



**2022 ROADWAY IMPROVEMENT PROJECT  
Northwestern Dr, Bannister Rd  
SALEM, NH**

**ADDENDUM No. 1**

**January 14, 2022**

This Addendum forms part of the Bidding and Contract Documents and modifies the Drawings and Contract and Specifications for the 2022 Neighborhood Roadway Improvement Project. The items set forth herein, whether of omission, addition, substitution or clarification, are all to be included in and shall form part of the proposed work and Bids submitted to the Town of Salem, New Hampshire. Inclusion of this Addendum shall be acknowledged by inserting its number in the space provided in the Bid Proposal form (Section 00301A). Failure to acknowledge any and all addenda in the above specified Bid Proposal form may be cause for rejection of the bid by the Owner on the grounds that it is not responsive.

**ADDEDNDUM No. 1**

Bidders are advised the following clarifications and changes are hereby incorporated into the CONTRACT DOCUMENTS AND SPECIFICATIONS:

1. **Insert** the attached Section 00301A (Bid) in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version of Section 00301A.

**The revised document provides for inclusion of missing items inadvertently omitted. The revision further makes adjustments in quantity for several items.**

2. **Insert** the attached Quantity Breakdown by Street in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version located in Appendix B.

**The revised document provides for inclusion of missing items inadvertently omitted. The revision further makes adjustments in quantity for several items.**

3. See attached Pre-Bid meeting agenda from January 11, 2022 prebid meeting.

**The attached agenda considers two separate projects. The PreBid meeting for the projects was held simultaneously given similarity of work type.**



4. **Insert** the attached Supplemental Conditions (Section 00800) in the CONTRACT DOCUMENTS AND SPECIFICATIONS and **Discard** the original version of the noted Supplemental Conditions.

**The revised documents correct minor language conflicts and paragraph references.**

5. **Insert** the attached Supplemental Condition 607 - Fences in the CONTRACT DOCUMENTS AND SPECIFICATIONS.

**The attached document was inadvertently omitted from the Contract Documents.**

**Pre-Bid Questions/Answers:**

1. Is there a Engineers Estimate for the projects?

**Answer: Yes.**

**2022 Neighborhood Road Reconstruction Project – \$2.2M – \$2.35M (Includes Alternates)  
2022 Road Improvement – Northwestern Dr & Bannister Rd - \$1.45M - \$1.55M**

2. Are the projects subject to Davis Bacon Wage Rates?

**Answer: No.**

3. Please clarify the use of ¾” stone on the drainpipe trenches with an item designation of 304.4.

**Answer: Pipe will be bedded in 3/4” stone. Notation of Item 304.4 (crushed stone fine) is not correct and can be disregarded.**

4. Is there Asphalt Cement Adjustment for the project?

**Answer: Yes. Refer to the Special Provision 1010.2 for Asphalt Cement Adjustment consideration.**

5. Does the contractor own testing of Compaction, Soils and Asphalt?

- **Compaction and Soils - Yes**
- **Asphalt - No – unless deficiencies are discovered then all retesting would be on Contractor**

6. Headwalls appear to be incidental to the armor placement?

**Answer: Incorrect, there are separate pay items for each. They just happened to be**

**on the same detail. Headwall quantities have also been updated – there are none for the project.**

7. 609.813 Curb - Bid quantity 9700 LF - Please verify if curb is used on both streets. It appears that typical cross section, and plan do not agree.

**Answer: Northwestern will be curbed on both sides for the entire length. There is a portion of Bannister that is curbed. Typical section and plan for Northwestern do line up properly. Plan view on Bannister is correct. Project intent on Bannister is meant to apply the bit curb detail to the typical section. I will address in the addendum. Plan/detail revision not provided.**

8. Several items on the bid list indicate a zero quantity.

**Answer: All quantities have been corrected and new bid sheets are being issued.**

9. Bid Item 646.51 is double what is required based on the roadway detail, and defined L.O.W “no disturbance beyond 5FT

**Answer: The contract carries surplus quantity. The items is paid on measured square yard. It is frequently necessary to extend (or reduce) typical limits based on field conditions.**

10. It was mentioned at the pre-bid conference call that start date may not happen until May. If it starts later than April 15 would the town be willing to adjust the substantial completion time

**Answer: Likely yes, but not guaranteed. Contract times are based on a May 1 start. It is intended that work would occur simultaneously on both projects. The Town would negotiate a Contract time change after award with significant justification of cause.**

11. Would the Town consider using their yearly contract paving pricing, and accepting a deduct alt in this bid proposal for “All-Paving Operation” only.

**Answer: No. All work for the project is awarded to a single contractor to avoid conflicts in the event of product deficiencies.**

12. Is a Stormwater Pollution Prevention Plan needed for these projects?

**Answer: No.**

13. The Bid Schedule and Quantity breakdown by street schedule seem to be missing Items 202.41 (remove existing water), 646.512 & 912.

**Answer: Pipe removal in updated schedule. 646.512 is actually 646.51. The item is in the schedule. There is not an item 912 on this project.**

14. The Bid Schedule and Quantity breakdown by street schedule list Item 403.12 HBP Hand method as payment per ton while Supplemental Specifications 403, Method of Measurement 4.2 & 5.4 + 403.992 state payment per square yard. Please clarify.

**Answer: Cited verse and items references temp paving. We don't have any quantity for that item. The supplemental specs follow suit with the NHDOT format in that they are global for any project and not necessarily project specific.**

15. The Plans Set does not have a detail for Item 608.2401 6" concrete sidewalk & 608.54 detectable warning devices.

**Answer: Applicable details are part of this addendum.**

16. The Plans state 8" reclaim while the Bid Schedule and Quantity breakdown by street schedule state 10" reclaim at 16,940 sy. Please clarify.

**The bid schedule and Typical Sections are correct. The project will reclaim 10" deep on Northwestern Drive. Depth indicated on the profile is incorrect. No plan revision is provided. Bannister Road will be reclaimed to a depth of 8" as shown.**

17. What type of material is the existing 8" water main (AC, CI, DI etc.) to be removed and or tied into on Banister Road?

**Answer: Pipe removal identified on Bannister Road is 6" CI. Pipe tied into at Roberts and Elsmere intersections is 4" and 6" AC. There is no disposal item for incidental lengths of AC.**

**\*\*END OF ADDENDUM NO. 1\*\***

## SECTION 00301A

### BID

To the Town of Salem, New Hampshire, herein called the Owner, acting by and through its Engineering Division, for the 2022 Roadway Improvement Project – Northwestern Dr, Bannister Rd.

The Undersigned, as bidder, herein referred to as singular and masculine, declares as follows:

- (1) The only parties interested in this BID as Principals are named herein;
- (2) This BID is made without collusion with any other person, firm, or corporation;
- (3) No officer, agent, or employee of the Owner is directly or indirectly interested in this BID;
- (4) He has carefully examined the site and adjacent areas of the proposed Work and fully informed and satisfied himself as to the conditions and restraints existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution given said conditions and restraints, and the accuracy of all estimated quantities stated in this BID, and he has carefully read and examined the Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- (5) He understands that information relative to subsurface and other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) actually encountered will be the same as those shown in the Contract Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Contract Documents or otherwise or obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface and/or other conditions, natural phenomena, existing pipes, foundations, and other structures (surface and/or subsurface) actually encountered during the

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construction work, and he has made due allowance therefore in this BID;

- (6) He understands that protection of public or private property is the Contractor's responsibility and any damage, whether in or out of the work limit, to any public or private property, facility, structure or utility resulting from any action of his in the prosecution of work shall be his sole burden to correct to the fullest satisfaction of the owner of such public or private property, facility, structure or utility. He understands that no additional compensation of any kind is warranted or will be granted for any damage to any public or private property, facility, structure or utility damaged as a result of his prosecution of any work;
- (7) he understands that the quantities of work tabulated in this BID or indicated in the Contract Documents are only approximate and are subject to increase or decrease as deemed necessary by the Engineer;
- (8) he agrees that, if this BID is accepted he will contract with the Owner, as provided in the copy of the Contract Documents deposited in the office of the Engineer, this BID form being part of said Contract Documents, and that he will perform all the work and furnish all the materials and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other things required by the Contract Documents in the manner and within the time therein prescribed and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the lump sum or unit price applicable to each item of the Work as stated in the schedule below.

Note: Bidders must submit a completed Statement of Bidders Qualifications with the Bid. Failure to submit a completed Statement of Bidders Qualifications may be deemed by the Owner as a non-responsive Bid. Refer to Section 00420.

Note: Bidders must bid on each item. All entries in the entire BID must be made clearly and in ink. In case of discrepancy between prices in writing and in figures, the writing shall govern. In case of discrepancy between the product obtained by multiplying the estimated quantity by the unit price, and the extended amount, the product obtained shall govern. In case of discrepancy between total of extended amounts and total amount of bid stated, total of extended amounts shall govern. Use the pages in this document when submitting proposal and submit contract documents intact.

This BID includes Addenda number(s) \_\_\_\_\_ (To be filled in by Bidder if Addenda are issued.)

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**Bid Schedule**  
**2022 Roadway Improvement Project**  
**Northwestern Drive & Bannister Road**  
**Salem, New Hampshire**

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL
				Words		(Figures)
<b>BASE BID -SCHEDULE A - ROADWAY CONSTRUCTION</b>						
201.02	Grubbing (F)	1,600	SY			
203.1	Common Excavation - As Directed	850	CY			
203.61	Embankment In Place - As Directed	500	CY			
206.19	Exploratory Excavation (test pits)	50	CY			
206.2	Rock Structure Excavation	50	CY			
214	Fine Grading	1	UNIT			
304.401	Crushed Stone Fine - As Directed	450	CY			
306.108	Reclaim Stab Base, In-Place (8" Deep)	6,764	SY			
306.11	Reclaim Stab Base, In-Place (10" Deep)	16,940	SY			
306.36	2" Stone for Reclaimed Stabiized Base (3" Depth)	2,200	TONS			

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE		EXTENDED TOTAL
				Words	Figures	(Figures)
403.11	Hot Bituminous Pavement - Machine Method	7,493	TONS			
403.12	HBP Hand Method	500	TONS			
417	Cold Planing (at intersections)	600	SY			
585.3	Class C Stone Fill	170	CY			
603.83212	12" HDPE smooth interior, Double wall (Type S)	350	LF			
604.0007	Polyethylene Liner	49	EA			
604.12	Catch Basin	5	EA			
604.49	Reconstructing/Remodel Catch Basins	35	EA			
604.45	Adjust Catch Basin Grates & Frames	22	EA			
604.5	Adjust Manhole (Drain or Sewer)	10	EA			
604.6	New Frame & Cover (Drain or Sewer)	12	EA			
604.72	New Frame & Grate, Type B or Type F	20	EA			
608.2401	6" Reinforced Concrete Sidewalk	15	SY			



ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE		EXTENDED TOTAL
				Words	Figures	(Figures)
608.54	Detectable Warning Devices	4	SY			
609.813	Bituminous Curb	9,700	LF			
611.811	Hydrant Extension 12" - 18"	5	EA			
611.90001	Adjust valve boxes	25	EA			
611.90002	New Water Gate Boxes	15	EA			
615.032	Traffic Sign, Type C or Type CC w/Break away post	60	SF			
618	Uniformed Police for Traffic Control	ALLOWANCE		FIFTY THOUSAND DOLLARS AND NO CENTS	\$50,000.00	\$50,000.00
619.1	Maintenance of Traffic	1	LS			
628.2	Sawed Bituminous Pavement	2,500	LF			
632.0104	Retroreflective Paint Pavement Marking, 4" Line	17,000	LF			
632.3108	Retroreflective Thermoplastic Pavment, 8" Line	100	0			
632.3118	Retroreflective Thermoplastic Pavment (18" Stop)	230	LF			
645.441	Sediment Filter Logs (Compost Sock)	350	LF			
645.531	Silt Fence	400	LF			

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE		EXTENDED TOTAL
				Words	Figures	(Figures)
645.533	Inlet Filter Baskets	49	EA			
646.51	Turf Establishment w/ Mulch, Tackifiers, & Loam	12,700	SY			
670.0661	Remove and Reset Single or Double Mailbox Assembly	22	EA			
692	Mobilization	1	LS			
1010.2	Asphalt Cement Adjustment	ALLOWANCE		TEN THOUSAND DOLLARS AND NO CENTS	\$10,000.00	\$10,000.00
<b>TOTAL AMOUNT (BASE BID SECTION 1)</b>						

Key to Units: LF = Linear Feet; VF = Vertical Feet; SY = Square Yards; CY = Cubic Yards; LS = Lump Sum; EA = Each

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE		EXTENDED TOTAL
				Words	Figures	(Figures)
<b>BANNISTER ROAD WATER MAIN IMPROVEMENTS</b>						
<b>BASE BID - SCHEDULE B</b>						
202.41	Removal of Existing Pipe (0-24")	350	LF			
207.19	Exploratory Excavation (test pits)	76	CY			
206.2	Rock Structure Excavation	100	CY			
304.401	Crushed Stone Fine - As Directed	150	CY			
610.05204	4" Cement Lined Ductile Iron Pipe, CL 51	40	LF			
611.05206	6" Cement Lined Ductile Iron Pipe, CL 52	100	LF			
611.05208	8" Cement Lined Ductile Iron Pipe, CL 52	1,300	LF			
611.05212	12" Cement Lined Ductile Iron Pipe, CL 52	10	LF			
611.50007	1" Copper Water Service pipe	300	LF			
611.51007	1" Corporation Stop	10	EA			
611.52007	1" Curb Stop w/Box	10	EA			
611.70004	4" Fitting	6	EA			

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	Figures	EXTENDED TOTAL
				Words		(Figures)
611.70006	6" Fitting	15	EA			
611.70008	8" Fitting	17	EA			
611.70012	12" Fitting	2	EA			
611.71006	6" Gate Valve w/gate box	2	EA			
611.71008	8" Gate Valve w/gate box	11	EA			
611.71012	12" Gate Valve w/gate box	1	EA			
611.81	Install Hydrant - Provided by Owner	2	EA			
618	Uniformed Police for Traffic Control	ALLOWANCE		TWENTY THOUSAND DOLLARS AND NO CENTS	\$20,000.00	\$20,000.00
<b>TOTAL AMOUNT (BASE BID SECTION 2)</b>						

Key to Units: LF = Linear Feet; VF = Vertical Feet; SY = Square Yards; CY = Cubic Yards; LS = Lump Sum; EA = Each

**Total Amount of Base Bid – Schedule A (Northwestern Dr & Bannister Rd)**

\$ \_\_\_\_\_  
(Amount in Figures)

\_\_\_\_\_  
(Amount in Words)

**Total Amount of Base Bid – Schedule B (Bannister Rd water work)**

\$ \_\_\_\_\_  
(Amount in Figures)

\_\_\_\_\_  
(Amount in Words)

**Total Amount Bid:**

\$ \_\_\_\_\_  
(Amount in Figures)

\_\_\_\_\_  
(Amount in Words)

The undersigned agrees that extra work, if any, performed in accordance with the Article 10 of the General Conditions of the Contract will be paid for in accordance with Article 11 of the General Conditions of the Contract.

If this BID is accepted by the Owner, the undersigned agrees to complete the entire work provided to be done under the Contract within the time stipulated in the AGREEMENT.

As provided in the INSTRUCTIONS TO BIDDERS, the bidder hereby agrees that he will not withdraw this BID for a period of 90 calendar days after the actual date of the opening of the Bid and that, if the Owner shall accept this BID, the bidder will duly execute and acknowledge the AGREEMENT and insurance and furnish, duly executed and acknowledged, the required CONTRACT BONDS within ten (10) days after notification that the AGREEMENT and other Contract Documents are ready for signature.

Should the bidder fail to fulfill any of his agreements as hereinabove set forth, the Owner shall have the right to retain as liquidated damages the amount of the bid security which shall become the Owner's property. If a bid bond was given, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety.

The bidder, by submittal of this BID, agrees with the Owner that the amount of the bid security deposited with this BID fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the bidder to fulfill his agreements as above provided.

The undersigned further certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The attached CERTIFICATE OF NON-COLLUSION must be signed and submitted as part of the Bid Proposal.

(SEAL) \_\_\_\_\_  
(Name of Bidder)

By \_\_\_\_\_  
(Signature and title of authorized representative)

\_\_\_\_\_  
(Telephone)

\_\_\_\_\_  
(Business address)

\_\_\_\_\_  
(Fax Number)

\_\_\_\_\_  
(City and State)

Date \_\_\_\_\_

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The bidder is a corporation incorporated in the State (or Commonwealth) of \_\_\_\_\_ - a partnership - an individual. (Bidder must add and delete as necessary to make this sentence read correctly.)

Note: If the bidder is a corporation, affix corporate seal and give below the names of its president, treasurer, and general manager if any; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

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CERTIFICATE OF NON-COLLUSION

By submission of this Proposal, the bidder and each person signing on behalf of the bidder, certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief:

1. The prices in this Bid Proposal have been arrived at independently without collusion, consultation, communication, or agreement with any other bidder or with any competitor for the purpose of restricting competition.
2. Unless required by law, the prices that have been quoted in this Bid Proposal have not been knowingly disclosed and will not knowingly be disclosed by the bidder, directly or indirectly, to any other bidder or competitor prior to opening of Proposals.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a proposal for the purpose of restricting competition.
4. The signers of the Proposal hereby tender to the Owner this sworn statement that the named Contractor(s) has not, whether directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action to restrain free competitive bidding in connection with this Proposal.

A Bid Proposal will not be considered for award nor will any award be made where there has not been compliance with the statements in the certification above.

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(Name of person signing bid or proposal)

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(Name of business)

END OF SECTION 00301A

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**Quantity Breakdown by Street**

Note: Quantities herein are provided solely to give the bidder an indication of how work is divided by road. The quantities and locations, however, are not necessarily intended to represent the final amounts to be utilized on each road.

