



TOWN OF HUDSON

Board of Selectmen



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6024 • Fax: 603-598-6481

HUDSON, NH BOARD OF SELECTMEN

February 4, 2020

7:00 p.m.

BOS Meeting Room at Town Hall

Agenda

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ATTENDANCE
4. PUBLIC INPUT
5. RECOGNITIONS, NOMINATIONS, APPOINTMENTS AND RESIGNATIONS
None
6. CONSENT ITEMS
 - A. Assessing Items
 - 1) Tax Deferral Application: map 145, lot 011, sub 002 - 12 Sullivan Road
 - 2) Current Use Lien Release: map 223, lot 43-6 - 9 Copper Hill Road
 - 3) Current Use Lien Release: map 223, lot 43-5 - 11 Copper Hill Road
 - B. Water/Sewer Items - None
 - C. Licenses, Permits and Policies
 - 1) Tag Day Permit - Girls Scouts of the Green and White Mountains
 - 2) Raffle Permit - Trinity LLC/The Bar

D. Donations - None

E. Acceptance of Minutes - None

F. Calendar

2/5 8:30 Highway Safety Committee - Buxton Meeting Room
2/8 9:00 Town Deliberative Session - Community Center
2/10 7:00 Cable Utility Committee - HCTV
2/10 7:00 Conservation Commission - Buxton Meeting Room
2/12 6:00 Library Trustees - Hills Memorial Library
2/12 7:00 Planning Board - Buxton Meeting Room
2/17 Presidents Day - TOWN HALL CLOSED
2/18 7:00 Municipal Utility Committee - BOS Meeting Room
2/20 3:00 Trustees of the Trust Fund - Buxton Meeting Room
2/20 7:00 Benson Park Committee - HCTV
2/24 7:00 Sustainability Committee - Buxton Meeting Room
2/25 7:00 Board of Selectmen - BOS Meeting Room

7. OLD BUSINESS

A. Votes taken after Nonpublic Session on January 28, 2020

Selectman Coutu made a motion, seconded by Selectman Roy, to deny the Step 2 Grievance filed by the Hudson Public Works Union, AFSCME Local 1801 for the Class Action Hours of Work and Overtime Double Time. Carried 5-0.

Selectman Martin made a motion, seconded by Selectman Coutu, to hire Raymond Abair for the position of Inspector in the Fire Department at the contracted salary of \$24.07 per hour (step 1). This assignment will be a non-exempt position in accordance with the Hudson Support Staff Union, AFSCME Local 1801, as recommended by the Fire Chief. Carried 5-0.

Selectman McGrath made a motion, seconded by Selectman Roy, to accept the offer, in the amount of \$40,000, from 4NH Homes LLC to purchase Tax Deed property located at 151 Robinson Road. Carried 5-0.

Selectman Roy made a motion, seconded by Selectman Martin at 8:23 p.m. Carried 5-0.

8. NEW BUSINESS

- A. Hudson Water Utility Rules and Regulation Revision
- B. Engineering Assessment Update - Liberty Field

9. REMARKS BY SCHOOL BOARD

10. REMARKS BY TOWN ADMINISTRATOR

11. OTHER BUSINESS/REMARKS BY THE SELECTMEN

12. NONPUBLIC SESSION

RSA 91-A:3 II (b) The hiring of any person as a public employee

THE SELECTMEN MAY ALSO GO INTO NON-PUBLIC SESSION FOR ANY OTHER SUBJECT MATTER PERMITTED PURSUANT TO RSA 91-A:3 (II).

13. ADJOURNMENT

Reminder ... Items for the next agenda, with complete backup, must be in the Selectmen's Office **no later than 12:00 noon on February 20, 2020.**



TOWN OF HUDSON

Office of the Assessor

Jim Michaud
Chief Assessor, CAE
email: jmichaud@hudsonnh.gov


www.hudsonnh.gov



12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6009 · Fax: 603-594-1160

6.A.1

TO: Steve Malizia, Town Administrator
Board of Selectmen

FROM: Jim Michaud, Chief Assessor 

DATE: February 4, 2020

RE: Tax Deferral Application- map 145/ lot 011/ sub 002
12 Sullivan Road

RECEIVED
JAN 30 2020
TOWN OF HUDSON
SELECTMEN'S OFFICE

Please grant and sign the attached Tax Deferral Application for the property owner listed below:

Roberta Johnston – 12 Sullivan Road - map 145/ lot 011/ sub 002

The Board of Selectmen has granted this deferral in previous years. The total of the respective tax liens on this property does not exceed 85% of the assessed value (per RSA 72:38a). There is no mortgage on this property so no further approval is required.

MOTION:

Motion to grant a Tax Deferral for the property owner referenced in the above request.

PLEASE SIGN IN BLACK INK

FORM
PA-30

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
ELDERLY AND DISABLED TAX DEFERRAL APPLICATION
DUE MARCH 1 FOLLOWING THE NOTICE OF TAX

	OWNER AND APPLICANT INFORMATION					
STEP 1 OWNER AND APPLICANT NAME AND ADDRESS	OWNER					If required, is a PA-33 on file? <input type="radio"/> YES <input checked="" type="radio"/> NO
	APPLICANT'S LAST NAME					APPLICANT'S FIRST NAME
	APPLICANT'S LAST NAME					APPLICANT'S FIRST NAME
	STREET ADDRESS					
	MAILING ADDRESS (if different from above)					
	CITY/TOWN				STATE	ZIP CODE
STEP 2 PROPERTY LOCATION	PROPERTY LOCATION					
	STREET					
	CITY/TOWN					
	COUNTY					
	NUMBER OF ACRES	TAX MAP	BLOCK	LOT	BOOK	PAGE
		145	011	002	7,432	2,490
STEP 3 TO BE COMPLETED BY PROPERTY OWNER	(a) Tax year for which the deferral is requested					2019
	(b) Amount of requested tax deferral					\$1,092
	(c) Amount of tax bill					\$1,092
	(d) Is the applicant:					
	65 or older and has owned homestead for five (5) consecutive years; or					<input checked="" type="radio"/> YES <input type="radio"/> NO
Receives benefits under Title II or Title XVI of the Federal Social Security Act and has owned homestead for one year; and					<input type="radio"/> YES <input type="radio"/> NO	
Living in the home?					<input checked="" type="radio"/> YES <input type="radio"/> NO	
STEP 4 OWNER SIGNATURES	I understand that upon approval of this application by the municipal assessing officials, a lien shall be created against the above described property, pursuant to RSA 72:38-a. My signature below indicates my agreement with the obligation incurred against the property described in Step 2 above. Under penalties of perjury, I declare that I have examined this document and to the best of my belief the information herein is true, correct and complete.					
	ROBERTA B JOHNSTON		ROBERTA B JOHNSTON		1/30/20	
	TYPE OR PRINT NAME		SIGNATURE (IN INK)		DATE	
	TYPE OR PRINT NAME		SIGNATURE (IN INK)		DATE	
	TYPE OR PRINT NAME		SIGNATURE (IN INK)		DATE	
TYPE OR PRINT NAME		SIGNATURE (IN INK)		DATE		

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
ELDERLY AND DISABLED TAX DEFERRAL APPLICATION

STEP 5 APPROVAL BY THE MORTGAGEE	By signing below, the mortgagee signifies that they do approve and are duly notified that upon approval of this application by the municipal assessing officials, a lien shall be created against the above described property, pursuant to RSA 72:38-a, III.		
	NAME OF MORTGAGE HOLDER _____		
	SIGNATURE OF OFFICER OR AGENT FOR MORTGAGEE _____	TITLE _____	DATE _____

TO BE COMPLETED BY MUNICIPAL ASSESSING OFFICIALS

STEP 6 AMOUNT OF TAXES DEFERRED	(a) Amount of tax deferred in prior years	\$17,755
	(b) Amount of tax deferred in current year	\$1,092
	(c) Total amount of taxes deferred [6(a) + 6(b)]	\$18,847

STEP 7 PERCENT OF EQUITY VALUE ENCUMBERED	(a) Enter the percentage of total equity value of the property encumbered in prior years	7.8%
	(b) Enter the percentage of total equity value of the property encumbered in current year	0.5%
	(c) Percentage of total equity value the property encumbered for: All Years [7(a) + 7(b)]	8.3%

STEP 8 MUNICIPAL DECISION		GRANTED	DENIED	AMOUNT	DATE
	<input checked="" type="checkbox"/> Elderly Tax Deferral	<input type="radio"/>	<input type="radio"/>	_____	_____
	<input type="checkbox"/> Disabled Tax Deferral	<input type="radio"/>	<input type="radio"/>	_____	_____
	For Deferrals: This page must be returned to the property owner after approval or denial, on or before July 1, following the date of Notice of Tax as defined in RSA 72:1-d, by first class mail. (RSA 72:34, IV)				
	Reason for Denial _____				

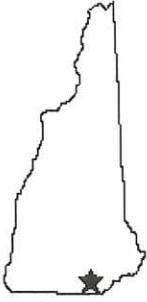
STEP 9 APPROVAL OF A MAJORITY OF SELECTMEN / MUNICIPAL ASSESSING OFFICIALS	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE
	PRINT / TYPE NAME OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	SIGNATURE (IN INK) OF SELECTMEN / MUNICIPAL ASSESSING OFFICIAL	DATE

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
ELDERLY AND DISABLED TAX DEFERRAL APPLICATION

WHO MAY FILE	Under the provisions of RSA 72:38-a, I, any resident property owner may apply for a tax deferral if they: <ul style="list-style-type: none"> • Are either at least 65 years of age or eligible under Title II or Title XVI of the Federal Social Security Act for benefits for the disabled; • Have owned the homestead for at least five consecutive years if elderly or at least one year if disabled; and • Are living in the home.
WHEN TO FILE	The completed Form PA-30 shall be filed by March 1 following the date of notice of tax. Example: If you are applying for a tax deferral from your 2014 property taxes, which are due no earlier than December 1, 2014, then you have until March 1, 2015 to file this form.
WHERE TO FILE	Once completed and signed in ink, this form shall be filed as follows: Original: Register of Deeds Copy: To the Selectmen / Municipal Assessing Officials of the municipality of your primary residence Copy: Property Owner
TAX DEFERRAL PROVISIONS	The municipal assessing officials may annually grant a person qualified under this paragraph a tax deferral for all or part of the taxes due, plus annual interest at five percent, if in their opinion the tax liability causes the taxpayer an undue hardship or possible loss of the property. The total of tax deferrals on a particular property shall not be more than 85 percent of its equity value. A tax deferral shall be subject to any prior liens on the property and shall be treated as such in any foreclosure proceedings. If the property is subject to a mortgage, the owner must have the mortgage holder's approval of the tax deferral. Such approval does not grant the town a preferential lien.
APPEALS	The municipal assessing officials shall send written notice advising the taxpayer of their decision to grant or deny the request for exemption by July 1. Failure of the municipal assessing officials to respond shall constitute a denial of the application. If an application for a property tax deferral is denied, an applicant may appeal in writing on or before September 1 following the date of notice of tax under RSA 72:1-d, to the New Hampshire Board of Tax and Land Appeals (BTLA) or the County Superior Court in the county where the property is located. Example: If you were denied a deferral from your 2014 property taxes, you have until September 1, 2015 to appeal. Forms for appealing to the Board of Tax and Land Appeals may be obtained from the New Hampshire Board of Tax and Land Appeals, 107 Pleasant Street, Concord, NH 03301, by calling (603) 271-2578 or by visiting their website at www.nh.gov/btla . Be sure to specify that you are appealing the Elderly or Disabled Tax Deferral application denial.
ADA COMPLIANCE	Individuals who need auxiliary aids for effective communication in programs and services of the New Hampshire Department of Revenue Administration are invited to make their needs and preferences known. Individuals with hearing or speech impairments may call TDD Access: Relay NH 1-800-735-2964.
NEED HELP	Contact your local municipality or the Municipal and Property Division at (603) 230-5950; or visit the department's website at www.revenue.nh.gov/forms .

