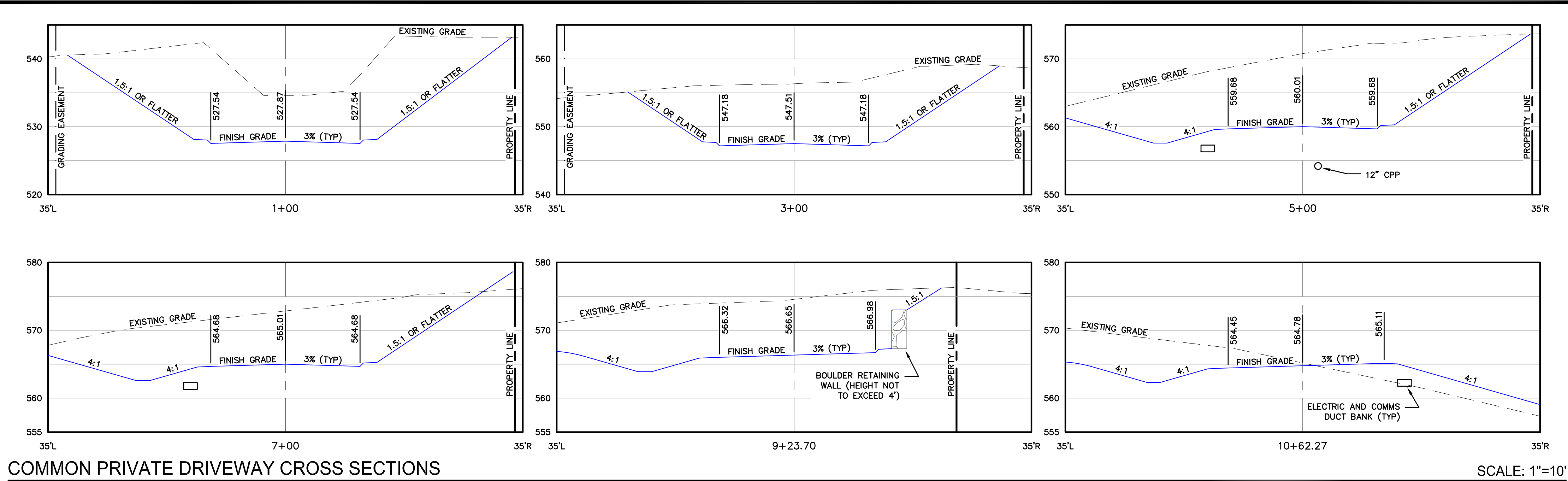
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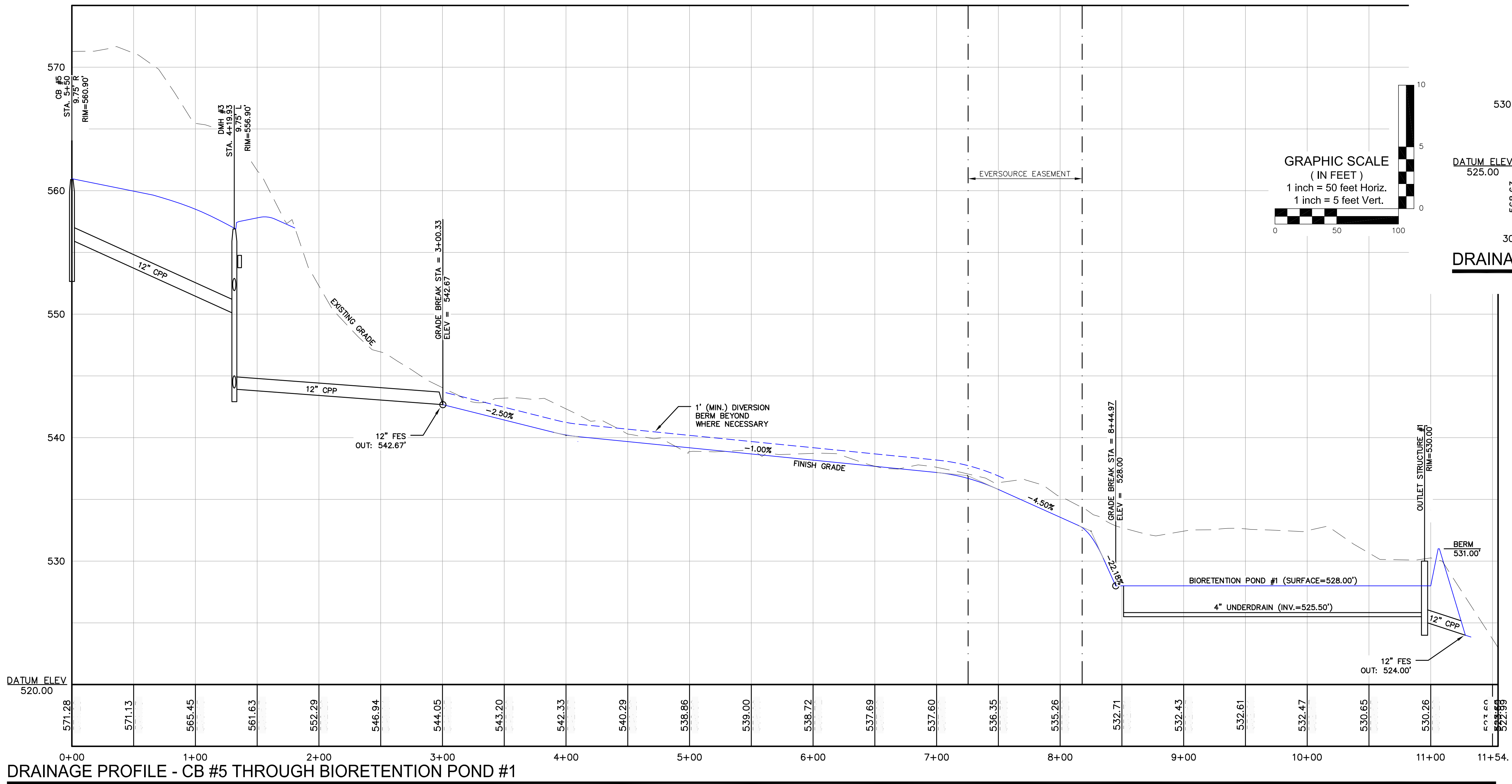
GRADING AND
DRAINAGE PLAN

SHEET NUMBER:

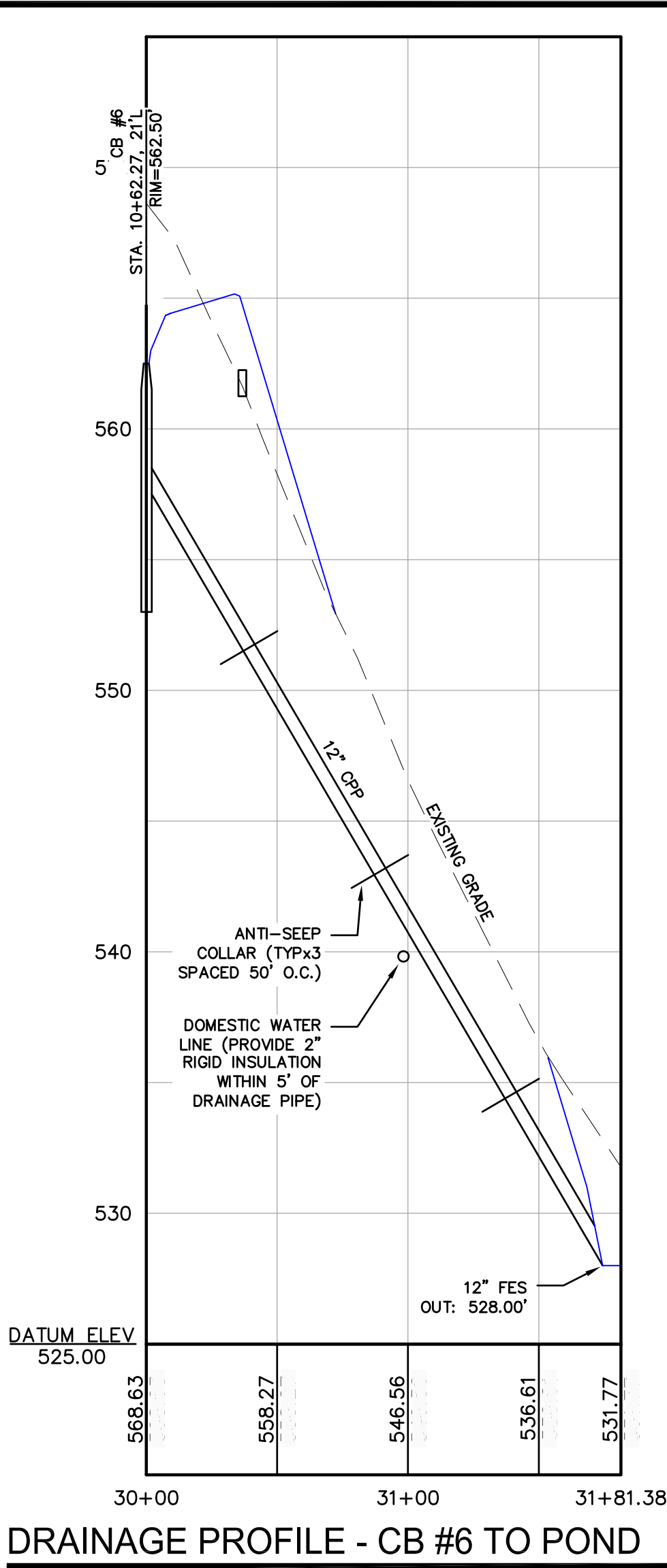
C-5.1



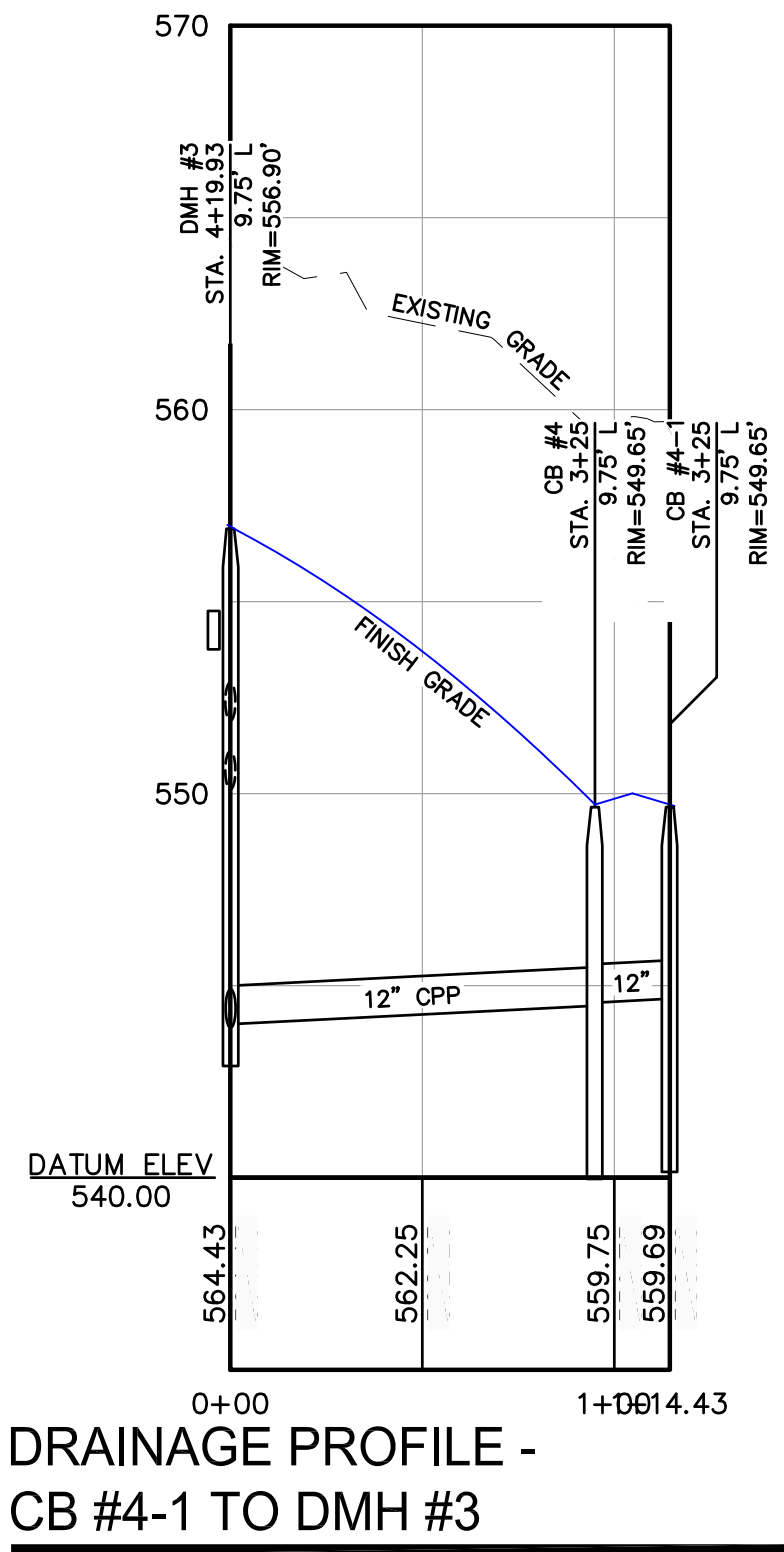
COMMON PRIVATE DRIVEWAY CROSS SECTIONS



DRAINAGE PROFILE - CB #5 THROUGH BIORETENTION POND #1



DRAINAGE PROFILE - CB #6 TO POND



DRAINAGE PROFILE - CB #4-1 TO DMH #3

NOT FOR CONSTRUCTION

ISSUED FOR: **FINAL APPROVAL**

ISSUE DATE: **DECEMBER 17, 2024**

REVISIONS

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0	INITIAL SUBMISSION	EBS	09/20/23
1	REVISED PER COMMENTS	EBS	02/23/24
2	CONDITIONS OF APPROVAL	EBS	06/10/24
3	REVISED PER COMMENTS	EBS	10/21/24
4	CORRECTED TITLE	EBS	12/17/24

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

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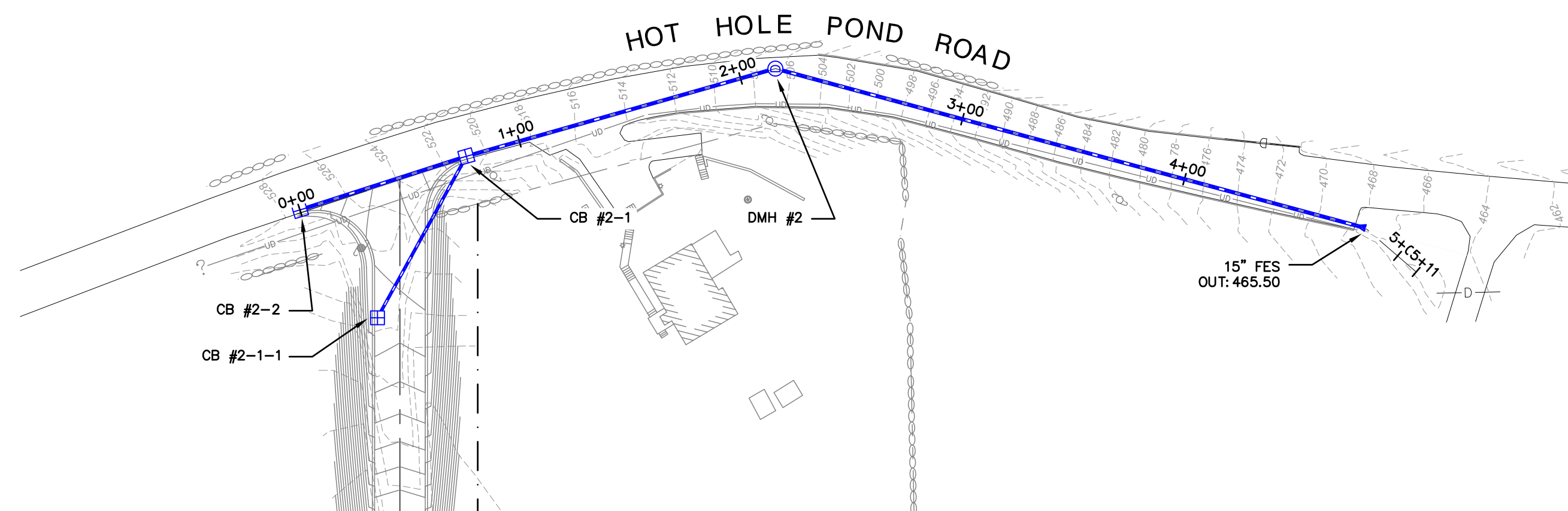
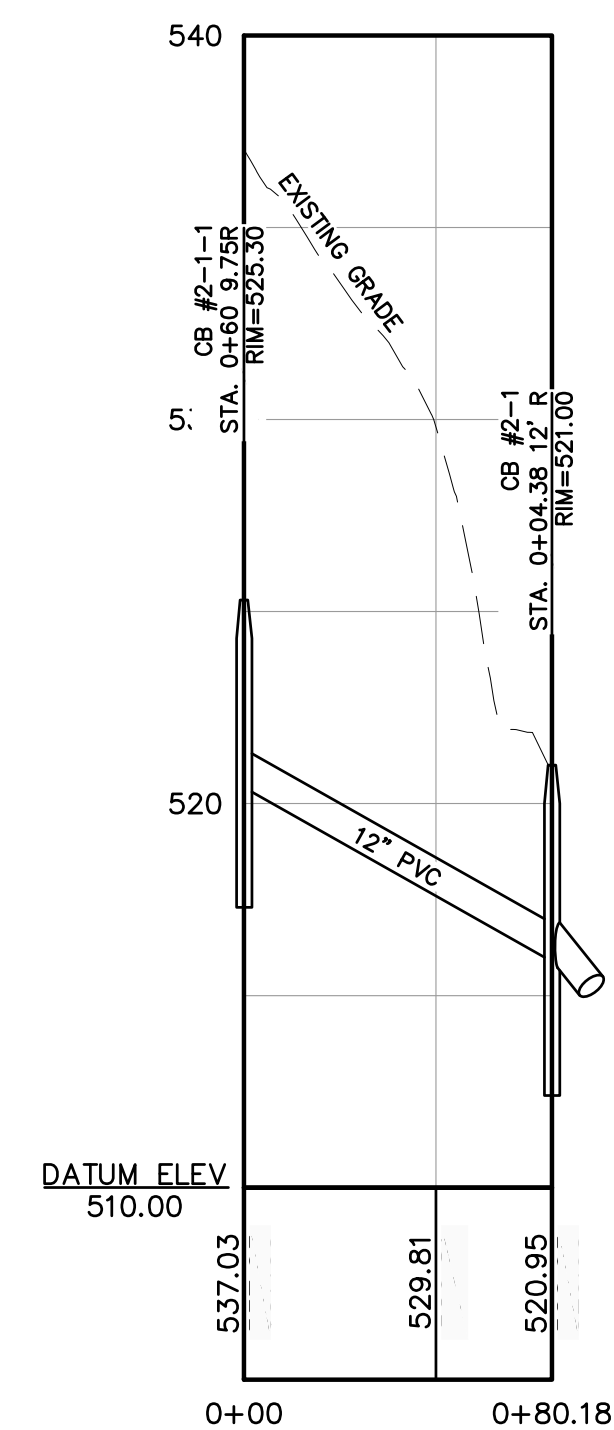
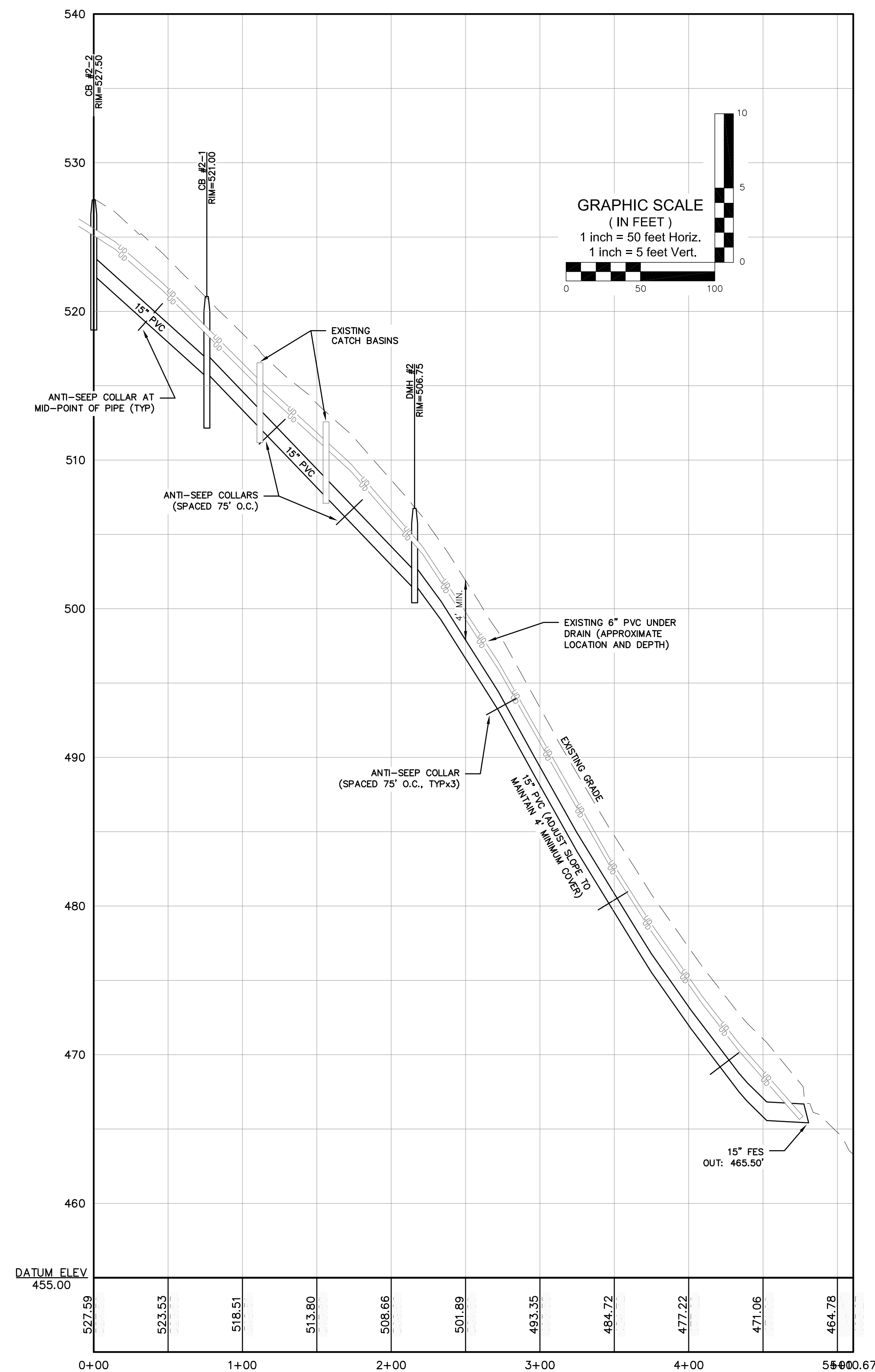
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CONCORD, NH