SCHEDULE A - BASE BID ROAD RECONSTRUCTION				Northwester Drive	Bannister Road
ITEM	DESCRIPTION	EST. QTY. total	UNIT		
201.02	Grubbing (F)	1,600	SY	1500	100
203.1	Common Excavation - As Directed	850	CY	500	350
203.61	Embankment In Place - As Directed	500	CY	250	250
206.19	Exploratory Excavation (test pits)	50	CY		50
206.2	Rock Structure Excavation	50	CY		50
214	Fine Grading	1	UNIT	0.67	0.33
304.401	Crushed Stone Fine - As Directed	450	CY	200	250
306.108	Reclaim Stab Base, In-Place (8" Deep)	6,764	SY		6,764
306.110	Reclaim Stab Base, In-Place (10" Deep)	16,940	SY	16940	
306.360	2" Stone for Reclaimed Stabiized Base (3" Depth)	2,200	TONS	2200	
403.11	Hot Bituminous Pavement - Machine Method	7,493	TONS	5,817	1,676
403.12	HBP Hand Method	500	TONS	400	100
417	Cold Planing (at intersections)	600	SY	300	300
585.3	Class C Stone Fill	170	CY	150	20
603.83212	12" HDPE smooth interior, Double wall (Type S)	350	LF		350
604.0007	Polyethylene Liner	49	EA	33	16
604.12	Catch Basin	5	EA		5
604.49	Reconstructing/Remodel Catch Basins	35	EA	30	5
604.45	Adjust Catch Basin Grates & Frames	22	EA	18	4
604.5	Adjust Manhole (Drain or Sewer)	10	EA	10	
604.6	New Frame & Cover (Drain or Sewer)	12	EA	12	
604.72	New Frame & Grate, Type B or Type F	20	EA	15	5
608.2401	6" Reinforced Concrete Sidewalk	15	SY		15
608.54	Detectable Warning Devices	4	SY		4
609.813	Bituminous Curb	9,700	LF	8600	1100
611.811	Hydrant Extension 12" - 18"	5	EA	5	
611.90001	Adjust valve boxes	25	EA	20	5
611.90002	New Water Gate Boxes	15	EA	10	5
615.032	Traffic Sign, Type C or Type CC w/Break away post	60	SF	20	40
618	Uniformed Police for Traffic Control	ALLOWANCE		\$	\$
619.1	Maintenance of Traffic	1	LS	0.5	0.5
628.2	Sawed Bituminous Pavement	2,500	LF	1500	1000
632.0104	Retroreflective Paint Pavement Marking, 4" Line	17,000	LF	17,000	
632.3108	Retroreflective Thermoplastic Pavment, 8" Line	100			100
632.3118	Retroreflective Thermoplastic Pavment (18" Stop)	230	LF	30	200
645.441	Sediment Filter Logs (Compost Sock)	350	LF	250	100
645.531	Silt Fence	400	LF	300	100
645.533	Inlet Filter Baskets	49	EA	33	16
646.51	Turf Establishment w/ Mulch, Tackifiers, & Loam	12,700	SY	10000	2700
670.0661	Remove and Reset Single or Double Mailbox Assembly	22	EA		22
692	Mobilization	1	LS	0.5	0.5
1010.2	Asphalt Cement Adjustment	ALLOWANCE		\$	\$

\* items are of indeterminant quantity

**Quantity Breakdown by Street**

Note: Quantities herein are provided solely to give the bidder an indication of how work is divided by road. The quantities and locations, however, are not necessarily intended to represent the final amounts to be utilized on each road.

<b>SCHEDULE B - BANNISTER ROAD WATER MAIN IMPROVEMENTS</b>				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>EST. QTY. total</b>	<b>UNIT</b>	
202.41	Removal of Existing Pipe (0-24")	350	LF	350
207.19	Exploratory Excavation (test pits)	76	CY	76
206.2	Rock Structure Excavation	100	CY	100
304.401	Crushed Stone Fine - As Directed	150	CY	150
610.05204	4" Cement Lined Ductile Iron Pipe, CL 51	40	LF	40
611.05206	6" Cement Lined Ductile Iron Pipe, CL 52	100	LF	100
611.05208	8" Cement Lined Ductile Iron Pipe, CL 52	1,300	LF	1300
611.05212	12" Cement Lined Ductile Iron Pipe, CL 52	10	LF	10
611.50007	1" Copper Water Service pipe	300	LF	300
611.51007	1" Corporation Stop	10	EA	10
611.52007	1" Curb Stop w/Box	10	EA	10
611.70004	4" Fitting	6	EA	6
611.70006	6" Fitting	15	EA	15
611.70008	8" Fitting	17	EA	17
611.70012	12" Fitting	2	EA	2
611.71006	6" Gate Valve w/gate box	2	EA	2
611.71008	8" Gate Valve w/gate box	11	EA	11
611.71012	12" Gate Valve w/gate box	1	EA	1
611.81	Install Hydrant - Provided by Owner	2	EA	2
618	Uniformed Police for Traffic Control	ALLOWANCE		\$

\* items are of indeterminant quantity



## MEETING AGENDA

Date: January 11, 2022

From: James Danis, Engineering Dept

Subj: 2022 Road Program Pre-Bid Meeting  
Northwestern Drive, Bannister Road  
Wilson St, Corinthian Dr, Gillis Terr, Tilton Terr, Settlers Lane

### Introductions:

Salem Engineering Dept

- James Danis - Town of Salem, Engineering Dept. - Project Lead
- Gia Facadio - Purchasing Agent

### Project Location:

- Northwestern Drive
  - Industrial park, intersects with Industrial Way and Commercial Drive
  - Access from Exit 2
- Bannister Road
  - Intersects with School St
  - Access from Exit 1 & Exit 2
- Wilson St, Corinthian Dr, Gillis Terr, Tilton Terr, Settlers Lane
  - North end of Town.
  - Corinthian, Gillis & Settlers intersect with N. Main St
  - Tilton intersects with Independence off N. Main.
  - Wilson intersects with Henry Taylor of East Broadway
  - Principal access of Exit 3
- Bid Alternates
  - Northwestern Dr/Bannister Rd – None.
    - Does include Bid Schedule B – Water main improvement
  - Neighborhood Road Project – 2 Alternates
    - Alternate 1 – King Street and King Street Connector
    - Alternate 2 – Beaver Brook Lane

### Project descriptions:

- Northwestern Drive
  - 3,400 LF, 34-feet wide, curbed road
  - Reclaim In place



- Minimal drainage – drain structure remodels – swap catch basin tops with proper CB tops. Several of the existing tops have a 30-inch DMH opening.
- Coordinate proposed grades after reclaim of roadway. The intent of the project is to have a balanced site and to minimize sideline impacts.
- 5.5" Pavement section with bit curb
- Shoulder work – associated with curb install
- Traditional Subdivision w/ 60-foot ROW
- No utility work proposed
- Bannister Road
  - 2,250 LF, 24-foot wide
  - Reclaim in-place
  - Minor drainage improvements – addition of drain 5 structures and 350-LF of pipe.
  - Coordinate proposed grades after reclaim of roadway. The intent of the project is to have a balanced site and to minimize sideline impacts.
  - Watermain Expansion – Schedule B
    - Provides 1,300-LF of 8-inch watermain between the School St and Olive Avenue.
    - Provides connections at each street intersection.
    - Water services are not anticipated, however location of service tap in relation to the new water main and connections will dictate.
    - **Existing Water Service locations:** Will be shown on the revised plan provided in the addendum.
- Neighborhood Road Reconstruction Project
  1. Wilson St
    - 990 LF, 16-foot wide road, Reclaim in-place and remove/rehandle
    - Minor drainage – 5 structures & 460 LF pipe.
      - Possible cross county pipe replacement – Easement negotiations ongoing.
    - Modified cul-de-sac construction – Earthwork & tree clearing is completed. Project will provide additional gravels and a paved surface.
    - King St & King St Connector – **Alternate 1**
      - Gravel road conversion – King Street
        - 875 LF, 16-foot wide road.
        - Minimal earthwork - Box widening, grade & Pave
        - Drain connection and new outfall.
      - New road construction – will connect King St, Palmer St & Wilson St through Town parcel.
        - 850 LF, Full-box road construction, 16-foot wide road
        - Drainage improvements – 880 LF pipe. Would connect and extend drainage from Wilson St and Palmer Street drainage down to new outfall on connector road.
  2. Gillis Terrace
    - 900 LF, 16-foot wide road, Reclaim in-place and remove/rehandle w/ minor box widening
    - Slight alignment shift.

3. Corinthian Lane
    - 3,500 LF, 24-foot wide , curbed road
    - Reclaim in-place, some stone supplement
    - 16 drainage structures and 1,600 LF drainage – retains existing drainage configuration – Many drainage structures are heavily deteriorated and need replacement.
    - CMP drain pipe is noted in the design as a means of maintaining like materials during drain structure replacement.
  4. Tilton Terrace, Settlers Lane
    - Total 1,475 LF, 24-foot wide, some curbing
    - Reclaim in-place, Balanced site,
    - no drainage.
    - Beaver Brook Lane – **Bid Alternate 2** – similar project intent.
  5. Pleasant Street Sidewalk construction/reconstruction – The project addendum will add quantities for sidewalk reconstruction/expansion along pleasant Street between Main Street and Enterprise Drive.
    - Contractors are advised that a formal design for the sidewalk project will begin after the appropriation of funds in March. Construction is anticipated to begin late summer/early fall
    - Upon completion of the design quantities shall be revised with the issuance of the plan.
- Traditional Subdivisions w/ 50-foot ROW (Corinthian, Settlers, Tilton, Beaver Brook) , 40-foot ROW (Gillis) , 20-foot ROW (Wilson, King)
  - Base line control – Survey layout and best fit combination – The Contractor will layout the road which will be reviewed by the engineer for modifications as appropriate to minimize impacts.
  - Vertical Control – Upon completion of reclamation activities – The contractor shall profile the road according to design. Engineer will review grades to minimize impacts to adjacent parcels.

#### Utilities

- Water on Northwestern and Bannister
- Sewer on Northwester
- Gas on Northwestern
- Utility Poles (Bannister, Tilton, Gillis, Wilson, King)
  - No impact
- Underground utilities (Northwestern, Corinthian, Settlers, Beaver Brook )
  - No impact
  - **Contractor is advised that as-build record information was not available during the design of the project.** Therefor underground network is not shown on the plans. The Contractor shall utilize Dig Safe, owning utility coordination and test pits as directed during the installation of drainage facilities.
- Impacts to existing utilities
  - Test pitting on underground utilities adjacent to trenching activities.

## Addendums

- Published Friday 1/14/21
- Northwestern/Bannister
  - New bid sheets – missing items, clarifications (gravel, crushed, crushed fine), temp pavement
- Neighborhood Roadways
  - New bid sheets – missing items, clarifications (gravel, crushed, crushed fine), temp pavement
  - Inclusion of Pleasant Street Sidewalk Construction/Reconstruction

## Bids:

- **BIDS DUE**
  - **Northwester Drive/Bannister Road – 1:00 PM, January 18, 2022**
  - **Neighborhood Roads – 1:30 -- PM, January 18, 2022**
- Instructions to Bidders: **read it**
- Bid
- Qualifications & Subs
- Acknowledgement of Addendum #1 (and any others that may arise)
- Bid Bond – 5% of Contract
- Statement of non-collusion

## Funding:

- Subject to Town vote in March
- Water & Sewer from different funding source

## Required Documents for Winning Bidder

- Contract Award Status (NOA, NTP, Agreement)
- Performance, Payment, & Warrantee Bonds
- Insurance Certificates
- Contract Documents (3 copies)

## Traffic Control

- Signage –Construction signage – minor in nature. No detours
- Police details – scheduling challenges
- Two way traffic during non-work hours

## Permit

- NHDES Wetland permit
  - Routine Roadway Maintenance (Northwestern)
  - Minimum expedited permit (King Street Connector, Pleasant Street Sidewalk)

## Construction Schedule

- Substantial Completion:
  - Northwestern/Bannister
    - **August 3, 2022**

- Neighborhood Roadway Project
  - **August 24, 2022**
- Final Completion:
  - Northwester/Bannister
    - **September 1, 2022**
  - Neighborhood Road Project
    - **September 21, 2022**
- Weekend/Holiday/night work - Not allowed

#### Submittals

- Shop Drawings
- Certificates of Compliance
- Cut sheets

#### Other Projects

- Tuscan Village
- Salem Depot Intersection
- Overlay Program

## SECTION 00800

### SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC, 2002 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not specifically amended or supplemented hereby remain in full force and effect.

#### **ARTICLE 1. DEFINITIONS AND TERMINOLOGY**

##### SC-1.01

Amend paragraph A by amending paragraph A.5 to add the following to the end of the paragraph:

“The Bid shall include all required documents completed and executed in accordance with Section 00100 and Section 00301A.”

Amend Paragraph A by amending paragraph A.19 to add the following to the end of the paragraph:

“who is the Consultant or Owner representative, responsible for Engineering and observation of the construction, acting directly or through duly, authorized representatives. Engineer shall be responsible for administration of the contract.”

Amend Paragraph A by amending paragraph A.42 to add the following to the end of the paragraph:

“The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.”

Amend paragraph A by amending paragraph A.45 to add the following to the end of the paragraph:

“This project shall be considered substantially complete when the following items are complete. The below list is intended to be encompassing for any Project. All items on this list may not be part of the Project.

- all bridge components are constructed to the satisfaction of the OWNER,
- drainage system is complete and functional to the satisfaction of the OWNER,
- sewer system work is complete and functional to the satisfaction of the OWNER,
- water system work is complete and functional to the satisfaction of the OWNER,
- all driveway aprons and driveways are complete to the satisfaction of the OWNER,
- all walkways are complete to the satisfaction of the OWNER,

### SUPPLEMENTARY CONDITIONS

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- all roadway side slopes are complete to the satisfaction of the OWNER,
- all stone walls, landscaping and mulch are complete to the satisfaction of the OWNER,
- vegetation is established on all disturbed areas to the satisfaction of the OWNER, and
- all paving is complete to the satisfaction of the OWNER,
- all guardrail is installed to the satisfaction of the OWNER,
- all signs and pavement markings are complete to the satisfaction of the OWNER.

All work shall be completed to the satisfaction of the OWNER and the ENGINEER.”

Amend paragraph A by amending paragraph A.49 to add the following to the end of the paragraph:

“, and structures including their foundations.”

The following terms, in addition to those outlined in the General Conditions as used in the Contract Documents, are defined as follows:

- 53. *MEASUREMENT AND PAYMENT* – Shall be as defined in subsections 109.01, 109.09, and 109.11 only of section 109 of the NHDOT - STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION dated August 2010, except as modified herein.
- 54. Working Day: Calendar day excluding Saturday, Sunday and holidays as defined in the Summary of Work (Section 01010).

## **ARTICLE 2. PRELIMINARY MATTERS**

### **SC-2.01**

Insert the following paragraphs 2.01.C and 2.01.C.1 into the General Conditions:

2.01.C Before any work, layout, or delivery of materials and equipment to the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates of insurance (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 5.

2.01.C.1 Contractor shall include and identify on the certificate of insurance, indemnification as required by Article 6.20 of the General Conditions (Section 00700).

### **SC-2.02**

Amend the first sentence of paragraph 2.02A to read as follows:

“OWNER shall furnish to the CONTRACTOR up to two (2) printed or hard copies of the Drawings and up to three (3) printed or hard copies of the Project Manual.”

## **SUPPLEMENTARY CONDITIONS**

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### SC-2.03

Delete paragraph 2.03.A of the General Conditions in its entirety and insert the following in its place to read as follows:

2.03.A The Contract Time will commence to run as specified in the Agreement. In no event will the Contract Times commence to run later than the 120<sup>th</sup> day after the date of the bid opening.

### SC-2.08

Add the following new paragraphs immediately after paragraph 2.07 of the General Conditions as follows:

#### 2.08 Progress of the Work

It is the intent of the Owner that once the Contractor has mobilized to begin construction that the project be prosecuted continuously without interruption with the work continuing until the project is complete. Stoppage of the work for any reason shall be only as approved/directed by the Owner in writing.

### **ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

### SC-3.01

Add the following new paragraphs immediately after paragraph 3.01.A of the General Conditions which are to read as follows:

3.01.A.1 Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

3.01.A.2 Sections of Division 1 - General Requirements govern the execution of the work of all sections of the Specifications.

Add the following new paragraphs immediately after paragraph 3.01.C of the General Conditions which are to read as follows:

**3.01.D Coordination of Plans, Specifications, Supplemental Specifications, and Special Provisions.** The Specifications, Supplemental Specifications, Plans, Special Provisions, other special Contract requirements and all supplemental documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete Contract. In case of discrepancy between these Contract documents, calculated dimensions, unless obviously incorrect, will govern over scaled dimensions and the parts of the Contract will prevail in the following descending order:

- Division 0 – Bidding and Contract Requirements, included herein
- Division 1 – General Requirements, included herein

### SUPPLEMENTARY CONDITIONS

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Project Plans, See Appendix A herein  
Technical Specifications, included herein  
Special Provisions, included herein  
Supplemental Specifications, included herein  
Special Attentions, included herein  
Traffic Control Plan  
Town of Salem Standard Details  
NHDOT Special Attentions  
NHDOT Standard Specifications  
NHDOT Standard Details  
NHDOT Standard Plans

The Contractor shall not take advantage of any apparent error or omission in the Contract. If an error or omission is discovered, the Engineer shall be notified in accordance with 3.03 so corrections and interpretations necessary to fulfill the intent of the Contract can be made.

When general reference is made on bridge plans to "AASHTO Specifications," it shall refer to the AASHTO publication entitled "LRFD Bridge Design Specifications." The reference shall be to the 9th edition of such specifications.

**ARTICLE 4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

SC-4.02C Add the following new paragraph immediately after paragraph 4.02.B

C. Reports and Drawings: See Appendices

SC-4.05.B

Add the following new paragraph immediately after paragraph 4.05.A of the General Conditions which is to read as follows:

4.05.B "The CONTRACTOR shall establish horizontal and vertical control points in the field. The CONTRACTOR shall employ, at his/her expense, a competent surveyor licensed in the State of New Hampshire to perform such duties. Establishment of construction layout shall be as outlined in Section 01050. All control points and layout shall be established prior to beginning construction and is subject to review by the ENGINEER. If in the opinion of the ENGINEER insufficient layout has been provided, the work shall be halted and additional layout provided. This halting of the work and providing of additional layout shall not constitute an additional cost to the OWNER, or allow for a delay claim by the CONTRACTOR. ENGINEER may also check the lines, elevations, reference marks, batter boards, etc., set by CONTRACTOR, and CONTRACTOR shall correct any errors disclosed by such check. Such a check, or lack thereof, shall not be considered as approval of CONTRACTOR's work and shall not relieve CONTRACTOR of the responsibility for accurate and satisfactory construction and completion of the entire Work. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades."