LINE-BY-LINE INSTRUCTIONS

STEP 1	Enter the complete name and address of the property owner(s) requesting a tax deferral under RSA 72:38-a.
STEP 2	Enter the location, street address, municipality, county, number of acres, tax map, block and lot numbers, and book and page numbers of the property for which the RSA 72:38-a, deferral is requested.
STEP 3	(a) Enter the tax year for which the deferral is requested. (b) Enter the amount of the requested tax deferral. (c) Enter the amount of the tax bill for the year of this application. (d) Check the appropriate boxes to indicate that all of the qualification requirements have been met.
STEP 4	ALL property owners of record must type or print their full name, sign and date in ink, acknowledging that they understand and agree to the obligation incurred against the property by electing a deferral of taxes under RSA 72:38-a. If there are more than four owners, submit a supplemental list of names and signatures.
STEP 5	Enter the name of the mortgage holder and obtain the signature of an authorized agent for the mortgage holder.
STEP 6	The municipal assessing officials shall complete this step. (a) Enter the amount of taxes deferred in prior years. (b) Enter the amount of tax requested for deferral in the current year. (c) The total amount of the tax deferral (Step 6(a) plus Step 6(b)).
STEP 7	The municipal assessing officials shall complete this step. (a) Enter the percentage of the total equity value encumbered under RSA 72:38-a in prior years. (b) Enter the percentage of the total equity value encumbered under RSA 72:38-a in the current year. (c) The percentage of the total equity value encumbered for all years combined (Step 7(a) plus Step 7(b)). If the result of Step 7(c) exceeds 85 percent, this application will be denied pursuant to RSA 72:38-a, I.
STEP 8	The municipal assessing officials shall complete this step. Check applicable box for type of tax deferral. Check whether tax deferral was granted or denied. If granted, enter dollar amount granted. Enter date tax deferral was granted.
STEP 9	Signatures of a majority of the local Selectmen or municipal assessing officials on the lines provided indicates approval.



TOWN OF HUDSON

Office of the Assessor

Jim Michaud
Chief Assessor, CAE
email: jmichaud@hudsonnh.gov

www.hudsonnh.gov




Agenda
2-4-20

12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6009 · Fax: 603-594-1160

6.A.2

MEMORANDUM

TO: Board of Selectmen
Steve Malizia, Town Administrator

FROM: Jim Michaud, Chief Assessor 

DATE: February 4, 2020

RE: Current Use Lien Release
Map 223 Lot 43-6 – 9 Copper Hill Road



The attached Current Use Lien Release for the above referenced site is for the BOS's review and consideration. The land to come out of current use in this subdivision is a lot that was sold by the developer/owner to another, which resulted in land less than 10 acres being owned under identical ownership. We have reviewed the subdivision documents that created this parcel, reviewed vacant residential building lot land sales from 2018-2020, the Subject parcel itself sold for \$160,000 in an arm's length transaction in January 2020, and have determined a market value of \$160,000 is market supported for this site.

DRAFT MOTION

Motion to approve the attached Current Use Penalty Lien Release for Map 223 Lot 43-6, as recommended by the Chief Assessor.

CurrUseLienRelease9CopperHillRdBOSMemo

FORM

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION

A-5

LAND USE CHANGE TAX

STEP 1 PROPERTY OWNER(S) AND RESPONSIBLE PARTY (if applicable)

PLEASE TYPE OR PRINT	LAST NAME	FIRST NAME	INITIAL	
	KIHIKO	JAMES, TRUSTEE	N	
	LAST NAME	FIRST NAME	INITIAL	
	MIMO	REALTY TRUST		
	RESPONSIBLE PARTY, IF OTHER THAN PROPERTY OWNER [RSA 79-A:7, II(e)]			
	STREET ADDRESS			
44 WEST MEADOW ROAD				
ADDRESS (continued)				
TOWN/CITY			STATE	ZIP CODE+4
LOWELL			MA	01854

STEP 2 PROPERTY LOCATION

PLEASE TYPE OR PRINT	STREET				
	9 COPPER HILL RD				
	TOWN/CITY			COUNTY	
	HUDSON			HILLSBOROUGH	
	NUMBER OF ACRES	CHECK ONE:		BOOK #	PAGE #
	3.363	PARTIAL RELEASE <input checked="" type="checkbox"/> FULL RELEASE <input type="checkbox"/>		9254	929
MAP #	LOT #	MAP #	LOT #	MAP #	LOT #
223	43-6	ACCT#11096			

STEP 3 LOCAL IDENTIFICATION OF LAND BEING DISQUALIFIED

(a) Owners Name of Record When Land Was First Classified	BOOK #	PAGE #
VICTOR T. GUERTIN	3154	851
(b) Number of Acres Originally Classified	50 AC (S/B 37.496)	
(c) Number of Acres Previously Disqualified	24.408	
(d) Acres Disqualified per this Assessment	3.363	
(e) Number of Acres Remaining in Current Use [3(b) minus 3(c) and 3(d)]	9.725	

STEP 4 ASSESSMENT OF LAND USE CHANGE TAX

(a) Narrative description of the disqualification: LOT SOLD 1/17/2020, SITE LESS THAN 10 ACRES	
UNDER IDENTICAL OWNERSHIP	
(b) Actual Date of Change in Use (MM/DD/YYYY)	1-17-20
(c) Full and True Value at Time of Change in Use	\$ 160,000
(d) Land Use Change Tax [Step 4(c) x 10%]	\$ 16,000.00

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
LAND USE CHANGE TAX

STEP 5 SIGNATURES OF A MAJORITY OF SELECTMEN/ASSESSORS

TYPE OR PRINT NAME (in black ink) DAVID S. MORIN	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) KARA ROY	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) ROGER E. COUTU	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) MARILYN McGRATH	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) NORMAND G. MARTIN	SIGNATURE (in black ink)	DATE

STEP 6 LAND USE CHANGE TAX NOTICE (TO BE COMPLETED BY LOCAL ASSESSING OFFICIALS)

PLEASE TYPE OR PRINT	LAST NAME KIHIKO	FIRST NAME JAMES N., TRUSTEE MIMO RLTY TR
	ADDRESS	
	ADDRESS (continued) 44 WEST MEADOW ROAD	
	TOWN/CITY LOWELL	STATE MA
(a) Date of Release (MM/DD/YYYY) 2/4/2020		
(b) Date of Bill (MM/DD/YYYY)		
(c) Full and True Value at Time of Change in Use		\$ 160,000
(d) Total Tax Due		\$ 16,000.00

STEP 7 CHECKS PAYABLE TO AND MAILED TO (TO BE COMPLETED BY TAX COLLECTOR)

(a) Make Check Payable to: TOWN OF HUDSON		
(b) Mail To:	NAME TOWN OF HUDSON, C/O PATTI BARRY, TOWN CLERK/TAX COLLECTOR	
	ADDRESS 12 SCHOOL STREET	
	TOWN/CITY HUDSON	STATE NH
(c) Tax Collector's Office Location: 12 SCHOOL STREET, HUDSON, NH 03051		
(d) Tax Collector's Office Hours: 8 AM - 4:30PM MONDAY THRU FRIDAY, 8 AM - 7:00PM THURSDAY		
(e) Include a separate check in the amount of \$ 16.49 Payable to HILLSBOROUGH COUNTY REGISTRY OF DEEDS for recording fee at County Register of Deeds.		
(f) Payment of this tax is due no later than 30 days after mailing of this bill. Interest, at the rate of 18% per annum, shall be due if this tax is not paid on or before _____		

STEP 8 ACKNOWLEDGMENT OF PAYMENT

SIGNATURE (in black ink) OF TAX COLLECTOR	DATE PAID
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NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
WARRANT FOR LAND USE CHANGE TAX

STEP 1 - TAX COLLECTOR'S WARRANT FOR LAND USE CHANGE TAX IN THE MUNICIPALITY OF:

NAME OF MUNICIPALITY HUDSON		
STREET ADDRESS 12 SCHOOL STREET		
MAILING ADDRESS		
MUNICIPALITY HUDSON	STATE NH	ZIP CODE 03051

STEP 2 - COLLECTION OF LAND USE CHANGE TAX

(a) State of New Hampshire, County of: HILLSBOROUGH	
(b) To: PATTI BARI	Municipal Collector of taxes
(c) for the municipality of: HUDSON	in said County.
(d) In the name of said State you are directed to collect the LAND USE CHANGE TAX in the list herewith committed to you, amounting in all of the sum of: Interest at 18% will be assessed after 30 days.	\$ 16,000.00
(e) Given under our hands at 7:00pm	
(f) This day of FEBRUARY 4 2020	
(g) LANDOWNER NAME OR RIGHT -OF- WAY RESPONSIBLE PARTY JAMES N. KIHICO, TRUSTEE, MIMO REALTY TRUST	
LANDOWNER NAME OR RIGHT -OF- WAY RESPONSIBLE PARTY MAILING ADDRESS 44 WEST MEADOW RD, LOWELL, MA, 01854	
(h) MUNICIPAL TAX MAP 223-043-006	LOT NUMBER ACCT#11096

STEP 3 - SIGNATURES OF A MAJORITY OF THE MUNICIPAL ASSESSING OFFICIALS

TYPE OR PRINT NAME (in black or dark blue ink) DAVID S. MORIN	SIGNATURE (in black or dark blue ink)	DATE
TYPE OR PRINT NAME (in black or dark blue ink) KARA ROY	SIGNATURE (in black or dark blue ink)	DATE
TYPE OR PRINT NAME (in black or dark blue ink) ROGER E. COUTU	SIGNATURE (in black or dark blue ink)	DATE
TYPE OR PRINT NAME (in black or dark blue ink) MARILYN MCGRATH	SIGNATURE (in black or dark blue ink)	DATE
TYPE OR PRINT NAME (in black or dark blue ink) NORMAND G. MARTIN	SIGNATURE (in black or dark blue ink)	DATE



TOWN OF HUDSON

Office of the Assessor

Jim Michaud
Chief Assessor, CAE
email: jmichaud@hudsonnh.gov

www.hudsonnh.gov



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6.A.3

*Agenda
2-4-20*

MEMORANDUM

RECEIVED
JAN 30 2020
TOWN OF HUDSON
SELECTMEN'S OFFICE

TO: Board of Selectmen
Steve Malizia, Town Administrator

FROM: Jim Michaud, Chief Assessor *JM*

DATE: February 4, 2020

RE: Current Use Lien Release
Map 223 Lot 43-5 – 11 Copper Hill Road

The attached Current Use Lien Release for the above referenced site is for the BOS's review and consideration. The land to come out of current use in this subdivision is a lot that was sold by the developer/owner to another, which resulted in land less than 10 acres being owned under identical ownership. We have reviewed the subdivision documents that created this parcel, reviewed vacant residential building lot land sales from 2018-2020, the Subject parcel itself is under agreement in the net for \$178,000 (this includes a \$5,000 concession to install a new driveway-an improvement not includable for vacant lot land use change tax purposes) in an arm's length marketing process for January 2020, and have determined a market value of \$173,000 is market supported for this site.