TITLE:
DRAINAGE PROFILES AND CROSS SECTIONS

SHEET NUMBER:
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1	REVISED PER COMMENTS	EBS	02/19/21

DRAWN BY: _____ EBS
APPROVED BY: _____ EBS
DRAWING FILE: _____ 5470-SITE.dwg

SCALE:
 $22'' \times 34'' - 1'' = 50'$
 $11'' \times 17'' - 1'' = 100'$

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

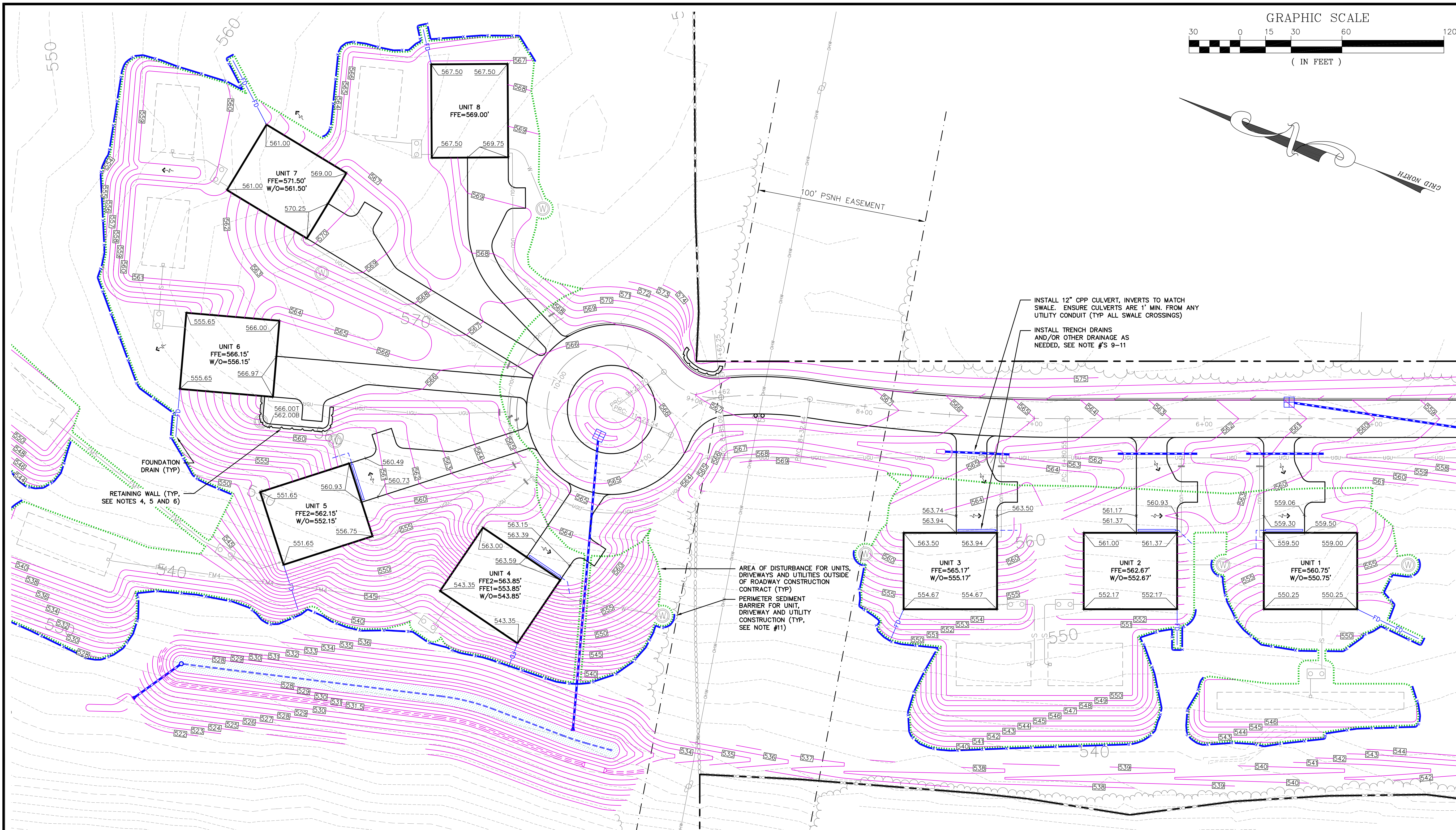
PROJECT:
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DRAINAGE
PROFILES

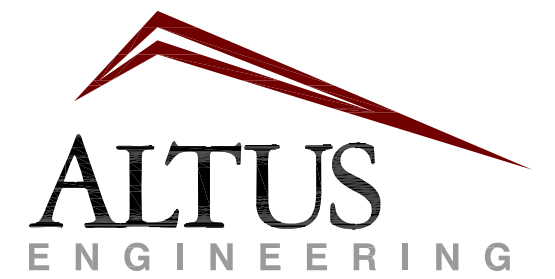
SHEET NUMBER:

C-5.3



UNIT DEVELOPMENT NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL UNIT OWNERS TO COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO, MUNICIPAL BUILDING CODES, SETBACKS, HOA RULES AND STATE SEPTIC REGULATIONS. DEVIATIONS FROM THIS PLAN WILL REQUIRE APPROVAL FROM THE CONCORD PLANNING BOARD.
- AREA OF NON-CONTIGUOUS EARTH DISTURBANCE FOR THE CONSTRUCTION OF UNITS, DRIVEWAYS, WELLS AND SEPTIC SYSTEMS BEYOND THAT REQUIRED FOR COMMON ROADWAY AND ASSOCIATED DRAINAGE INFRASTRUCTURE = 129,510 S.F. UNITS AND ROADWAY INFRASTRUCTURE ARE TO BE CONSTRUCTED SEPARATELY.
- UNITS TO BE SERVICED BY UNDERGROUND ELECTRIC AND COMMUNICATIONS UTILITIES AND PRIVATE WELLS AND PRIVATE SUBSURFACE SANITARY DISPOSAL SYSTEMS. UNIT OWNERS SHALL BE RESPONSIBLE FOR COORDINATION WITH APPROPRIATE UTILITY COMPANIES AND OBTAINING ALL NECESSARY PERMITS. UTILITY CONNECTION POINTS AT BUILDINGS ARE CONCEPTUAL AND MAY BE ADJUSTED IN THE FIELD AS NECESSARY PROVIDED ALL INSTALLATIONS MEET ALL APPLICABLE CODES AND REGULATIONS.
- ANY RETAINING WALL IN EXCESS OF FOUR FEET IN HEIGHT SHALL BE BUILT IN ACCORDANCE WITH A DESIGN STAMPED BY A NH LICENSED ENGINEER FAMILIAR WITH WALL DESIGN.
- ALL RETAINING WALLS SHALL BE CONSTRUCTED WITH APPROPRIATE DRAINAGE BEHIND THE WALL IN ORDER TO MINIMIZE THE IMPACT OF GROUNDWATER TO THE WALL AND ITS FOUNDATION. WALL UNDERDRAINS MAY BE CONNECTED TO BUILDING FOUNDATION DRAINS OR DIRECTED TO OUTFALLS ON STABLE, WELL VEGETATED GROUND, DO NOT CONFLICT WITH ANY UTILITIES, AND ARE AT LEAST 5' FROM A SEPTIC TANK OR LEACHFIELD FOR SOLID PIPE OR 25' FOR PERFORATED PIPE OUTFALLS.
- RETAINING WALLS AND GRADING THAT EXTEND PAST THE BOUNDARY OF A LIMITED COMMON AREA SHALL REQUIRE APPROVAL FROM THE HOA PRIOR TO CONSTRUCTION. SAID APPROVAL IS NOT GUARANTEED AND INDIVIDUAL UNIT OWNERS AND THEIR CONTRACTORS ARE STRONGLY ENCOURAGED TO CONTAIN ALL GRADING WITHIN THE LIMITS OF THE RELEVANT LIMITED COMMON AREA.
- ALL HOUSES SHALL BE EQUIPPED WITH STONE DRIP STRIPS WHERE APPROPRIATE TO ENSURE THE INFILTRATION OF ROOF RUNOFF. WHERE GUTTERS ARE REQUIRED AT SELECT LOCATIONS (I.E. OVER DOORWAYS, ETC.), DOWNSPOUTS SHALL BE DIRECTED TO THE DRIP STRIPS. GUTTER DOWNSPOUTS DIRECTED TO LAWN, WOODS OR LANDSCAPE AREAS SHALL NOT BE PERMITTED.
- A MINIMUM OF 6" OF SCREENED LOAM AND SEED SHALL BE APPLIED TO ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE OUTSIDE BUILDING, PAVEMENT AND DRIP STRIP LIMITS.
- WHERE REQUIRED, TRENCH DRAINS SHALL BE EQUIPPED WITH A 4" (MIN.) PVC OUTLET PIPE WITH A MINIMUM SLOPE OF 1%.
- FOUNDATION AND TRENCH DRAIN OUTFALLS MAY BE CONSTRUCTED WHERE NECESSARY PROVIDED THEY DISCHARGE TO STABLE, WELL VEGETATED GROUND, DO NOT CONFLICT WITH ANY UTILITIES, AND ARE AT LEAST 5' FROM A SEPTIC TANK OR LEACHFIELD FOR SOLID PIPE OR 25' FOR PERFORATED PIPE OUTFALLS.
- ADDITIONAL DRAINAGE INFRASTRUCTURE MAY BE REQUIRED BASED ON FINAL GRADING AS SPECIFIED BY INDIVIDUAL UNIT OWNERS. UNIT OWNERS SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND CODE COMPLIANCE OF SAID INFRASTRUCTURE. ALL DRAINAGE OUTFALLS SHALL BE DIRECTED TO STABLE OUTLET LOCATIONS.
- ALL SEDIMENT AND EROSION CONTROL MEASURES SHOWN SHOULD BE TAILORED TO THE FINAL HOUSE AND DRIVEWAY DESIGNS SPECIFIED BY THE LOT OWNERS. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE NH STORMWATER MANUAL, LATEST EDITION.
- PER THE CITY OF CONCORD, ALL SLOPES IN EXCESS OF 4:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKET AND ALL SLOPES EXCESS OF 3:1 SHALL BE STABILIZED WITH RIPRAP.
- SEE SHEET C-6 FOR ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES.
- SEE SHEET C-11 FOR LEGEND.



133 Court Street
(603) 433-2335
Portsmouth, NH 03801
www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

FEBRUARY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	10/18/23
1	REVISED PER COMMENTS	EBS	02/23/24
2	CONDITIONS OF APPROVAL	EBS	06/10/24
3	REVISED PER COMMENTS	EBS	07/30/24
4	REVISED PER COMMENTS	EBS	10/21/24
5	RENUMBERED SHEET	EBS	12/17/24
6	REVISED UNIT 5	EBS	02/19/25

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE:

22" x 34" - 1" = 30'
11" x 17" - 1" = 60'

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

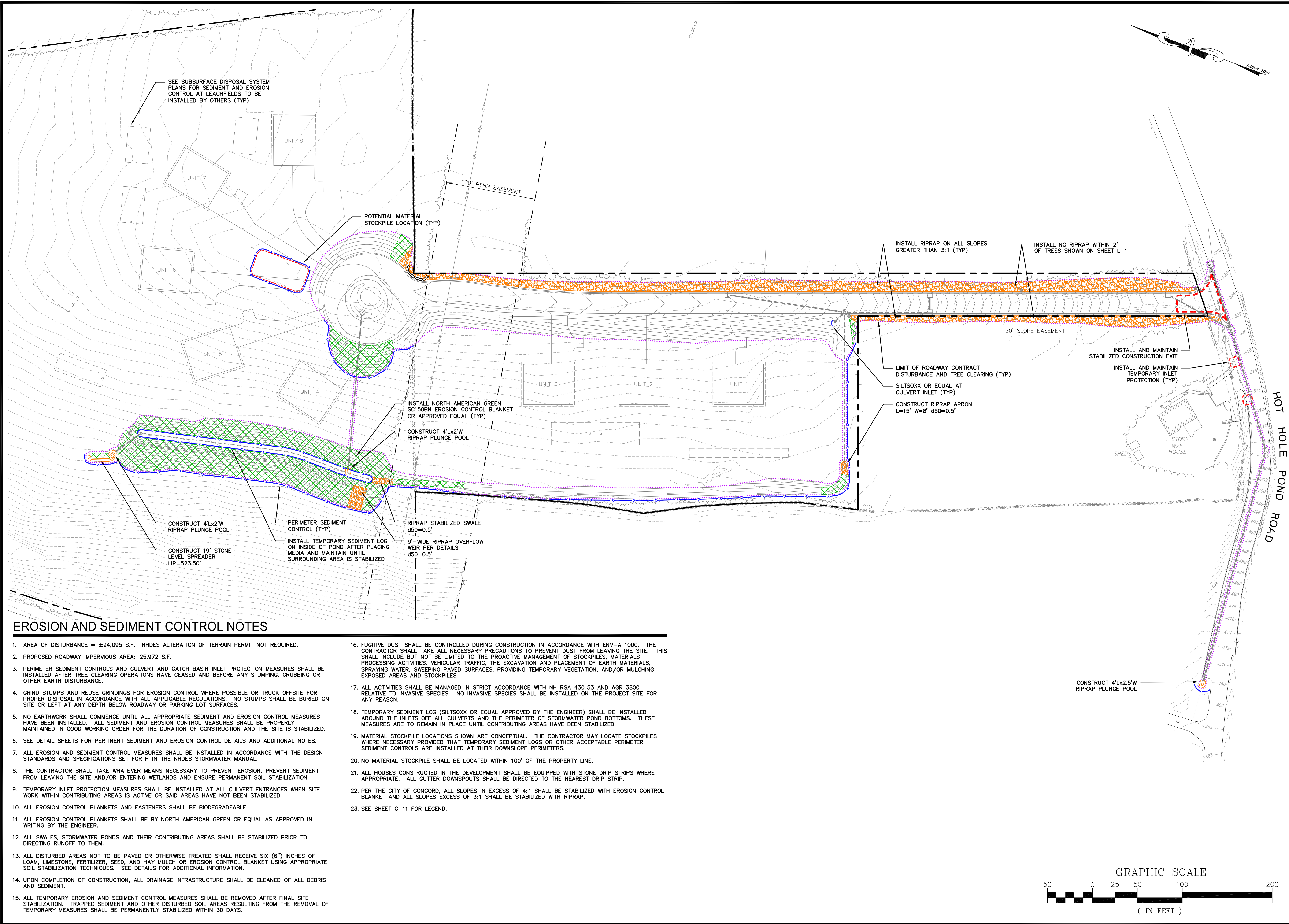
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

UNIT GRADING
AND DRAINAGE PLAN

SHEET NUMBER:

C-5.4



NOT FOR CONSTRUCTION

ISSUED FOR:
FINAL APPROVAL

ISSUE DATE:
MARCH 18, 2025

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	SUBMISSION	EBS 09/20/23
1	ADJUSTED DRIVEWAY	EBS 10/18/23
2	REVISED PER COMMENTS	EBS 02/23/24
3	CONDITIONS OF APPROVAL	EBS 06/10/24
4	REVISED PER COMMENTS	EBS 07/30/24
5	REVISED PER COMMENTS	EBS 10/21/24
6	ADDED OFFSITE DRAINAGE	EBS 12/17/24
7	REV. OFFSITE DRAINAGE	EBS 02/19/25
8	REV. OFFSITE OUTFALL	EBS 03/18/25

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE:
22" x 34" - 1" = 50'
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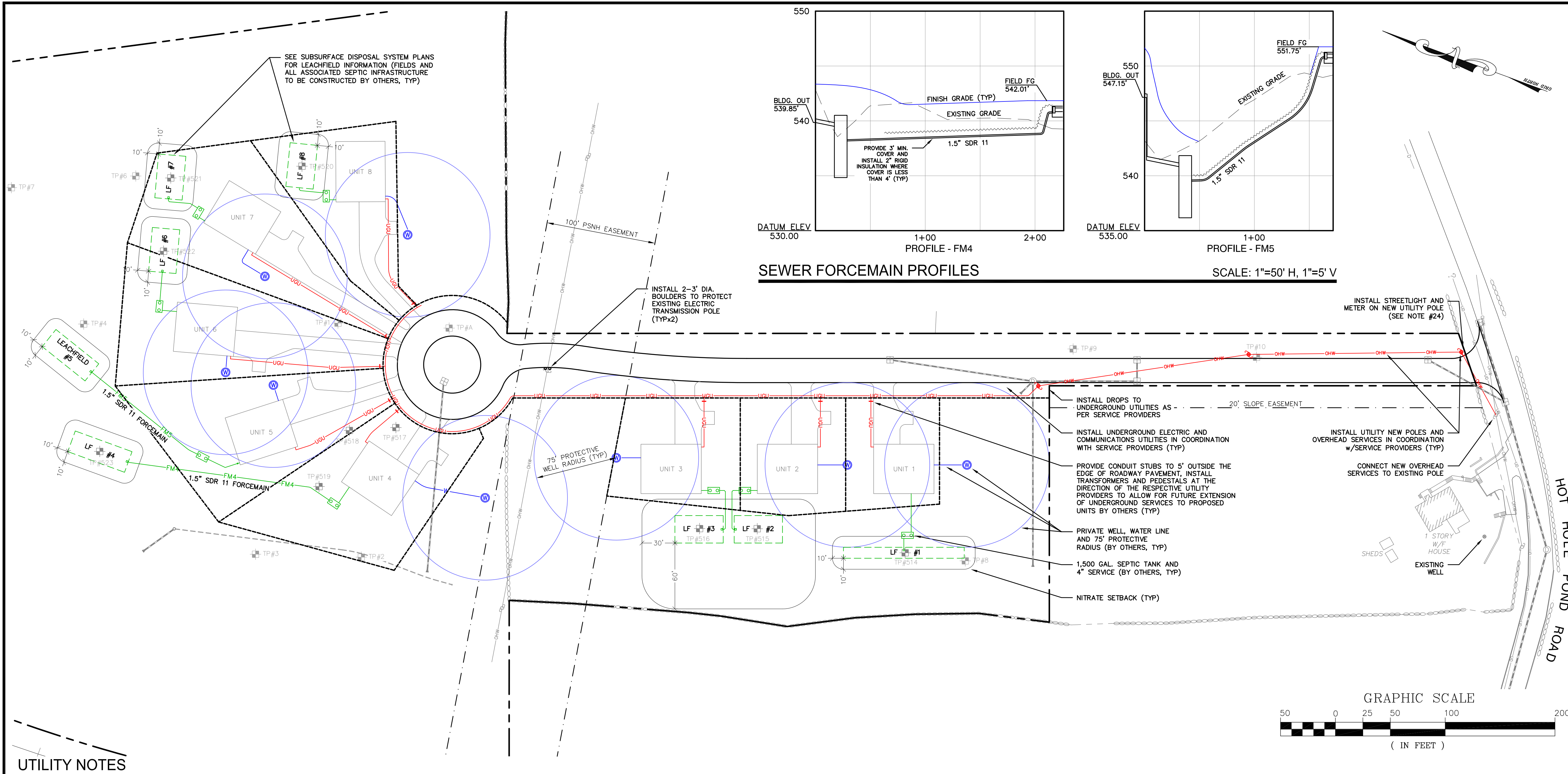
OWNER:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:
GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