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**ARTICLE 5. BONDS AND INSURANCE**

SC-5.01.A.1

Add the following new paragraph immediately after paragraph 5.01.A of the General Conditions which is to read as follows:

“1. The CONTRACTOR shall furnish a Warranty Bond in the amount of Fifty Thousand Dollars (\$50,000.00) for the purposes of a project warranty. This Bond shall remain in effect until two (2) years after the date which final payment is made.”

SC-5.03

Delete Paragraph 5.03.B in its entirety.

SC-5.04

The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations:

5.04.A.1 and 5.04.A.2 Worker's Compensation, etc. under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:

- |                           |   |
|---------------------------|---|
| (1) Worker's Compensation | As required by the laws of the State of New Hampshire                                     |
| (2) Employer's Liability  | \$100,000 each accident<br>\$500,000 disease- policy limit<br>\$100,000 disease- employee |

5.04.A.3, 5.04.A.4, and 5.04.A.5 Contractor's Liability Insurance under paragraphs 5.04.A.3 through 5.04.A.5 of the General Conditions which shall also include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of Contractor:

- |  |                     |
|--|---------------------|
| (1) General Aggregate<br><br>(Except Products--Completed Operations) | <br><br>\$2,000,000 |
| (2) Products--Completed Operations Aggregate                         | \$2,000,000         |
| (3) Personal and Advertising Injury (Per Person/ Organization)       | \$1,000,000         |
| (4) Each Occurrence (Bodily Injury and Property Damage)              | \$1,000,000         |
| (5) Property Damage liability insurance including                    |                     |

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Collapse, and Underground coverages. If blasting is to be used, also include explosion coverage. \$1,000,000

5.04.A.6 Automobile Liability:

(1) Bodily Injury:

Each Person \$1,000,000  
Each Accident \$1,000,000

Property Damage:

Each Accident \$1,000,000

or

(2) Combined Single Limit (Bodily Injury and Property Damage):

Each Accident \$2,000,000

SC-5.04.B.4 The Contractual Liability coverage required by paragraph 5.04.B.4 in the General Conditions shall provide coverage for not less than the following amounts:

(1) General Aggregate \$2,000,000

(2) Each Occurrence (Bodily Injury and Property Damage) \$1,000,000

SC-5.04.B.1

Add the following to the first sentence after the word "OWNER":

"Hoyle, Tanner & Associates, Inc."

SC-5.04.C

Add the following paragraph immediately after Section 5.04.B

5.04C "After the Contractor has assumed control of the project site and where the conditions within the limits of work cause property damage or bodily injury the Contractor shall cooperate in a prompt and professional manner with a request by the aggrieved person/entity or the Town to file a claim with Contractor's liability insurer and may not condition such cooperation on the aggrieved party seeking coverage under other policies."

SC-5.05

Delete paragraph 5.05 of the General Conditions in its entirety and insert the following in its place:

5.05.A CONTRACTOR shall purchase and maintain a separate Owner's Protective Liability policy, issued to OWNER at the expense of CONTRACTOR, including OWNER

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and ENGINEER as named insured. This insurance shall provide coverage for not less than the following amounts:

5.05.A.1 Bodily Injury:

Each Occurrence	\$1,000,000
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5.05.A.2 Property Damage:

Each Occurrence	\$1,000,000
-----------------	-------------

Annual Aggregate	\$2,000,000
------------------	-------------

SC-5.06

Delete paragraph 5.06 of the General Conditions in its entirety.

SC-5.07.A

Amend the first, second and third lines of paragraph 5.07.A to read as follows:

“Owner and Contractor intend that all policies purchased in accordance with the Contract will protect Owner, Contractor, Subcontractors, and Engineer,.....”

SC-5.08.A

Amend the first and second lines of paragraph 5.08.A to read as follows:

“Any insured loss under the policies of insurance required by the Contract will be adjusted.....”

SC-5.09

Delete paragraph 5.09.A of the General Conditions in its entirety and insert the following in its place:

5.09.A If the Owner has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the Owner shall so notify the Contractor in writing within ten (10) days after receipt of the Certificates (or other evidence requested) required by Paragraph 2.01.B. Contractor shall provide to the Owner with the required coverage prior to start of the Work.

**ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES**

SC-6.01B

Add the following to the first sentence of paragraph B immediately following the word “who”:

“shall be acceptable to the OWNER and who”

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SC-6.02A

Add the following to the end of paragraph A:

“The CONTRACTOR shall provide a Land Surveyor, Licensed/Registered in the State of New Hampshire to perform all survey and layout required by the Contract Documents to the satisfaction of the Engineer.”

SC-6.02.C

Add the following new paragraph immediately after paragraph 6.02.B

“The contractor shall employ all necessary equipment, labor and resources to complete work as specified in the Contract. The Contractor shall further increase equipment, labor and resources as ordered and as determined necessary and appropriate by the Engineer or Owner to achieve schedule or to prepare for an impending deadline or condition or shutdown such that all directed incomplete work is completed. Failure to comply with this paragraph shall constitute a violation of the Contract. The Owner shall further reserve the right to contract with other Contractors or employ its own workforce to complete work necessary for an impending shutdown. Said work shall be back charged to the Contractor and future pay applications shall be reduced by a commensurate amount.”

SC-6.03.D

Add the following new paragraph immediately after paragraph 6.03.C

“The CONTRACTOR shall carefully protect the work of the project against damage due to inclement weather. In the event of the temporary suspension of work or whenever the ENGINEER shall direct, the CONTRACTOR will protect his work, and the work of his subcontractors against damage from the weather. If in the opinion of the ENGINEER, any work or material shall have been damaged by reason on the part of the CONTRACTOR or any of his subcontractors, the damaged materials and work shall be removed and replaced at the expense of the CONTRACTOR.”

SC-6.06.D

Add the following new subparagraph as follows:

6.06.D.1 OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment on account of the particular Subcontractor's, Suppliers, other person's, or other organization's Work.

SC-6.06.G

Replace the reference “Paragraph 5.06” with “the Contract”

SC-6.07.B

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Amend the first, second and third lines of paragraph 6.07.B to read as follows:

“To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and defend Owner and Engineer, and the officers, directors,.....”

SC-6.08.B

Add the following language after paragraph 6.08.A of the General Conditions:

6.08.B “Copies of any permits for the Project are included in the Appendices B and C. The CONTRACTOR is responsible for complying with the project specific conditions outlined in the permits. If the CONTRACTOR intends to proceed with construction means and methods that are outside the General Conditions and Specific Conditions of the permits, it is the CONTRACTOR’s responsibility to obtain new permits for these means and methods and bear all costs associated with applying for and obtaining the new permits.”

SC-6.10

Add the following language after paragraph 6.10.A of the General Conditions:

6.10.A.1 The materials and supplies to be used in the Work under this Contract are exempt from the Sales and Use Tax of the State of New Hampshire. Contractor shall obtain the proper certificates, maintain the necessary records, and otherwise comply with all applicable requirements governing the exemption from sales tax.

SC-6.11.A

Amend the first, second and third lines of paragraph 6.11.A.3 to read as follows:

“To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and defend Owner and Engineer, and the officers, directors,.....”

SC-6.11.B

Amend paragraph B by adding the following:

“All waste materials, rubbish, surplus materials obtained from any type of excavation, or other work, and not needed for further use as determined by the ENGINEER and other rubbish shall become the property of the CONTRACTOR and shall be legally disposed of by him outside of the project site.”

SC-6.13.D

Add the following to the first sentence of paragraph D immediately following the word “Work”:

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“and adjacent features or conditions as defined in Article 6.13.A”

SC-6.17.F

Add the following new paragraph immediately after paragraph 6.17.E of the General Conditions, which is to read as follows:

6.17.F The accuracy of all such information submitted by the Contractor is the responsibility of the Contractor. In reviewing Shop Drawings, Samples and similar submittals, the Engineer shall be entitled to rely upon the Contractor’s representation that such information is correct and accurate.

SC-6.19.A

Amend paragraph A by adding the following after the last sentence:

“The warranty period shall commence on the date which final payment is made and shall run for two (2) years.”

SC-6.20.A

Amend the first, second and third lines of paragraph 6.20.A to read as follows:

“To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and defend Owner and Engineer, and the officers, directors,.....”

SC-6.22

Add the following new section immediately after section 6.21

#### 6.22 – Preconstruction Video

The CONTRACTOR shall conduct a preconstruction video of the entire project. The video shall document the existing conditions along the project corridor. The video shall document the condition of all existing features which are within the limits of the contract. Copies of the video, on a DVD disk, shall be provided to the Owner and the Owners Consultant prior to the start of construction. The cost of the video and provision of copies shall be considered incidental to the contract and no additional compensation shall be provided.

### **ARTICLE 8. OWNER’S RESPONSIBILITIES**

SC-8.06

Delete paragraph 8.06 of the General Conditions in its entirety.

### **ARTICLE 9. ENGINEER’S STATUS DURING CONSTRUCTION**

SC-9.09.F

Add the following new paragraph immediately after paragraph 9.09.E

## **SUPPLEMENTARY CONDITIONS**

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“In accordance with 6.02C and if, in the opinion of the ENGINEER, the CONTRACTOR is not employing sufficient labor or equipment to complete this Contract within the time specified or in preparation of a shutdown (such as winter), said ENGINEER may, after giving written notice, require said CONTRACTOR to employ such additional labor and equipment as may be necessary to enable said work to properly progress. Failure of the CONTRACTOR to comply in the request of the ENGINEER shall be considered a violation of this CONTRACT.”

SC-9.10

Add the following new section immediately after Section 9.09:

*9.10 - Resident Project Representative*

- A. The CONTRACTOR is hereby advised that the ENGINEER will furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist ENGINEER in observing progress and quality of the Work. The RPR, assistants, and other field staff for the Project may provide full time representation, part time representation, or may provide representation to a lesser degree.
- B. Through such additional observations of CONTRACTOR'S work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against defects and deficiencies in the Work. However, ENGINEER shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over the CONTRACTOR'S Work nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected by CONTRACTOR, for safety precautions and programs incident to the CONTRACTOR'S work in progress, for any failure of CONTRACTOR to comply with Laws and Regulations applicable to CONTRACTOR'S performing and furnishing the Work, or responsibility of construction for CONTRACTOR'S failure to furnish and perform the Work in accordance with the Contract Documents to the extent that such observation would exceed normal standard of care in such activity.
- C. Resident Project Representative shall not:
  - 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
  - 2. Exceed limitations of ENGINEER's authority as set forth in the Agreement or the Contract Documents.
  - 3. Undertake any of the responsibilities of CONTRACTOR, subcontractors, suppliers, or CONTRACTOR'S superintendent.
  - 4. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of CONTRACTOR'S work unless such advice or directions are specifically required by the Contract Documents.

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5. Advise on, issue directions regarding, or assume control over safety precautions and programs in connection with the activities or operations of OWNER or CONTRACTOR.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize OWNER to occupy the Project in whole or in part.

## **ARTICLE 10. CHANGES IN THE WORK; CLAIMS**

### SC-10.01A

Add the following new paragraph immediately after paragraph 10.01A of the General Conditions, which is to read as follows:

10.01.A.1 Upon request of the Owner or the Engineer, the Contractor shall, without cost to the Owner, submit to the Engineer, in such form as the Engineer may require, an accurate written estimate of the cost of any such proposed extra Work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor and equipment, as well as the description and amounts of all other costs chargeable under the terms of this Article. Unit labor and equipment costs for the installation of each item of materials shall be shown if required by the Engineer. The Contractor shall promptly revise and resubmit such estimate if the Engineer determines that it is not in compliance with the requirements of this Article, or that it contains errors of fact or mathematical errors. If required by the Engineer, in order to establish the exact cost of new Work added or previously required Work omitted, the Contractor shall obtain and furnish to the Engineer bona fide proposals from recognized suppliers or subcontractors for furnishing any material, labor or equipment included in such Work. Such estimates shall be furnished promptly so as to occasion no delay in the Work, and shall be furnished at the Contractor's expense. The Contractor shall state in the estimate any extension of time required for the competition of the Work if the change or extra work is ordered.

### SC-10.06

Add the following new section immediately after section 10.05 of the General Conditions, which is to read as follows:

#### 10.06 CLAIMS DUE TO UTILITY COMPANIES

A. The Contractor is hereby notified that utility pole relocations, underground relocations and other work may be on-going at the time of construction. The Contractor will not be allowed any claim for damage or compensation due to the utility company's failure to relocate existing utility poles or underground utilities in a timely manner.

## **SUPPLEMENTARY CONDITIONS 00800-12**

**ARTICLE 11. COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

SC-11.01.A.5.f

Replace the reference "Paragraph 5.06D" with "the Contract"

SC-11.03.D

Delete paragraph 11.03.D in its entirety and insert the following in its place:

- D. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
1. If the total cost of a particular item of Unit Price Work amounts to 10% or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by contractor differs by more than 25% from the estimated quantity of such item in the agreement; and
  2. If there is no other corresponding adjustment with respect to any other item of work; and
  3. If CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof; or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either the OWNER or CONTRACTOR may make a claim for adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of the Unit Price Work performed.

**ARTICLE 12. CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

SC 12.01.C2.a

Amend the first sentence of by changing "15 percent" to "10 percent".

**ARTICLE 13. TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

Add the following new paragraphs immediately after paragraph 13.03.B.3 of the General Conditions, which are to read as follows:

13.03.B.4 The Contractor shall employ and pay for an independent testing laboratory acceptable to the Owner and Engineer for the purposes of performing field and laboratory material evaluation tests in accordance with the requirements of the applicable sections of the contract documents including backfill material sampling and compaction testing to verify compliance with contract documents at frequencies determined by the Owner, any retesting of defective or rejected materials and materials for replacement that may be required by the Owner.

13.03.B.5 The Contractor shall pay for any retesting of defective or rejected paving materials that may be required by the Owner in accordance with the requirements of the NHDOT Standard Specifications, dated August 2010.

Add the following paragraph immediately after paragraph 13.03.F:

13.03.G. CONTRACTOR shall pay all costs associated with any re-inspection and/or retesting of materials and equipment required by the ENGINEER as a result of failure of previous test or rejected work as determined by the ENGINEER.

13.05A

Amend paragraph A by adding the following:

"The CONTRACTOR shall not be entitled to any extension of the Contract times or an increase in the Contract Price due to stoppage of the work by the OWNER as identified herein."

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

SC 14.02.C.1

Amend the first sentence of by changing "Ten" to "Thirty (30)"

Add the following sentence at the end of paragraph 14.02.C.1

"OWNER or ENGINEER may furnish to any Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about the amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by any particular Subcontractor, Supplier, or other individual or entity.

SC 14.09A

Add the following new paragraph immediately after paragraph 14.09.A.2

3. The CONTRACTOR agrees that he will indemnify and save the OWNER harmless from all claims growing out of the lawful demands for payment for any labor or materials of subcontractors, laborers, workmen, mechanics, material, men, and furnishers of machinery and parts thereof, equipment, power tools and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature herein designated have been paid, discharged, or waived in connection with this contract. The CONTRACTOR shall not be in default of its obligations under this paragraph if the reason that the CONTRACTOR has not paid a subcontractor is that such payment is covered by an Application for Payment for which CONTRACTOR has not yet been paid by OWNER.

## **SUPPLEMENTARY CONDITIONS** 00800-14

## **ARTICLE 16. DISPUTE RESOLUTION**

### SC-16.01.A

Add the following new paragraph immediately after paragraph 16.01.A of the General Conditions to read as follows:

16.01.A.1 The CONTRACTOR shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings unless otherwise agreed in writing by OWNER and CONTRACTOR.

## **ARTICLE 17. MISCELLANEOUS**

### SC-17.06

Add the following new paragraph immediately after paragraph 17.06.A of the General Conditions, which is to read as follows

17.06.A.1 The headings or titles of any article, paragraph, subparagraph, section, subsection, or part of the Contract Documents shall not be deemed to limit or restrict the article, paragraph, section, or part.

### SC-17.07

Add the following new paragraphs immediately after paragraph 17.06 of the General Conditions as follows:

#### 17.07 Legal Address of Contractor

17.07.A CONTRACTOR'S business address and his office at or near the site of the Work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the CONTRACTOR'S business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon CONTRACTOR, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by CONTRACTOR and delivered to ENGINEER and OWNER. Service of any notice, letter, or other communication upon the CONTRACTOR personally shall likewise be deemed sufficient service.

### SC-17.08

Add the following new paragraphs immediately after paragraph 17.07 of the General Conditions as follows:

#### 17.08 Contract Documents At Site

The Contractor and all subcontractors are to keep a copy of this contract and accompanying PROJECT DRAWINGS at the site of the Work at all times while Work is being performed and said copy is to be available to those in charge of the Work. A Copy

## **SUPPLEMENTARY CONDITIONS**

00800-15

of the NHDOT - STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION dated August 2010 shall also be kept on site at all times.

SC-17.09

Add the following new paragraphs immediately after paragraph 17.08 of the General Conditions as follows:

17.09 Town of Salem Personnel

Manpower/equipment coordination with the Town of Salem Department of Public Works which involves after hours/overtime by Town staff shall be back-charged to the contractor (for example, if a water service is broken during night shift operations and Town of Salem Department of Public Works water crew needs to be brought in on overtime, that will be charged to the contractor).

Coordinated/scheduled items with Town of Salem Department of Public Works consent shall be conducted during normal Town of Salem Department of Public Works hours (7:00am to 3:30 pm) and will not be charged to the Contractor.