DRAFT MOTION

Motion to approve the attached Current Use Penalty Lien Release for Map 223 Lot 43-5, as recommended by the Chief Assessor.

CurrUseLienRelease11CopperHillRdBOSMemo

FORM

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION

A-5

LAND USE CHANGE TAX

STEP 1 PROPERTY OWNER(S) AND RESPONSIBLE PARTY (if applicable)

PLEASE TYPE OR PRINT	LAST NAME	FIRST NAME	INITIAL	
	HSU	TAI-DEH		
	LAST NAME	FIRST NAME	INITIAL	
	HSWY	REALTY TRUST		
	RESPONSIBLE PARTY, IF OTHER THAN PROPERTY OWNER [RSA 79-A.7, I(e)]			
	STREET ADDRESS			
1 SPRINGVALE DRIVE				
ADDRESS (continued)				
TOWN/CITY			STATE	ZIP CODE+4
HOLLIS			NH	03049

STEP 2 PROPERTY LOCATION

PLEASE TYPE OR PRINT	STREET				
	11 COPPER HILL RD				
	TOWN/CITY			COUNTY	
	HUDSON			HILLSBOROUGH	
	NUMBER OF ACRES	CHECK ONE:		BOOK #	PAGE #
	9.725 W/RD	PARTIAL RELEASE <input type="checkbox"/> FULL RELEASE <input checked="" type="checkbox"/>		7347	2987
MAP #	LOT #	MAP #	LOT #	MAP #	LOT #
223	43-5	ACCT#11095			

STEP 3 LOCAL IDENTIFICATION OF LAND BEING DISQUALIFIED

(a) Owners Name of Record When Land Was First Classified	BOOK #	PAGE #
VICTOR T. GUERTIN	3154	851
(b) Number of Acres Originally Classified	50 AC (S/B 37.496)	
(c) Number of Acres Previously Disqualified	27.771	
(d) Acres Disqualified per this Assessment	9.725	
(e) Number of Acres Remaining in Current Use [3(b) minus 3(c) and 3(d)]	0	

STEP 4 ASSESSMENT OF LAND USE CHANGE TAX

(a) Narrative description of the disqualification: SITE LESS THAN 10 ACRES	
UNDER IDENTICAL OWNERSHIP	
(b) Actual Date of Change in Use (MM/DD/YYYY)	1-17-20
(c) Full and True Value at Time of Change in Use	\$ 173000
(d) Land Use Change Tax [Step 4(c) x 10%]	\$ 17,300.00

LAND USE CHANGE TAX

STEP 5 SIGNATURES OF A MAJORITY OF SELECTMEN/ASSESSORS

TYPE OR PRINT NAME (in black ink) DAVID S. MORIN	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) KARA ROY	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) ROGER E. COUTU	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) MARILYN McGRATH	SIGNATURE (in black ink)	DATE
TYPE OR PRINT NAME (in black ink) NORMAND G. MARTIN	SIGNATURE (in black ink)	DATE

STEP 6 LAND USE CHANGE TAX NOTICE (TO BE COMPLETED BY LOCAL ASSESSING OFFICIALS)

PLEASE TYPE OR PRINT	LAST NAME HSU	FIRST NAME TAI-DEH, TRUSTEE HSWY RLTY TR
	ADDRESS	
	ADDRESS (continued) 1 SPRINGVALE DR	
	TOWN/CITY HOLLIS	STATE NH
(a) Date of Release (MM/DD/YYYY) 2/4/2020		
(b) Date of Bill (MM/DD/YYYY)		
(c) Full and True Value at Time of Change in Use		\$ 173,000
(d) Total Tax Due		\$ 17,300.00

STEP 7 CHECKS PAYABLE TO AND MAILED TO (TO BE COMPLETED BY TAX COLLECTOR)

(a) Make Check Payable to: TOWN OF HUDSON		
(b) Mail To:	NAME TOWN OF HUDSON, C/O PATTI BARRY, TOWN CLERK/TAX COLLECTOR	
	ADDRESS 12 SCHOOL STREET	
	TOWN/CITY HUDSON	STATE NH
(c) Tax Collector's Office Location: 12 SCHOOL STREET, HUDSON, NH 03051		
(d) Tax Collector's Office Hours: 8 AM - 4:30PM MONDAY THRU FRIDAY, 8 AM - 7:00PM THURSDAY		
(e) Include a separate check in the amount of \$ 16.49 Payable to <u>HILLSBOROUGH COUNTY REGISTRY OF DEEDS</u> for recording fee at County Register of Deeds.		
(f) Payment of this tax is due no later than 30 days after mailing of this bill. Interest, at the rate of 18% per annum, shall be due if this tax is not paid on or before _____		

STEP 8 ACKNOWLEDGMENT OF PAYMENT

SIGNATURE (in black ink) OF TAX COLLECTOR	DATE PAID

NEW HAMPSHIRE DEPARTMENT OF REVENUE ADMINISTRATION
WARRANT FOR LAND USE CHANGE TAX

STEP 1 - TAX COLLECTOR'S WARRANT FOR LAND USE CHANGE TAX IN THE MUNICIPALITY OF:

NAME OF MUNICIPALITY HUDSON		
STREET ADDRESS 12 SCHOOL STREET		
MAILING ADDRESS		
MUNICIPALITY HUDSON	STATE NH	ZIP CODE 03051

STEP 2 - COLLECTION OF LAND USE CHANGE TAX

(a) State of New Hampshire, County of: HILLSBOROUGH	
(b) To: PATTI BARRY	Municipal Collector of taxes
(c) for the municipality of: HUDSON	in said County.
(d) In the name of said State you are directed to collect the LAND USE CHANGE TAX in the list herewith committed to you, amounting in all of the sum of: Interest at 18% will be assessed after 30 days.	\$ 17,300.00
(e) Given under our hands at 7:00pm	
(f) This day of FEBRUARY 4 2020	
(g) LANDOWNER NAME OR RIGHT-OF- WAY RESPONSIBLE PARTY TAI DEH-HSU, TRUSTE HSWY REAL ESTATE TRUST	
LANDOWNER NAME OR RIGHT-OF- WAY RESPONSIBLE PARTY MAILING ADDRESS 1 SPRINGVALE DR, HOLLIS, NH 03049	
(h) MUNICIPAL TAX MAP 223-043-005	LOT NUMBER ACCT#11095

STEP 3 - SIGNATURES OF A MAJORITY OF THE MUNICIPAL ASSESSING OFFICIALS

TYPE OR PRINT NAME (in black or dark blue ink)	SIGNATURE (in black or dark blue ink)	DATE
DAVID S. MORIN		
KARA ROY		
ROGER E. COUTU		
MARILYN MCGRATH		
NORMAND G. MARTIN		



Agenda
2-4-20

TAG DAY SALES

Hudson, NH

C.1

RSA 31:91 Soliciting Funds

The right to grant permits for soliciting funds for charitable purposes and for the sale of tags, flowers or other objects for charitable purposes shall be vested in the mayor and aldermen of a city or the selectmen of towns.

Instructions to obtain a Tag Day Permit:

- 1) Submit a letter to the Board of Selectmen at 12 School Street, Hudson, NH 03051, stating the date, time and location that the collection of funds will take place. (Information can be FAXed to 603-598-6481)
- 2) Indicate how the collected funds will be used/distributed or to whom it will benefit or to whom the funds will be collected on behalf of. Include verification of being properly registered with the NH Attorney General's Office, Division of Charitable Trusts, unless exempt, i.e., governmental subdivisions or religious organizations, who shall provide verification they are the bona fide representative of an exempt entity (RSA 7:19, et seq).
- 3) Include name, address, phone number and e-mail address of a contact person in case there are questions, concerns or if additional information is required.
- 4) Include a signed letter of permission from the establishment where the collection of funds will take place.

For Office Use Only

Organization Girl Scouts of The Green and White Mountains

____ Approved ____ Denied by Board of Selectmen on _____.

If denied, reason _____.

Board of Selectmen Chairman



girl scouts
of the green and
white mountains

October 4, 2019

Hudson Sams Club Store #6352
Store Manager
7 Walmart Blvd
Hudson, NH 03051

RE: Girl Scouts of the Green and White Mountains
2020 Girl Scouts' Cookie Sales Campaign

1 Commerce Drive
Bedford, NH 03110-6835
Toll-free 888.474.9686
F 603.627.4169
Girlscoutsgwm.org

Dear Sams Club Manager:

We are very pleased to be working in partnership with Walmart for our Girl Scouts to broaden their business experiences through cookie booth sales at our local Walmart locations.

Enclosed please find a signed Notice of Rules for Solicitation and Distribution of Literature for the 2020-2021 Girls Scouts Cookie Sales Campaign as negotiated between Walmart and Girl Scouts of the USA. Enclosed you will find our endorsed agreement for your review.

In order to finalize arrangements with your location, a local Girl Scout volunteer will be contacting you to coordinate all of the booth sales with your store. We have provided our volunteers with a Summary of the Solicitation rules to ensure they understand our mutual expectations.

O
C

If you should have any questions, please do not hesitate to contact me. Thank you very much for your support and partnership.

Sincerely,

Patricia K. Mellor
Chief Executive Officer

Enc
Girl Scouting builds girls of courage, confidence, and character,
who make the world a better place.

*On our
Charitable
organization
list*

1-29-20



RECEIVED

JAN 22 2020

TOWN OF HUDSON
SELECTMEN'S OFFICE

Sam's Club #6352
7 Wal-mart Blvd
Hudson, NH 03051
(603) 882 - 4600

To whom it may concern,

The following organization has been approved by Sam's Club to run a fund raising event outside the store:

Organization: Girl Scouts of the Green & White Mountains
Contact Name: Cynthia Knowlton
Contact Phone: (603) 882-4600
Event Date(s): 2/29, 3/1, 3/7, 3/8, 3/14, 3/15, 3/21, 3/22, 3/28
2/22, 2/23, 2/28, 3/12 ? 3/29

If there are any questions, please contact the Marketing Team at Sam's Club # 6352.