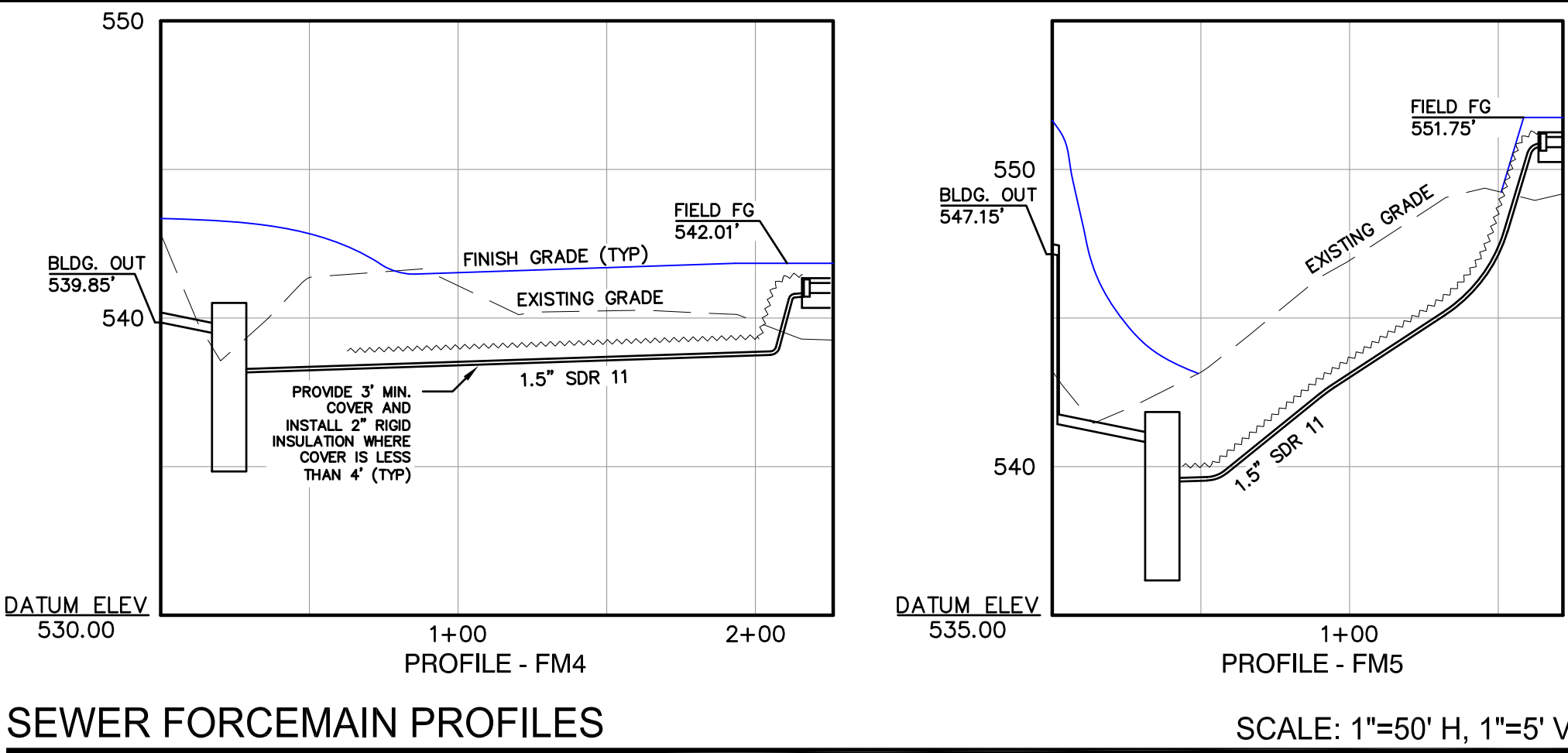
TITLE:
EROSION AND
SEDIMENT
CONTROL PLAN

SHEET NUMBER:
C-6



UTILITY NOTES

- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, THE CONCORD GENERAL SERVICES DEPARTMENT AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
- PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF NECESSARY, EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, THE CONCORD ENGINEERING DIVISION AND APPROPRIATE UTILITY PROVIDERS.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF CONCORD AND NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
- ALL UNITS TO BE SERVED BY INDIVIDUAL PRIVATE WELLS. PERMITTING AND INSTALLATION SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL UNIT OWNERS. WELL INSTALLATIONS SHALL BE CERTIFIED BY THE DRILLER TO MEET ALL APPLICABLE NHDES CRITERIA. CERTIFICATIONS SHALL BE COPIED TO THE CONCORD ENGINEERING DIVISION.
- ALL UNITS TO BE SERVED BY INDIVIDUAL PRIVATE SUBSURFACE SANITARY DISPOSAL SYSTEMS. PERMITTING AND INSTALLATION SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL UNIT OWNERS. FINAL APPROVED SEPTIC PLANS SHALL BE FORWARDED TO THE CONCORD ENGINEERING DIVISION. MAINTENANCE OF SAID SYSTEMS SHALL BE BY THE HOA.
- ALL SEPTIC AND WELL INSTALLATIONS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS INCLUDING, BUT NOT LIMITED TO NHDES SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN AND THE NH WATER WELL BOARD STANDARDS FOR THE CONSTRUCTION, MAINTENANCE AND ABANDONMENT OF WELLS.
- TEST PITS WERE EVALUATED BY BRUCE A. GILDAY, NH SOIL SCIENTIST #12, ON AUGUST 23, 2023.
- IF REQUIRED, ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND CONCORD GENERAL SERVICES DEPARTMENT AT LEAST ONE WEEK PRIOR TO COMMENCING RELATED CONSTRUCTION.
- ALL UNITS SHALL BE SERVICED BY UNDERGROUND ELECTRIC AND COMMUNICATIONS SERVICES.
- ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND LOCAL REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
- UTILITY SERVICES SHALL BE INSTALLED WITH TRANSFORMERS, PADS, PEDESTALS, ETC. IN COORDINATION WITH THE SERVICE PROVIDERS.
- DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
- UTILITY PROVIDERS:
WATER: PRIVATE WELLS (RESPONSIBILITY OF INDIVIDUAL UNIT OWNERS)
SEWER: PRIVATE SEPTIC SYSTEMS (RESPONSIBILITY INDIVIDUAL UNIT OWNERS)
CABLE/INTERNET/TELECOMMUNICATIONS: COMCAST
ELECTRIC: EVERSOURCE
GAS: PRIVATE PROPANE (RESPONSIBILITY OF INDIVIDUAL UNIT OWNERS)
- UNITS TO BE SERVED BY PRIVATE TRASH/RECYCLING PICKUP COORDINATED BY THE HOA.
- FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, APPROPRIATE UTILITY COMPANIES AND THE CONCORD GENERAL SERVICES DEPARTMENT.
- FINAL UTILITY LAYOUTS PREPARED BY UTILITY PROVIDERS SHALL BE SUBMITTED TO THE CONCORD GENERAL SERVICES DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL CONFIRM ALL UTILITY LINE AND CONDUIT SIZES WITH SERVICE PROVIDERS PRIOR TO INSTALLATION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED MANHOLES, PULL BOXES, PEDESTALS, HANDHOLES, TRANSFORMERS, TRANSFORMER PADS, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS IN ORDER TO RENDER THE FULL INSTALLATION OF COMPLETE AND OPERATIONAL UTILITY AND DRAINAGE SYSTEMS
- ALL GRAVITY SEPTIC LINES SHALL BE SDR 26, ALL FORCEMAINS SHALL BE SDR 11.
- SEE NHDES-APPROVED SEPTIC PLANS FOR ADDITIONAL INFORMATION ON WELLS AND SUBSURFACE DISPOSAL AND SANITARY COLLECTION SYSTEMS. ALL WELL AND SEPTIC INFRASTRUCTURE IS TO BE CONSTRUCTED BY OTHERS AND IS SHOWN HERE FOR PLANNING PURPOSES ONLY.
- FINAL SEPTIC AND WELL LOCATIONS ARE SUBJECT TO CHANGE BASED ON NHDES APPROVALS.
- CONTRACTOR SHALL COORDINATE WITH THE CONCORD ENGINEERING DIVISION FOR STREETLIGHT SPECIFICATIONS AND INSTALLATION REQUIREMENTS AND EVERSOURCE FOR METERING REQUIREMENTS. THE HOA SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL RELATED UTILITY BILLS.
- WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
- WATER AND SANITARY SEWER LINES SHALL BE LOCATED AT LEAST 10' HORIZONTALLY FROM EACH OTHER. WHERE CROSSING, 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER INSTALLED OVER SEWER.
- SEE SHEET C-11 FOR LEGEND.



133 Court Street
(603) 433-2335

Portsmouth, NH 03801
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ISSUED FOR: FINAL APPROVAL

ISSUE DATE: FEBRUARY 19, 2025

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	SUBMISSION	EBS 09/20/23
1	ADJUSTED UTILITIES	EBS 10/18/23
2	REVISED PER COMMENTS	EBS 02/23/24
3	CONDITIONS OF APPROVAL	EBS 06/10/24
4	REVISED PER COMMENTS	EBS 07/30/24
5	REVISED PER COMMENTS	EBS 10/21/24
6	ADDED OFFSITE DRAINAGE	EBS 12/17/24
7	REV. OFFSITE DRAINAGE	EBS 02/19/25

DRAWN BY: EBS

APPROVED BY: EBS

DRAWING FILE: 5470-SITE.dwg

SCALE:
22" x 34" - 1" = 50'
11" x 17" - 1" = 100'

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

UTILITY PLAN
SHEET NUMBER:

C-7

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

GRANITE RIDGE ESTATES
CLUSTER SUBDIVISION
15 HOT HOLE POND ROAD
CONCORD, NEW HAMPSHIRE
TAX MAP 11Z, LOT 25-1

OWNER/APPLICANT:
EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

LATITUDE: 43.283° N
LONGITUDE: 71.524° W

DESCRIPTION

The project consists of a private eight-unit cluster subdivision and cul-de-sac roadway together with associated site improvements.

PROJECT PHASING

The roadway and drainage components of the project will be completed in one phase. Individual lot development will be completed later per the individual lot unit owners.

NAME OF RECEIVING WATER

The site drains to an unnamed wetland complex tributary to Hayward Brook approximately 1.5 miles away.

SEQUENCE OF MAJOR ACTIVITIES

- Cut trees but do not remove stumps.
- Install temporary erosion control measures including perimeter controls, stabilized construction entrance and inlet sediment filters as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
- Stump, grub and strip loam in roadway and stormwater construction areas.
- Rough grade site.
- Construct drainage structures and utilities.
- Fine grade site.
- Install pavement subgrade and base course paving.
- Install curbing.
- Install landscaping and loam (6" min) and seed all disturbed areas not paved or otherwise stabilized.
- Allow others to commence building, driveway, septic and unit-related utility construction.
- Install top course paving after the completion of all units and related utilities.
- Install striping and signage.
- When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 – 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, perimeter controls shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area and permanent measures are established, perimeter controls shall be removed.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through appropriate perimeter controls. All storm drain inlets shall be provided with inlet protection measures.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

- The smallest practical portion of the site shall be denuded at one time.
- All control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater.
- All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
- Built-up sediment shall be removed from perimeter barriers when it has reached one-third the height of the barrier or when "bulges" occur.
- All diversion dikes shall be inspected and any breaches promptly repaired.
- Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
- The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
- An area shall be considered stable if one of the following has occurred:
 - Base coarse gravels have been installed in areas to be paved;
 - A minimum of 85% vegetated growth as been established;
 - A minimum of 3 inches of non-erosive material such as stone of riprap has been installed; – or –
- Erosion control blankets have been properly installed.
- The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

- 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:
 - Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
 - Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of 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 –

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrubs.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CONTINUED)

Jute and Fibrous Matting (Erosion Blanket)	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	

- * The organic matter content is between 80 and 100% dry weight basis.
- * Particle size by weight is 100% passing a 6" screen and a minimum of 70 % maximum of 85% passing a 0.75" screen.
- *The organic portion needs to be fibrous and elongated.
- *Large portions of silts, clays or fine sands are not acceptable in the mix.
- * Soluble salts content is less than 4.0 mmhos/cm.
- *The pH should fall between 5.0 and 8.0.

- 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.

C. PERMANENT SEEDING –

- Bedding – stones larger than 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.

- Fertilizer – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and organic fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

Agricultural Limestone @ 100 lbs. per 1,000 s.f.
10-20-20 organic fertilizer @ 12 lbs. per 1,000 s.f.

- Seed Mixture:

Grass Seed: Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified:

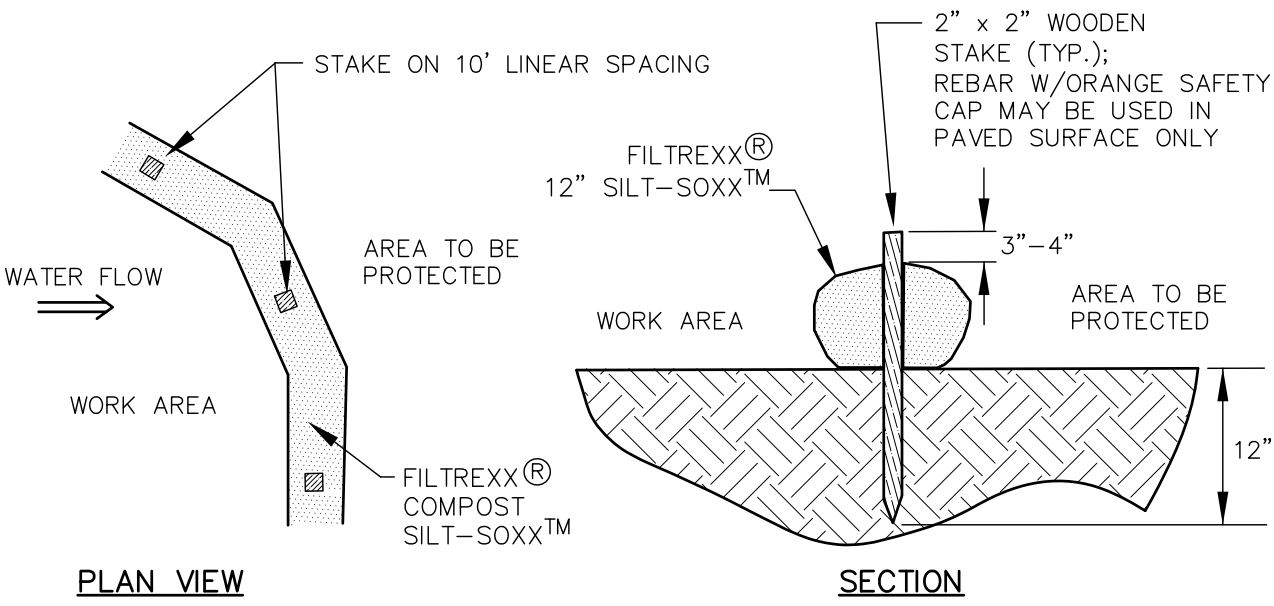
Type	Min. Purity (%)	Min. Germination (%)	Lbs./Acre
Creeping Red Fescue (a)	96	85	40
Perennial Rye Grass (b)	98	90	50
Kentucky Bluegrass	97	85	25
Redtop	95	80	5
			Total 120

Seed mixture shall meet NHDOT 644-1 Park Seed Type 15

- Fescue varieties shall include – Creeping Red and/or Hard Reliant, Scaldis, Koket, or Jamestown.
 - Ryegrass shall be a certified fine-textured variety such as Pennfine, Fiesta, Yorktown, Diplomat, or equal.
- Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding on area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

WINTER CONSTRUCTION NOTES

- All proposed vegetated 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 elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events;
- 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 temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
- After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.

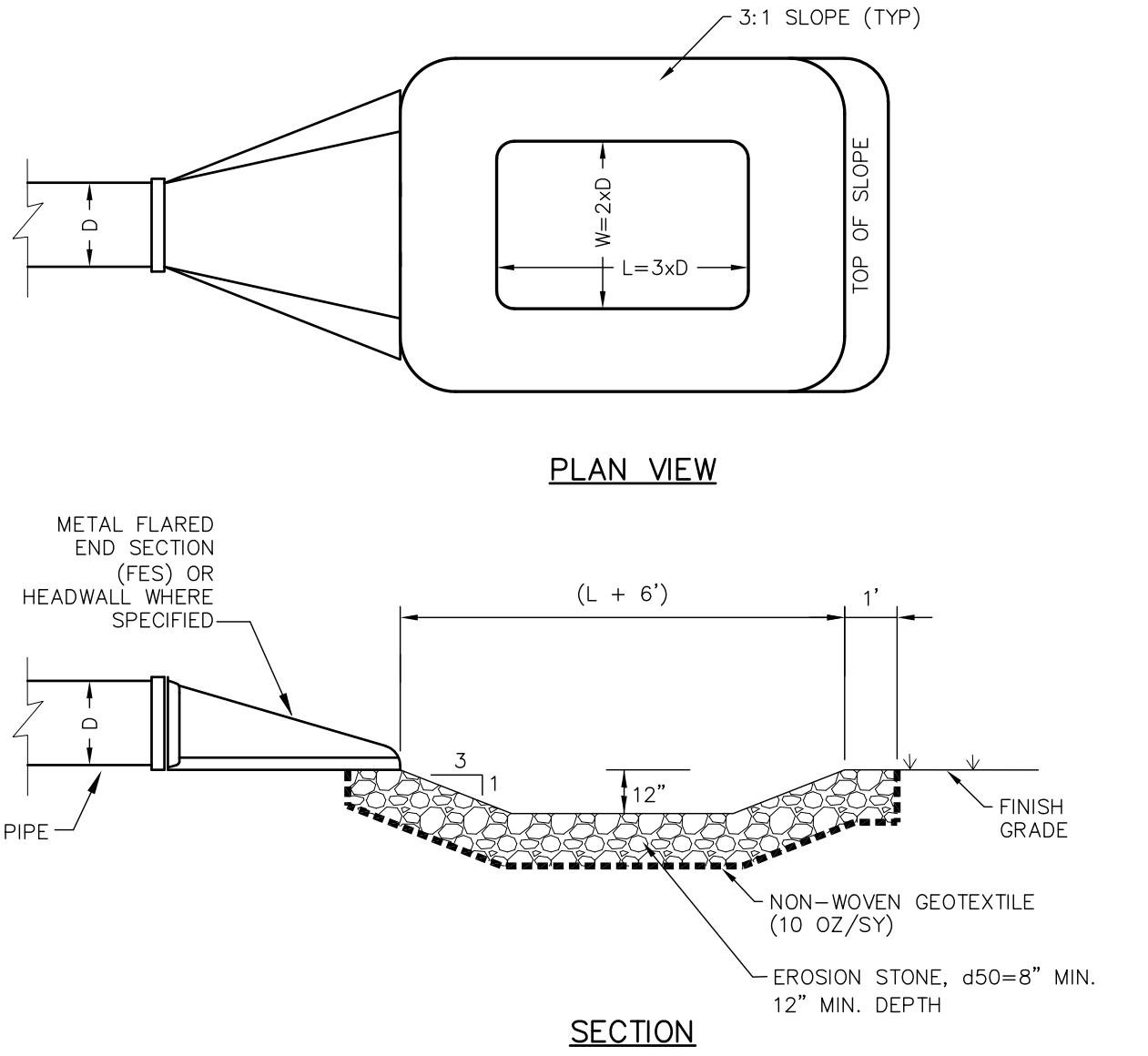


NOTES:

- SILT-SOXX OR APPROVED EQUAL MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
- SILT-SOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
- ALL SEDIMENT TRAPPED BY SILT-SOXX SHALL BE DISPOSED OF PROPERLY.

