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COMMISSIONER-DEPARTMENT OF ADMINISTRATIVE SERVICES

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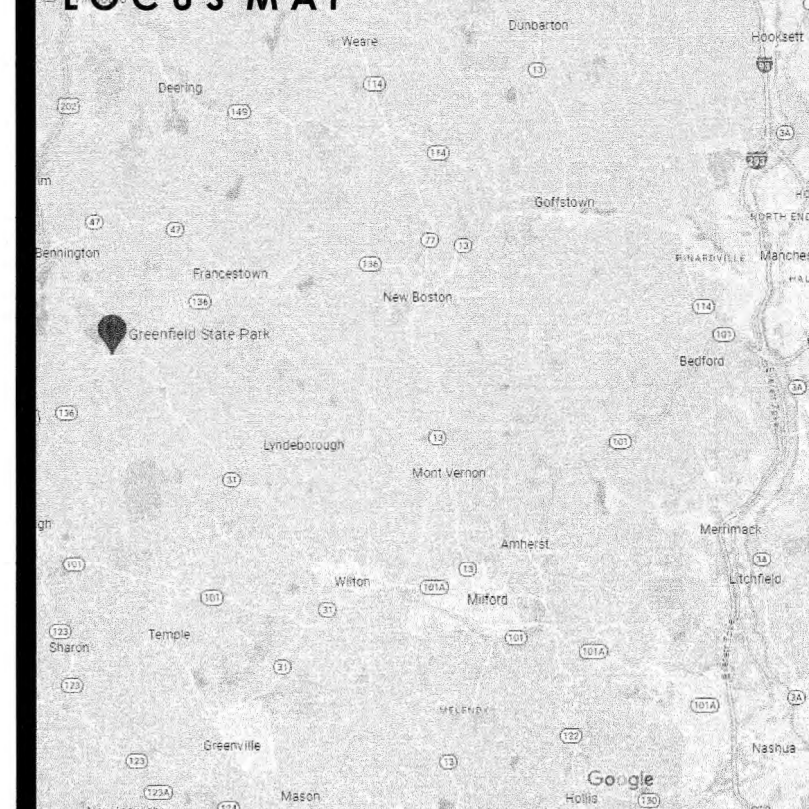
DIRECTOR-DIVISION OF PUBLIC WORKS

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COMMISSIONER-DEPT. OF NATURAL & CULTURAL RESOURCES

Sarah Stewart 10/16/2023
SIGNATURE DATE

LOCUS MAP



REVISIONS

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PROJECT NAME

ARPA - GREENFIELD SP
UTILITIES UPGRADE PROJECT

PROJECT NUMBER

81204R-C

ISSUE DATE

11/16/2023

SHEET NUMBER

T-1

STATE OF NEW HAMPSHIRE

Department of Administrative Services

DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

ARPA - GREENFIELD STATE PARK

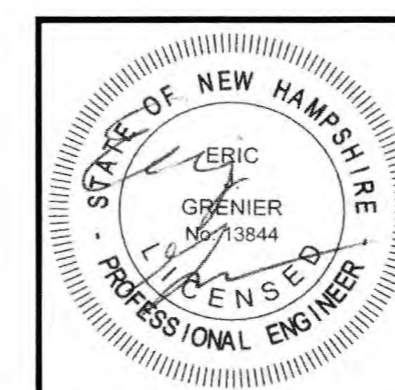
UTILITIES UPGRADE PROJECT

973 FOREST ROAD, GREENFIELD, NH 03047

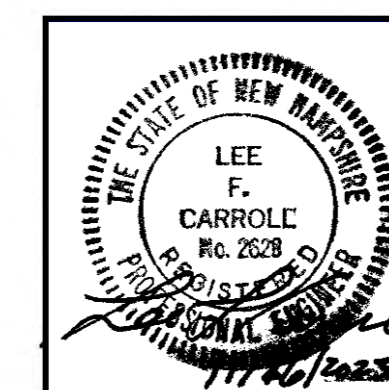
DPW Project #81204R Contract C

DEPARTMENT OF NATURAL & CULTURAL RESOURCES

FEDERAL AID PROJECT



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General Erosion-Control Requirements:

The primary intent of the erosion control requirements and the construction sequence is to stage the project in a manner that will minimize the potential for erosion and the potential negative effects associated therewith. The Engineer shall be contacted and the plan shall be amended if the intent is not being achieved.

- Erosion control definitions:
 - "Strip topsoil": Excavate topsoil, screen, and stockpile.
 - "Seed(ing)": Adjust ph, apply fertilizer, sow the seed mixture, apply mulch (or erosion control matting), apply tackifier.
 - "Significant rainfall event": more than ¼-inch of rain.
- Install all erosion control measures prior to earthwork operation and maintain all erosion control measures and seeded embankments during construction. Erosion control shall be removed only upon the establishment of all vegetated areas.
- All drainage structure inlets shall be protected using inlet protection or catch basin inserts.
- Erosion control measures shall be implemented complying with the Best Management Practices (BMPs) of the New Hampshire Stormwater Management Manual, Latest Edition, Post-Construction Best Management Practices Section & Design, by the New Hampshire Department of Environmental Services (NHDES), United States Department of Agriculture (USDA) SCS, and Rockingham County Conservation District, latest edition.
- Do not disturb areas outside the limits of proposed work. Areas disturbed by the Contractor's operations shall be restored to their original condition at the Contractor's expense. All areas disturbed during construction not covered with buildings, structures or pavement shall receive four (4) inches of loam and seed.
- The downhill side of all stockpiles shall be encircled with silt fence.
- All ditches, swales, and other areas of concentrated flow shall be stabilized prior to directing flow to them. Inlet protection to be installed prior to directing flow to storm drains.
- Before weekends, and if a significant rainfall event is anticipated during the construction of the cut/fill embankments, a temporary berm shall be constructed along the top of the fill embankments, and temporary slope drains (pipes) with temporary stone outlet aprons shall be installed at the base of the slopes.
- The maximum time that any disturbed areas shall be left unstabilized shall be 14 days.
- The smallest practical area shall be disturbed to complete the required construction, but no more than 5 acres at any one time.
- All cut and fill slopes shall be seeded and mulched within 72 hours after their construction.
- Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway and the associated drainage is complete and stable.
- An area shall be considered stable if one of the following has occurred:
 - A. Base course gravels have been installed in areas to be paved;
 - B. A minimum of 85 percent vegetated growth has been established;
 - C. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed; or
 - D. Erosion control blankets have been properly installed.
- Throughout the construction period, all erosion-control measures shall be inspected at the end of each week and before anticipated significant rainfall events and repaired, if deficient. Extra attention shall be given to the critical areas listed separately.
- All erosion control measures shall be inspected weekly, and after every 0.25 inches or greater rainfall within a 24-hour period.
- All roadways/parking areas and cut and fill slopes shall be stabilized within 72 hours of achieving finished grade.
- Precaution shall be taken throughout the duration of construction activity to prevent, abate, and control the emission of fugitive dust, including but not limited to, wetting, covering, shielding, or vacuuming.
- The project must meet the requirements and intent of RSA 430:5.3 and Agr 3800 relative to invasive species.
- Temporary water diversions (swales, basins, etc.) must be used as necessary until areas are stabilized.
- All construction dewatering shall be discharged to approved sedimentation basins.
- Detention basins and swales shall be installed before rough grading at the site.

Critical Erosion Areas:

Temporary seeding and/or mulching shall be used to protect exposed critical areas during construction. The following areas are particularly susceptible to erosion and shall receive extra attention when being inspected and maintained:

- Large cut and fill areas along road and driveways.
- Areas not worked or not to be worked for 3 weeks.
- Areas of concentrated flow such as ditches, swales, and toes of uphill facing slopes.
- Stormwater ponds and level spreaders.

Temporary Seeding Notes:

- Bedding: Remove stones and trash that will interfere with seeding the area. Where feasible, till the soil to a depth of about 3 inches to prepare a seedbed and mix fertilizer into the soil. The seedbed should be left in a firm and smooth condition. The last tillage operation should be performed across the slope wherever practical.
- Fertilizers: Fertilizer should be uniformly spread over the area prior to being incorporated into the soil. A minimum of 300 pounds per acre (7 pounds per 1,000 square feet) of 10-10-10 fertilizer, or its equivalent, should be applied.
- Where it is impracticable to incorporate fertilizer and seed into moist soil, the seeded area should be mulched to facilitate germination.
- Seed Mixture: Use any of the following:

Species	Per Acre	Per 1,000 s.f.	Dates	Depth
Winter Rye	112 lbs.	2.5 lbs.	8/15-9/5	1 inch
Oats	80 lbs.	2.0 lbs.	Spring-5/15	1 inch
Annual Ryegrass	40 lbs.	1.0 lbs.	4/15-9/15	½ inch
Perennial Ryegrass	30 lbs.	0.7 lbs.	4/1-6/1 or 8/15-9/15	½ inch
- Maintenance: If seeding fails to grow, it may need to be re-established to provide adequate erosion control. If weeds become a problem, they may need to be controlled by mowing.

As-Built Measurements and Record Drawings:

- Record as-built dimensions on a daily basis and review with the Owner's Representative on a weekly basis. Submit complete record information on a clean set of drawings to Owner's Representative(s) upon substantial completion of work.
- As-built dimensions shall include locations of all surface features and subsurface utility systems including, but not limited to:
 - A. Location, size, depths, rims, angle points, and invert elevations of buried pipes, utilities, vaults, etc.
 - B. Field changes of dimension and detail.
 - C. Details not on original drawings.

General Construction Requirements and Utility Notes:

- Contractor is responsible for all work shown on the drawings, unless otherwise noted. Provide all materials and labor necessary to complete all work shown on the drawings.
- All work shall conform to the latest edition of the New Hampshire Department of Transportation (NHDOT) Standard Specifications for Road & Bridge Construction and supplemented as necessary.
- Perform all work in compliance with federal, state, and local permit approvals. Copies of all permit approvals shall be maintained at the project site.
- Site security and job safety are the sole responsibility of the Contractor. All construction activities shall comply with Occupational Safety and Health Administration (OSHA) standards and local requirements.
- Contractor shall prepare a "Notice of Intent" and "Stormwater Pollution Prevention Plan" at least one week prior to construction in accordance with the current National Pollutant Discharge Elimination System (NPDES) requirements.
- The location of existing utilities are approximate and have not been independently verified. Contact "Dig Safe" 72 hours prior to any excavation at 1-888-344-7233 and any other utility owners for accurate utility marking. Pay for all damages which may occur by failure to locate and preserve any utilities.
- The Contractor shall provide a construction schedule to the Owner prior to commencing work and shall update the schedule as necessary.
- At least one week prior to site clearing/demolition, request Owner's Representative to identify features to remain.
- The Engineer and Owner's Representative shall have full access to the site when the work is in preparation and progress. They may observe the work on a periodic or full-time basis.
- Field-verify the location, size, inverts and types of existing pipes at all proposed points of connection prior to ordering materials. Where an existing utility is found to be in conflict with the proposed work, the location, elevation and size of the utility shall be accurately determined without delay, and the information furnished in writing to the Owner's Representative for resolution of the conflict.
- All existing sewer, storm drain lines, culverts, and gas lines encountered during construction are to remain in service. Any lines damaged during construction shall be repaired by the Contractor at the Contractor's expense, except when in direct conflict with the new service or when not shown or indicated. Culverts damaged during construction shall be replaced from the damage area to the outlet.
- Contractor shall remove and replace or repair all curbs, sidewalk, pavement, and other items damaged by their construction activities to, at a minimum, their original condition, to the satisfaction of the Owner.
- The Contractor shall provide submittals (gradations, proctors, product data, etc.) as directed by the Owner/Engineer for all materials to be incorporated into the work.
- Make all necessary construction notifications and apply for and obtain all necessary permits not provided by Owner, and pay all fees and post all bonds associated with the work indicated on the drawings.
- Provide traffic control and flaggers (if required) complying with the State Department of Transportation requirements.
- Construction layout is subsidiary, and is the responsibility of the Contractor.
- The Contractor shall not disturb any existing property corner, monument, survey marker, or benchmark without first making provisions for its replacement or relocation. The cost of protecting existing property corners, monuments, survey markers, or benchmarks is subsidiary to the project.
- Final resolution to conflicts within the specifications or any substitutions shall be determined by the Owner/Engineer.
- The location and limits of on-site work and storage areas shall be reviewed/coordinated with, and acceptable to, the Owner. The Contractor shall limit activities to these areas.
- Contractor shall remove and dispose of all debris, and excess excavated materials from within the construction limit of work to a suitable site provided by the Contractor, in compliance with all state and local regulations. Any excess suitable material may remain on site at the request of the Owner.
- When power or telephone pole support is required, the Contractor shall provide a minimum 48-hour notification to governing utility agency.
- Open trenches in the roadway must be backfilled at the end of the workday. As approved by the Owner, open trenches outside of the roadway may be left open if the Contractor provides safe barricading and lights.
- All structures and pipelines to remain after project completion located adjacent to the trench excavation shall be protected and firmly supported by the Contractor until the trench is backfilled. Injury to any such structures caused by, or resulting from, the Contractor's operations shall be repaired at the Contractor's expense. All utilities requiring repair, relocation, or adjustment as a result of the project shall be coordinated through the respective utility.
- All manholes, valve boxes, and other buried facilities with surface access shall be adjusted to match final grades, unless otherwise indicated.
- Existing waterlines shall be removed when encountered within limits of trench for new water lines. Existing waterlines not removed as part of the work and which will not remain integral to the operation of the new system, shall be abandoned in place. This work shall be considered subsidiary to the project.
- Severing existing utilities for abandonment or removal of a segment from service shall be performed in such a manner as to allow the remaining active segment to continue in its intended service. Cap active segments with appropriate fittings, joint restraint, etc., to ensure their integrity. Plug ends of abandoned pipe segments with concrete, unless special circumstances dictate plugging abandoned pipes with blind flanges, restrained mechanical joint plugs, etc. as appropriate.

Material Testing:

- It is anticipated the following material testing program at a minimum will be implemented and be the responsibility of the Contractor.
- Contractor shall notify Owner's Representative at least 48 hours prior to placement of materials noted below.
- Contractor is responsible for supplying and installing construction materials that meet NHDOT Standard Specifications for Road & Bridge Construction, Latest Edition.

NHDOT Item	Description	Test Location & Frequency
304.1	Sand	Compaction - In Place 1/1,000 LF of waterline Gradation - 1/source
304.2	Gravel	Compaction - In Place 1/Dump Station Area (Bid Item #3) Gradation - 1/source
304.3	Crushed Gravel	Compaction - In Place 1/Dump Station Area (Bid Item #3) Gradation - 1/source
403.11023		
403.11053	Hot Bituminous Pavement	Compaction - In place 1/Dump Station Area (Bid Item #3, binder & wearing) - In place 1/project on pavement trench (Bid Item #3, binder & wearing)
-	ASTM C-33 Std. Stone #67	Gradation - 1/source
-	Chamber Bedding	Gradation - 1/source (Bid Item #3)

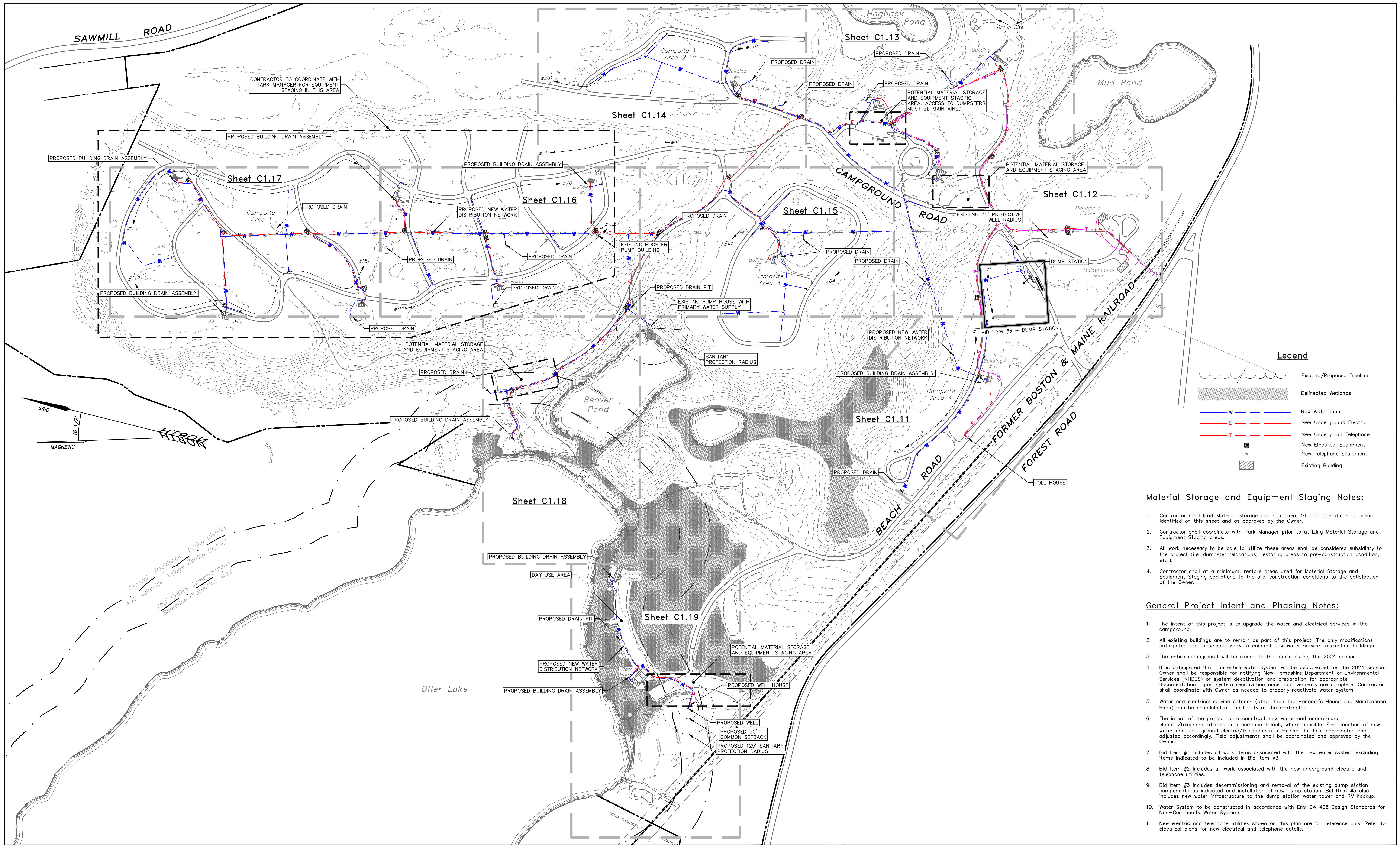
Civil Sheet Index

Number	Sheet	Sheet Name	Latest Issue
1.	T-1	Cover Sheet	11/16/2023
2.	C0.02	General Notes	11/16/2023
3.	C1.01	Overall Water Plan	11/16/2023
4.	C1.11	Water Plan - Area A	11/16/2023
5.	C1.12	Water Plan - Area B	11/16/2023
6.	C1.13	Water Plan - Area C	11/16/2023
7.	C1.14	Water Plan - Area D	11/16/2023
8.	C1.15	Water Plan - Area E	11/16/2023
9.	C1.16	Water Plan - Area F	11/16/2023
10.	C1.17	Water Plan - Area G	11/16/2023
11.	C1.18	Water Plan - Area H	11/16/2023
12.	C1.19	Day Use Area Electrical and Water Plan	11/16/2023
13.	C1.21	Sewage Disposal System Plan - Dump Station	11/16/2023
14.	C5.11	Construction Details - Water	11/16/2023
15.	C5.21	Construction Details - Miscellaneous	11/16/2023
16.	C5.31	Construction Details - Dump Station	11/16/2023
17.	C5.41	Day Use Area Pump House	11/16/2023
18.	C5.51	Day Use Area General	11/16/2023

Electrical Sheet Index

Number	Sheet	Sheet Name	Latest Issue
1.	ES-1	Existing Electrical Utilities Site Plan/Removals	11/16/2023
2.	ES-2	Proposed New Electrical Site Utilities	11/16/2023
3.	ED-1	Electrical Details and New Utilities on Line Diagram	11/16/2023
4.	ED-2	Electrical Utility Details Sheet #2	11/16/2023
5.	ED-3	Electrical Utility Details Sheet #3	11/16/2023
6.	ED-4	Electrical Details Sheet #4 Power & Communications Details for Noted Facilities	11/16/2023
7.	ED-5	Electrical Details Sheet #5 Toilet Buildings #1-#6, Water Booster Station	11/16/2023
8.	ED-6	Electrical Details Sheet #6 Toilet Buildings #7-#11	11/16/2023
9.	ED-7	Electrical Panel Schedules	11/16/2023

 <p>HEB Engineers, Inc. Post Office Box 440 2605 White Mountain Hwy. North Conway, NH 03860 www.hebengineers.com Office (603) 356-6936 Fax (603) 356-7715</p>		<p>STATE OF NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION</p> <p>JOHN O. MORTON BUILDING 7 HAZEN DRIVE BOX 483 ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483 (603) 271-3516 FAX (603) 271-3515</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			DATE	DESCRIPTION	BY																												<p>ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT 973 FOREST ROAD GREENFIELD, NEW HAMPSHIRE DEPARTMENT OF NATURAL & CULTURAL RESOURCES</p>		<p>PROJECT NO.: 81204R CONTRACT: C</p>
			DATE	DESCRIPTION	BY																																	
<p>ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.</p>			<p>GENERAL NOTES</p>		<p>DRAWN BY: - SCALE: N/A DATE: 11/16/2023 SHEET: C0.02</p>																																	



Legend

- Existing/Proposed Treeline
- Delineated Wetlands
- New Water Line
- New Underground Electric
- New Underground Telephone
- New Electrical Equipment
- New Telephone Equipment
- Existing Building

Material Storage and Equipment Staging Notes:

1. Contractor shall limit Material Storage and Equipment Staging operations to areas identified on this sheet and as approved by the Owner.
2. Contractor shall coordinate with Park Manager prior to utilizing Material Storage and Equipment Staging areas.
3. All work necessary to be able to utilize these areas shall be considered subsidiary to the project (i.e. dumpster relocations, restoring areas to pre-construction condition, etc.).
4. Contractor shall at a minimum, restore areas used for Material Storage and Equipment Staging operations to the pre-construction conditions to the satisfaction of the Owner.

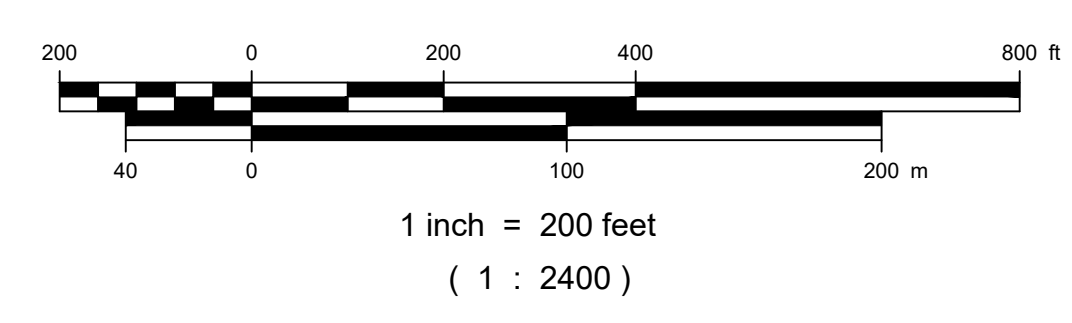
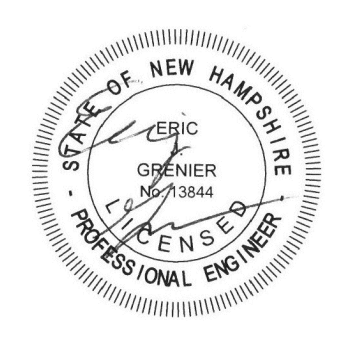
General Project Intent and Phasing Notes:

1. The intent of this project is to upgrade the water and electrical services in the campground.
2. All existing buildings are to remain as part of this project. The only modifications anticipated are those necessary to connect new water service to existing buildings.
3. The entire campground will be closed to the public during the 2024 season.
4. It is anticipated that the entire water system will be deactivated for the 2024 season. Owner shall be responsible for notifying New Hampshire Department of Environmental Services (NHDES) of system deactivation and preparation for appropriate documentation. Upon system reactivation once improvements are complete, Contractor shall coordinate with Owner as needed to properly reactivate water system.
5. Water and electrical service outages (other than the Manager's House and Maintenance Shop) can be scheduled at the liberty of the contractor.
6. The intent of the project is to construct new water and underground electric/telephone utilities in a common trench, where possible. Final location of new water and underground electric/telephone utilities shall be field coordinated and adjusted accordingly. Field adjustments shall be coordinated and approved by the Owner.
7. Bid Item #1 includes all work items associated with the new water system excluding items indicated to be included in Bid Item #3.
8. Bid Item #2 includes all work associated with the new underground electric and telephone utilities.
9. Bid Item #3 includes decommissioning and removal of the existing dump station components as indicated and installation of new dump station. Bid Item #3 also includes new water infrastructure to the dump station water tower and RV hookup.
10. Water System to be constructed in accordance with Env-Dw 406 Design Standards for Non-Community Water Systems.
11. New electric and telephone utilities shown on this plan are for reference only. Refer to electrical plans for new electrical and telephone details.

General Residence Zoning District
 400' Lakeside Village Zoning District
 750' NHDES Comprehensive Shoreline Protection Area



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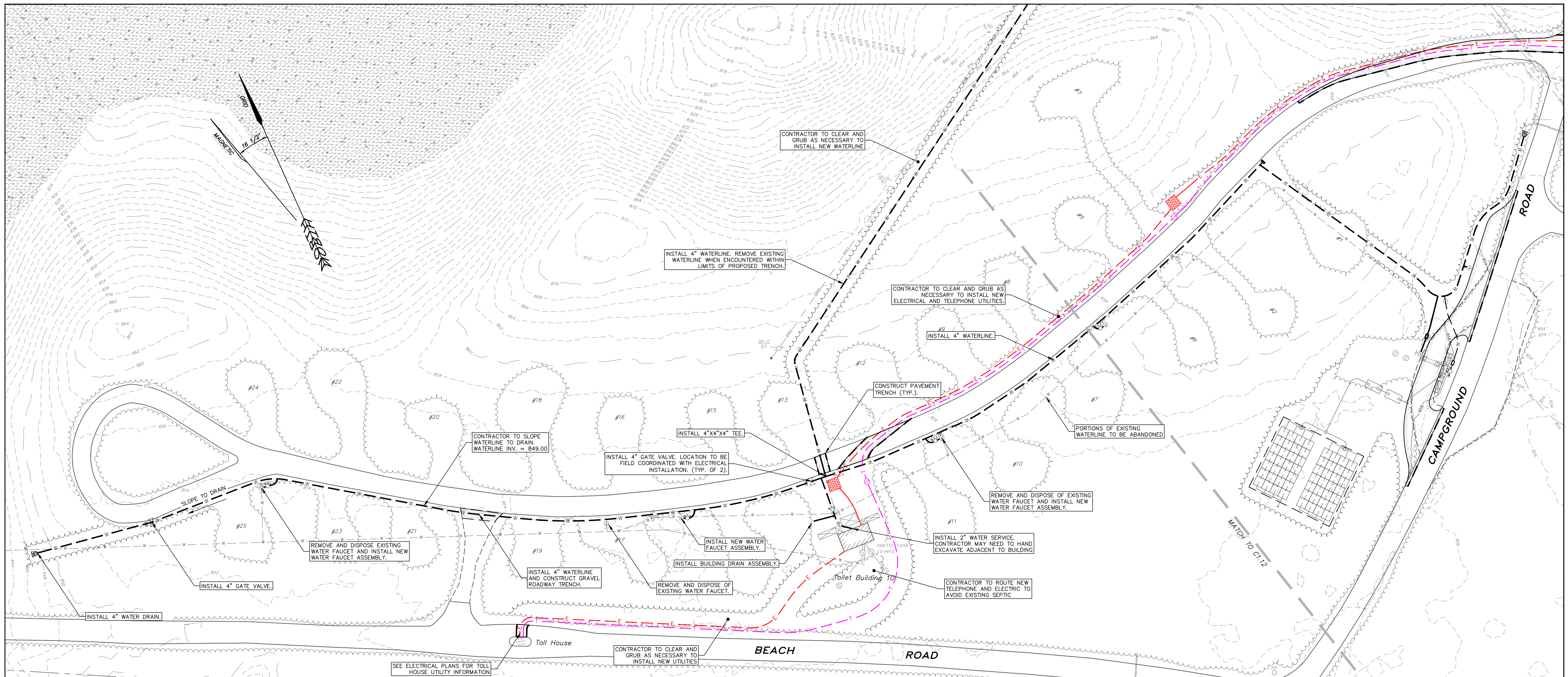
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ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

OVERALL WATER PLAN

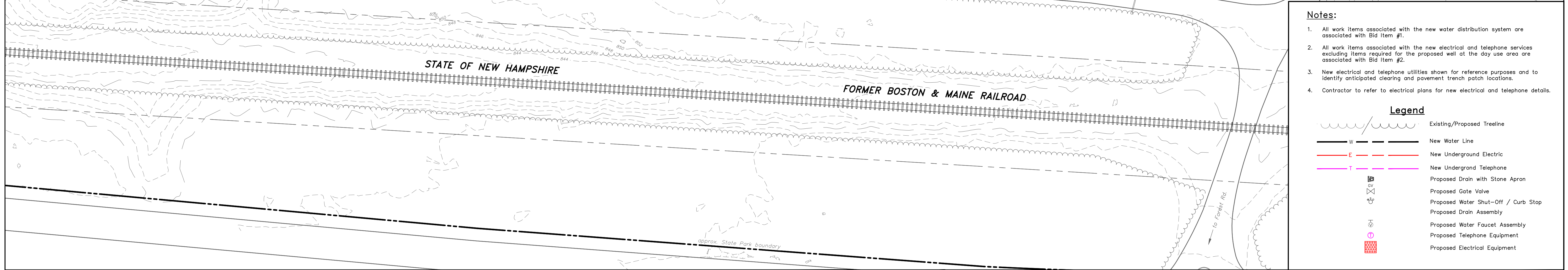
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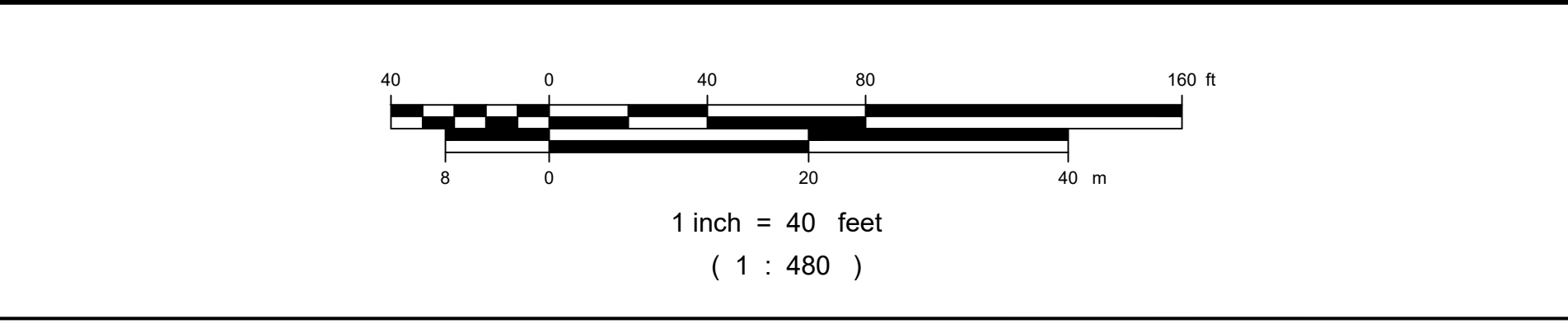
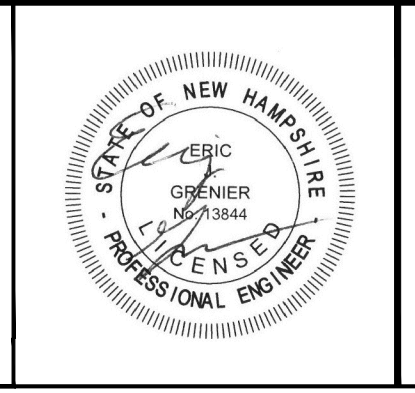
- Notes:**
- All work items associated with the new water distribution system are associated with Bid Item #1.
 - All work items associated with the new electrical and telephone services excluding items required for the proposed well at the day use area are associated with Bid Item #2.
 - New electrical and telephone utilities shown for reference purposes and to identify anticipated clearing and pavement trench patch locations.
 - Contractor to refer to electrical plans for new electrical and telephone details.

Legend

	Existing/Proposed Treeline
	New Water Line
	New Underground Electric
	New Underground Telephone
	Proposed Drain with Stone Apron
	Proposed Gate Valve
	Proposed Water Shut-Off / Curb Stop
	Proposed Drain Assembly
	Proposed Water Faucet Assembly
	Proposed Telephone Equipment
	Proposed Electrical Equipment



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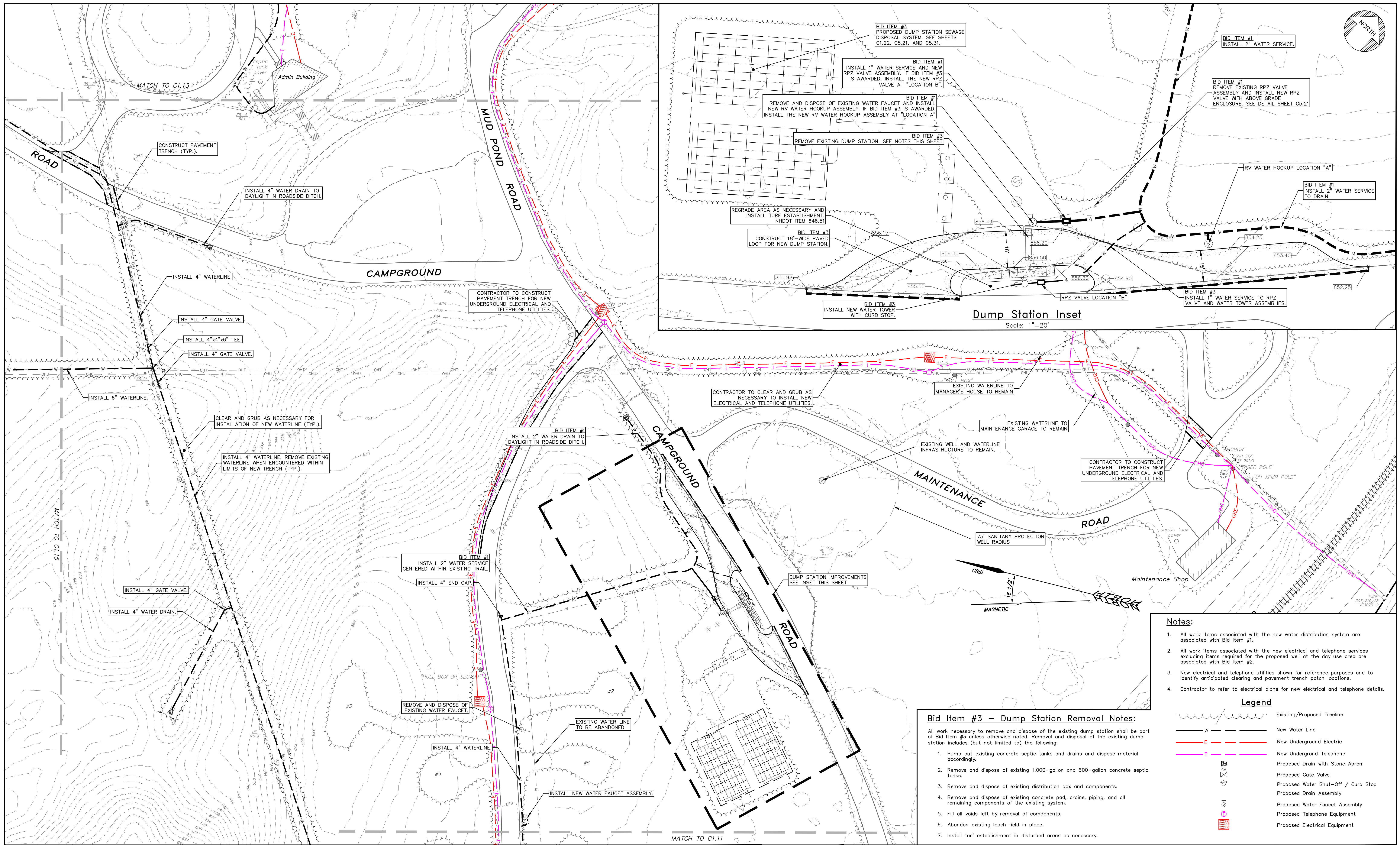
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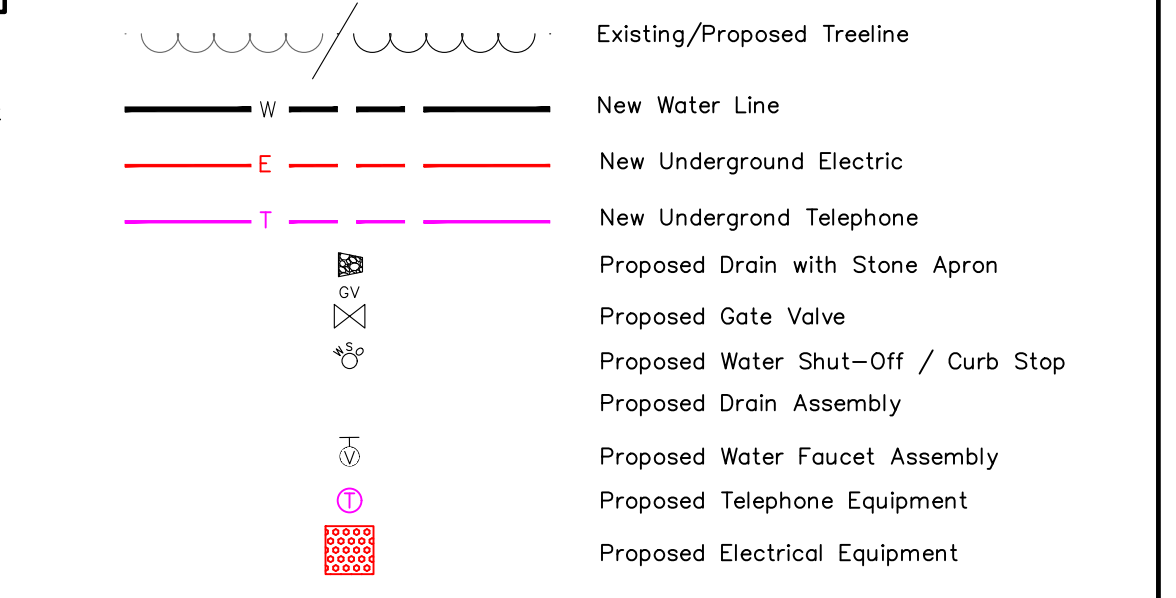
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 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

WATER PLAN - AREA A

PROJECT No. 81204R
 CONTRACT: G
 DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.11



- Notes:**
- All work items associated with the new water distribution system are associated with Bid Item #1.
 - All work items associated with the new electrical and telephone services excluding items required for the proposed well at the day use area are associated with Bid Item #2.
 - New electrical and telephone utilities shown for reference purposes and to identify anticipated clearing and pavement trench patch locations.
 - Contractor to refer to electrical plans for new electrical and telephone details.



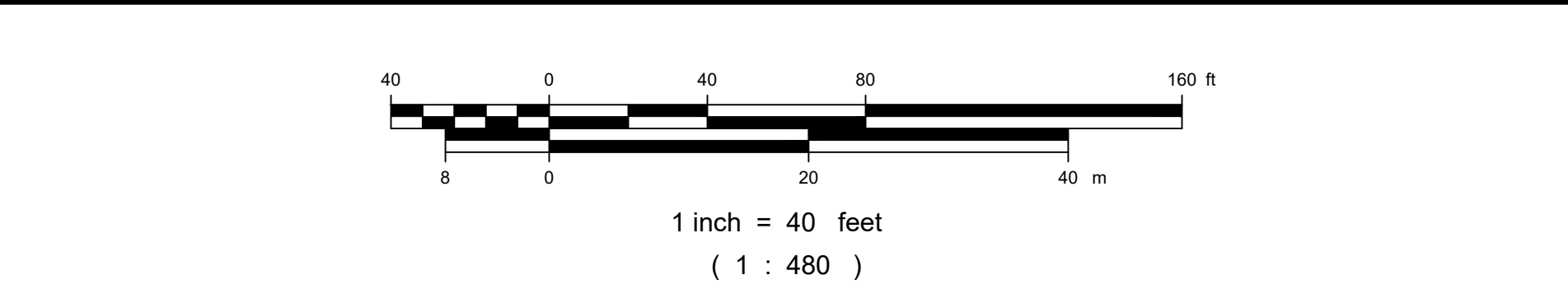
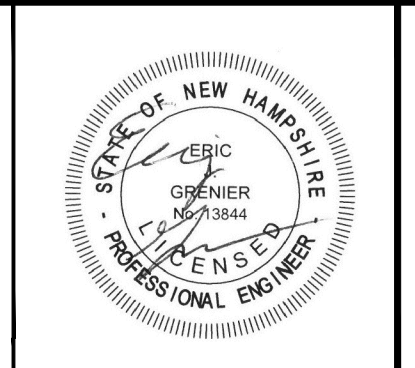
Bid Item #3 – Dump Station Removal Notes:

All work necessary to remove and dispose of the existing dump station shall be part of Bid Item #3 unless otherwise noted. Removal and disposal of the existing dump station includes (but not limited to) the following:

- Pump out existing concrete septic tanks and drains and dispose material accordingly.
- Remove and dispose of existing 1,000-gallon and 600-gallon concrete septic tanks.
- Remove and dispose of existing distribution box and components.
- Remove and dispose of existing concrete pad, drains, piping, and all remaining components of the existing system.
- Fill all voids left by removal of components.
- Abandon existing leach field in place.
- Install turf establishment in disturbed areas as necessary.



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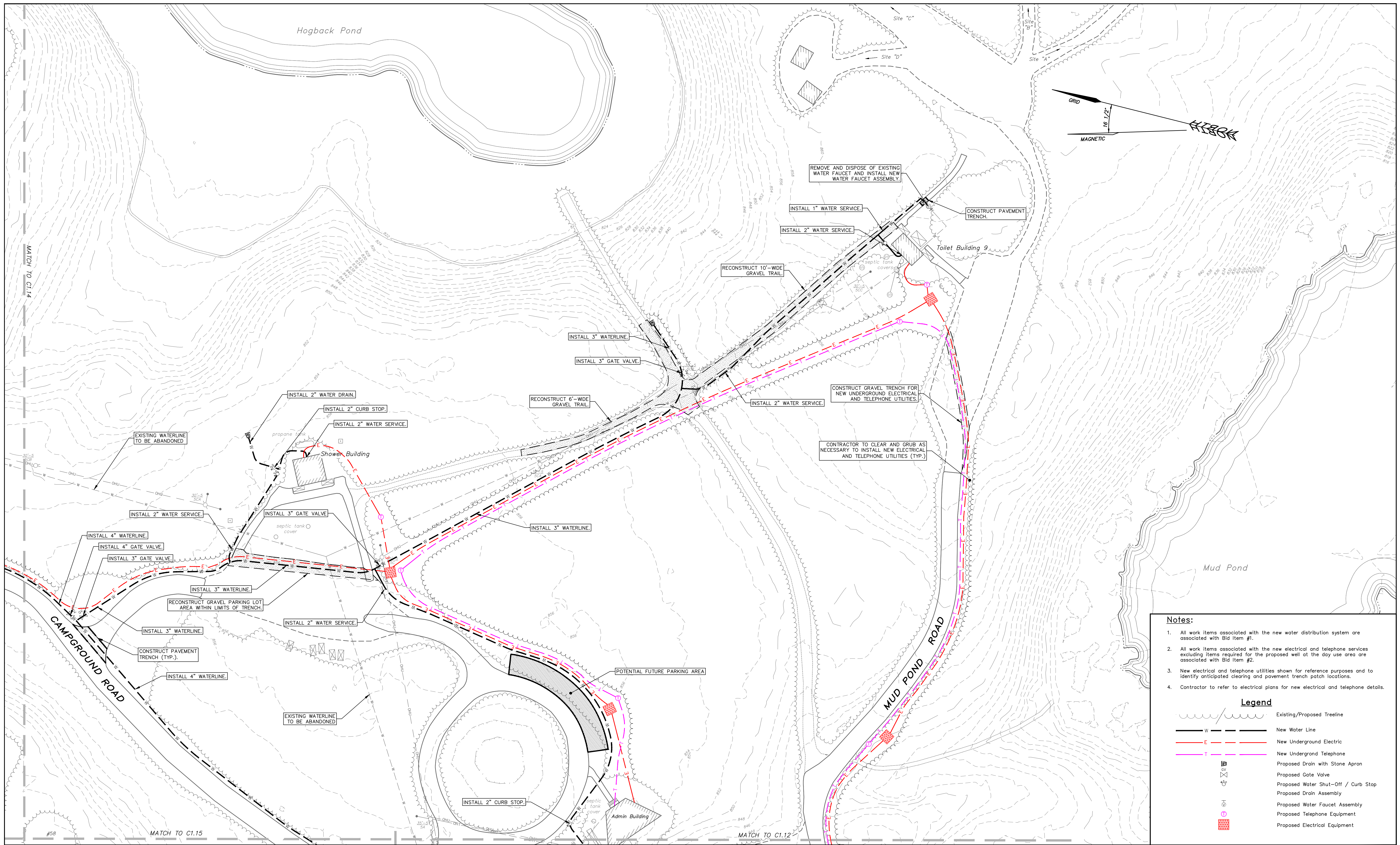
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WATER PLAN - AREA B

PROJECT No. 81204R
 CONTRACT: G
 DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.12



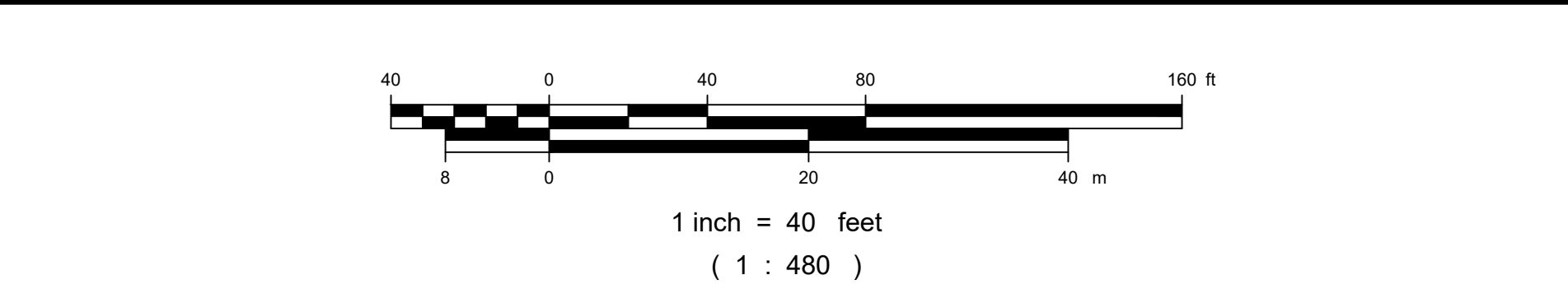
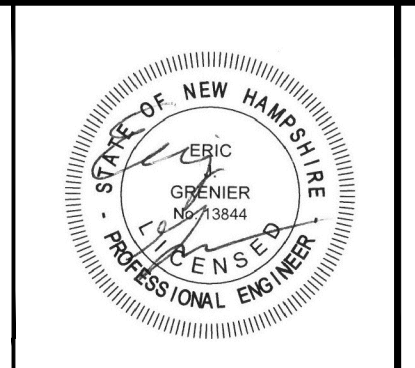
Notes:

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- All work items associated with the new electrical and telephone services excluding items required for the proposed well at the day use area are associated with Bid Item #2.
- New electrical and telephone utilities shown for reference purposes and to identify anticipated clearing and pavement trench patch locations.
- Contractor to refer to electrical plans for new electrical and telephone details.

Legend

- Existing/Proposed Treeline
- New Water Line
- New Underground Electric
- New Underground Telephone
- Proposed Drain with Stone Apron
- Proposed Gate Valve
- Proposed Water Shut-Off / Curb Stop
- Proposed Drain Assembly
- Proposed Water Faucet Assembly
- Proposed Telephone Equipment
- Proposed Electrical Equipment

HEB Engineers, Inc.
 Post Office Box 440
 2605 White Mountain Hwy.
 North Conway, NH 03860
 www.hebengineers.com
 Office (603) 356-6936
 Fax (603) 356-7715



STATE OF NEW HAMPSHIRE
 DEPARTMENT OF ADMINISTRATIVE SERVICES
 DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
 BOX 483 ROOM 250
 7 HAZEN DRIVE CONCORD, NEW HAMPSHIRE 03302-0483
 (603) 271-3516 FAX (603) 271-3515

DESIGNED BY: AML
 APPROVED BY: E.J.G.
 CHECKED BY: E.J.G.