END OF SECTION 00800

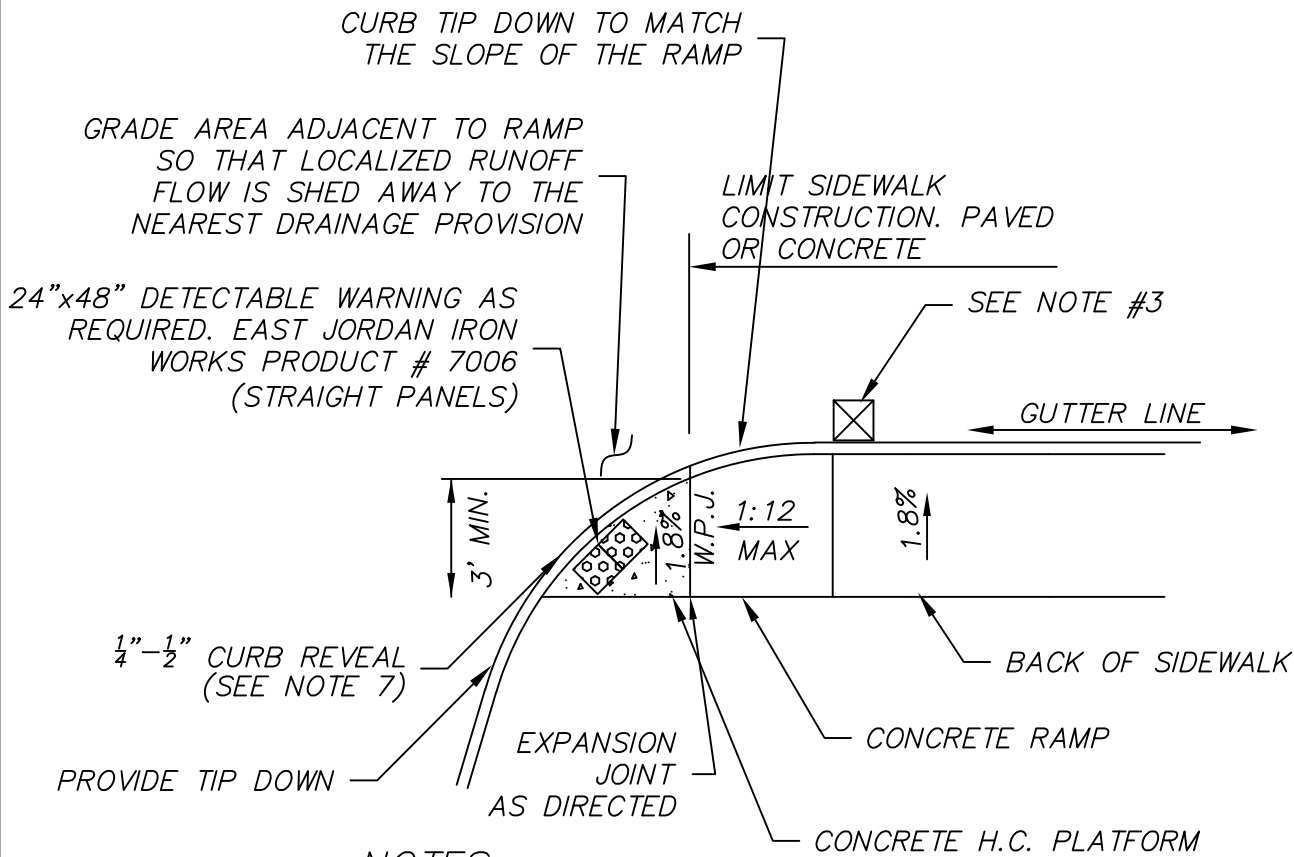
SUPPLEMENTARY CONDITIONS  
00800-16

**SUPPLEMENTAL SPECIFICATION**  
**AMENDMENT TO SECTION 607 – FENCES**

**Replace** section 5.2 with the following

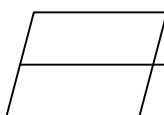
- 5.2** Payment will be made for removing and resetting existing fence required under this contract on a linear foot basis. The Linear Foot Price for removing and resetting existing fence includes all labor, materials and equipment necessary for or incidental to the completion of the work to the satisfaction of the Engineer. Any materials damaged by the Contractor shall be replaced at no expense to the Owner.





NOTES:

1. REFERENCE NHDOT MATERIAL SPECIFICATIONS. ALL MATERIALS SHALL CONFORM TO APPLICABLE NHDOT MATERIAL SPECIFICATIONS.
2. REFERENCE CONCRETE SIDEWALK WITH GRANITE CURB DETAIL.
3. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP.
4. CURB RAMPS SHALL COMPLY WITH SECTION 4.7 OF THE AMERICANS WITH DISABILITIES ACT.
5. DESIGN CROSS SLOPE SHALL BE 1.8%. SIDEWALK CROSS SLOPE NOT TO EXCEED 2% IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT
6. CONCRETE SHALL BE 4,000 PSI, AIR ENTRAINED, BROOM FINISHED (SO AS TO BE SLIP RESISTANT) WITH TOOLED EDGES. SURFACE TREATMENT IS INCIDENTAL TO THE SIDEWALK ITEM.
7. SIDEWALK ENTRANCE SHALL HAVE A 1/4"-1/2" CURB REVEAL WITH 2:1 BEVEL IN ACCORDANCE WITH ADA DESIGN GUIDELINES.



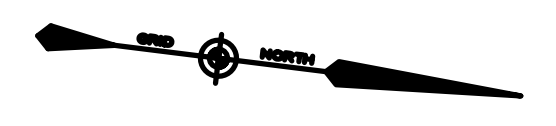
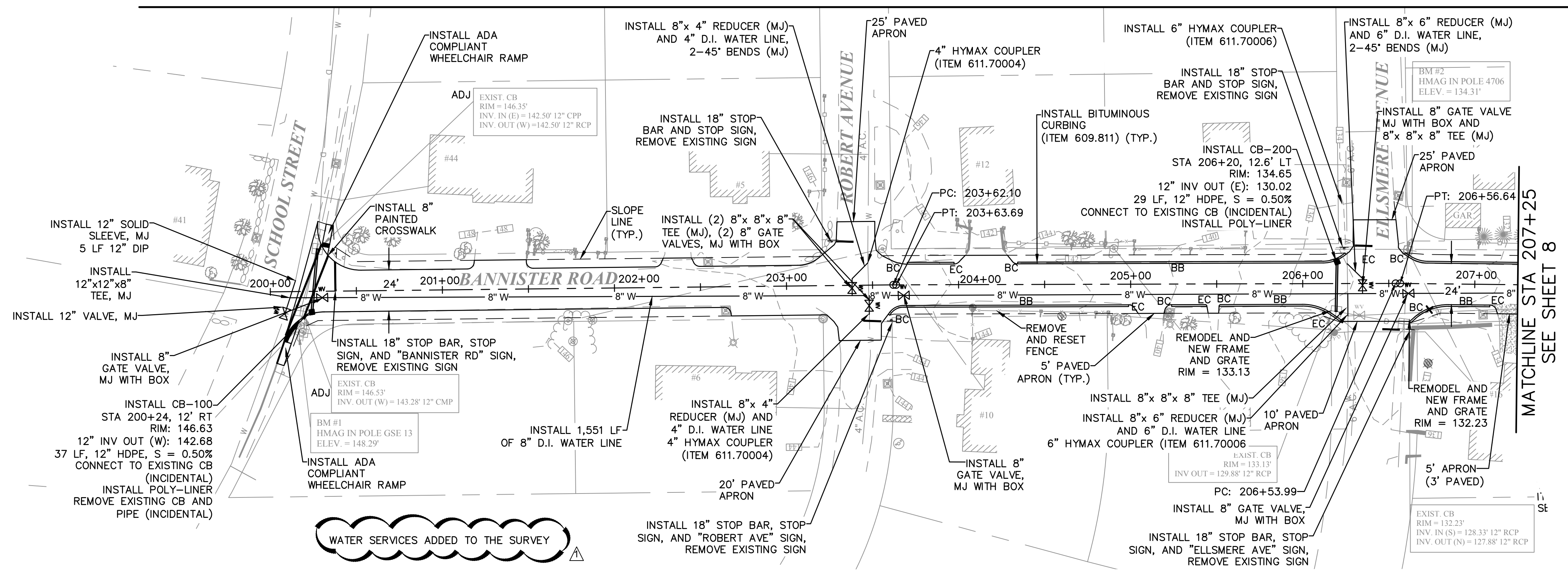
End Pedestrian Ramp at Corner

NO SCALE

DATE: 9/16	JOB NO. —
DWG. <b>D1</b>	SCALE: N.T.S.

TOWN OF SALEM  
ENGINEERING DEPARTMENT  
33 GEREMONTY DRIVE  
SALEM, NH 03079

SIDEWALK DETAILS



**BANNISTER ROAD  
GENERAL CONSTRUCTION NOTES**

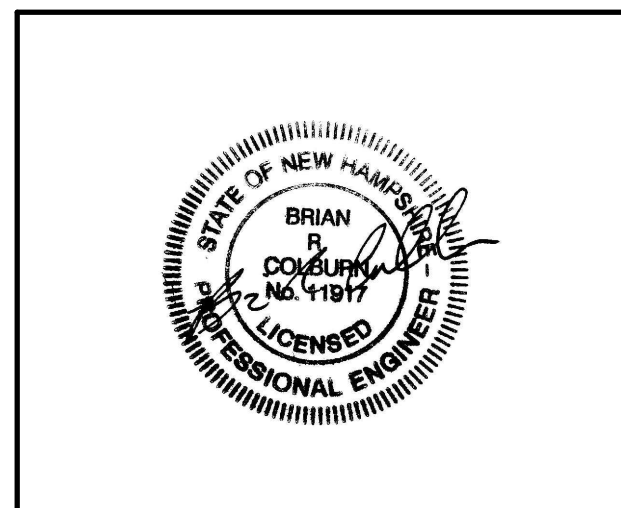
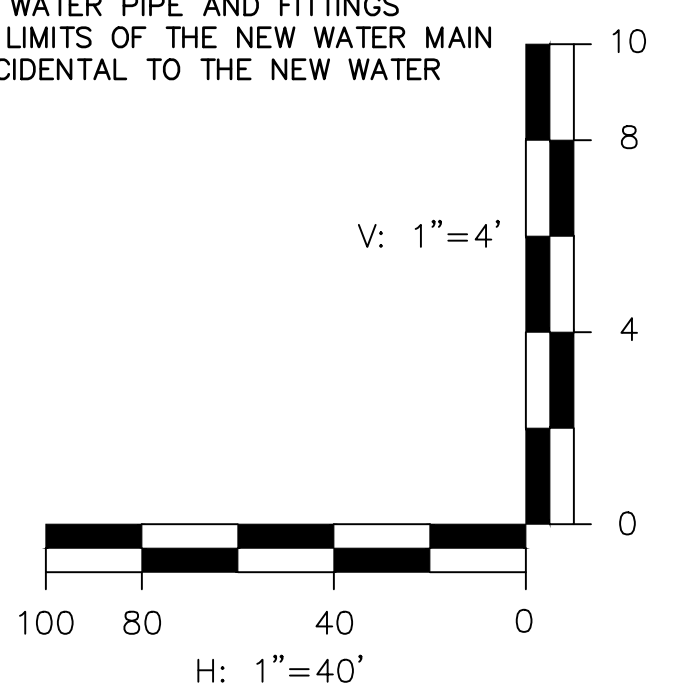
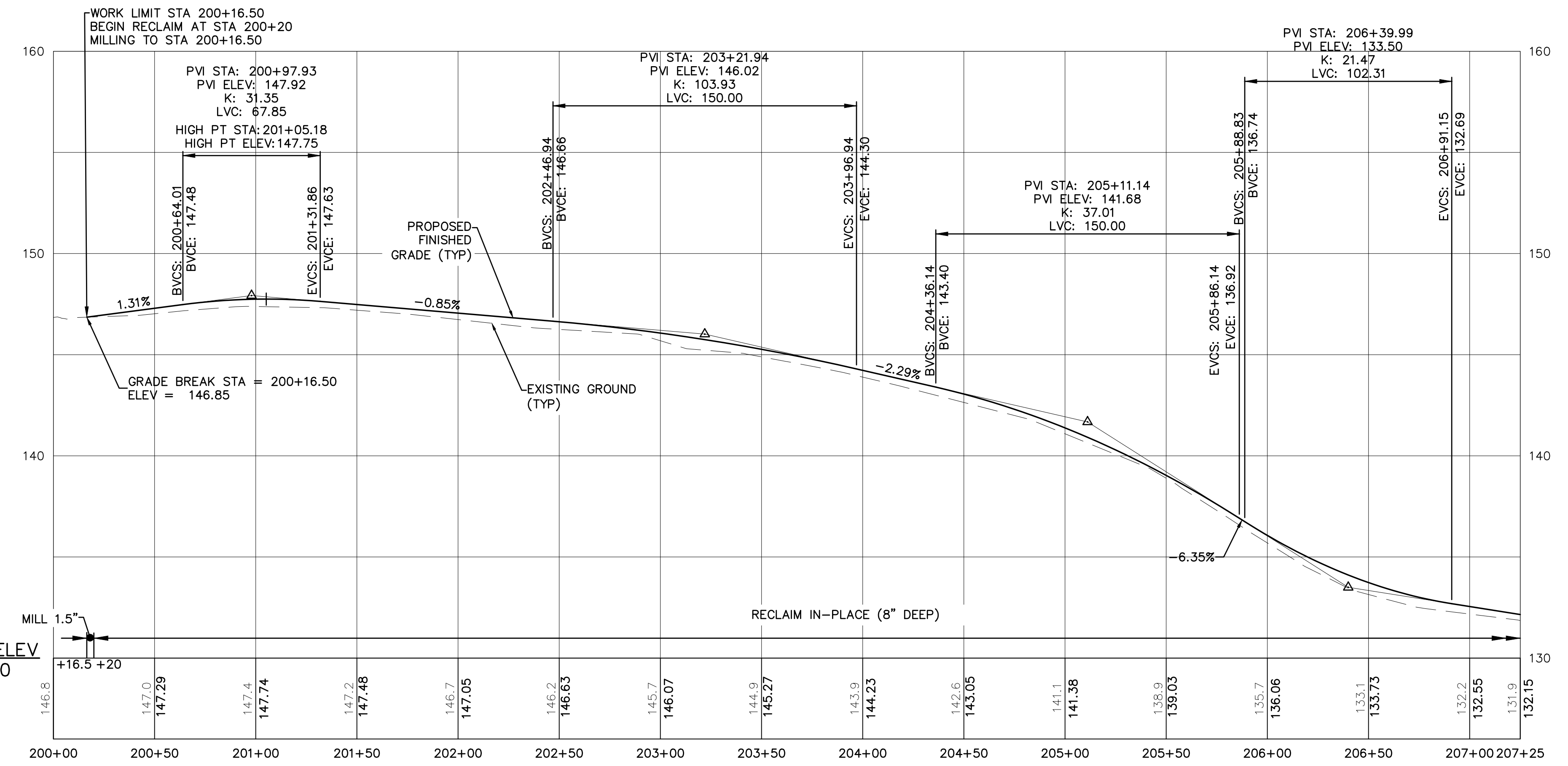
- THE INTENT OF THIS PLAN IS TO PROVIDE ROADWAY IMPROVEMENTS FOR BANNISTER ROAD AS PART OF THE 2022 ROADWAY IMPROVEMENT PROJECT. THE WORK WILL INCLUDE RECLAMATION ACTIVITIES, FINE GRADING, AND REPAVE OF THE ROADWAY. SUPPLEMENTAL DRAINAGE IMPROVEMENTS AND SHOULDER WORK WILL ALSO BE INCORPORATED INTO THE PROJECT.
- REFER TO SHEET 16 FOR GENERAL PROJECT NOTES.
- RECLAIM NOTE: RECLAIM THE FULL WIDTH OF THE EXISTING ROADWAY FOR BANNISTER ROAD AS SHOWN TO A DEPTH OF 8-INCHES. THE PROFILE IDENTIFIES SECTIONS OF REMOVE & REHANDLE AS WELL AS IN-PLACE. PROFILE ADJUSTMENTS SHALL BE MADE AS NOTED IN THE PROFILE.
- GRADING INTENT: IT IS THE INTENT OF THIS PLAN FOR THE CONTRACTOR TO:
  - SHAPE THE ROADWAY GRAVELS SUCH THAT MINIMAL IMPACTS TO DRIVEWAYS OCCUR.
  - THE CONTRACTOR SHALL PROFILE THE ROAD WITH GRADE STAKES ACCORDING TO THE DESIGN. MODIFICATIONS TO THE PROFILE MAY BE NECESSARY UPON FIELD VERIFICATION OF THE DESIGN GRADES. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR ANY MINOR ADJUSTMENTS.
- LANDSCAPE NOTE: ALL DISTURBED LANDSCAPE AREAS ADJACENT TO THE WORK (INCLUDING LANDSCAPE AREAS AROUND MAILBOXES) SHALL BE RESTORED AND CONSIDERED PART OF ITEM 912. LOAM AND SEED (ITEM 646.) SHALL BE RE-ESTABLISHED TO WORK LIMIT. DISTURBED BARK MULCH AREAS SHALL BE RESTORED AND PAID AS ITEM 646.512 UNDERLAY MULCH WITH FABRIC IF PRESENT IN EXISTING CONDITION (INCIDENTAL).
- DRIVEWAY NOTE: IT IS THE INTENT OF THIS PLAN TO PROVIDE RECONSTRUCTED DRIVEWAY APRONS 5- FEET (OR AS OTHERWISE NOTED) FROM THE NEW EDGE OF PAVEMENT, BUT WILL BE REDUCED TO THE GREATEST EXTENT POSSIBLE. IN SOME CASES DRIVEWAY APRONS MAY NEED TO EXTEND FURTHER TO OBTAIN POSITIVE DRAINAGE AND/OR BETTER TRANSITION GRADES. SEE DRIVEWAY DETAILS ON SHEET 11.
  - DRIVEWAYS IN FILL AREAS SHALL BE SHIMMED WITH GRAVEL TO OBTAIN POSITIVE GRADE TO STREET.
- TEST PITTING NOTE: CONTRACTOR SHALL CONDUCT TEST PITS AT ALL NEW DRAIN/UTILITY CROSSINGS AND AS DIRECTED BY THE ENGINEER. ADDITIONAL TEST PITTING MAY BE NECESSARY FOLLOWING DIG SAFE MARK OUT. AS-BUILD PLANS SHALL INDICATED TEST PIT LOCATION AND ELEVATION OF UTILITIES.
- MAIL BOX NOTE: NOT ALL MAILBOXES WILL BE RESET. MAILBOXES SHALL BE RESET WHERE MINIMUM DISTANCES ARE NOT MET AND WHERE DIRECTED BY THE ENGINEER.
- NECESSARY COMMON EXCAVATION, BACKFILL, AND GRADING ADJACENT TO HEADWALL INSTALLATION SHALL BE SUBSIDIARY TO ITEM UNLESS SPECIFICALLY NOTED AS A PAY ITEM.
- RIGHT OF WAY SHOWN IS APPROXIMATE. NO FORMAL RIGHT OF WAY SURVEY WAS CONDUCTED FOR THIS PROJECT.
- WATER MAIN COUPLERS ON EXISTING A.C. PIPE SHALL ONLY BE HYMAX COUPLERS. ALL OTHER COUPLERS SHALL BE DUCTILE IRON M.J. COUPLERS. COORDINATE DIFFERING CONDITIONS WITH ENGINEER.
- WATER PIPE AND FITTINGS REMOVAL SHALL BE PAID UNDER ITEM 202.41. WATER PIPE AND FITTINGS REMOVAL WITHIN THE LIMITS OF THE NEW WATER MAIN TRENCH SHALL BE INCIDENTAL TO THE NEW WATER MAIN INSTALLATION.