TUBULAR SEDIMENT BARRIER

NOT TO SCALE



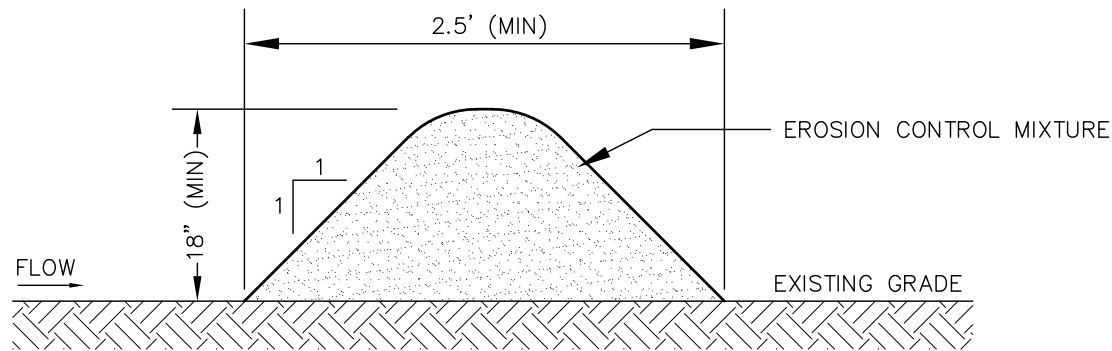
NOTES

- CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
- THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO ACCOUNT FOR THE DEPTH OF RIPRAP.
- EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION:

SIZE	PERCENT PASSING BY WEIGHT
18"	100
12"	90-100
4"	0-15
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18".
- THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

PLUNGE POOL

NOT TO SCALE



NOTES

- ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
- THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
- SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
- THE PH SHALL BE BETWEEN 5.0 AND 8.0.

- ORGANIC FILTER BERMS SHALL BE INSTALLED 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 BERM.

- ON SLOPES LESS THAN 5%, OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20', LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').

- FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.

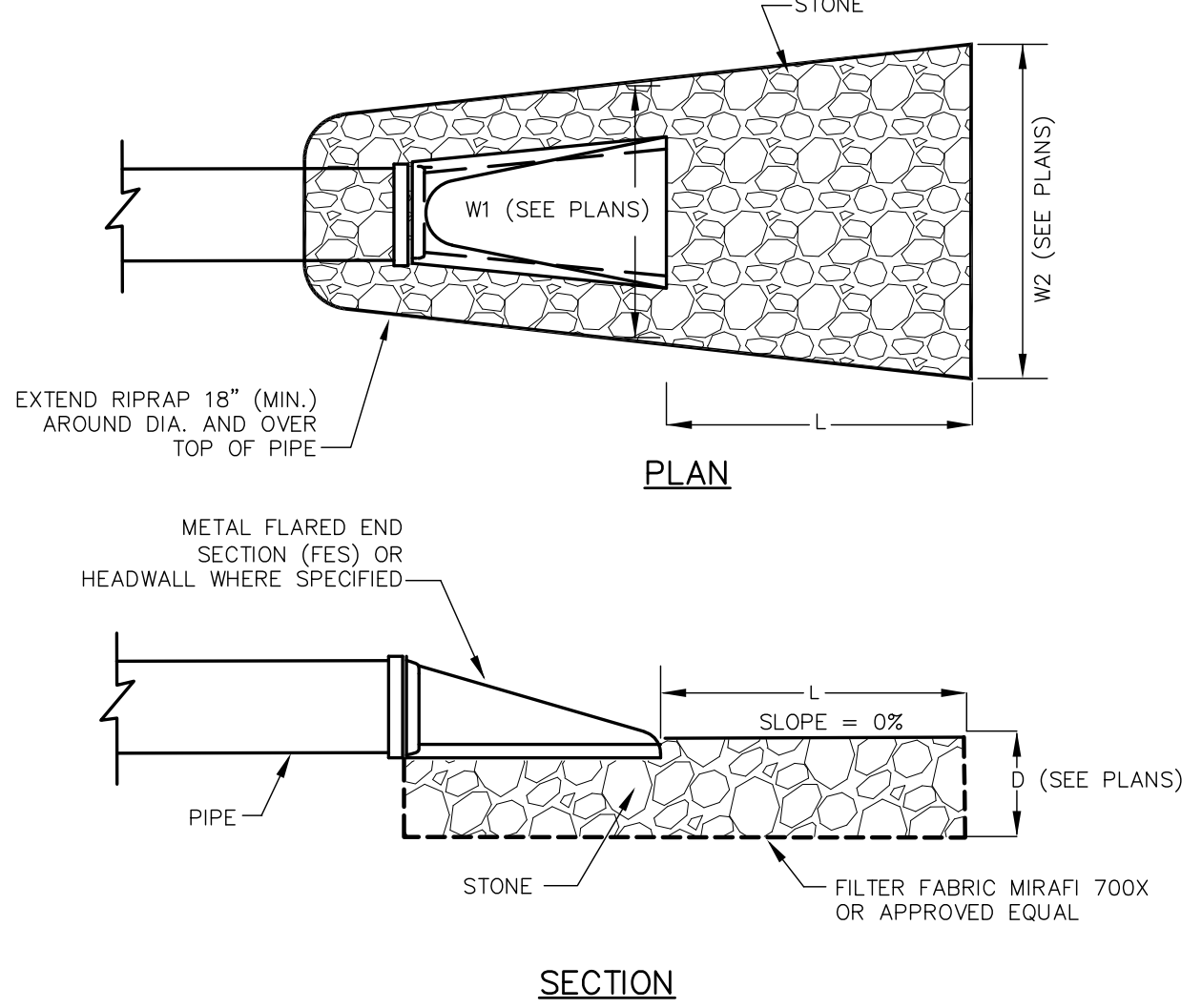
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.

- ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.

- FILTER BERMS ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILTFENCE.

ORGANIC FILTER BERM

NOT TO SCALE



MAINTENANCE

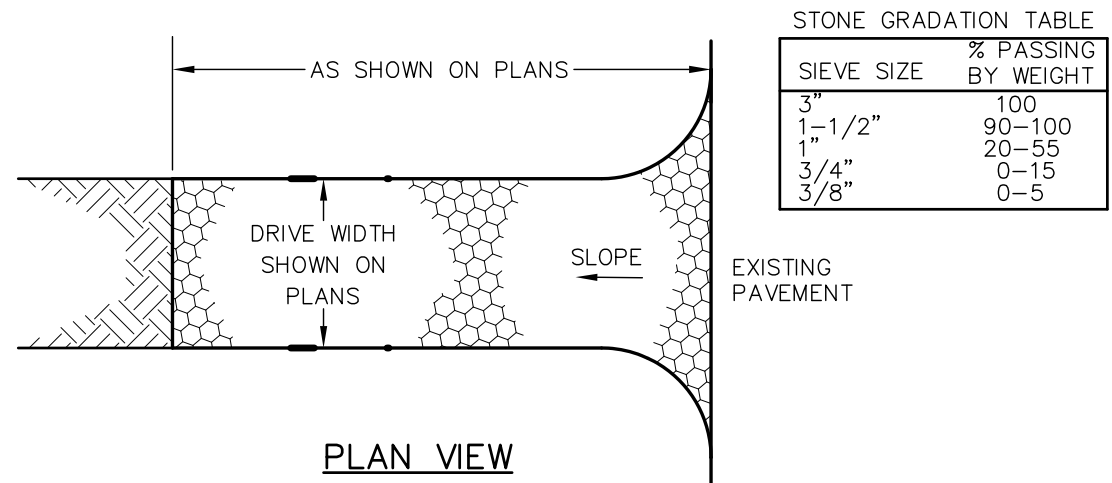
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION AFRON.

CONSTRUCTION SPECIFICATIONS

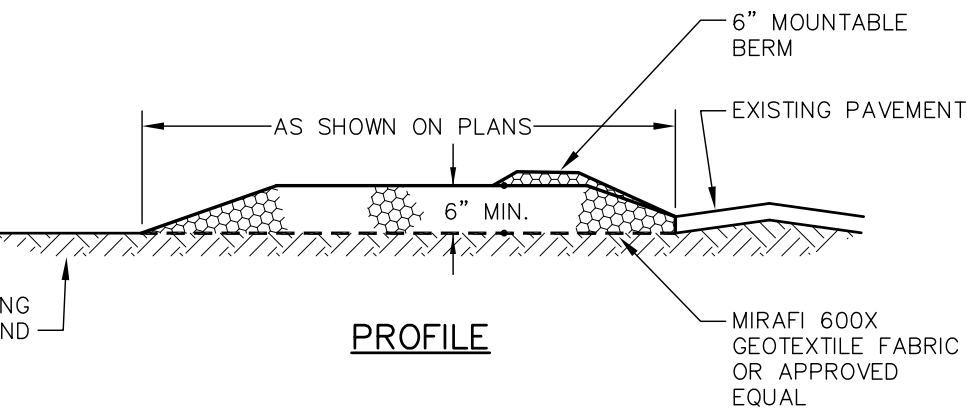
- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

RIPRAP OUTLET PROTECTION

NOT TO SCALE



PLAN VIEW



PROFILE

CONSTRUCTION SPECIFICATIONS

- STONE SIZE – NHDOT STANDARD STONE SIZE #4 – SECTION 703 OF NHDOT STANDARD.
- LENGTH – DETAILED ON PLANS (50 FOOT MINIMUM).
- THICKNESS – SIX (6) INCHES (MINIMUM).
- WIDTH – FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
- FILTER FABRIC – MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
- SURFACE WATER CONTROL – ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT

NOT TO SCALE

ALTUS
ENGINEERING

133 Court Street
(603) 433-2335

Portsmouth, NH 03801
www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

MARCH 18, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/23
1	RENUMBERED SHEET	EBS	10/18/23
2	REVISED PER COMMENTS	EBS	02/23/24
3	CONDITIONS OF APPROVAL	EBS	06/10/24
4	REVISED PER COMMENTS	EBS	10/21/24
5	REVISED PLUNGE POOL	EBS	03/18/25

DRAWN BY:

EBS

APPROVED BY:

EBS

DRAWING FILE:

5470-SITE.dwg

SCALE:

NOT TO SCALE

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION

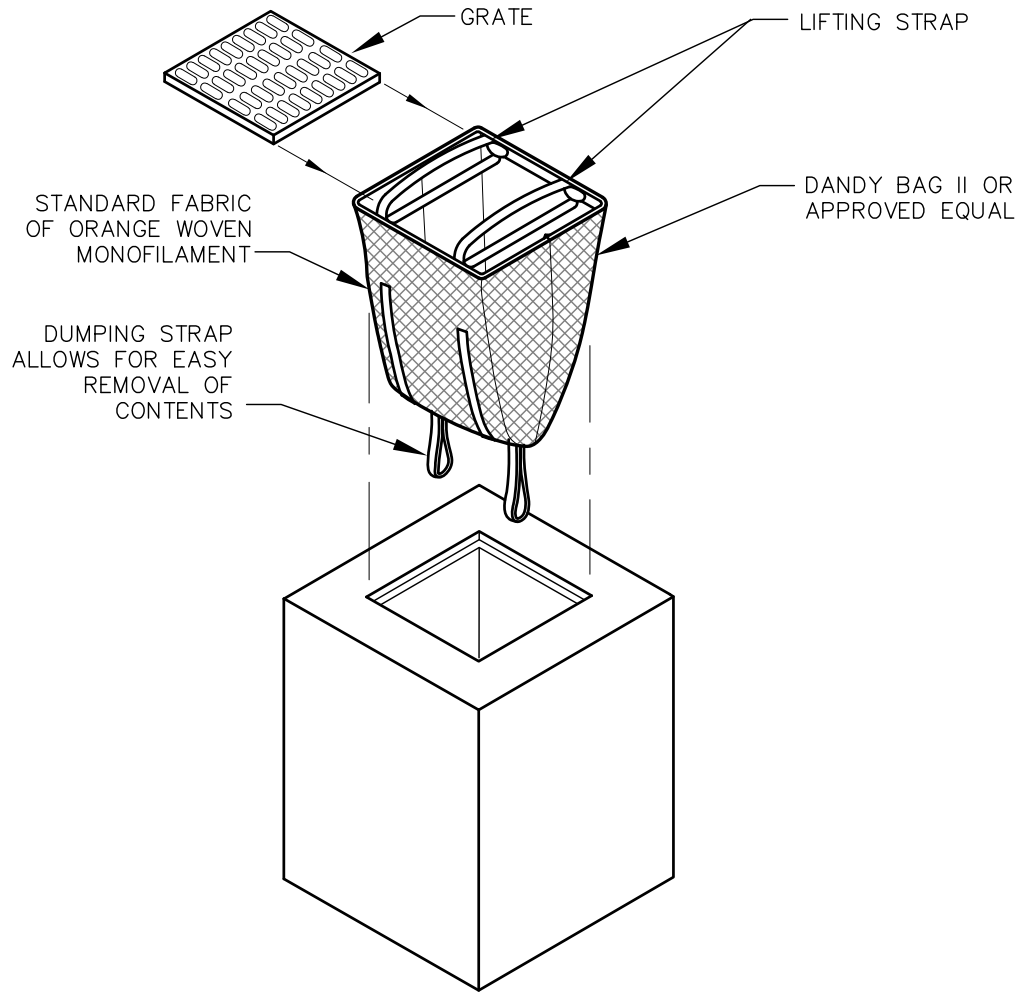
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DETAIL SHEET

SHEET NUMBER:

C-8



INSTALLATION AND MAINTENANCE:

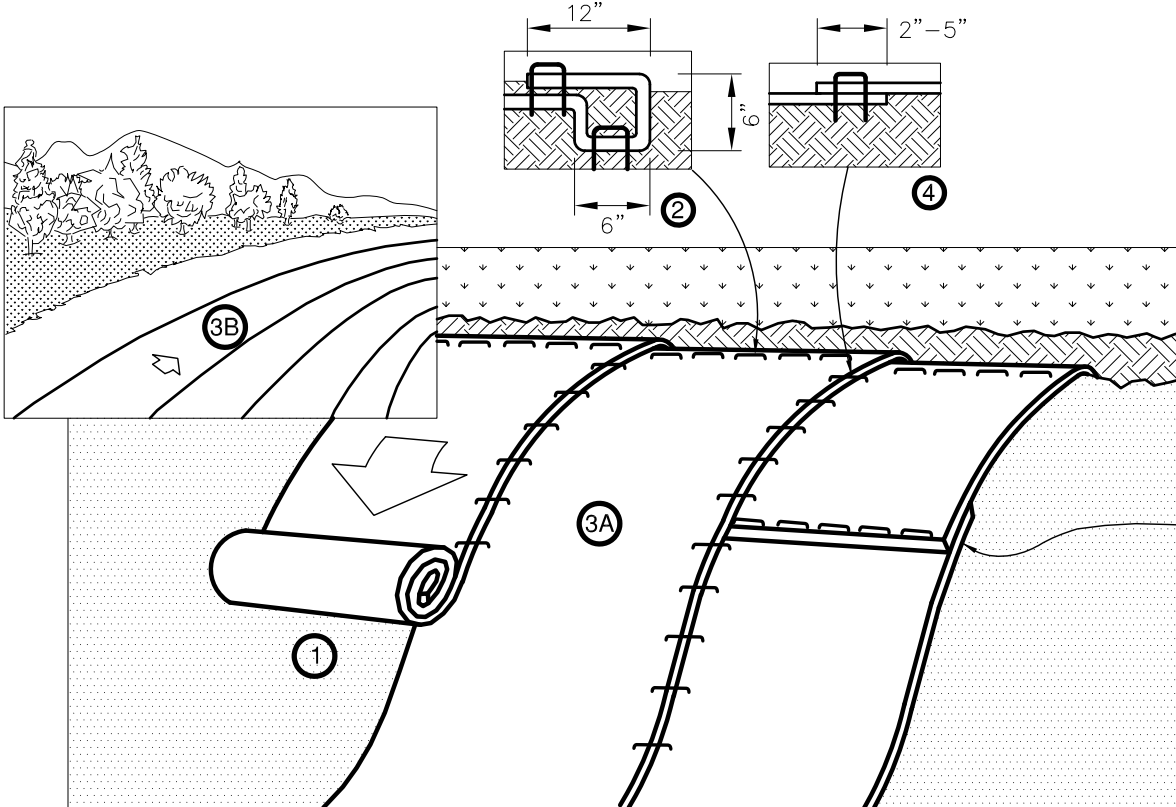
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

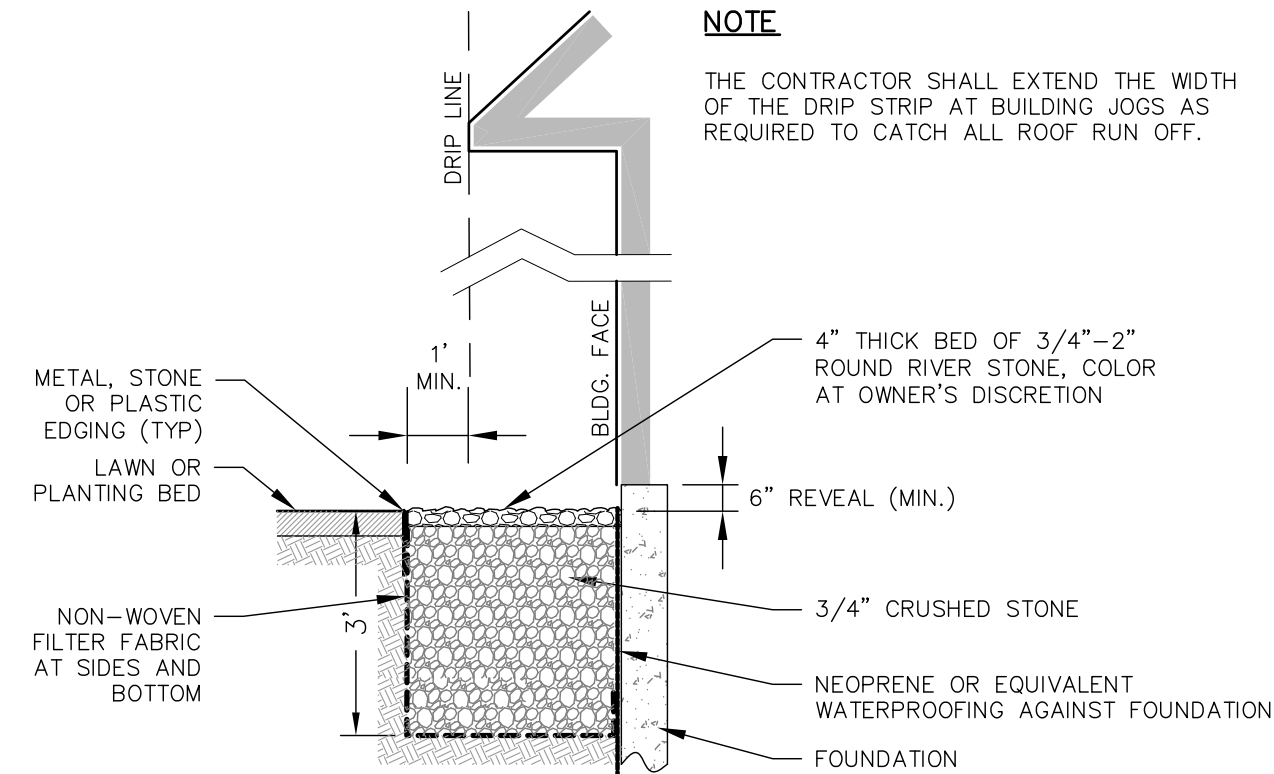
STORM DRAIN INLET PROTECTION NOT TO SCALE



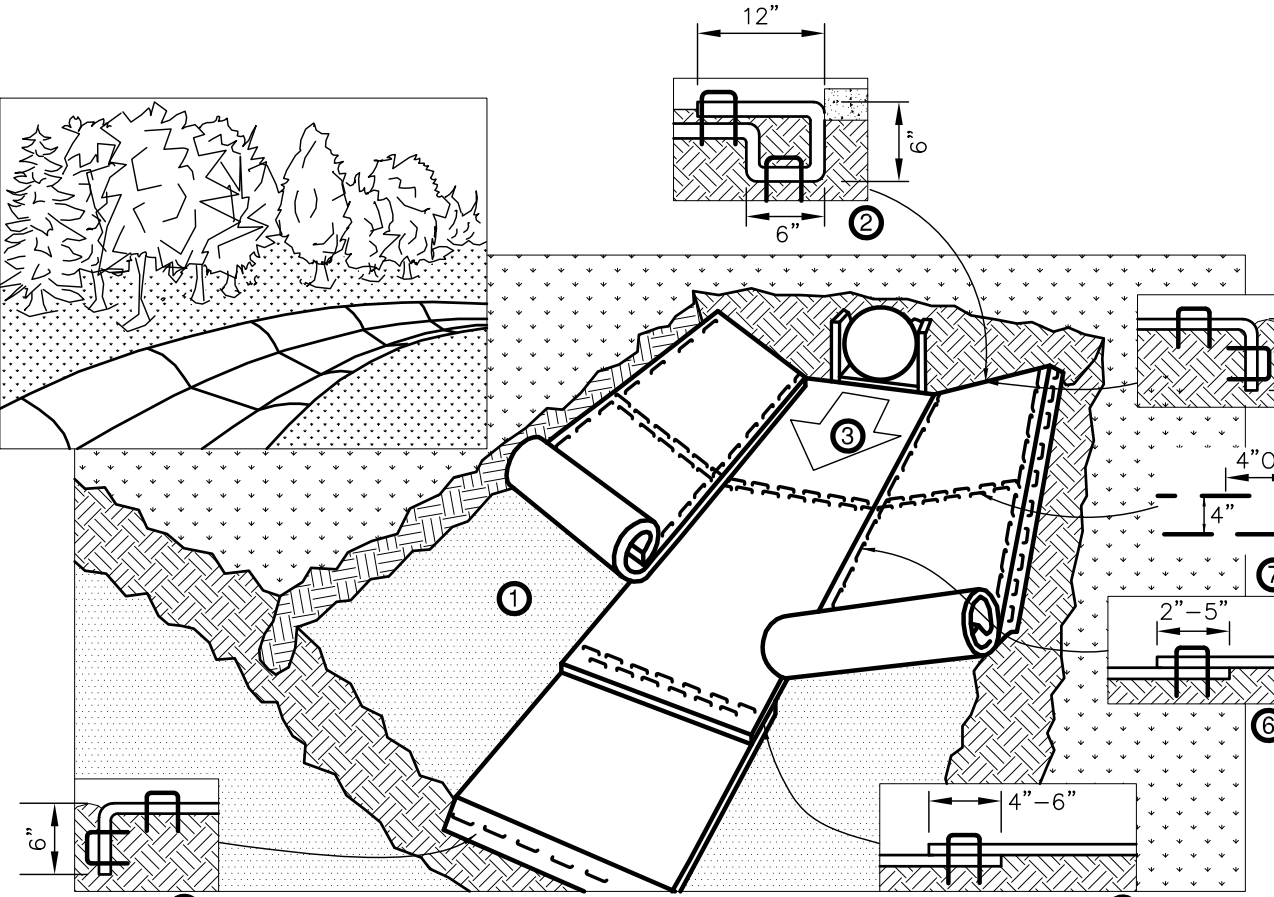
NOTES

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET - SLOPE NOT TO SCALE

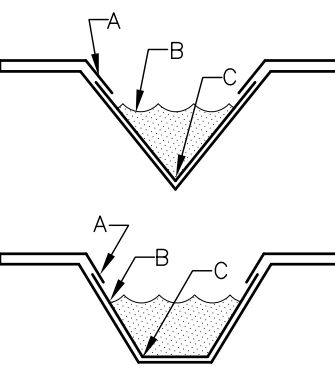


STONE DRIP STRIP NOT TO SCALE



NOTES

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO INSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