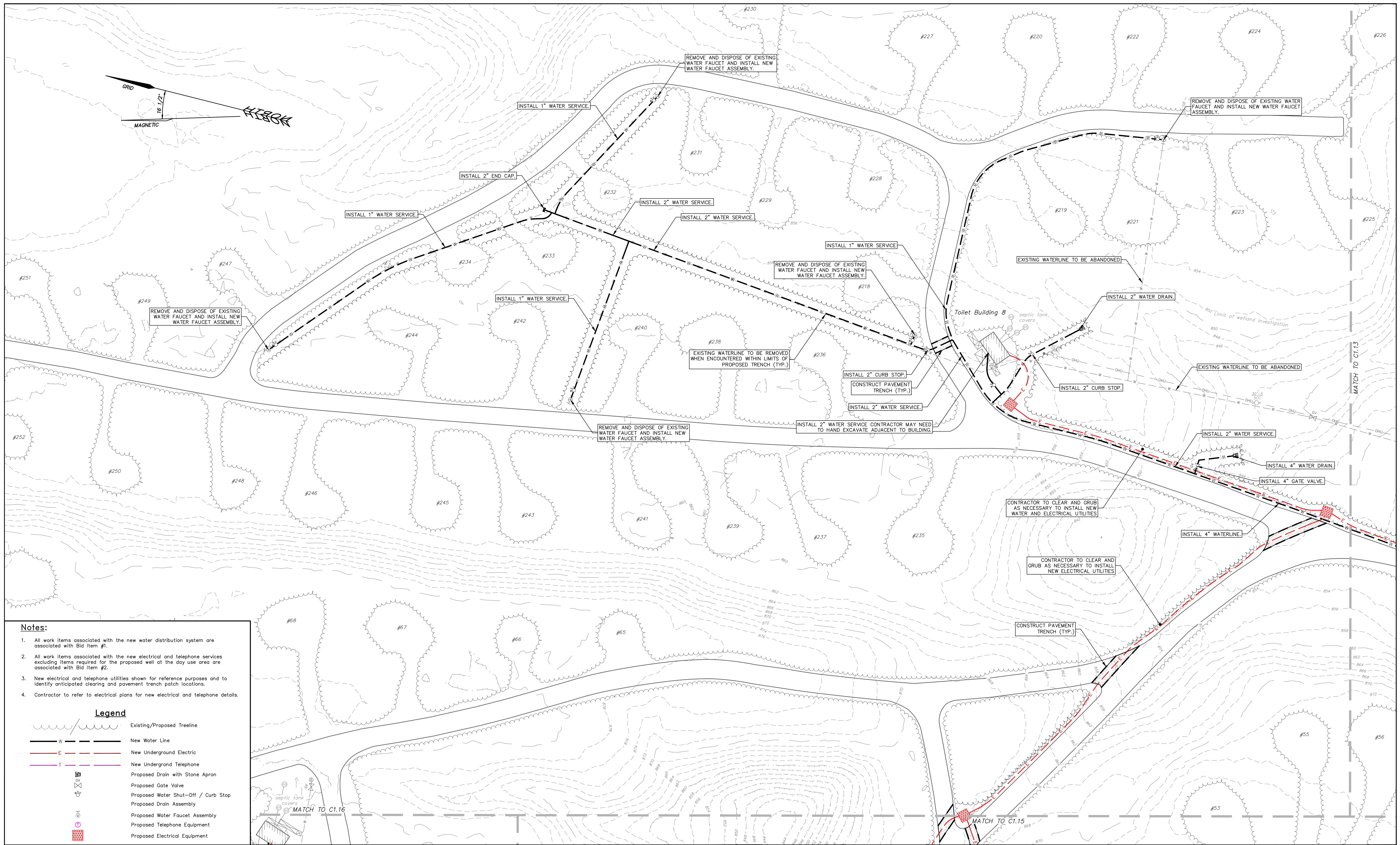
REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

PROJECT No. 81204R
 CONTRACT: G

WATER PLAN - AREA C

DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.13



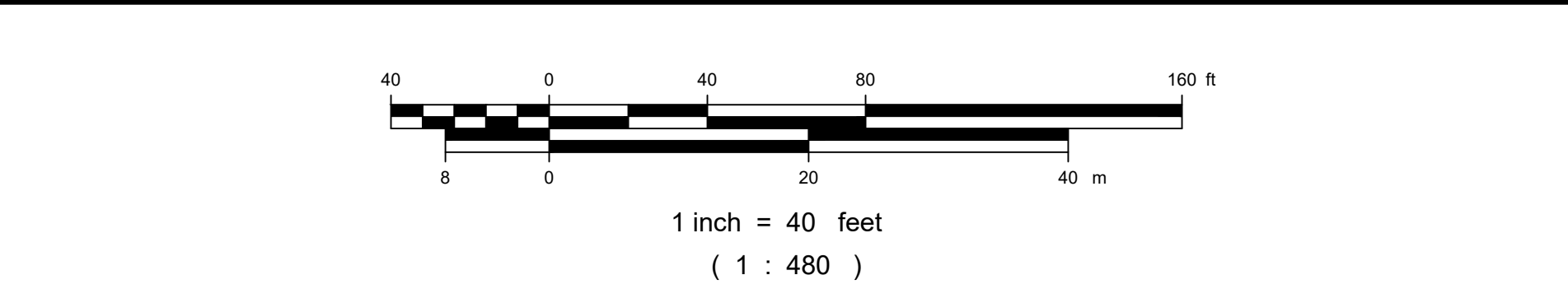
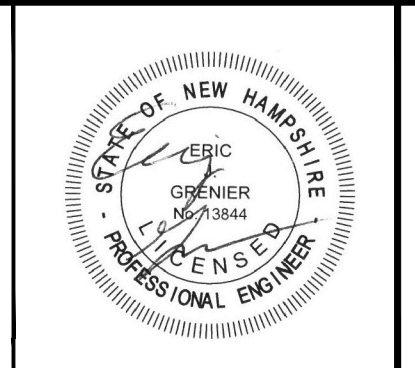
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Legend

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- New Water Line
- New Underground Electric
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APPROVED BY: E.J.G.
 CHECKED BY: E.J.G.

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DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

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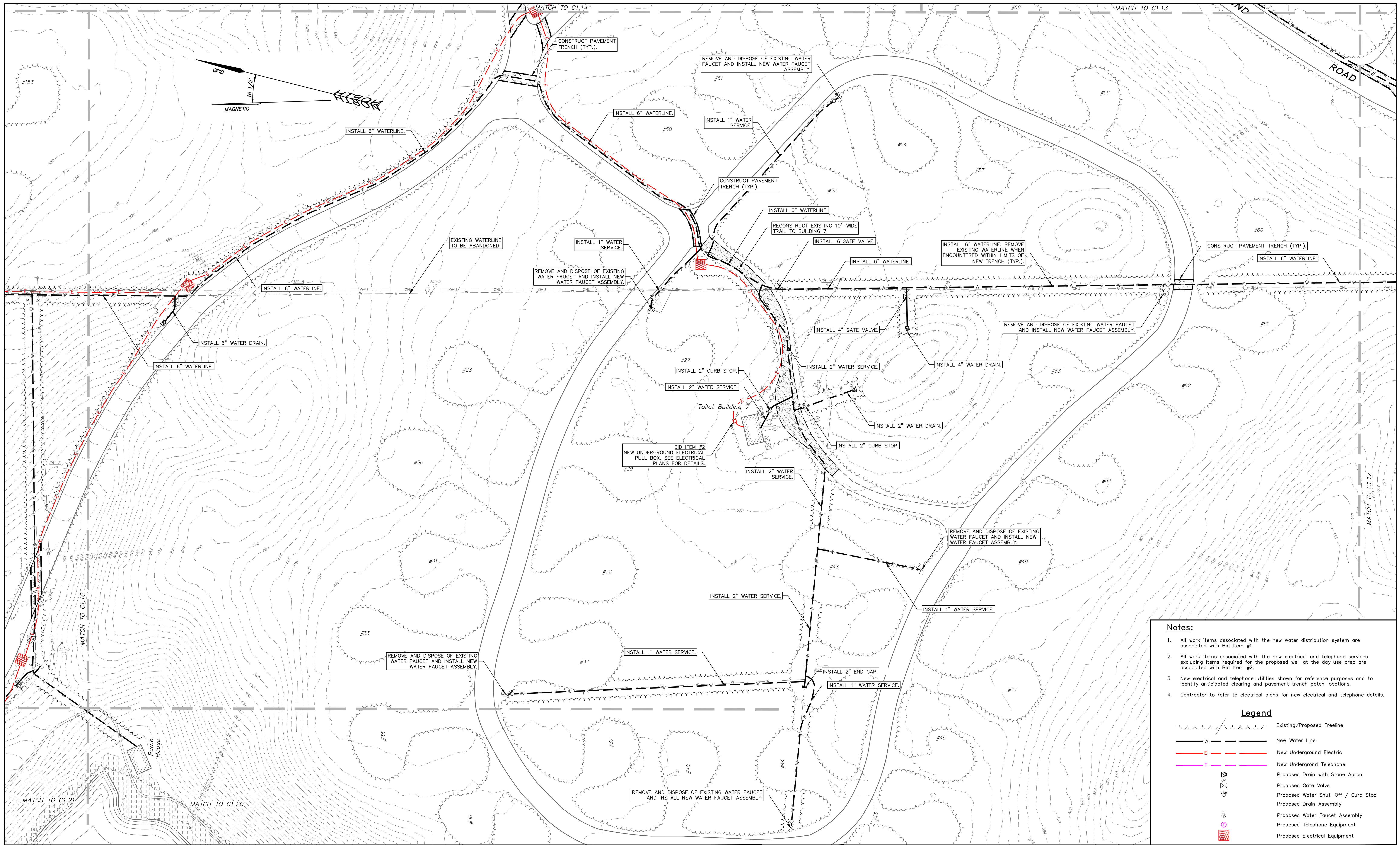
ENGINEER/ARCHITECT: HEB Engineers, Inc.
 DESIGNED BY: AML
 APPROVED BY: E.J.G.
 CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

WATER PLAN - AREA D

PROJECT No. 51204R
 CONTRACT: G
 DRAWN BY: []
 SCALE: 1"=40'
 DATE: 11/16/2023
 SHEET: C1.14



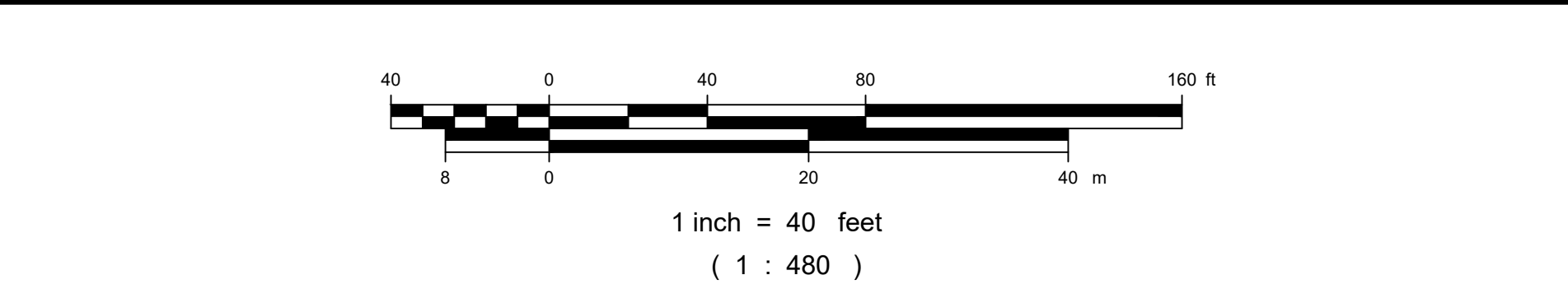
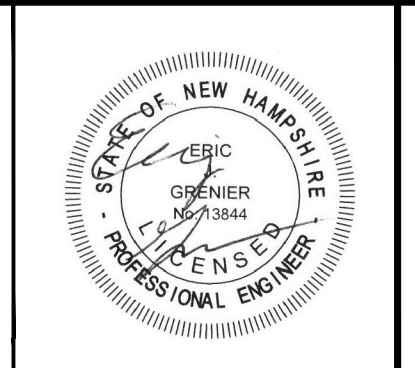
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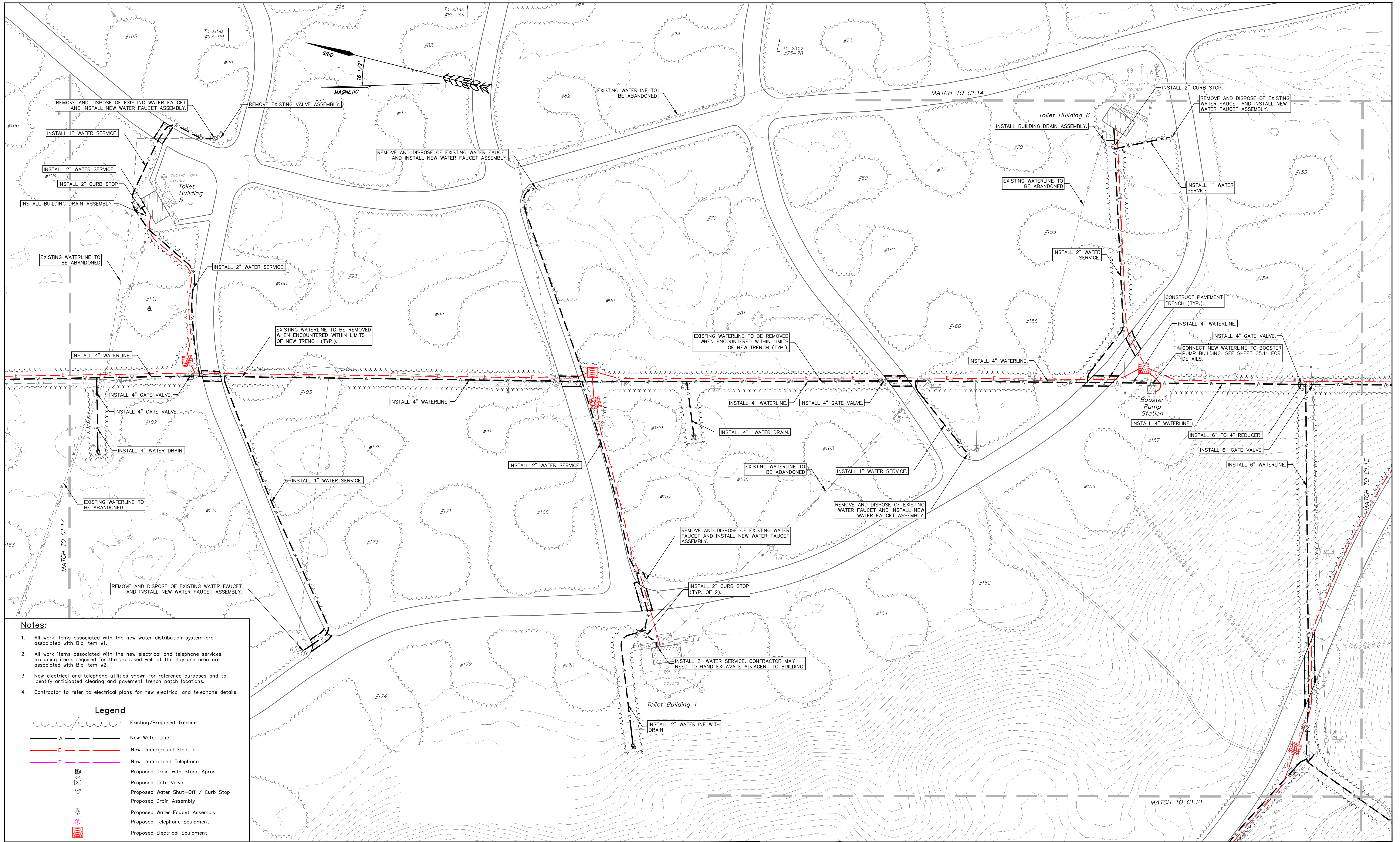
ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

WATER PLAN - AREA E

PROJECT No. 81204R
 CONTRACT No. G
 DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.15



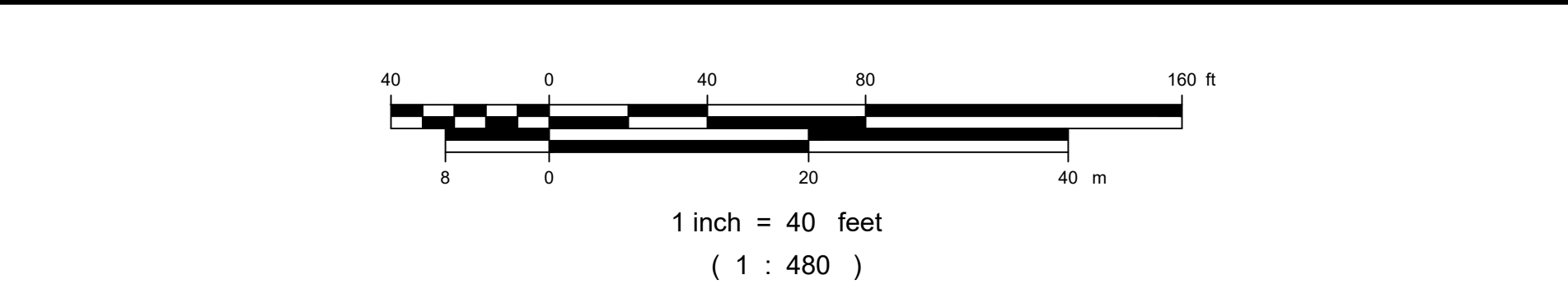
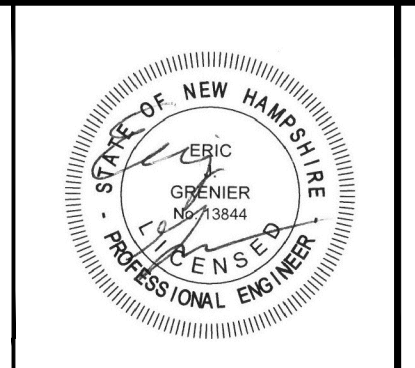
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Legend

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	New Water Line
	New Underground Electric
	New Underground Telephone
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	Proposed Gate Valve
	Proposed Water Shut-Off / Curb Stop
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ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
DEPARTMENT OF NATURAL & CULTURAL RESOURCES

WATER PLAN - AREA F

PROJECT No. 81204R
CONTRACT: G

DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.16



Notes:

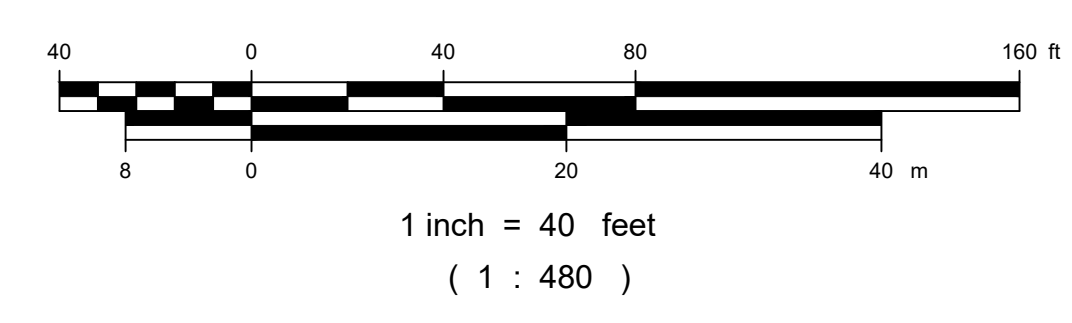
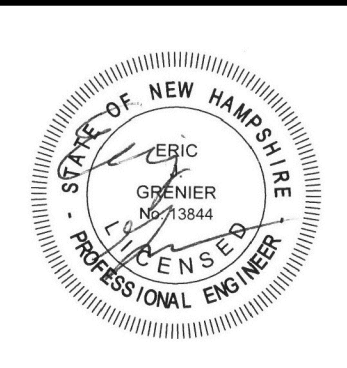
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 (603) 271-3516 FAX (603) 271-3515

ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

WATER PLAN - AREA G

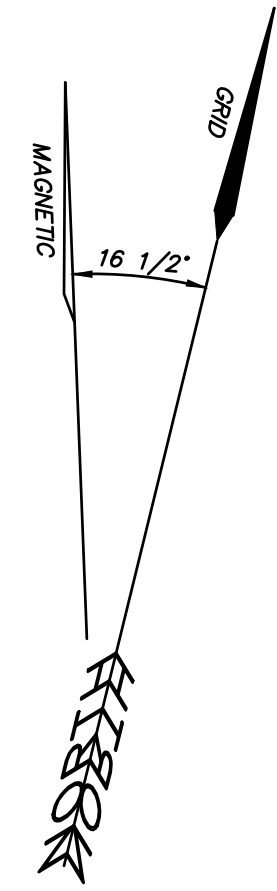
PROJECT No. S1204R
 CONTRACT: G
 DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.17

P:\Jobs\202303-0405-0410-0415\HEB\DWG\Greenfield_Sp_Utlies_Plan_C1.17.dwg, 11/16/2023 7:49:43 AM, James

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Offer Lake
water level on
11/15/22 = ±804.5

EXISTING WATERLINE TO BE
ABANDONED WHEN NOT ENCOUNTERED
IN PROPOSED TRENCH (TYP.)

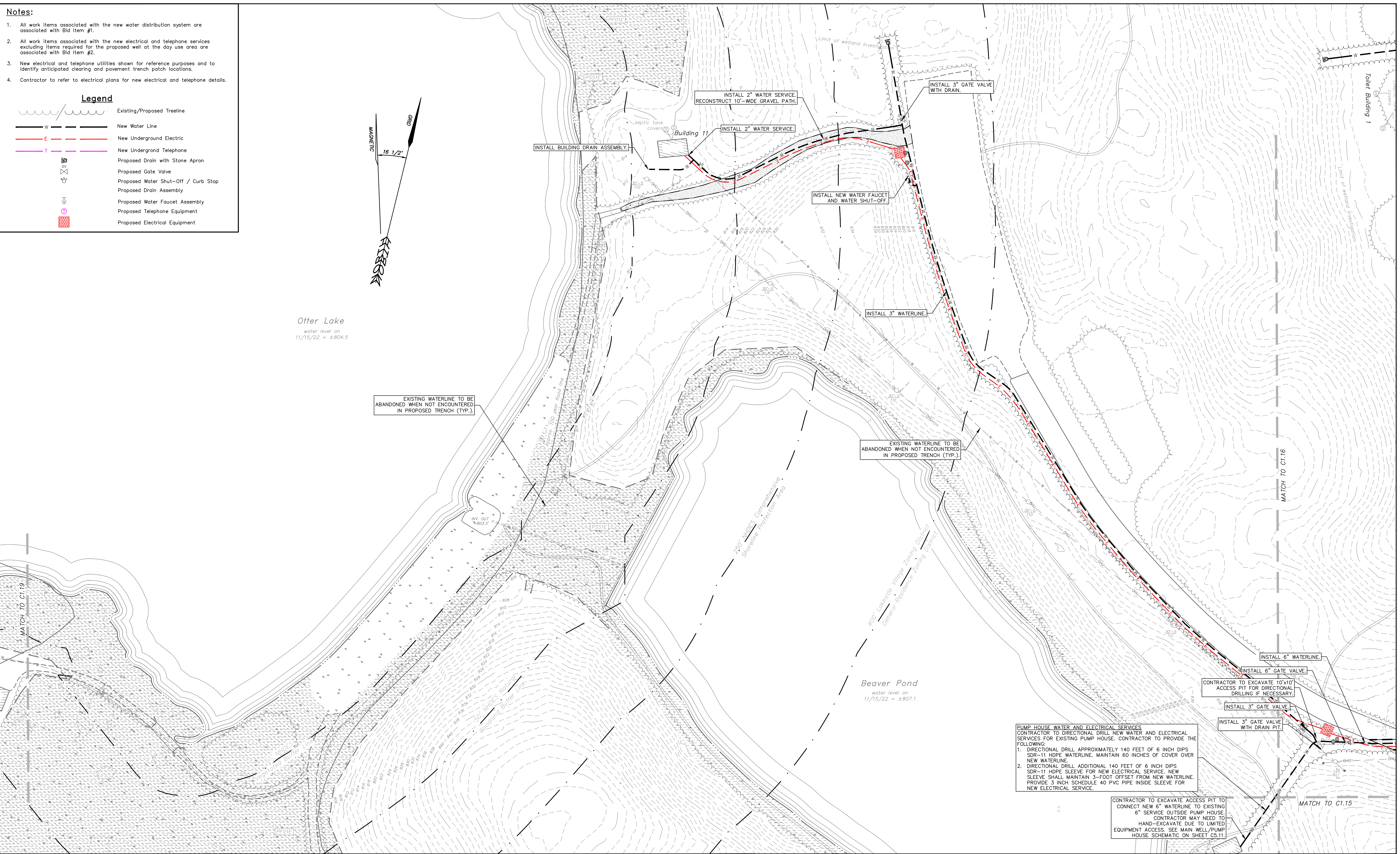
EXISTING WATERLINE TO BE
ABANDONED WHEN NOT ENCOUNTERED
IN PROPOSED TRENCH (TYP.)

Beaver Pond
water level on
11/15/22 = ±807.1

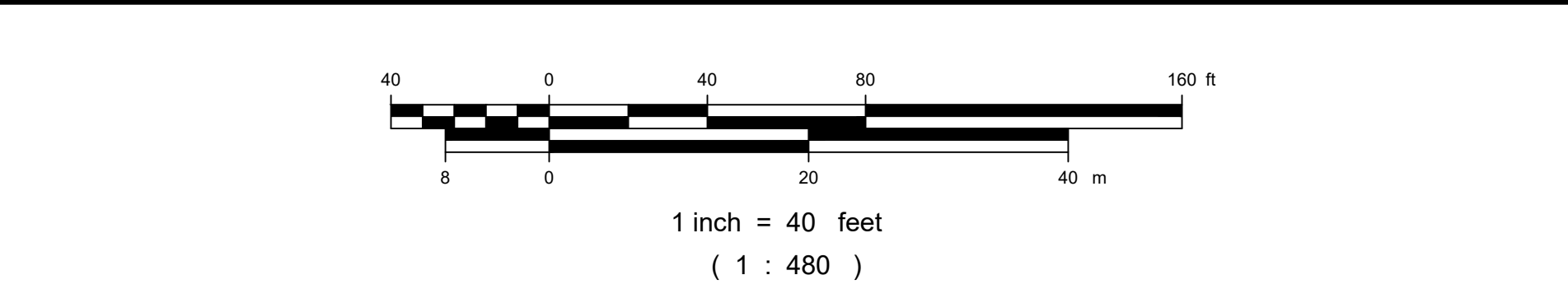
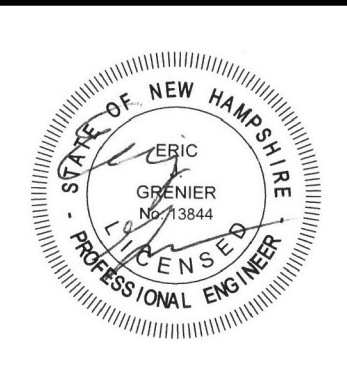
PUMP HOUSE WATER AND ELECTRICAL SERVICES
CONTRACTOR TO DIRECTIONAL DRILL NEW WATER AND ELECTRICAL SERVICES FOR EXISTING PUMP HOUSE. CONTRACTOR TO PROVIDE THE FOLLOWING:
1. DIRECTIONAL DRILL APPROXIMATELY 140 FEET OF 6 INCH DIPS SDR-11 HDPE WATERLINE. MAINTAIN 60 INCHES OF COVER OVER NEW WATERLINE.
2. DIRECTIONAL DRILL ADDITIONAL 140 FEET OF 6 INCH DIPS SDR-11 HDPE SLEEVE FOR NEW ELECTRICAL SERVICE. NEW SLEEVE SHALL MAINTAIN 3-FOOT OFFSET FROM NEW WATERLINE. PROVIDE 3 INCH SCHEDULE 40 PVC PIPE INSIDE SLEEVE FOR NEW ELECTRICAL SERVICE.

CONTRACTOR TO EXCAVATE ACCESS PIT TO CONNECT NEW 6" WATERLINE TO EXISTING 6" SERVICE OUTSIDE PUMP HOUSE. CONTRACTOR MAY NEED TO HAND-EXCAVATE DUE TO LIMITED EQUIPMENT ACCESS. SEE MAIN WELL/PUMP HOUSE SCHEMATIC ON SHEET C5.11.

CONTRACTOR TO EXCAVATE 10'x10' ACCESS PIT FOR DIRECTIONAL DRILLING IF NECESSARY.



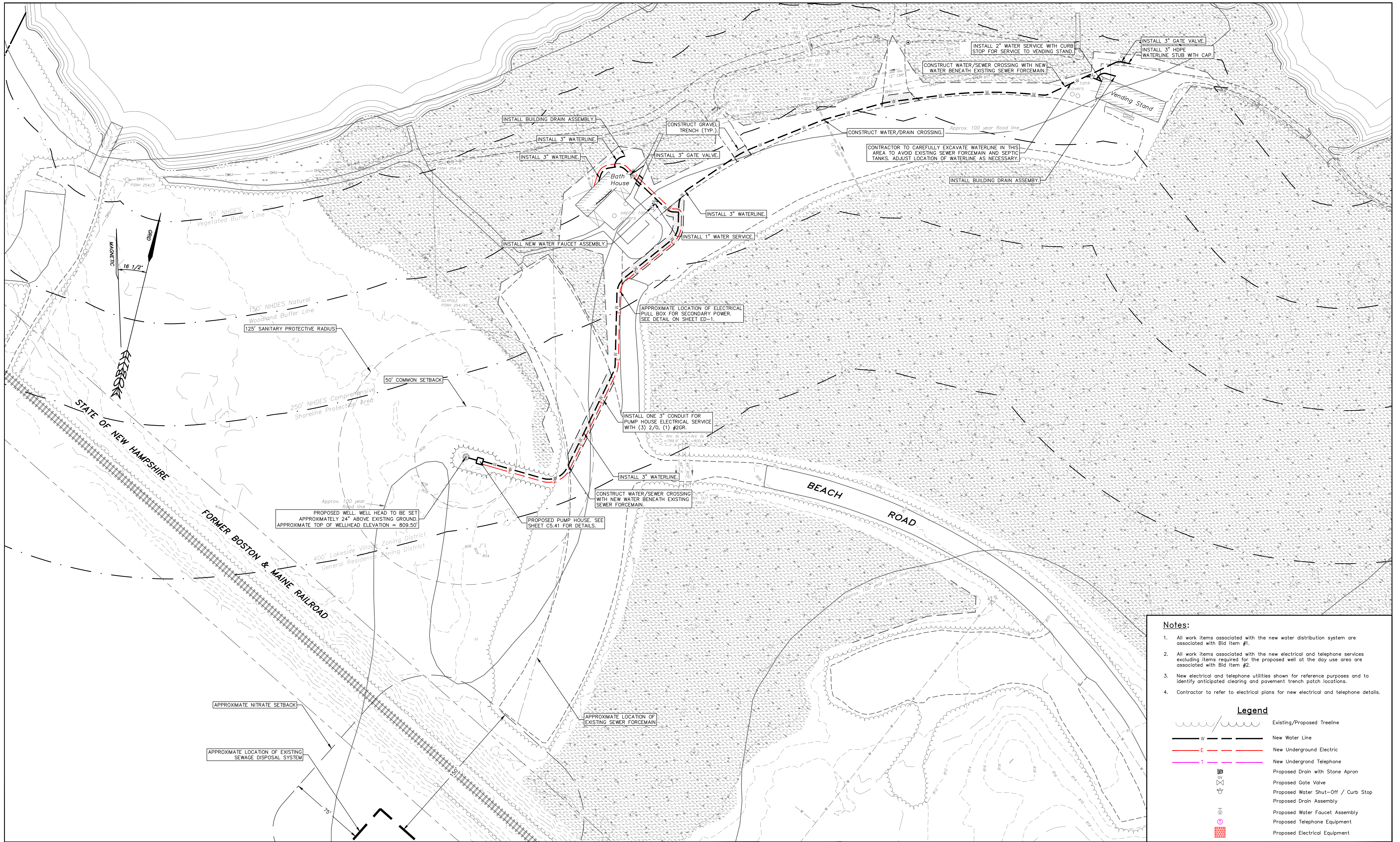
HEB Engineers, Inc.
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North Conway, NH 03860
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JOHN O. MORTON BUILDING
7 HAZEN DRIVE BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515
ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
DEPARTMENT OF NATURAL & CULTURAL RESOURCES
WATER PLAN - AREA H
PROJECT No. 81204R
CONTRACT: G
DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.18

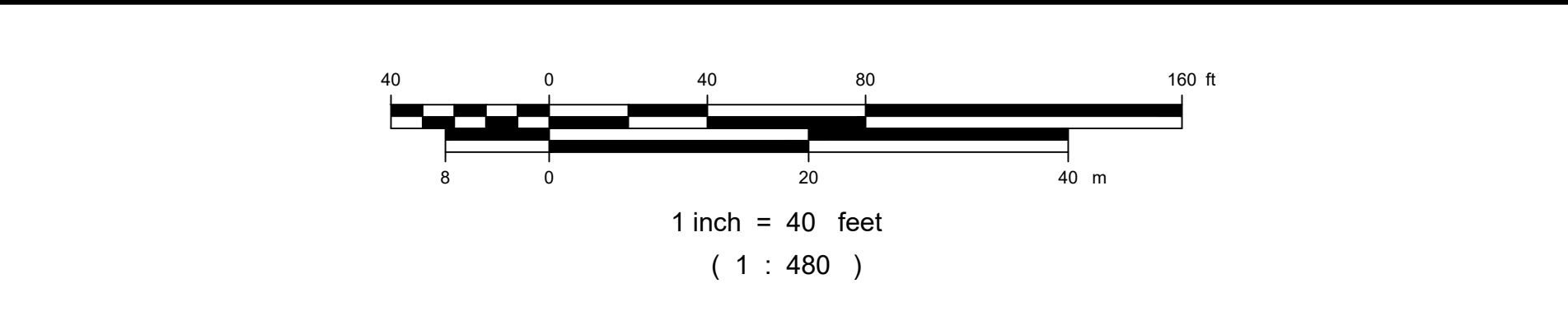
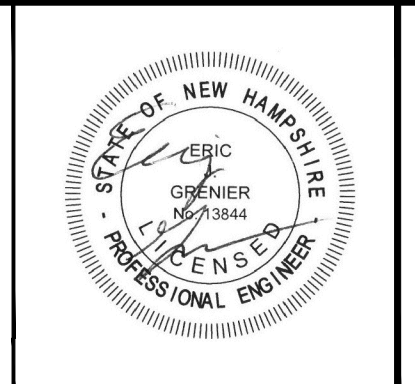


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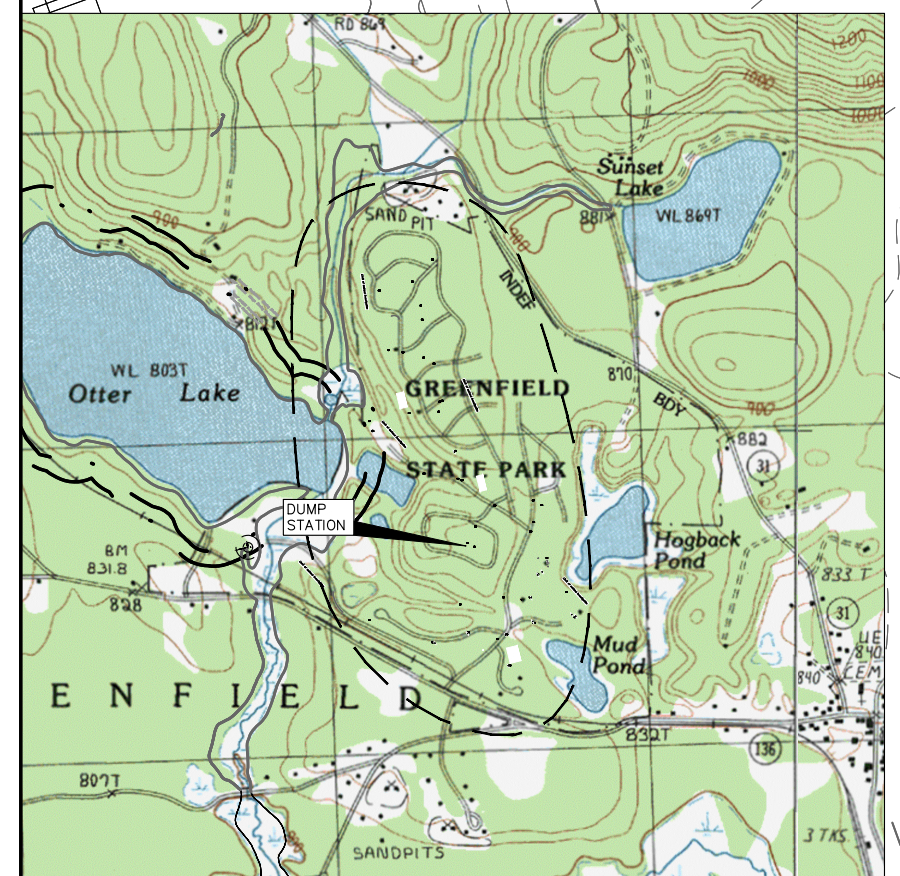
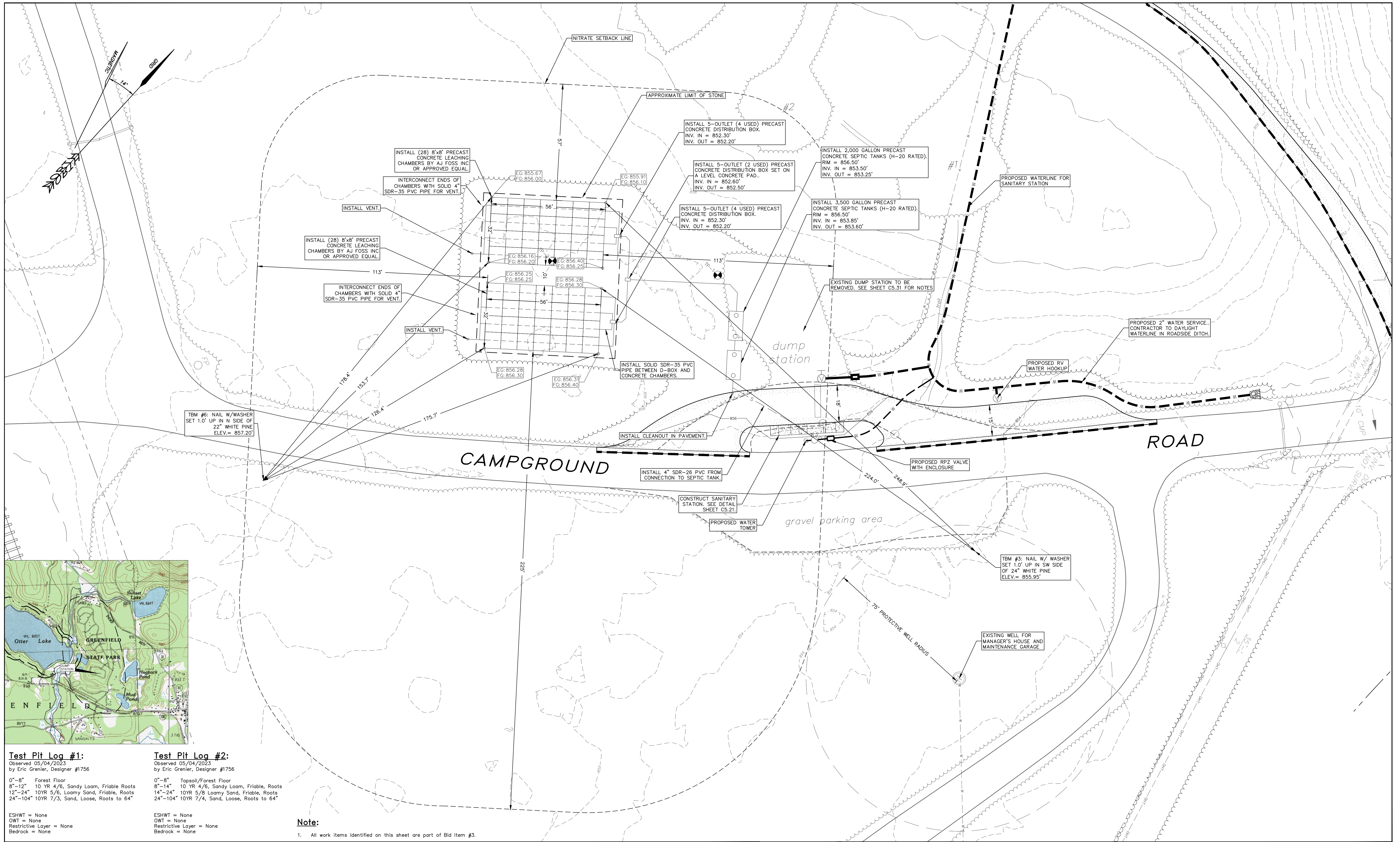
ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
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 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES

DAY USE AREA ELECTRICAL AND WATER PLAN

DRAWN BY: SCALE: 1"=40' DATE: 11/16/2023 SHEET: C1.19



Test Pit Log #1:
 Observed 05/04/2023
 by Eric Grenier, Designer #1756

0'-8" Forest Floor
 8"-12" 10 YR 4/6, Sandy Loam, Friable Roots
 12"-24" 10YR 5/6, Loamy Sand, Friable, Roots
 24"-104" 10YR 7/3, Sand, Loose, Roots to 64"

Test Pit Log #2:
 Observed 05/04/2023
 by Eric Grenier, Designer #1756

0'-8" Topsoil/Forest Floor
 8"-14" 10 YR 4/6, Sandy Loam, Friable, Roots
 14"-24" 10YR 5/8, Loamy Sand, Friable, Roots
 24"-104" 10YR 7/4, Sand, Loose, Roots to 64"

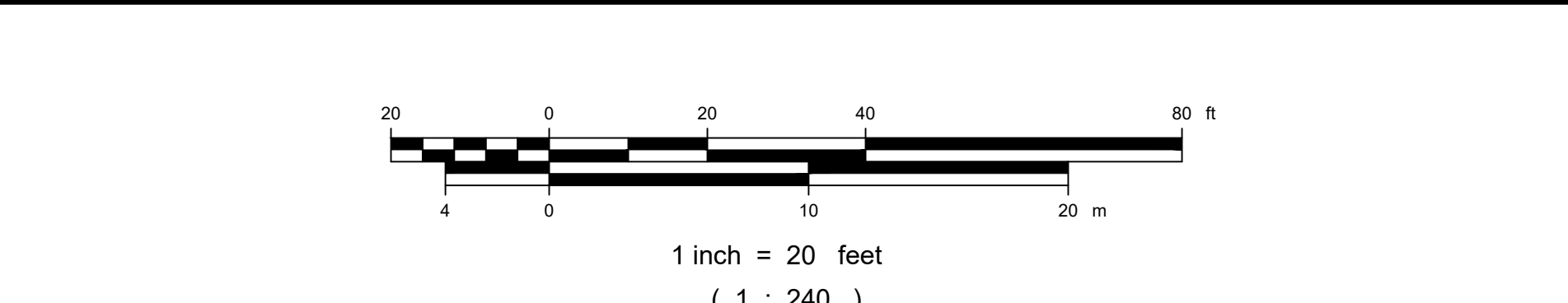
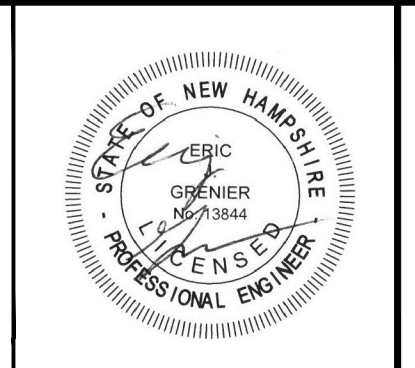
ESHW = None
 OWT = None
 Restrictive Layer = None
 Bedrock = None

ESHW = None
 OWT = None
 Restrictive Layer = None
 Bedrock = None

Note:
 1. All work items identified on this sheet are part of Bid Item #3.



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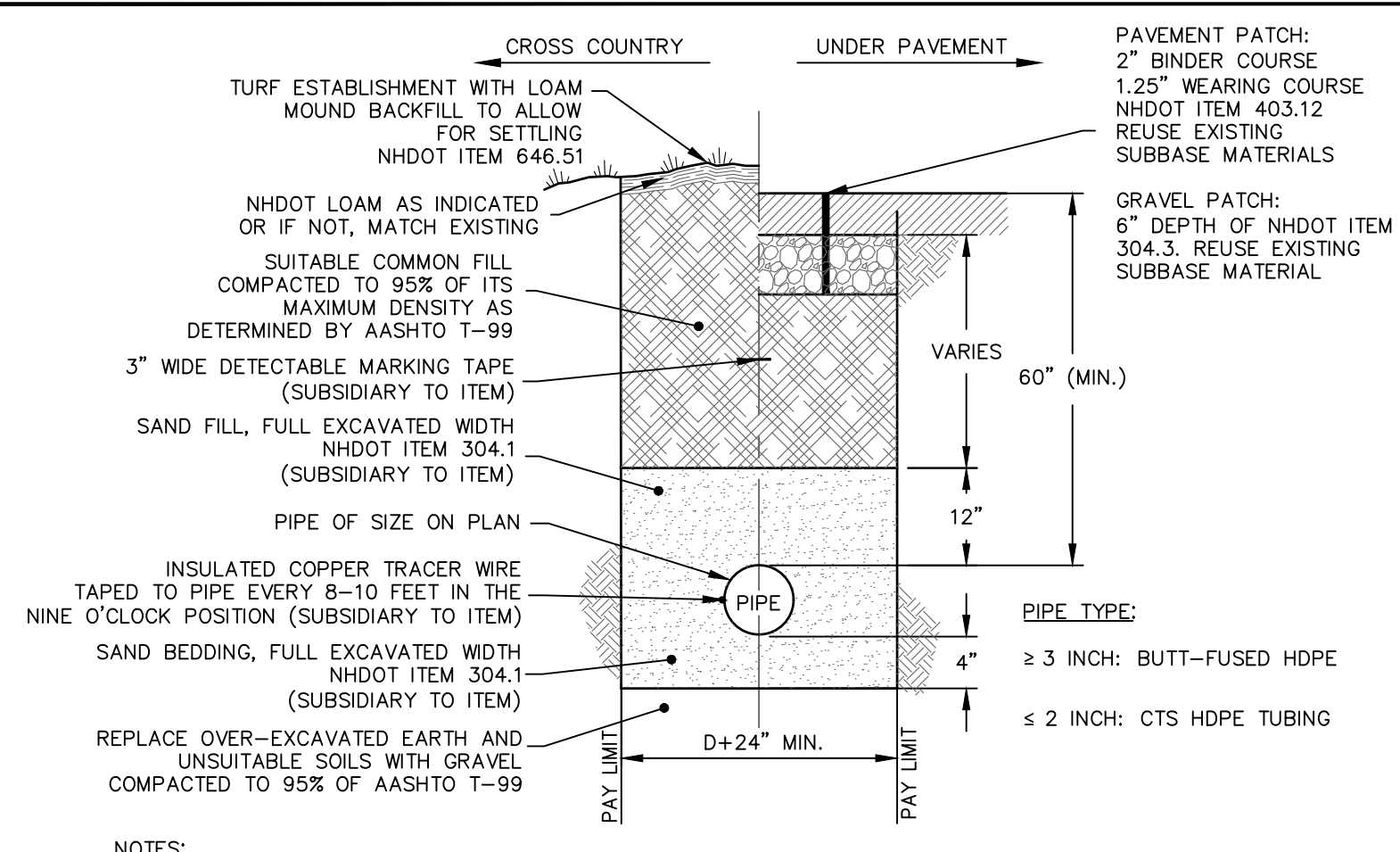
ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

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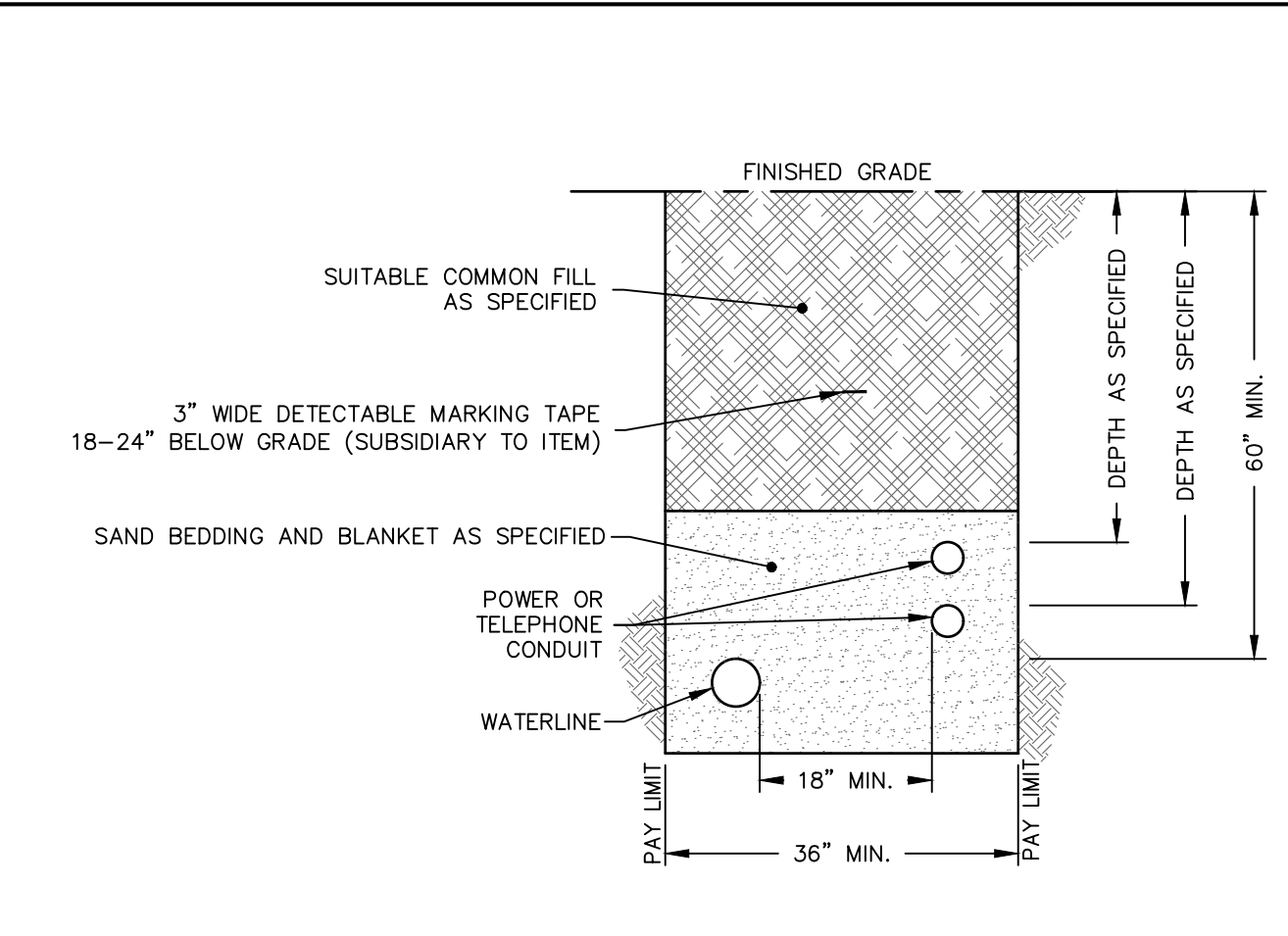
SEWAGE DISPOSAL SYSTEM PLAN - DUMP STATION

PROJECT No. 81204R
 CONTRACT No. C1.21
 DRAWN BY: SCALE: 1"=20' DATE: 11/16/2023 SHEET: C1.21

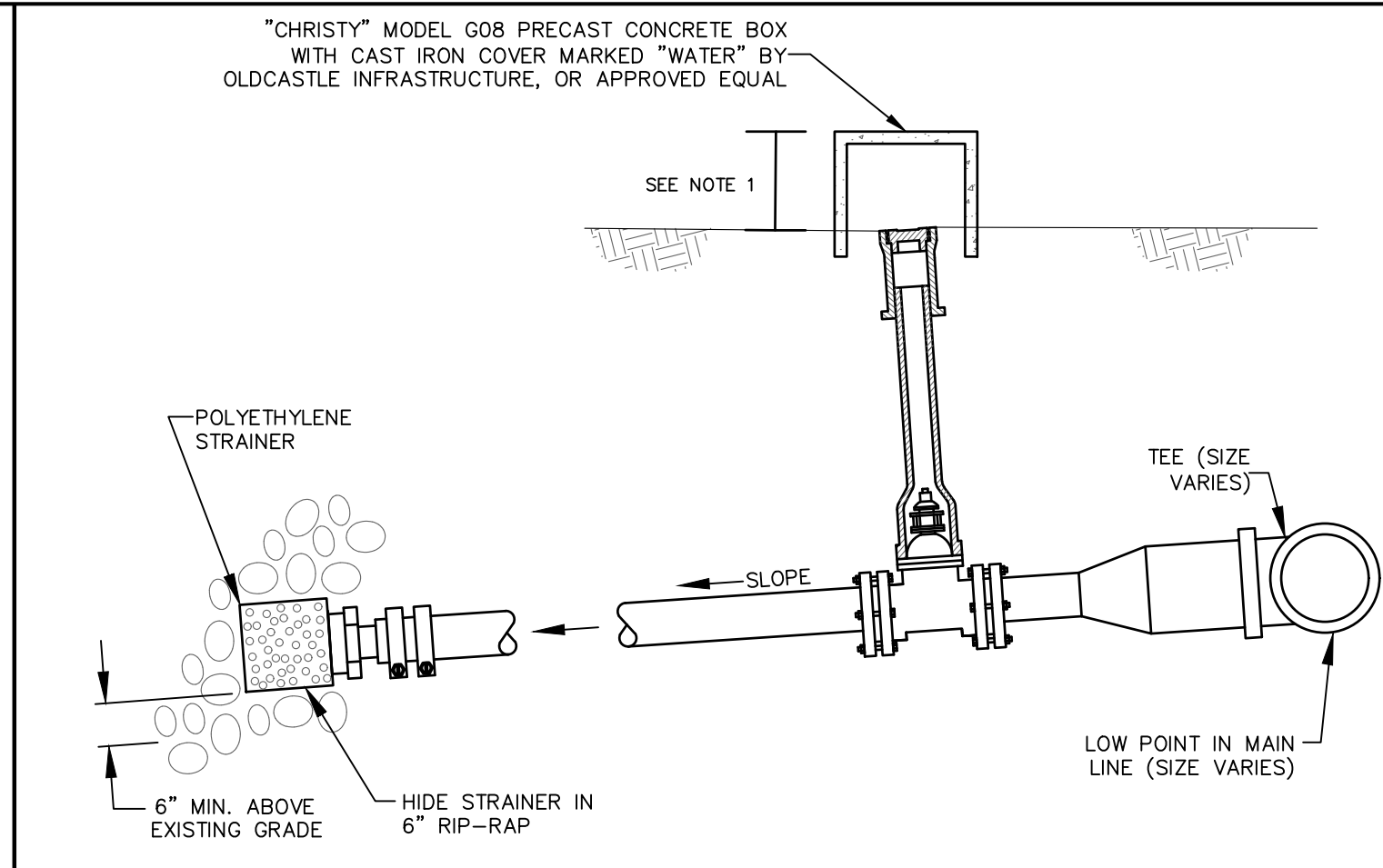


- NOTES:**
- SUITABLE COMMON FILL SHALL BE MATERIAL FROM EITHER ON-SITE OR OFF-SITE THAT IS FREE OF FROZEN MATERIAL, FOREIGN DEBRIS, CLAY, PEAT, ORGANIC MATTER, PERISHABLE RUBBISH, OTHER DELETERIOUS MATERIALS, AND STONES GREATER THAN 6 INCHES IN THEIR LARGEST DIMENSION.
 - BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE RESPONSIBILITY OF THE CONTRACTOR.