MATCHLINE STA 207+25  
SEE SHEET 8

**LEGEND**

(STANDARD LEGEND - ALL SYMBOLS SHOWN DO NOT NECESSARILY APPEAR IN THE PLAN SET)

EXISTING	PROPOSED
2' CONTOUR	148
10' CONTOUR	150
EDGE OF PAVEMENT	
DRAIN LINE	D
SEWER LINE	S
UNDERGROUND UTILITIES	UGU
TELEPHONE LINE	T
GAS LINE	GAS
WATER LINE	W
OVERHEAD UTILITIES	OHW
VERTICAL GRANITE CURB	VSC
SLOPED GRANITE CURB	SGC
BITUMINOUS CURB	BB
BEGIN CURB / END CURB	BC / EC
CHAIN LINK FENCE	
GUARD RAIL	
TREE LINE	
SPOT GRADE	X P200.0
SEWER MANHOLE	⊙
CATCH BASIN	⊠
DRAIN MANHOLE	⊚
FIRE HYDRANT	⊕
GAS GATE	⊗
WATER VALVE	⊘
ELECTRIC MANHOLE	⊙
TELEPHONE MANHOLE	⊙
HEADWALL	⊠
FLARED END SECTION	⊠
STREET SIGN	⊠
TRANSFORMER	⊠
UTILITY BOX	⊠
CABLE BOX	⊠
LIGHT POLE	⊠
UTILITY POLE	⊠
GUY WIRE	⊠
IRON PIN, DRILL HOLE, BOUND	⊠
MAILBOX	⊠
DECIDUOUS TREE	⊠
CONIFER TREE	⊠
TRAFFIC FLOW	→
STONE WALL	⊠
EDGE OF WETLANDS	⊠
PROPERTY LINE	⊠
SILT FENCE	⊠
HAY BALES	⊠



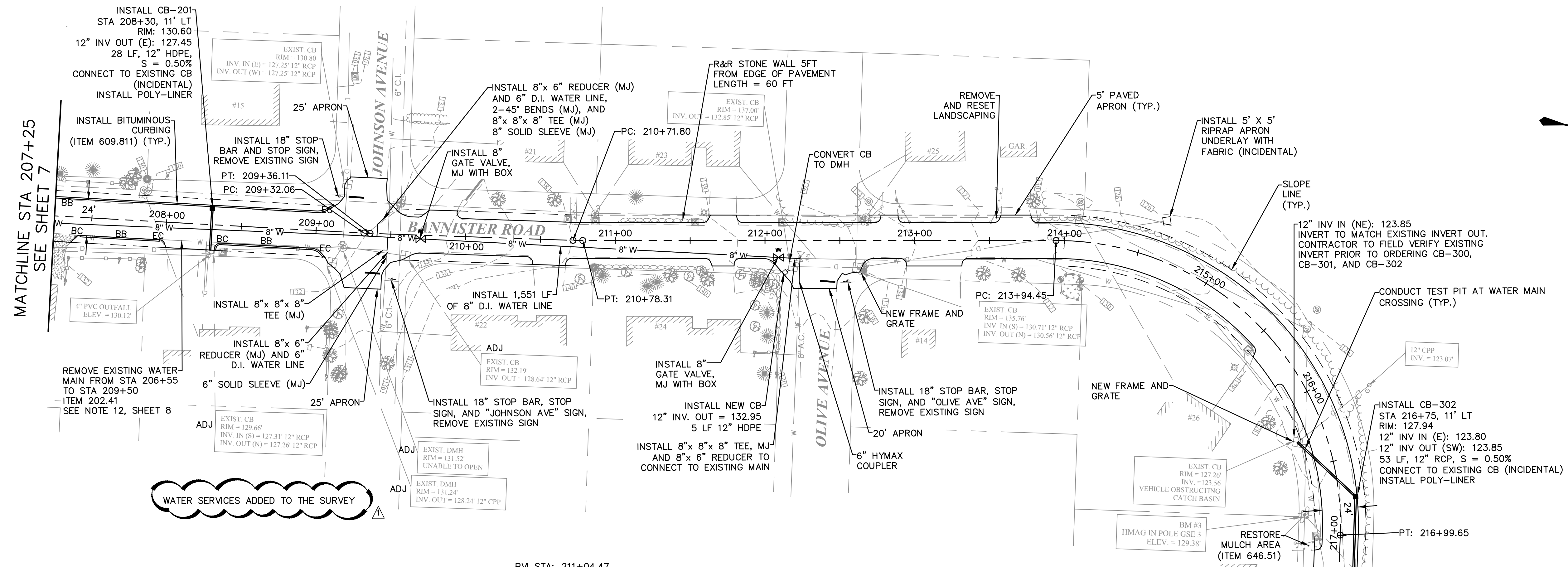
REV	DATE	DESCRIPTION	BY
1	1/14/2022	ADDENDUM 1	MKM

**McFarland Johnson**  
53 REGIONAL DRIVE  
CONCORD, NEW HAMPSHIRE, 03301

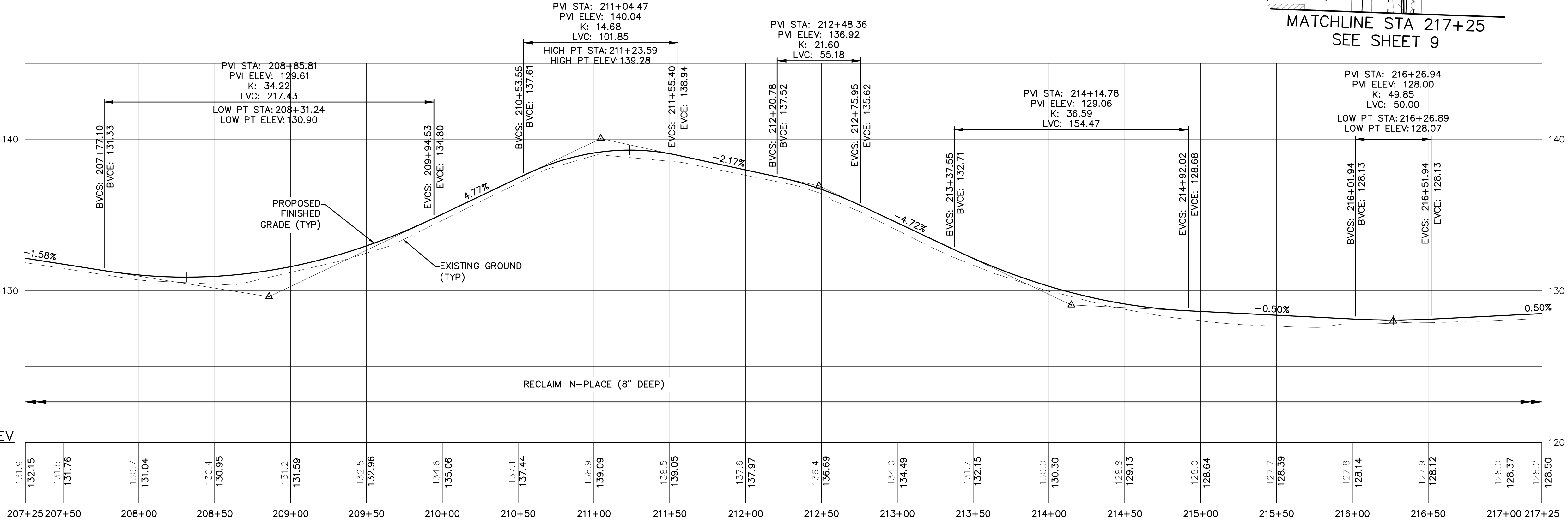
**TOWN OF SALEM  
SALEM, NEW HAMPSHIRE  
2022 ROADWAY IMPROVEMENT  
PROJECT**

**BANNISTER ROAD  
PLAN AND PROFILE - 1**

SCALE: AS SHOWN	DESIGN: BEP	7 OF 16
DRAWN: MRV	PROJECT: 18587.04	
CHECKED: BRC	DATE: DECEMBER 16, 2021	



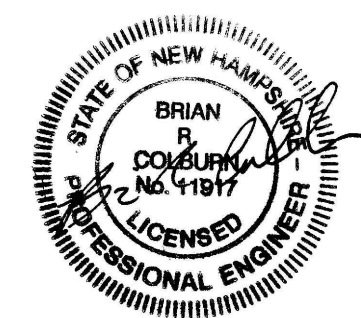
WATER SERVICES ADDED TO THE SURVEY



DATUM ELEV 120.00

V: 1"=4'

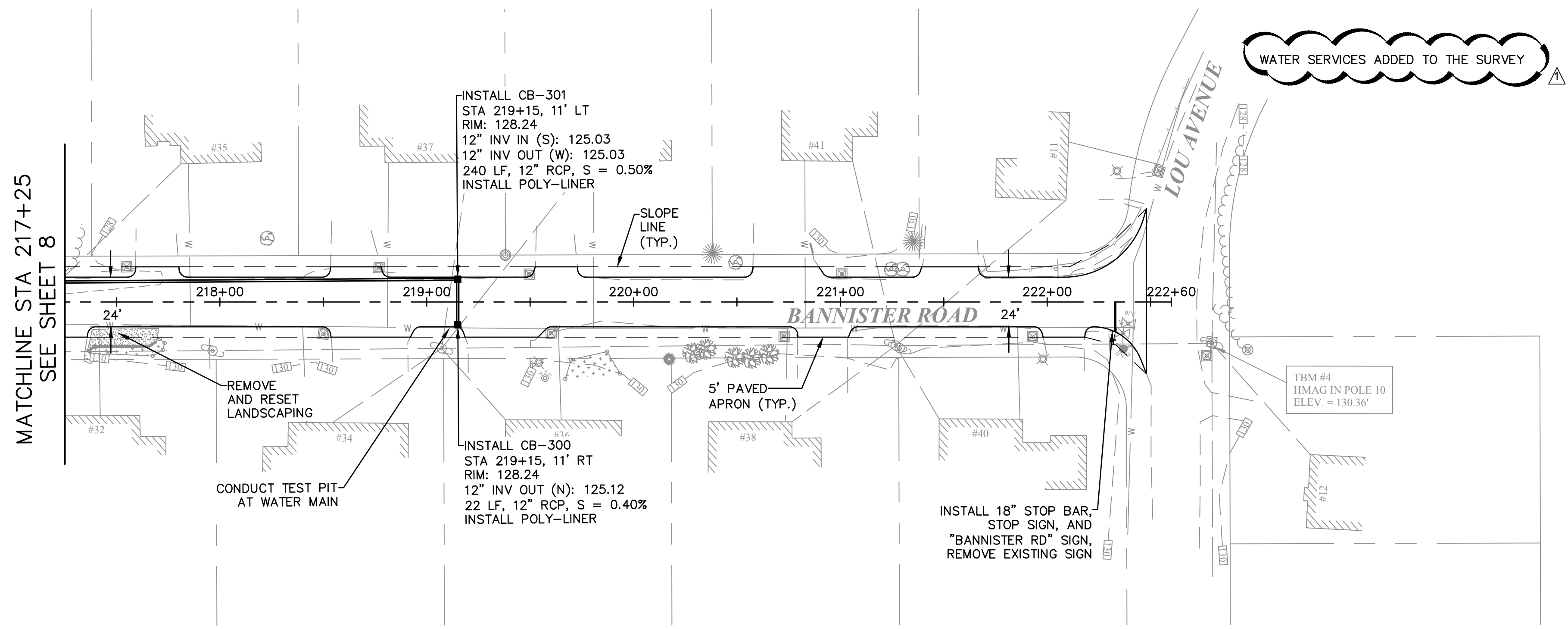
H: 1"=40'



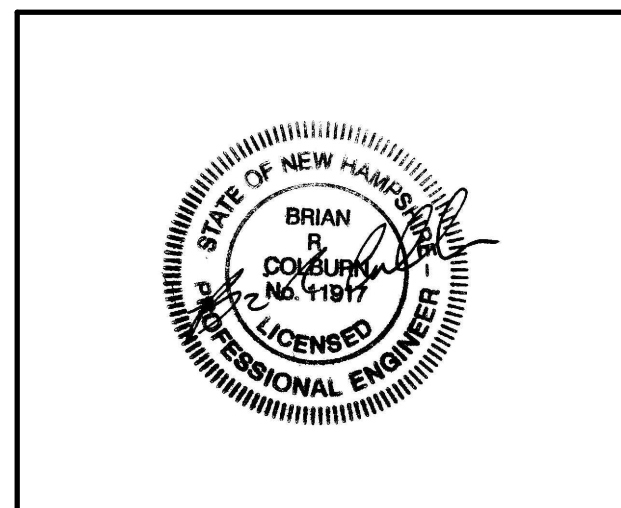
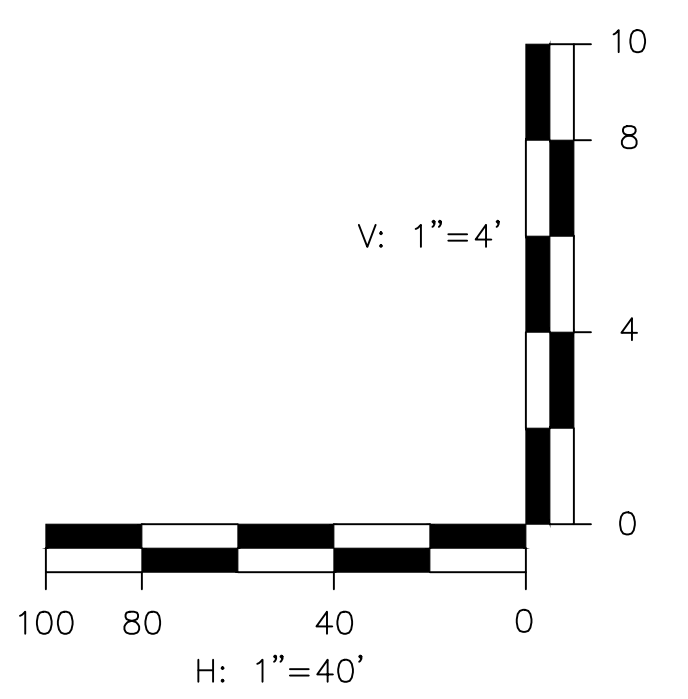
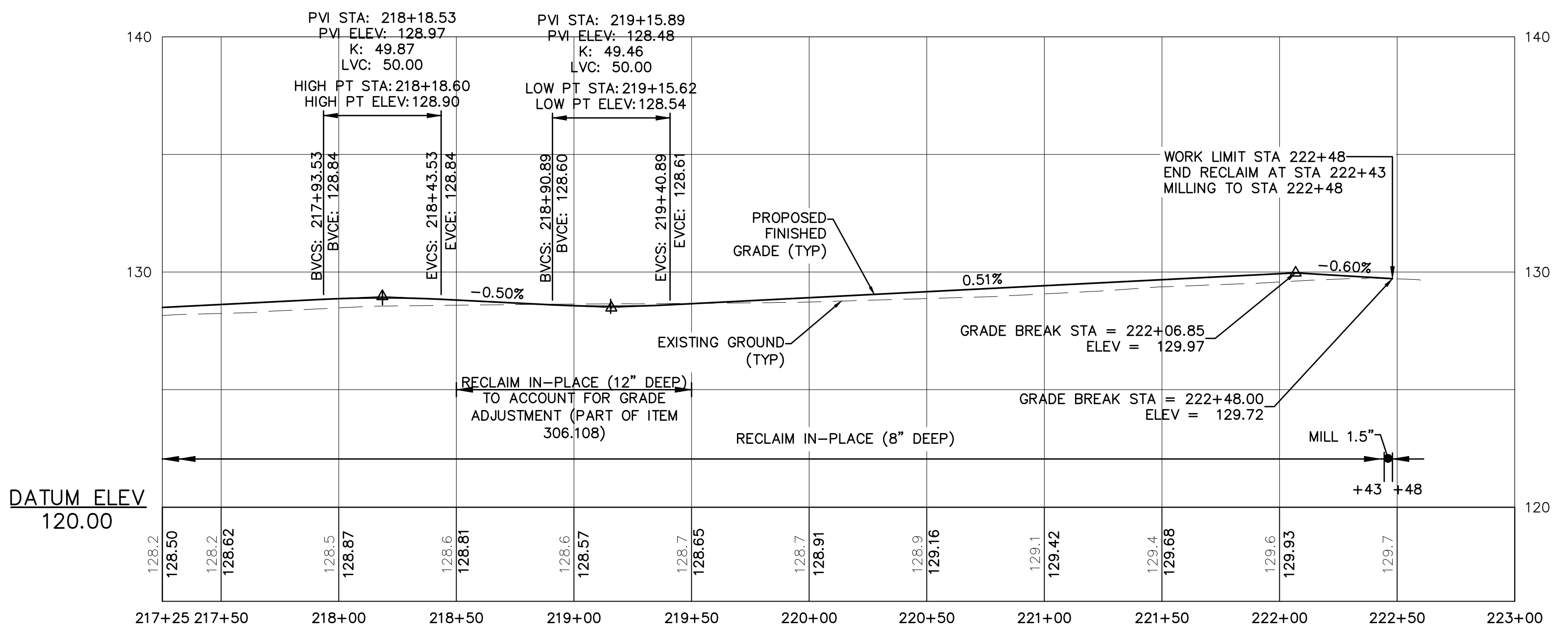
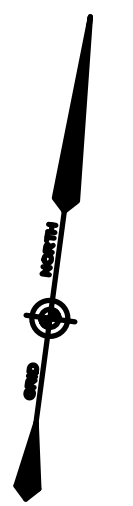
**McFarland Johnson**  
 53 REGIONAL DRIVE  
 CONCORD, NEW HAMPSHIRE, 03301

TOWN OF SALEM SALEM, NEW HAMPSHIRE 2022 ROADWAY IMPROVEMENT PROJECT			
BANNISTER ROAD PLAN AND PROFILE - 2			
SCALE: AS SHOWN	DESIGN: BEP	8 OF 16	
DRAWN: MRV	PROJECT: 18587.04		
CHECKED: BRC	DATE: DECEMBER 16, 2021		