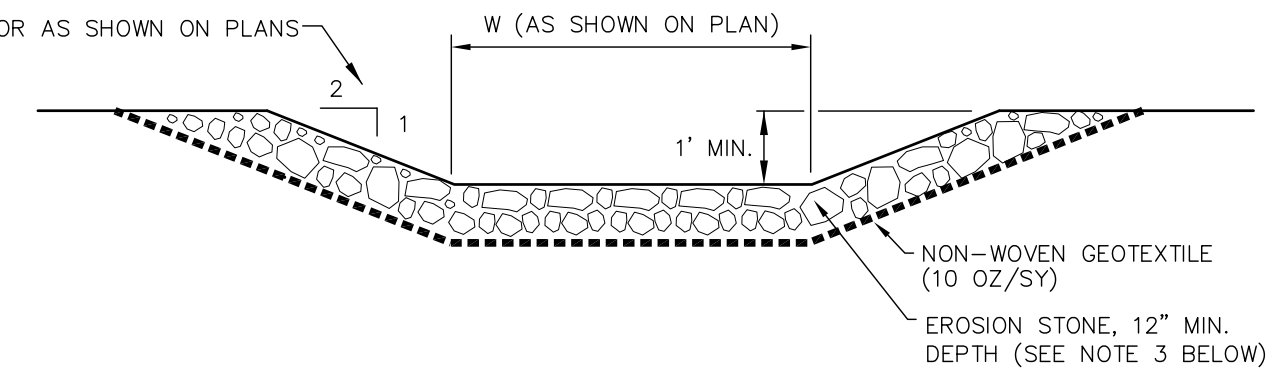
CRITICAL POINTS:

- A. OVERLAPS AND SEAMS
- B. PROJECTED WATER LINE
- C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTES:

- * HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
- ** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

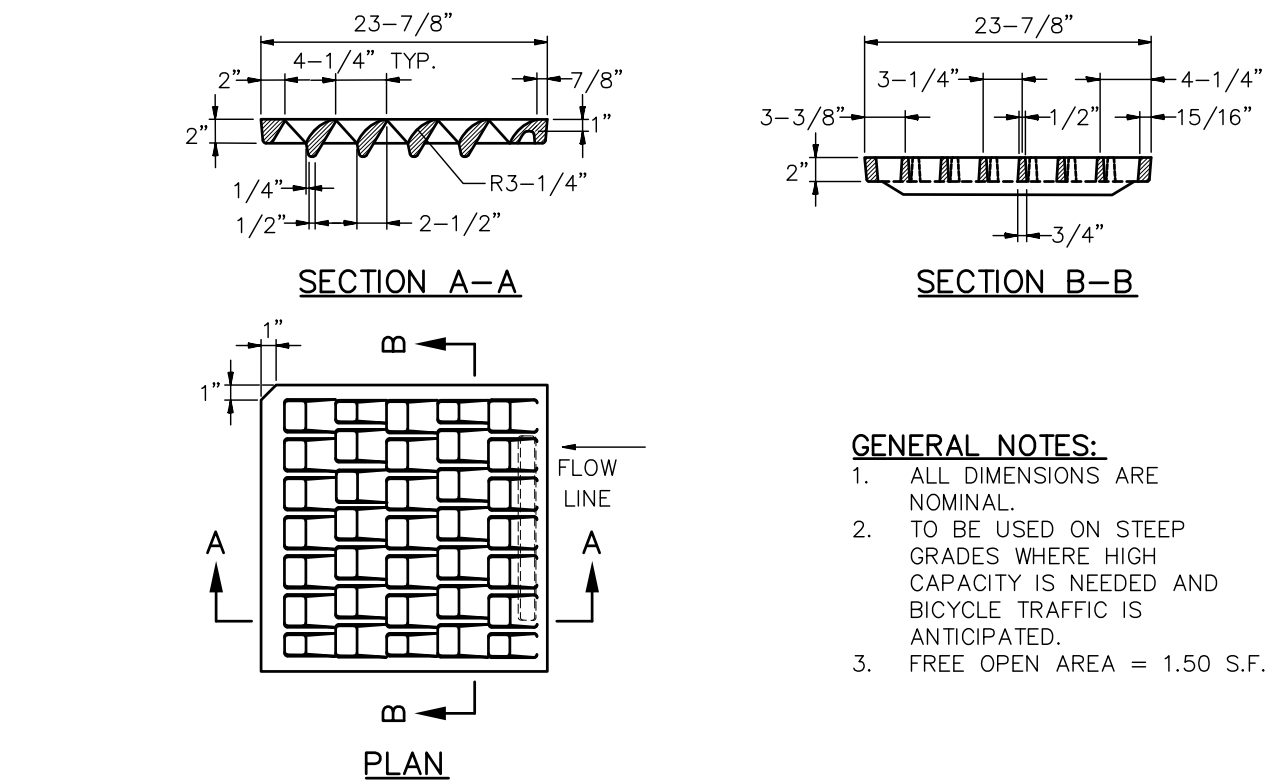
EROSION CONTROL BLANKET - SWALE NOT TO SCALE



NOTES

1. CONSTRUCT RIP RAP LINED SWALE TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
3. EROSION STONE USED FOR THE RIP RAP LINED SWALE SHALL MEET THE GRADATION SHOWN ON THE PLANS.
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

RIPRAP LINED SWALE NOT TO SCALE



NHDOT TYPE 'F' GRATE NOT TO SCALE

NOT FOR CONSTRUCTION

ISSUED FOR: FINAL APPROVAL

ISSUE DATE: DECEMBER 17, 2024

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	SUBMISSION	EBS 09/20/23
1	REVISED CB, RENUMBERED	EBS 10/18/23
2	REVISED PER COMMENTS	EBS 02/23/24
3	CONDITIONS OF APPROVAL	EBS 06/10/24
4	REVISED PER COMMENTS	EBS 07/30/24
5	REVISED PER COMMENTS	EBS 10/21/24
6	REV. PROJECT NAME	EBS 12/17/24

DRAWN BY: EBS
APPROVED BY: EBS
DRAWING FILE: 5470-SITE.dwg

SCALE: NOT TO SCALE

OWNER: EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
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APPLICANT: EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

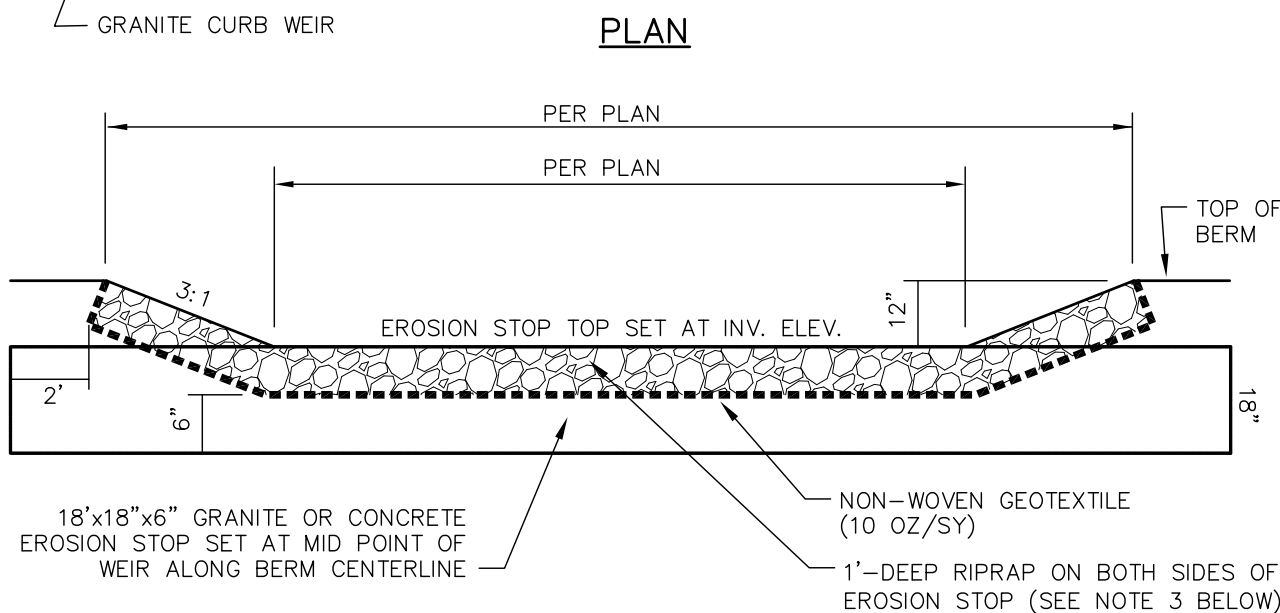
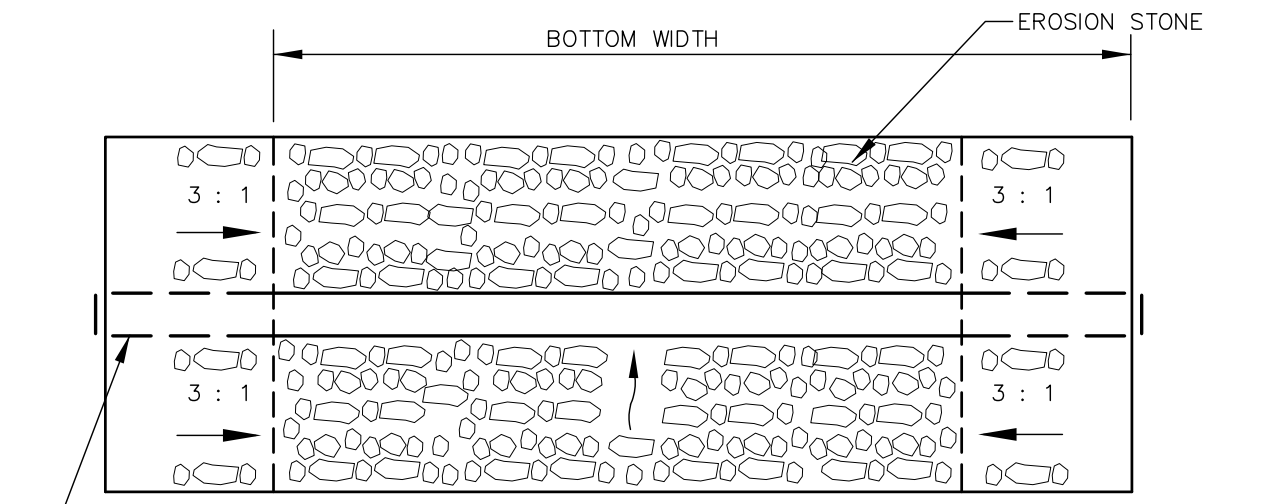
PROJECT: GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DETAIL SHEET

SHEET NUMBER:

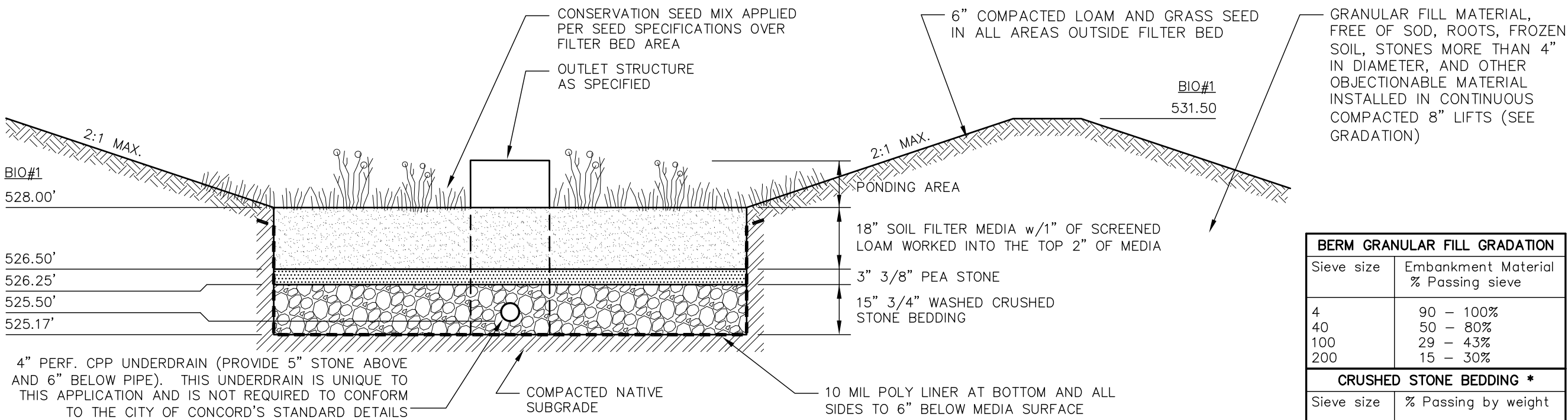
C-9



- CONSTRUCT EMERGENCY OVERFLOW WEIR TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
- THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
- UNLESS OTHERWISE SPECIFIED OR DIRECTED, RIPRAP USED FOR THE EMERGENCY OVERFLOW WEIR SHALL MEET THE FOLLOWING GRADATION:

SIZE	PERCENT PASSING BY WEIGHT
4"	90-100
2"	0-15
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
- THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

RIPRAP SPILLWAY / OVERFLOW WEIR NOT TO SCALE



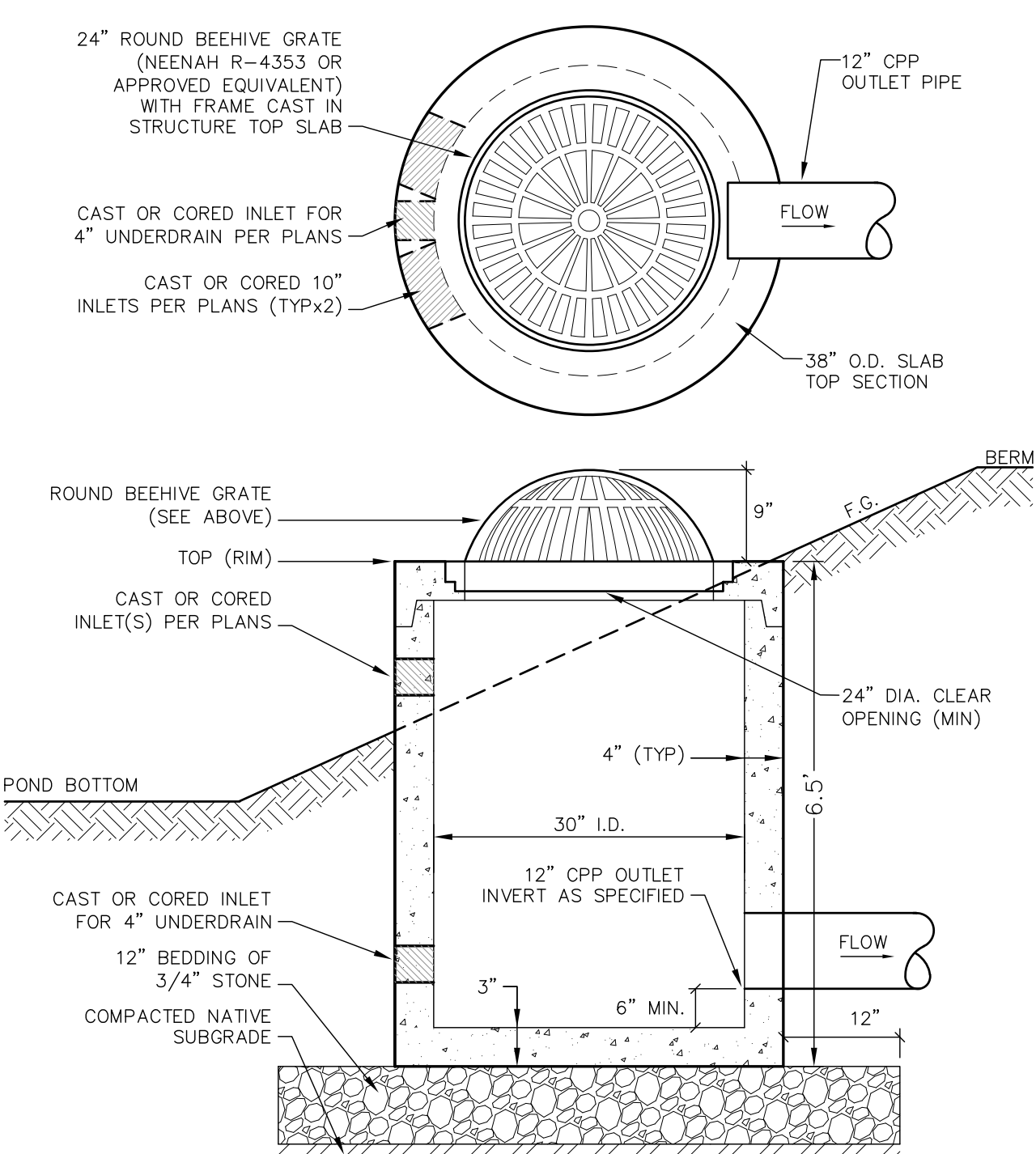
- NOTES**
- WHEN CONTRACTOR EXCAVATES BIORETENTION POND AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
 - SOIL FILTER MEDIA SHALL EITHER OPTION A OR OPTION B AT CONTRACTOR'S DISCRETION.
 - DO NOT PLACE BIORETENTION POND INTO SERVICE UNTIL ITS SIDE SLOPES AND CONTRIBUTING AREAS HAVE BEEN STABILIZED.
 - DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES TO THE BIORETENTION POND DURING ANY STAGE OF CONSTRUCTION.
 - DO NOT TRAFFIC EXPOSED SURFACES OF BIORETENTION POND WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION ACTIVITIES WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE BASIN.
 - POND BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STORMWATER POND BERM DETAIL.

MAINTENANCE REQUIREMENTS

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, WEED WHACKING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES. BERM AREAS ARE TO BE MOWED TWICE ANNUALLY.