Typical Water Trench (Not Combined)
Scale: 1" = 2'

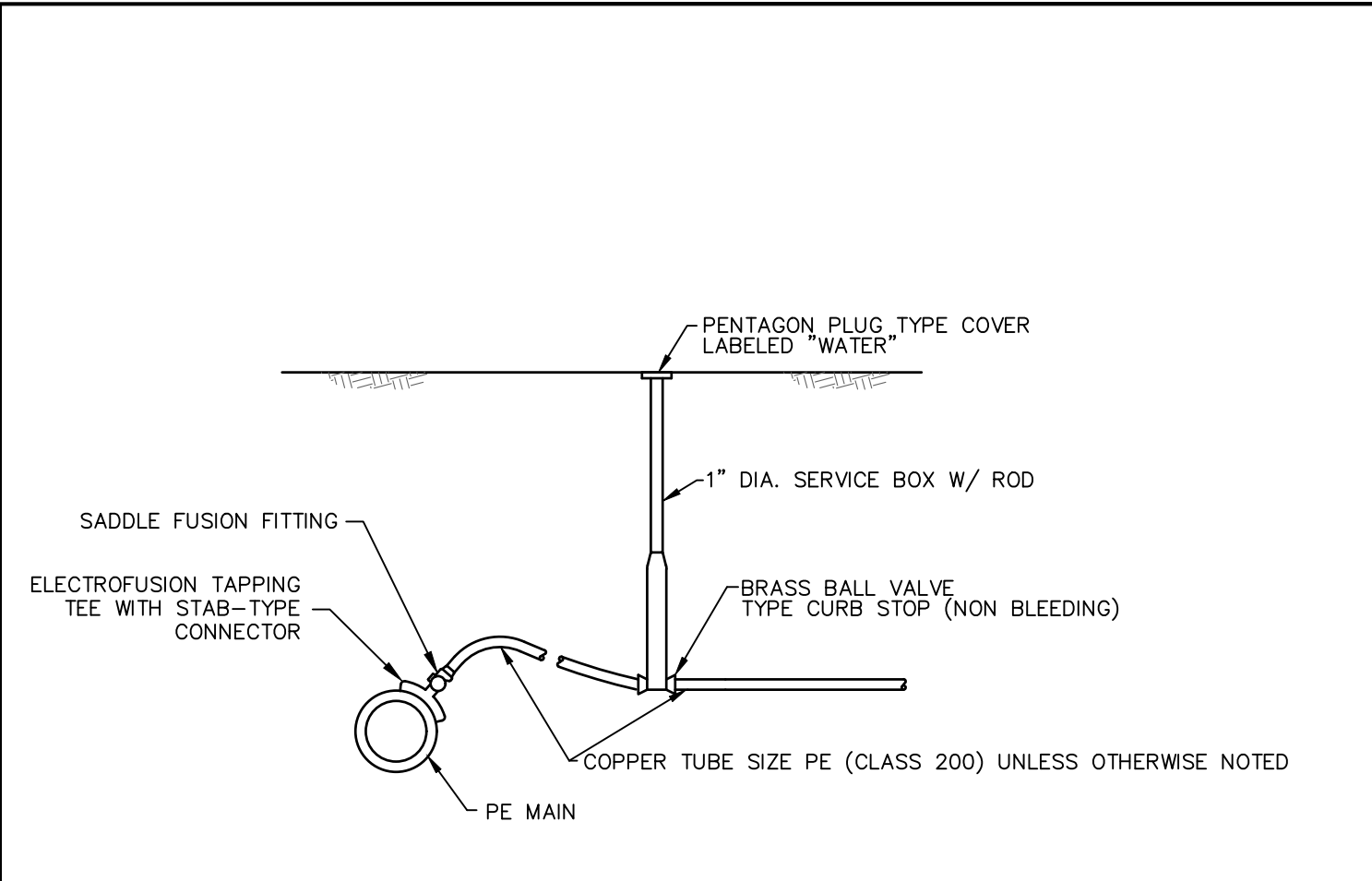


Typical Combined Water, Electrical, & Telephone Trench
Scale: NTS

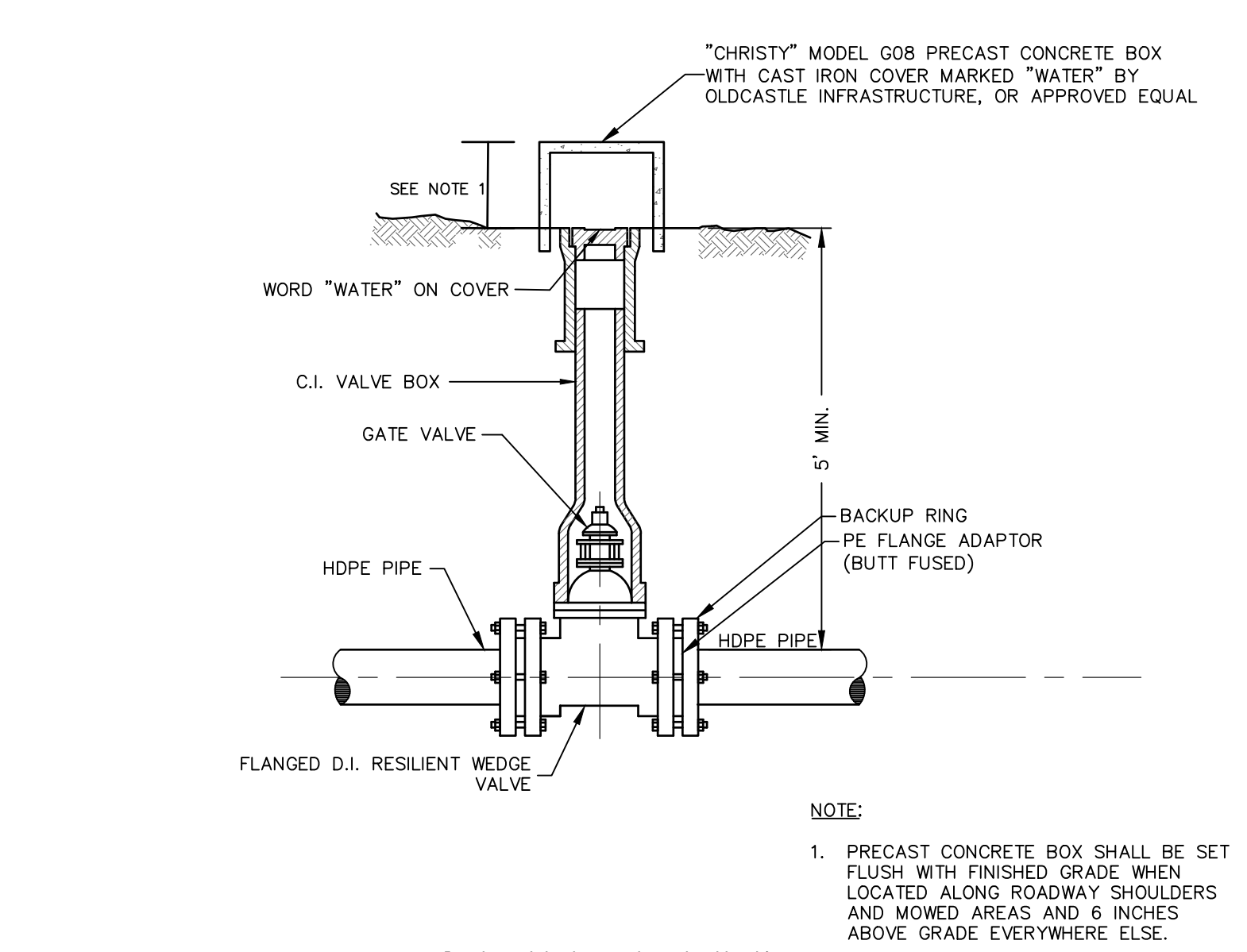


Water Drain
Scale: NTS

- NOTE:**
- PRECAST CONCRETE BOX SHALL BE SET FLUSH WITH FINISHED GRADE WHEN LOCATED ALONG ROADWAY SHOULDERS AND MOWED AREAS AND 6 INCHES ABOVE GRADE EVERYWHERE ELSE.

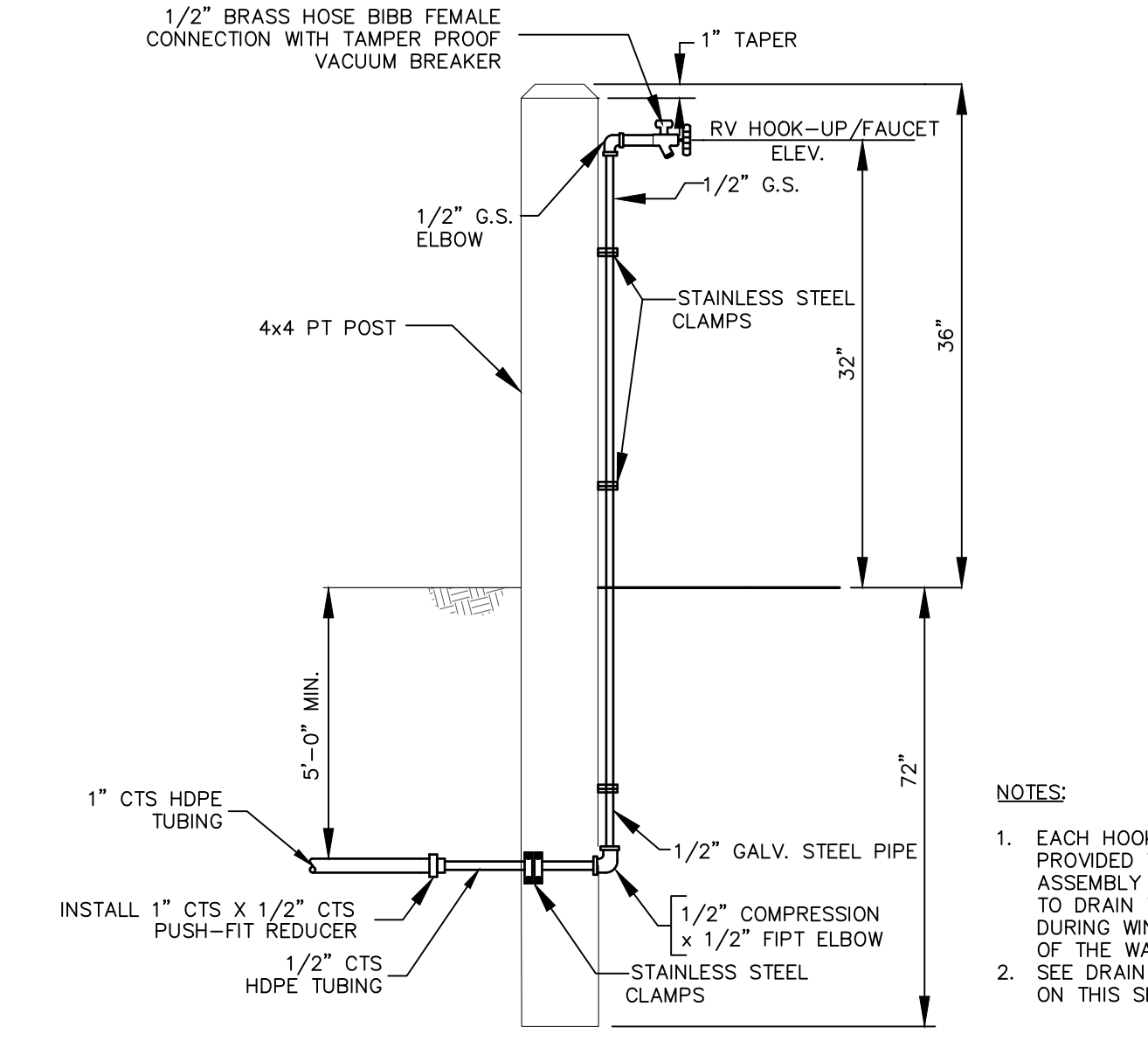


Typical Service (Water)
Scale: NTS



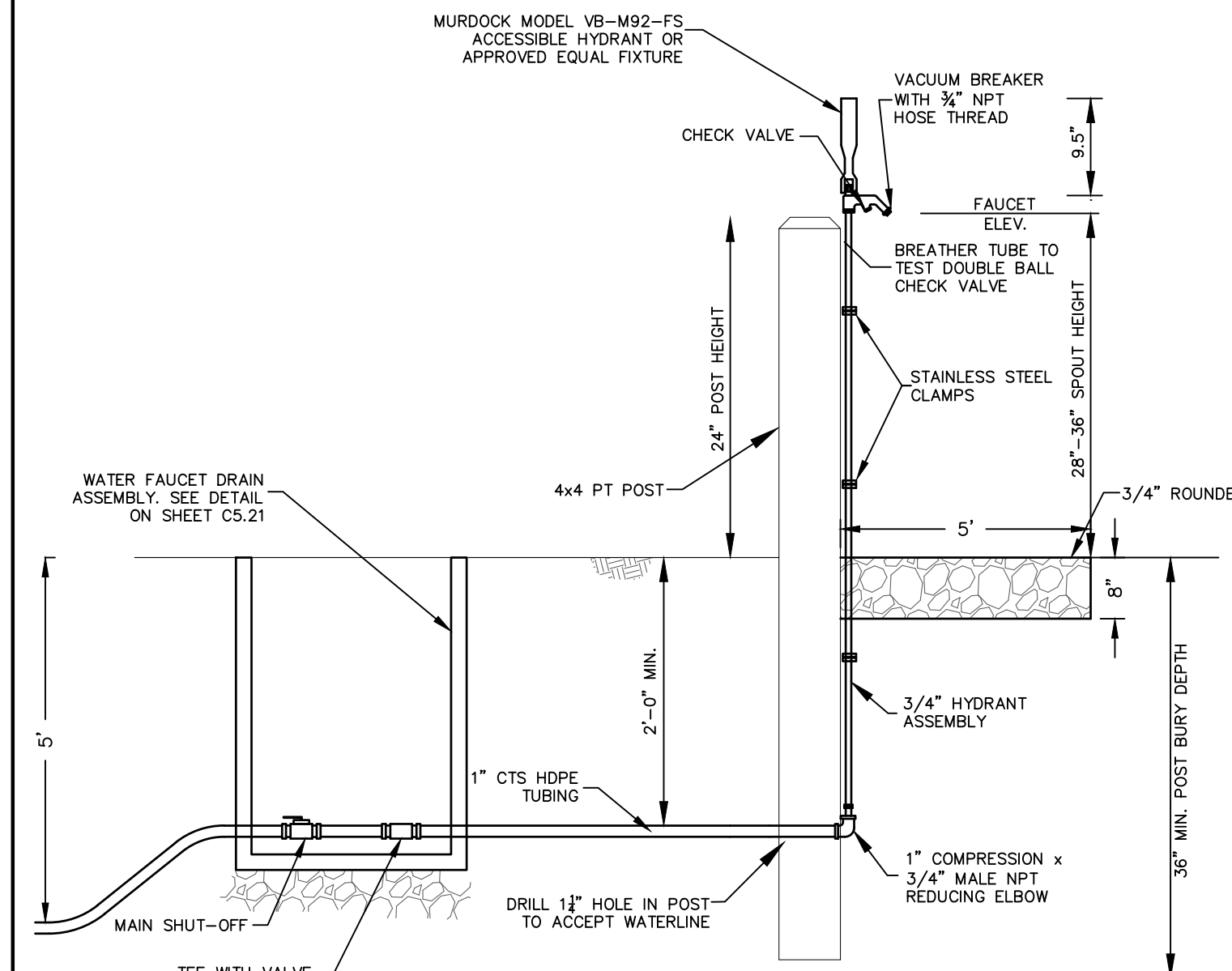
Gate Valve Installation (Waterline 3" or Greater)
Scale: NTS

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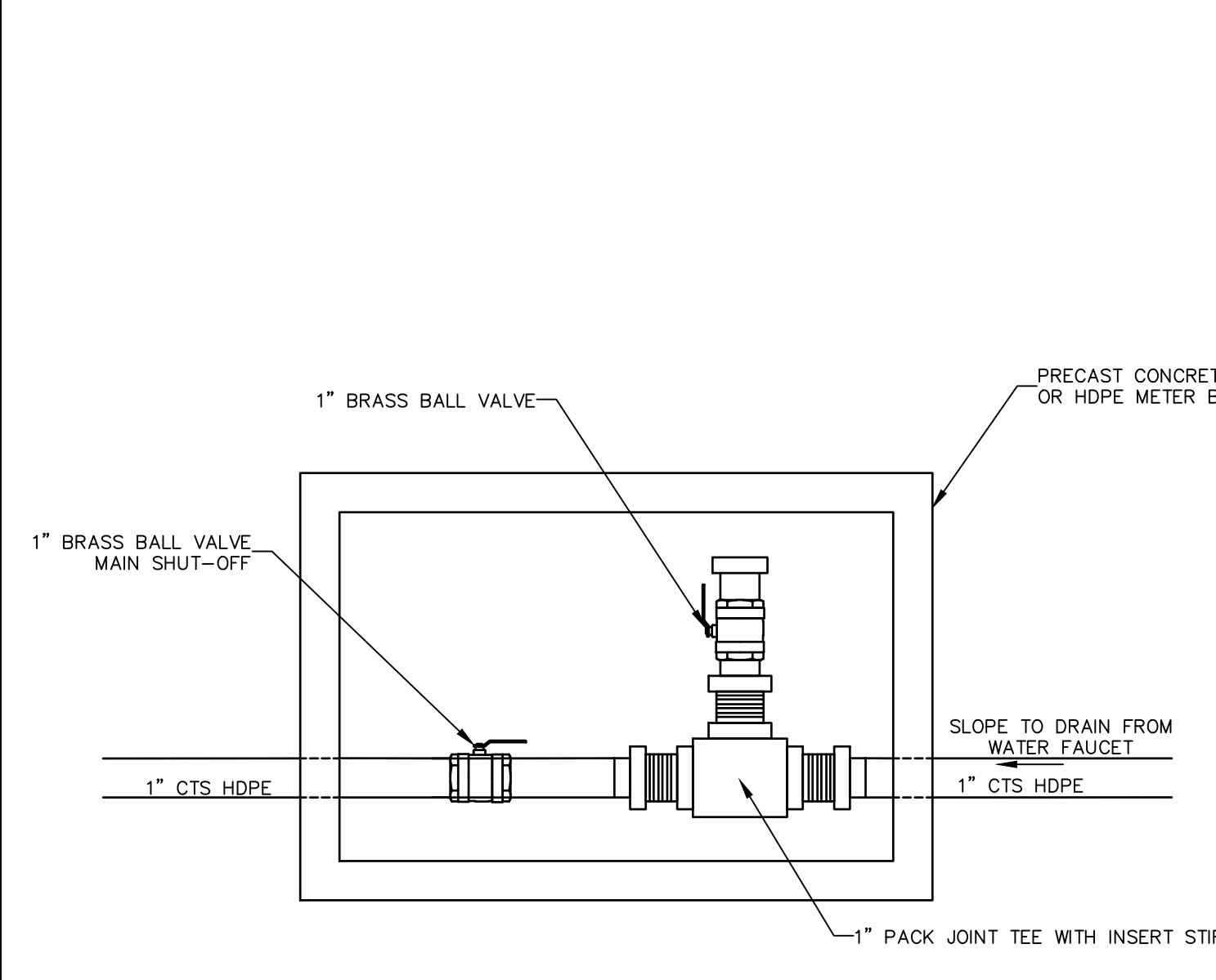


RV Hook-up Elevation
Scale: NTS

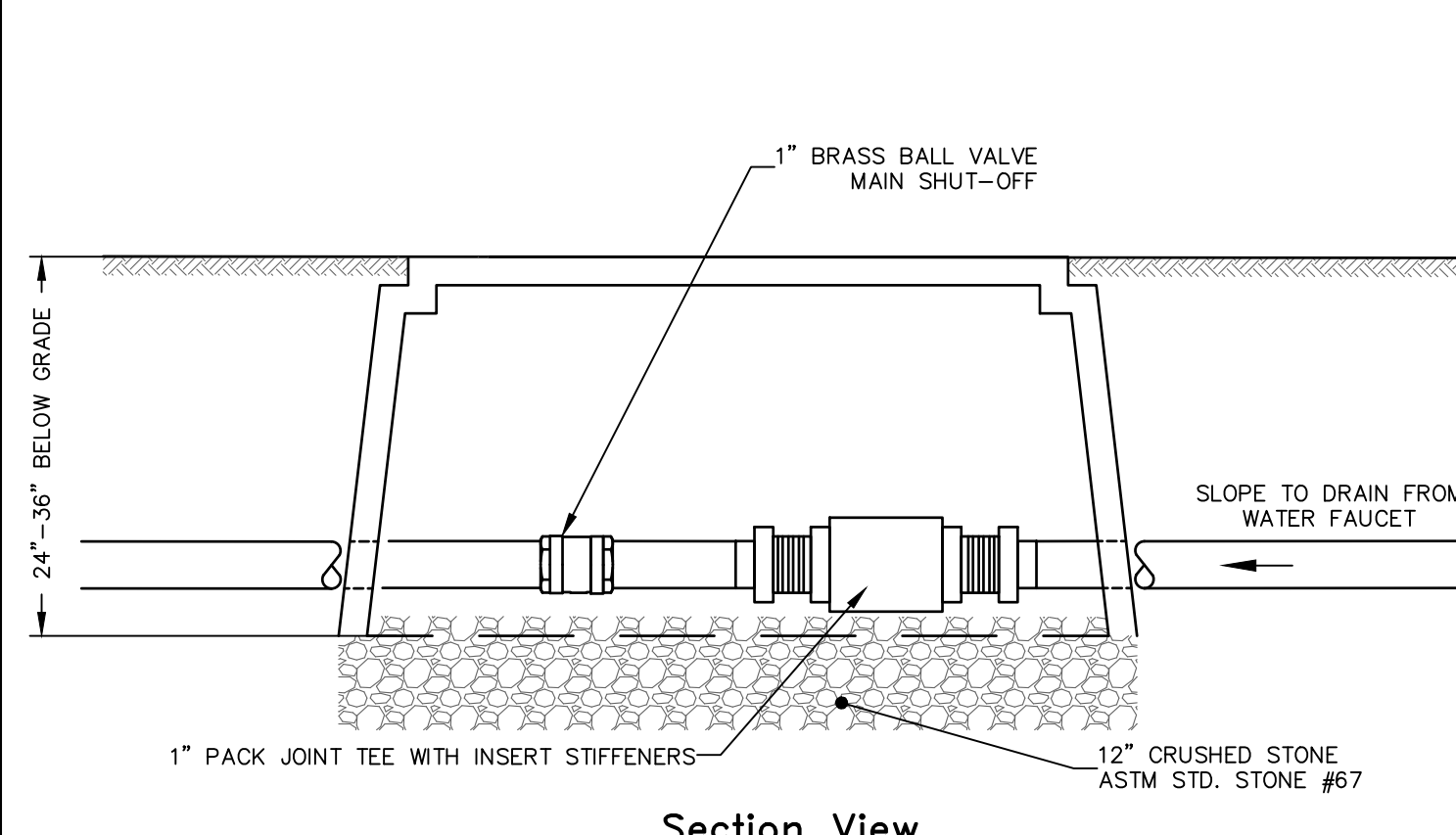
- NOTES:**
- EACH HOOK-UP SHALL BE PROVIDED WITH A DRAIN ASSEMBLY FOR THE ABILITY TO DRAIN THE FAUCET DURING WINTER SHUTDOWN OF THE WATER SYSTEM.
 - SEE DRAIN ASSEMBLY DETAIL ON THIS SHEET.



Water Faucet Elevation
Scale: NTS

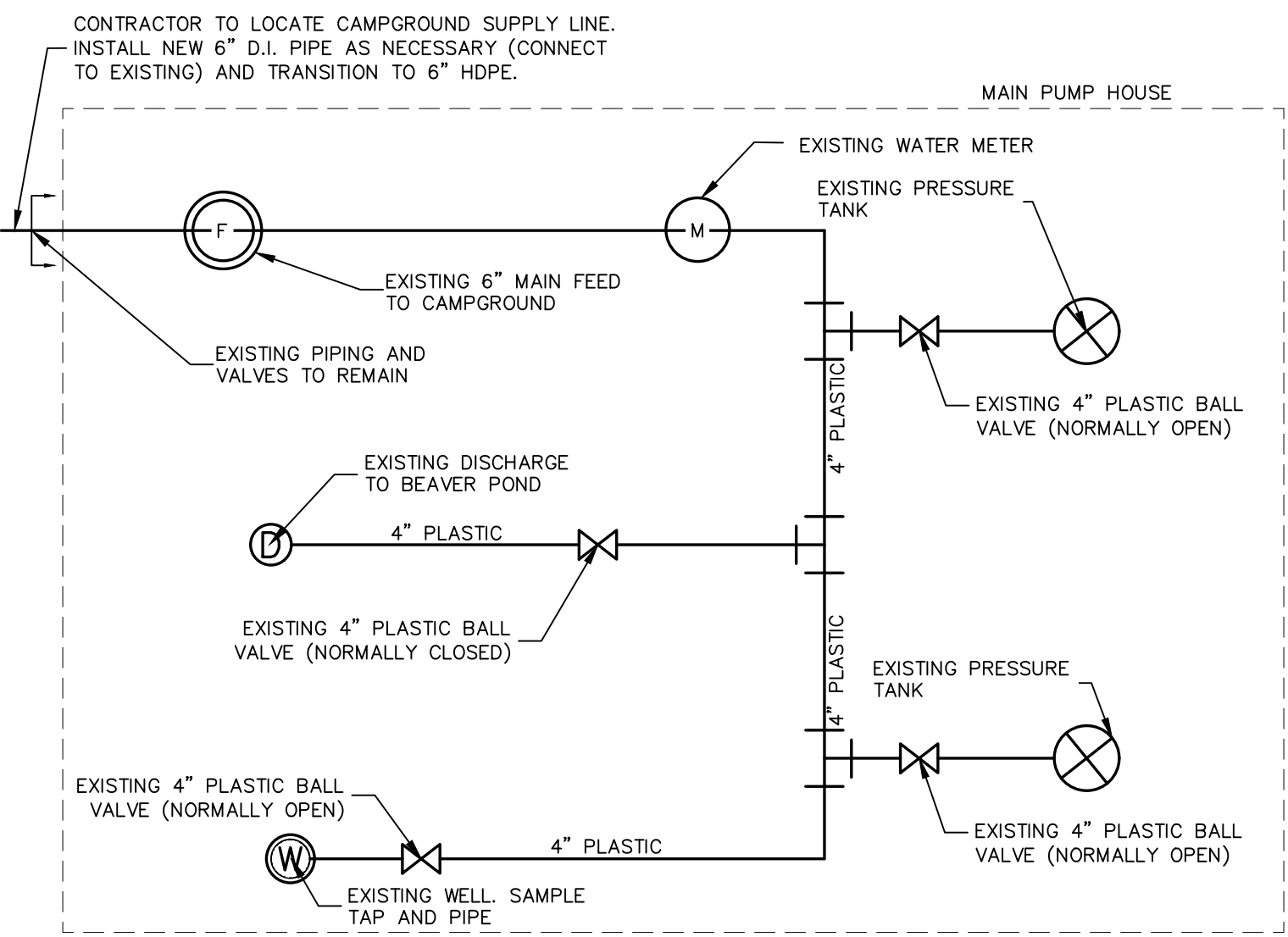


Top View



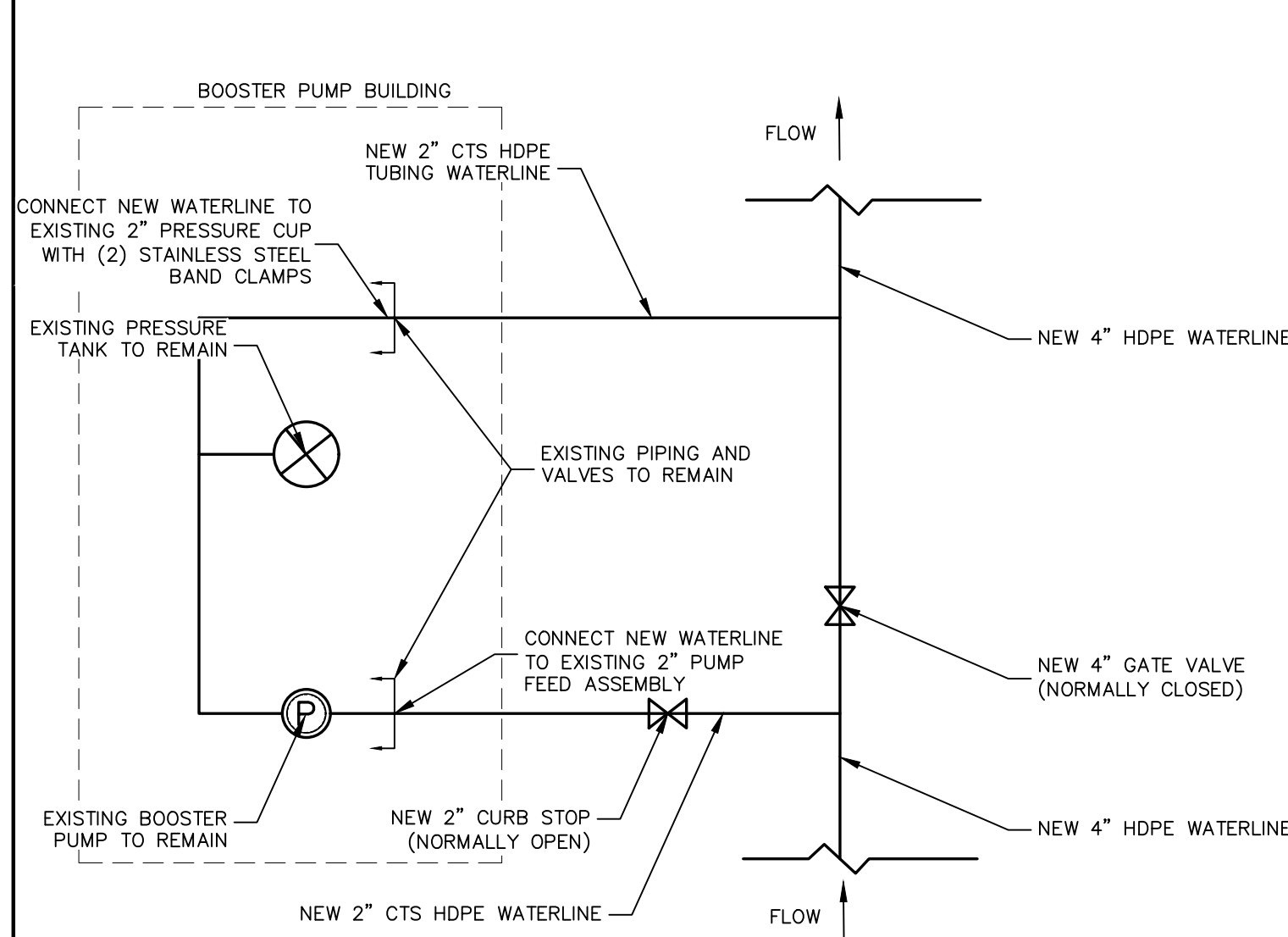
Section View

Water Faucet Drain Assembly
Scale: NTS



Main Well/Pump House Schematic
Scale: NTS

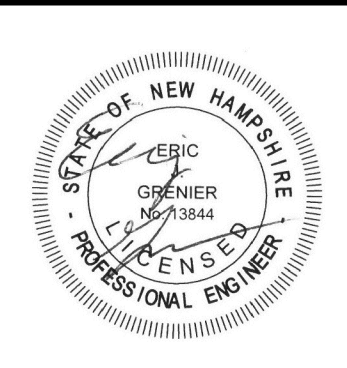
- NOTE:**
- ALL PIPING, VALVES, PRESSURE TANK, ETC. TO REMAIN INTEGRAL TO THE PROJECT.



Booster Pump Building Schematic
Scale: NTS



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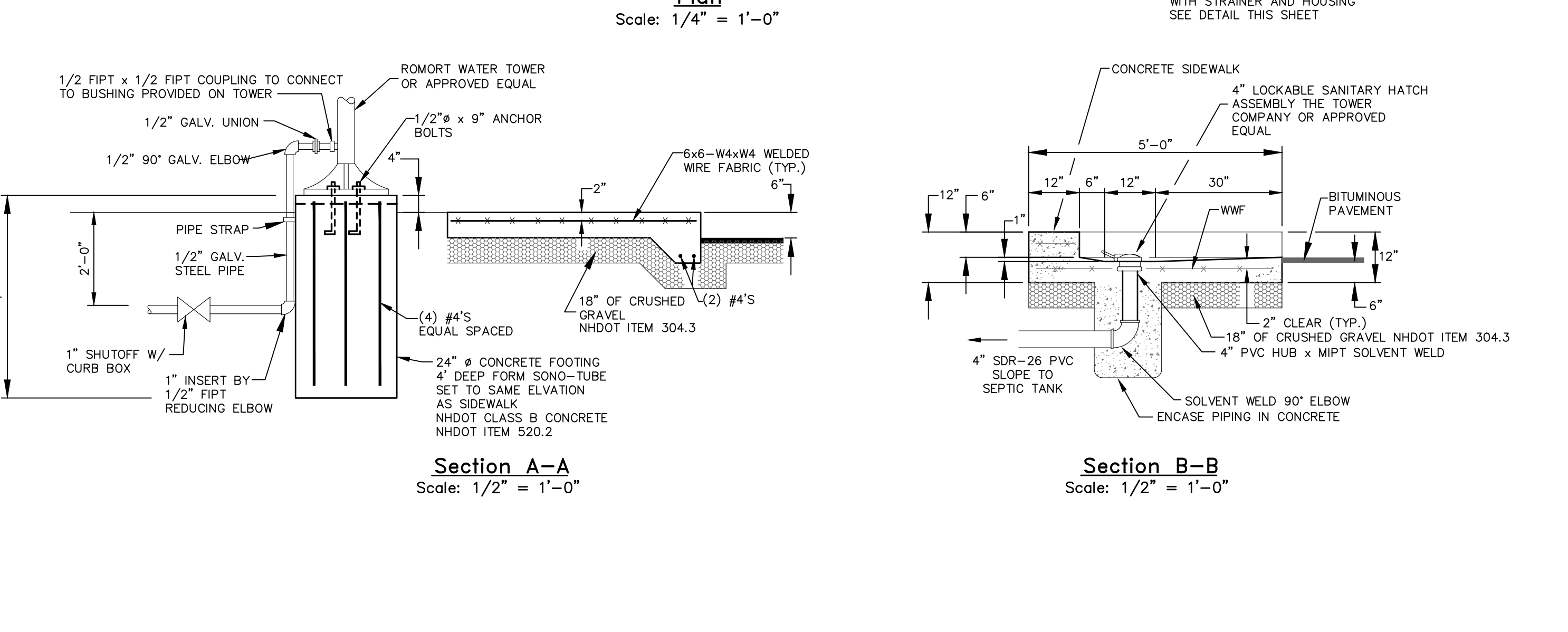
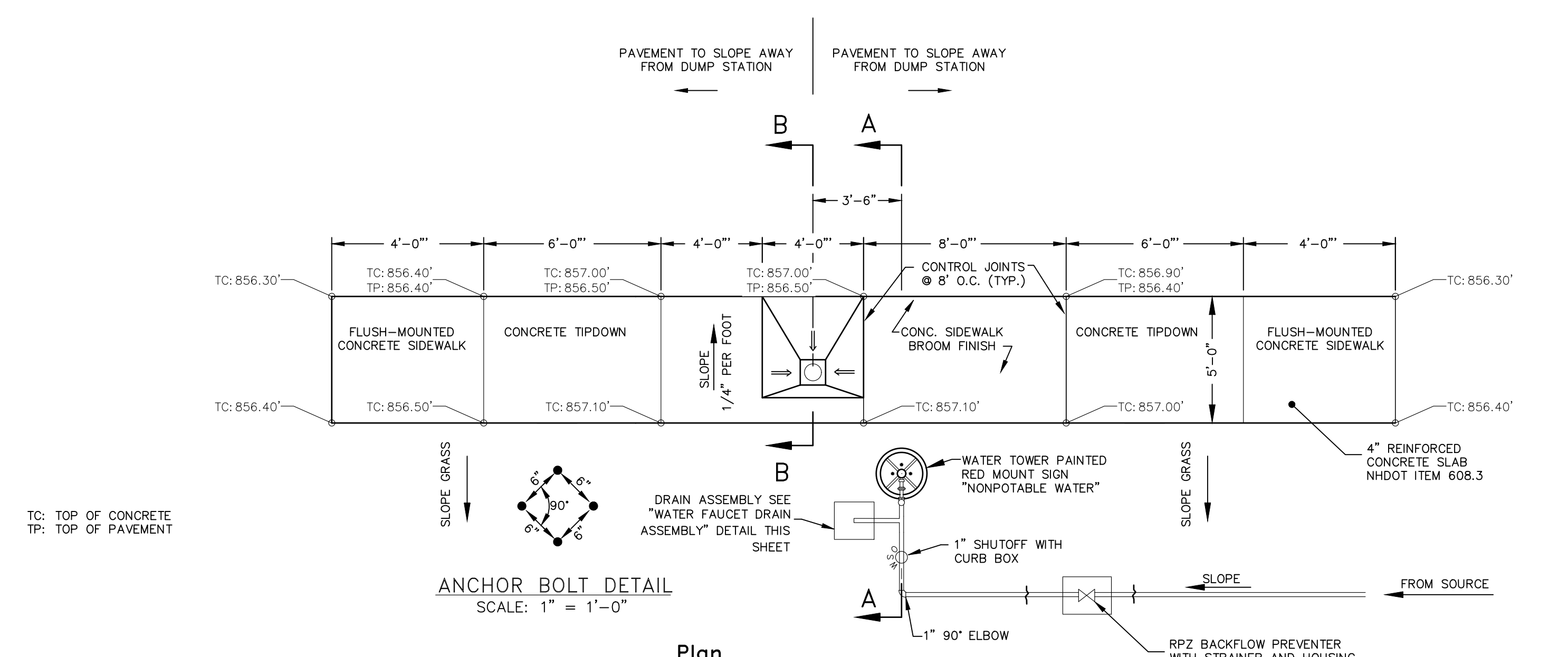
STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
7 HAZEN DRIVE BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515

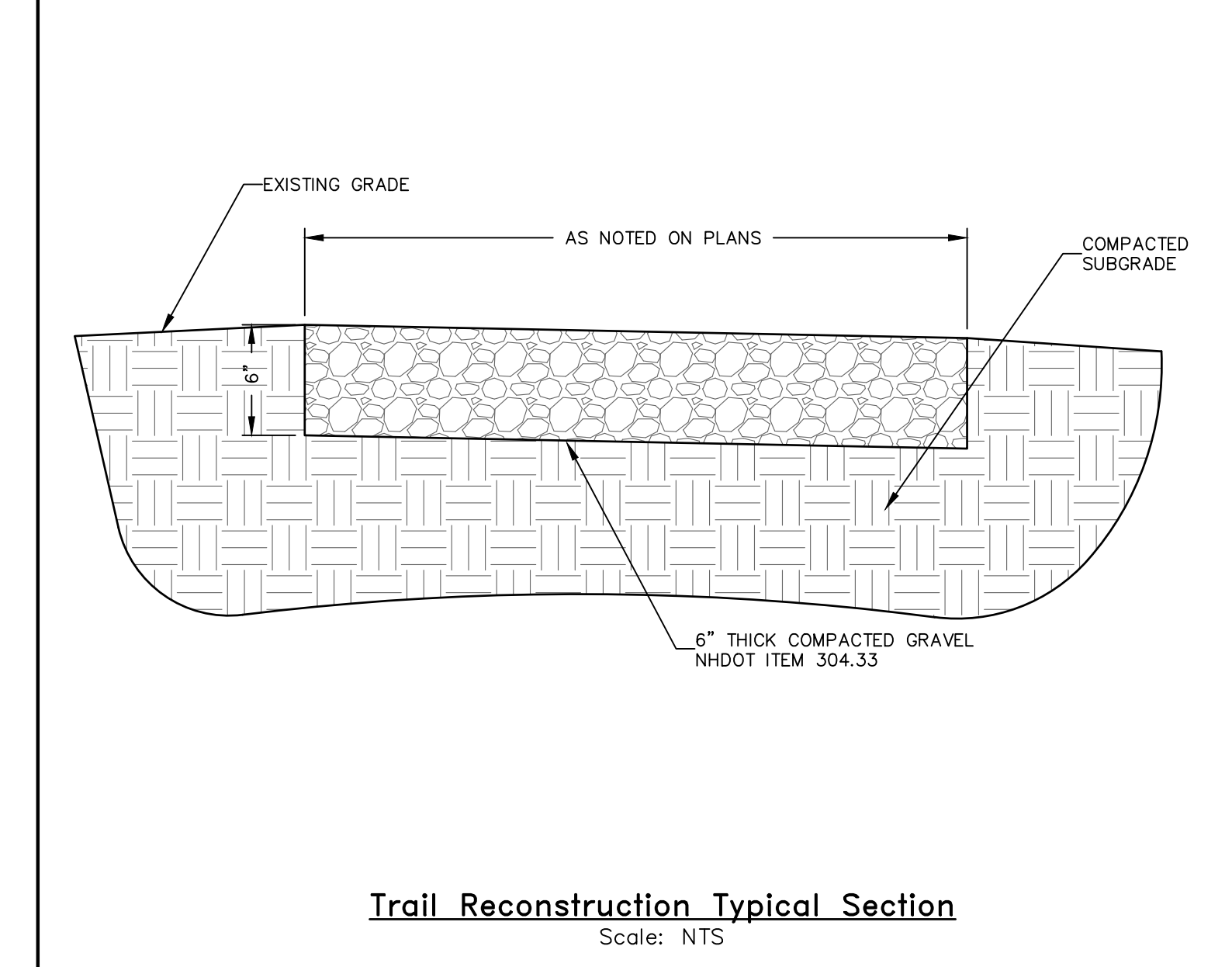
ENGINEER/ARCHITECT: HEB Engineers, Inc.
DESIGNED BY: AML
APPROVED BY: E.J.G.
CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

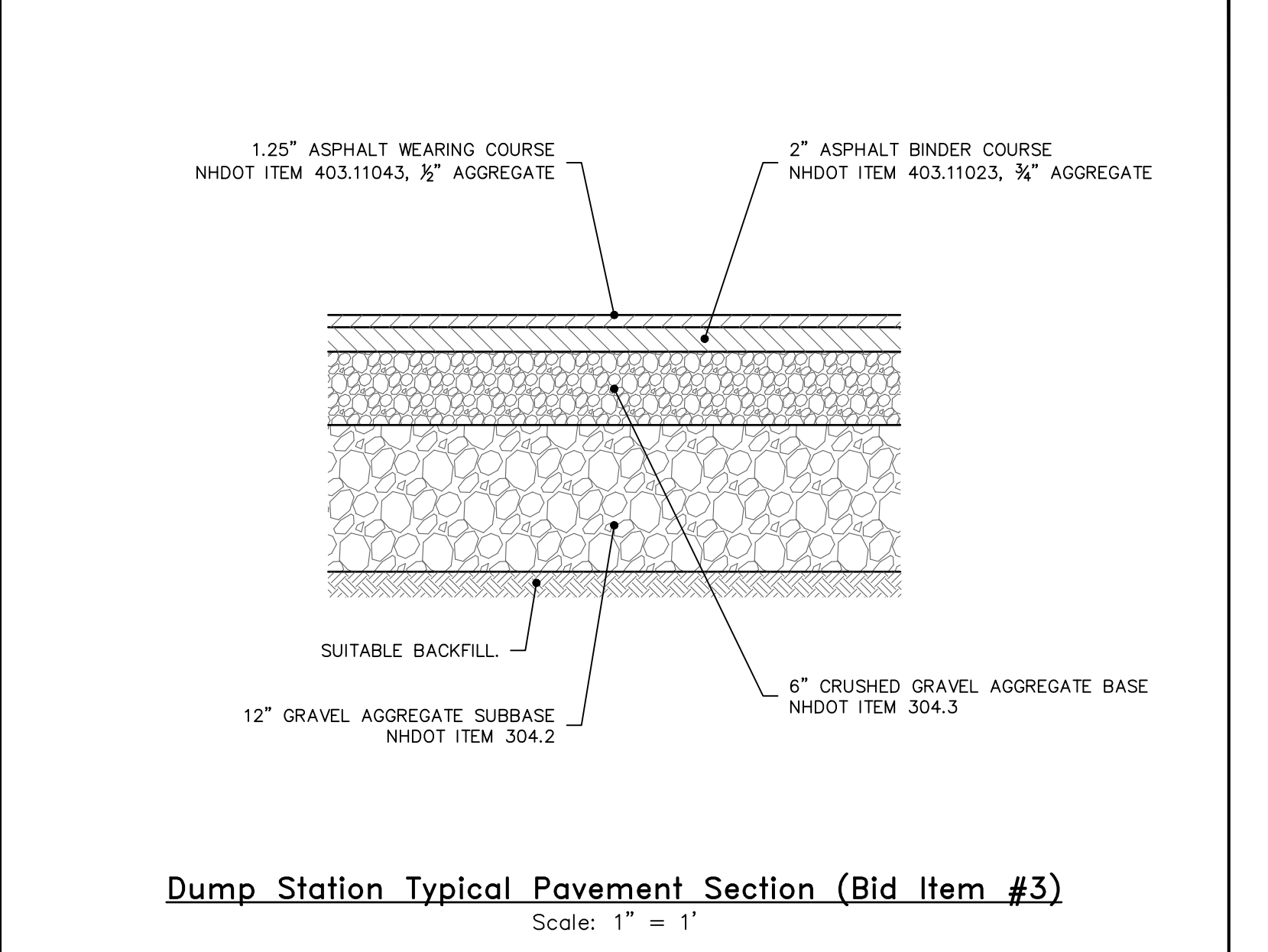
ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT 973 FOREST ROAD GREENFIELD, NEW HAMPSHIRE DEPARTMENT OF NATURAL & CULTURAL RESOURCES		
CONSTRUCTION DETAILS - WATER		
PROJECT No. 81204R	CONTRACT: G	SHEET: C5.11
DRAWN BY:	SCALE: AS NOTED	DATE: 11/16/2023



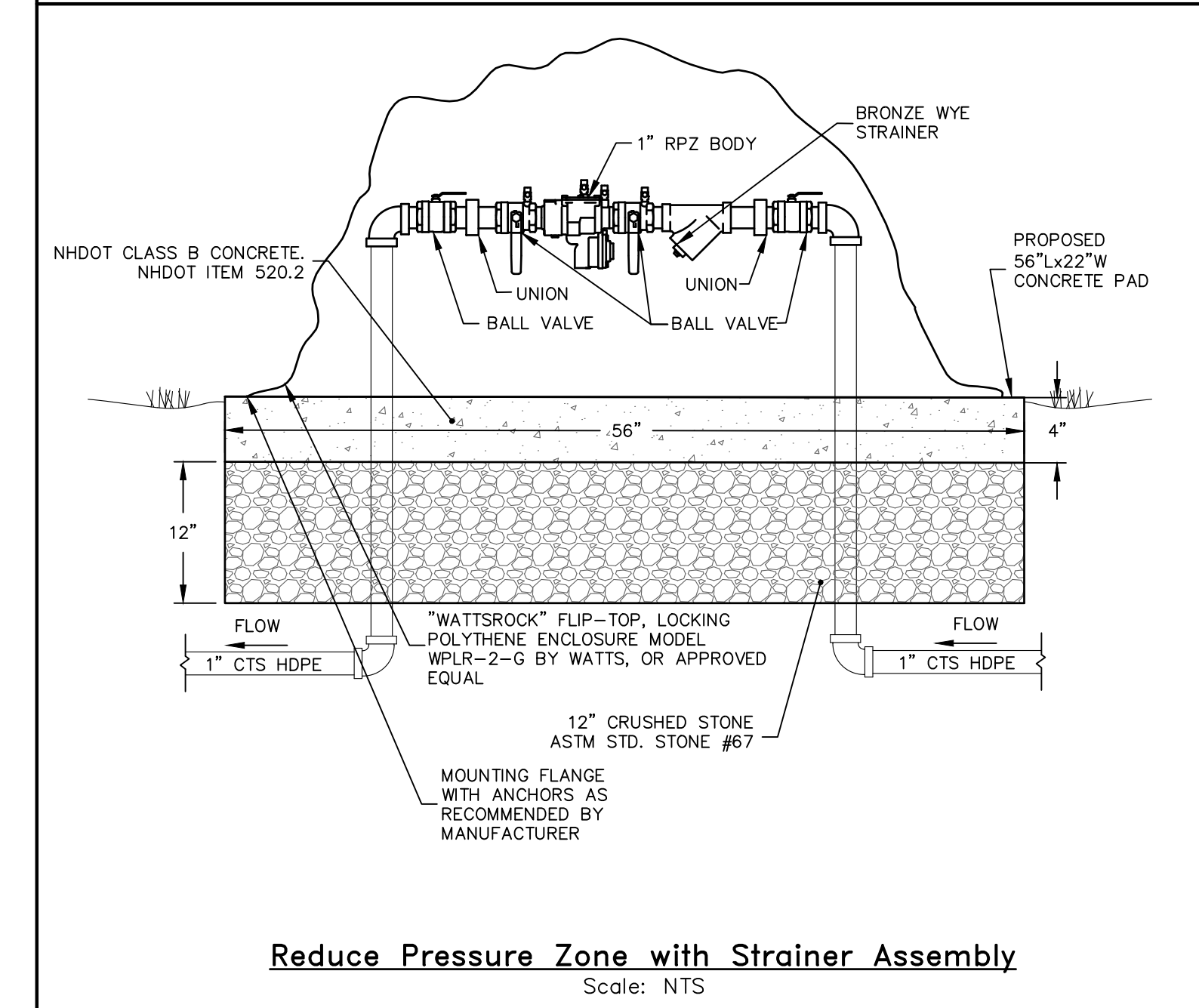
Sanitary Station Details (Bid Item #3)
Scale: NTS