Thank you,



Agenda 2-4-20
RECEIVED
JAN 24 2020
TOWN OF HUDSON
SELECTMEN'S OFFICE

C.2

RAFFLE PERMIT

Hudson, New Hampshire

Name of Organization: Trinity LLC The Bar

Address: 26 Burnham Rd Hudson NH 03051

Raffle Benefit of: Brandie Fiorenza - Colorectal Cancer Stage 4

Date & Time of Raffle: Feb 22, 2020

Raffle to be held at: The Bar

Prizes: Raffles

Date of Ticket Sales: Feb 22, 2020

(must be **after** date of Board of Selectmen approval)

Applicant's Signature/Address/Phone Number

Judy Manik
Applicant's Signature

Judy Manik
Applicant's Printed Name

56 Richman Rd Hudson
Address

(978) 837-0515
Phone Number

Approved on: _____, by

HUDSON BOARD OF SELECTMEN

Chairman

Selectman

Selectman

Selectman

Selectman

(Fax completed form to 603-598-6481 or e-mail to lweissgarber@hudsonnh.gov, with Raffle Permit in subject line.)

HUDSON, NH BOARD OF SELECTMEN

Minutes of the January 28, 2020 Meeting

1. CALL TO ORDER

By Chairman Morin for the meeting of January 28, 2020 at 7:00 p.m. in the Selectmen's Meeting Room at Town Hall

2. MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE

Prior to the Pledge of Allegiance, Chairman Morin read a statement and asked the all in attendance to participate in a moment of silence in honor of Officer Katie Thyne of the Newport News, Virginia Police Department. Officer Thyne was killed in the line of duty last week. She was a graduate of Alvirine High School.

The Pledge of Allegiance was led by Bill Collis, Vice-Chairman of the Conservation Commission.

3. ATTENDANCE

Board of Selectmen: David Morin, Kara Roy, Roger Coutu, Marilyn McGrath, and Normand Martin
Staff/Others: Steve Malizia - Town Administrator; Jill Laffin - Executive Assistant;

Jess Forrence - Director of Public Works; Rob Buxton - Fire Chief; Bill Avery, Police Chief, Master Patrol Officer Jason Downey; Police Sgt. Roger Lamarche; Gary Gasdia - School Board Representative; Bill Collins, Vice-Chairman of the Conservation Commission

4. PUBLIC INPUT

Chairman Morin asked if anyone in the audience wished to address the Board on any issue which the Board has control of at this time. Seeing none

5. RECOGNITIONS, NOMINATIONS, APPOINTMENTS AND RESIGNATIONS

A. Resignations:

Motion made to accept the resignation of Mike Pitre, member of the Citizen's Traffic Advisory Committee. Motion carried 5-0.

Mr. Thomas Barrett was scheduled to come before the Board this evening to be interviewed and appointed as a member to the Citizen's Traffic Advisory Committee. Due to illness he will be interviewed and appointed at a future meeting.

6. CONSENT ITEMS

Chairman Morin asked if any member of the Board wanted to remove any Consent Items for separate consideration. No consent items were removed for separate consideration. Upon reviewing the upcoming calendar, the Board decided to cancel their February 10th meeting and instead hold a meeting on February 4th.

A. Assessing Items

1) Veteran Tax Credits (deferred from 1/14 mtg.) Map 139, Lot 013 - 4 North Ridge Rd. - Map 253, Lot 065-15 Schaeffer Cir.

2) Veteran Tax Credits: Map 216, Lot 014 - 44 Reflection Road; Map 127, Lot 003 - 18 Hopkins Drive

3) All Veterans Tax Credits: Map 177, Lot 050 - 49 Bear Path Lane

4) 2019 Property Tax Abatement: Map 173, Lot 18 - 17 Tolles Street

5) 2019 Property Tax Supplemental Tax Bill: Map 245, Lot 8 - 31 Fairway Drive

Water/Sewer Items

- 1) Water Abatement W-UTL-20-01 - 13 Hickory Street w/ recommendation to approve

Licenses, Permits and Policies

- 1) Hawker/Peddler/Itinerant Vendor's License - Lix Ice Cream
- 2) Tag Day Permit - Girls Scouts of the Green and White Mountains
- 3) Outdoor Gathering Permit & Raffle Permit - Ice Fishing Tournament - Hudson Kiwanis Club
- 4) Hawker/Peddler/Itinerant Vendor's License - The Blushing Rose

Donations

- 1) \$831.58 to Hudson Recreation Department from AAT Photo
- 2) \$400.00 to Hudson Fire Department from Sparkling River Condo Association of Hudson

Acceptance of Minutes

- 1) Minutes of the January 14, 2020 Meeting

Calendar

- 2/4 7:00 Board of Selectmen Workshop - BOS Meeting Room
- 2/1 9:00 School Deliberative Session
- 2/5 8:30 Highway Safety Committee - Buxton Meeting Room
- 2/5 7:00 Budget Committee - CANCELLED
- 2/8 9:00 Town Deliberative Session
- 2/10 7:00 Cable Utility Committee - CANCELLED
- 2/10 7:00 Conservation Commission
- 2/10 7:00 Board of Selectmen (note this meeting is on Monday as Tuesday, 2/11 is the Presidential Primary)

Selectman Coutu made a motion, seconded by Selectman Martin, to approve Consent Items A, B, C, D, E and F as amended. Motion carried 5-0.

7. OLD BUSINESS

A. Votes taken after Nonpublic Session on January 14, 2019

- 1) Selectman Martin made a motion, seconded by Selectman Roy, to approve the hiring of Andrew Silver for the position of Firefighter/AEMT in the Fire Department at the contracted salary of \$20.55 per hour (step 1). This assignment will be a non-exempt position in accordance with the International Association of Firefighters Local #3154 as per the union contract. Carried 5-0.

- 2) Selectman Coutu made a motion to adjourn at 9:50 p.m. This was seconded by Selectman Martin. Carried 5-0.

- B. Hawker/Peddler/Itinerant Vendor's License which was deferred from 1/14/20 Meeting -Spring Hill Catering

Mr. Malizia informed the Board that there was correspondence in front of them regarding this application. Selectman McGrath stated I requested that that be deferred so we could determine whether or not they were in compliance with the Zoning Board special exception and the stipulations of approval. I talked to Bruce. I had also received a complaint about that particular business. So I filled out the complaint form, I talked to Bruce, he did an inspection and talked to the property owner and they are in compliance so we can move forward. Selectman Coutu made a motion, seconded by Selectman Roy, to approve Hawker/Peddler License for Spring Hill Catering. Carried 5-0.

8. NEW BUSINESS

- A. Public Hearing - Acceptance of the 2020 Exotic Aquatic Plant Control Grant from NHDES

Chairman Morin recognized Bill Collins, Vice-Chairman of the Conservation Commission. Mr. Collins went on to explain that is time to review the aquatic plant controls at Robinson Pond and Ottarnic Pond. The State has supplied us with the new level of funding for this year with a total grant amount up to \$22,634.00 the grant will be divvied up between Robinson Pond and Ottarnic Pond for both chemical treatment and diver assisted suction harvesting. The chemical treatments will take place mainly in June at Ottarnic Pond and Robinson Pond. The diver assisted plant harvesting will take place from April through November. I'm here today to see if you guys will accept the current grant. Also the difference will be paid for from the Conservation Commission professional services fund. Chairman Morin opened a public hearing at 7:10 p.m. Seeing no one present to discuss the matter at hand, Chairman Morin closed the public hearing at 7:10 p.m. Selectman Coutu made a motion, seconded by Selectman McGrath to accept the Exotic Aquatic Plan Control Grant from NHDES. Carried 5-0.

- B. Contract Approval for DASH and Herbicide Treatment for removal of milfoil at Ottarnic Pond and Robinson Pond

Chairman Morin recognized Bill Collins, Vice Chairman of the Conservation Commission. Mr. Collins went on to explain that this is for the contract approval for DASH and Herbicide treatment removal of milfoil at Ottarnic Pond and Robinson Pond. The current contract is Solitude for the chemical treatments and Aqualogic who did the work last year at Robinson Pond. Aqualogic was out on site last year for a couple of days. I was out there and I was able to observe their operation. They seem to do a reasonably good job in harvesting all the plant matter from around the boat launch area and some of the other areas of the pond. The chemical treatments will be pretty intense at Ottarnic this year. They're going to try two different chemicals to try to treat the species out there. But there will be no DASH dives taking place over there. Chairman Morin asked if there were any questions for Mr. Collins. Selectman Roy made a motion, seconded by Selectman McGrath to approve and sign the attached 2020 Contracts for Solitude Lake Management for herbicide treatment for Robinson and Ottarnic Pond not to exceed \$33,977.00 and Aqualogic for DASH work for both Robinson and Ottarnic Ponds not to exceed \$22,600.00. The cost of these contracts will be covered by the NHDES Exotic Aquatic Plant Control Grant at 40% cost match up to \$22,643.00, and the Town portion will be covered through the Conservation Commission Professional Services account (acct. #5586-252). Carried 5-0.

C. Donation Acceptance for Police Comfort Dog, Haven

Chairman Morin welcomed Master Patrol Officer, Jason Downey and Sgt. Roger Lamarche. Officer Downey said that he is here to acknowledge some of the very generous donations from corporations in Town. Bay State Welding donated \$2,500, Mike's Pie's donated \$250.00, American Legion Post #48 donated \$250, Sons of the American Legion donated \$25.00 and Officer Downey's aunt, Paula Downey from Weymouth Massachusetts, donated \$25.00. A total amount of \$3,050.00 Officer Downey said that he was just made aware that Selectman McGrath made a donation as well. He wanted to thank her personally. He went on to list some additional expected donations that the Department will be receiving in the near future. Officer Downey went on to tell the Board that the donations the Department is receiving for Haven are going towards her future vet bills and incidentals such as toys, beds, waste bags etc. Selectman Martin made a motion, seconded by Selectman Martin, to accept the donations in the total amount of \$3,050.00 from the businesses in the community. Carried 5-0.

D. Public Works Request to Advertise for Traffic Technician Position

Chairman Morin recognized Jess Forrence, Director of Public Works. Mr. Forrence went on to explain that when the previous traffic technician was promoted to foreman at the DPW, it created an open position. Mr. Forrence went on to explain that this is a busy position that he would like to get the position posted in house. The position has been in there for twenty years. It's a well-deserved, well-earned position. With the stuff that the Town Engineer has come up with it keeps him quite busy. He'd like to post this in house and fill it in house if all the candidates meet the job description we created, including some of the new traffic stuff but I think we've got a pretty good shot. Selectman Coutu made a motion, seconded by Selectman Roy to authorize the Public Works Director to post, in house, the position of Traffic Technician. Carried 5-0.