- DESIGN REFERENCES**
- UNH STORMWATER CENTER
 - EPA (1999A)
 - NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

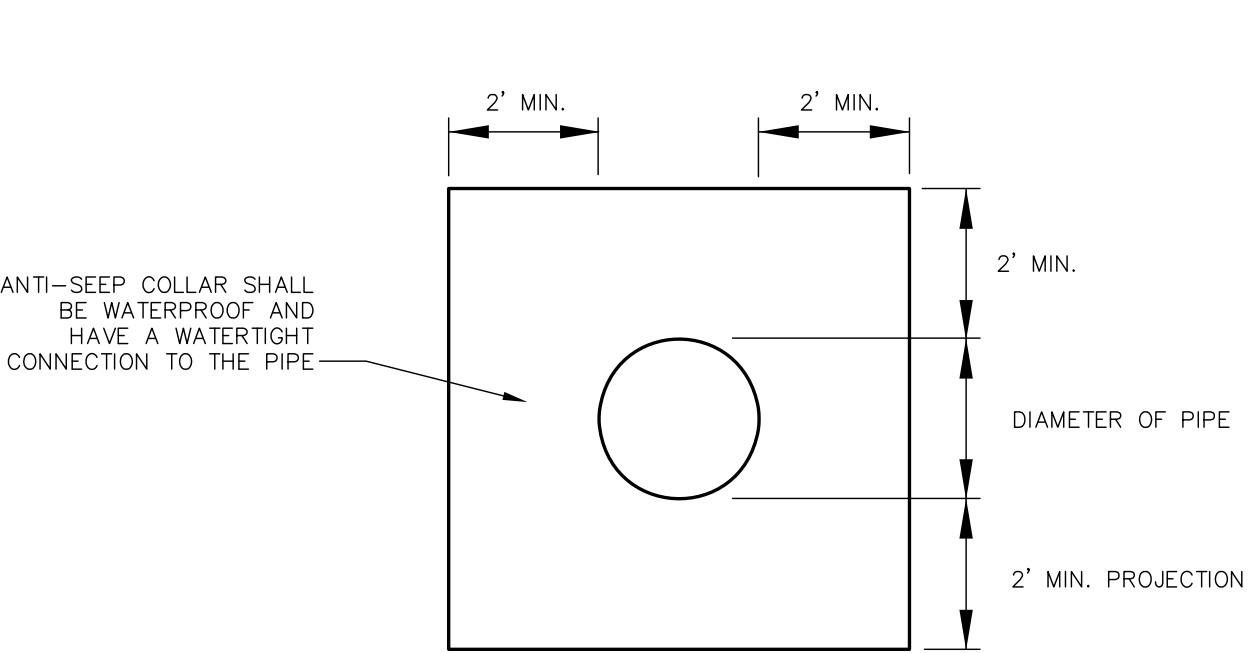
BIORETENTION POND



CONSTRUCTION SPECIFICATIONS

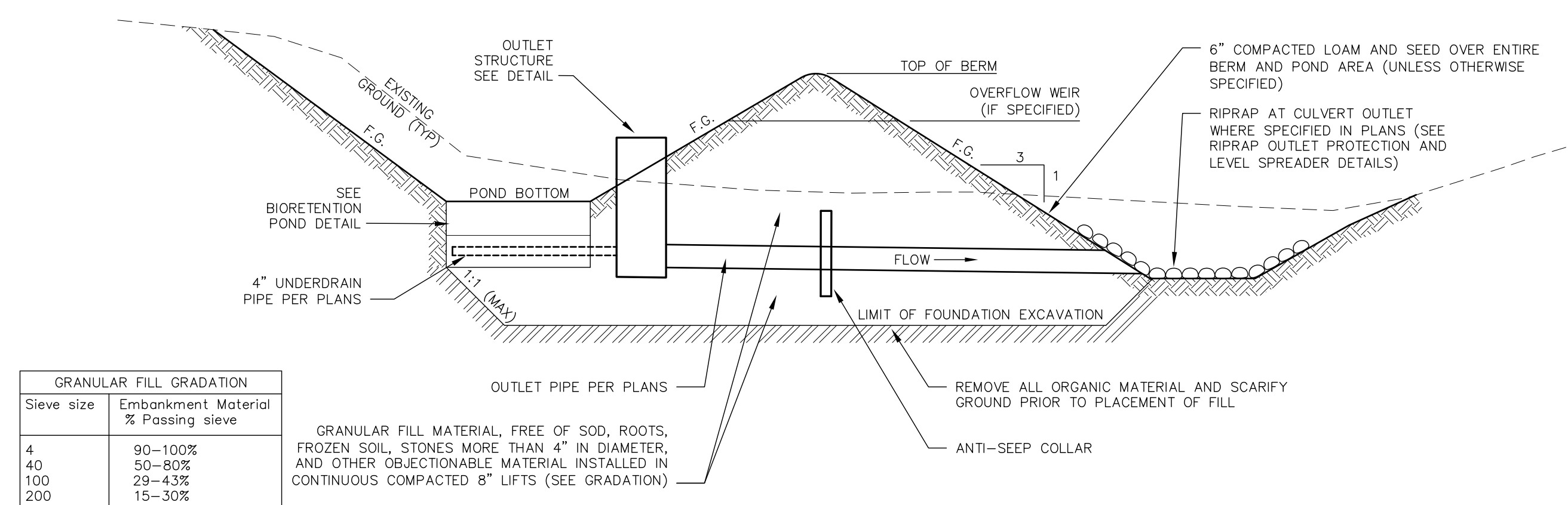
- OUTLET STRUCTURE SHALL BE CONSTRUCTED ONSITE OR PRECAST TO EQUAL DIMENSIONS. A SUITABLE PLASTIC STRUCTURE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- ALL JOINTS AND PIPE OPENINGS SHALL BE SEALED WATERTIGHT WITH MORTAR.
- CONCRETE STRUCTURE IS TO BE BUILT TO WITHSTAND H2O LOADING.
- NATIVE SOIL UNDERLYING THE STRUCTURE'S GRAVEL BASE PAD AND THE PAD ITSELF ARE TO BE COMPACTED TO 95% MODIFIED PROCTOR.
- ALL CONCRETE SHALL BE 4,000 PSI MINIMUM.

OUTLET STRUCTURE NOT TO SCALE



- NOTES**
- ANTI-SEEP COLLARS SHALL BE CLAY, CONCRETE, PLASTIC (AGRI-DRAIN), OR EQUAL APPROVED BY THE ENGINEER.

ANTI-SEEP COLLAR NOT TO SCALE



GRANULAR FILL GRADATION	
Sieve size	Embankment Material % Passing sieve
4	90-100%
40	50-80%
100	29-43%
200	15-30%

Construction Criteria

- Foundation Preparation -- The foundation shall be cleared of trees, logs, stumps, roots, brush, boulders, sod, and rubbish. If suitable for reuse, the topsoil and sod shall be stockpiled and spread on the completed embankment and spillways. Foundation surfaces shall be sloped no steeper than 1:1. The foundation area shall be thoroughly scarified before placement of fill material. The surface shall have moisture added and/or it shall be compacted if necessary so that the first layer of fill can be bonded to the foundation.

The cutoff trench and any other required excavations shall be dug to the lines and grades shown on the plans or as staked in the field. If they are suitable, excavated materials shall be used in the permanent fill.

Existing stream channels in the foundation area shall be sloped no steeper than 1:1 and deepened and widened as necessary to remove all stones, gravel, sand, stumps, roots, and other objectionable material and to accommodate compaction equipment.

Foundation areas shall be kept free of standing water when fill is being placed on them.

- Granular Fill Placement -- The material placed in the fill shall be free of sod, roots, frozen soil, stones more than 4 inches in diameter and other objectionable material.

Selected backfill material shall be placed around structures, pipe conduits, and drainage diaphragm at about the same rate on all sides to prevent damage from unequal loading.

The placing and spreading of fill material shall be started at the lowest point of the foundation and the fill brought up in horizontal layers of such thickness that the required compaction can be obtained. The fill shall be constructed in 8" continuous horizontal layers except where openings or sectionalized fills are required. In those cases, the slope of the bonding surfaces between the embankment in place and the embankment to be placed shall not be steeper than 3 horizontal to 1 vertical. The bonding surface shall be treated the same as that specified for the foundation so as to insure a good bond with the new fill.

The distribution and gradation of materials shall be such that no lenses, pockets, streaks, or layers of material differ substantially in texture of gradation from the surrounding material. If it is necessary to use materials of varying texture and gradation, the more impervious material shall be placed in the center and upstream parts of the fill. If zoned fills of substantially differing materials are specified, the zones shall be placed according to the lines and grades shown on the drawings. The complete work shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.

- Moisture Control -- The moisture content of the fill material shall be adequate for obtaining the required compaction. Material that is too wet shall be dried to meet this requirement, and material that is too dry shall have water added and mixed until the requirement is met.
- Compaction -- Construction equipment shall be operated over the areas of each layer of fill to insure that the required compaction is obtained. Special equipment shall be used if needed to obtain the required compaction.

Fill material shall be compacted to not less than 95% of AASHTO T99 Method C compaction method.

Fill adjacent to structures, pipe conduits, and drainage diaphragm shall be compacted to a density equivalent to that of the surrounding fill by means of hand tamping or manually directed power tamper or plate vibrators. Fill adjacent to concrete structures shall not be compacted until the concrete is strong enough to support the load.

- Protection -- A protective cover of vegetation shall be established on all exposed surfaces of the embankment, spillway, and borrow area in accordance with the plans. If soil or climatic conditions preclude the use of vegetation and protection is needed, non-vegetative means, such as mulches or gravel, may be used. In some places, temporary vegetation may be used until conditions permit establishment of permanent vegetation.

Maintenance

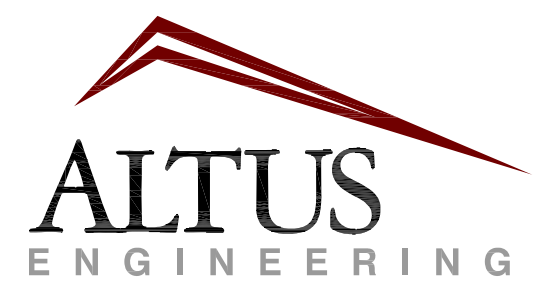
Maintenance is necessary if detention/retention basins are to continue to function as originally designed. A local government, a designated group such as a homeowners' association, or an individual must be assigned responsibility for maintaining the structures and the basin area. A maintenance plan should be developed that outlines the maintenance operations and a schedule for carrying out the procedures.

The following should be considered in formulating a maintenance plan:

- Embankment -- The embankment should be inspected annually to determine if rodent burrows, wet areas, or erosion of the fill is taking place.
- Vegetation -- The vegetated areas of the structure should be protected from damage by fire, grazing, traffic, and dense weed growth. Lime and fertilizer should be applied as necessary as determined by soil tests. Trees and shrubs should be kept off the embankment and emergency spillway areas.
- Inlets -- Pipe inlets and spillway structures should be inspected annually and after every major storm. Accumulated debris and sediment should be removed.
- Outlets -- Pipe outlets should be inspected annually and after every major storm. The condition of the pipes should be noted and repairs made as necessary. If erosion is taking place, then measures should be taken to stabilize and protect the affected area.
- Sediment -- Sediment should be continually checked in the basin. When sediment accumulations reach the predetermined design elevation, then the sediment should be removed and properly disposed of.
- Safety Inspections -- All permanent impoundments should be inspected by a qualified professional engineer on a periodic basis. If there is potential for significant damage or loss of life downstream, then the inspection should be carried out annually.

STORMWATER POND BERM DETAIL

NOT TO SCALE



133 Court Street
(603) 433-2335

Portsmouth, NH 03801
www.altus-eng.com

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

DECEMBER 17, 2024

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/23
1	RENUMBERED SHEET	EBS	10/18/23
2	REVISED PER COMMENTS	EBS	02/23/24
3	CONDITIONS OF APPROVAL	EBS	06/10/24
4	REVISED PER COMMENTS	EBS	10/21/24
5	REV. PROJECT NAME	EBS	12/17/24

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE:

NOT TO SCALE

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

PROJECT:

GRANITE RIDGE
ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DETAIL SHEET

SHEET NUMBER:

C-10

1. TRENCH DRAIN SYSTEM SHALL BE NDS DURA SLOPE OR APPROVED EQUAL.
2. CHANNELS SHALL HAVE NEUTRAL SLOPE AND BOTTOM OUTLET WITH 8" CONCRETE ENCASEMENT FOR CLASS 'D' LOADING.
3. CHANNELS TO BE INSTALLED WITH BLANK GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR (COVER HOLES WITH TAPE).
4. BLANK GRATES TO BE REMOVED AND REPLACED WITH APPLICABLE GRATES AFTER CHANNEL INSTALLATION.
5. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
6. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

1. LEVEL SPREADERS SHALL BE CONSTRUCTED PER STORMWATER MANAGEMENT FOR MAINE, "VOLUME II BMPs TECHNICAL DESIGN MANUAL, CHAPTER 5.2.2, BUFFER WITH STONE BERMED LEVEL LIP SPREADER", JANUARY 2006 SPECIFICATIONS.
2. FOR STAPLE REQUIREMENTS SEE MANUFACTURER'S STANDARDS & SPECIFICATIONS FOR PROTECTIVE MATERIALS.
3. AREAS BELOW LEVEL SPREADERS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

1. CONSTRUCT RIP RAP LINED SLOPE TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
3. EROSION STONE USED FOR THE RIP RAP LINED SLOPE SHALL MEET THE FOLLOWING GRADATION:

<u>SIZE</u>	<u>PERCENT PASSING BY WEIGHT</u>
12"	100
6"	25-50
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF NEW FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

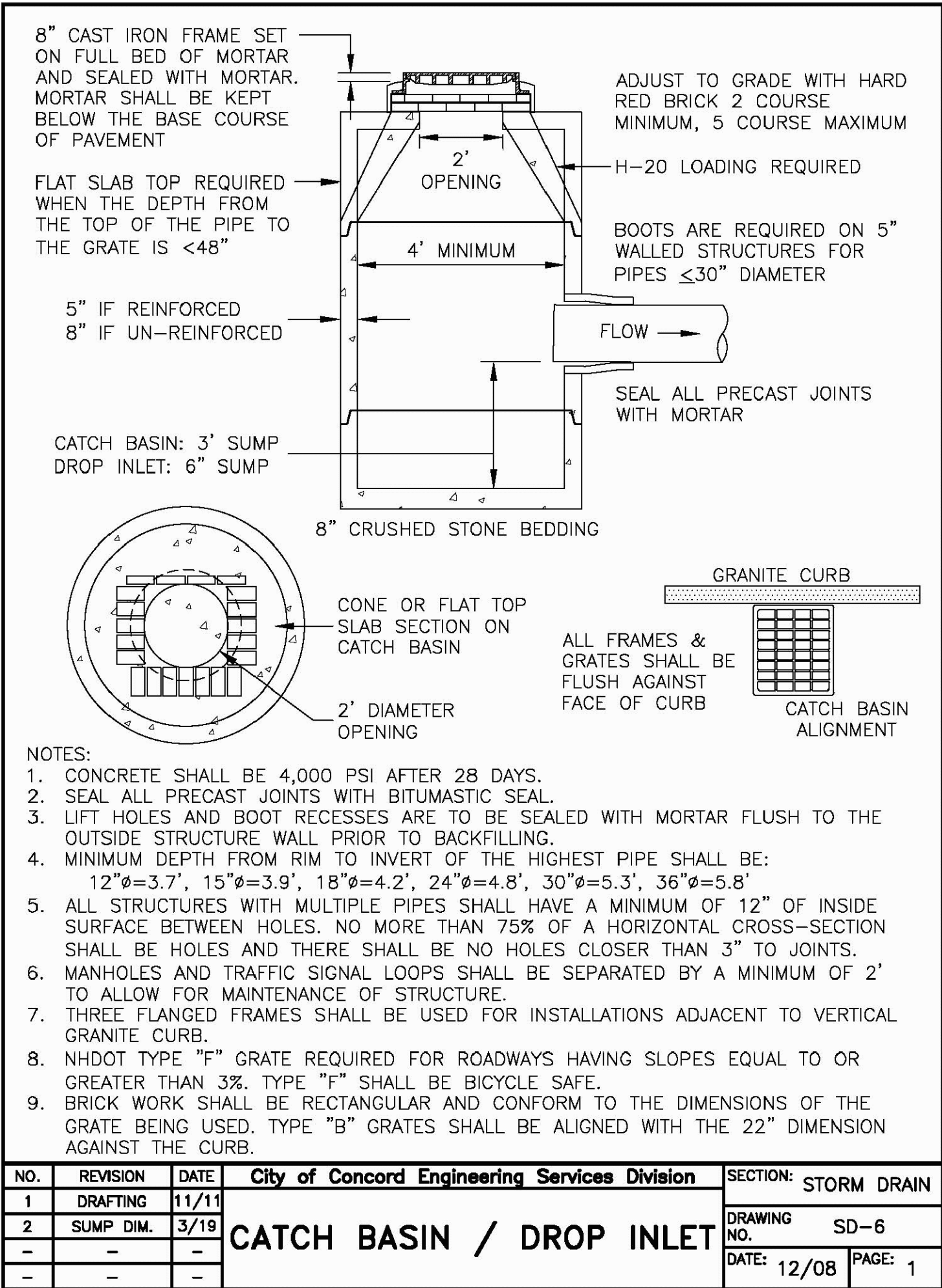
1. EACH GRAVEL BASE COURSE TO BE CONSTRUCTED AT THE PAVEMENT CROSS SLOPE.	7. SUBGRADE SHALL BE FREE OF VOIDS THAT ALLOW MOVEMENT AND/OR SETTLEMENT OF MATERIALS.
2. REMOVE LEDGE 18" BELOW LOWEST WORK BEING INSTALLED.	8. SUBGRADE SHALL BE ROLLED WITH A MINIMUM OF SIX PASSES OF A 10-TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY OTHER MEANS APPROVED BY THE ENGINEER.
3. REMOVE ALL LOAM, CLAY, MUCK, ORGANIC, YIELDING OR OTHERWISE UNSTABLE MATERIAL TO A MINIMUM OF 22" BELOW FINISHED GRADE. ADDITIONAL DEPTH MAY BE REQUIRED BY THE GEOTECHNICAL REPORT (IF AVAILABLE) OR THE ENGINEER. SUCH ADDITIONAL REMOVAL SHALL REQUIRE THE PLACEMENT OF COMPACTED SAND OR GRAVEL BORROW APPROVED BY THE ENGINEER TO THE BOTTOM OF SUBGRADE.	9. COMPACT ALL MATERIALS TO 95% STANDARD PROCTOR. COMPACTION TESTING SHALL BE PERFORMED BY A GEOTECHNICAL ENGINEER FOR ALL MATERIAL COURSES AND THE RESULTS APPROVED BY THE ENGINEER PRIOR TO PLACING THE SUBSEQUENT COURSE.
4. THE OVER-EXCAVATION OF UNSUITABLE MATERIAL BEYOND THAT SPECIFIED ABOVE, THE INSTALLATION OF UNDERDRAINAGE, AND/OR THE INSTALLATION OF GEOTEXTILE FABRIC SHALL BE PROVIDED UPON DETERMINATION OF THE ENGINEER.	10. SUBGRADE SHALL BE PROOF-ROLLED WITH A FULLY LOADED DUMP TRUCK PRIOR TO PLACEMENT OF SELECT GRAVELS. PROOF-ROLLING SHALL BE WITNESSED AND APPROVED BY THE ENGINEER.
5. FILL BELOW PAVEMENT SUBGRADE SHALL BE SAND OR GRANULAR COMMON BORROW COMPACTED PER DOT REQUIREMENTS.	11. BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 90 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041.
6. SITEWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS PRIOR TO PLACING GRAVELS.	12. TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT PAVEMENT.