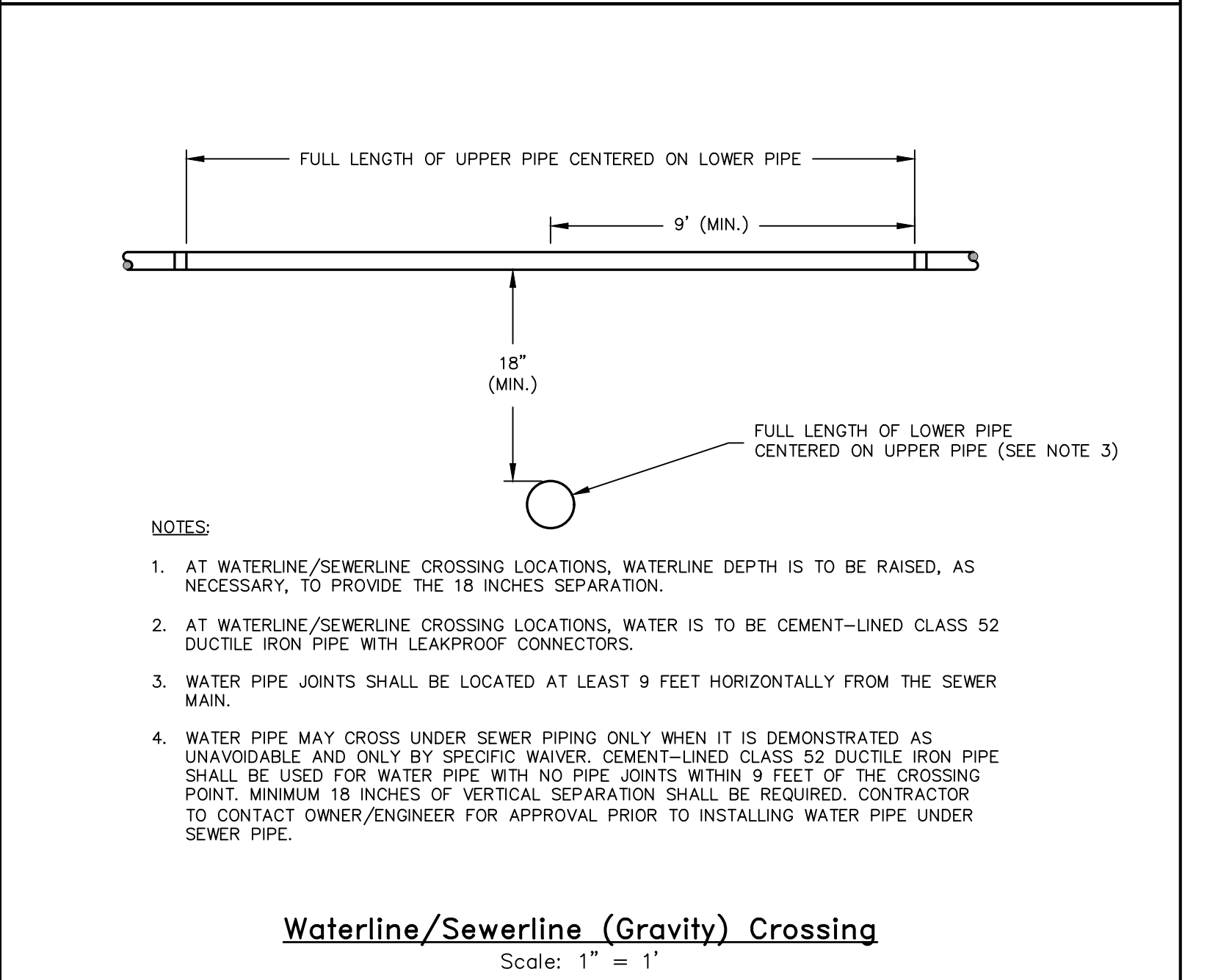
Trail Reconstruction Typical Section
Scale: NTS



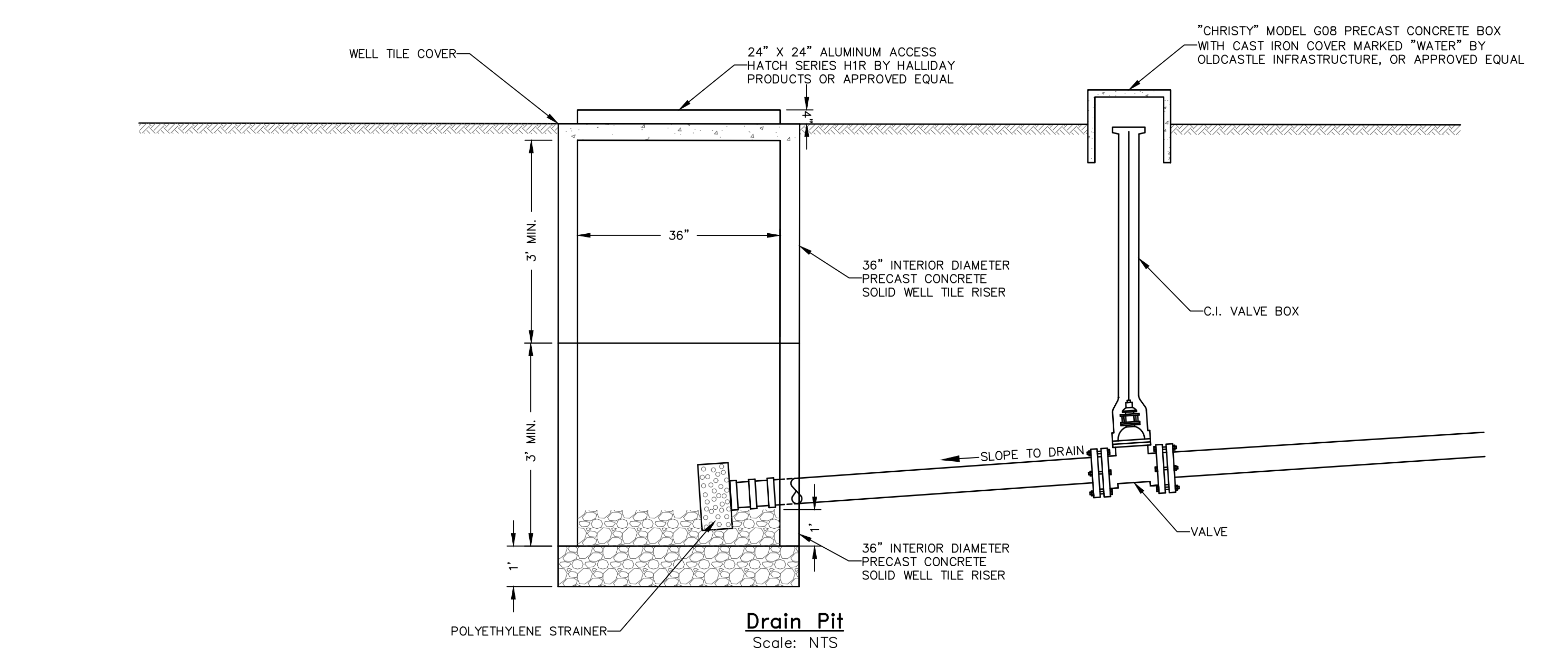
Dump Station Typical Pavement Section (Bid Item #3)
Scale: 1" = 1'



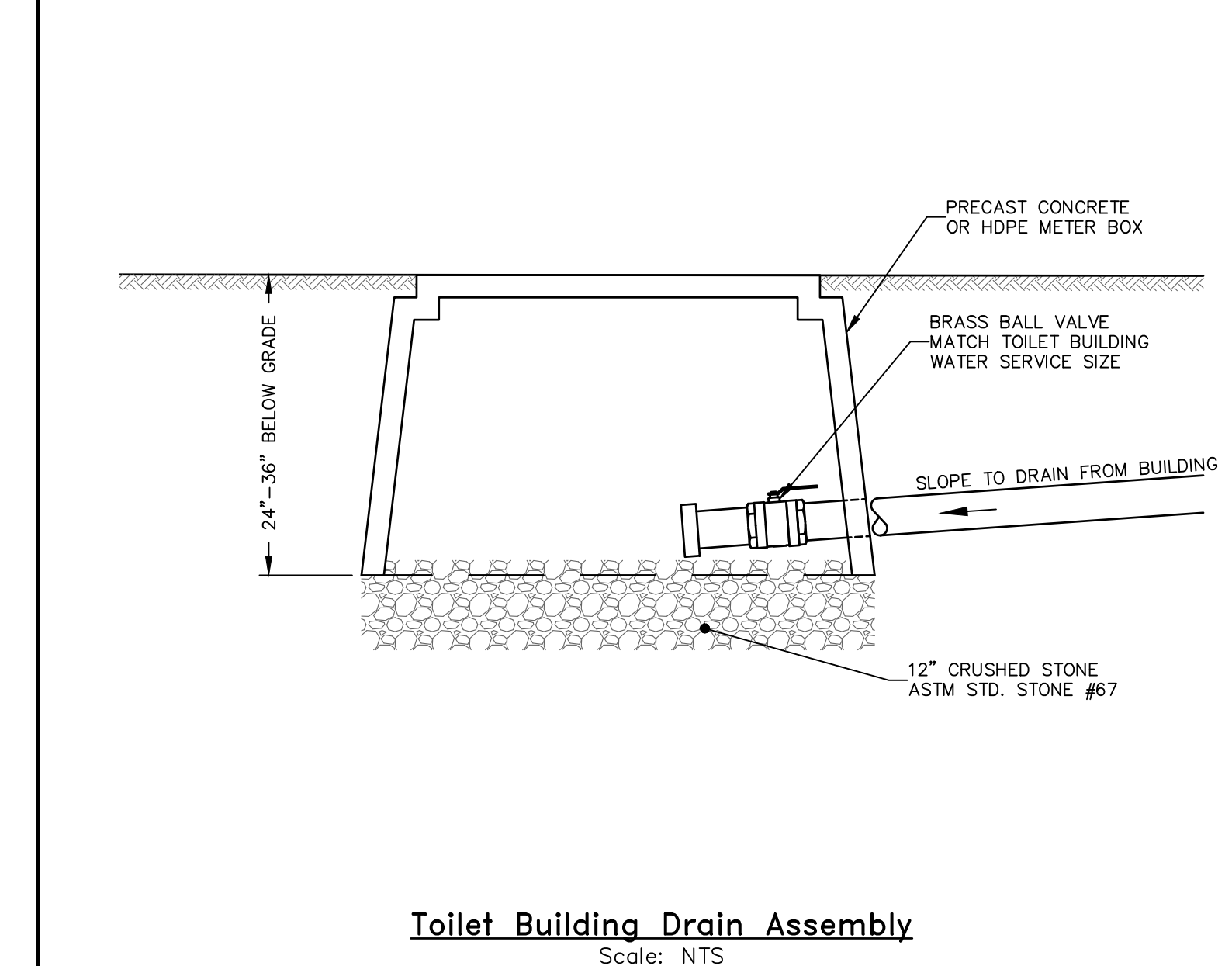
Reduce Pressure Zone with Strainer Assembly
Scale: NTS



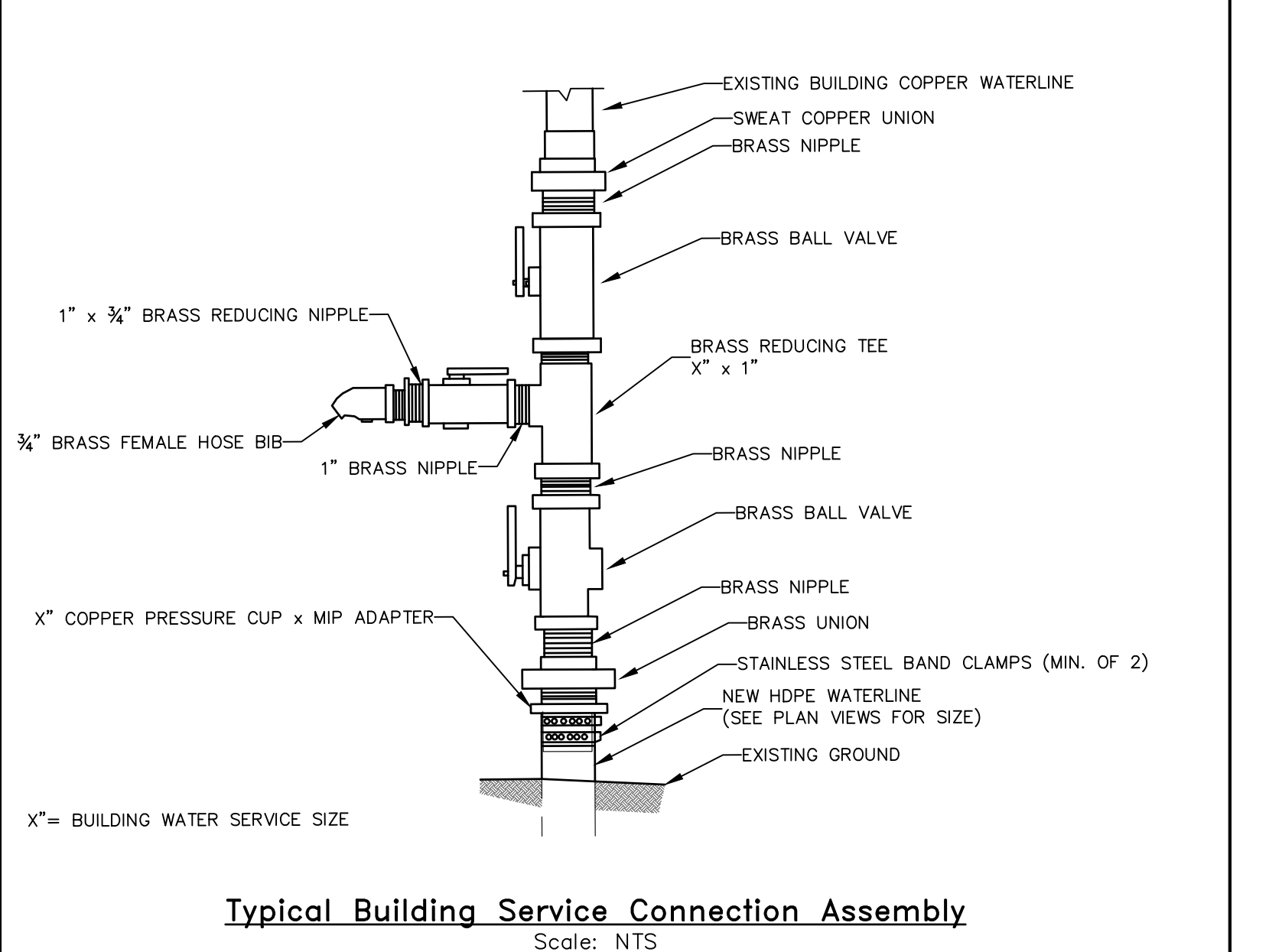
Waterline/Sewerline (Gravity) Crossing
Scale: 1" = 1'



Drain Pit
Scale: NTS



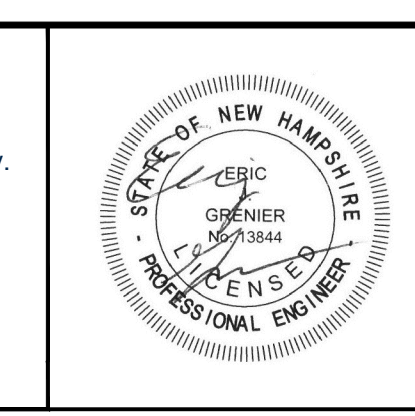
Toilet Building Drain Assembly
Scale: NTS



Typical Building Service Connection Assembly
Scale: NTS



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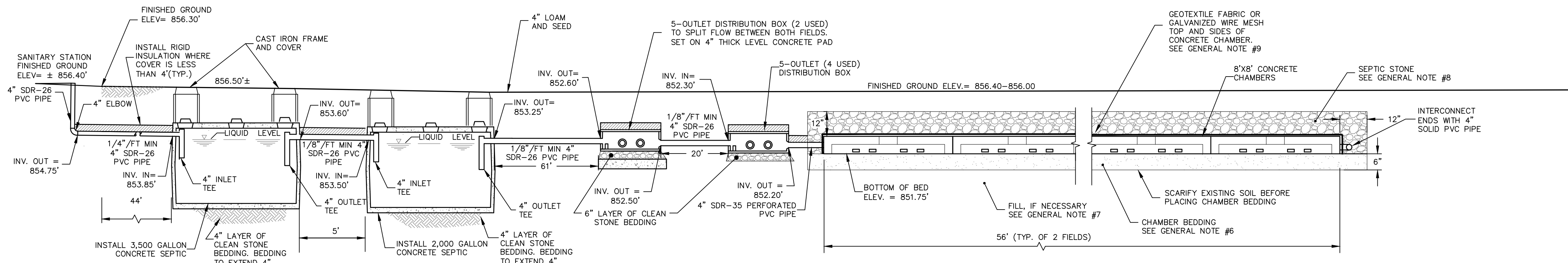


STATE OF NEW HAMPSHIRE
DESIGNED BY: AML
APPROVED BY: E.J.G.
HEB Engineers, Inc.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION
JOHN O. MORTON BUILDING
7 HAZEN DRIVE BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515
ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: E.J.G. CHECKED BY: E.J.G.

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
DEPARTMENT OF NATURAL & CULTURAL RESOURCES
CONSTRUCTION DETAILS - MISCELLANEOUS
PROJECT No. 81204R
CONTRACT No. G
DRAWN BY: AS NOTED SCALE: AS NOTED DATE: 11/16/2023 SHEET: C5.21



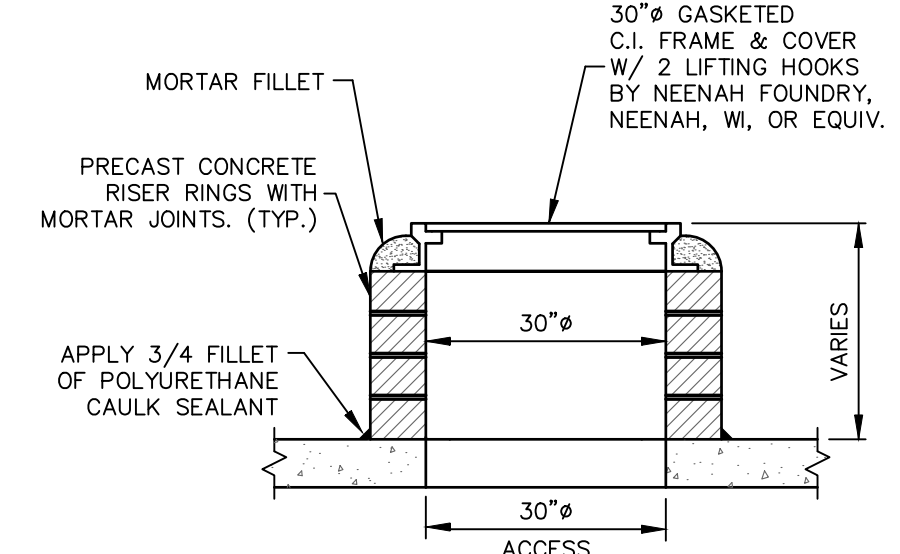
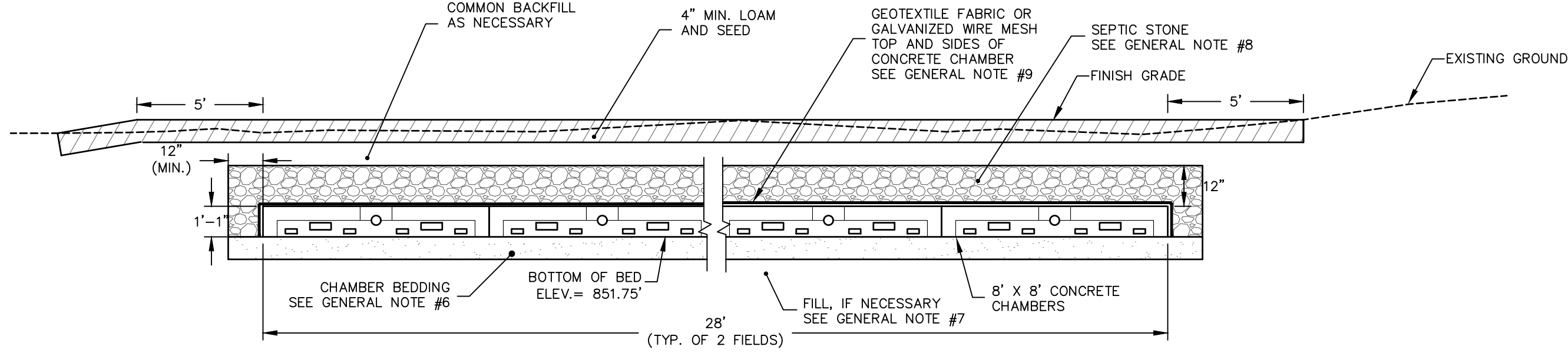
- NOTES:**
- EACH SEPTIC TANK SHALL HAVE AN INLET BAFFLE AND AN OUTLET BAFFLE THAT ARE:
 - PLUMB AND LEVEL;
 - SECURED TO THE INLET PIPE OR OUTLET PIPE, AS APPLICABLE, USING STAINLESS STEEL SCREWS; AND
 - PLASTIC VENTED TEES THAT EXTEND ABOVE THE LIQUID LINE TO NOT LESS THAN ONE INCH FROM THE INTERIOR OF THE TOP OF THE SEPTIC TANK OR COVER.
 - THE INLET BAFFLE SHALL:
 - DIVERT THE INCOMING SEWAGE DOWNWARD
 - PENETRATE AT LEAST 8 INCHES BELOW THE LIQUID LEVEL, BUT IN NO CASE GREATER THAN THE DEPTH OF THE OUTLET BAFFLE
 - THE OUTLET BAFFLE SHALL EXTEND FROM DISTANCE BELOW THE SURFACE OF THE LIQUID TO 40% OF THE LIQUID DEPTH

- General Notes:**
- New septic tanks to be 3,500-gallon and 2,000-gallon, single compartment, reinforced concrete capable of supporting H-20 wheel load by AJ Foss, Inc., Farmington, NH, or equivalent.
 - Distribution boxes to be precast concrete supplied by AJ Foss, Inc., or equivalent.
 - Pipe and fitting shall be as follows:

Abbreviation	Specification	Joining Method
SCHD 80	ASTM D1785	Solvent Cement (ASTM D28564)
SCR 35 & SDR 26	ASTM D3034	Gasketed Joint (ASTM D3139)
 - Install buried pipe complying with ASTM D2321 using Class I or II Material. Solvent cement joints to be made complying with ASTM D2855.
 - Concrete chambers to be 8-foot x 8-foot x 13-inch chambers capable of supporting H-20 Wheel loads by AJ Foss, Inc., or equivalent.
 - Common Backfill (as necessary):
Clean bank run sand, free of topsoil or humus, dredgings, and stones more than 6 inches in any dimension per Env-Wq. 1021.03.
 - Chamber Bedding: Per Env-Wq. 1017.02 chamber bedding shall be a 6-inch-thick level layer of medium to coarse texture sand with an effective size of 0.25 to 2.0 mm no greater than 5% passing the #200 sieve and no particles larger than 3/4 inch; or materials meeting ASTM C-33 specifications.
 - Fill required to raise the EDA to the approved distance above the estimated seasonal high water table or impervious substratum shall be clean bank run sand, free of topsoil or humus, dredged material, or stones more than 6 inches in any dimension. The first 6 inches directly beneath the bed and extending laterally across the fill extension shall consist of:
 - Medium to coarse textured sand, with an effective opening size of 0.25 to 2.0 mm, no greater than 5% passing the number 200 sieve, and no particle size larger than 3/4 inch; or
 - Materials meeting ASTM C-33 Specifications
 - Septic stone shall be clean, uniformly-sized washed crushed stone, washed rock, or similar aggregate sized in accordance with the following:

Sieve Size	Percent Passing by Weight
2 inches	100
1.5 inches	90-100
3/4 inch	0-20
#4	0-5
#200	0-2
 - Filter fabric or galvanized wire mesh shall be placed around concrete chambers prior to placing the septic stone.
 - All topsoil under the fill areas shall be thoroughly tilled, stripped, and stockpiled. The base area shall be prepared by scarifying the subgrade to a depth of 3 inches. Subgrade shall not be smeared after being prepared.
 - Fill material is to be placed in horizontal 12-inch-thick maximum lifts and compacted to between 80 and 90 percent of its maximum density as determined by ASTM D698. The surface of each lift shall be scarified to depth of 1/2-inch immediately prior to placing the next lift.
 - Concrete chambers are to be placed on the prepared level bedding surface. Preparation of the bedding surface shall consist of fine grading and hand scarifying to a depth of 1/2-inch.
 - All disturbed areas (not covered with gravel or pavement) shall be loamed, seeded, fertilized, and mulched. The on-site loam shall be supplemented with off-site loam as required to provide a final loam depth of 4 to 6 inches.
 - Design Intent:
The bottom of the effluent disposal system (EDS) shall be constructed at 851.75' elevation and is to be approximately 4.65 feet below original ground at the high side grade of the designed EDS. The bed area is to be a minimum of 4 feet above seasonal high water table.
 - Insulation is to be 2-inch-thick by 48-inch-wide extruded polystyrene insulation to be "square edge, styrofoam" by Dow Plastics, Midland, MI, or equivalent.
 - Seal all joints watertight at the pipe and septic, and pipe and distribution box connections with non-shrink hydraulic cement such as "waterplug" by Thoro Systems, Inc., Miami, FL, or equivalent.
 - No changes in elevation, location, or material substitutions shall be made without prior written approval from the Designer.
 - Because the Designer has not been contracted for construction inspection services and has no control of the system's operation and maintenance, the Designer cannot predict nor guarantee its life.
 - System to be reconstructed in place upon failure.

Profile Through Leachfield
Scale: NTS



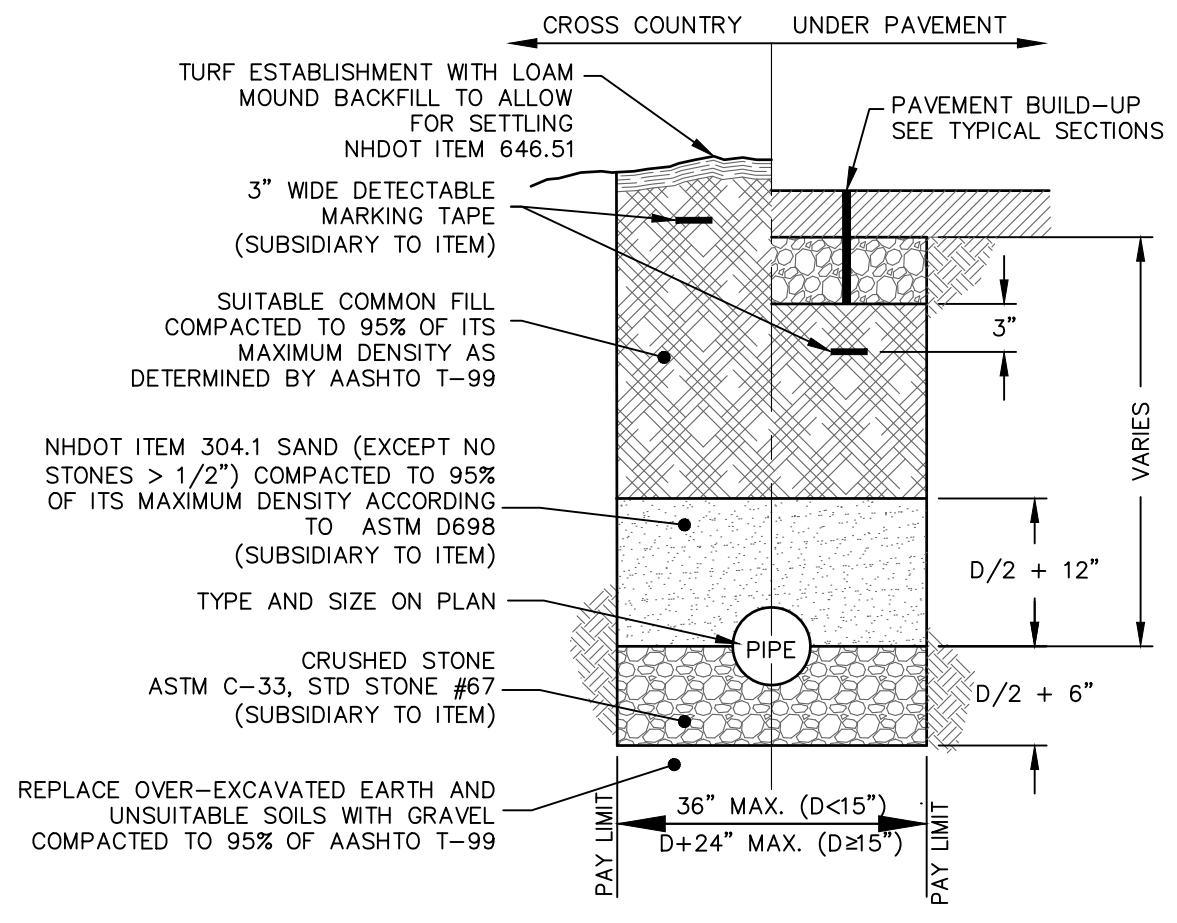
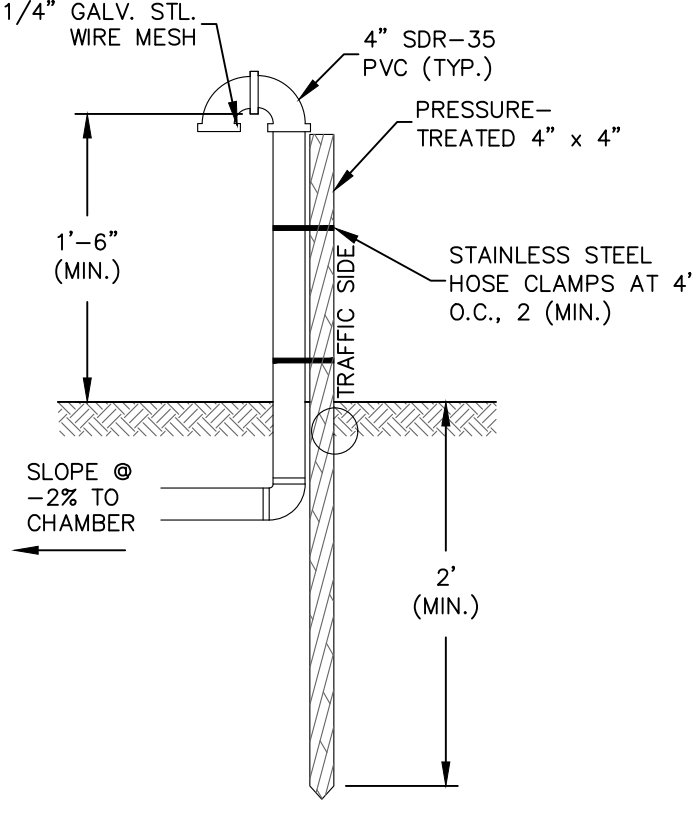
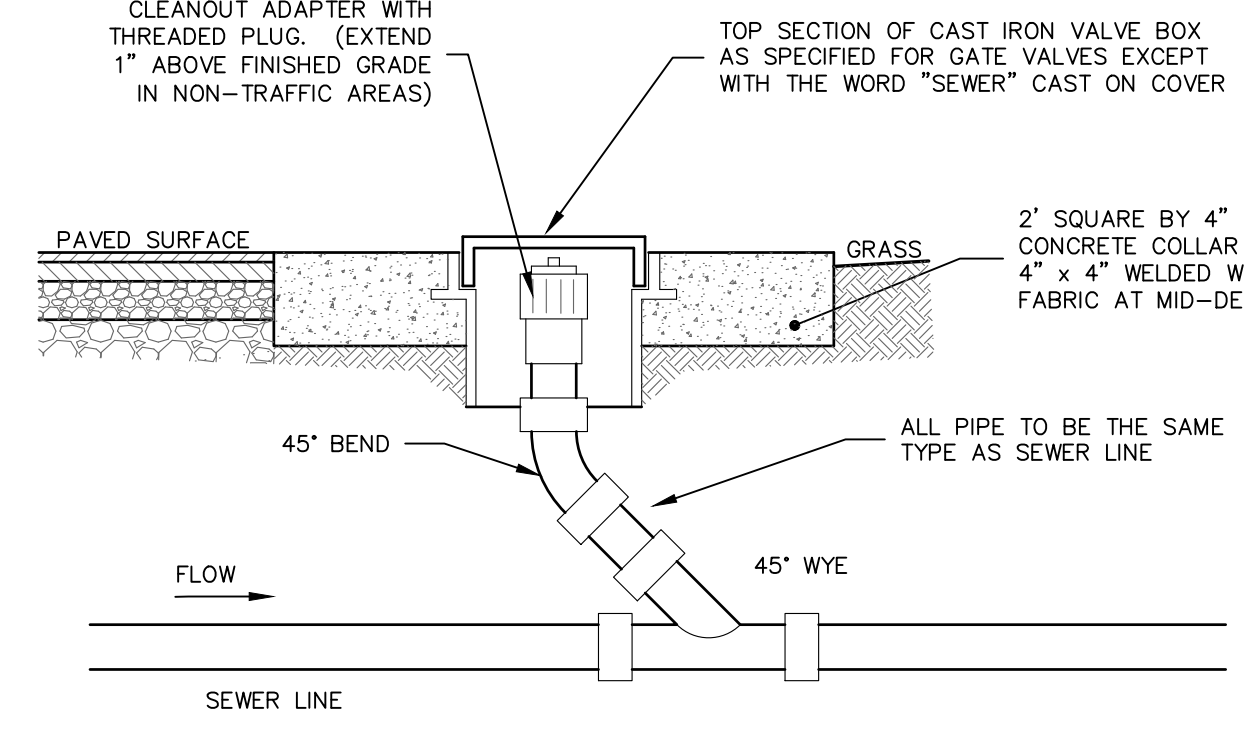
Section Through Leachfield
Scale: NTS

C.I. Frame & Cover Installation
Scale: NTS

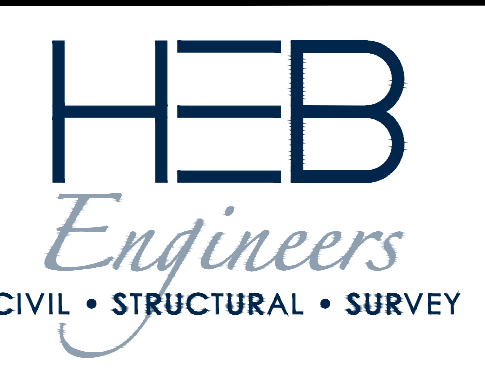
- Design Data:**
- Percolation rate was observed to be 2 min/in in tests performed on 05/04/23 by HEB Engineers, Inc. (HEB)
 - There is no surface water within 75 feet or poorly drained soils within 50 feet of the system.
 - Seasonal high water table (SHWT) was not encountered during the test pit performed on 05/04/23 by HEB Engineers, Inc.
 - Estimated sewage load is 3,000 GPD determined as follows:
Campground - Dump Station: 100 sites * 30 GPD/Day = 3,000 GPD
*Sites do not have water or sewer hookups
 - Area of pipe and stone required by NHDES for this system is 3,750 square feet [Env-Wq Table 1016-1].
 - Minimum bed size for chamber systems shall be at least 60% of the area required for a pipe and stone area [Env-Wq 1016.02 (b) as follows:
Minimum Chamber System Area = 60% x 3,750 square feet = 2,250 square feet.
 - Bed size provided is 3,584 square feet as follows 56 concrete chambers X 64 square feet per chamber = 3,584 square feet.
 - System is oversized for the potential to accommodate future sites/flows of up to 1,500 GPD. This will require a separate Collection System Tie-in Approval.
 - Soil in the vicinity of the leachfield as described by USDA-NRCS Web Soil Survey (WSS) as Colton gravelly sandy loam 3 to 8 percent slopes.

- Town of Greenfield, NH Notes:**
- Prior to placing any fill or construction of the leachfield, the Contractor shall call the Town of Greenfield Building Inspector (603) 547-3442 for an inspection once excavation to the bottom of bed elevation is achieved.
 - Prior to backfill of the leachfield, the Contractor shall call the Town of Greenfield Building Inspector for an inspection and approval to backfill.

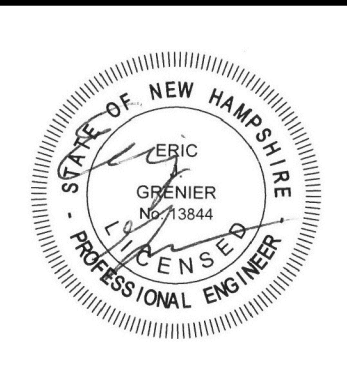
- Bidding Notes:**
- All items on this sheet are part of Bid Item #3.



- NOTE:**
- SUITABLE COMMON FILL SHALL BE MATERIAL FROM EITHER ON-SITE OR OFF-SITE THAT IS FREE OF FROZEN MATERIAL, FOREIGN DEBRIS, CLAY, PEAT, ORGANIC MATTER, PERISHABLE RUBBISH, OTHER DELETERIOUS MATERIALS, AND STONES GREATER THAN 6-INCHES IN THEIR LARGEST DIMENSION.



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STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
7 HAZEN DRIVE BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515

ENGINEER/ARCHITECT: HEB Engineers, Inc. DESIGNED BY: AML APPROVED BY: EUG CHECKED BY: EUG

REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
DEPARTMENT OF NATURAL & CULTURAL RESOURCES

CONSTRUCTION DETAILS - DUMP STATION

PROJECT No. S1204R
CONTRACT: G
DRAWN BY: SCALE: DATE: 11/16/2023
SHEET: C5.31

Structural Notes:

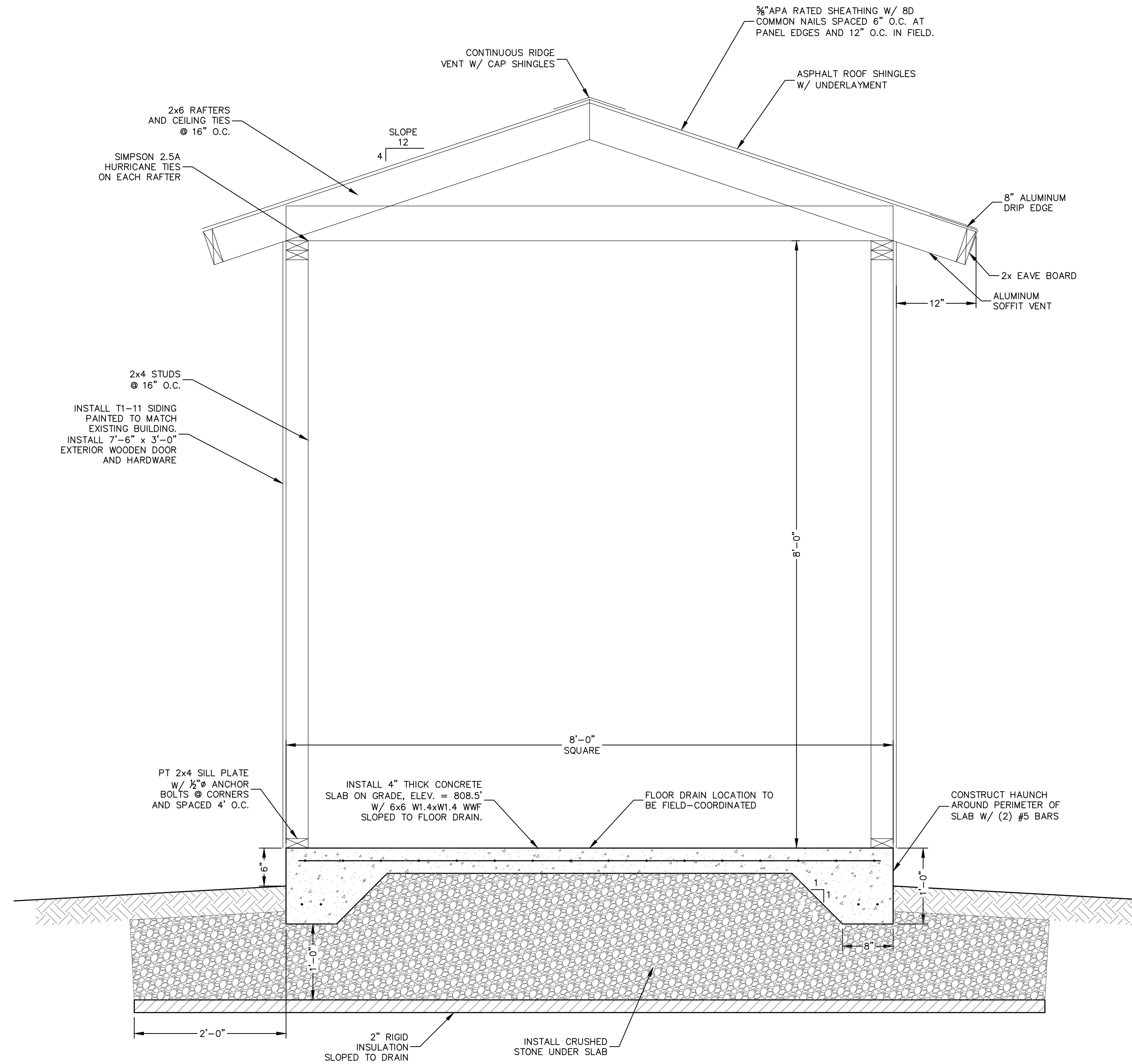
- All dimensions and existing conditions must be verified by the Contractor in the field. Any discrepancies shall be brought to the attention of the Engineer before proceeding with the affected portion of the work.
- All construction shall conform to the current New Hampshire State Building Code (International Code Council (ICC), *International Building Code* (IBC), 2018 Edition, with NH Amendments).
- Details shown on any drawing are considered typical for all similar conditions unless noted otherwise.
- The Contractor shall be responsible for any shoring or temporary bracing required to complete the work.
- Shop drawings shall be submitted to the Engineer and approved prior to fabrication or use of material on the site.
- The location of underground and overhead utilities are not shown on these drawings. Verify the location of all utilities and contact all utility companies before beginning construction. Contact DIG-SAFE at 1-888-DIG-SAFE.
- The Contractor shall use the structural drawings in coordination with the other drawings and coordinate the work of the various trades. Verify all dimensions and rough openings with the architectural drawings.
- The following criteria was used for the design of the structure:
 Snow Loads
 Approx. Site Elevation = 850 ft
 Site Ground Snow Load, $p_{gsite} = 75$ psf
 Terrain Category B
 Exposure Factor, $C_e = 1.0$
 Thermal Factor, $C_t = 1.2$
 Importance Factor, $I_s = 0.8$
 Flat Roof Snow Load, $p_f = 50$ psf

Wood Framing Notes:

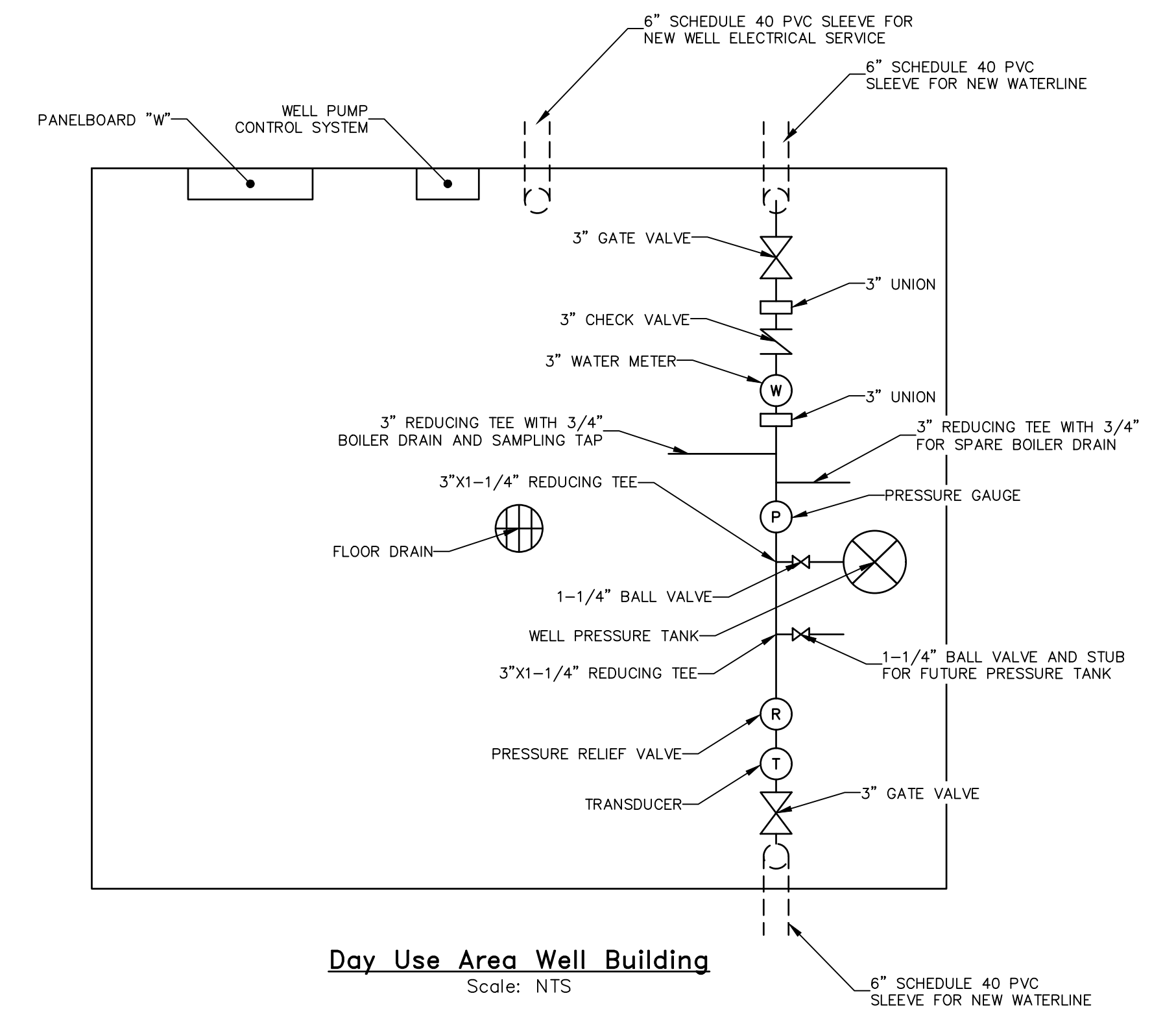
- All wood construction shall conform to the American National Standards Institute (ANSI) and American Forest & Paper Association (AF&PA), *National Design Specification for Wood Construction* (NDS), 2018 edition.
- The Contractor is required to ensure a continuous load path to the foundation for all columns and jack/king studs, unless interrupted by a transfer beam or other supporting member.
- Unless noted otherwise, all fastening shall be in accordance with IBC 2018, Fastening Schedule, Table 2304.10.1.
- Bolts shall meet the requirements of ASTM A307. Anchor rods shall meet the requirements of ASTM F1554 Grade 36, unless noted otherwise.
- Built up beams, headers, or girders shall be continuous members throughout their span. Joints shall be allowed only over columns.
- Provide mid-height blocking for all wall studs in excess of 8 feet in height.
- All floor trusses/joists shall align with the wall stud below.
- Wood and engineered-wood products shall bear the stamp of a recognized grading agency and have, at minimum, the following properties or classifications:
 Dimensional Lumber - Spruce/Pine/Fir (SPF) No. 1/No. 2
 Pressure Treated Dimensional Lumber - Southern Yellow Pine (SYP) No. 1
- All wood panels for wall applications shall be $\frac{1}{2}$ -inch APA rated sheathing $\frac{3}{8}$, Exposure 1.
- All wood panels for roof applications shall be $\frac{1}{2}$ -inch APA rated sheathing $\frac{3}{8}$, Exposure 1.
- All sheathing construction joints shall be lapped per Manufacturer's recommendations.
- Mechanical connectors shall be Simpson Strong-Tie or approved equivalent.
- The Contractor is responsible for ensuring proper corrosion protection for fasteners, hangers, and other hardware from the elements and pressure treatment. Consult manufacturer for specifications.
- All holes or cuts, in pressure treated wood, shall be properly field treated with preservative. Consult manufacturer for recommendations.
- Nails shall have non-clipped heads and shall have the following dimensions:
 8D: $\phi = 0.131$ " L = $2\frac{1}{2}$ "
 10D: $\phi = 0.148$ " L = 3"
 12D: $\phi = 0.148$ " L = $3\frac{1}{2}$ "
 16D: $\phi = 0.162$ " L = $3\frac{1}{2}$ "

Cast-in-Place Concrete Notes:

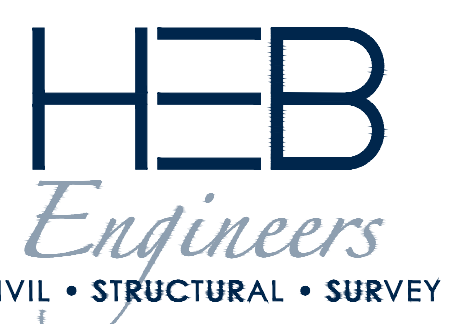
- All concrete construction shall conform to the American Concrete Institute (ACI), *Building Code Requirements for Structural Concrete* (ACI 318-14) and *ACI Specifications for Structural Concrete for Buildings* (ACI 301).
- Unless otherwise noted, all concrete shall have a compressive strength of at least 3,000 psi at 28 days and air entrainment of 4-7%. Slump shall be 4-5 inches. A mid-range water-reducing agent may be used to improve placement, workability, and increase slump to a maximum of 7 inches. Mix shall be approved by the Engineer prior to its use on the project.
- Calcium chloride or admixtures containing calcium chloride shall not be used in any concrete mix.
- All reinforcing steel shall be deformed bars ASTM A615, Grade 60. Reinforcing shall be installed in accordance with ACI 318-14 and *Details and Detailing of Concrete Reinforcement* (ACI 315). Reinforcing shall be installed at the proper location and secured in place to prevent movement during placement of concrete.
- All welded wire fabric (WWF) shall conform to ASTM A185, provided in flat sheet stock. The WWF shall be installed at the proper location and secured in place to prevent movement during placement of concrete. Lap 6 inches at all joints and tie at 3 inches on center.
- Lap all continuous bars 40 diameters, unless noted otherwise.
- Clear distances for protection of reinforcing shall be as follows:
 Footings: 3" from ground
 Slabs-on-Grade: 3" from ground
- No bars shall be cut or omitted in the field because of sleeves, ducts, openings, or recesses. Bars may be moved aside without changing level with approval of the Engineer.
- Pipe sleeves and/or pvc conduits shall be spaced a minimum of 3 diameters apart.
- Details not shown on the drawings shall be in accordance with the ACI Detailing Manual.
- Concrete placement during cold or hot weather must follow the requirements of *ACI Guide to Hot Weather Concreting* (ACI 305R) and *ACI Guide to Cold Weather Concreting* (ACI 306R).
- Interior slab on grade to have a smooth steel trowel finish and be true to line and grade within $\frac{1}{4}$ inch in 10 feet. Exterior slabs on grade to have broom finish. Seal slabs with approved curing compound within 48 hours.
- Anchor bolts shall be of the size and location shown on the drawings or specified by equipment manufacturers. Bolts shall conform to ASTM A307. Headed anchor bolts shall be installed using appropriate templates to maintain spacing and alignment prior to placement of concrete. Wet-setting is unacceptable.