9. REMARKS BY SCHOOL BOARD

Chairman Morin recognized School Board member Gary Gasdia. Mr. Gasdia thanked the Board for having him. He had a few things to inform the Board and public of. First being the "Penguin Plunge" where a large number of students are going to be jumping in the ocean to raise money. It is an annual event where a lot of money is raised. Mr. Gasdia also wanted to remind everyone that the School Deliberative Session will be this Saturday, February 1st at 9:00 a.m. at the Community Center. He also went on to say that he thinks the partnerships between the Schools and the Town have made a lot of progress. He especially wanted to thank Selectman Roy and Mr. Malizia for joining the monthly HCTV show with Mr. Russell.

10. REMARKS BY TOWN ADMINISTRATOR

Mr. Malizia said we've cut the purchase order for the blue light on Lowell Road and Sagamore Bridge intersection. It will probably take a couple of weeks for that to come in. He also explained that there is a hearing tomorrow at the Senate for the bill that was talking about the County Fees. He believes Mr. Michaud is going up to attend. I also put something on your desk this evening. There's a letter and an invoice to the DOT. Back on the 16th of January we had to go out and take care of Kimball Hill Road. There was an accident. It was very serious. So I think we should bill them. At least send something back that way. I put something on your desk. If this is acceptable I'll have the Chairman sign and send it off. Discussion ensued about the time and cost of fire and police personnel to be on the scene of the accident on 1/16. It was decided that the Mr. Malizia will work with fire and police to find out the cost accrued by the Town and will include that in a revised letter.

11. OTHER BUSINESS/REMARKS BY THE SELECTMEN

Selectman Coutu: Selectman Coutu said apparently the commissioner herself should be coming to Hudson to talk to this Board with Senator Carson. Chairman Morin said, I was going to discuss that under my comments but go ahead if you want to bring it up now while we're talking about it. Selectman Coutu said well, I just did. The Commissioner of DOT is coming to Hudson to discuss with us. I know what is going to happen about the check because I already had discussions with the Deputy Commission about the check but as you're aware Mr. Chairman, this is nothing new. This is repetitive year after year after year we call

them and guess what the excuse is always the same. We don't have enough truck drivers to man all the plows and I made it very clear to the Deputy Commissioner. You need to come up with something better because this is what you tell us every year. And one year, I believe it was like four years ago, the trucks were parked by Cookies in the parking lot and the road was loaded with snow and cars were slipping and we had to call them to get somebody down here to wake these guys up to tell them they're supposed to be plowing, not parked at Cookies having coffee and smokes. And that's what they did. They had to send out of Bedford, which I think is where their office is, they had to send a supervisor down here to tell them to get the trucks out of the parking lot they had a complaint. So every year it's basically we don't have enough truck drivers. That's the excuse they use in the summer sometimes as well for road clean ups. Oh we don't have enough people or they cut our budget. I'm so sick of hearing it and they were upset at me because I had sent Governor Sununu a picture of the vehicle on its roof and something to the effect thank you governor, this guy might have lost his life because our state didn't plow their road. And they said you didn't do that but I said yeah, that's exactly what I did. So, I hope we have a response from the Commissioner so she can know it's not just one or two of us complaining. We represent the Town and I think we're all in accord that if they're supposed to be plowing the road, get the plows out and get it done.

Chairman Morin said, you're all familiar with the incident we're talking about. What I got I had one of our legislators and Senator Carson actually both contacted me and they both had contacted the Deputy Commissioner. In the email that was written back to the State I don't know what the problem is. The Town roads were worse than our roads. Which, that never happens. Selectman Coutu said that was the Deputy Commissioner. The person he spoke to at our level at the Bedford office said I went down there to look at the incident and I noticed that the roads in Hudson were worse than our road. I was livid when I read that in my email. That our roads were worse. I've never heard anyone say that Hudson roads are bad. They're the best around. They're not compared to the State for sure. Chairman Morin said okay, I will speak to Senator Carson. I just wanted to make sure I talked to everyone tonight before we did that. She said she would set up the meeting and she asked if we'd invite the Chiefs that night also and we will get that. We'll do it at one of our workshops.

Selectman Martin: Mr. Gasdia said it all. We're going to be there on Saturday at 9:00 a.m. Come down and have coffee and donuts with us and then we'll have a meeting. A productive meeting I hope. Hopefully we don't go into the wee hours of the day and then our Deliberative Session and that's all I have.

Selectman Roy: Just a couple of things. I'll reiterate, the School Deliberative Session is on the first of February at 9:00 a.m. in the Community Center. Town Deliberative Session is on February 8th at 9:00 a.m. in the Community Center and the Presidential Primary is on February 11th at the Community Center. The Community Center is going to be a very busy place. And the polls are open 7:00 a.m.-8:00 p.m.

Selectman McGrath: I just have one thing. Reminding everyone that is watching this meeting that the Police Department is having their open house tomorrow evening from 6-8PM and I would encourage all of you that are interested and plan to vote in the election, and hopefully favorably for the expansion of the Police Department, to take the opportunity to tour and see what the conditions are there.

Selectman Morin: Speaking of the polls, there will be a group touring the Memorial School tomorrow to plan out how things will go for the presidential election. On the 7th we're going to Nashua to meet with the mayor to discuss the train station.

12. NONPUBLIC SESSION

Selectman McGrath made a motion, seconded by Selectman Roy to go into non-public meeting session under RSA 91-A:3II (b) the hiring of any person as a public employee, RSA 91-A:3, II (a) strategy or negotiations with respect to collective bargaining, and RSA 91-A-2, II (d) consideration of the acquisition, sale or lease of real or personal property, which, if discussed in public, would likely benefit a party or parties whose interest are adverse to those of the general community. Chairman Morin asked for a roll call vote. Motion carried 5-0.

Nonpublic Session was entered at 7:35 p.m., thus ending the televised portion of the meeting. Any votes taken upon entering open session will be listed on the Board's next agenda. The public was asked to leave the room.

Chairman Morin brought the meeting back into open session at 8:21 p.m.

Motion by Selectman Coutu, seconded by Selectman Roy, to deny the Step 2 Grievance filed by the Hudson Public Works Union, AFSCME Local 1801 for the Class Action Hours of Work and Overtime Double Time. Carried 5-0.

Motion by Selectman Martin, seconded by Selectman Coutu, to hire Raymond Abair for the position of Inspector in the Fire Department at the contracted salary of \$24.07 per hour (step 1). This agreement will be a non-exempt position in accordance with the Hudson Support Staff Union, AFSCME Local 1801 as recommended by the Fire Chief. Carried 5-0.

Motion by Selectman McGrath, seconded by Selectman Roy, to accept the offer, in the amount of \$40,000, from 4NH Homes LLC to purchase Tax Deeded property located at 151 Robinson Road.

13. ADJOURNMENT

Selectman McGrath made a motion to adjourn at 8:23 p.m. This was seconded by Selectman Roy. Motion carried 5-0.

Recorded by HCTV and transcribed by Jill Laffin, Executive Assistant.

David S. Morin, Chairman

Kara Roy, Vice-Chairman

Roger E. Coutu, Selectman

Marilyn E. McGrath, Selectman

Norman G. Martin, Selectman



TOWN OF HUDSON

Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

INTEROFFICE MEMORANDUM

TO: Steve Malizia, Town Administrator
CC: Board of Selectmen
FROM: Elvis Dhima, P.E., Town Engineer
DATE: January 22nd, 2020
RE: Hudson Water Utility Rules and Regulation Revision

Mr. Malizia,

The Engineering Department with the assistance of the Water Utility staff has undertaken a much needed and necessary update of the Hudson Water Utility Rules and Regulation Revision.

The intent of this project is update the above and incorporate all the construction specifications, procedure and protocols that we currently follow in accordance with the most recent industry standards. If approved, the new format will create a one stop shop for all the requirements, fees, regulations and permits related to Hudson Water Utility.

Below is summary of the proposed changes:

1. Updating Schedule of Rates and Fee (Exhibit 2)
2. Updating Water Service Application for Residential (Exhibit 3)
3. Updating Water Service Application for Non- Residential (Exhibit 4)
4. Incorporating Policies & Procedure for Public & Private Fire Hydrant (Exhibit 6)
5. Incorporating Drainlayer License Application (Exhibit 7)
6. Incorporating Temporary Water Meter Permit Application (Exhibit 8)
7. Incorporating Water Construction Details (Exhibit 9)
8. Incorporating Water Line Extensions Application (Exhibit 10)
9. Incorporating Water Line Extension Acceptance Application (Exhibit 11)
10. Revisions to state minimum service size for residential is 1 inch versus 3/4 inch.
11. Incorporate Section 8, Construction of Water Mains and Services requirements.
12. Revising Service Fees.

First Motion:

To accept the Revised Hudson Water Utility Rules and Regulations, as recommended by the Town Engineer, Director of Public Works , Water Utility Department and Municipality Utility Committee.

Second Motion

To review and revise Hudson Water Utility Rules and Regulations, if necessary, no later than 2025, as recommended by the Town Engineer, Director of Public Works , Water Utility Department and Municipality Utility Committee.



TOWN OF HUDSON

Engineering Department

12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142



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Second Motion

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TOWN CODE: CHAPTER 274

TOWN OF HUDSON

WATER UTILITY

Rules and Regulations

Public Hearing: _____

Recommended by MUC _____

Approved by BOS _____

TOWN CODE: CHAPTER 274

TOWN OF HUDSON

WATER UTILITY

Rules and Regulations

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TOWN CODE: CHAPTER 274
TOWN OF HUDSON WATER
UTILITY
Rules and Regulations

I. AUTHORITY:

- A. Whereas RSA 38:4 authorizes the town to establish ownership of a water system through the annual or a Special Town Meeting, and;
- B. Whereas the Town on January 13, 1998 did hold a Special Town Meeting through which the acquisition of the Water System from Consumers New Hampshire Water Company was approved by a greater than 2/3 majority, and;
- C. Whereas, NH RSA 38:26 (1) authorizes a municipality through its Board of Selectmen to adopt such ordinances and bylaws relating to the water system or structures as required for proper maintenance and operation, which includes the authority to create a Water Utility Committee with duties prescribed by the Board of Selectmen, and;
- D. Whereas on September 13, 2004 the Board of Selectmen adopted Ordinance 04-03 & 04-05, which establishes a Water Utility Committee (WUC). On May 8th, 2013 Sewer and Water Utility Committees were consolidated into a single Municipality Utility Committee, Exhibit I.
 - 1. The MUC consists of five full members:
 - a. Four of whom reside in Town and who reside at dwellings either serviced by the sewer/water system or within sewer districts established by the Town, or own real estate which is serviced by the sewer/water system or situated in a sewer district.
 - b. One of whom resides in Town and may reside in a dwelling or an area not serviced by the sewer.
 - c. A Selectmen may be appointed as liaison but not as a voting member.
 - d. The MUC may also have an alternate member who shall meet the qualifications described in a. above.
 - 2. Appointments:

- a. Are made by the Selectmen. Each appointment is for a three-year period. Terms of office are set up on a staggered basis.
 3. Responsibilities:
 - a. Establish and oversee policies and procedures for the Sewer and Water Utility.
 - b. Process, review and make recommendation to Board of Selectmen relative to:
 - Annual budget
 - Abatements
 - Use of sewer/water capital assessment accounts
 - Sewer and water rate.
 - c. Oversee and review:
 - Records of billings, income and expenditures, at least quarterly
 - Information appearing on sewer and water utility bills
 - Formats of forms being used by Sewer and Water Utility.
 - d. General oversight of sewer and water utility operations.
 4. Public meetings held at least once per month. Notice of meetings must contain date, time and meeting place.
 5. Ultimate responsibility and authority for the sewer and water utility resides with Board of Selectmen.
- E. Therefore, these rules and regulations are adopted on this _____ day of 2020 by the Board of Selectmen for the Hudson Water Utility.