ISSUED FOR:

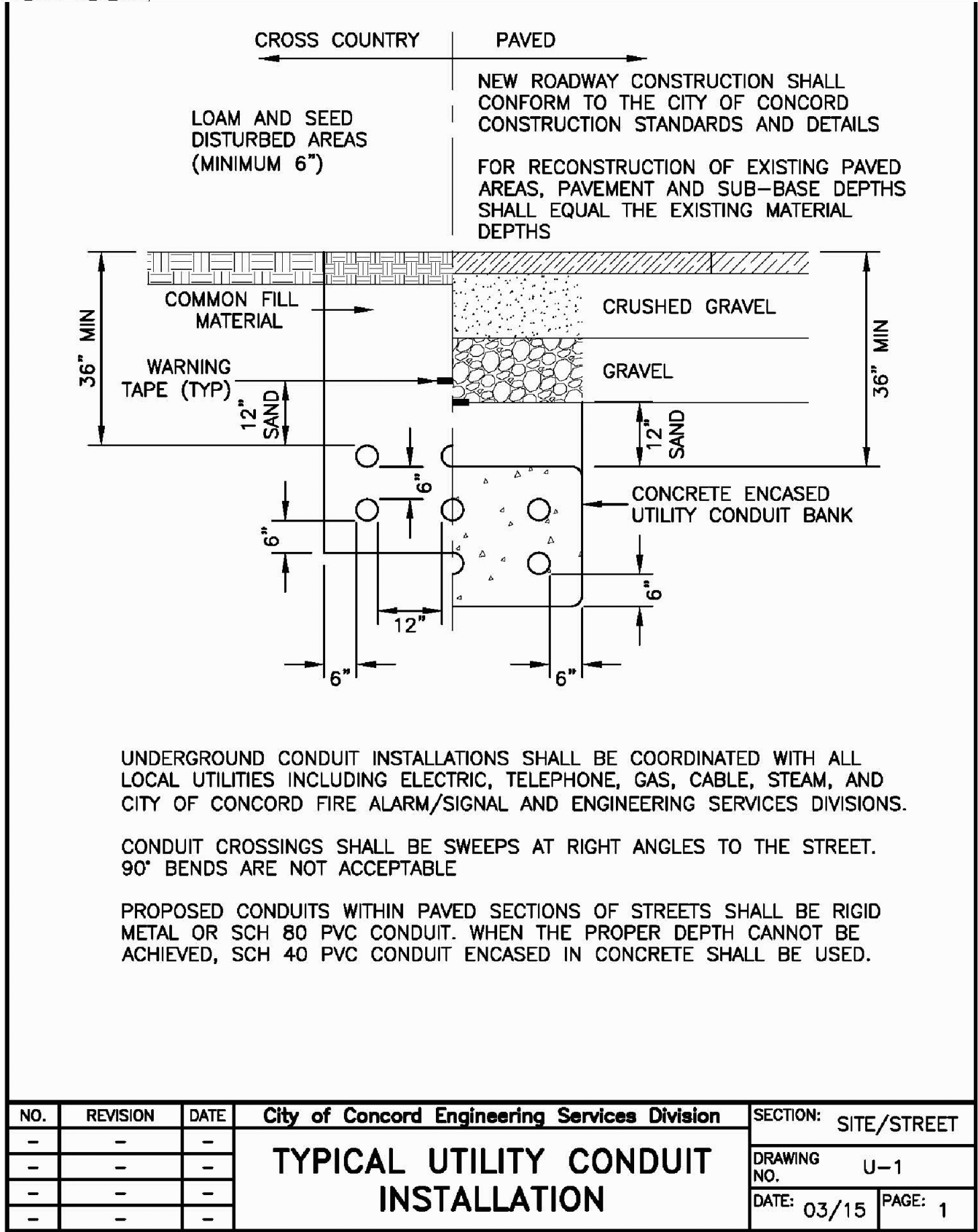
APPROVED BY: _____ EBS

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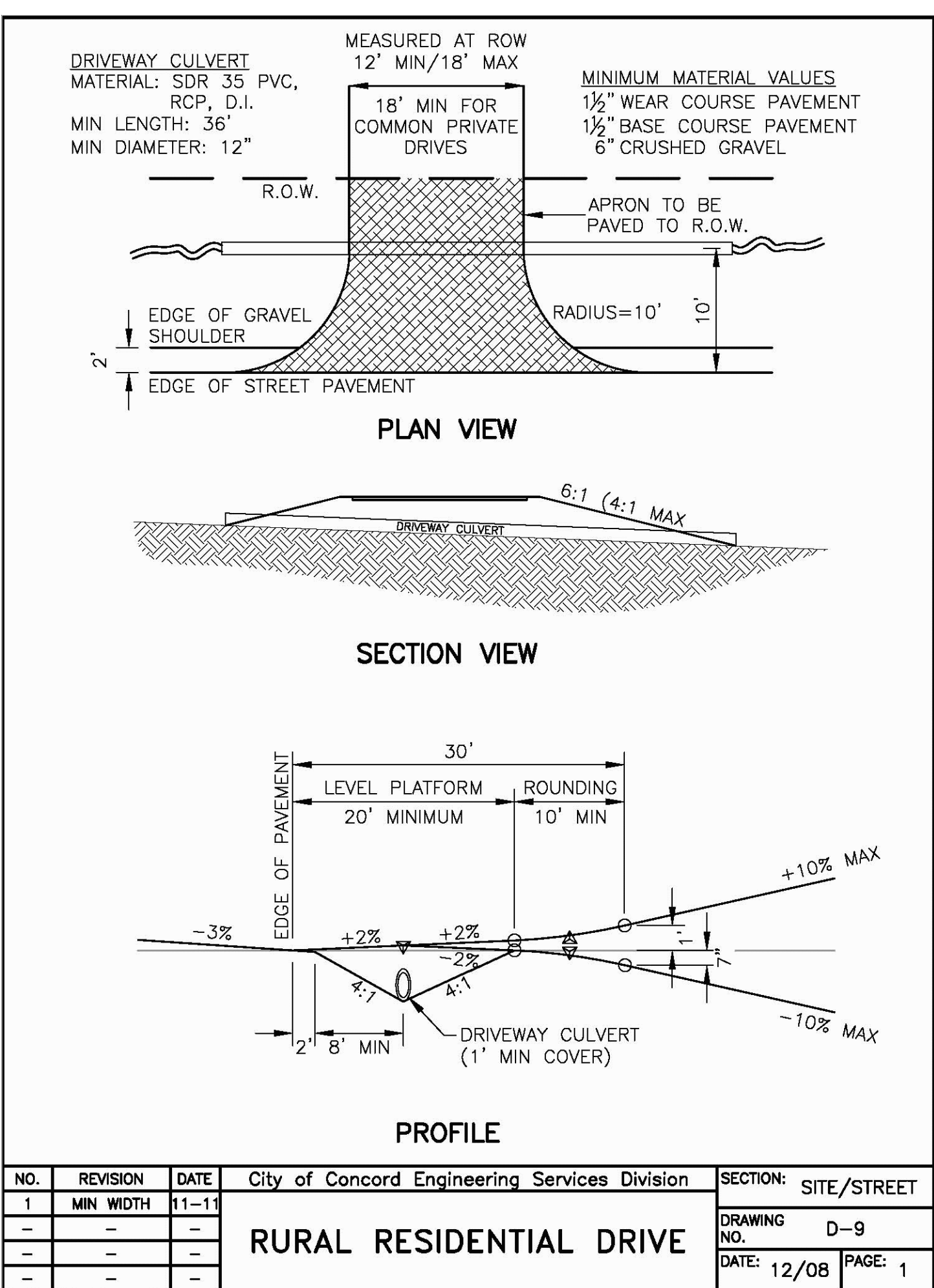
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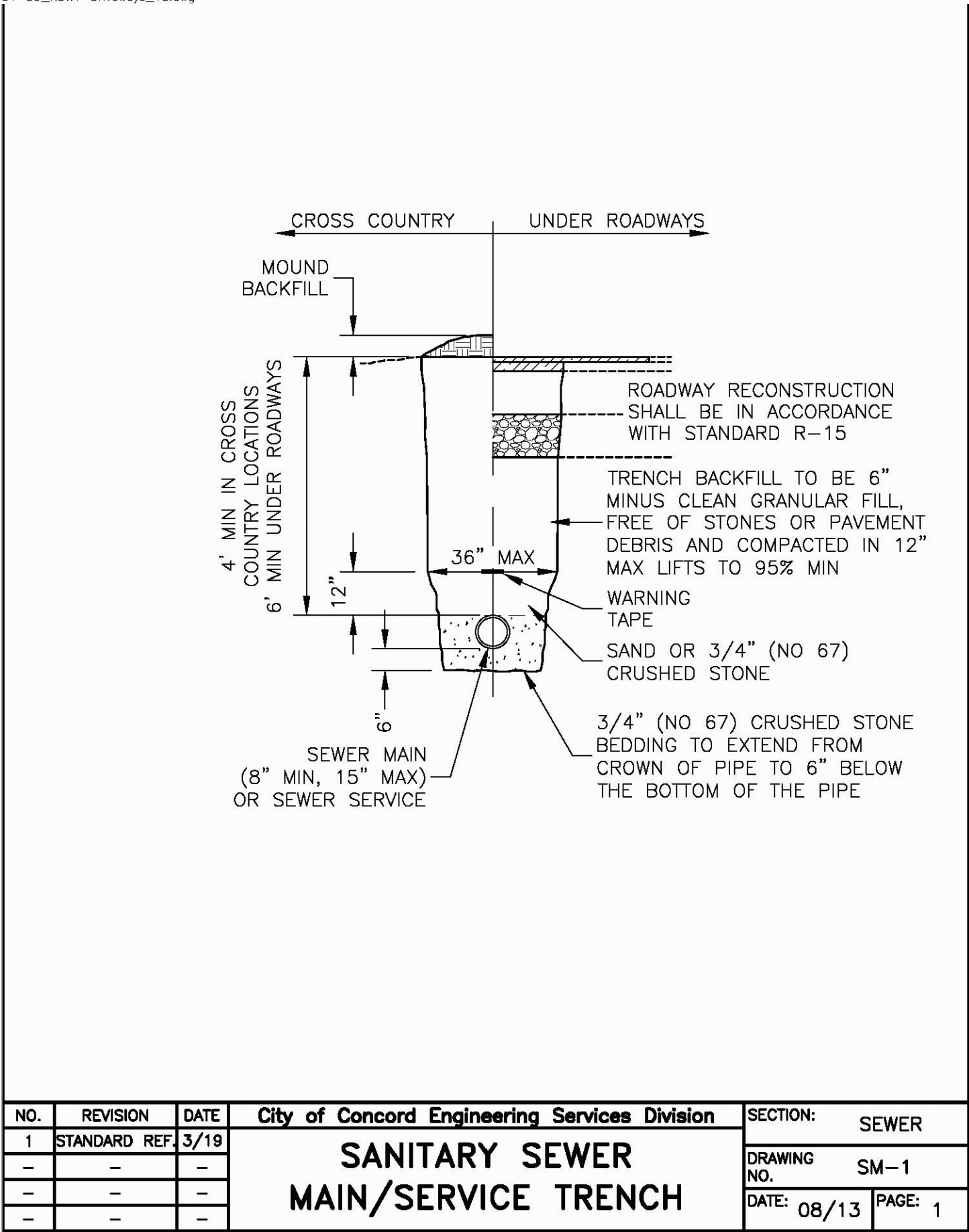
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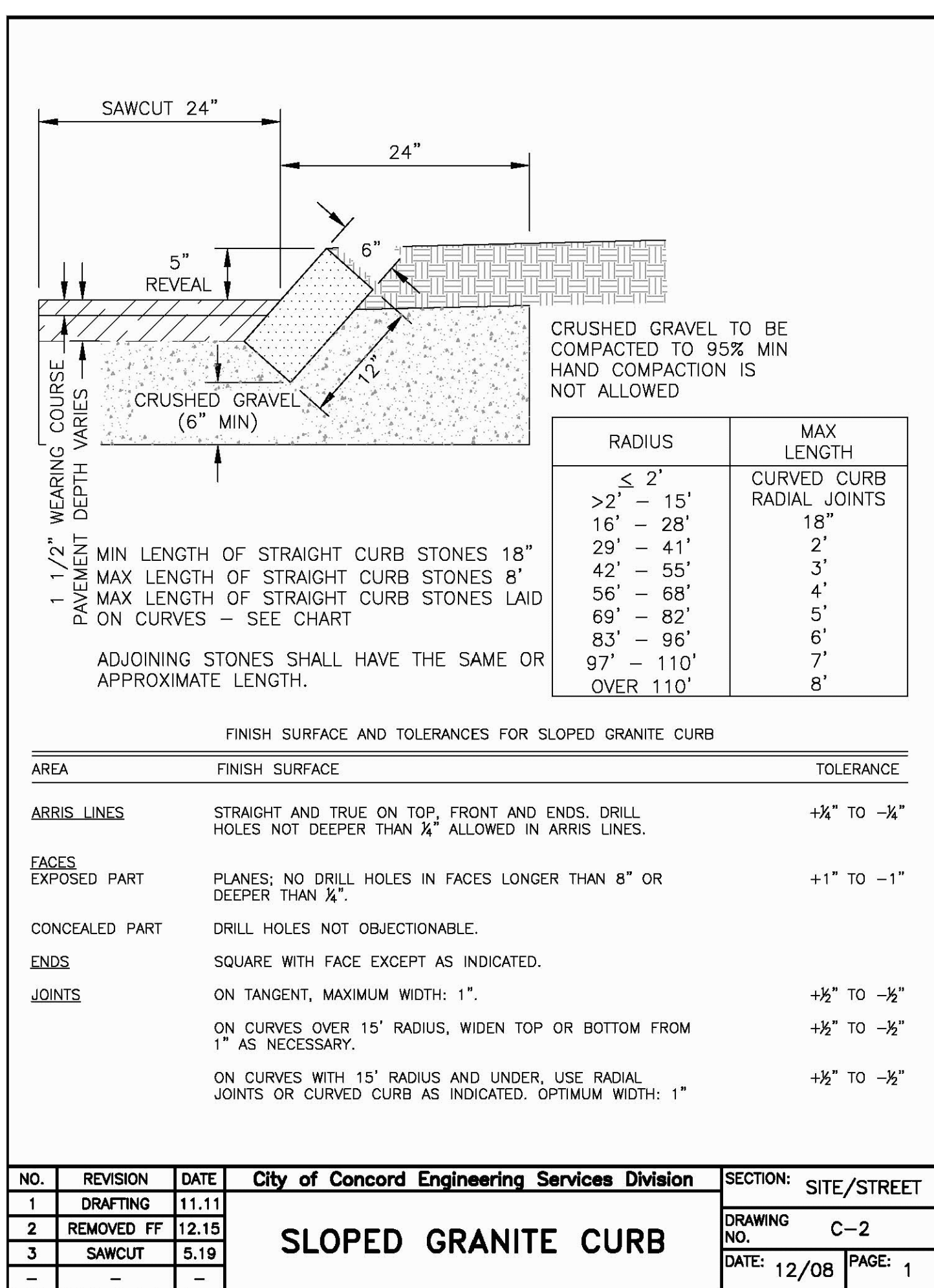
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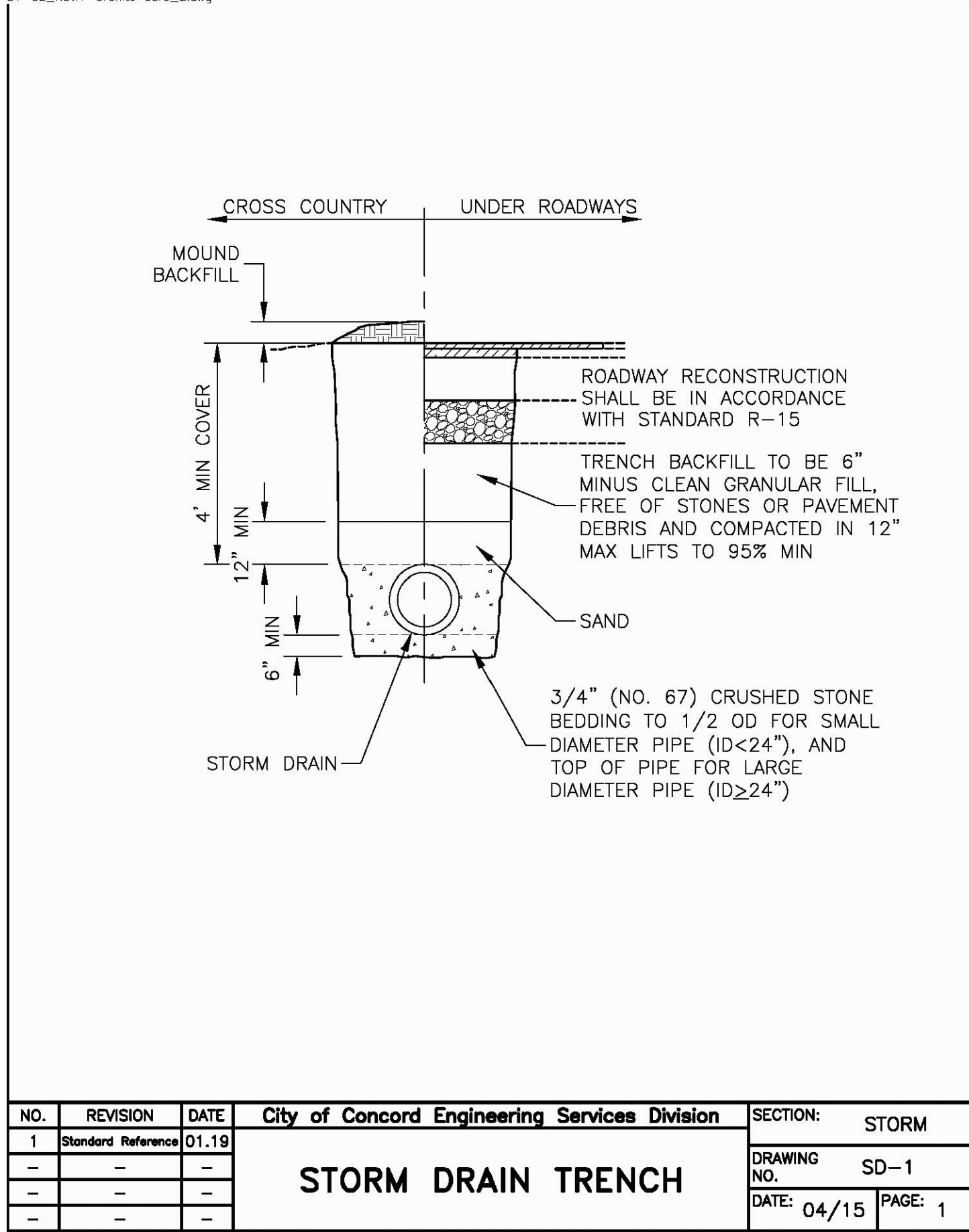
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C1-C2_RDWY-Granite Curb_2.dwg



SD1_Storm Drain Trench.dwg

NOT FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

ISSUE DATE:

DECEMBER 17, 2024

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	SUBMISSION	EBS	09/20/23
1	REMOVE EONE, ADD TREE	EBS	10/18/23
2	REVISED PER COMMENTS	EBS	02/23/24
3	CONDITIONS OF APPROVAL	EBS	06/10/24
4	REVISED PER COMMENTS	EBS	07/30/24
5	REVISED PER COMMENTS	EBS	10/21/24
6	REV. PROJECT NAME	EBS	12/17/24

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE:

NOT TO SCALE

OWNER:

EASTERN DEVELOPMENT, LLC
P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

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PROJECT:

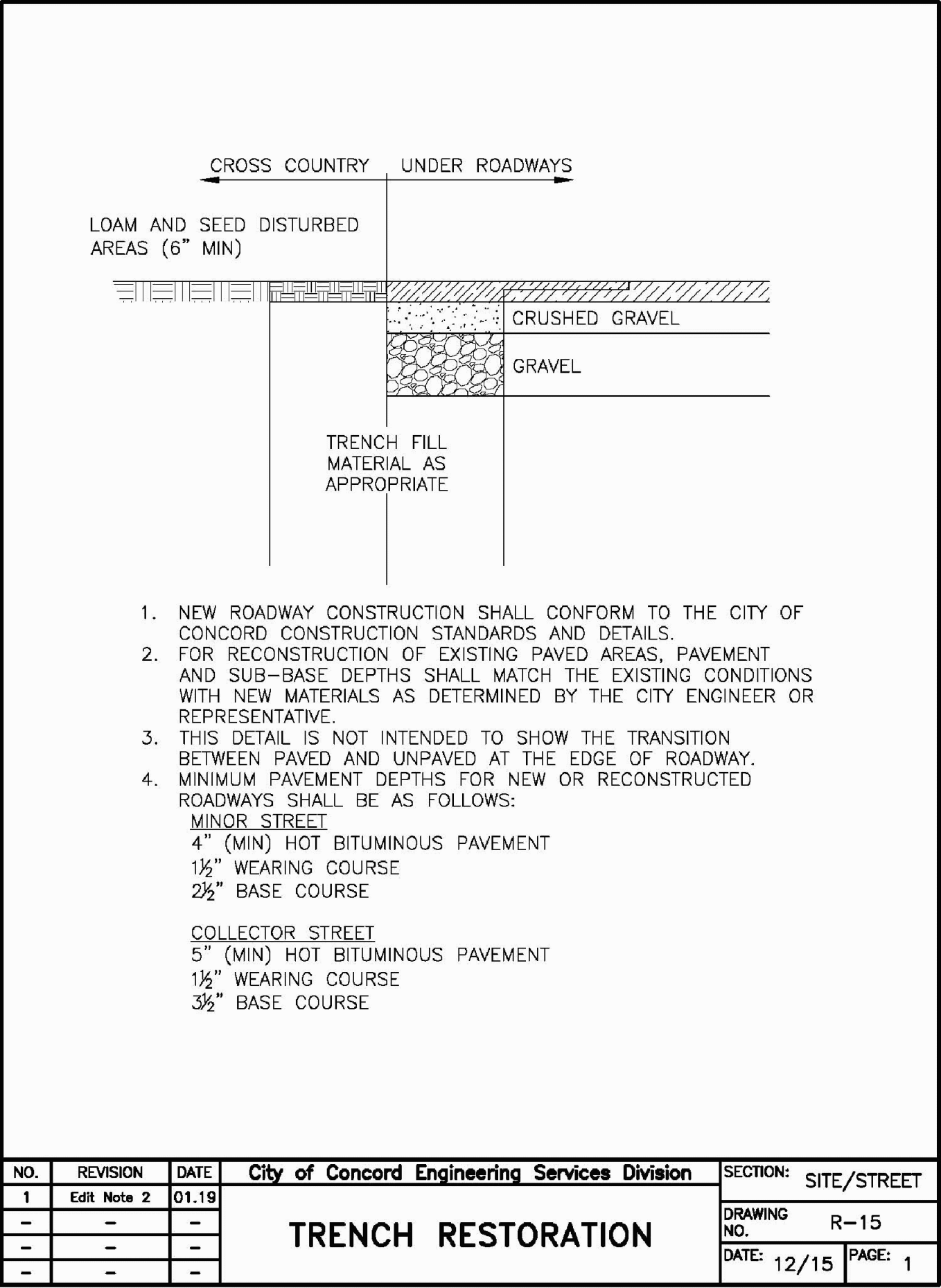
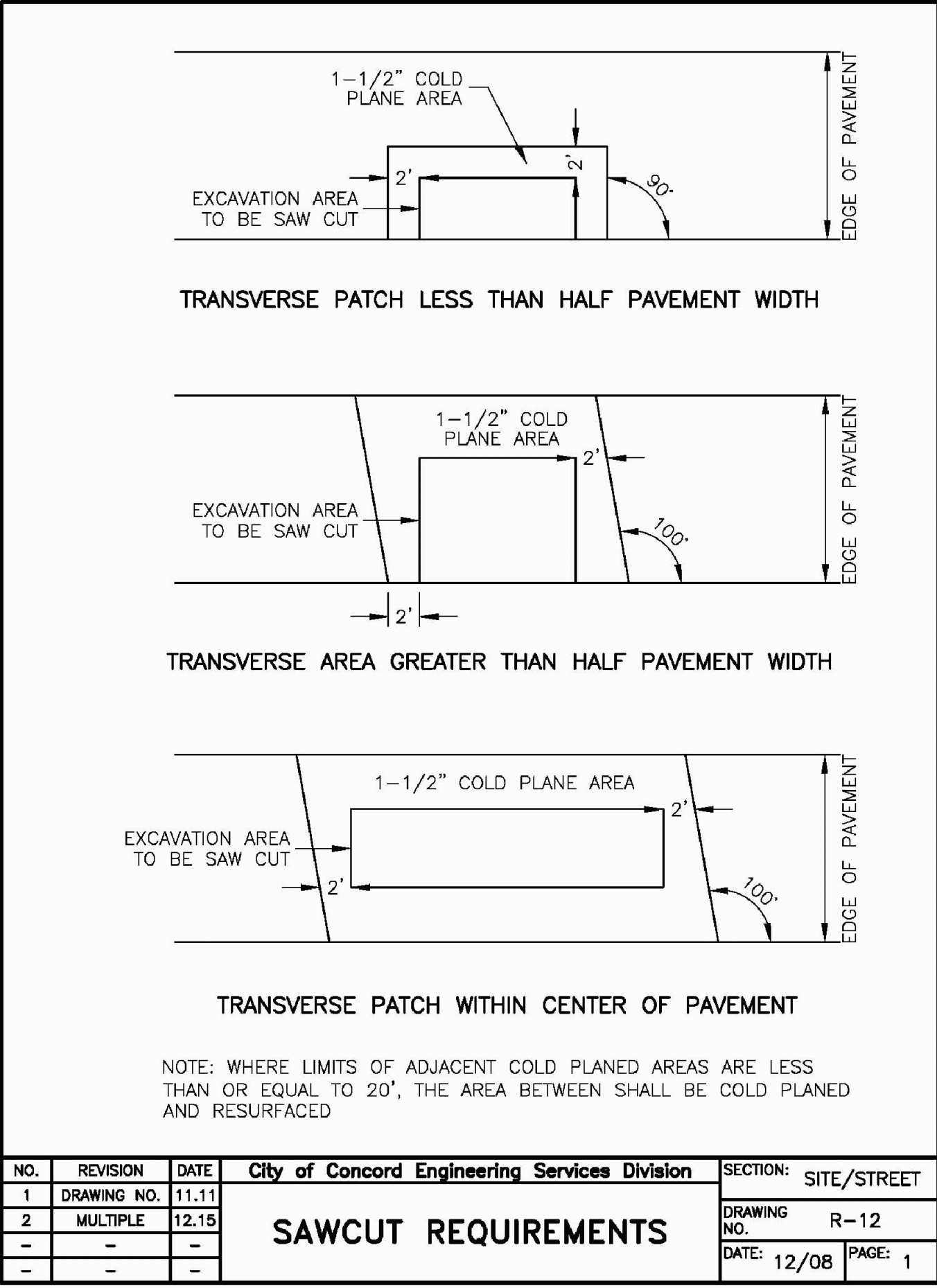
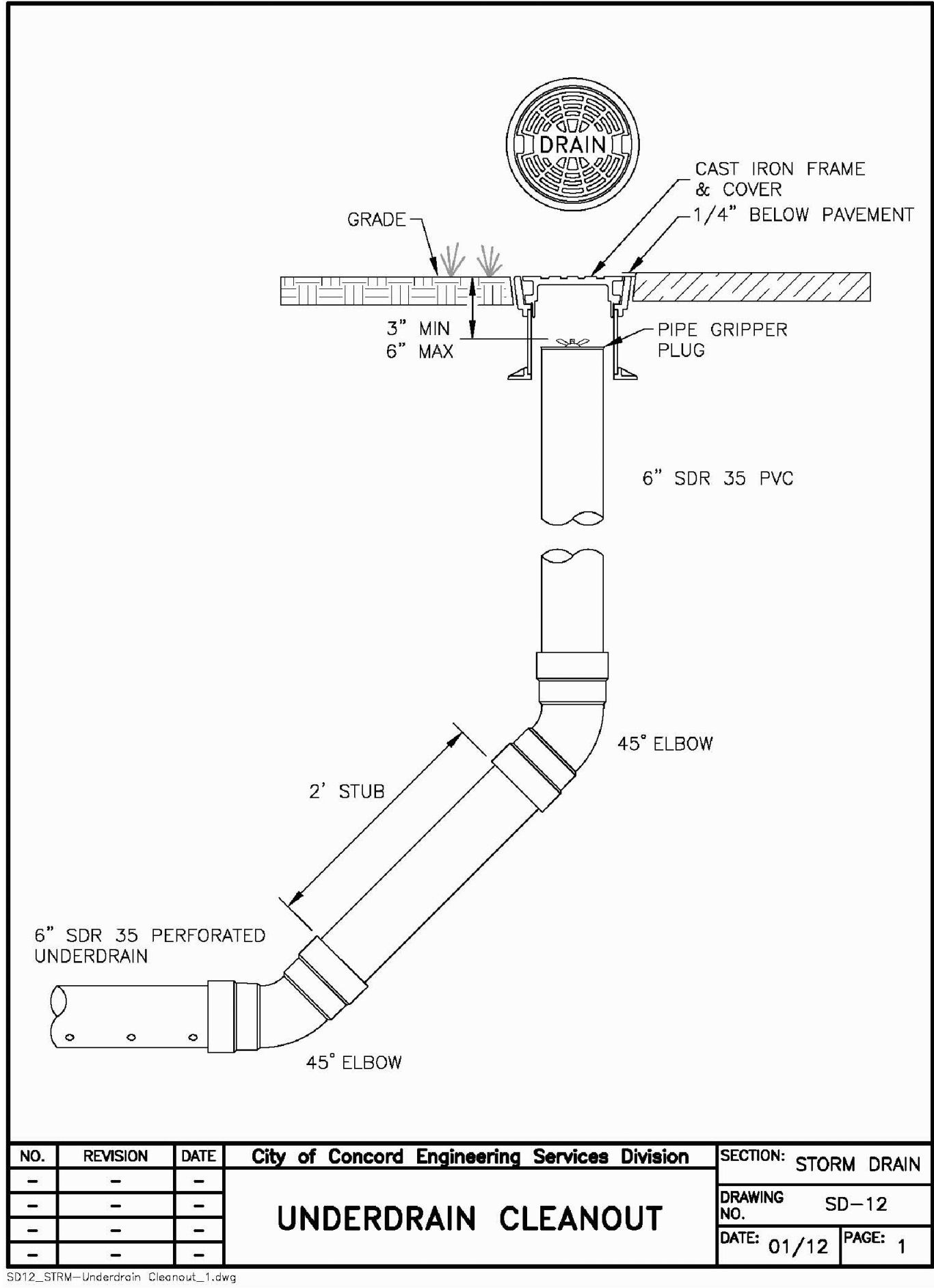
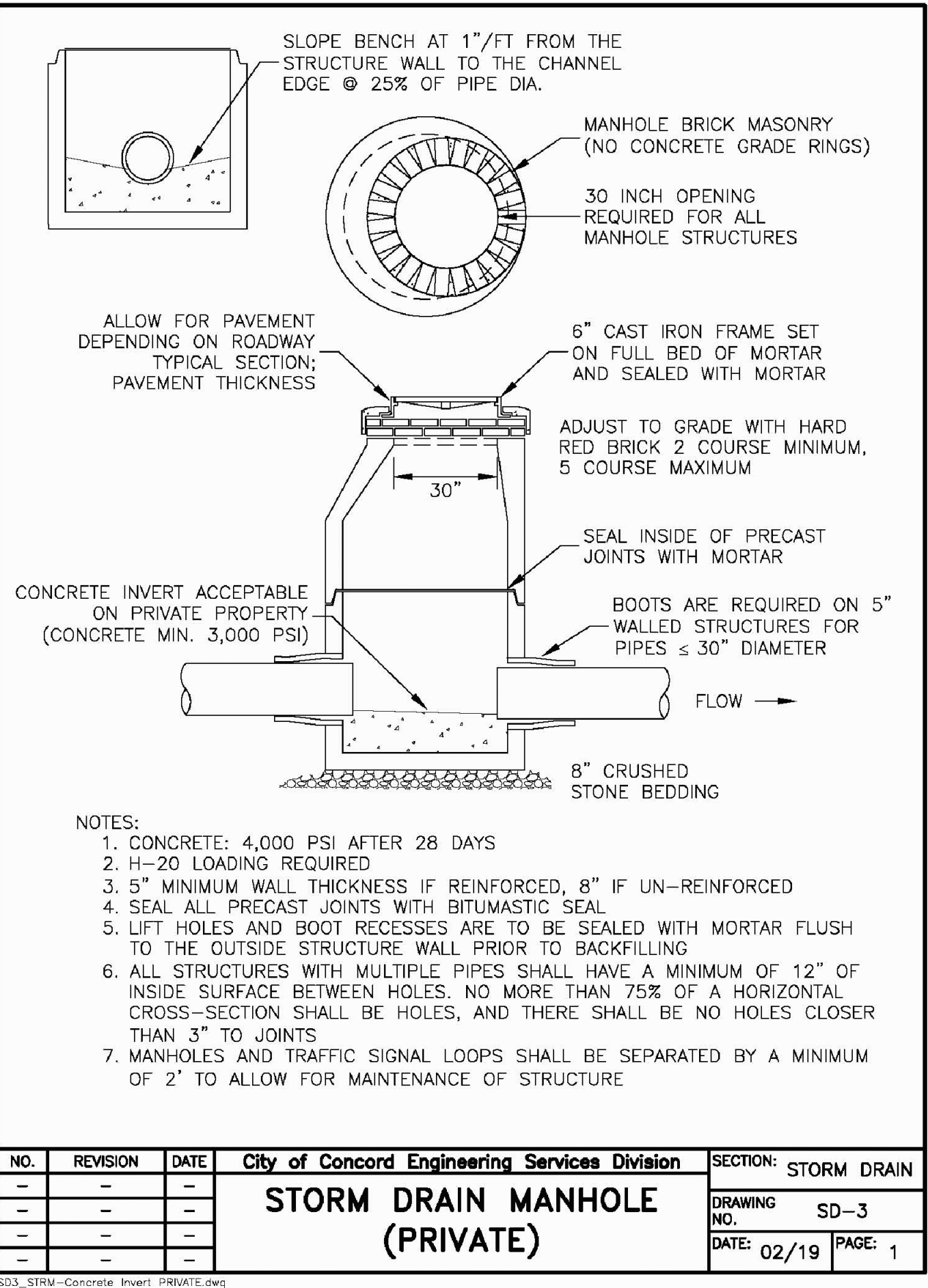
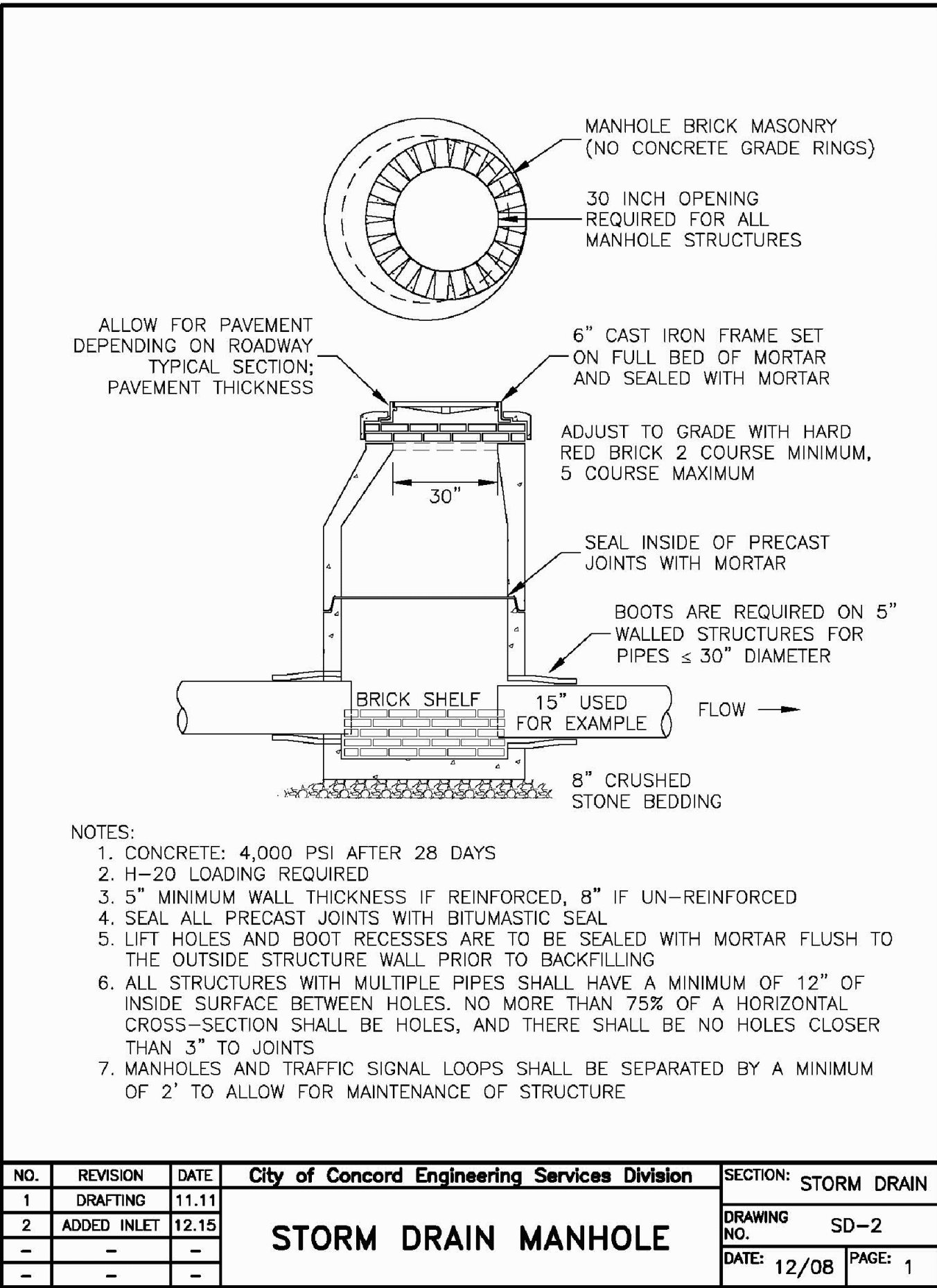
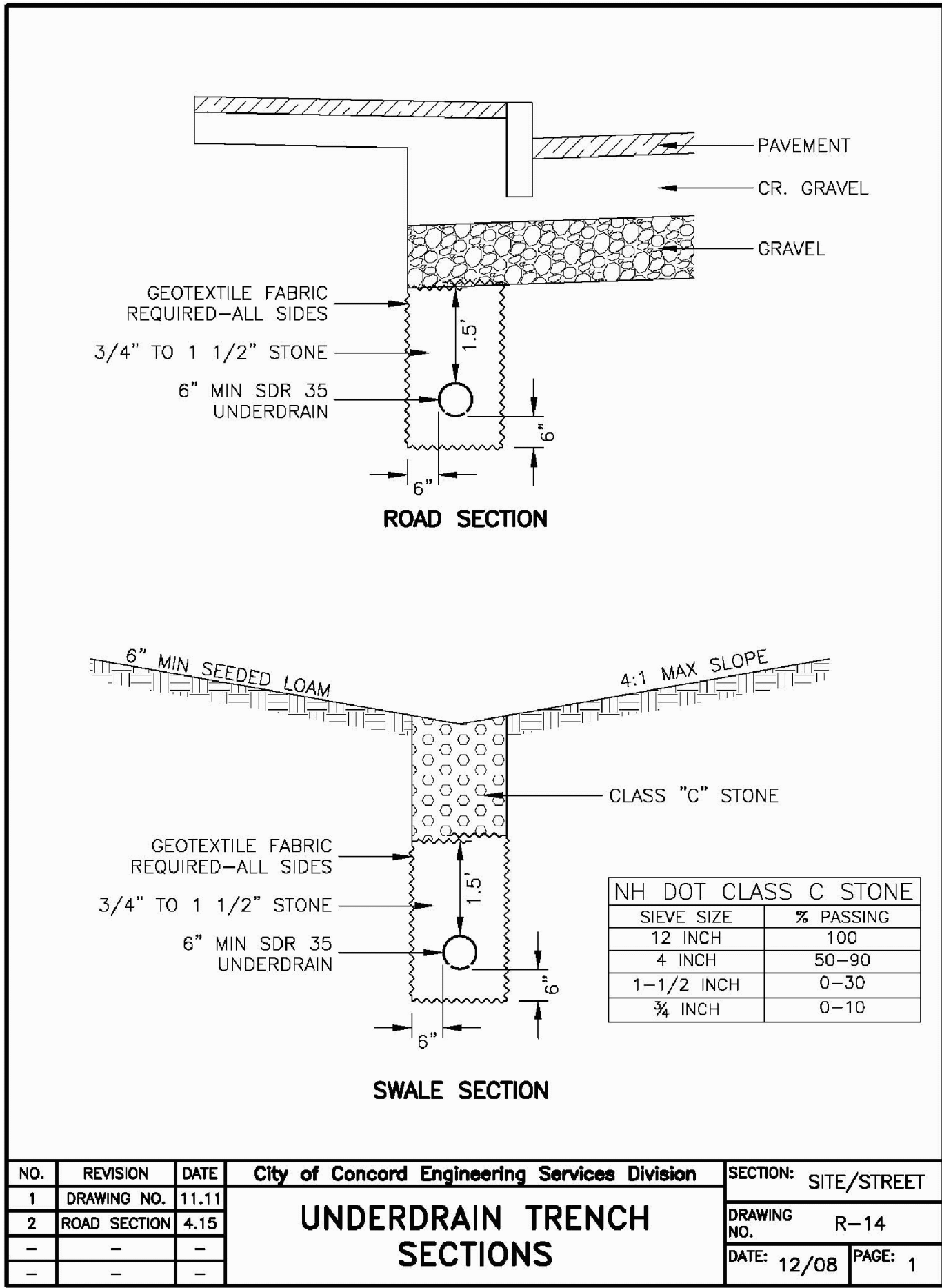
GRANITE RIDGE ESTATES
CLUSTER SUBDIVISION
TAX MAP 11Z
LOT 25-1
15 HOT HOLE POND ROAD
CONCORD, NH

TITLE:

DETAIL SHEET - CITY OF CONCORD STANDARDS

SHEET NUMBER:

C-12



NOT FOR CONSTRUCTION

ISSUED FOR: **FINAL APPROVAL**

ISSUE DATE: **FEBRUARY 19, 2025**

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	SUBMISSION	EBS 10/21/24
1	REV. PROJECT NAME	EBS 12/17/24
2	ADD DETAILS	EBS 02/19/25

DRAWN BY: _____ EBS

APPROVED BY: _____ EBS

DRAWING FILE: _____ 5470-SITE.dwg

SCALE: **NOT TO SCALE**

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P.O. BOX 2671
CONCORD, NH 03302

APPLICANT:

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PROJECT:

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CLUSTER SUBDIVISION
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TITLE:

DETAIL SHEET - CITY OF CONCORD STANDARDS

SHEET NUMBER:

C-13