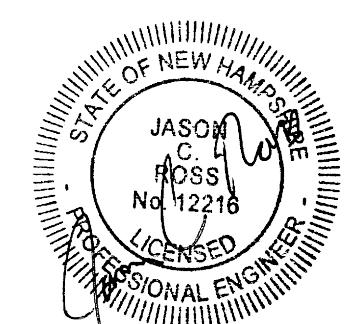
Pump House Detail
Scale: 1" = 1'-0"



Day Use Area Well Building
Scale: NTS



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DEPARTMENT OF ADMINISTRATIVE SERVICES
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 JOHN O. MORTON BUILDING
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 (603) 271-3516 FAX (603) 271-3515
 ENGINEER/ARCHITECT: DESIGNED BY: APPROVED BY: CHECKED BY:
 HEB Engineers, Inc. AML E.J.G. E.J.G.

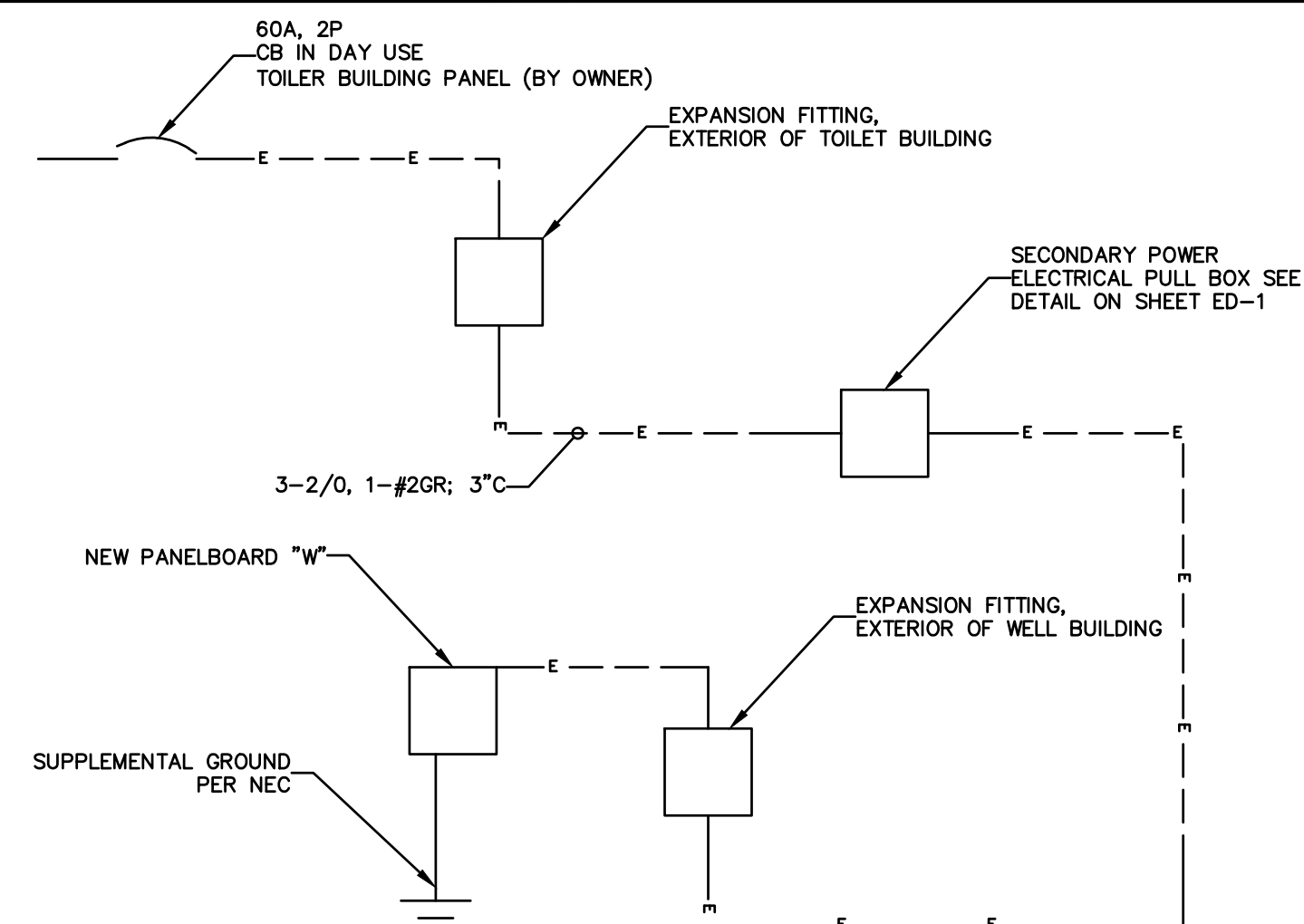
REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 DEPARTMENT OF NATURAL & CULTURAL RESOURCES
DAY USE AREA PUMP HOUSE
 PROJECT No. S1204R
 CONTRACT: G
 DRAWN BY: SCALE: DATE: 11/16/2023
 SHEET: C5.41

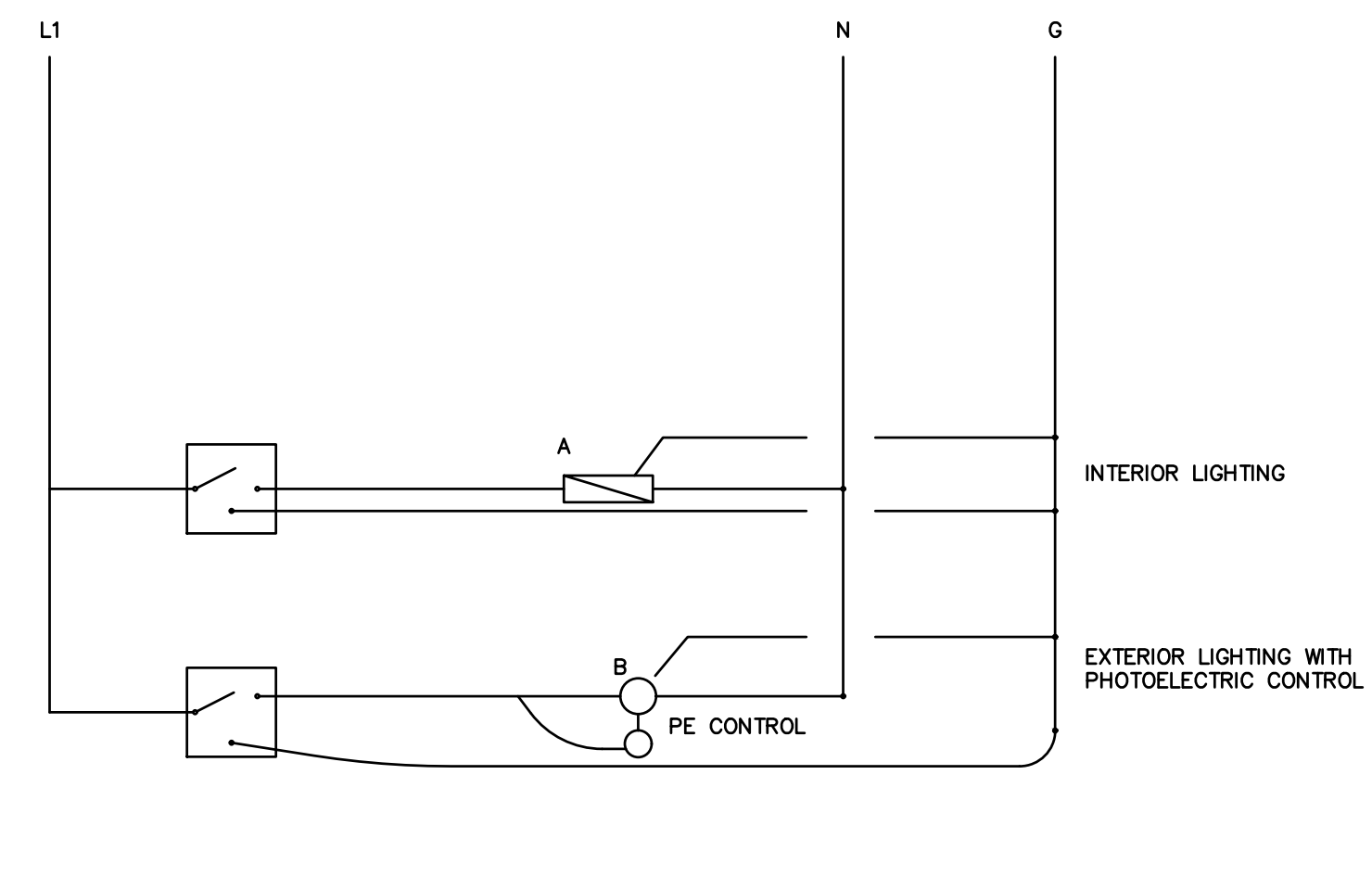
GREENFIELD DAY USE AREA WELL PANELBOARD SCHEDULE				
PANEL W SURFACE MOUNTED				
60 AMP M CB, 240/120 VOLT, 1 PHASE 3 WIRE, 60 HERTZ				
CIRCUIT NO.	NO. POLES	RATING	DESCRIPTION	LOAD
1,3	2*	25	WELL PUMP CONTROL	1.6
2	1*	15	LIGHTING - INTERIOR & EXTERIOR	0.1
4	1	20	SERVICE RECEPTACLE	1.6
5	1	20	SPARE	-
6	1	20	SPARE	-
7	1	20	SPARE	-
8	1	-	SPACE	-
9	1	-	SPACE	-
10	1	-	SPACE	-
11	1	-	SPACE	-
12	1	-	SPACE	-

* PROVIDE HANDLE LOCK ON CIRCUITS

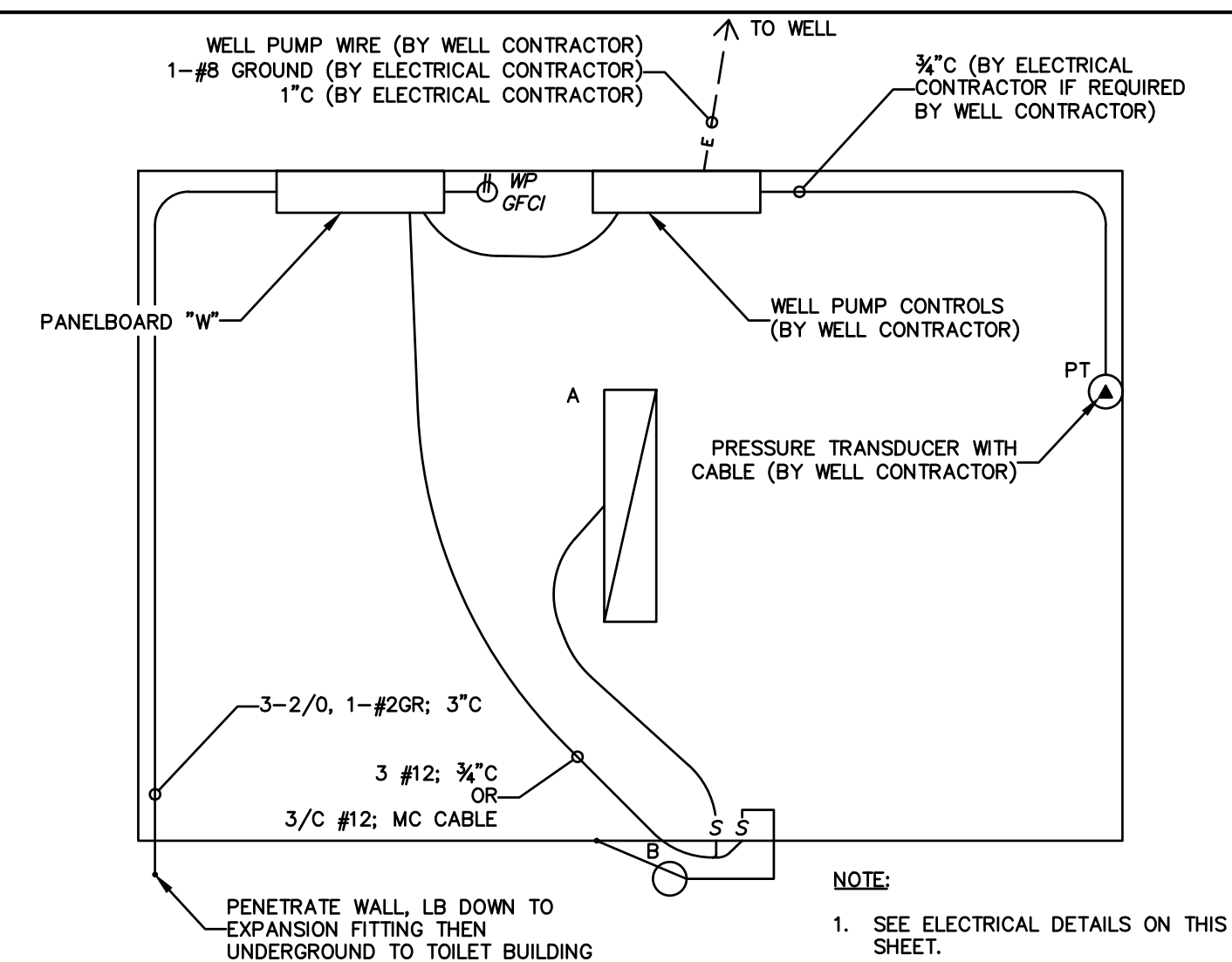
Day Use Area Well Panelboard Schedule
Scale: NTS



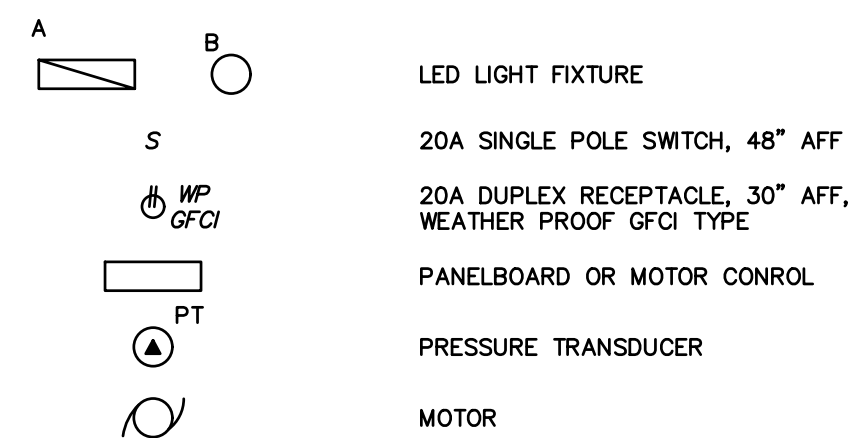
Day Use Well Electrical One Line Power Diagram
Scale: NTS



Typical Well Building Lighting Interconnection Diagram
Scale: NTS

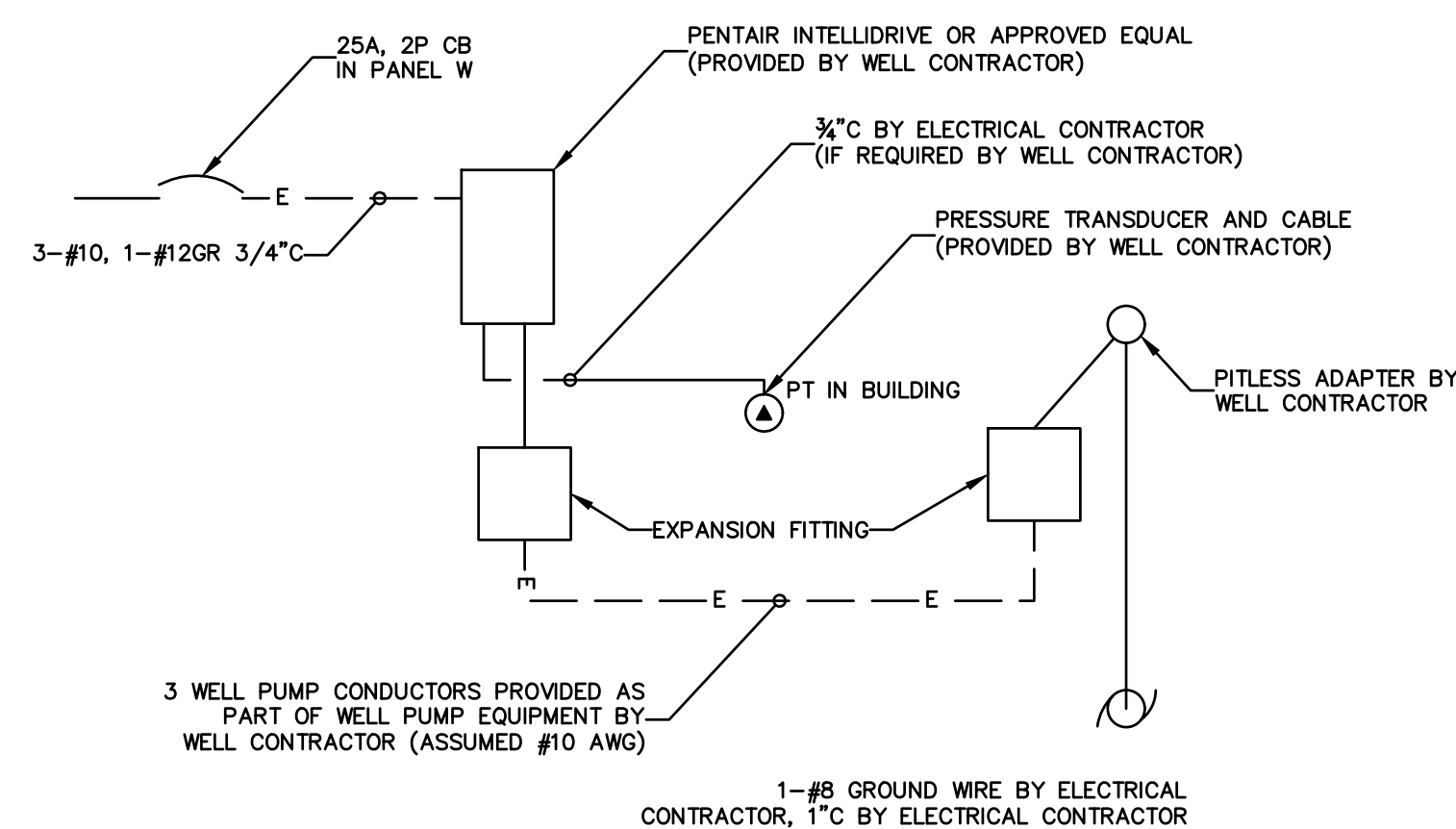


Day Use Area Well Building
Scale: NTS



LIGHT FIXTURE SCHEDULE - DAY USE AREA WELL BUILDING		
TYPE	MAKE/MODEL	MOUNTING
A	LITHONIA ZLIN 48 5000 LM FST MVOLT 40K 80 CRI WH	SECURE TO ROOF TRUSS BOTTOM CORD
B	RAB SLIM 18 PC	ABOVE DOOR ON EXTERIOR OF BUILDING

Electrical Legend - Day Use Area
Scale: NTS



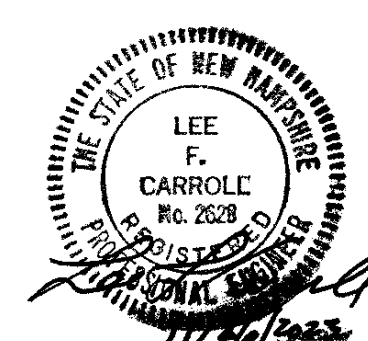
Day Use Well Pump Interconnection Diagram
Scale: NTS

Notes:

- All items included on this sheet are associated with Bid Item #1.



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STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
7 HAZEN DRIVE BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515

ENGINEER/ARCHITECT: DESIGNED BY: APPROVED BY: CHECKED BY:
HEB Engineers, Inc. AML EJM EJM

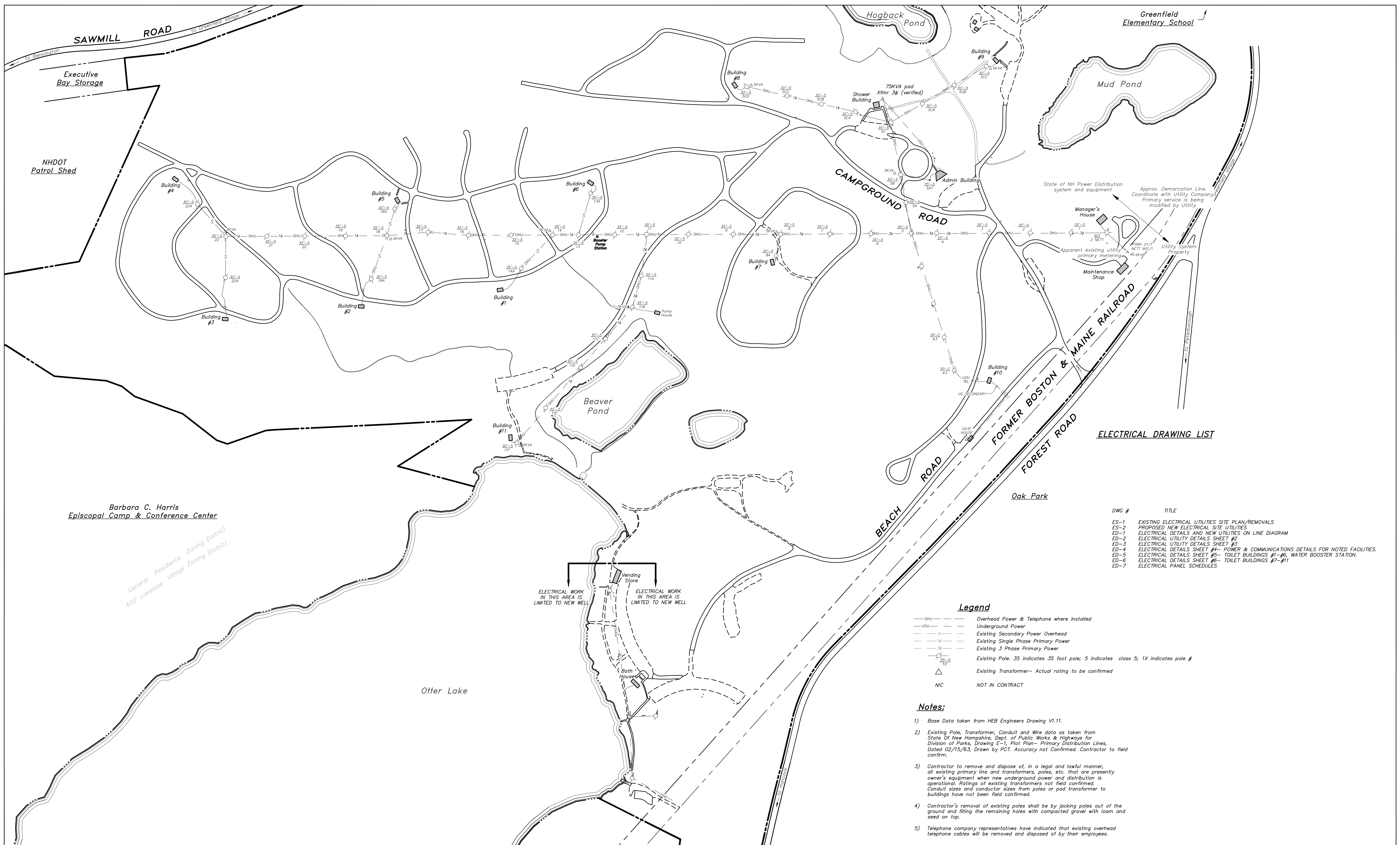
REVISIONS		
DATE	DESCRIPTION	BY

ARPA - GREENFIELD SP UTILITIES UPGRADE PROJECT
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
DEPARTMENT OF NATURAL & CULTURAL RESOURCES

DAY USE AREA GENERAL

PROJECT No. 81204R
CONTRACT: C
DRAWN BY: SCALE: AS NOTED DATE: 11/16/2023 SHEET: C5.51

P:\Jobs\2023\0410_HampSH\Greenfield_Sp_Utilities_Upgrade\Sheets\Sheet\2023\0410_GS_11_Construction_Drawing_Sheet.dwg, CS:11, 11/16/2023 10:11 AM, admin



ELECTRICAL DRAWING LIST

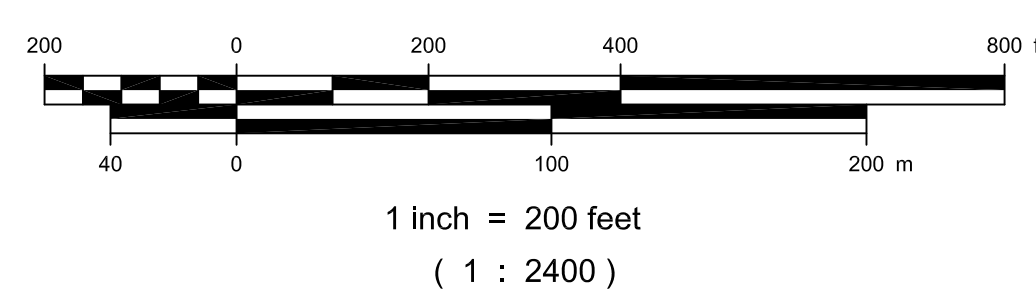
DWG #	TITLE
ES-1	EXISTING ELECTRICAL UTILITIES SITE PLAN/REMOVALS
ES-2	PROPOSED NEW ELECTRICAL SITE UTILITIES
ED-1	ELECTRICAL DETAILS AND NEW UTILITIES ON LINE DIAGRAM
ED-2	ELECTRICAL UTILITY DETAILS SHEET #2
ED-3	ELECTRICAL UTILITY DETAILS SHEET #3
ED-4	ELECTRICAL DETAILS SHEET #4- POWER & COMMUNICATIONS DETAILS FOR NOTED FACILITIES
ED-5	ELECTRICAL DETAILS SHEET #5- TOILET BUILDINGS #1-#6, WATER BOOSTER STATION.
ED-6	ELECTRICAL DETAILS SHEET #6- TOILET BUILDINGS #7-#11
ED-7	ELECTRICAL PANEL SCHEDULES

Legend

— OHU —	Overhead Power & Telephone where installed
— UGU —	Underground Power
— S —	Existing Secondary Power Overhead
— 1φ —	Existing Single Phase Primary Power
— 3φ —	Existing 3 Phase Primary Power
○ 35-5	Existing Pole. 35 indicates 35 foot pole; 5 indicates class 5; 1X indicates pole #
△	Existing Transformer— Actual rating to be confirmed
NIC	NOT IN CONTRACT

- Notes:**
- 1) Base Data taken from HEB Engineers Drawing V1.11.
 - 2) Existing Pole, Transformer, Conduit and Wire data as taken from State Of New Hampshire, Dept. of Public Works & Highways for Division of Parks, Drawing E-1, Plot Plan— Primary Distribution Lines, Dated 02/15/63, Drawn by PCT. Accuracy not Confirmed. Contractor to field confirm.
 - 3) Contractor to remove and dispose of, in a legal and lawful manner, all existing primary line and transformers, poles, etc. that are presently owner's equipment when new underground power and distribution is operational. Ratings of existing transformers not field confirmed. Conduit sizes and conductor sizes from poles or pad transformer to buildings have not been field confirmed.
 - 4) Contractor's removal of existing poles shall be by jacking poles out of the ground and filling the remaining holes with compacted gravel with loam and seed on top.
 - 5) Telephone company representatives have indicated that existing overhead telephone cables will be removed and disposed of by their employees.

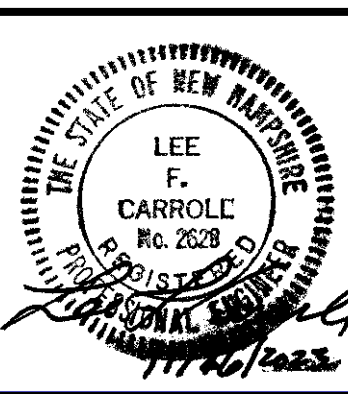
ELECTRICAL WORK IN THIS AREA IS LIMITED TO NEW WELL



HEB Engineers
 CIVIL • STRUCTURAL • SURVEY

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 lcarroll@ne.rr.com



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DESIGNED BY: LFC
 APPROVED BY: LFC
 CHECKED BY: LFC

REVISIONS		
DATE	DESCRIPTION	BY

GREENFIELD STATE PARK IMPROVEMENTS
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 NHDPW

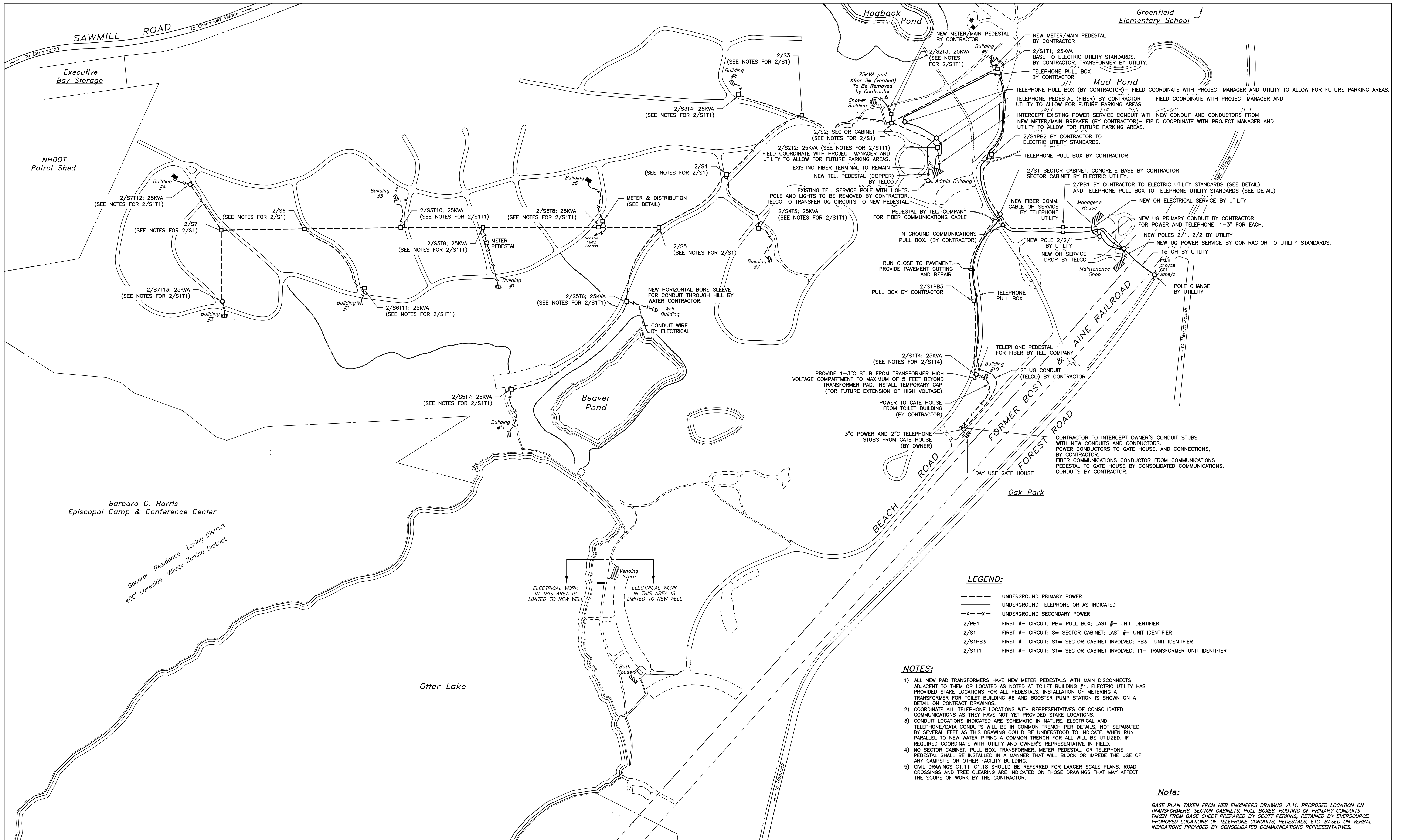
Existing Electrical Utilities
 Site Plan/Removals

PROJECT No. 81204R
 CONTRACT C

DRAWN BY: IGT
 SCALE: 1"=200'
 DATE: 11-16-2023
 SHEET: ES-1

Barbara C. Harris
 Episcopal Camp & Conference Center

General Residence Zoning District
 400' Lakeside Village Zoning District



LEGEND:

- UNDERGROUND PRIMARY POWER
- UNDERGROUND TELEPHONE OR AS INDICATED
- x-x- UNDERGROUND SECONDARY POWER
- 2/PB1 FIRST # - CIRCUIT; PB= PULL BOX; LAST # - UNIT IDENTIFIER
- 2/S1 FIRST # - CIRCUIT; S= SECTOR CABINET; LAST # - UNIT IDENTIFIER
- 2/S1PB3 FIRST # - CIRCUIT; S1= SECTOR CABINET INVOLVED; PB3= UNIT IDENTIFIER
- 2/S1T1 FIRST # - CIRCUIT; S1= SECTOR CABINET INVOLVED; T1= TRANSFORMER UNIT IDENTIFIER

NOTES:

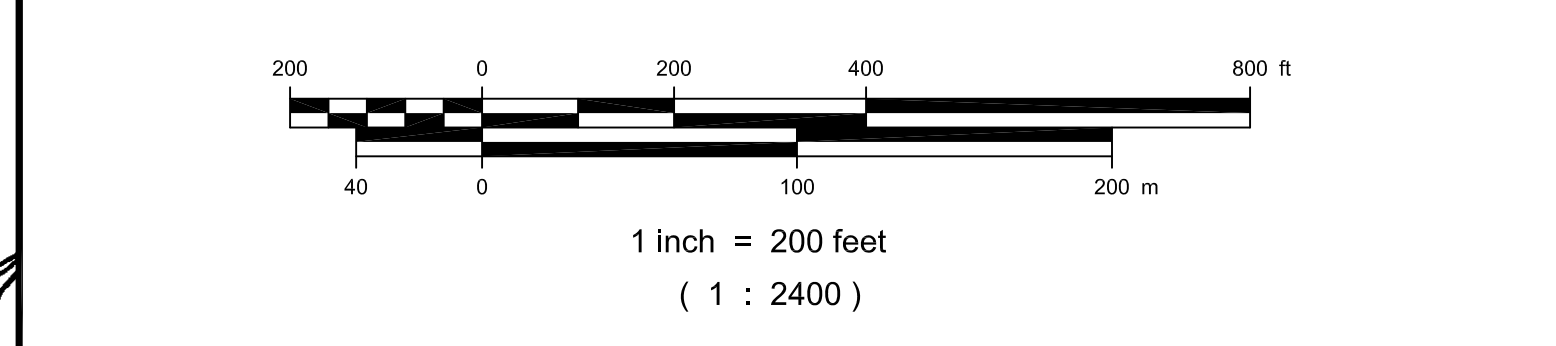
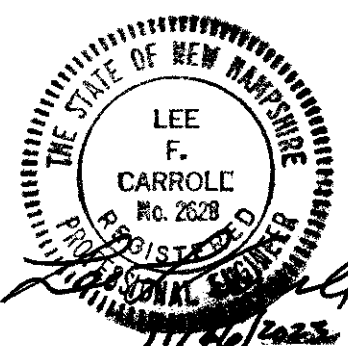
- 1) ALL NEW PAD TRANSFORMERS HAVE NEW METER PEDESTALS WITH MAIN DISCONNECTS ADJACENT TO THEM OR LOCATED AS NOTED AT TOILET BUILDING #1. ELECTRIC UTILITY HAS PROVIDED STAKE LOCATIONS FOR ALL PEDESTALS. INSTALLATION OF METERING AT TRANSFORMER FOR TOILET BUILDING #6 AND BOOSTER PUMP STATION IS SHOWN ON A DETAIL ON CONTRACT DRAWINGS.
- 2) COORDINATE ALL TELEPHONE LOCATIONS WITH REPRESENTATIVES OF CONSOLIDATED COMMUNICATIONS AS THEY HAVE NOT YET PROVIDED STAKE LOCATIONS.
- 3) CONDUIT LOCATIONS INDICATED ARE SCHEMATIC IN NATURE. ELECTRICAL AND TELEPHONE/DATA CONDUITS WILL BE IN COMMON TRENCH PER DETAILS, NOT SEPARATED BY SEVERAL FEET AS THIS DRAWING COULD BE UNDERSTOOD TO INDICATE. WHEN RUN PARALLEL TO NEW WATER PIPING A COMMON TRENCH FOR ALL WILL BE UTILIZED. IF REQUIRED COORDINATE WITH UTILITY AND OWNER'S REPRESENTATIVE IN FIELD.
- 4) NO SECTOR CABINET, PULL BOX, TRANSFORMER, METER PEDESTAL, OR TELEPHONE PEDESTAL SHALL BE INSTALLED IN A MANNER THAT WILL BLOCK OR IMPEDE THE USE OF ANY CAMPSITE OR OTHER FACILITY BUILDING.
- 5) CIVIL DRAWINGS C1.11-C1.18 SHOULD BE REFERRED FOR LARGER SCALE PLANS. ROAD CROSSINGS AND TREE CLEARING ARE INDICATED ON THOSE DRAWINGS THAT MAY AFFECT THE SCOPE OF WORK BY THE CONTRACTOR.

Note:

BASE PLAN TAKEN FROM HEB ENGINEERS DRAWING VI.11. PROPOSED LOCATION ON TRANSFORMERS, SECTOR CABINETS, PULL BOXES, ROUTING OF PRIMARY CONDUITS TAKEN FROM BASE SHEET PREPARED BY SCOTT PERKINS, RETAINED BY EVERSOURCE. PROPOSED LOCATIONS OF TELEPHONE CONDUITS, PEDESTALS, ETC. BASED ON VERBAL INDICATIONS PROVIDED BY CONSOLIDATED COMMUNICATIONS REPRESENTATIVES.



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ENGINEER/ARCHITECT: LFC
 DESIGNED BY: LFC
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REVISIONS		
DATE	DESCRIPTION	BY

GREENFIELD STATE PARK IMPROVEMENTS
 973 FOREST ROAD
 GREENFIELD, NEW HAMPSHIRE
 NHDPW

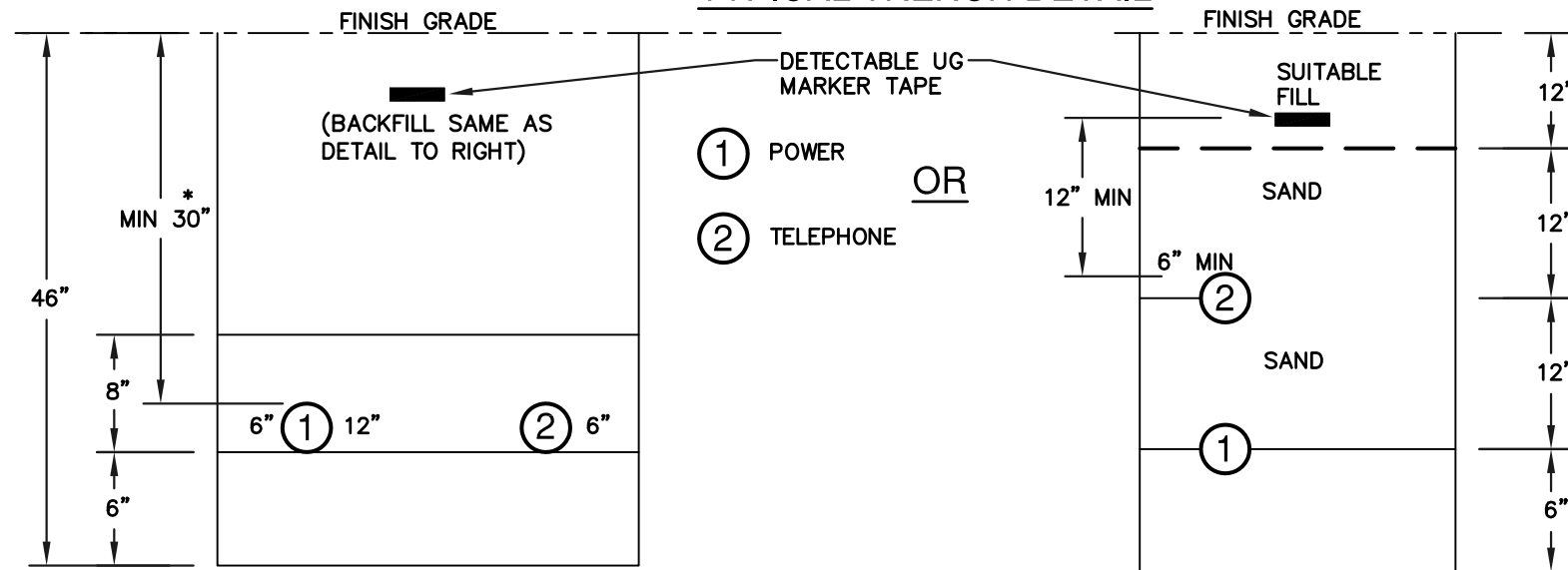
Proposed New Electrical
 Site Utilities

PROJECT NO.: 81204R
 CONTRACT: C
 DRAWN BY: IGT
 SCALE: 1"=200'
 DATE: 11-16-2023
 SHEET: ES-2

**COMMUNICATIONS
CONDUIT SPECIFICATIONS**

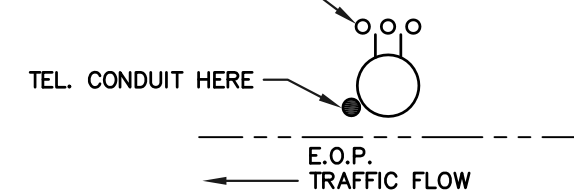
IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE CONDUIT THROUGH WHICH CABLE CAN BE SUCCESSFULLY PULLED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXPENSE ASSOCIATED WITH THE REPAIR OF CONDUIT THAT CANNOT BE USED. OWNER AND TELEPHONE UTILITY RESERVES THE RIGHT TO REQUIRE INSPECTION OF CONDUIT PRIOR TO BACK FILLING TO ENSURE COMPLIANCE.
NOTE: WHERE LEDGE DOES NOT PERMIT DEPTHS NOTED, CONCRETE ENCASUREMENT WILL BE REQUIRED TO CONFORM TO NEC AND/OR UTILITY REQUIREMENT TO BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS, OR RUBBISH

TYPICAL TRENCH DETAIL

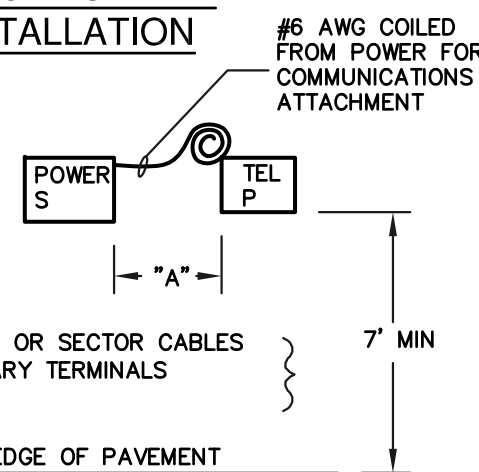


- * - SECONDARY POWER; 36" PRIMARY POWER.
- A - SAND BACK FILL SHALL CONSIST OF FINE GRANULAR MATERIAL 100% SHALL PASS THROUGH A 1/4" SIEVE
- B - EXCEPTION: NATURALLY OCCURRING SMOOTH ROUND PEBBLES NO GREATER THAN 3/8" IN DIAMETER ARE PERMITTED AS LONG AS THE TOTAL VOLUME PER CUBIC FOOT OF SAND DOES NOT EXCEED 1%
- C - THE SAND SHALL BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS, OR RUBBISH

ALL CONDUIT SHALL BE GRAY NESC SCHEDULE 40 PVC OR EQUIVALENT (REQUIRES TEL ENGINEER APPROVAL)
3" MINIMUM FOR TELEPHONE & SERVICE WIRES
UNDER NO CIRCUMSTANCES WILL FAIRPOINT OR OTHER TELEPHONE UTILITY SHARE A CONDUIT WITH ANOTHER UTILITY DO NOT ATTACH TO POWER CO STANDOFF BRACKETS
FOR SERVICE WIRE CONDUIT SHOULD BE SWEEP UP AT LEAST EVERY 250' STANDOFF



TYPICAL UTILITY INSTALLATION

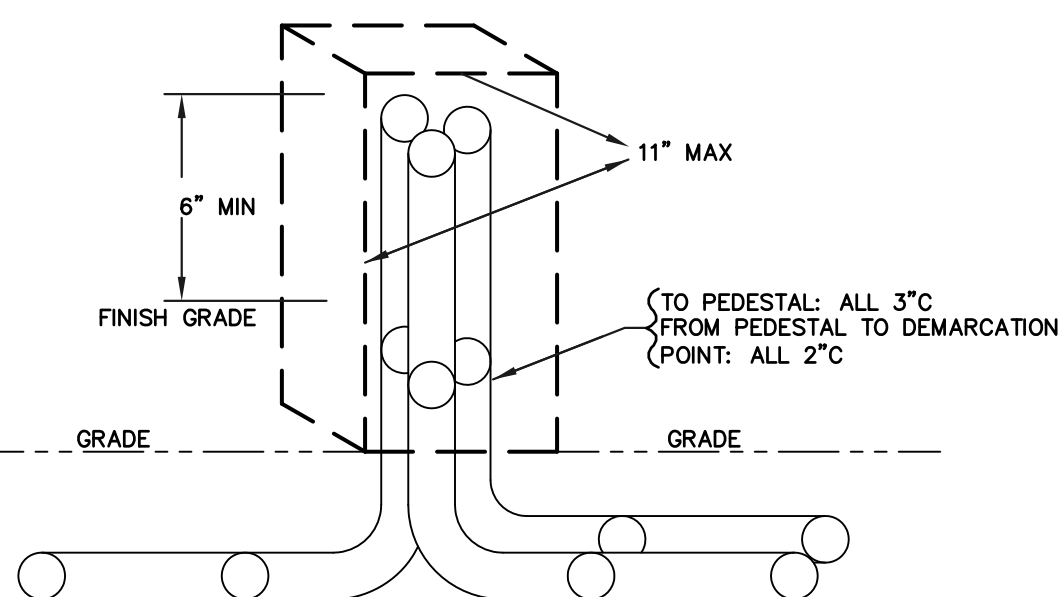


< 6" MINIMUM TRANSFORMERS OR SECTOR CABLES
< 3" MINIMUM FROM SECONDARY TERMINALS
< (SEE POWER C.O. SPECS.)