II. DEFINITIONS:

Abatement: A reduction or elimination of a continuing charge.

Air Gap: The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood rim of said vessel.

Auxiliary Water Supply: Any water supply on or available to the premises other than the approved public potable water supply.

AWWA: American Water Works Association.

Backflow: The flow of water or other liquids, mixtures or substances under pressure into the distributing pipes of a potable water supply system from any source or sources other than its intended source.

Backflow Prevention Device: A device or means designed to prevent backflow or siphonage.

Back-Siphonage: The flow of water or other liquids, mixtures or substances into the distributing pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

Customer: The word “customer” where used herein shall mean the person or entity actually using the water, whether owner, tenant, lessee, assignee or other.

Containment: The installation of any approved backflow prevention device at the water service connection to any customer’s premises, or the installation of an approved backflow prevention device on the service line leading to and supplying a portion of a customer’s water system where there are actual or potential cross-connections which cannot be effectively eliminated or controlled at the point of cross-connection.

Corporation Stop: The sole purpose of a corporation stop is to allow for the installation of a new water service line without interrupting water main pressure.

Contamination: An impairment of the quality of the potable water by sewage, industrial fluids or waste liquids, compounds or other materials to a degree which creates an actual hazard to the public health through poisoning or through the spread of disease.

Cross-Connection: Any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems one of which contains potable

water and the other potentially non-potable water or fluids of questionable safety, through which, or because of which, back-flow or back-siphonage may occur into the potable water system.

Cross-Connection Controlled: A connection between a potable water system and a non-potable water system with an approved backflow prevention device properly installed that will continuously afford the protection commensurate with the degree of hazard.

Curb Stop: This is typically the first (and only) valve installed downstream from the corporation stop, and the only valve designed to control flow of water to a building.

Licensed Drainlayer: Anyone who is required to work on water mains and/or water service lines in a public or private right of way connecting to the Town of Hudson Water Utility and has obtained a license with the Town.

Double Check Valve Assembly: An assembly of two independently operating approved check valves with tightly closing shut-off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.

Health Hazard: The term is derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

Health Hazard (High Hazard): Any condition, device, or practice in the water supply system and its operation, which could create, or, in the judgment of the Hudson Water Utility, may create a danger to the health or wellbeing of the customer.

Hydrant: A private or public fixture in a public or private street with at least a nozzle.

Hudson Water Utility: The Town of Hudson Water Utility or its authorized agent(s) as directed by the Hudson Board of Selectmen who are the Water Commissioners.

Industrial Fluids System: Any system containing a fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health, system, polytonal or plumbing hazard if introduced into an approved water supply.

Main: The pipe owned by the Hudson Water Utility, in a public right-of-way or easement used to convey water from one point in the water distribution system to another.

Municipality Utility Committee: The advisory Committee of the Water and

Sewer Utility, consisting of five members.

Occupant: One who has certain legal rights to or control over the premises occupied. These are further defined as non-owner occupant and owner.

Plumbing Hazard (High Hazard): A plumbing type cross-connection in a consumer's potable water system that has not been properly protected by a vacuum breaker, air-gap separation, or backflow prevention device. Unprotected plumbing types cross-connections are considered to be a health hazard.

Pollution: Means the presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such waters for domestic use.

Pollutional Hazard (Low Hazard): An actual or potential threat to the physical properties of the water system or to the potability of the public or the consumer's potable water system but which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances, but would not be dangerous to health.

Pressure Vacuum Breaker: A device containing one or two independently operating loaded check valves and an independently operating loaded air inlet valve located on the discharge side of the check or checks.

Reduced Pressure Backflow Device: An assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing shut-off valves on either side of the check valves, plus properly located test cocks for the testing of the check and relief valves.

Service Agreement: A legally enforceable contract between the Hudson Water Utility and the (owner, consumer, customer) in which the Hudson Water Utility agrees to provide certain services or products to the (owner, consumer, customer) in exchange for the payment of certain fees.

Service Area: The geographical area incorporated as the Town of Hudson, NH.

Service Line: A pipe and appurtenances used to convey water from a main to a customer. The service line ends at the customer's side of the meter.

Service: A service is a separate account consisting of a household of one or more people, stores, garages, laundries, or in the opinion of the Hudson Water Utility whatever constitutes a service.

Shall: Mandatory

Town: The Town of Hudson, New Hampshire.

Water, Potable: Water from a source, which has been approved for human consumption.

Water, Non-potable: Water that may not be safe for human consumption or which is from a questionable source.

III. ADMINISTRATION:

A. SERVICE AGREEMENT:

- A. The amount of all fees and rates are listed in Exhibit #2 - Schedule of Rates and Fees of the Hudson Water Utility and is part of these Rules and Regulations.
- B. No customer or owner shall use, or cause to be used, any water from the distribution system operated by the Hudson Water Utility without a Water Service Permit application approved by the Hudson Water Utility or its authorized agent.
- C. An application for Water Service Permit shall be made, in writing, by either the owner, occupant, or a Licensed Drainlayer contractor. If the rendering of service requires the non-owner occupant of the premises to install a new service pipe, the owner of the premises must cosign the application. Whether or not a signed application is made by the customer and accepted by the Hudson Water Utility, the rendering of service by the Hudson Water Utility and its use by the customer shall be deemed a contract between the parties and subject to all ordinances and regulations of the Hudson Water Utility. If application is made by an agent for the customer, a copy of the agent's authorization by the customer shall be filed with the application:

Exhibit # 3 Water service application (residential).

Exhibit # 4 Water service application (non-residential).

B. METERS:

- 1. Use of Meters – All water services shall be metered, except service used only for fire protection, although such services may be metered at the Hudson Water Utility discretion and at the customer's expense.
- 2. Size of Meter – The size of the meter shall be determined by the HUDSON WATER UTILITY, using AWWA Manual Sizing Water Service Lines and Meters (M 22).

3. Meter Setting – The customer shall provide a clean, dry, warm and accessible place for the installation of the meter, as near as possible to the point of entrance of the service pipe within the building. The meter horn will be the responsibility of the customer. This will be installed with a shut-off valve at each end by a licensed plumber (or the customer where allowed by Town building code). The meter will be installed by the Hudson Water Utility. The expense of the installation shall be borne by the customer with materials approved by the Hudson Water Utility. The meter horn and fittings must be satisfactorily inspected by the Hudson Water Utility at the time the meter is installed.
4. Meter Boxes – When it is necessary to locate the meter in an underground box or vault, the customer shall bear the expense of same. Any location or relocation of such underground box or vault shall be at the customer's expense. Use of an underground box or vault must be approved by the Hudson Water Utility.
5. Repairs – Meter repairs or replacements necessitated by ordinary wear will be done and paid for by the Hudson Water Utility; those caused by freezing, hot water or by other acts or omissions not under the control of the Hudson Water Utility shall be completed by the Hudson Water Utility and paid for by the customer.
6. Auxiliary Meters – If additional or auxiliary meters are desired by the customer for showing sub-division of the supply or for site construction they shall be furnished, installed and maintained at the customer's expense. Auxiliary meters shall not be connected through a fire hydrant. Water charges cannot by lease, contract, agreement or otherwise be transferred by a customer to any person, firm, cooperative, corporation, partnership or tenant for the purpose of relieving the customer for payment of water charges.
7. Non-Registering Meters – If a meter is found which does not register, the bill for the entire period of non-registration since the last known valid reading, shall be based upon information recorded prior to or subsequent to the period of non-registration, and any other pertinent information supplied by the customer or known to the Hudson Water Utility.
8. Testing – Meters shall be tested before installation by the Hudson Water Utility. Thereafter, all meters will be tested as determined necessary by the Hudson Water Utility. No meter will be permitted to remain in service if the error registration exceeds 3%. Meters will be tested at the request of a customer and shall require a deposit equal to the cost of the meter test. If the meter is found outside of the acceptable limits the deposit shall be refunded to the customer and the cost for the last billing period adjusted in proportion to the error in registration of the meter.

9. Replacement of Frozen Meters – Replacement of frozen meters shall result in the customer being charged such costs as the Hudson Water Utility incurs in replacing the meter.
10. Meters, remote readers and seals: These items shall not be removed except by or under the supervision of the Hudson Water Utility personnel. Only Hudson Water Utility authorized personnel may remove or replace seals, which if broken may indicate the meter, has been tampered with.
11. The Hudson Water Utility is not responsible for leaks past the curb stop. Water passing through a meter is considered to be consumed.
12. No person is allowed to furnish water to another person, family or business without the consent of the Hudson Water Utility. Any person violating this rule may be charged a full rate for each violation plus appropriate fee.
13. No alteration shall be made to any service or equipment under the authority of the Hudson Water Utility, except by authorized agents of the Hudson Water Utility. No plumber, consumer, or other person not authorized by the Hudson Water Utility shall attempt to shut off the supply of water at the curb stop without the express consent of the Hudson Water Utility.
14. Rights of Access: Agents or representatives of the Hudson Water Utility may enter the premises of customer at all reasonable times for the purpose of examining pipes, fixtures, or attachments. They may enter at all reasonable times to read or inspect meter(s).

C. SERVICE LINES:

1. Installation, Ownership and Maintenance – All service lines, including corporation stop, pipe to the curb stop and box, shall be owned and maintained by the Hudson Water Utility. These shall be installed at the expense of the customer unless otherwise agreed to by the Hudson Water Utility. From the curb-stop to the meter horn within the premises served, the service lines shall be installed, owned and maintained by the owner. All installations shall be inspected by the Hudson Water Utility. All installation work shall be done by a Licensed Drainlayer.

For residential units, the installation of the water shut off (curb stop) within the area of the driveway or within any paved surface is strictly prohibited.

For all future services, the lines shall be type K copper or Hudson Water

Utility approved equal and sized as provided by the AWWA Manual, Sizing Water Service and Meters (M22), but in no case less than 1 inch nominal diameter.

For new installations, or re-installations of service lines, only one unit shall be supplied through one service line. Where more than one unit (existing) is supplied through one service line and under control of one curb-stop, any violation of the rules of the Hudson Water Utility by any of the customers or consumers so supplied shall be deemed a violation by all, and the Hudson Water Utility may take such action as could be taken against a single customer, or consumer, except that such action shall not be taken until the customer(s) who is not in violation of the Hudson Water Utility rules has been given reasonable opportunity to attach said service pipe to a separately controlled service line, at said customer's expense.