REV	DATE	DESCRIPTION	BY
1	1/14/2022	ADDENDUM 1	MKM



WATER SERVICES ADDED TO THE SURVEY



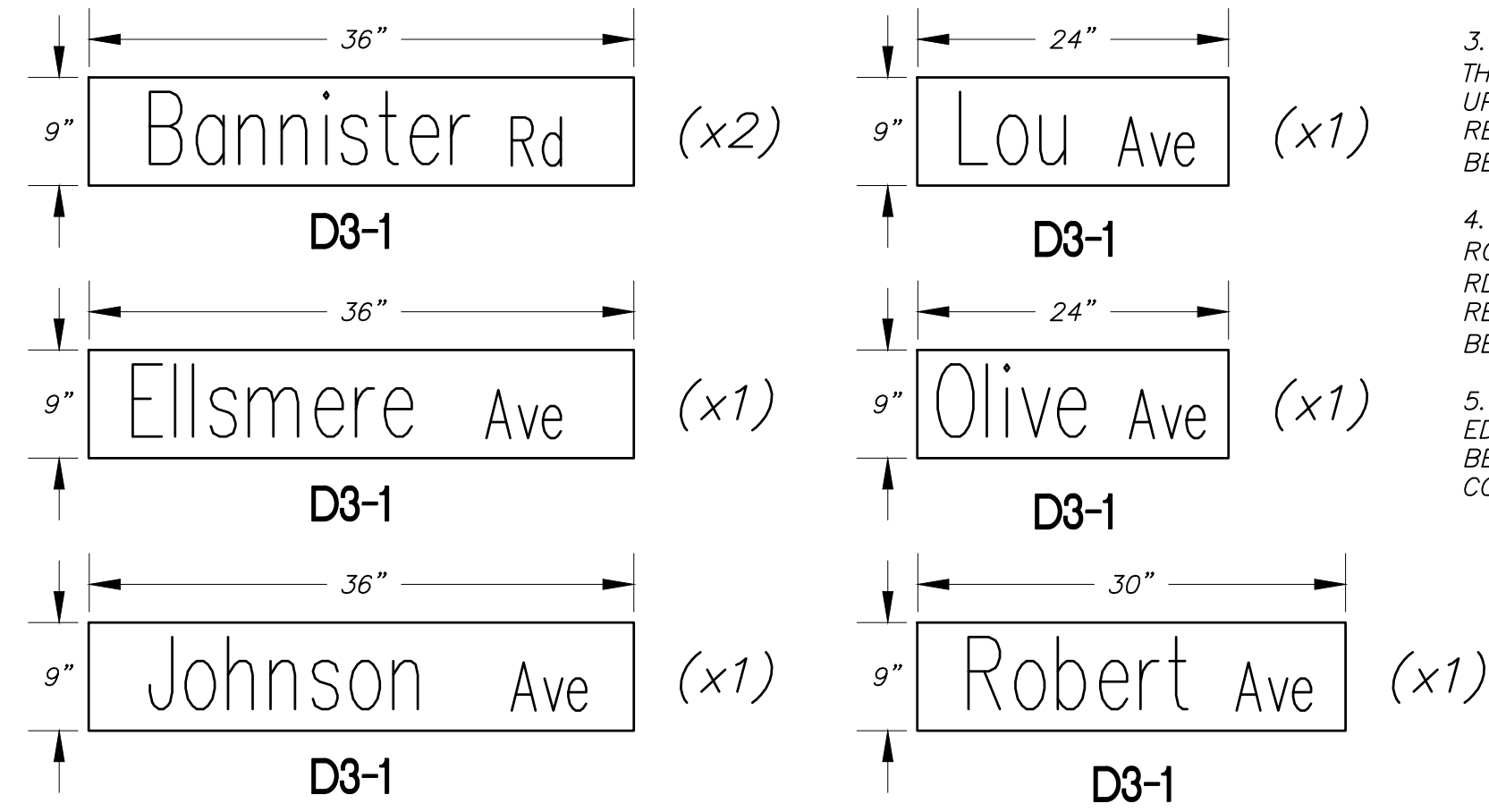
REV	DATE	DESCRIPTION	BY
	1/14/2022	ADDENDUM 1	MKM

**McFarland Johnson**  
53 REGIONAL DRIVE  
CONCORD, NEW HAMPSHIRE, 03301

**TOWN OF SALEM  
SALEM, NEW HAMPSHIRE  
2022 ROADWAY IMPROVEMENT  
PROJECT**

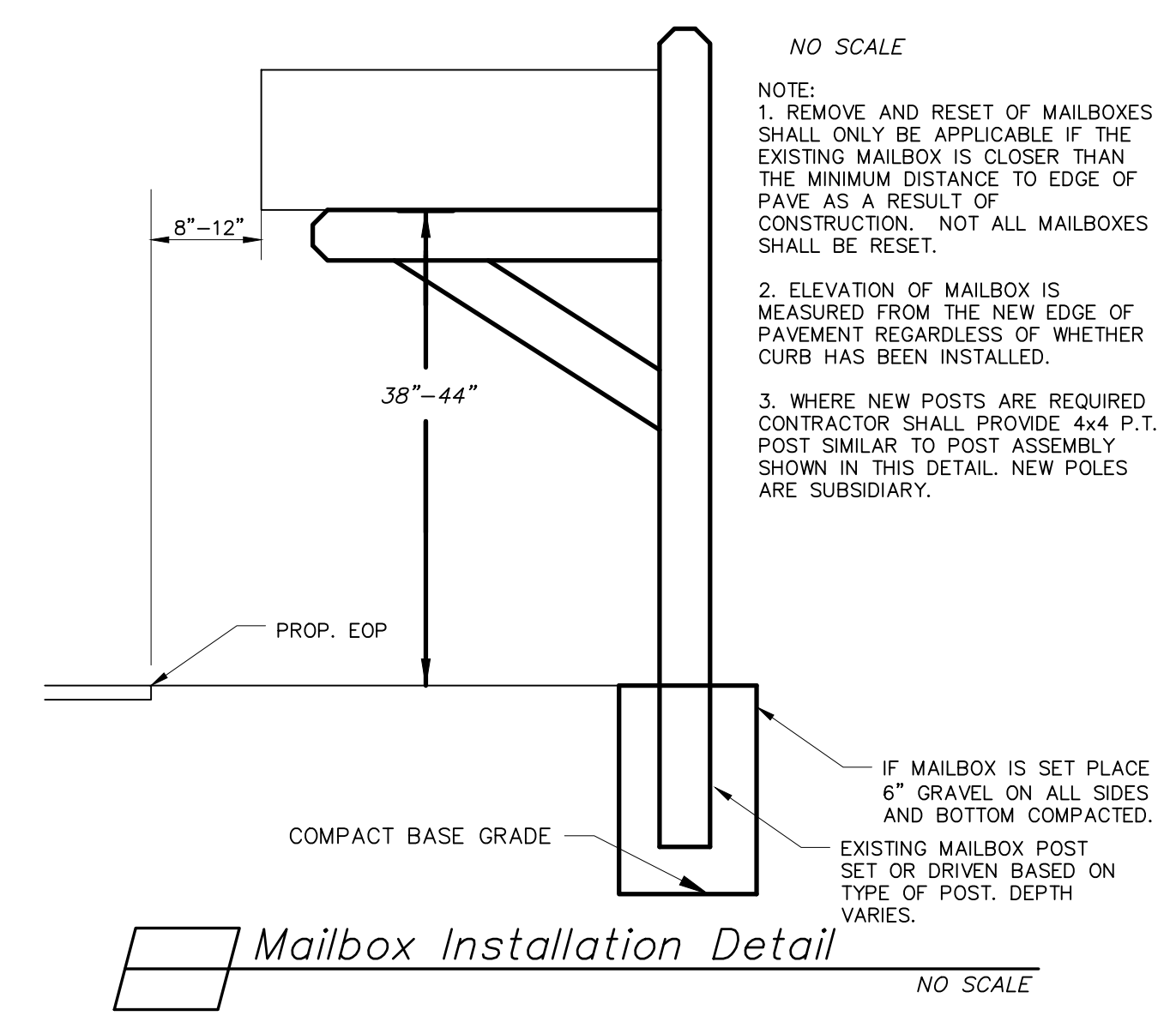
**BANNISTER ROAD  
PLAN AND PROFILE - 3**

SCALE: AS SHOWN	DESIGN: BEP	9 OF 16
DRAWN: MRV	PROJECT: 18587.04	
CHECKED: BRC	DATE: DECEMBER 16, 2021	

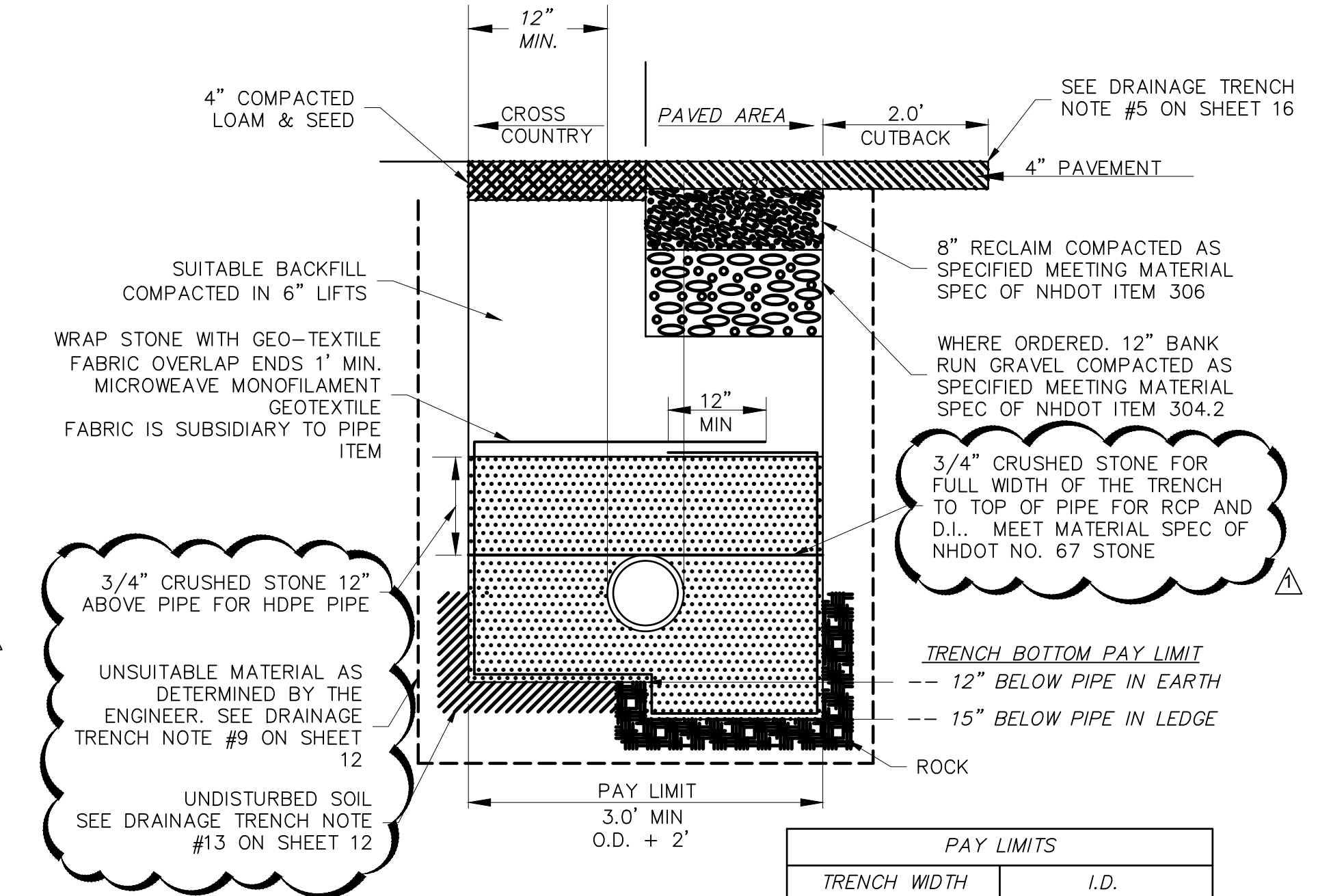


Street Name Signs NO SCALE

- NOTES:
1. SIGNS SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  2. SIGNS SHALL BE GREEN WITH WHITE LETTERS. NO BORDER.
  3. THE FIRST LETTER OF THE NAME SHALL BE 6" UPPER CASE. THE REMAINING LETTERS SHALL BE 4.5" LOWER CASE.
  4. THE FIRST LETTER OF ROAD INDICATORS (AVE, ST, RD) SHALL BE 4". THE REMAINING LETTERS SHALL BE 3.5"
  5. TOP AND BOTTOM EDGES OF THE SIGN SHALL BE EXTRUDED CONSTRUCTION.



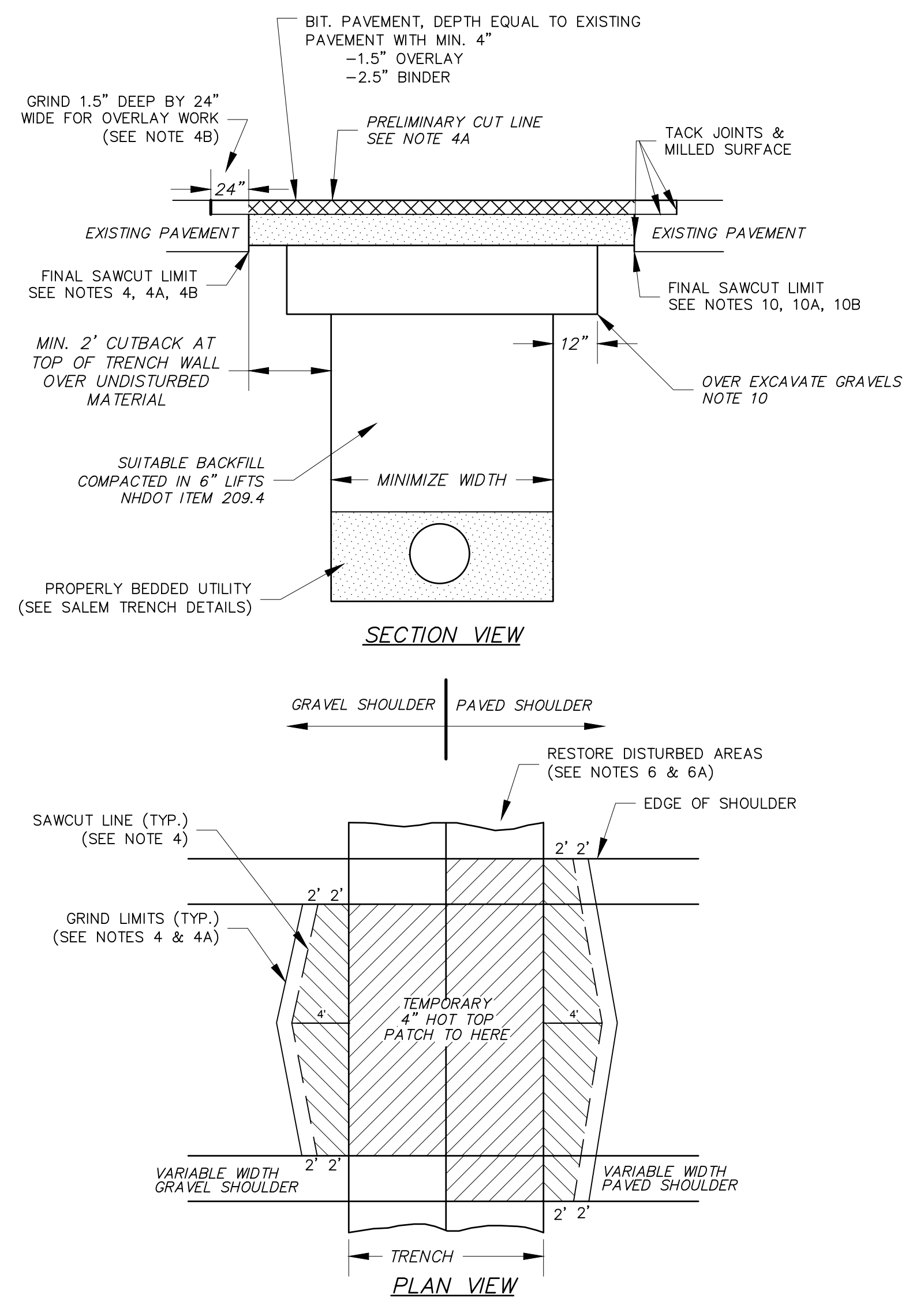
Mailbox Installation Detail NO SCALE



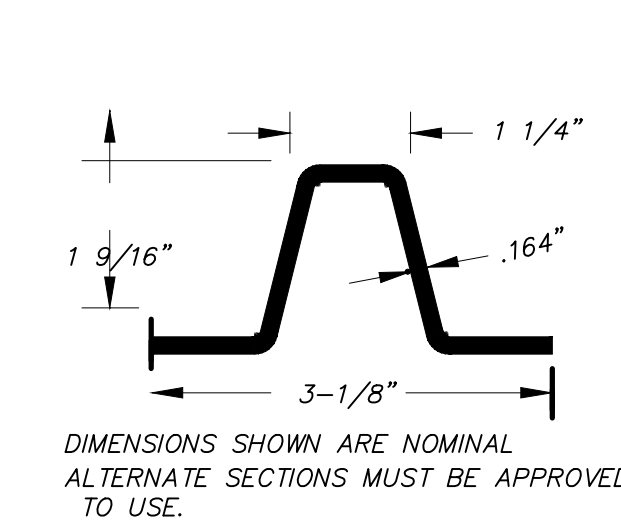
Typical Perforated Drain Trench Detail NO SCALE

NOTES:

1. EXACT TRENCH PATCH METHODS SHALL BE DETERMINED BY THE ENGINEER BASED ON SITE SPECIFIC CONDITIONS. REFERENCE APPLICABLE TOWN OF SALEM TRENCH SECTION DETAILS FOR PROPER BEDDING REQUIREMENTS.
2. REFERENCE TOWN OF SALEM STREET EXCAVATION REQUIREMENTS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. THIS DETAIL IS NOT COMPLETE WITHOUT ALL REFERENCED ITEMS.
3. TEMPORARY PATCHING: AN APPROVED BITUMINOUS PLANT MIX MATERIAL SHALL BE PLACED AND CAREFULLY GRADED AND ROLLED TO THE ADJACENT PAVEMENT GRADE AS A TEMPORARY PATCH. JUST BEFORE COMPLETION OF THE PROJECT AND AFTER SUITABLE EXPOSURE OF THE TEMPORARY PATCHES TO TRAFFIC COMPACTION, THE PAVEMENT SHALL BE SAWCUT, REMOVED AND REPAVED AS SHOWN.
4. TWO FOOT MINIMUM OVERLAP ON UNDISTURBED MATERIAL SHALL BE SAWCUT IN A DIAMOND SHAPE PATTERN THAT WILL PERMIT ONLY ONE WHEEL OF A VEHICLE AT A TIME TO STRIKE THE PATCH AREA. ON WIDER ROADS THE 4-FOOT DIMENSION AT THE CENTER OF THE ROAD MAY NEED TO BE EXTENDED TO MEET THIS INTENT. ALL SAW CUTS FOR THE FINAL PATCH SHALL BE AS DIRECTED BY THE PERMITTING AUTHORITY.
- 4A. INITIAL CUT LINE IN PAVEMENT SHALL BE ESTABLISHED DIRECTLY OVER TRENCH WALLS. FINAL CUT LIMITS SHALL NOT BE DONE UNTIL AFTER ALL EXCAVATION AND BACK FILL ACTIVITIES HAVE BEEN COMPLETED.
- 4B. CUT AND GRIND LIMITS SHALL BE EXTENDED FOR LARGER TRENCHES. SPECIFIC GRIND LIMITS SHALL BE DETERMINED BY THE PERMITTING AUTHORITY AT THE TIME OF CONSTRUCTION. ADDITIONAL CUT/GRIND LIMITS SHALL BE FIELD DETERMINED BASED ON DAMAGE TO THE SURROUNDING PAVEMENT.
5. SHOULDERS, OTHER THAN PAVED, DISTURBED DURING CONSTRUCTION, SHALL BE RESTORED BY EXCAVATING TO A DEPTH SUFFICIENT TO RECEIVE 6" CRUSHED BANK RUN GRAVEL WHICH SHALL BE GRADED AND COMPACTED ON A SLOPE OF 5% AWAY FROM THE PAVEMENT OR AS ORDERED BY THE TOWN. PAVED SHOULDERS SHALL BE RECONSTRUCTED WITH IN-KIND GEOMETRY AND ACCORDING TO THE PAVEMENT SECTION DESCRIBED ON THIS TYPICAL.
6. OTHER HIGHWAY SLOPES AND SHOULDERS DISTURBED SHALL BE RESTORED IN-KIND WITH APPROPRIATE SLOPE AND EROSION PROTECTION MEASURES OR INSTRUCTIONS ISSUED BY THE TOWN.
- 6A. ALL OTHER DISTURBED AREAS (CURB, SIDEWALK, GRASSED AREAS, WALLS, ETC.) SHALL BE RESTORED IN-KIND AND/OR AS DIRECTED BY THE TOWN ACCORDING TO ACCEPTED CONSTRUCTION PRACTICES.
7. TRAFFIC SHALL BE MAINTAINED, CONTROLLED AND PROTECTED BY SUITABLE WARNING AND/OR CHANNELIZING DEVICES, ADVANCE WARNING SIGNS AND FLAGS DURING THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE TOWN REQUIREMENTS AND ACCEPTED CONSTRUCTION PRACTICES.
8. THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT AND CONNECTING ROADS. THESE DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED OR REMOVED DURING THE PROGRESS OF THE CONSTRUCTION. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL BE PROVIDED FOR THE PROTECTION OF THE PUBLIC WHILE WORKING WITHIN A TOWN RIGHT-OF-WAY.
9. IN ALL CASES, TRENCH SHALL BE PAVED FLUSH WITH EXISTING PAVEMENT AT THE END OF THE WORK DAY EXCEPT AS ALLOWED BY PERMITTING AUTHORITY.
10. UPON COMPLETION OF BACK FILL OPERATIONS THE EXISTING ROAD GRAVELS SHALL BE OVER EXCAVATED 12" BEYOND THE TRENCH WALL. THIS WORK SHALL NOT BE COMPLETED PRIOR TO COMPLETING BACKFILL AND COMPACTION.



Permanent Pavement Repair Detail NO SCALE



- LENGTH: P-12, 12'-0"; P-14, 14'-0"; P-16, 16'-0".  
 WEIGHT PER LINEAR FOOT: 2.50 LBS. (MIN.)  
 HOLES: 3/8" DIA. 1" C-C FULL LENGTH  
 STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080).  
 FINISH: SHALL BE GALVANIZED

NOTES:

1. SIGN CONSTRUCTION AND INSTALLATION SHALL MEET THE REQUIREMENTS OF NHDOT ITEM 615.
2. POSTS AND SIGNS SHALL BE BREAKAWAY CONSTRUCTION WITH STAINLESS STEEL HARDWARE. NYLON WASHERS SHALL BE PLACED AGAINST THE SIGN SURFACE.
3. POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED. POSTS MAY BE SET OR DRIVEN.
4. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED 6" DEEP AND THOROUGHLY COMPACTED, CARE BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.
5. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS-SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
6. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
7. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", CURRENT EDITION.
8. WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.
9. EXISTING SIGN REMOVAL SHALL BE CONSIDERED INCIDENTAL.

Sign Post NO SCALE

<b>TOWN OF SALEM SALEM, NEW HAMPSHIRE 2022 ROADWAY IMPROVEMENT PROJECT</b>			
<b>CIVIL DETAILS 2</b>			
SCALE: N.T.S.	DESIGN: BEP		
DRAWN: TMH	PROJECT: 18587.04		
CHECKED: BRC	DATE: DECEMBER 16, 2021	11 OF 16	

**McFarland Johnson**  
53 REGIONAL DRIVE  
CONCORD, NEW HAMPSHIRE, 03301

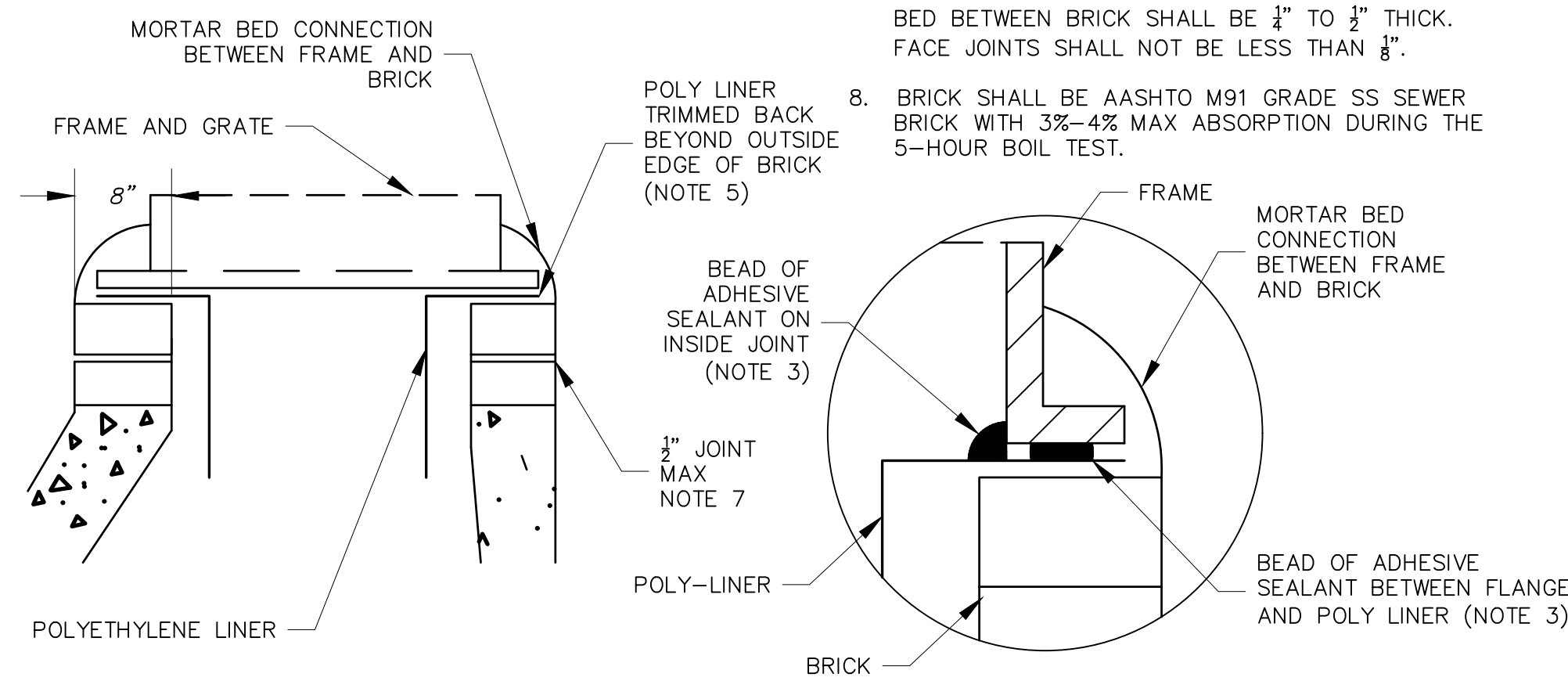
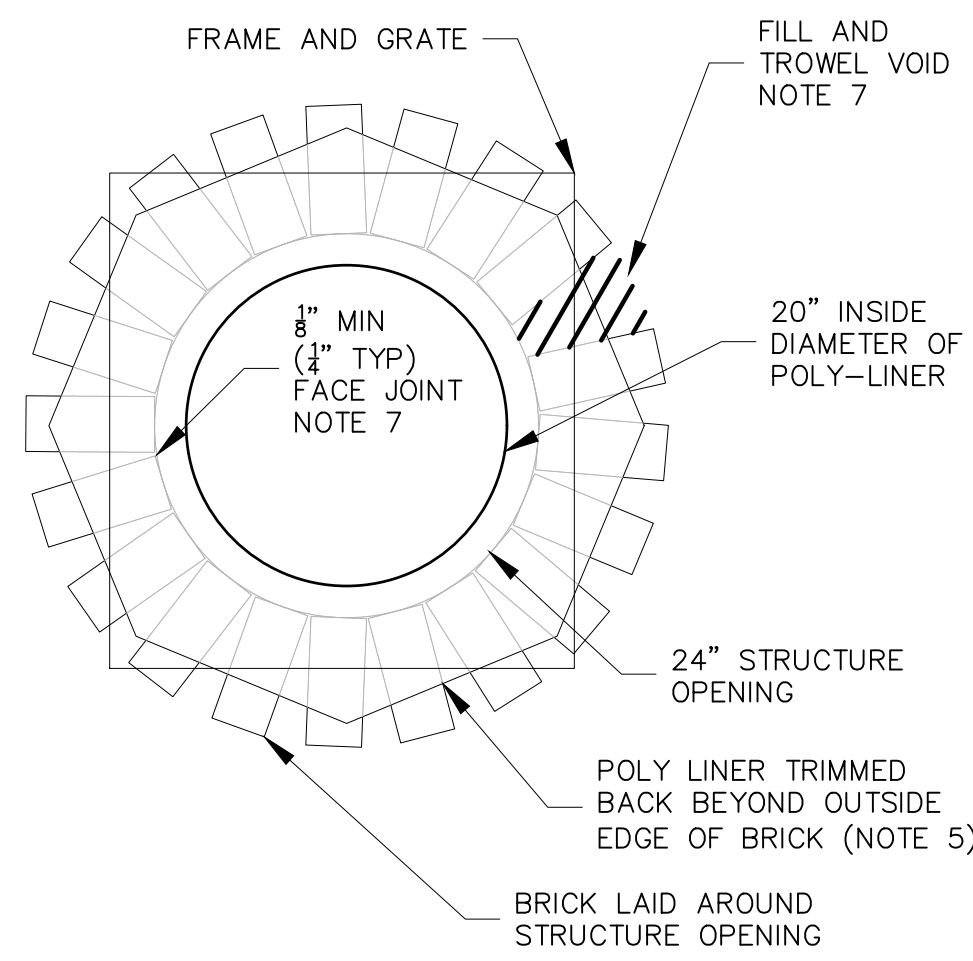
REV	DATE	DESCRIPTION	BY
1	1/14/2022	ADDENDUM 1	MKM

**NOTES:**

- ALL CATCH BASINS SHALL BE OUTFITTED WITH A POLYETHYLENE LINER DOWNSPOUT.
- POLYETHYLENE LINER SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
- PLACE A CONTINUOUS BEAD OF AN APPROVED BONDING ADHESIVE SEALANT BETWEEN FRAME AND POLYETHYLENE SHEET AND AT THE INSIDE JOINT AFTER ASSEMBLY IS COMPLETE.
- PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
- TRIM POLYETHYLENE BEYOND THE OUTSIDE EDGE OF BRICK TO PROVIDE A MORTAR CONNECTION BETWEEN THE FRAME AND BRICK. ALTERNATE TRIMMING METHODS MAY/SHALL BE REQUIRED BY THE OWNER WHEN USED WITH CURBING AND GUTTER INLETS.
- THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 1" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
- BRICK MORTAR: COMPLETELY FILL AND TROWEL ANNULAR SPACE BETWEEN ALL BRICKS. MORTAR BED BETWEEN BRICK SHALL BE 1/2" TO 3/4" THICK. FACE JOINTS SHALL NOT BE LESS THAN 3/8".
- BRICK SHALL BE AASHTO M91 GRADE SS SEWER BRICK WITH 3%-4% MAX ABSORPTION DURING THE 5-HOUR BOIL TEST.

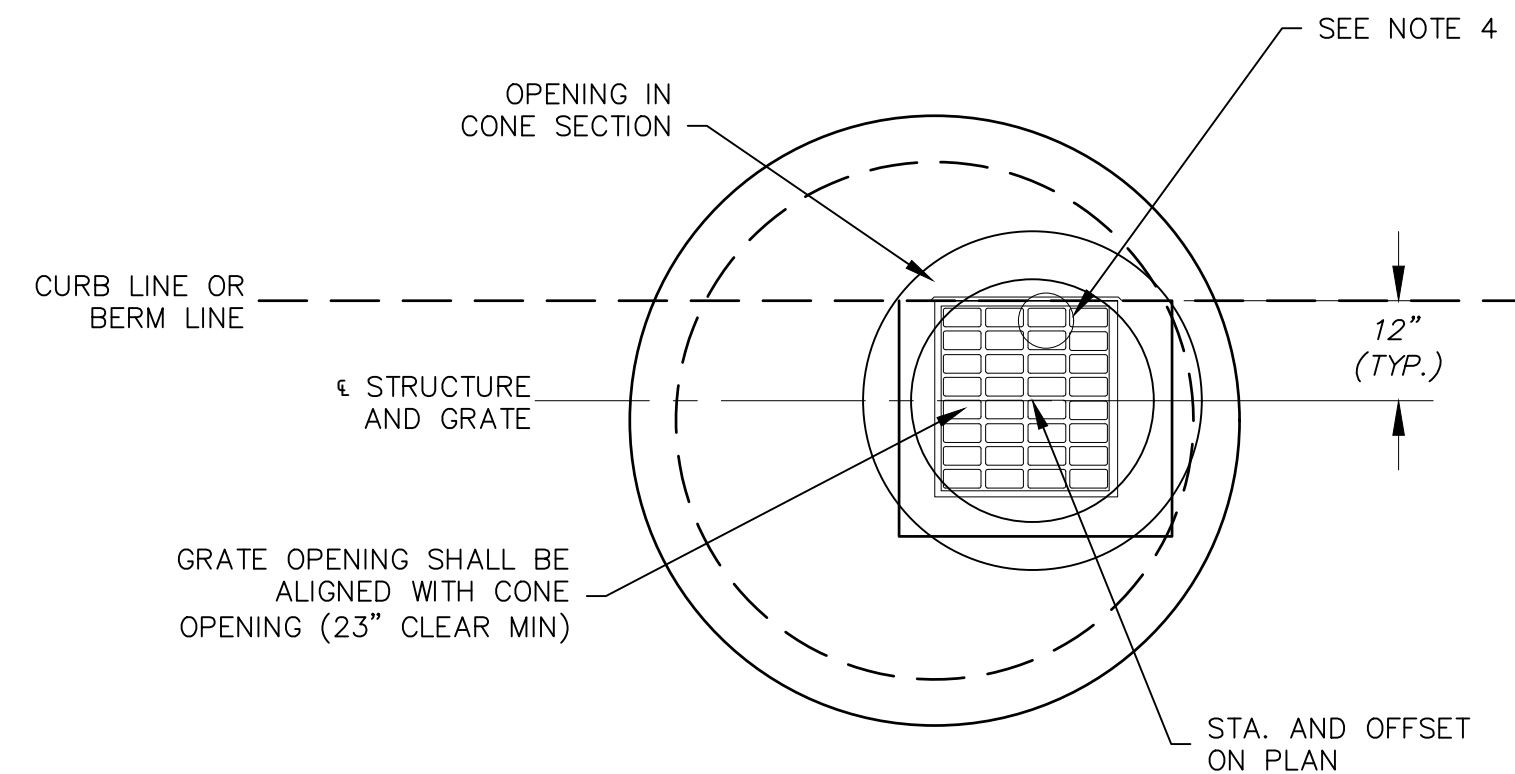
**NOTE:**

- IF SITE CONDITIONS DO NOT ALLOW FOR SETTING CATCH BASINS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO SETTING STRUCTURE.
- CONTRACTOR SHALL VERIFY ALL STRUCTURE LOCATIONS PRIOR TO LAYING PIPE.
- ALL CB RIMS (SINGLE AND DOUBLE) AGAINST GRANITE CURBING SHALL BE 3-FLANGED. ALL CB RIMS NOT AGAINST GRANITE CURBING SHALL BE 4-FLANGED.
- CATCH BASIN GRATES SHALL BE ROTATED SUCH THAT HOLES IN GRATE ARE PARALLEL TO GUTTER ON LONG SIDE.