ALL CONDUITS ARE TO BE SWEEP UP HARD TOGETHER A MINIMUM OF 6" ABOVE FINISH GRADE
AT ALL PEDESTAL LOCATIONS & MUST FIT INTO 11"x11" SQUARE AREA TO ALLOW CLOSURE TO FIT OVER ENDS

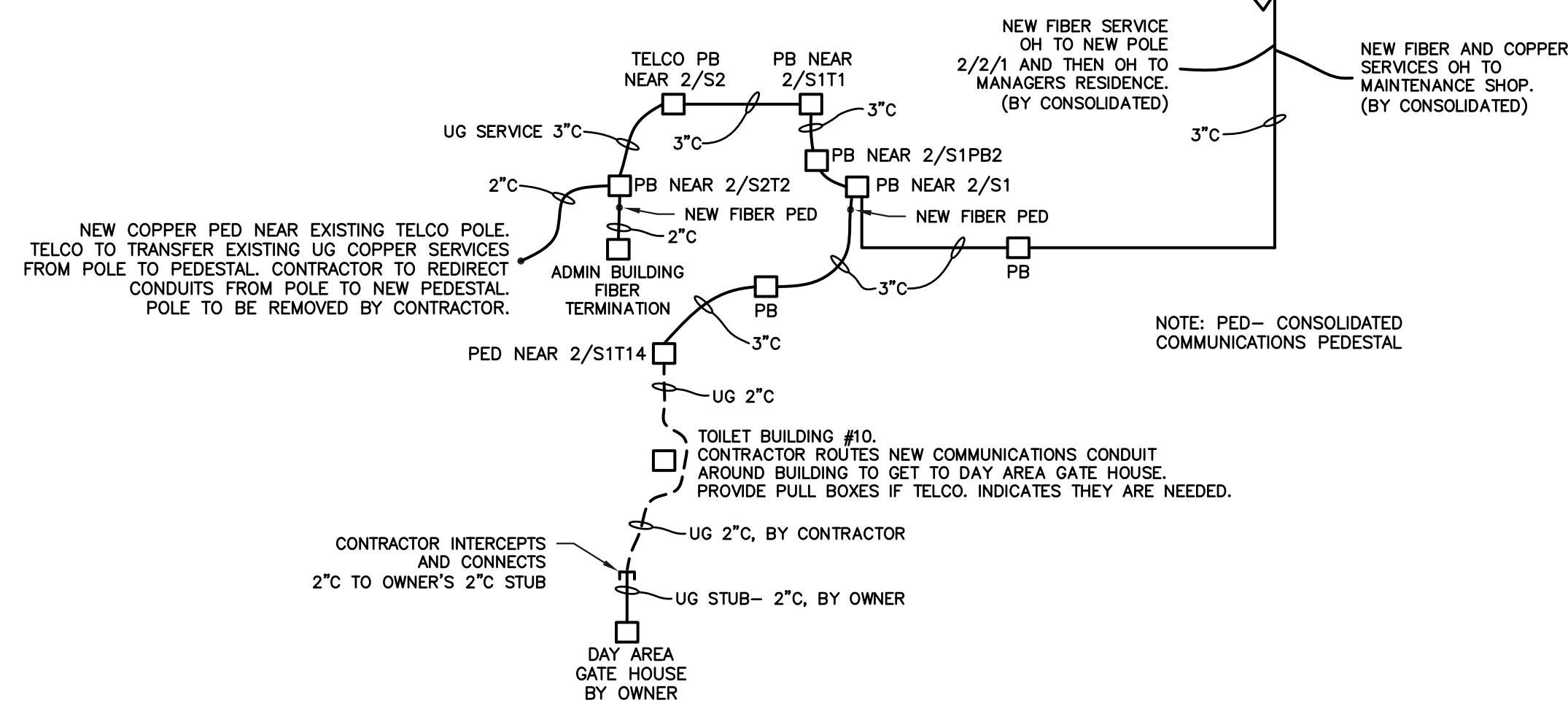
ALL CONDUITS MUST BE LABELED "TEL" WITH DIRECTION OF RUN INDICATED SO AS TO POSITIVELY IDENTIFY THEM FOR OUR PERSONNEL AND FURNISHED WITH A PULL STRING CAPABLE OF A 200 TO 300 POUND PULL

A #6 AWG COPPER GROUND WIRE SHALL BE CONNECTED TO THE POWER CO. SECONDARY POWER ENCLOSURE LOCATION AND RUN FROM THERE TO THE COMMUNICATIONS CONDUITS LEAVING A 3 FOOT COIL SECURED TO THE CONDUIT TO PREVENT ITS LOSS



ALL BENDS ARE TO BE 36" RADIUS SWEEPS (NO PLUMBERS BENDS)
METALLIC SWEEPS REQUIRED ON ALL RUNS IN EXCESS OF 225'

**COMMUNICATIONS DISTRIBUTION PEDESTAL
(IDENTIFIED AS TELEPHONE PEDESTALS ON PLANS)**

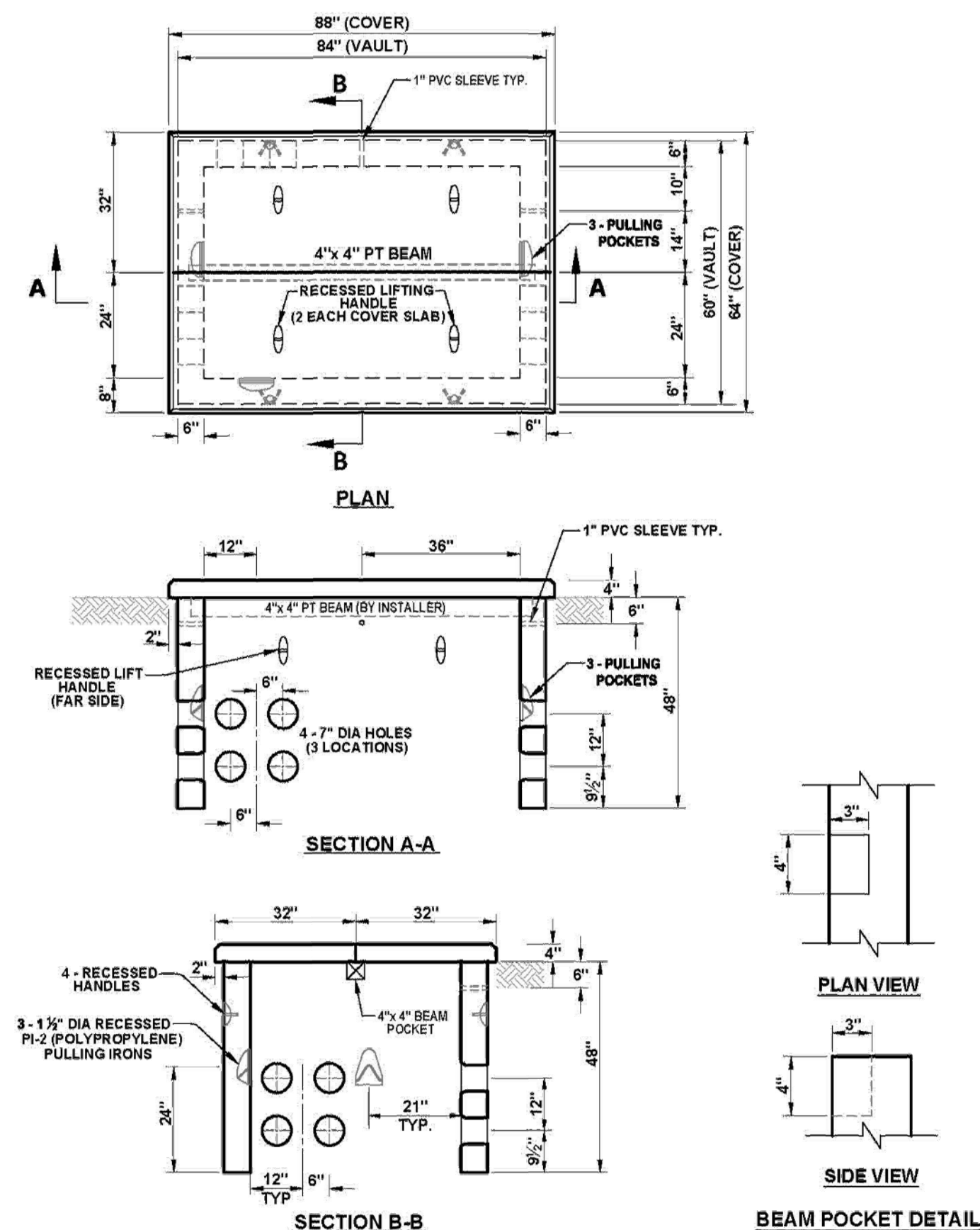


ONE LINE DIAGRAM - TEL/COM

N.T.S.

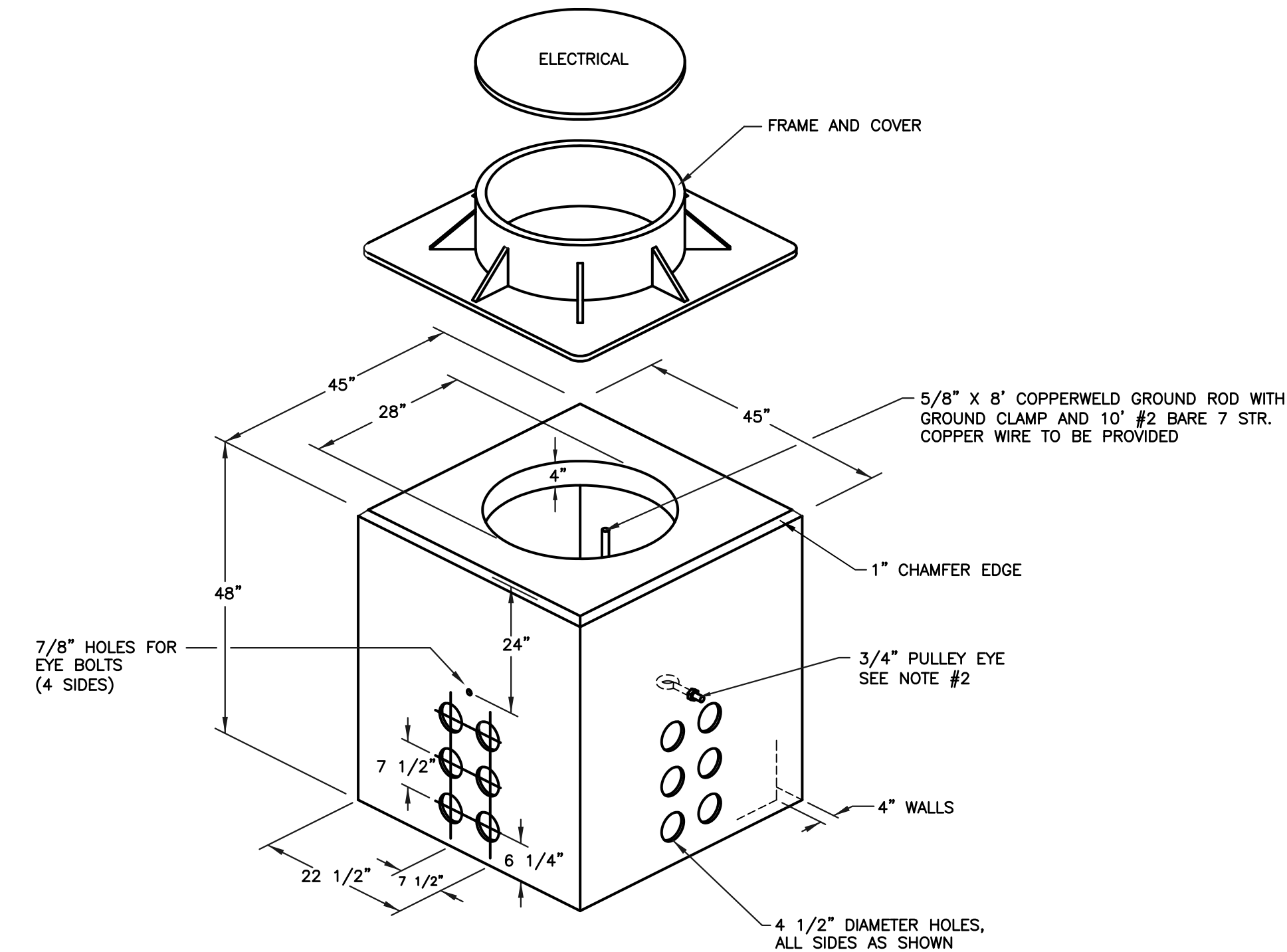
NOTE: FIELD ROUTE ALL UNDERGROUND CONDUITS WITH PROJECT MANAGER, UTILITY'S REPRESENTATIVE AND OWNER'S REPRESENTATIVE.

Concrete Pullbox Grassy Area Only, H-10 Loading



EVEVERSE INTERNAL REFERENCE NH SPUCE PIT

Refer to [Installation Requirements for Padmounted Transformer and Sector Cabinets](#) for additional details.



NOTES:

1. CONCRETE TO BE 4000 PSI HIGH EARLY STRENGTH AND VIBRATOR COMPACTED.
2. INSTALL GALVANIZED PULLING EYES, ONE ON EACH WALL (4) 3/4" EYES.
3. CONDUIT OPENING TO HAVE 4" BELL ENDS FLUSH WITH INSIDE WALL.
4. NO MANHOLE SHALL BE BURIED DEEPER THAN 18" BELOW FINISHED GRADE.

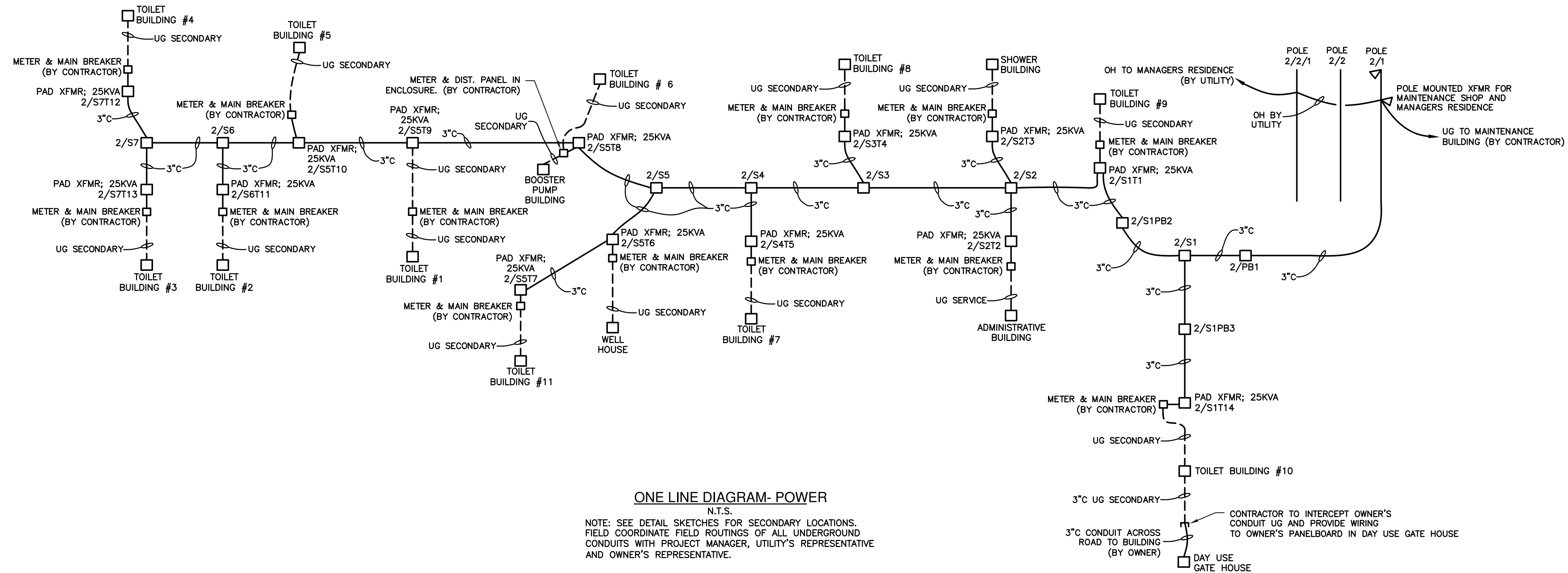
SUPPLIER & CATALOG #

FRUEN FE-2A-48
FRUEN FE-2A-36
LINHARES 6-2
ACME PRECAST

NOTE: WHERE UTILIZED ON TELEPHONE SYSTEM, COVER SHALL INDICATE "TELEPHONE".

TYPICAL SECONDARY ELECTRICAL PULL BOX DETAIL

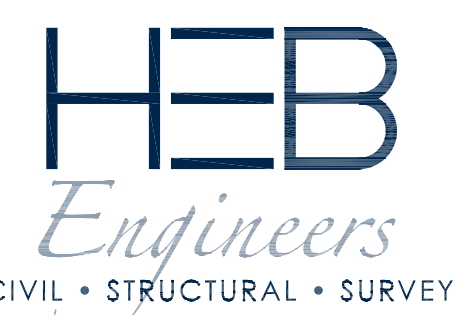
NOTE: TELEPHONE PULL BOXES SAME N.T.S.



ONE LINE DIAGRAM- POWER

N.T.S.

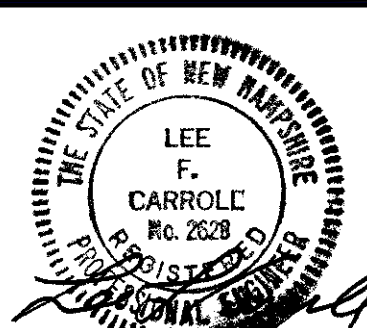
NOTE: SEE DETAIL SKETCHES FOR SECONDARY LOCATIONS. FIELD COORDINATE FIELD ROUTINGS OF ALL UNDERGROUND CONDUITS WITH PROJECT MANAGER, UTILITY'S REPRESENTATIVE AND OWNER'S REPRESENTATIVE.



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GREENFIELD STATE PARK IMPROVEMENTS
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
NHDPW

Electrical Details And New
Utilities One Line Diagrams

DRAWN BY: IGT SCALE: 1"=200' DATE: 11-16-2023 SHEET: ED-1

PROJECT No. 81204R
CONTRACT C
ED-1
SHEET

SERVICE TRENCH - By Customer

The trench shall be in as direct a line as possible without reverse bends from the distribution facility to the customer service entrance. In order to minimize cable pulling forces, no more than two bends (not including riser at house or pole) exceeding a total combined change of 45 degrees shall be permitted.

- 1. Trench shall be of such depth to accommodate 24 inches minimum cover for service cables in conduit.
2. In order to prevent the conduit from being pulled out of the meter box, conduit shall be installed on virgin or well tamped soil.
3. Conduit in the trench should have a 4-inch-per-100-foot downward pitch toward the distribution facility, if physically possible.
4. Backfill shall not contain frozen material or stones larger than 2 inches in maximum dimension.
5. When required, coordination with telephone, cable TV, or other utilities is the Customer's responsibility.

CONDUIT - By Customer

Standard conduit shall be minimum 3-inch diameter, rigid PVC, heavy wall, sunlight resistant (6% - 7% titanium dioxide by weight), Schedule 40 as per ANSI/NEMA TC2-1990.

- 1. A 90° Schedule 40 PVC bend, 24-inch minimum radius, shall join the meter socket conduit to the conduit in the trench.
2. Bends in the conduit run shall have a minimum radius of 48 inches.
3. A 1/4-inch-diameter nylon pull rope, including 10 feet of slack, shall be installed in the conduit.

SERVICE FROM POLE - If service is from an OH system, a grounded 90° galvanized steel band shall be installed at the pole. See DTR 12.057.

SERVICE FROM HANDHOLE/TRANSFORMER - Extend conduit to distribution facility and mate to previously installed 10-foot conduit stub. Tie pull lines, slide conduit sleeve over both ends and secure with conduit cement. See DTR 54.203.

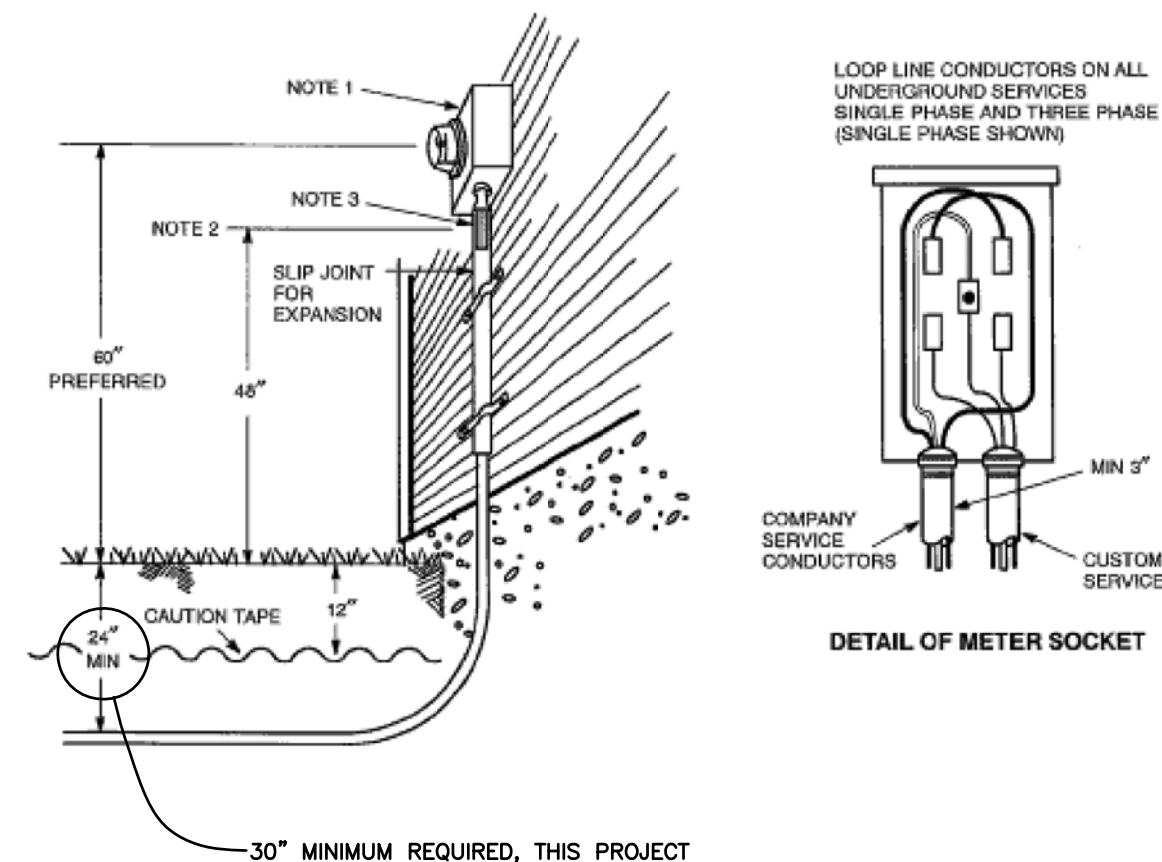
CAUTION - Customer shall not enter any Company structure because it could be energized.

LIMITATIONS - If the route chosen for the conduit requires more than two bends (not including the bend at the riser or the house) exceeding a total of a 45° change in direction, the Company may refuse to permit the conduit service and a direct-buried service would be installed.

COMPANY CONSIDERATIONS - Services in conduit shall be identified at the transformer or handhole with a brass "SVC IN CONDT" tag. To aid troubleshooting, conduit service shall be clearly designated on mapping records.

Table with 4 columns: ORIGINAL, DESIGN & APPLICATION STANDARD, DTR 54.113, 5. Title: DIRECT-BURIED SERVICES IN CONDUIT 600 VOLT AND BELOW.

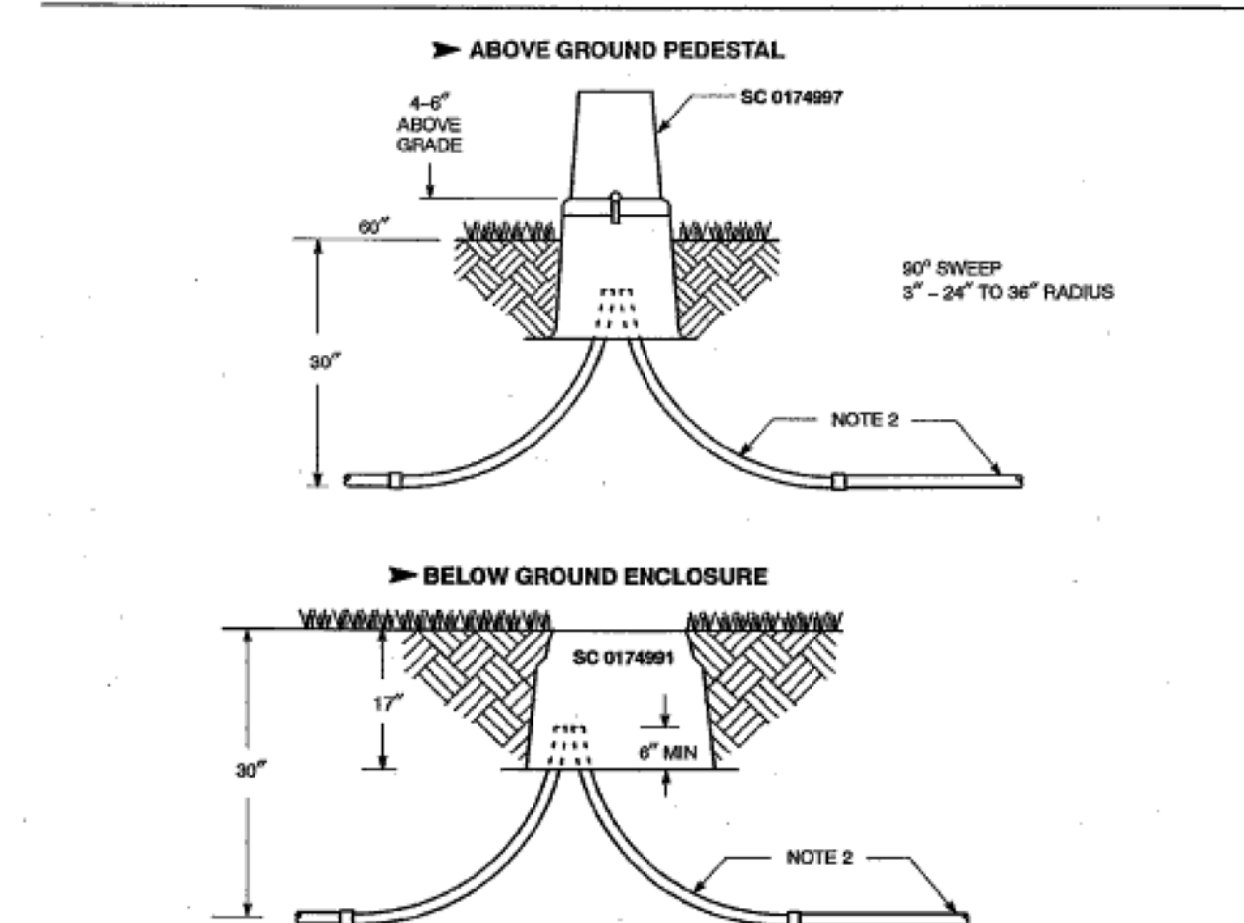
23



- Notes: 1. Set meter socket plumb (by Customer). 2. Attach 2 1/2" x 2 1/2" adhesive backed signs: "WARNING, UNDERGROUND CABLE" and 3" x 5" "ELECTRIC SERVICE IN CONDUIT".
3. Attach lettering to identify the source.
4. The Company will furnish the cable and meter.

Table with 4 columns: ORIGINAL, DESIGN & APPLICATION STANDARD, DTR 54.114, 5. Title: DIRECT-BURIED SERVICES IN CONDUIT 600 VOLT AND BELOW.

24

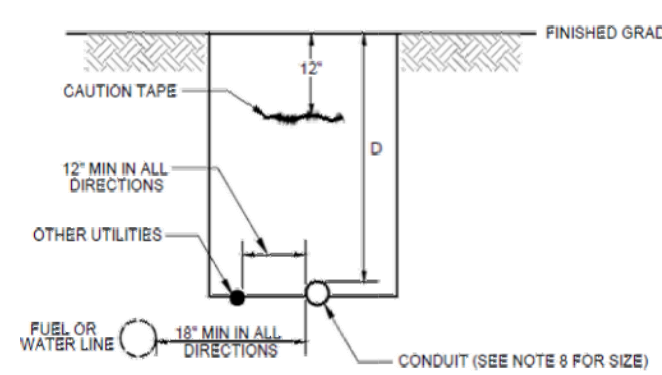


- Notes: 1. All PVC conduit shall be UL approved, gray in color, and at least Schedule 40 electrical grade.
2. All sweep elbows shall be galvanized steel type approved for electrical cables.
3. Temporary approved conduit and caps shall be placed on the exposed ends of conduit.
4. A suitable pulling string, capable of 200 pounds of pull, shall be installed in the conduit system.

Table with 4 columns: ORIGINAL, CONSTRUCTION STANDARD, DTR 54.215, 4. Title: TYPICAL SECONDARY CABLE ENCLOSURE INSTALLATION.

NOT REQUIRED FOR THIS PROJECT

Primary/Secondary Cable Installation

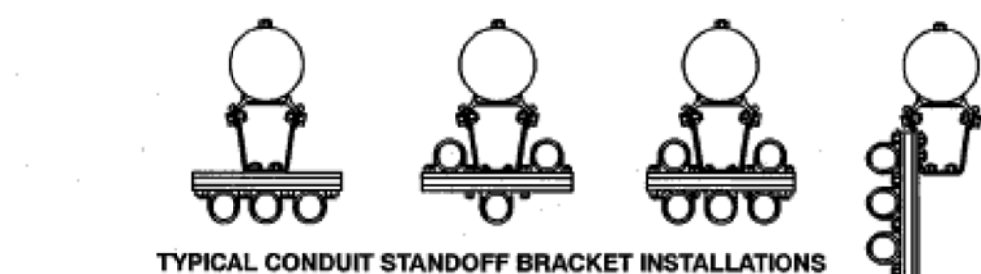
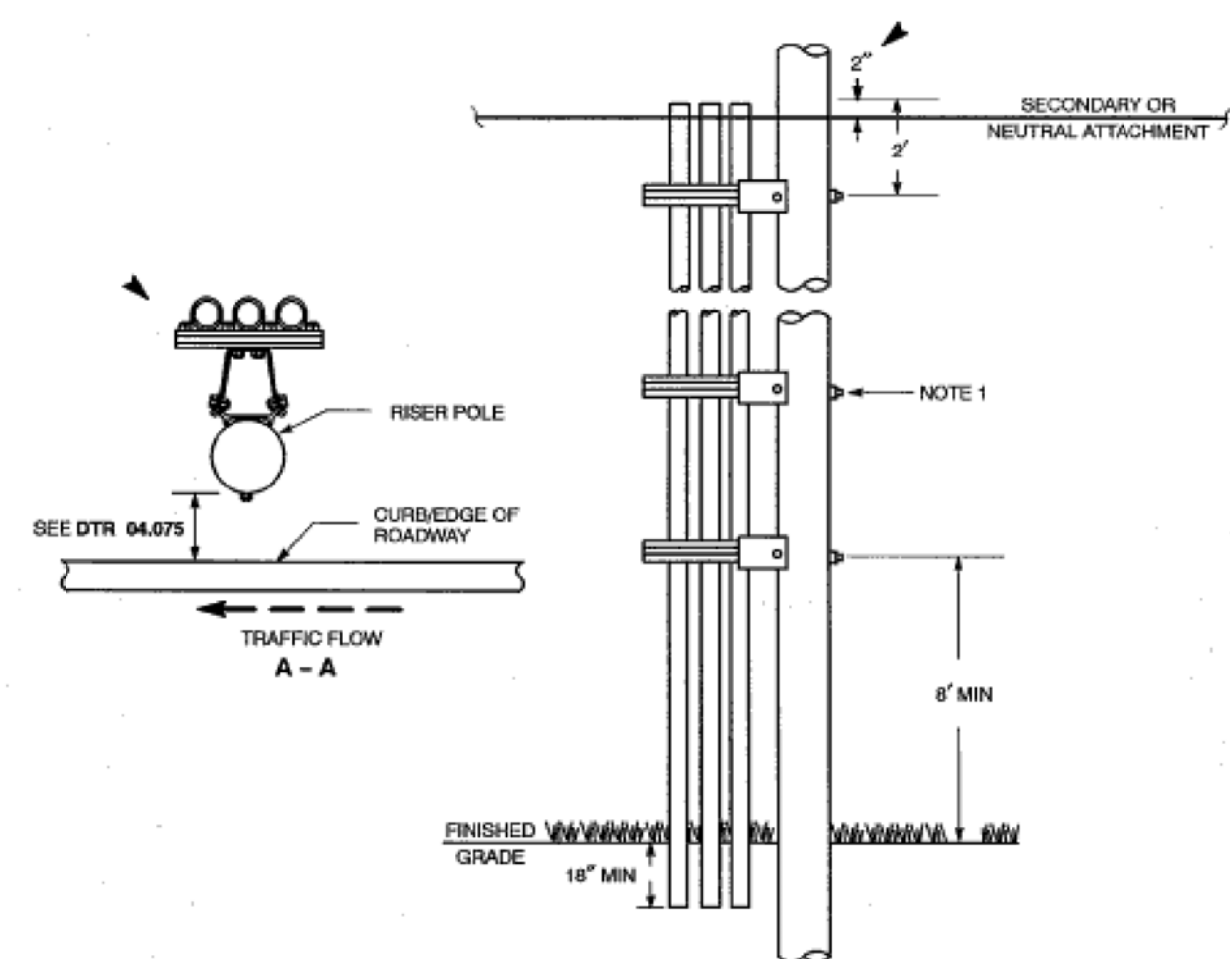


Electrical Utility Standard Trench Detail. Note: Provide sand bedding/suitable fill per communications conduit specifications detail. This drawing, note: where ledge does not permit depths noted, concrete encasement will be required to conform to NEC AND/OR UTILITY REQUIREMENTS, WHICH EVER IS MORE STRINGENT.

- 1. All non-metallic conduit and fittings shall be electrical grade, schedule 40 PVC, shall conform to the applicable sections of NEMA and be UL Listed.
2. All 90-degree sweeps will be made using rigid galvanized steel with a minimum radius of 24" for 3" conduit, 36" for 4" conduit and 48" for 5" conduit.
3. A 10' horizontal section of rigid galvanized steel conduit will be required at each sweep for primary.

Note: Conduit routings (#4 above) indicated do not all conform to note #4 above. This has been done to minimize pull boxes and conduit/cable lengths and has been submitted to the utility(ies) for their approval and verbally accepted.

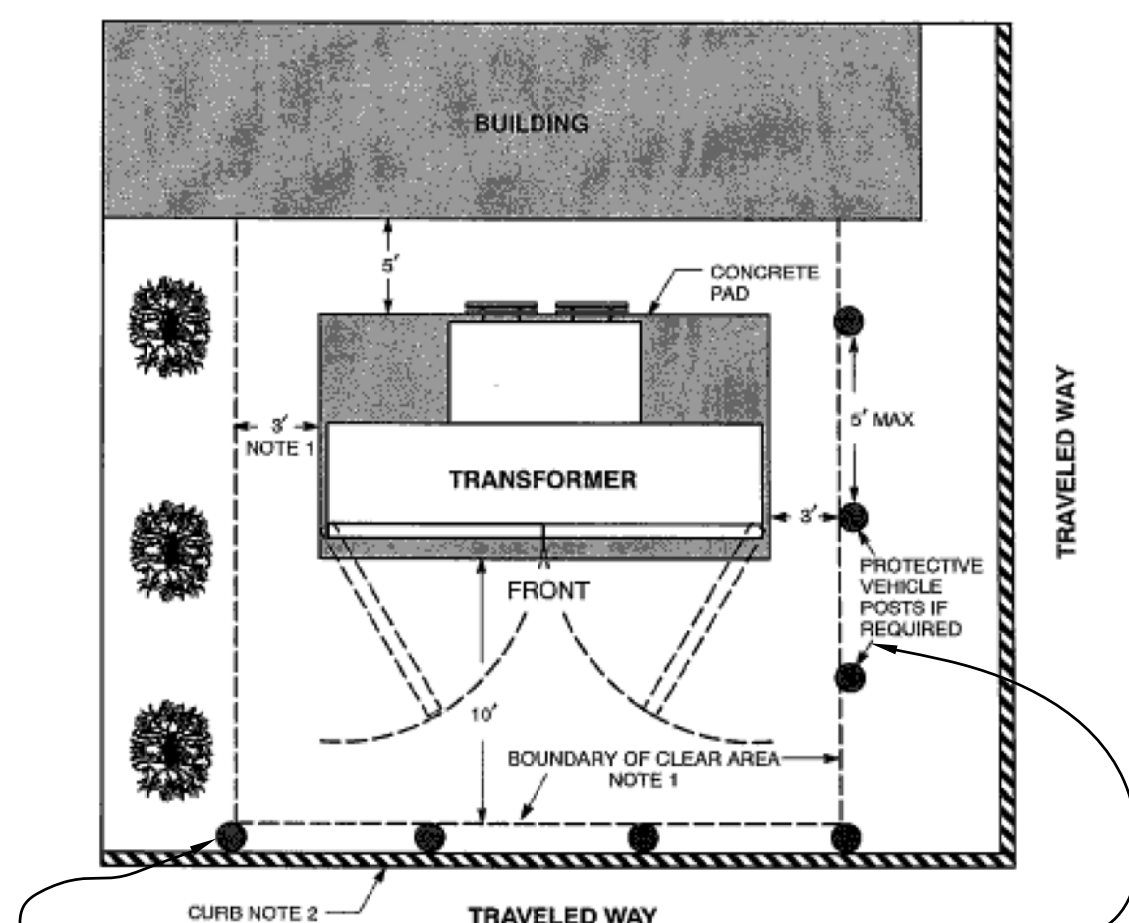
17



- Notes: 1. Install the intermediate standoff bracket equidistant from the upper and lower brackets.
2. Whenever possible install electrical facilities nearest to the pole.
3. Preferred location for riser placement is on field side of pole opposite the direction of traffic.

Table with 4 columns: ORIGINAL, CONSTRUCTION STANDARD, DTR 12.017, 2. Title: CABLE RISER STANDOFF BRACKET INSTALLATION.

29



- Notes: 1. To inspect, provide access, operate elbow connectors and ventilate the transformer, the above specified clear areas distances to buildings or shrubs shall be maintained.
2. No curb exists, or transformer is located closer than 10 feet to the traveled way, protective vehicle posts shall be installed as specified in DTR 42.061.

Table with 4 columns: ORIGINAL, CONSTRUCTION STANDARD, DTR 42.047, 7. Title: PAD-MOUNTED TRANSFORMERS LOCATION TO BUILDINGS AND ROADWAYS.

30

GENERAL - Pad-mounted oil insulated equipment (such as transformers, transducers, switches, etc) should be installed so as to be accessible, not constitute an environmental hazard or a fire hazard, and be protected from damage.

LOCATION - The pad-mounted equipment should be installed at a location where permanent access will be assured for future operation and maintenance as well as to permit installation, replacement and removal of the equipment by means of a winch truck with the boom up.

Table with columns: Item, Minimum Distance In Front of, To Side of, Below. Items include Door, Air intake, Window, Fire escape, etc.

OIL SUMP - If the surrounding grade pitches toward critical areas, it is recommended that an oil sump be provided. This should consist of 3/4-inch trap rock fill under and around the equipment pad adequate to contain the quantity of oil in the equipment to be installed at the given location.

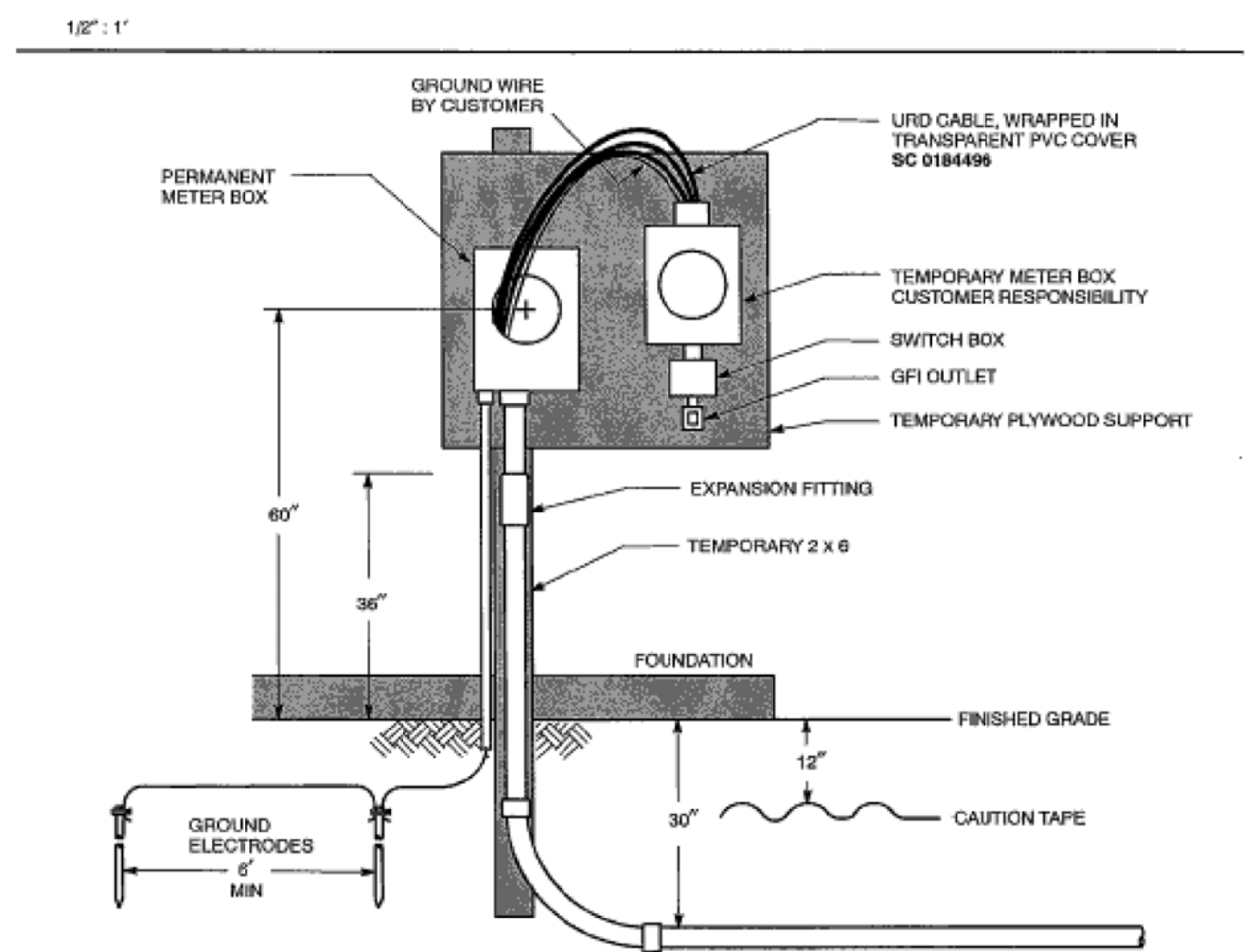
ADDITIONAL FIRE PROTECTION - If the building owner's and/or tenant's combustible facilities adjacent to the equipment require fire protection beyond that provided by oil sump, it shall be their responsibility to provide such protection in the form of space separation, fire resistant barriers, automatic spray systems, other oil containment facilities, or other means approved by their fire insurance company.

EQUIPMENT PROTECTION - Where pad-mounted equipment would be exposed to possible damage by vehicular traffic, protective bumpers are to be installed on exposed sides. Galvanized steel pipes 4-inch minimum diameter filled with concrete, I-beams 5-inch minimum, or other suitable means of protection may be used as bumpers.

EQUIPMENT LOCKS - Any equipment, with provisions for locking, that is left on site and is accessible to the general public, shall be padlocked. This includes installations that are not complete and not energized.

Table with 4 columns: ORIGINAL, DESIGN & APPLICATION STANDARD, DTR 42.061, 9. Title: PAD-MOUNTED OIL INSULATED EQUIPMENT LOCATION AND MECHANICAL PROTECTION.

31

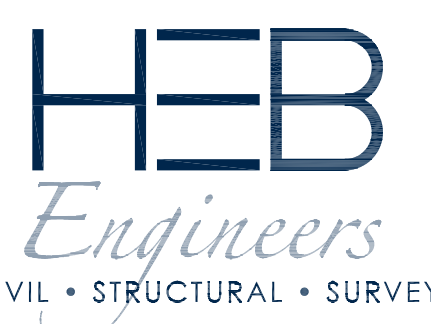


- Notes: 1. The meter mounting device shall be installed approximately 5 feet above the final grade except where specifically approved otherwise by the Company.
2. Furnish, install, and connect NEC approved ground electrodes.
3. Furnish and install service entrance cable from meter mounting device to switch box.

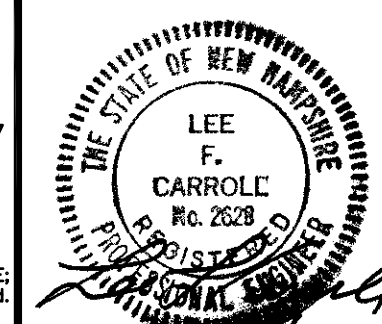
COMPANY RESPONSIBILITY - 1. Furnish meter mounting device (permanent service only). Furnish caution tape. 2. Furnish and install cable and meter.

Table with 4 columns: ORIGINAL, CONSTRUCTION STANDARD, DTR 54.116, 3. Title: TEMPORARY/PERMANENT UNDERGROUND SERVICE 400 AMP & BELOW.

22



HEB Engineers, Inc. Post Office Box 440 2605 White Mountain Hwy. North Conway, NH 03860 www.hebenengineers.com Office (603) 356-6936 Fax (603) 356-7715



ELECTRICAL DESIGN BY: Lee F. Carroll, PE Electrical Consultants 1 Madison Ave P.O. Box 357 Gorham, NH 03581-0357 603-466-5055 lcarroll@e.r.com Copyright © 2023 by Lee F. Carroll, PE. Electrical Consultants. All rights reserved. No reproduction without permission.

STATE OF NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION JOHN O. MORTON BUILDING 7 HAZEN DRIVE BOX 483 ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483 (603) 271-3516 FAX (603) 271-3515

Table with columns: REVISIONS, DATE, DESCRIPTION, BY.

GREENFIELD STATE PARK IMPROVEMENTS 973 FOREST ROAD GREENFIELD, NEW HAMPSHIRE NHPDW Electrical Utility Details Sheet #2 PROJECT No. 81204R CONTRACT: C DRAWN BY: IGT SCALE: - DATE: 11-16-2023 ED-2 SHEET

**REQUIREMENTS FOR PADMOUNTED
TRANSFORMER SLAB DETAILS**

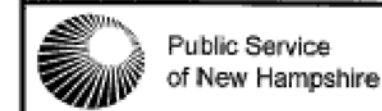
53 101

Preparation of Slab:

1. Remove all organic topsoil under foundation and compact native material. Backfill, if necessary, with clean well compacted gravel.
2. Concrete shall have a minimum compressive strength of 3,500 PSI at 28 days.
3. All reinforcing bars shall meet A.S.T.M. #815 grade 60 specifications.
4. All reinforcing shall be tied as one unit.
5. Minimum concrete cover over reinforcing steel shall be 3 inches.
6. Top of slab should be no more than 6 inches above ground level.
7. Chamfer all exposed concrete edges 1 inch.
8. Top of slab shall have a wood float finish.

Notes:

1. Elbows should be cut 4 inches above bottom of concrete pad, surrounded with sand, and have a protective cap bushing on them.
2. A 1 inch PVC conduit sleeve shall be incorporated into concrete slab to allow ground grid leads to enter pit openings as shown on details.
3. Installation of Padmounted Equipment Grounding Grid is outlined in Construction Standard DTR 56.223



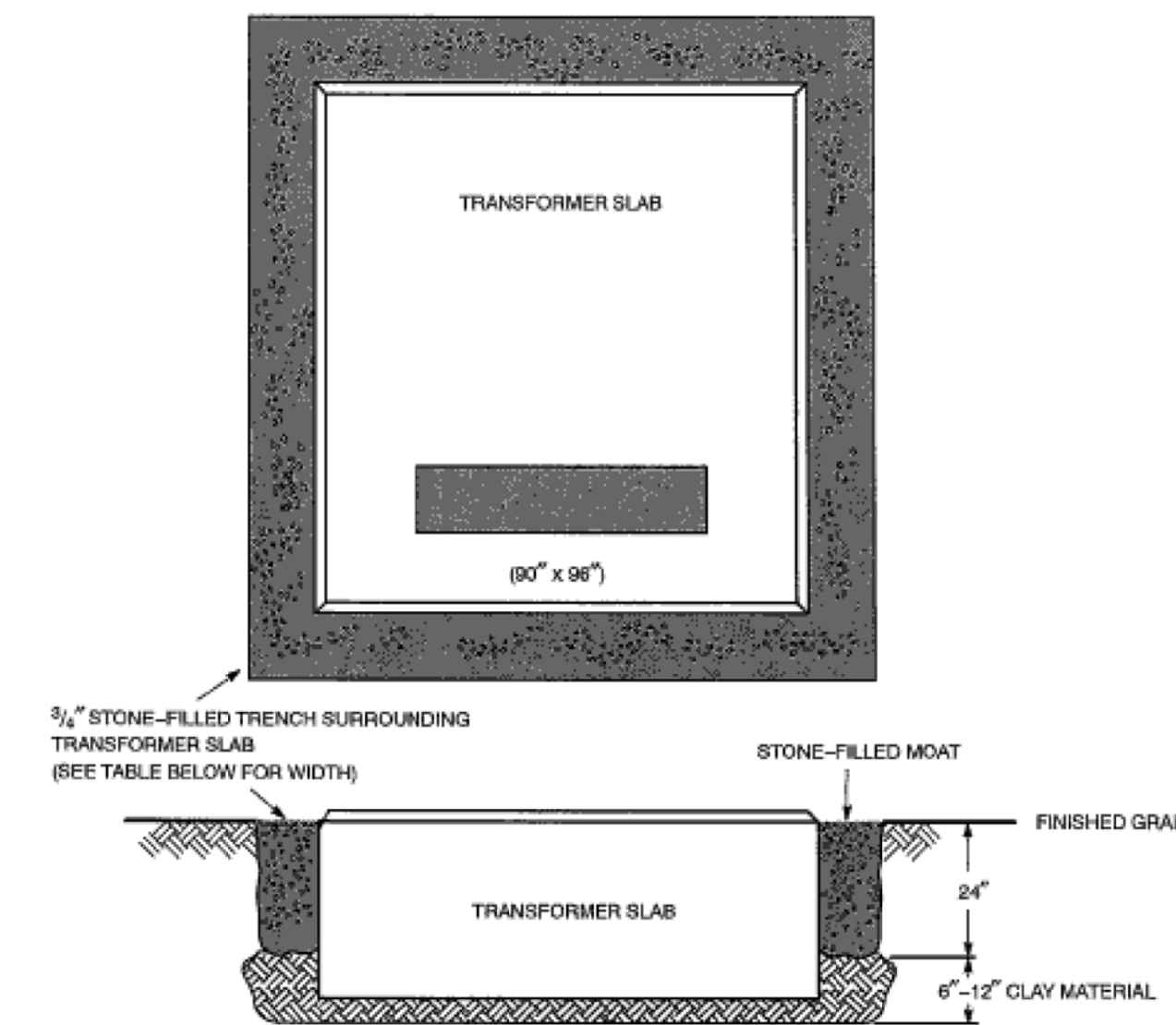
CONSTRUCTION REQUIREMENT

ISSUE	DATE
Original	2/18/23
Rev.	1/4/23

EQUIPMENT PROTECTION/BOLLARDS

WHERE PAD-MOUNTED EQUIPMENT, SECTOR CABINETS, ETC. COULD BE EXPOSED TO POSSIBLE DAMAGE BY VEHICULAR TRAFFIC, THE CONTRACTOR SHALL PROVIDE AND INSTALL PROTECTIVE BUMPERS/BOLLARDS ON EXPOSED SIDES. GALVANIZED STEEL PIPES 10" MINIMUM DIAMETER FILLED WITH CONCRETE. SUCH PIPES SHALL EXTEND 42" MINIMUM ABOVE GRADE (BUMPERS SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS MINIMUM OF 24" IN DIAMETER AND A MINIMUM OF 60" BELOW GRADE). BUMPERS SHOULD BE 10' MINIMUM FROM THE OPERATING SIDE OF CONCRETE PAD AND ON THE OTHER SIDES 36" MINIMUM FROM EQUIPMENT OR PAD, WHICHEVER PROJECTS FARTHER. THE MAXIMUM SPACING BETWEEN BUMPERS ON EXPOSED SIDES SHOULD BE 60". BUMPERS SHALL HAVE A PVC COVERING, COLOR PER UTILITY, EXTENDING THE LENGTH OF THE UNIT AND COVERING THE TOP. FOR BIDDING PURPOSES ON THIS PROJECT THE CONTRACTOR SHALL INCLUDE THREE BUMPERS/BOLLARDS FOR EACH TRANSFORMER, SECTOR CABINET, AND THE DISTRIBUTION ENCLOSURE FOR TB #6 AND THE BOOSTER PUMPS.

3/8" x 1"



Notes

- To calculate dimension of the stone-filled moat:
1. Convert gallons of oil in the transformer to cubic feet: Divide gallons by 7.48 to get cubic feet of oil.
 2. Divide this number by 0.35 to determine the volume of stone-filled moat required.
 3. From the table below select the width necessary to contain the oil.
 4. In environmentally sensitive areas, seal all conduits. See DTR 44.353.
 5. Refer to DSEM Section 06.32 for when an oil detention moat should be used.