All piping shall be below frost level or otherwise protected from freezing and shall be so arranged as to permit draining whenever necessary.

2. Right to shut off water: The Hudson Water Utility may, at any time, shut off water for the purpose of making repairs or changing its piping system or for any other necessary purpose; it may also shut off water upon the failure of the customer to observe its rules and regulations. The Hudson Water Utility shall not be liable for any damage caused by so doing nor for any variation in pressure from any cause, nor shall any customer be entitled to any discount or rebate for reason thereof. It is understood, however, that wherever practicable, the Hudson Water Utility shall give the customers notice of its intentions to shut off water. The Hudson Water Utility further reserves the right to restrict the use of water whenever the public emergency requires.
3. Joint Use of Service Pipe Trench – No service pipes shall be laid in the same trench with a gas pipe, sewer pipe or any other facility of a municipal or public utility, nor within five (5) feet of any open excavation or vault. Sewer pipes shall have a minimum horizontal separation of 10-feet. If it is not possible to maintain the required 10-feet of separation, the water service line shall be placed as far from the sewer line as possible and a minimum of 18 inches above the sewer line. Gas pipes shall have a minimum horizontal separation of 5-feet.
4. Temporary Service Connection – Temporary service is one installed to any building or trailer not placed on a permanent foundation, to a construction site or for any other temporary use. The entire cost of installation from the nearest available main, and maintenance of the service including any trench backfill or patch, shall be at the customer's expense. Application for temporary water service shall be in accordance with Section III.A of these regulations. No fire hydrant shall be used for temporary service connection.

5. Thawing – When it becomes necessary to thaw a frozen service pipe the Hudson Water Utility will do so at the customer’s expense. If the location of the freeze is within the Hudson Water Utility owned portion of the service said expense will be credited to the customer. The Hudson Water Utility will have no responsibility for any consequential damage as a result of attempting to thaw such pipe.
6. Winter Construction – Ordinarily, no new service pipes or extensions of mains will be installed during winter conditions (when frost is in the ground) unless the customer agrees to defray all extra expense occasioned by such installation. Winter installation is subject to approval by the Hudson Water Utility.
7. Maintenance of Plumbing – Customers shall maintain at their own expense the service pipe, plumbing and fixtures within their own premises in good repair, free from leaks and protected from freezing. Failure to do so may result in termination of service. Any relocation of the service pipe on a customer’s premises shall be at the customer’s expense, and in no event shall the Hudson Water Utility be responsible for any damages resulting there from. Relocations shall be inspected and approved by the Hudson Water Utility.
8. Hot water tanks & furnaces – All customers having direct pressure hot water tanks and furnaces or appliances shall place proper automatic vacuum and relief valves in the pipe system to prevent any damage to such tanks or appliances should it become necessary to shut off the water on the street mains or service pipe. Service will be provided to such direct pressure installations only at the customer’s risk and in no case will the Hudson Water Utility be liable for any damage occasioned thereby.

D. NON-LIABILITY:

1. The Hudson Water Utility does not guarantee the consumer a full volume of water or the required pressure necessary to effectively operate sprinkler system or other appliances, or equipment the same being subject to all the variable conditions that may take place in the use of water from the main.
2. No consumer shall be entitled to damages, or to have payment refunded, for any interruption of supply occasioned either by accident to any portion of the works, or by shutting off of water for any purpose, or by the stoppage or shortage of supply due to causes beyond the control of the Hudson Water Utility, including without limitation thereof, drought, earthquake, fire or flood, or other natural disaster.
3. The Hudson Water Utility will not be responsible for damages caused by dirty water resulting from the opening or closing of any gate, the use of

any hydrant, the breaking of any pipe, water main flushing, or any other cause due to operation of the water system.

4. The Hudson Water Utility assumes no liability for conditions, which exist in consumer's pipes and cause trouble coincident to or following the repairs of any main pipe, service pipe, meter, or other appliance belonging to the Hudson Water Utility.
5. The Hudson Water Utility reserves the right at any time without notice to shut off the water in the main for the purpose of making repairs, extensions or for other necessary purposes. Persons having boilers or other appliances on the premises depending on the pressure in the pipes to keep them supplied with water are hereby cautioned against danger from these sources, and are required to provide at their own expense, suitable safety appliances to protect themselves against such danger. In any event, it is expressly stipulated that the Hudson Water Utility will not be liable for any damage resulting from water having been shut off, either through accident or necessity, but shall only be liable for injury or damage resulting from a failure to use reasonable care during such shut off.

E. TAMPERING:

All curb stops, valves, hydrants, meters, mains, services, etc., which are the property of the Hudson Water Utility, shall not be opened, or closed, or tampered with in any way by any person other than an authorized employee of the Hudson Water Utility or person authorized by the Hudson Water Utility. Anyone violating this provision shall be charged and shall pay all costs incurred in rectifying the tampering and any and all other damages resulting there from.

F. CROSS-CONNECTION CONTROL:

1. Under Public Law 93-523, the Safe Drinking Water Act of 1974, and New Hampshire State Regulations Hudson Water Utility has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.
2. Purpose: The purpose of this cross connection regulation is:
 - a) To protect the public potable water supply of the area served by the Hudson Water Utility from the possibility of contamination or pollution which could backflow or back-siphon into the public water supply system; and
 - b) To promote the elimination or control of existing cross-

connections, actual or potential, between its customer's in-plant potable water system(s) and non-potable systems, plumbing fixtures and industrial piping systems; and

- c) To provide for the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination or pollution of all potable water systems by cross-connection.

3. Responsibility:

The Hudson Water Utility shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through the water service connection. If, in the judgment of the Hudson Water Utility, an approved backflow prevention device is required, the Hudson Water Utility shall give notice to said customer to install such an approved backflow prevention device at each service connection to his premises. The customer shall, within five (5) business days, install such approved device or devices at their own expense. Failure, refusal or inability on the part of the customer to install said device or devices within five business days shall constitute grounds for discontinuing water service to the premises until such device or devices have been properly installed.

4. Water System:

- a) The water system is considered to be made up of two parts: The Hudson Water Utility system and the customer's system.
- b) The Hudson Water Utility system shall consist of the source facilities and the distribution system; and shall include all those facilities of the water system under the complete control of the utility, up to and including the curb stop.
- c) The customers system shall include those parts of the facilities beyond the curb stop which are utilized in conveying delivered domestic water to points of use, except the meter and remote reader which shall remain the property of the Hudson Water Utility.

5. Policy:

- a) No water service connection to any premises shall be installed or maintained by the Hudson Water Utility unless the water supply is protected as required by New Hampshire State Law and this Regulation.

- b) No cross connection between the water system and any potable or non-potable supply shall be allowed unless protected by a system designed for this purpose. Design and installation will be at the customer's expense. Any such connection must be approved by the Hudson Water Utility.
- c) No connection capable of causing back-flow between the water supply system and any plumbing fixture, device, or appliance or between any waste outlet or pipe having direct connection to waste drains will be permitted. If the Hudson Water Utility discovers such a connection, service will be discontinued immediately.
- d) An approved protective device shall be installed, at the customer's expense, wherever an approved cross-connection of water systems exists and/or where, in the opinion of the Hudson Water Utility, a potential threat to the potability of the water system can be shown to exist.
- e) No interconnection with other systems or wells shall be made.
- f) Service of water to any premises shall be discontinued immediately by the Hudson Water Utility if a Backflow Prevention Device required by this Regulation is not installed, tested and maintained, or if it is found that a Backflow Prevention Device has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.
- g) The system must be open for inspection at all reasonable times to authorized representatives of the Hudson Water Utility to determine whether cross-connections or other structural or sanitary hazards, including violations of this regulation exist. When such a condition becomes known, the Hudson Water Utility may deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with all statutes and regulations relating to plumbing and water supplies and the Regulations adopted pursuant thereto. All expenses relating to the disconnection and reconnection shall be at the customer's expense.
- h) An approved Backflow Prevention Device where required shall be installed at the customer's expense on each service line to a customer's water system at or near the property line or immediately inside the building being served; but, in all cases, before the first branch line leading off the service line.

- i) The type of protective device required under these rules and regulations should depend upon the degree of hazard, which exist as follows:
 - 1) Where there are “uncontrolled” cross-connections, either actual or potential, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principal backflow prevention device.
 - 2) Where there is water or substance that would be objectionable but not hazardous to health, if introduced into the public water system, the public water system shall be protected by an approved double check valve assembly.
 - 3) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete implant cross-connections survey, the public water system shall be protected against backflow or back-siphonage from the premises by the installation of a Backflow Prevention Device in the service line. In this case, maximum protection will be required; that is, an approved air-gap separation or an approved reduced pressure principal Backflow Prevention Device shall be installed in each service to the premises.

- j) Any Backflow Prevention Device required herein shall be of a model and size approved by the Hudson Water Utility. The term “approved Backflow Prevention Device” shall mean a device that is approved and acceptable to the New Hampshire Department of Environmental Services.

- k) It shall be the duty of the customer at any premise where Backflow Prevention Devices are installed to have certified inspections and operational tests made at least once per year as required under these Regulations.

In those instances where the Hudson Water Utility deems the hazard to be great enough they may require certified inspections at more frequent intervals. These inspections and tests shall be at the expense of the customer and shall be performed by the Hudson Water Utility's personnel or by a certified tester approved by the Hudson Water Utility and approved by the State of New Hampshire. These devices shall be repaired, overhauled, or replaced whenever said devices are found to be defective.

- l) All industrial, commercial and agricultural establishments attached to the water system will be required to install at the service entrance and immediately downstream of the meter a Reduced Pressure Backflow Device.
- m) All decisions relating to determination of Backflow Prevention Devices will be made by the Hudson Water Utility. Failure to comply with any directive from the Hudson Water Utility will result in termination of service.
- n) All testing and/or maintenance performed on Backflow Prevention Devices by the Hudson Water Utility or its agent will be charged to the owner of the device.

G. PAYMENT FOR SERVICE:

- 1. Billing for water service shall be rendered periodically (typically monthly) in accordance with the applicable rate schedule Exhibit #2 and are due and payable upon presentation. Unpaid bills may result in liens on the property as provided by New Hampshire law. This lien shall not prevent the Hudson Water Utility from any other means of collection provided by law. Interest shall be charged at the rate specified on the applicable rate schedule on all bills not paid as of due date of the bill. The Hudson Water Utility may render an estimated bill whenever an actual reading cannot reasonably be made.

All bills will be sent to the address entered on the application unless the Hudson Water Utility is notified of a change in billing address by verbal confirmation to the Hudson Water Utility office.

Failure to receive bills will not be considered an excuse for non-payment.

Resolution of dispute between a customer and tenant is the sole responsibility of the customer.