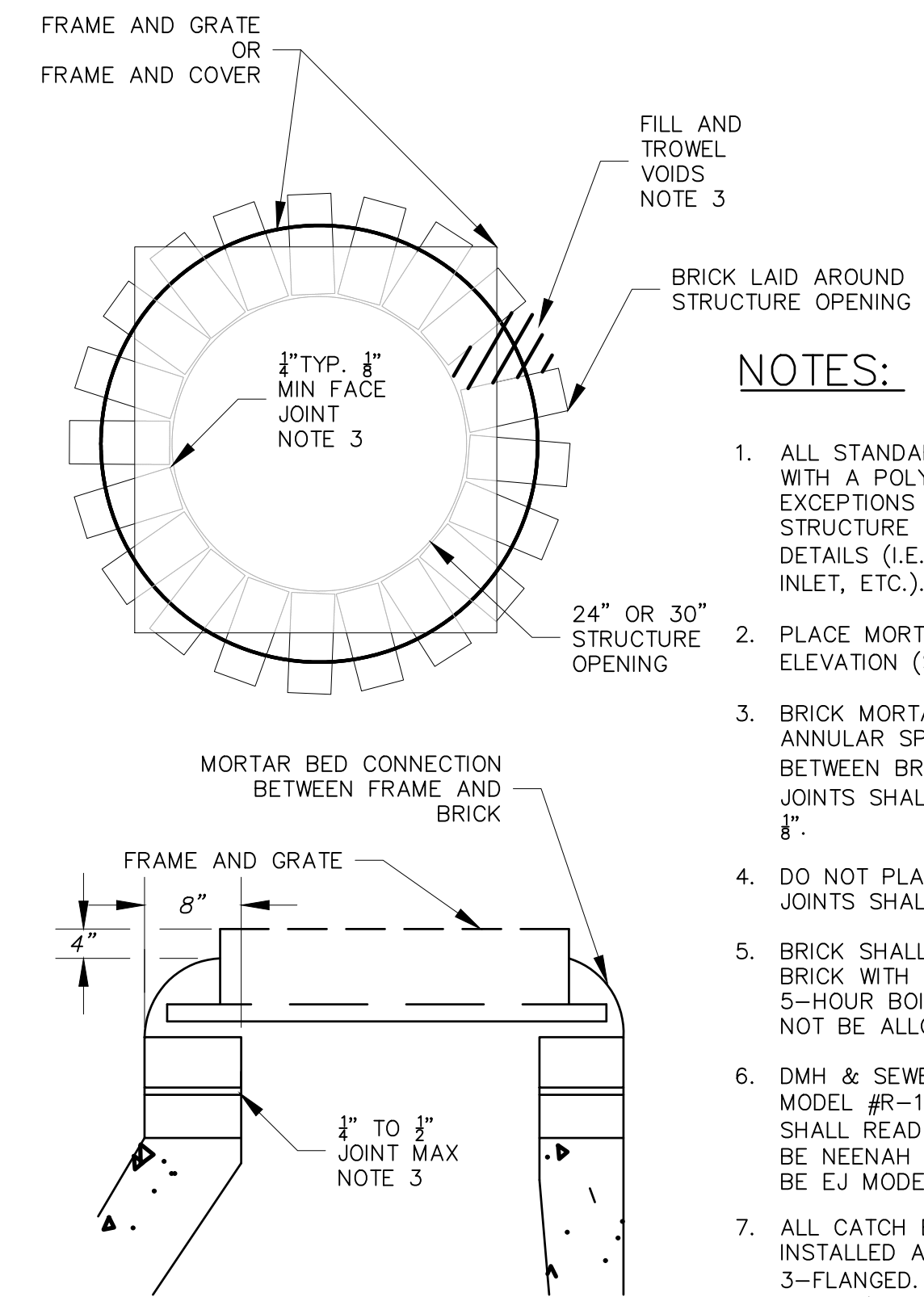
**Poly-Liner Detail**

NO SCALE



**Casting Placement at Curbline Detail**

NO SCALE



**NOTES:**

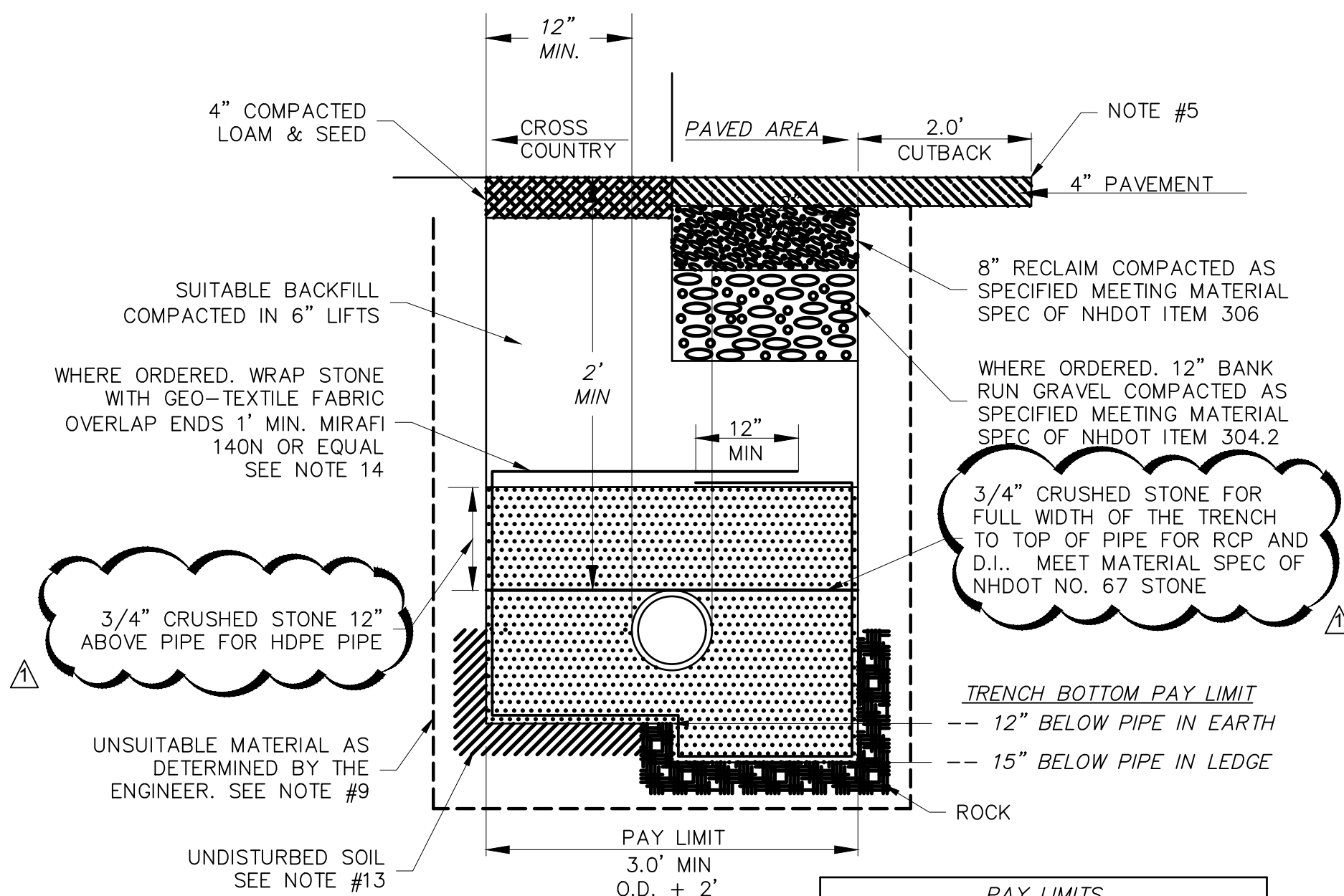
- ALL STANDARD CATCH BASINS SHALL BE OUTFITTED WITH A POLYETHYLENE LINER DOWNSPOUT. EXCEPTIONS MAY APPLY. REFER TO SPECIFIC STRUCTURE TYPE AND CORRESPONDING CONSTRUCTION DETAILS (I.E. DOUBLE GRATE CB, "C-TOP" CB, DROP INLET, ETC.).
- PLACE MORTAR TO 4" BELOW THE TOP OF GRATE ELEVATION (SUBSIDIARY TO STRUCTURE ITEM).
- BRICK MORTAR: COMPLETELY FILL AND TROWEL ANNULAR SPACE BETWEEN ALL BRICKS. MORTAR BED BETWEEN BRICK SHALL BE 1/2" TO 3/4" THICK. FACE JOINTS SHALL AVERAGE 1/2" BUT NOT BE LESS THAN 3/8".
- DO NOT PLASTER OR MORTAR OVER BRICK WORK. ALL JOINTS SHALL BE CLEAN AND PROPERLY POINTED.
- BRICK SHALL BE AASHTO M91 GRADE SS SEWER BRICK WITH 3%-4% MAX ABSORPTION DURING THE 5-HOUR BOIL TEST. CONCRETE GRADE RINGS SHALL NOT BE ALLOWED.
- DMH & SEWER FRAME AND COVER SHALL BE NEENAH MODEL #R-1743. DMH SHALL READ "DRAIN". SMH SHALL READ "SEWER". CB FRAME AND GRATE SHALL BE NEENAH MODEL #R-3570. DOUBLE GRATES SHALL BE EJ MODEL #0MA552000066.
- ALL CATCH BASIN FRAMES (SINGLE AND DOUBLE) INSTALLED AT GRANITE CURBING LOCATIONS SHALL BE 3-FLANGED. ALL CATCH BASIN FRAMES (SINGLE AND DOUBLE) INSTALLED WITH NO CURBING SHALL BE 4-FLANGED.

**Frame Set Detail (SMH, DMH or CB)**

NO SCALE

**DRAINAGE TRENCH NOTES:**

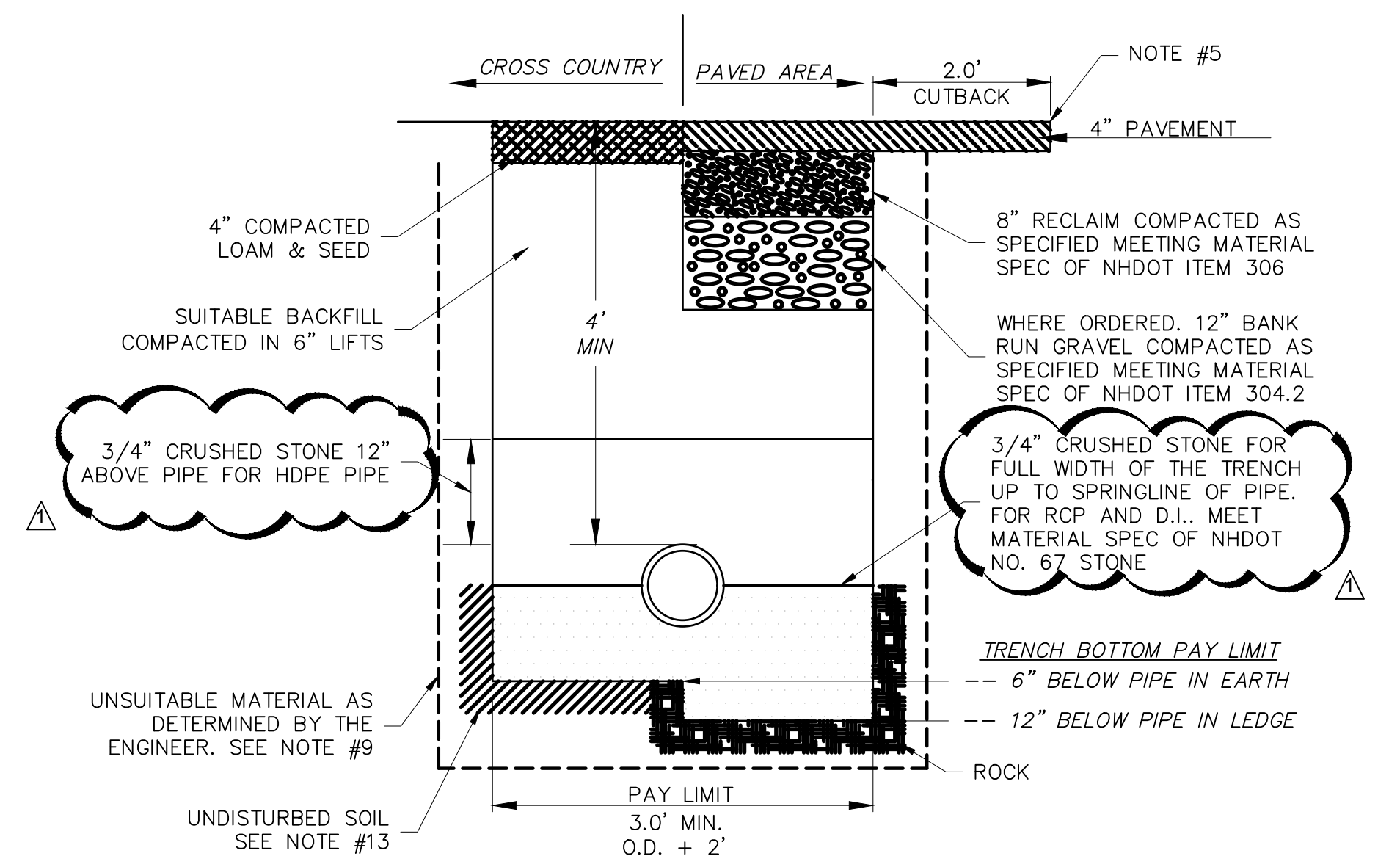
- REFERENCE TOWN OF SALEM STANDARD SPECIFICATIONS FOR METHOD OF MEASUREMENT AND PAYMENT.
- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
- ALL LOCAL STATE AND FEDERAL SAFETY STANDARDS SHALL BE STRICTLY ADHERED TO.
- NEW ROADWAY CONSTRUCTION SHALL CONFORM TO TOWN OF SALEM SUBDIVISION REQUIREMENTS
- TRENCH PATCH: AFTER THE BASE COURSE HAS BEEN ROLLED TO THE REQUIRED GRADE, ANY BROKEN OR IRREGULAR EDGES OF THE EXISTING PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES LEAVING A SOUND VERTICAL FACE 24-INCHES BACK FROM THE EDGE OF THE TRENCH OR OTHER EXCAVATIONS TO ACCEPT PLACEMENT OF A 24-INCH MINIMUM OVERLAP OF BITUMINOUS BASE COURSE PAVEMENT ON UNDISTURBED MATERIAL.
- BITUMINOUS PAVEMENT, DEPTH EQUAL TO EXISTING PAVEMENT WITH 4" MIN. (1.5" OF 1/2" WEARING, 2.5" OF 3/4" BINDER). PAVEMENT SHALL CONFORM TO NHDOT STANDARD SPECIFICATION 403.
- DAMAGED OR OTHERWISE DEFICIENT PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE
- INSPECTION:** FOLLOWING INSTALLATION DRAIN LINES SHALL BE CLEANED AND VISUALLY INSPECTED. PIPES SHALL BE TRUE TO LINE AND GRADE PRIOR TO ACCEPTANCE AND USE.
- UNSUITABLE MATERIAL & OVER EXCAVATION:** ANY EXCAVATION OUTSIDE OF DEFINED PAY LIMIT SHALL BE STRICTLY COORDINATED AND MEASURED WITH THE ENGINEER FOR PAYMENT. ANY MATERIAL REMOVED WITHOUT PRIOR AUTHORIZATION SHALL NOT BE PAID. EXCAVATION AREAS SHALL BE BACKFILLED WITH APPROPRIATE BEDDING MATERIALS. UNSUITABLES WITHIN TRENCH PAY LIMITS ARE SUBSIDIARY.
- MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.
- SUITABLE MATERIAL:** IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER SIX INCHES IN THE LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE TOWN OF SALEM DEPARTMENT OF ENGINEERING, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. SUITABLE MATERIAL SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED.
- COMPACTION:** BACKFILL OF THE TRENCHES SHALL BE COMPACTED TO 95% MAX. DRY DENSITY UNDER ALL PAVED AREAS AND 92% MAX. DRY DENSITY UNDER OTHER AREAS IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS - SECTION 304.
- IF TRENCH BOTTOM IS DISTURBED THEN CONTRACTOR SHALL COMPACT AS APPROPRIATE.
- ENGINEER SHALL DETERMINE AT THE TIME OF CONSTRUCTION IF STONE IN SHALLOW TRENCHES SHALL BE WRAPPED IN FABRIC WHERE FIELD CONDITIONS DICTATE. FABRIC IS SUBSIDIARY TO PIPE ITEM NUMBER.
- WHERE ROCK IS ENCOUNTERED IN TRENCH EXCAVATION, ALLOWABLE PAY LIMIT SHALL BE AS DEFINED IN THE CHART SHOWN IN THIS DETAIL TO 12-INCHES BELOW PIPE.
- CORES:** WHERE IT IS NECESSARY TO CORE AN EXISTING STRUCTURE THE CORE SHALL BE COMPLETED WITH A CIRCULAR HOLE SAW AND SHALL BE LARGE ENOUGH TO RECEIVE THE PIPE AND NEOPRENE BOOT. CRUDE METHODS WITH A PIPE SAW, SLEDGE HAMMER OR OTHER TOOLS ARE UNACCEPTABLE. CORES INTO STRUCTURES SHALL BE INCIDENTAL TO THE PROJECT EXCEPT WHERE SPECIFICALLY CALLED AS A PAY ITEM ON THE PLAN.



PAY LIMITS	
TRENCH WIDTH	I.D.
36"	UP TO 12"
I.D. + 24"	12" TO 24"
2 x I.D.	OVER 24"

**Typical Drain Trench Detail (with less than 4' cover)**

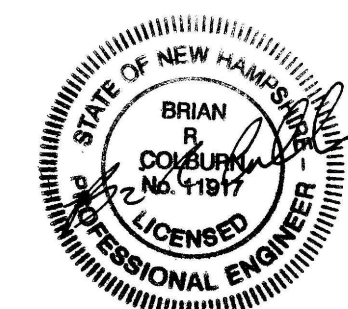
NO SCALE



PAY LIMITS	
TRENCH WIDTH	I.D.
36"	UP TO 12"
I.D. + 24"	12" TO 24"
2 x I.D.	OVER 24"

**Typical Drain Trench Detail**

NO SCALE



**McFarland Johnson**  
53 REGIONAL DRIVE  
CONCORD, NEW HAMPSHIRE, 03301

REV	DATE	DESCRIPTION	BY
1	1/14/2022	ADDENDUM 1	MKM

**TOWN OF SALEM  
SALEM, NEW HAMPSHIRE  
2022 ROADWAY IMPROVEMENT  
PROJECT**

**CIVIL DETAILS 3**

SCALE: N.T.S	DESIGN: BEP
DRAWN: TMH	PROJECT:18587.04
CHECKED: BRC	DATE: DECEMBER 16, 2021