Volume in Cubic Feet of 24" Deep Stone-Filled Moat

Width of Moat (Feet)	Slab Dimensions in Inches		
	66 x 50	80 x 92	90 x 96
1	47	65	70
2	109	147	156
3	188	244	258

ORIGINAL	5/20/23	APPROVED	7/26/23	DATE
Original	5/20/23	Approved	7/26/23	DATE

OIL DETENTION FOR PAD-MOUNTED TRANSFORMERS

NORTHEAST UTILITIES	CONSTRUCTION STANDARD	DTR 58.311	2
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33
FOR ALL TRANSFORMERS, THIS PROJECT

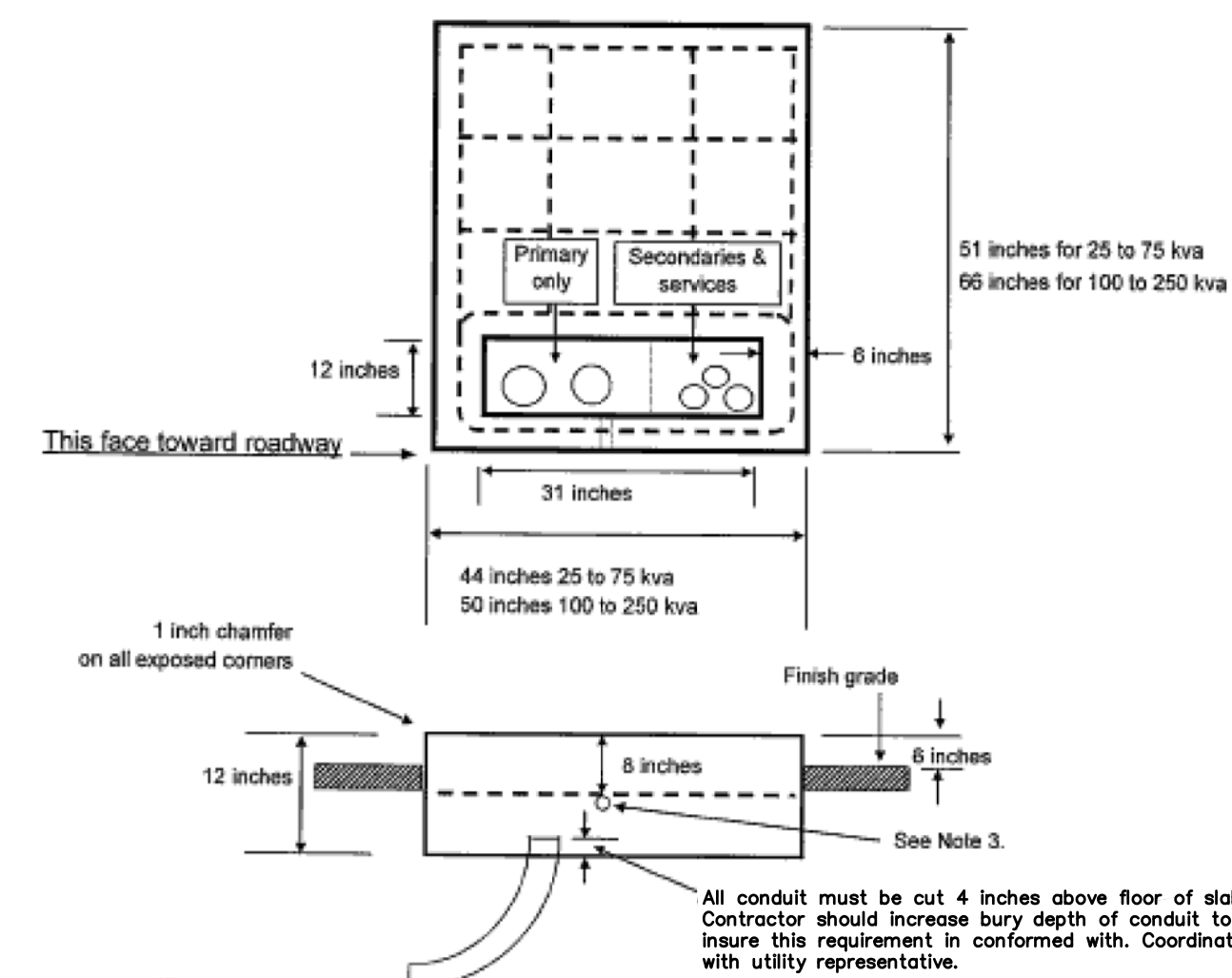
Nebraska Utilities
May 2001

Distribution System Engineering Manual
May 2001

32

**SINGLE PHASE TRANSFORMER
FOUNDATION DETAIL**

53 102



Notes:

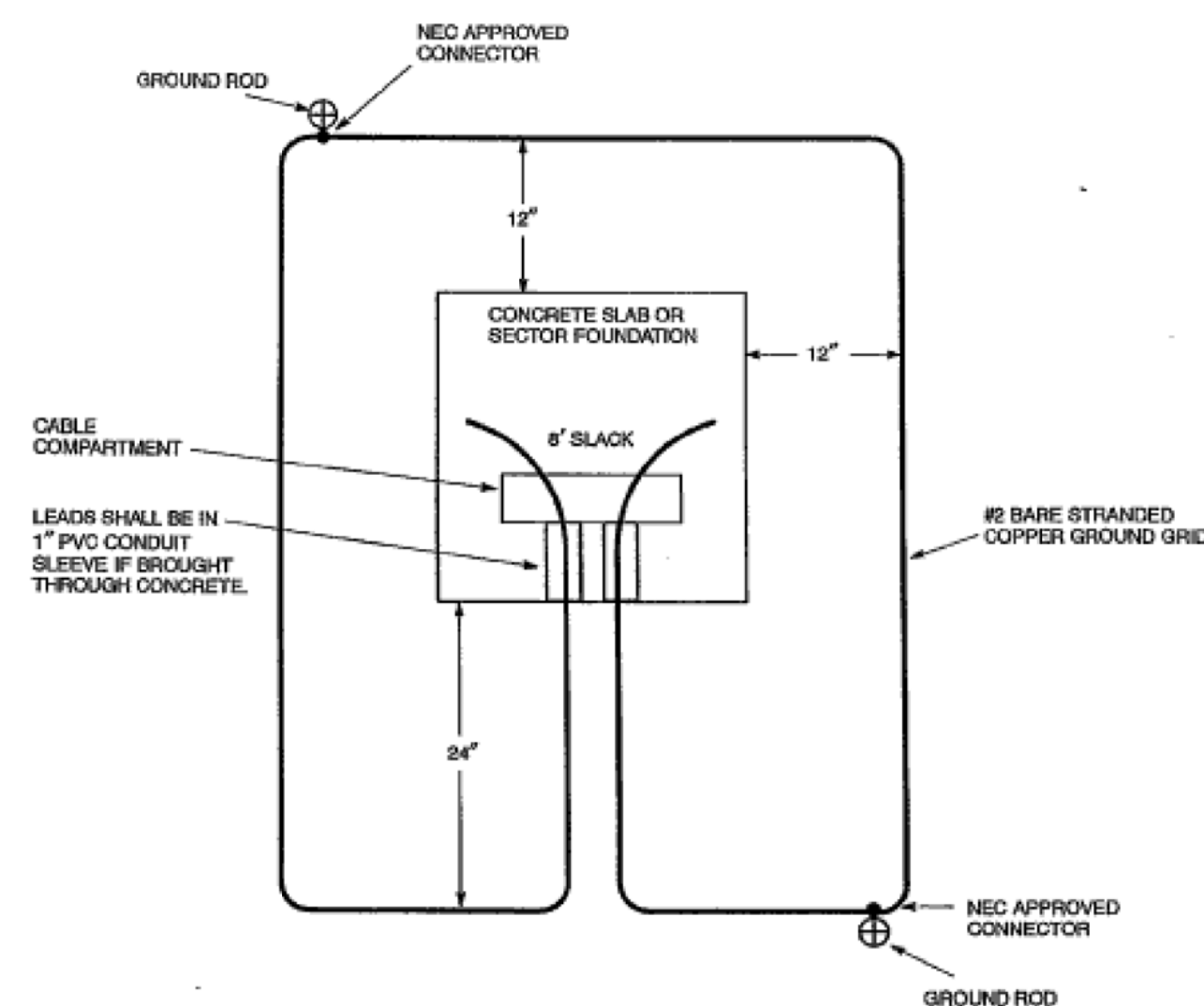
1. See sheet "Requirements for Padmounted Transformer Slab Details."
2. All reinforcing to be #6 bars
3. 1 inch PVC conduit sleeve for ground grid leads
4. See sheet "Pad-Mount Equipment Grounding Grid" DTR 56.223



CONSTRUCTION REQUIREMENT

ISSUE	DATE
Original	1/7/23
Rev.	3/8/20

NOTE: PRECAST UNITS MAY BE USED SUBJECT TO THEIR APPROVAL BY THE UTILITY.



CUSTOMER RESPONSIBILITY

The ground grid shall be supplied and installed by the customer and is to be buried at least 12 inches below grade. Eight feet of extra wire for each ground grid leg shall be left exposed in the cable compartment to allow for the connection to the transformer. The two 8-foot ground rods may be either galvanized steel or copperweld and they shall be connected to the grid with NEC approved connectors.

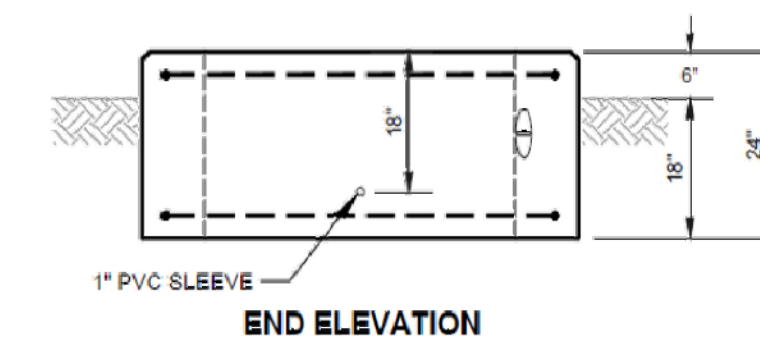
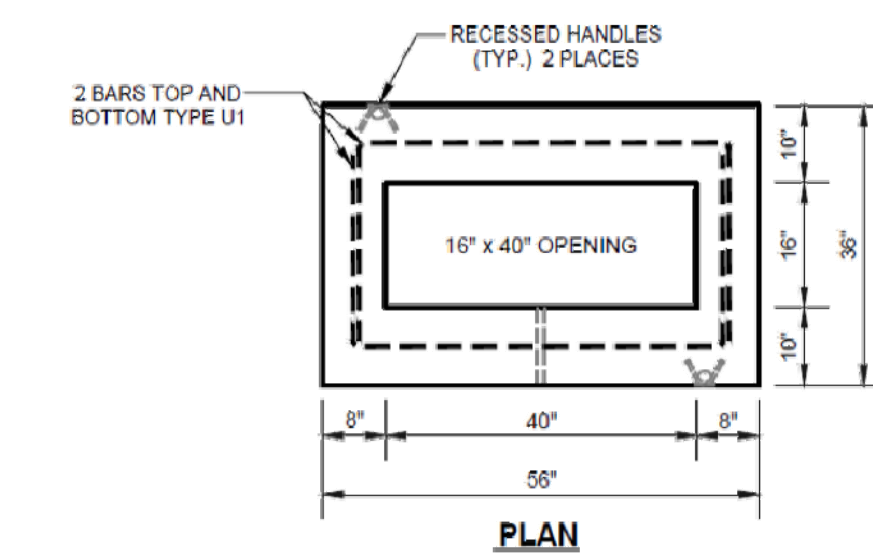
ORIGINAL	5/20/23	APPROVED	7/26/23	DATE
Original	5/20/23	Approved	7/26/23	DATE

PAD-MOUNT EQUIPMENT GROUNDING GRID

NORTHEAST UTILITIES	CONSTRUCTION STANDARD	DTR 56.223	4
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36

Single Phase Section Cabinet Foundation



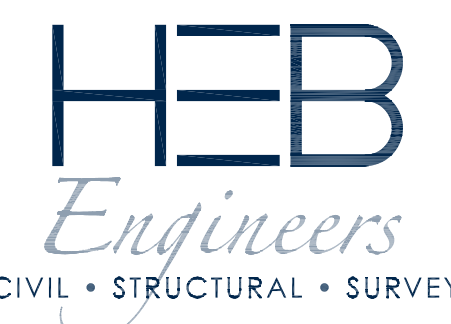
Type	Qty	Length	Diagram
U1	4	304"	23

Total Foundation Weight, 2,850 lbs.

NOTE: PRECAST UNITS MAY BE USED SUBJECT TO THEIR APPROVAL BY THE UTILITY.

EVSOURCE INTERNAL REFERENCE 53.125

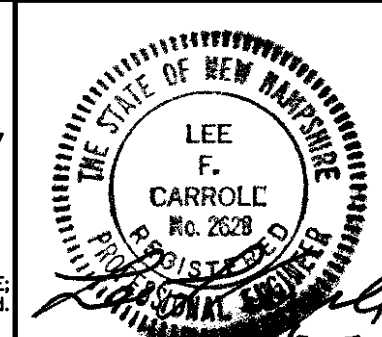
Refer to [Installation Requirements for Padmounted Transformer and Sector Cabinets](#) for additional details.



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STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
BOX 483 ROOM 250
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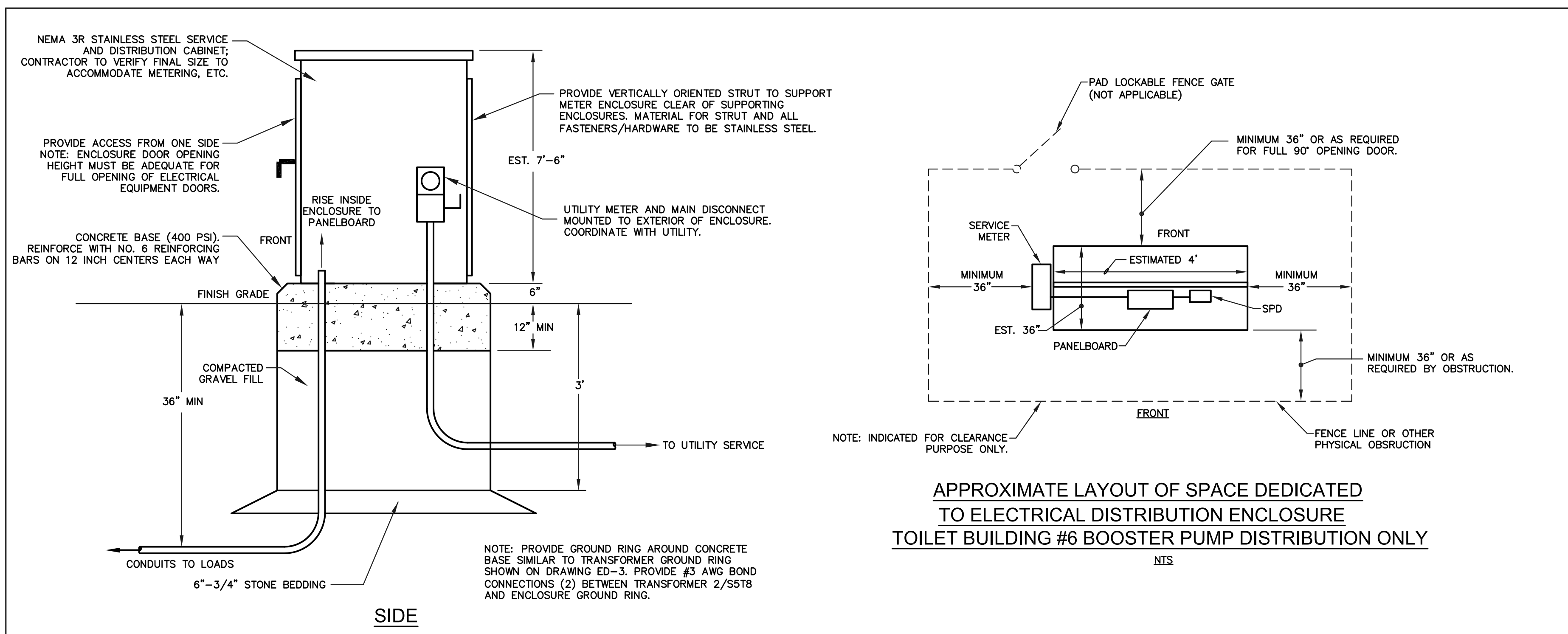
ENGINEER/ARCHITECT: Lee F. Carroll, PE
DESIGNED BY: LFC
APPROVED BY: LFC
CHECKED BY: LFC

DATE	REVISIONS DESCRIPTION	BY

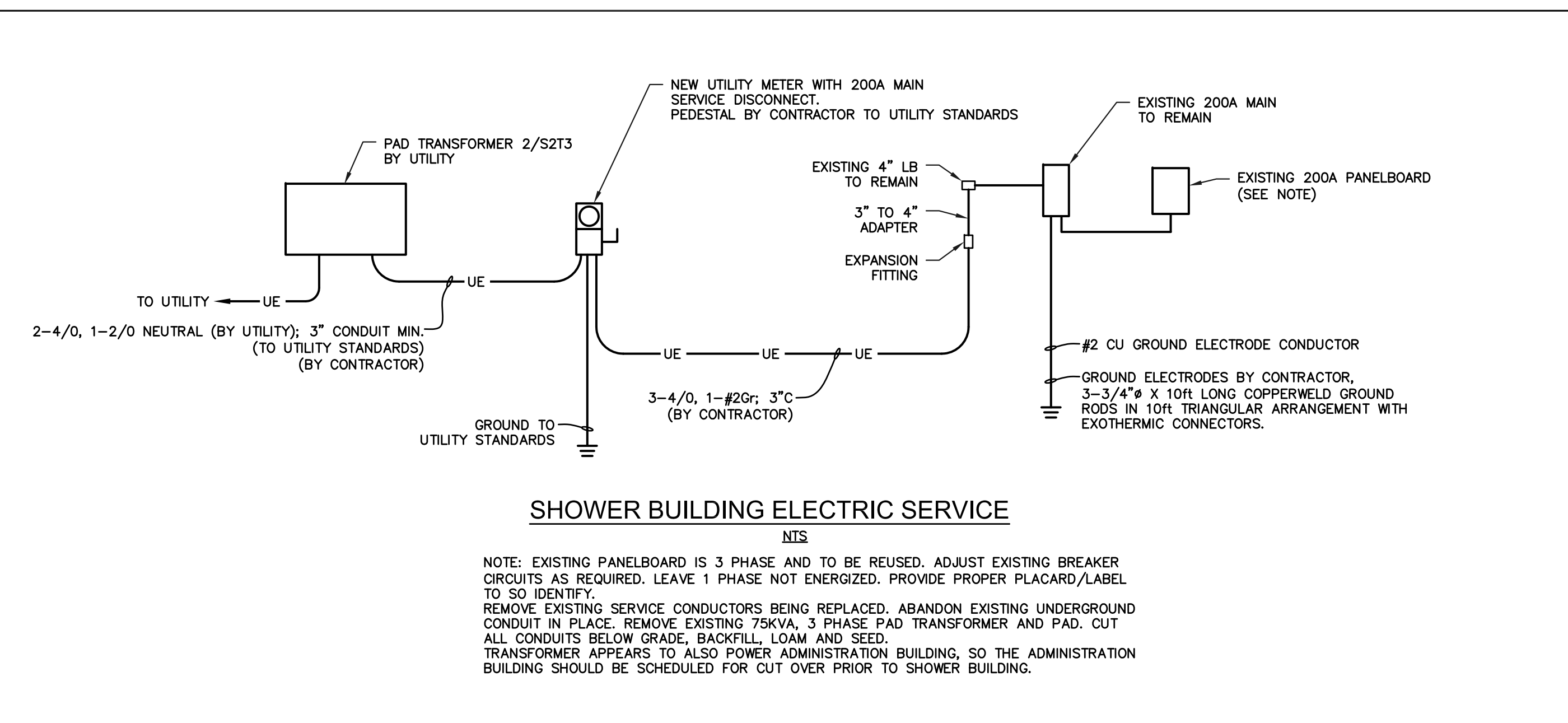
GREENFIELD STATE PARK IMPROVEMENTS
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
NHDPW

Electrical Details Sheet #3

PROJECT No. 81204R
CONTRACT C
DRAWN BY: IGT
SCALE: 1"=200'
DATE: 11-16-2023
ED-3
SHEET

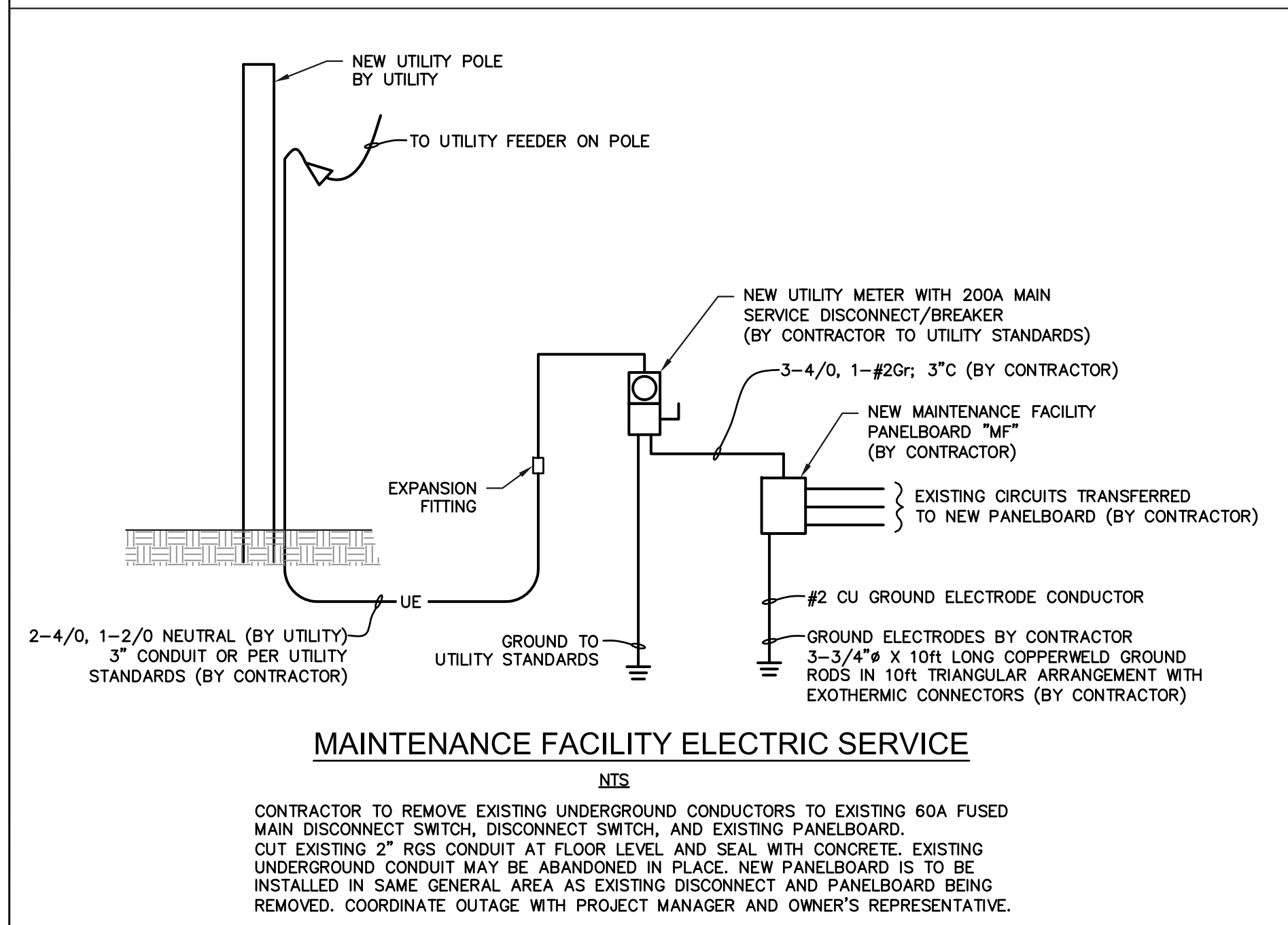


APPROXIMATE LAYOUT OF SPACE DEDICATED TO ELECTRICAL DISTRIBUTION ENCLOSURE TOILET BUILDING #6 BOOSTER PUMP DISTRIBUTION ONLY



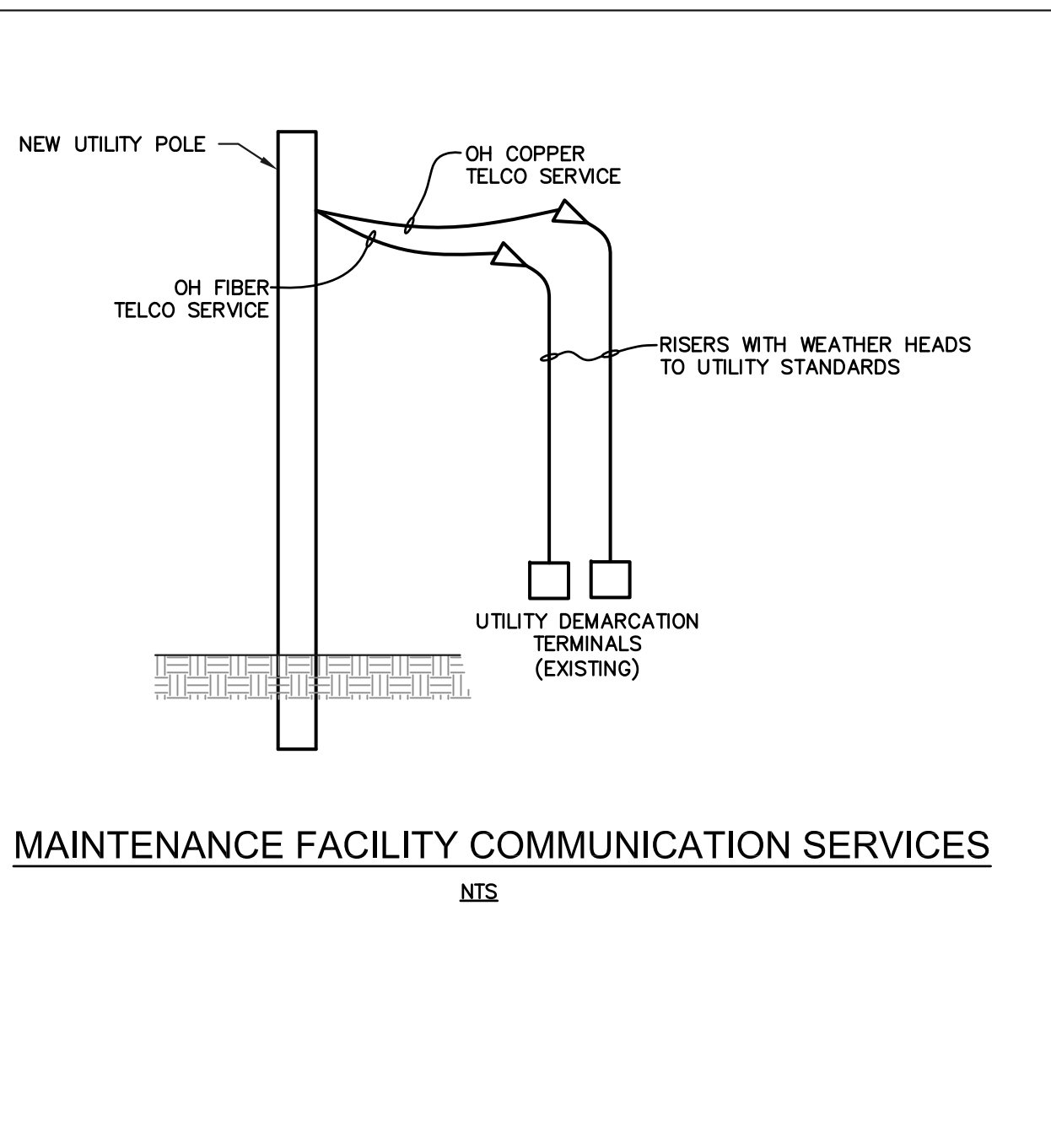
SHOWER BUILDING ELECTRIC SERVICE

NOTE: EXISTING PANELBOARD IS 3 PHASE AND TO BE REUSED. ADJUST EXISTING BREAKER CIRCUITS AS REQUIRED. LEAVE 1 PHASE NOT ENERGIZED. PROVIDE PROPER PLACARD/LABEL TO SO IDENTIFY. REMOVE EXISTING SERVICE CONDUCTORS BEING REPLACED. ABANDON EXISTING UNDERGROUND CONDUIT IN PLACE. REMOVE EXISTING 75KVA, 3 PHASE PAD TRANSFORMER AND PAD. CUT ALL CONDUITS BELOW GRADE, BACKFILL, LOAM AND SEED. TRANSFORMER APPEARS TO ALSO POWER ADMINISTRATION BUILDING, SO THE ADMINISTRATION BUILDING SHOULD BE SCHEDULED FOR CUT OVER PRIOR TO SHOWER BUILDING.

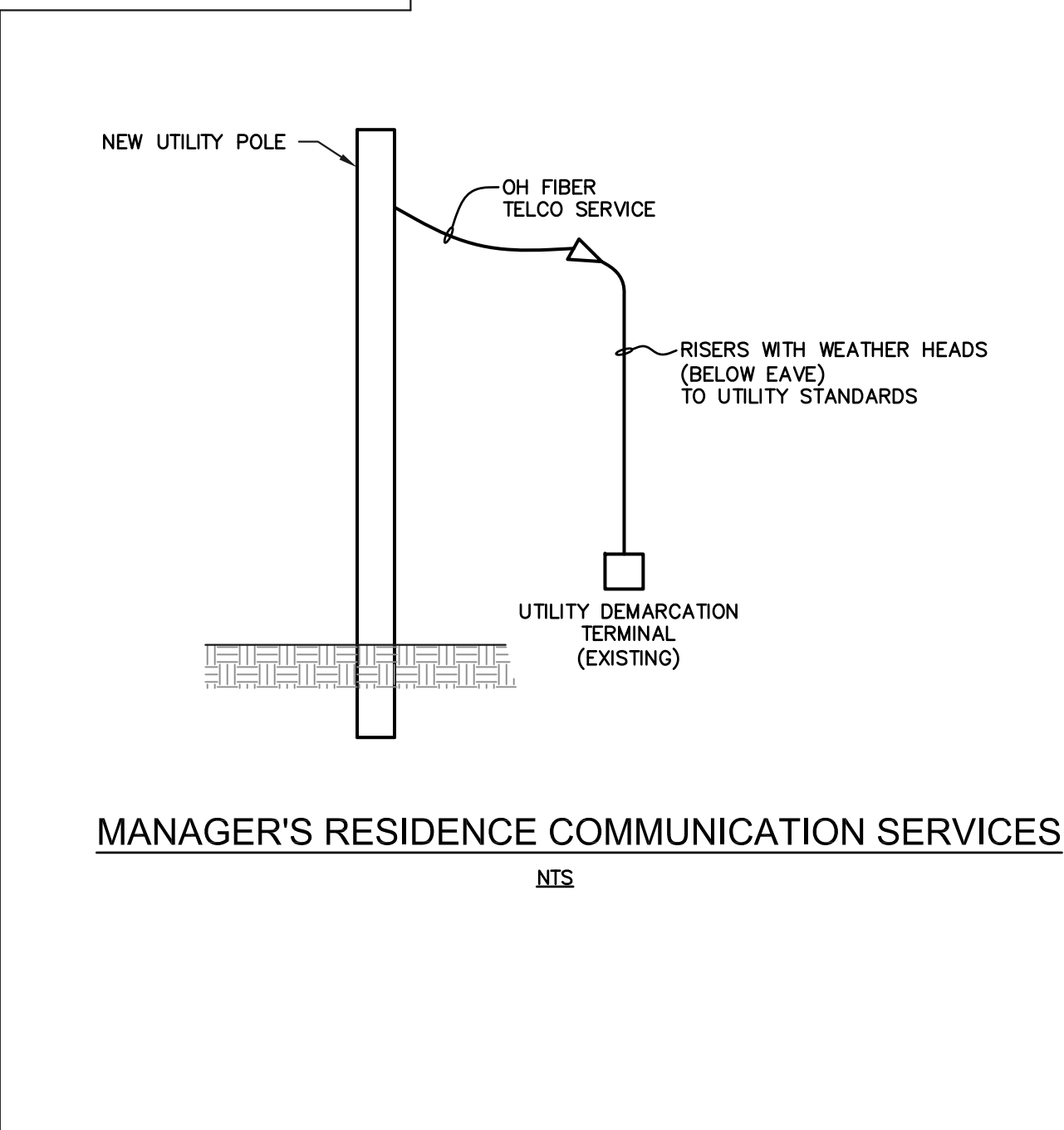


MAINTENANCE FACILITY ELECTRIC SERVICE

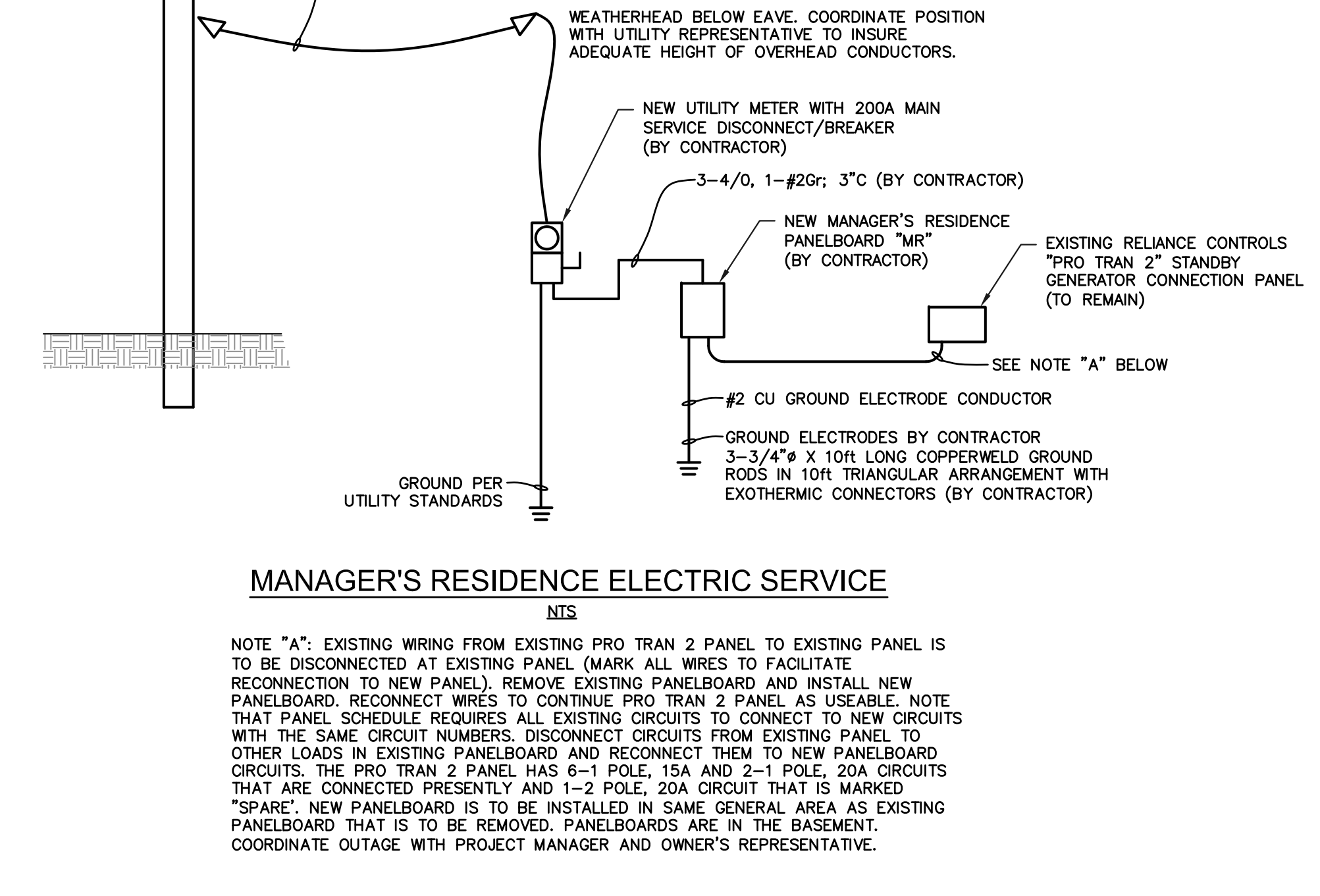
CONTRACTOR TO REMOVE EXISTING UNDERGROUND CONDUCTORS TO EXISTING 60A FUSED MAIN DISCONNECT SWITCH, DISCONNECT SWITCH, AND EXISTING PANELBOARD. CUT EXISTING 2" RGS CONDUIT AT FLOOR LEVEL AND SEAL WITH CONCRETE. EXISTING UNDERGROUND CONDUIT MAY BE ABANDONED IN PLACE. NEW PANELBOARD IS TO BE INSTALLED IN SAME GENERAL AREA AS EXISTING DISCONNECT AND PANELBOARD BEING REMOVED. COORDINATE OUTAGE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE.



MAINTENANCE FACILITY COMMUNICATION SERVICES

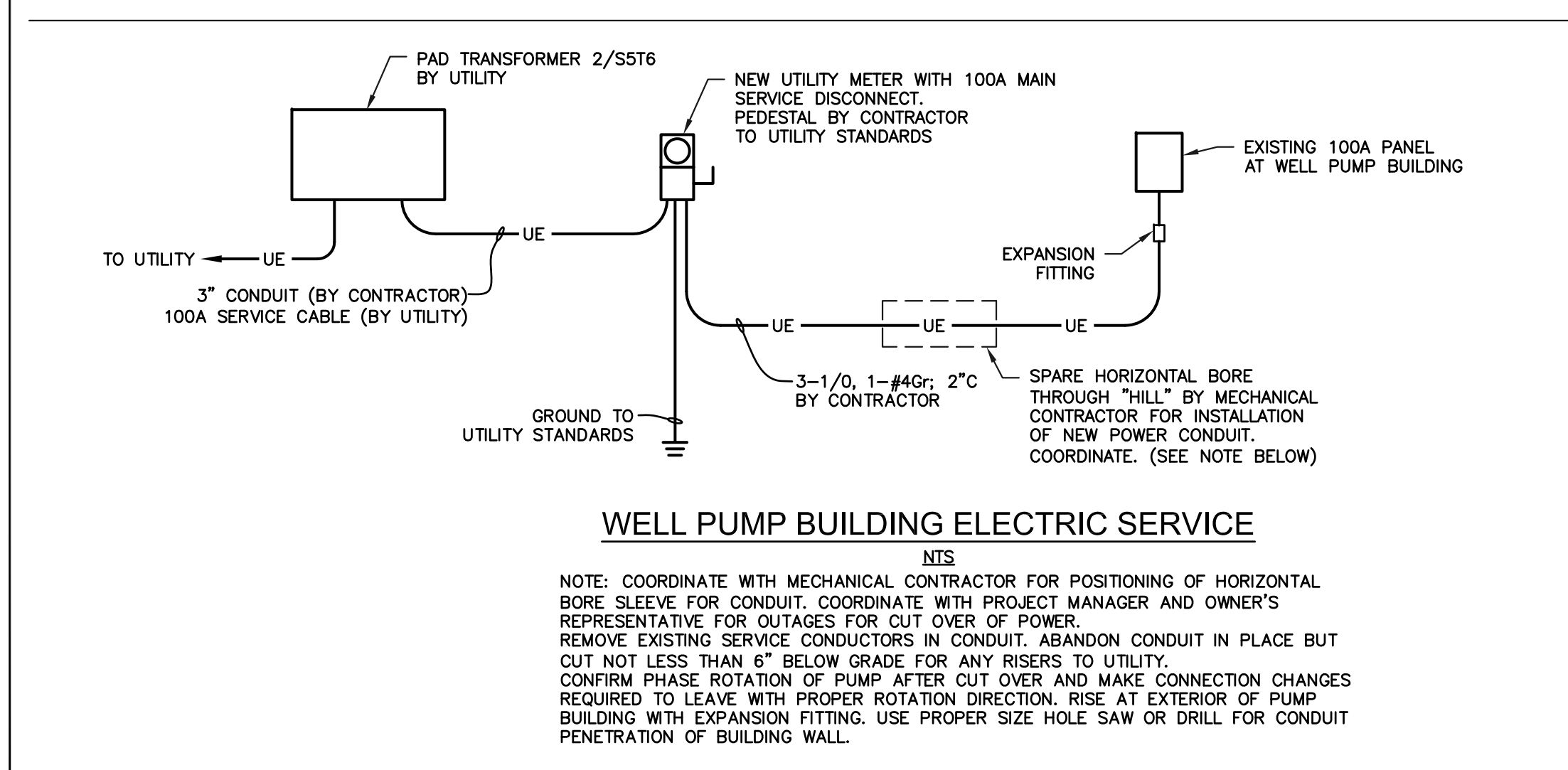


MANAGER'S RESIDENCE COMMUNICATION SERVICES



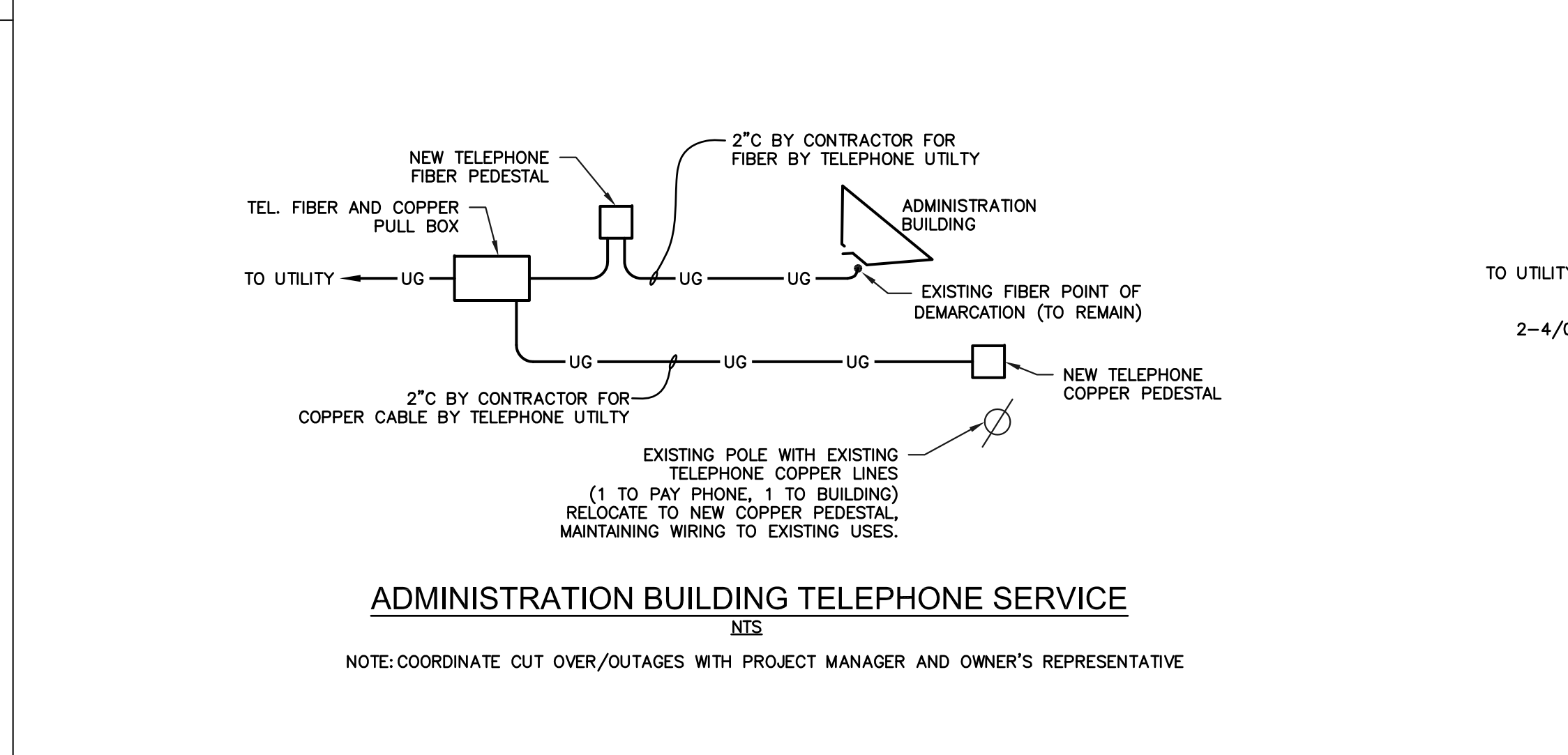
MANAGER'S RESIDENCE ELECTRIC SERVICE

NOTE "A": EXISTING WIRING FROM EXISTING PRO TRAN 2 PANEL TO EXISTING PANEL IS TO BE DISCONNECTED AT EXISTING PANEL (MARK ALL WIRES TO FACILITATE RECONNECTION TO NEW PANEL). REMOVE EXISTING PANELBOARD AND INSTALL NEW PANELBOARD. RECONNECT WIRES TO CONTINUE PRO TRAN 2 PANEL AS USABLE. NOTE THAT PANEL SCHEDULE REQUIRES ALL EXISTING CIRCUITS TO CONNECT TO NEW CIRCUITS WITH THE SAME CIRCUIT NUMBERS. DISCONNECT CIRCUITS FROM EXISTING PANEL TO OTHER LOADS IN EXISTING PANELBOARD AND RECONNECT THEM TO NEW PANELBOARD CIRCUITS. THE PRO TRAN 2 PANEL HAS 6-1 POLE, 15A AND 2-1 POLE, 20A CIRCUITS THAT ARE CONNECTED PRESENTLY AND 1-2 POLE, 20A CIRCUIT THAT IS MARKED "SPARE". NEW PANELBOARD IS TO BE INSTALLED IN SAME GENERAL AREA AS EXISTING PANELBOARD THAT IS TO BE REMOVED. PANELBOARDS ARE IN THE BASEMENT. COORDINATE OUTAGE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE.



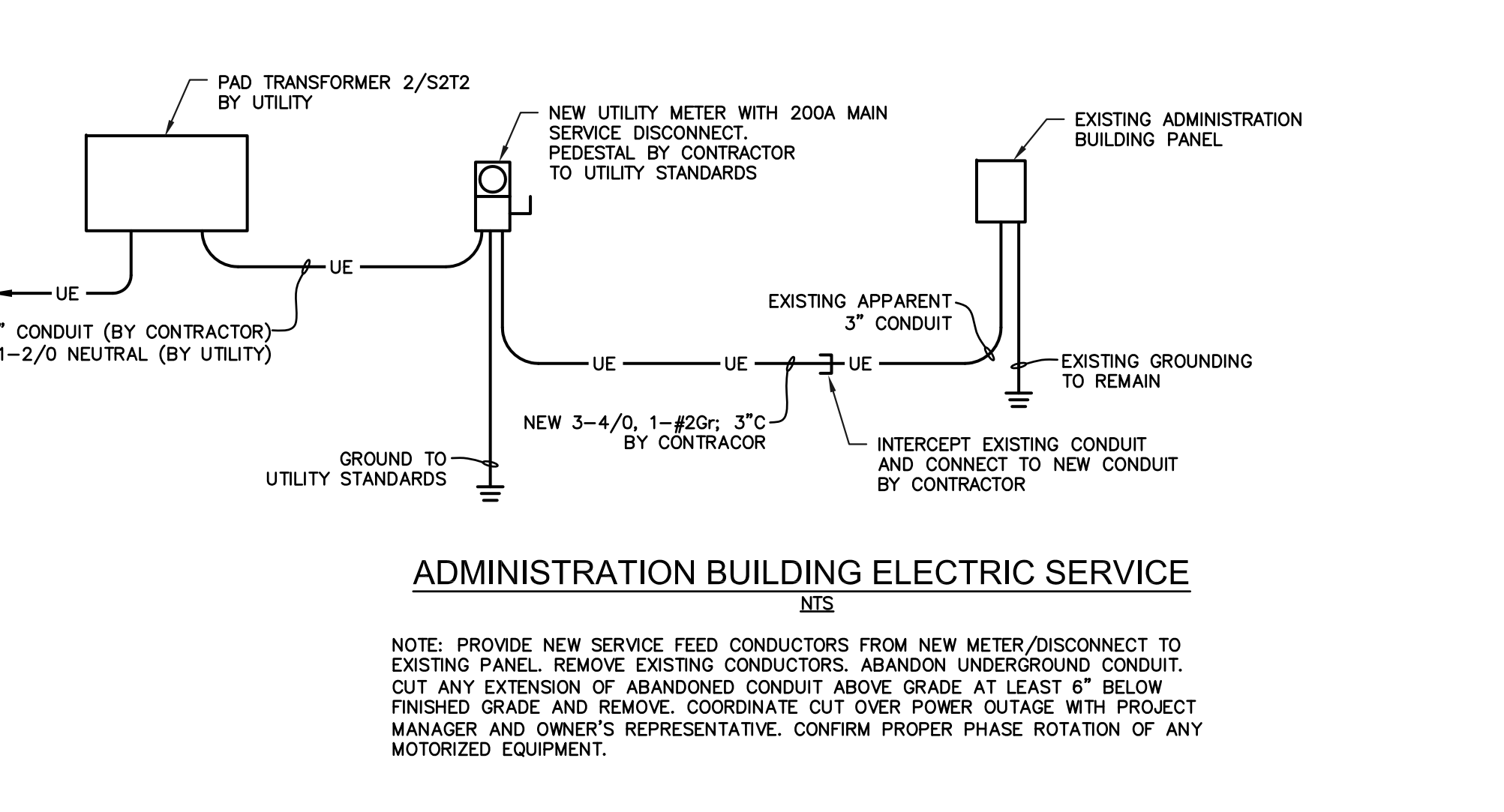
WELL PUMP BUILDING ELECTRIC SERVICE

NOTE: COORDINATE WITH MECHANICAL CONTRACTOR FOR POSITIONING OF HORIZONTAL BORE SLEEVE FOR CONDUIT. COORDINATE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE FOR OUTAGES FOR CUT OVER OF POWER. REMOVE EXISTING SERVICE CONDUCTORS IN CONDUIT. ABANDON CONDUIT IN PLACE BUT CUT NOT LESS THAN 6" BELOW GRADE FOR ANY RISERS TO UTILITY. CONFIRM PHASE ROTATION OF PUMP AFTER CUT OVER AND MAKE CONNECTION CHANGES REQUIRED TO LEAVE WITH PROPER ROTATION DIRECTION. RISE AT EXTERIOR OF PUMP BUILDING WITH EXPANSION FITTING. USE PROPER SIZE HOLE SAW OR DRILL FOR CONDUIT PENETRATION OF BUILDING WALL.



ADMINISTRATION BUILDING TELEPHONE SERVICE

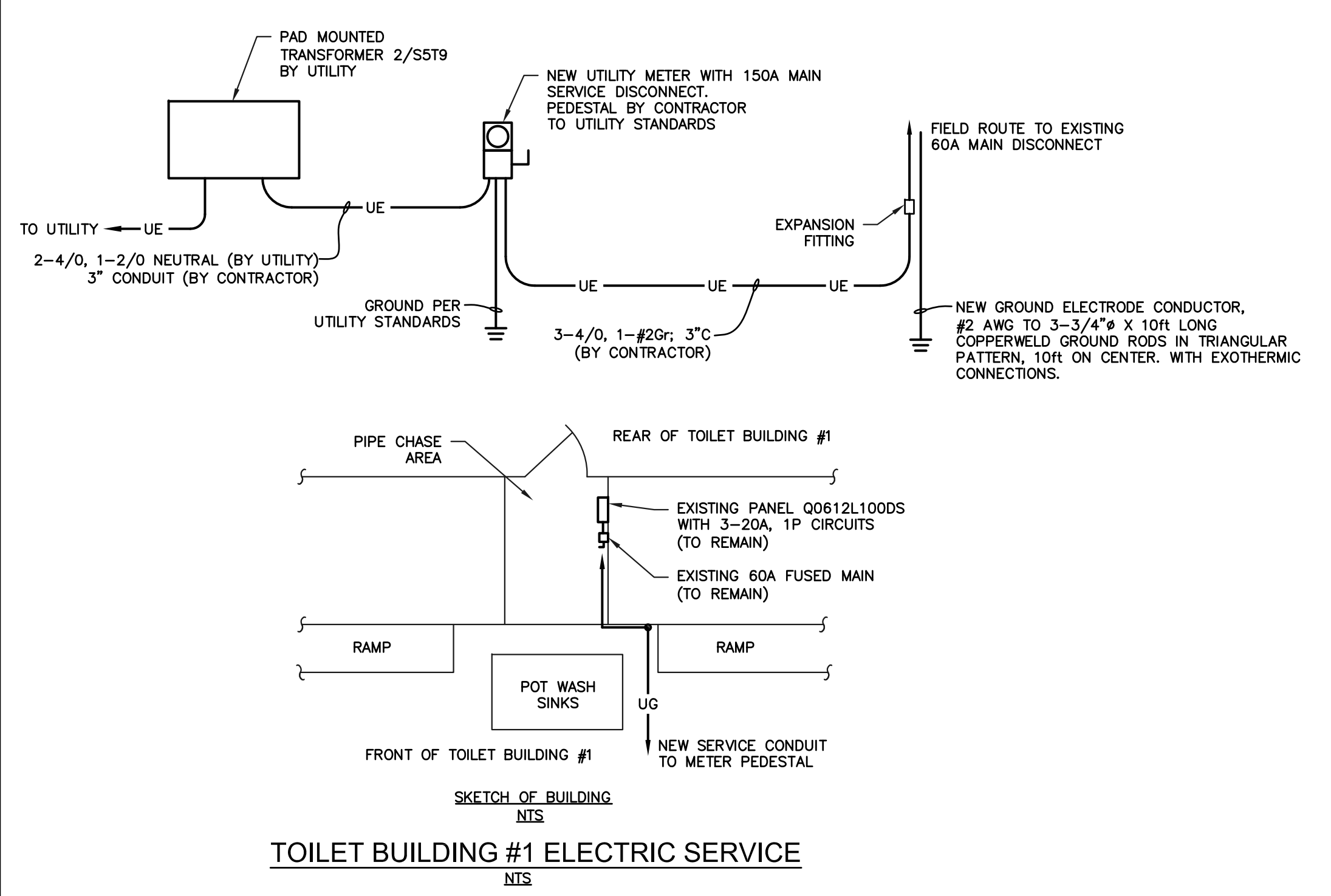
NOTE: COORDINATE CUT OVER/OUTAGES WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE.



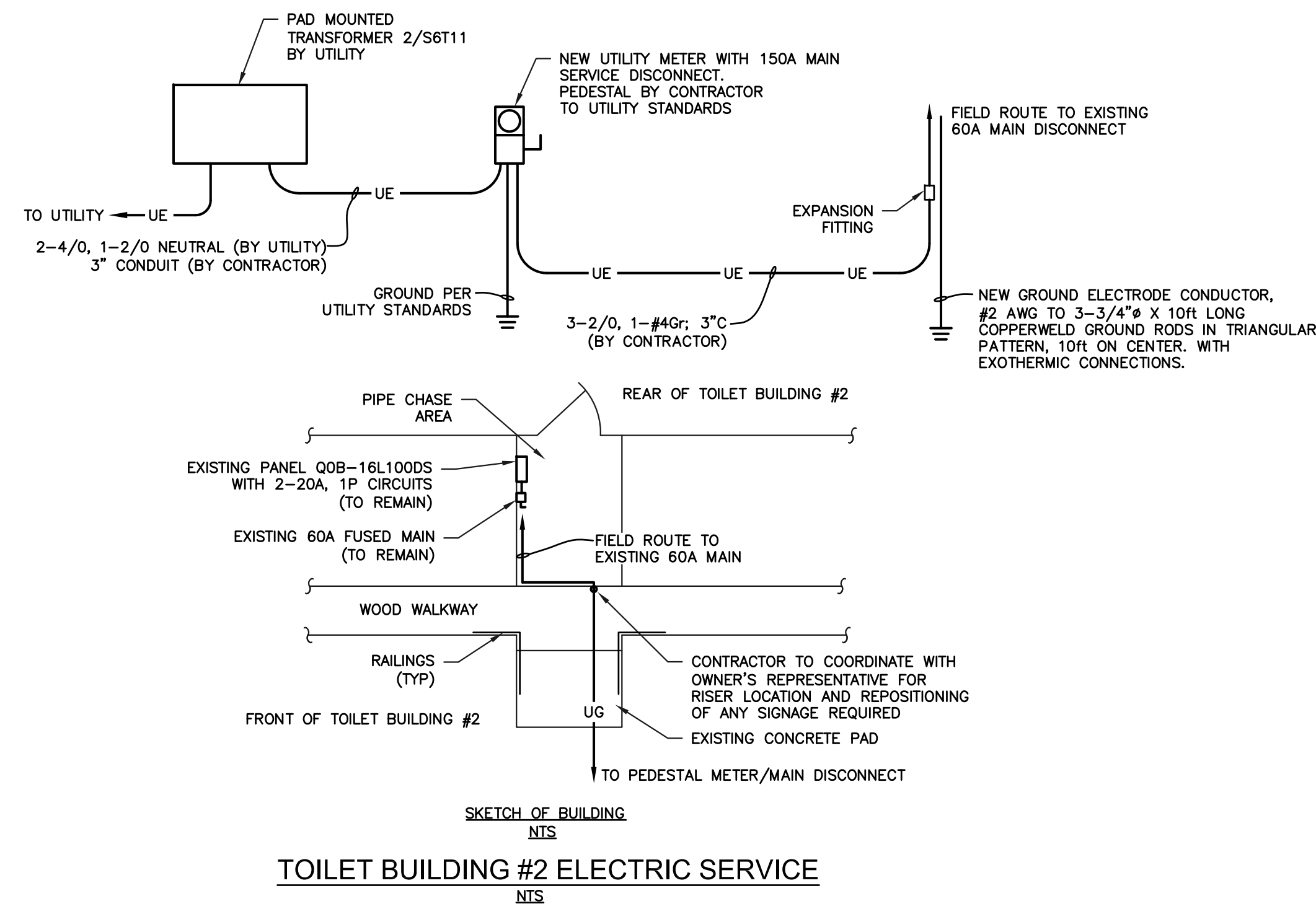
ADMINISTRATION BUILDING ELECTRIC SERVICE

NOTE: PROVIDE NEW SERVICE FEED CONDUCTORS FROM NEW METER/DISCONNECT TO EXISTING PANEL. REMOVE EXISTING CONDUCTORS. ABANDON UNDERGROUND CONDUIT. CUT ANY EXTENSION OF ABANDONED CONDUIT ABOVE GRADE AT LEAST 6" BELOW FINISHED GRADE AND REMOVE. COORDINATE CUT OVER POWER OUTAGE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE. CONFIRM PROPER PHASE ROTATION OF ANY MOTORIZED EQUIPMENT.

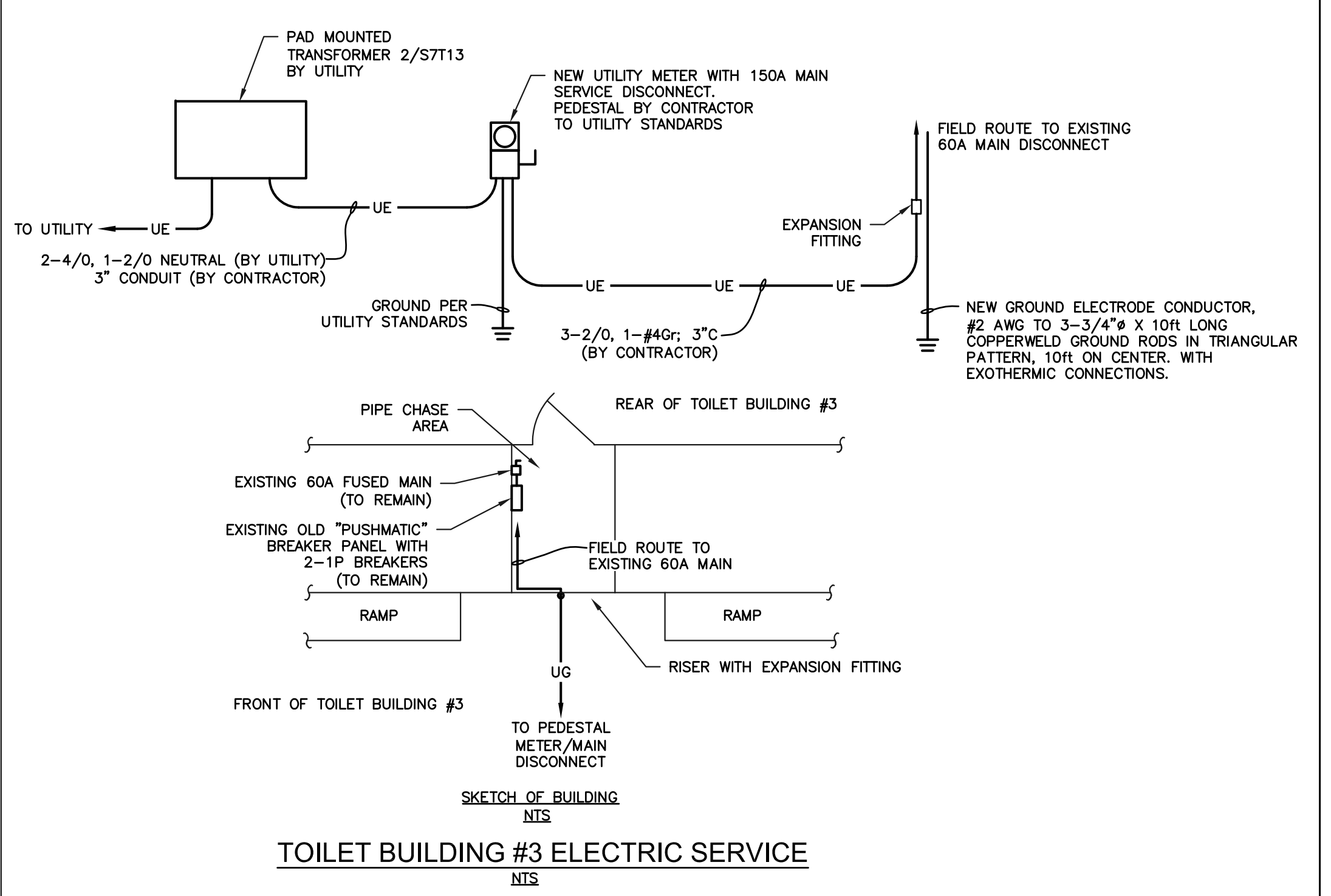
<p>HEB Engineers, Inc. Post Office Box 440 2605 White Mountain Hwy. North Conway, NH 03860 www.hebengineers.com Office (603) 356-6936 Fax (603) 356-7715</p>	<p>ELECTRICAL DESIGN BY: Lee F. Carroll, PE Electrical Consultants 1 Madison Ave P.O. Box 357 Gorham, NH 03581-0357 603-466-5065 lcarroll@me.rr.com</p> <p>Copyright © 2023 by Lee F. Carroll, PE. Electrical Consultants. All rights reserved. No reproduction without permission.</p>		<p>STATE OF NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION</p> <p>JOHN O. MORTON BUILDING 7 HAZEN DRIVE BOX 483 ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483 (603) 271-3516 FAX (603) 271-3515</p>				<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			DATE	DESCRIPTION	BY										<p>GREENFIELD STATE PARK IMPROVEMENTS 973 FOREST ROAD GREENFIELD, NEW HAMPSHIRE NHPDW</p> <p>Electrical Details Sheet #4 Power & Communications Details For Noted Facilities</p>			<p>PROJECT NO. 81204R</p> <p>CONTRACT C</p>
			DATE	DESCRIPTION	BY																				
<p>ENGINEER/ARCHITECT: Lee F. Carroll, PE</p>	<p>DESIGNED BY: LFC</p>	<p>APPROVED BY: LFC</p>	<p>CHECKED BY: LFC</p>	<p>DRAWN BY: IGT</p>	<p>SCALE: NTS</p>	<p>DATE: 11-16-2023</p>	<p>ED-4 SHEET</p>																		



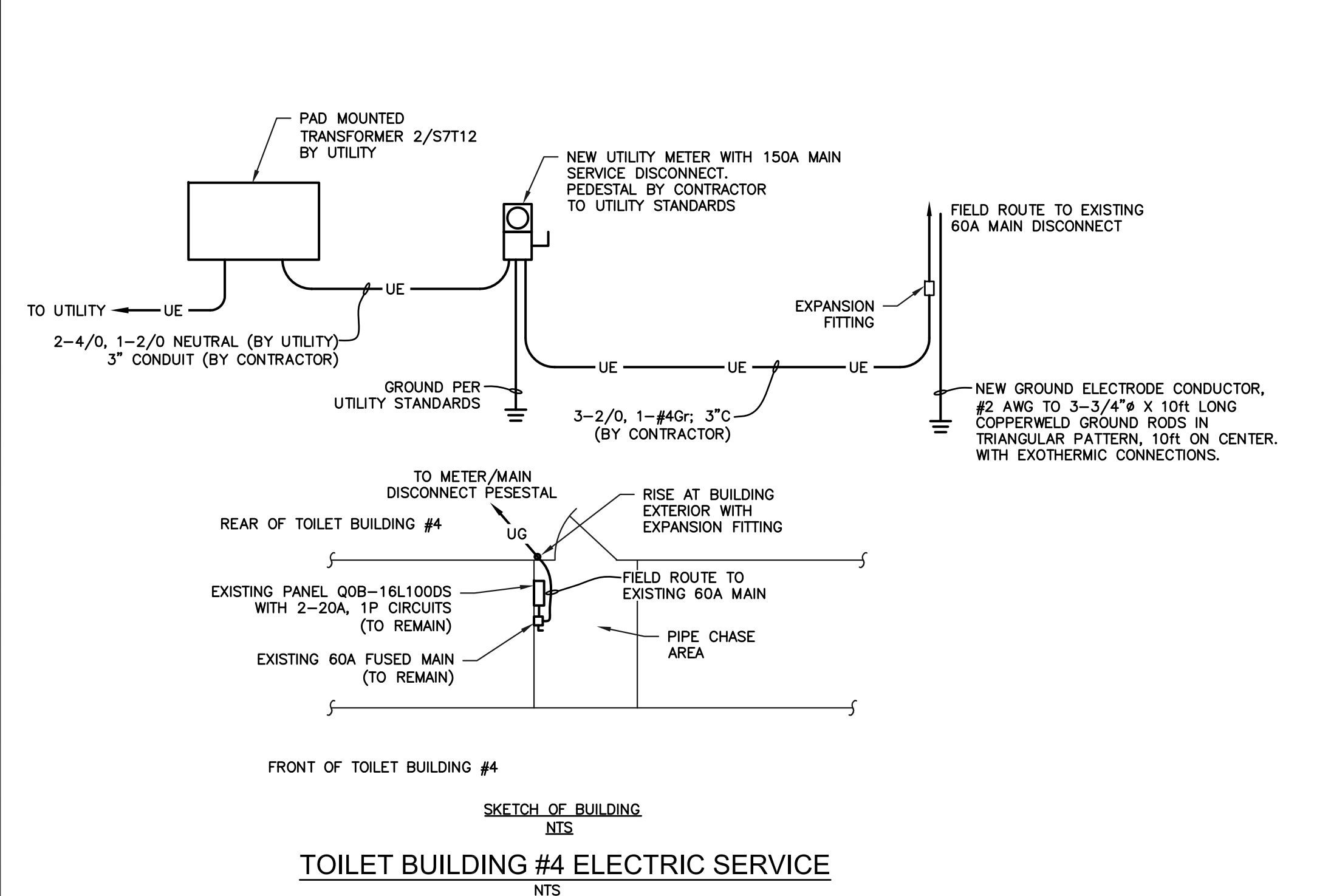
NOTE: REMOVE EXISTING SERVICE CONDUCTORS THAT ARE IN CONDUIT. REMOVE EXISTING RGS CONDUIT TO EXISTING MAIN DISCONNECT TO BELOW FLOOR LEVEL. ABANDON DISCONTINUED CONDUIT IN PLACE. REMOVE RISER AT EXISTING UTILITY POLE TO MINIMUM OF 6" BELOW FINISHED GRADE. COORDINATE OUTAGE FOR CUT OVER OF SERVICE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE. BOND NEW GROUND ELECTRODE CONDUCTOR TO ANY METAL PIPING IN BUILDING.



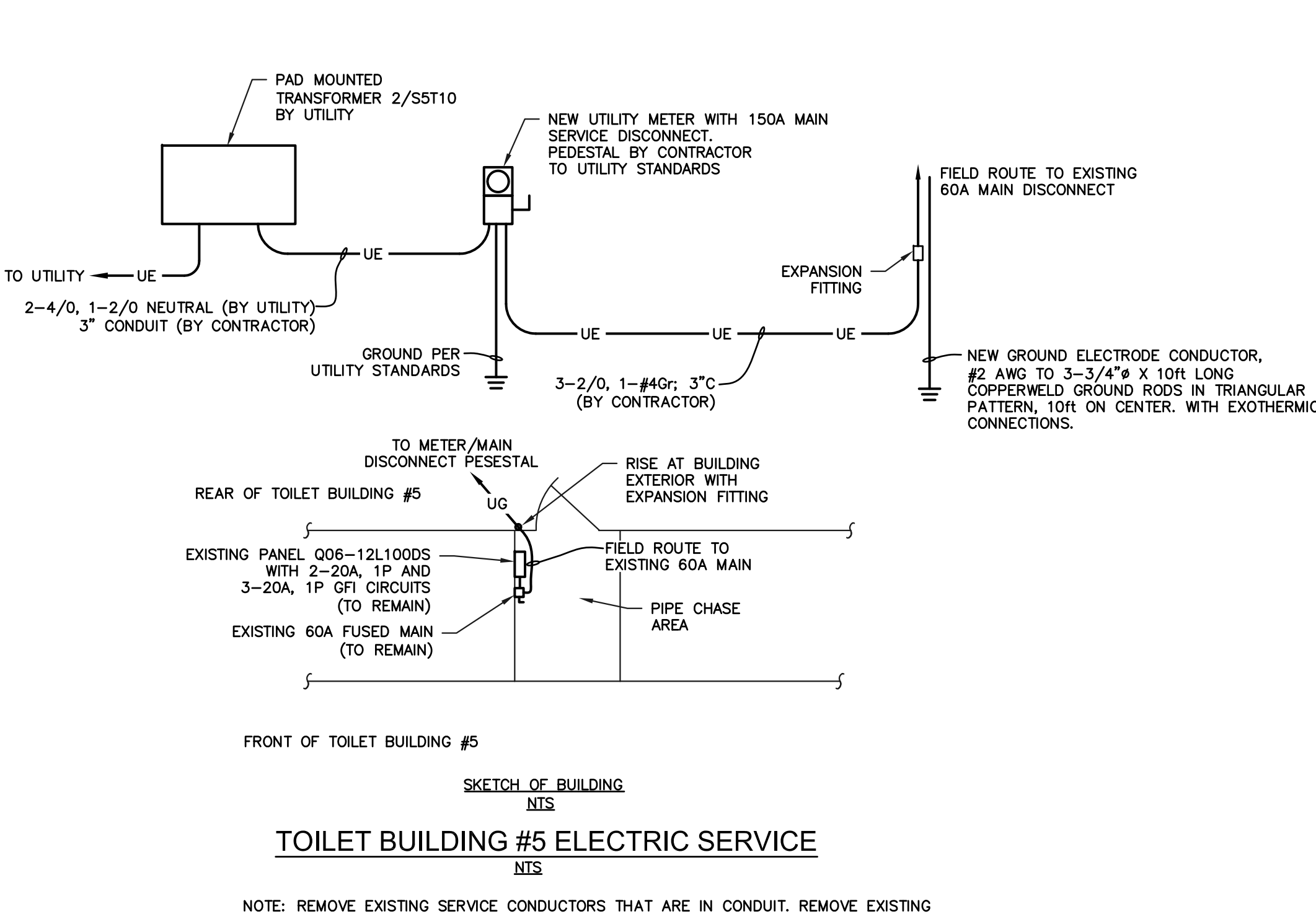
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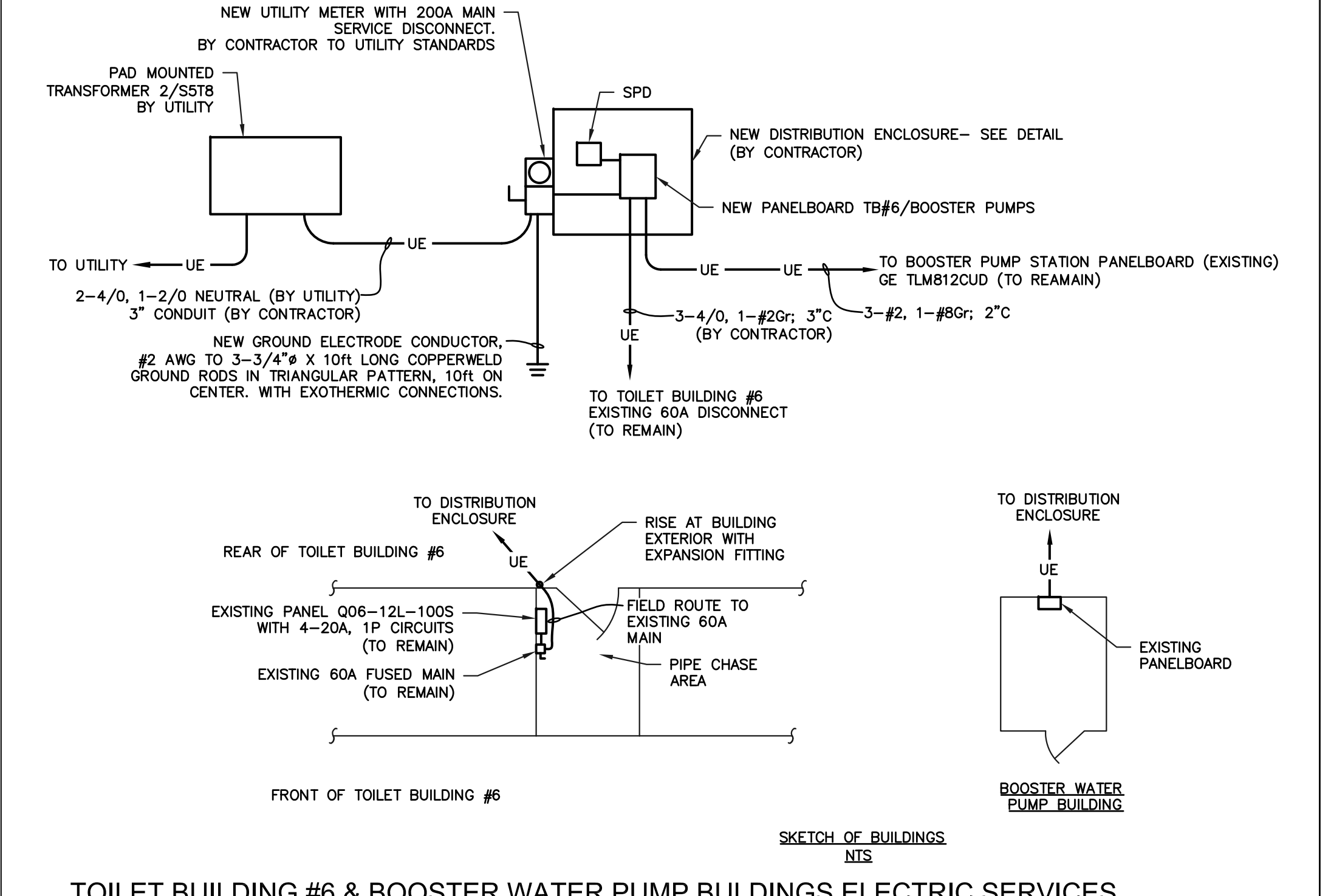
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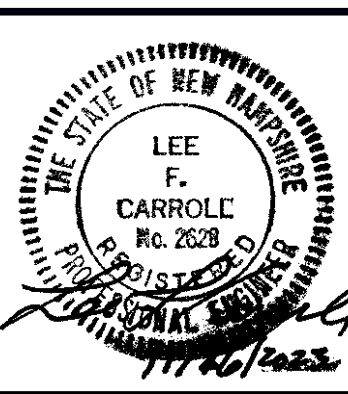
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NOTE: REMOVE EXISTING SERVICE CONDUCTORS THAT ARE IN CONDUIT. REMOVE EXISTING RGS CONDUIT TO EXISTING MAIN DISCONNECT TO BELOW FLOOR LEVEL. ABANDON DISCONTINUED CONDUIT IN PLACE. REMOVE RISER AT EXISTING UTILITY POLE TO MINIMUM OF 6" BELOW FINISHED GRADE. COORDINATE OUTAGE FOR CUT OVER OF SERVICE WITH PROJECT MANAGER AND OWNER'S REPRESENTATIVE. BOND NEW GROUND ELECTRODE CONDUCTOR TO ANY METAL PIPING IN BUILDING. CONFIRM PROPER PHASE ROTATION OF WATER BOOSTER PUMPS AFTER CUT-OVER.

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lcarroll@me.com



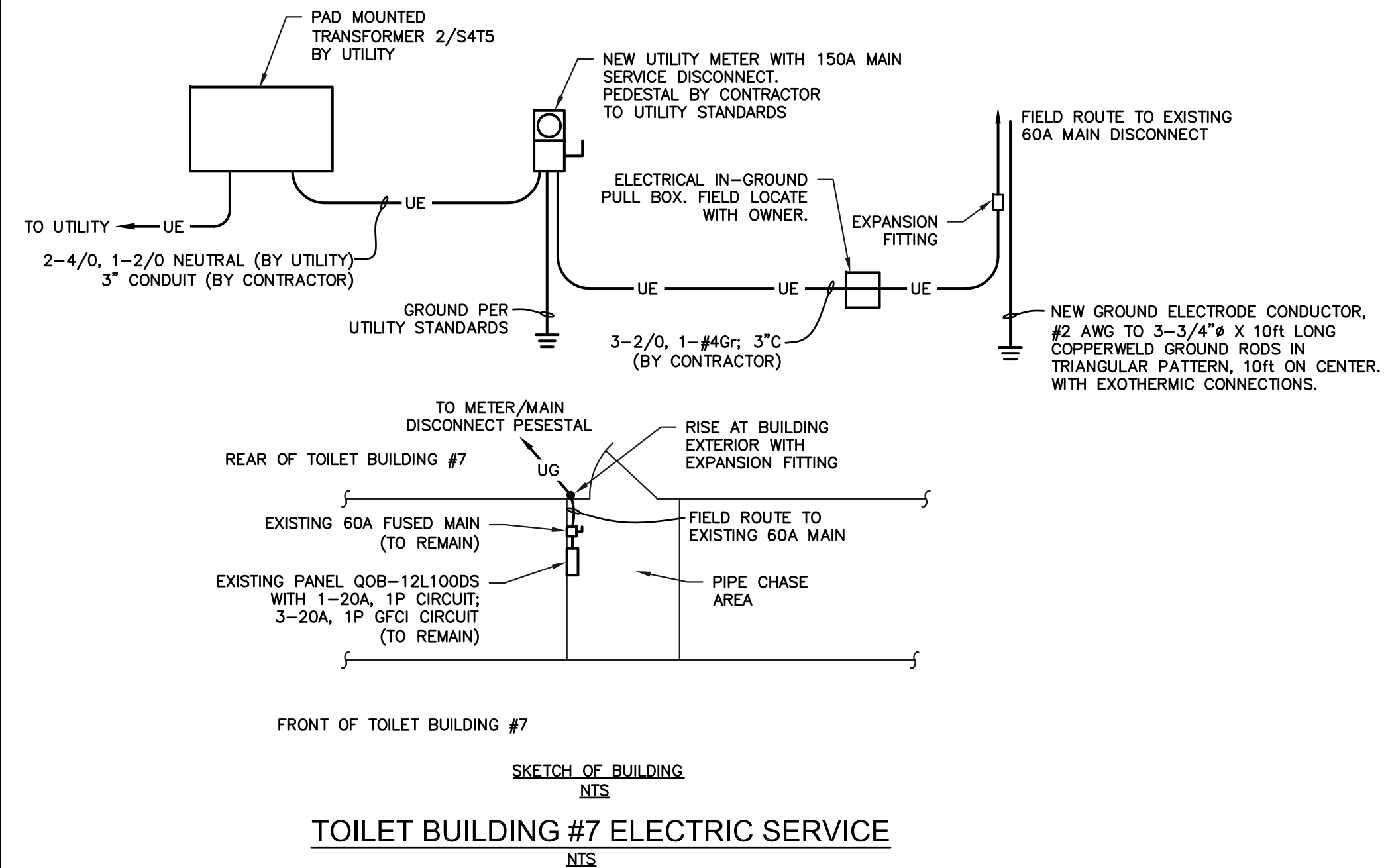
STATE OF NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION	DATE	DESCRIPTION	BY
JOHN O. MORTON BUILDING BOX 483 ROOM 250 CONCORD, NEW HAMPSHIRE 03302-0483 (603) 271-3516 FAX (603) 271-3515			
ENGINEER/ARCHITECT: Lee F. Carroll, PE	DESIGNED BY: LFC	APPROVED BY: LFC	CHECKED BY: LFC

DATE	DESCRIPTION	BY

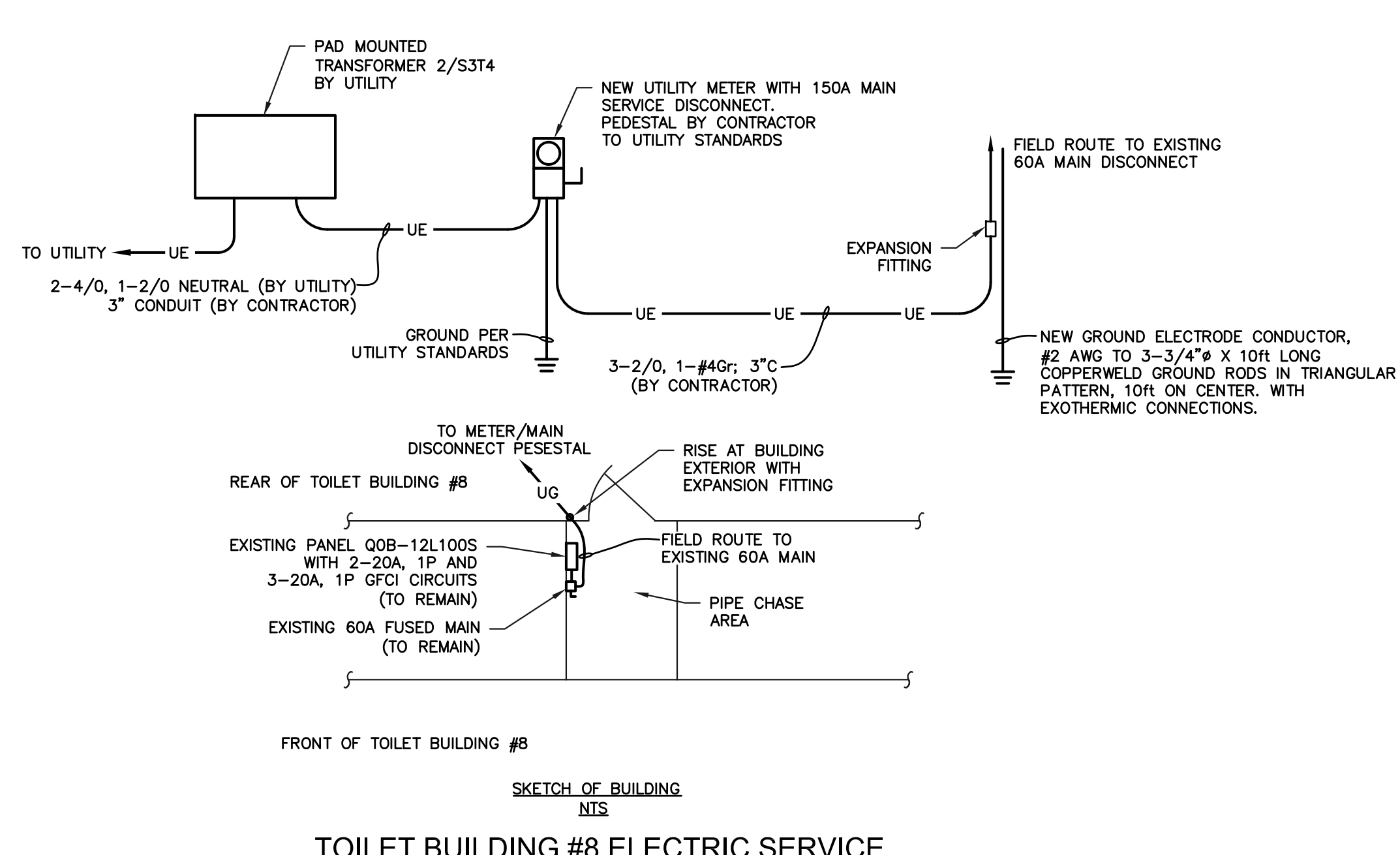
PROJECT NO. 81204R	CONTRACT C
DRAWN BY: IGT	SCALE: NTS
DATE: 11-16-2023	ED-5 SHEET

GREENFIELD STATE PARK IMPROVEMENTS
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
NHDPW

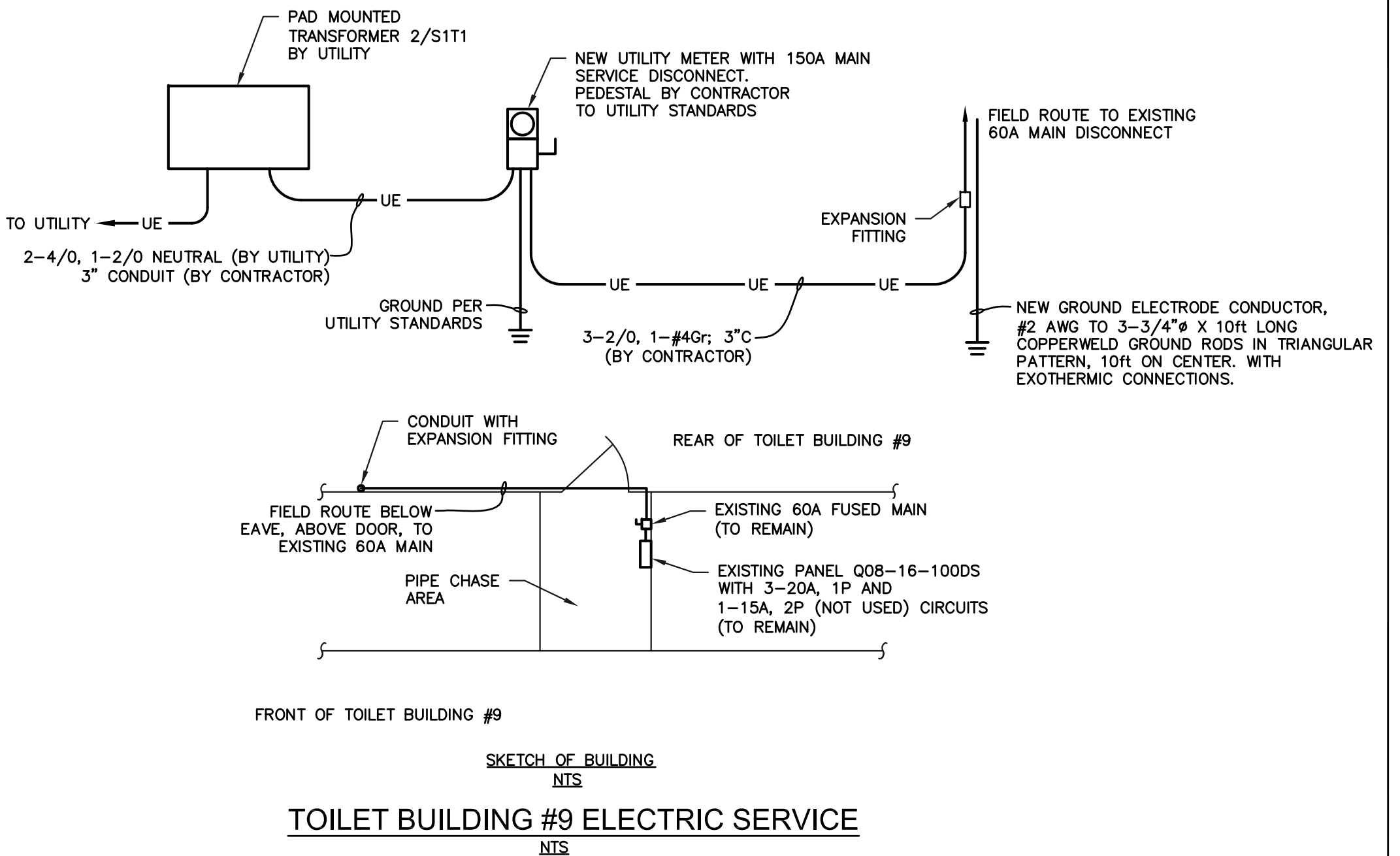
Electrical Details Sheet #5
Toilet Buildings #1-#6,
Water Booster Station



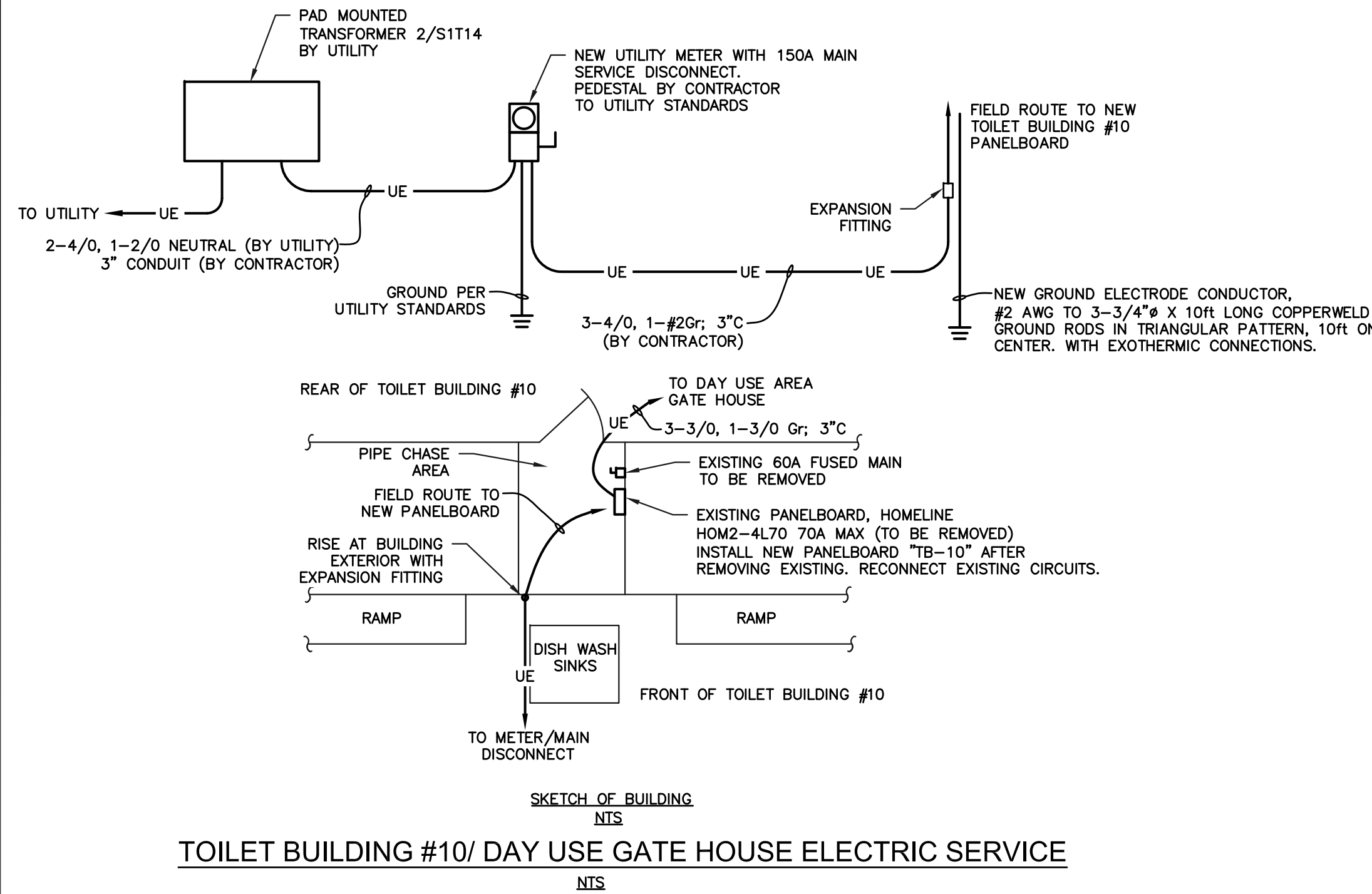
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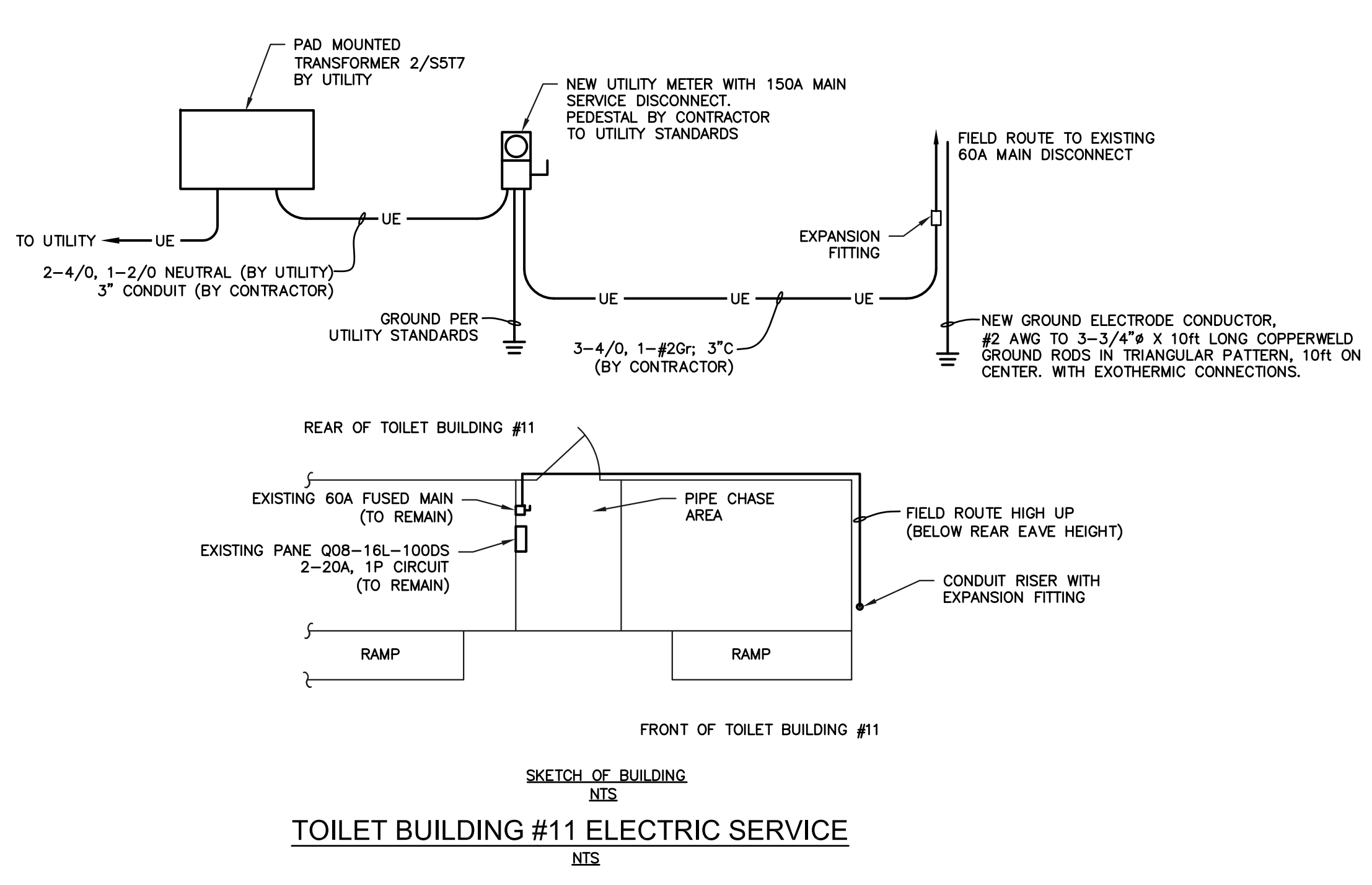
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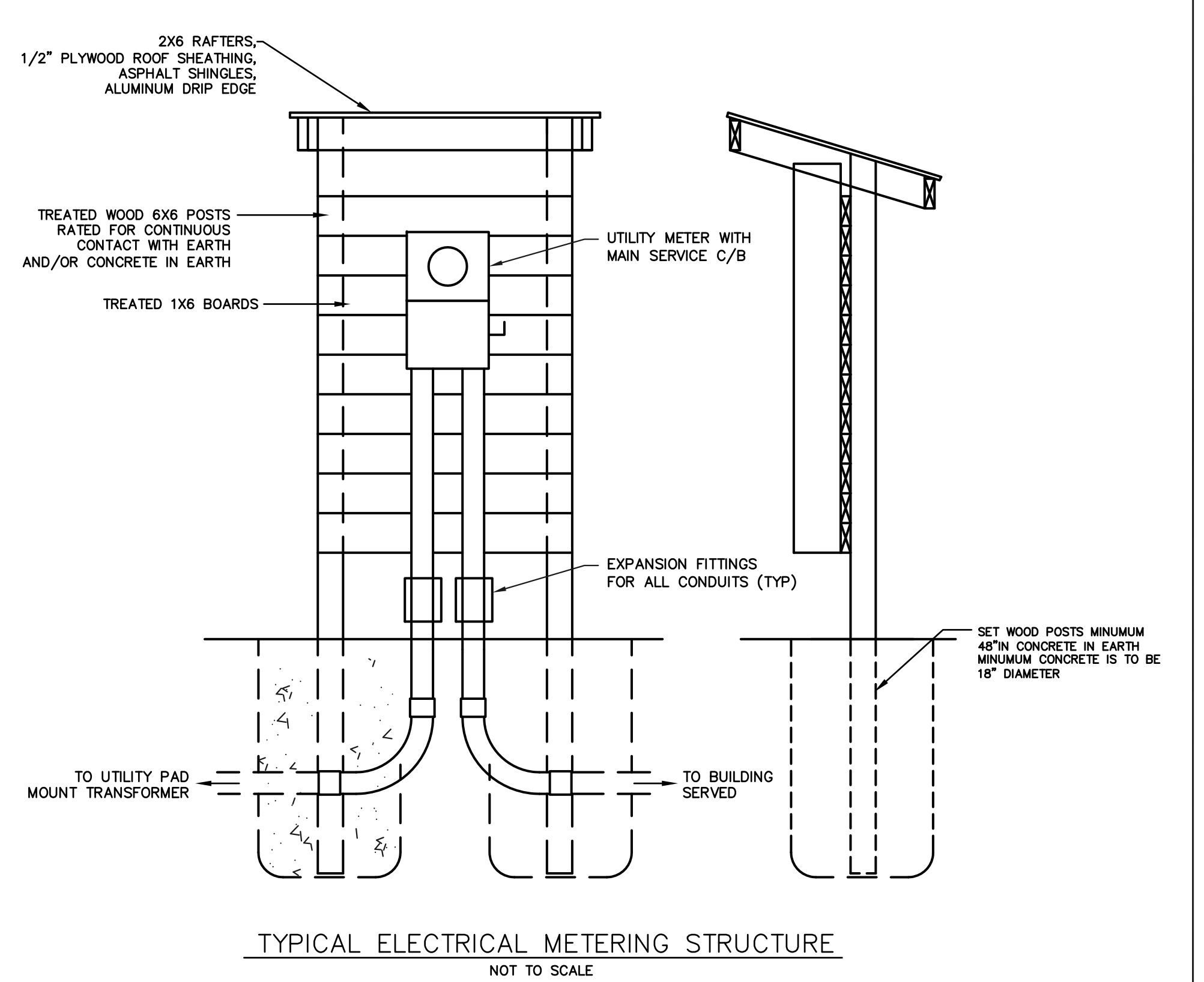
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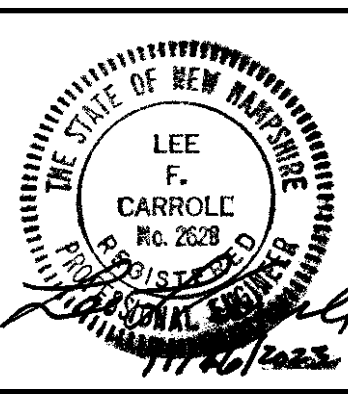
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1 REQUIRED AT EACH TOILET BUILDING TRANSFORMER LOCATION EXCEPT TB-6.
1 REQUIRED AT SHOWER BUILDING, ADMINISTRATION BUILDING, AND AT EXISTING MAIN PARK WELL HOUSE.

HEB Engineers, Inc.
Post Office Box 440
2605 White Mountain Hwy.
North Conway, NH 03860
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Office (603) 356-6936
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lcarroll@me.fr.com



STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

JOHN O. MORTON BUILDING
BOX 483 ROOM 250
CONCORD, NEW HAMPSHIRE 03302-0483
(603) 271-3516 FAX (603) 271-3515

ENGINEER/ARCHITECT: Lee F. Carroll, PE
DESIGNED BY: LFC
APPROVED BY: LFC
CHECKED BY: LFC

REVISIONS		
DATE	DESCRIPTION	BY

GREENFIELD STATE PARK IMPROVEMENTS
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
NHDPW

Electrical Details Sheet #6
Toilet Buildings #7-#11

PROJECT No. 81204R
CONTRACT C
DRAWN BY: IGT
SCALE: NTS
DATE: 11-16-2023
SHEET: ED-6

PANEL TB-6/BOOSTER PUMP DIAGRAM

Panel TB-6/Booster Pump Diagram table with columns: DIRECTORY, KVA LOAD (A, B), AWG SIZE, CKT #, POLES, BRKR, BRKR, POLES, CKT #, AWG SIZE, KVA LOAD (A, B), DIRECTORY. Includes notes on voltage (240/120V), main breaker (200A), and location (Surface).

PANEL TB-10 DIAGRAM

Panel TB-10 Diagram table with columns: DIRECTORY, KVA LOAD (A, B), AWG SIZE, CKT #, POLES, BRKR, BRKR, POLES, CKT #, AWG SIZE, KVA LOAD (A, B), DIRECTORY. Includes notes on voltage (240/120V), main breaker (200A), and location (Toilet Building #10).

PANEL MR DIAGRAM

Panel MR Diagram table with columns: DIRECTORY, KVA LOAD (A, B), AWG SIZE, CKT #, POLES, BRKR, BRKR, POLES, CKT #, AWG SIZE, KVA LOAD (A, B), DIRECTORY. Includes notes on voltage (240/120V), main breaker (200A), and location (Manager's Residence).

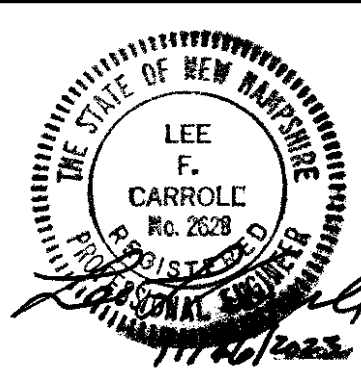
PANEL MF DIAGRAM

Panel MF Diagram table with columns: DIRECTORY, KVA LOAD (A, B), AWG SIZE, CKT #, POLES, BRKR, BRKR, POLES, CKT #, AWG SIZE, KVA LOAD (A, B), DIRECTORY. Includes notes on voltage (240/120V), main breaker (200A), and location (Maintenance Facility).



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ENGINEER/ARCHITECT: Lee F. Carroll, PE
DESIGNED BY: LFC
APPROVED BY: LFC
CHECKED BY: LFC

REVISIONS table with columns: DATE, DESCRIPTION, BY.

GREENFIELD STATE PARK IMPROVEMENTS
973 FOREST ROAD
GREENFIELD, NEW HAMPSHIRE
NHDPW

Electrical Panel Schedules
PROJECT No: 81204R
CONTRACT: C
DRAWN BY: IGT
SCALE: NTS
DATE: 11-16-2023
SHEET: ED-7