2. Deposits – In order to protect against loss, a deposit may be required. A temporary customer, may be required to make a cash deposit equal to the estimated cost of the entire temporary use. The customer's deposit shall be credited to their water account.
3. Customer Reliability – Where there is, or there is proposed to be, more than one occupant of a building supplied with water, the plumbing must be so arranged, or rearranged, so as to permit a separate service for each unit, place of business or abode. Where (1) in the opinion of the Hudson Water Utility, it would be prohibitively expensive or physically impractical to so arrange the plumbing, and (2) the owner of the premises makes application for service and assumes responsibility for payment of all charges for water service rendered to said property, a common service and single meter may at the discretion of the Hudson Water Utility be allowed.
4. Penalty for Bad Checks – Whenever a check or draft presented for payment of service is not accepted by the institution on which it is written a charge shall be imposed by the Hudson Water Utility.
5. Disconnection Policy – The Hudson Water Utility reserves the right to disconnect the service of any customer not having his account paid in full within forty-five (45) days of the date of any bill and has a balance over 60 dollars.

Provided, however, The Hudson Water Utility shall not disconnect service to a customer if any part of the service provided accrues to the benefit of one or more parties known by Utility to be residential tenants, unless the Utility gives written notice to the tenants. Such notice shall set forth:

- a) The date on or after which the Utility proposes to disconnect service.
- b) A statement that the reason for disconnection is a dispute between the Utility and the landlord.
- c) A statement that the tenant should contact the landlord for more information.
- d) An address and telephone at which the tenant may contact the Utility in order to make arrangements to maintain service.

The Hudson Water Utility shall refrain from terminating service to the affected premises if so requested by the tenant, provided that the tenant agrees to be responsible for service provided as of the date of the tenant's request. However, the Hudson Water Utility company may continue to list the landlord's past due balance on the tenant's bill, and the lien created pursuant to NH RSA 38:22 shall include any past due charges which accrue after the Utility begins billing the tenant. The Utility shall provide direct service to the person requesting it on terms and conditions applicable to all residential customers.

Immediately upon learning that a tenant has been disconnected without the notice required pursuant to this sub paragraph, the Hudson Water Utility shall reconnect service and may charge a reasonable reconnection fee which may be added to the existing arrearage.

The notice required by this sub paragraph shall be provided to the tenant no less than 7 days in advance of the proposed disconnection, by posting a conspicuously lettered notice on the main entrance door to each building in which service is being terminated. In addition, the Utility shall post the notice on a back door or side door to which the Utility has reasonable access, or in a common area of each building. The Utility, at its option, may notify the tenants in the affected property by mail rather than by posting.

The notice to tenants required by this sub paragraph shall not be required when necessary to avoid danger to life or property, and upon the order of a duly constituted public authority such as police, firefighters, public health officer, and building inspectors.

6. Bills for the minimum charges for metered service will be due and payable in arrears: bills for water used above the allowance included in any minimum charge will be due and payable in arrears.
7. Bills for private fire service will be rendered monthly in arrears will be due and payable as rendered.
8. With respect to the termination of services to customers, Hudson Water Utility will follow the provisions of NH Admin. Code Puc 1203.11 (d), (e), (f) & (h) but, as a municipal entity, it is not bound to observe all of the procedural requirements therein.

9. Bill Disputes:

- a) All questions regarding customer's bills will first be referred to the Water Utility Clerk.
- b) To help determine the reason for a disputed bill amount, the customer may request:
 - 1) A new actual meter reading to confirm usage billed.
 - 2) A meter test by the Hudson Water Utility at the customer's expense, unless the meter proves to be malfunctioning, in which case the testing fee will be refunded and prior charges will be adjusted
- c) If the customer still disputes the amount of the bill, he/she may request an abatement. Abatements must be applied for using the appropriate form (exhibit #5), and are submitted to the Water Utility Clerk for review and recommendation by the MUC and the final decision by the Board of Selectmen as the Water Utility Commission.

H. HYDRANTS:

- 1. Hydrants shall not be used for any purpose other than the extinguishment of fires and for such other purposes as may be agreed to by the Hudson Water Utility and the Hudson Fire Department. In no case shall hydrants be opened by any person other than a Hudson Water Utility employee, member of the Hudson Fire Department, Hudson Public Works Department, or duly authorized representative of the Hudson Water Utility.
- 2. A public fire hydrant is defined as one located on a street, highway, right of way, or municipal property with the approval of the Hudson Fire Department and the Hudson Water Utility.
- 3. If any customer/developer is required by the Fire Department to provide and install a new public fire hydrant on existing or new water main the installation will be done at the expense and risk of the customer/developer.
- 4. New fire hydrants will be requested by the Hudson Water Utility or Fire Department and approved by the Hudson Water Utility after review of sound engineering principles and as recommended by the Hudson Water Utility.

5. The Hudson Water Utility will replace damaged or worn fire hydrants at its expense, or at the expense of the party who damages said hydrant.
6. Inspections and tests of public hydrants will be made by the Hudson Water Utility at convenient times and reasonable intervals.
7. Whenever a change in location, size, type, or permanent removal of fire hydrants is requested by a customer such change will be approved and made by the Hudson Water Utility at the expense of said customer. The Fire Department will review and approve changes.
8. All public and private hydrants shall comply with Policies and procedures adopted March 26, 2019, Exhibit 6.

I. PRIVATE FIRE SERVICE:

1. The entire cost of installing a private fire service from the main to the property line will be paid by the customer. The customer will bear all costs for replacement of services. All work performed on the customer's premises will be done by the customer at his expense and risk.
2. A gate valve controlling the entire supply with post indicator will be placed on the fire service at a location accessible to the Hudson Water Utility.
3. The private fire service will be subject to the inspection, test and approval of the Hudson Water Utility and Fire Department before the service is made effective.
4. The current NFPA standard will define the design and installation of fire services except as modified by these regulations.
5. The customer will notify the Hudson Water Utility and the Fire Department within seventy-two (72) hours after any use of a sprinkler system.
6. A detector check valve with a by-pass, along with an approved backflow prevention device will be furnished and installed by the customer in accordance with Hudson Water Utility requirements just inside the building wall or other convenient location on the customer's premises as designated by the Hudson Water Utility.
7. Hydrants and other fixtures connected with a private fire service connection may be sealed by the Hudson Water Utility and such seals will be broken only in case of fire or as specially permitted by the Hudson Water Utility. The customer must immediately notify the Hudson Water Utility when a seal is broken.

8. No pipe or fixture connected with a private fire service connection served by the Hudson Water Utility will be connected with pipes or fixtures supplied with water from any other source.
9. Fire pumps and booster pumps of any nature may be connected only after notification to the Hudson Water Utility and will be constructed in such manner to prevent cross connections and vacuum. Owners and operators of such equipment are liable for any and all damages to Hudson Water Utility or other customer's property during such operations. A low-pressure cut-off device approved by the Hudson Water Utility will be installed at the customer's expense and risk.
10. The entire private fire service connection and all its parts located outside the customer's property line forever remain the property of and under the complete jurisdiction of the Hudson Water Utility.
11. Tests will be scheduled with approval of the Hudson Water Utility so as to cause the least possible inconvenience to the Hudson Water Utility's other customers.

J. DISCONTINUANCE OF WATER SERVICE:

Service may be discontinued for any of the following reasons:

1. Violation of the Rules & Regulations of the Department.
2. Misrepresentation in application as to the premises or fixtures to be supplied or the use of the water supplies.
3. Use of water for any premises or purpose not described in the application.
4. Damaging any service pipe, meter, curb stop or seal, or any appliance of the Department.
5. Failure to maintain, in good order, connections, service lines, or fixtures for which the customer or owner is responsible.
6. Waste of water through improper or imperfect pipes, fixtures or otherwise.
7. Vacancy of the premises by a non-owner without payment will be the owner's responsibility to pay the tenant's bill for all charges and consumption.

8. Neglecting to make payments of charges for water service or any other charges against the owner of the premises.
9. Refusal of access to premises to inspect, read, maintain or remove meters.
10. Refusal to conserve water during periods of restricted supply.
11. Failure to pay water bills or charges at a prior location.
12. Any cross connection, which would introduce water or any liquid other than that supplied by the Hudson Water Utility into the service line of the Hudson Water Utility.
13. The Hudson Water Utility will have the right to stop water supply without notice due to breakdowns or other unavoidable causes, or for the purpose of making necessary repairs, connections, etc. The Hudson Water Utility will make every attempt to give reasonable notice, but will not be liable for any damage or for inconvenience suffered.
14. Whenever the customer desires to have his service contract terminated or his water service discontinued, he will so notify Hudson Water Utility. Until such notice is received by the Hudson Water Utility and the Hudson Water Utility has access to remove the meter or obtain the final readings, the customer will be responsible for the payment for all service rendered by the Hudson Water Utility, including charges for meter repairs caused by damage by hot water or freezing or other external causes. A reasonable time after receipt of such notice will be allowed for the Hudson Water Utility to take a final reading of the meter or meters and to discontinue service.
15. Discontinuing the supply of water to any premise for any reason will not prevent the Hudson Water Utility from pursuing any lawful remedies provided for in these regulations and by action of law or otherwise for the collection of monies due from the customer.

K. RENEWAL OF WATER SERVICE AFTER DISCONTINUANCE:

When water service to any premises has been terminated for any reason other than temporary vacancy, it will be renewed only after the acceptance of a new application, when the conditions, circumstances or practices which caused the water service to be discontinued are corrected to the satisfaction of the Hudson Water Utility and upon the payment of all charges due and payable by the customer in accordance with the rates, rules and regulations. A payment plan on overdue charges can be arranged, if so desired.

L. CONSERVATION OF WATER – RESTRICTIONS:

When necessary to conserve supply, the Town may restrict or prohibit the use of hand hose, lawn sprinklers and water-cooled air conditioning equipment, or any other use of water.

M. CONDOMINIUMS:

- 1 A condominium project shall be any form of development that comes under the authority of RSA 356:B whether it be of a residential character or otherwise.
2. Service to a new development that comes under the heading of condominiums shall be as follows:
 - a) Each user unit shall be served as a separate entity, metered individually and subject to the tariff as related to an individual customer.
 - b) A condominium association that provides water service(s) for the good of the community center or for irrigation shall be considered an individual customer and shall be metered separately and subject to the tariff as it relates to individual customers.

IV. WATER MAIN EXTENSIONS:

A. GENERAL:

Where a request for water service requires the extension of a main, mains, or other facilities from the existing water system, the applicant will submit in writing a request for a main extension and will enter into a main extension agreement with the Hudson Water Utility. The proposed location, size and distance of any proposed main extension must be approved by the Hudson Water Utility and must; (a) conform to the Hudson Water Utility hydraulic system requirements; (b) be sufficiently sized and located so as to meet the Hudson Water Utility's requirements, hydrant requirements and any specific requests from the Town Fire Chief.

B. COSTS FOR WORK:

All costs associated with a main extension project, including legal, engineering, construction, inspection and administrative costs will be borne by the applicant. Construction will include all appurtenances, i.e.: hydrants, "T's" stubs, gates, valves and service lines required.

Surety for 100% of the construction cost is required by the Hudson Water Utility

in the format approved by the Town for developer projects.

C. SPECIFIC REQUIREMENTS:

- A. All main extension plans will be reviewed by the Hudson Water Utility at the applicant's expense.
- B. All main extensions will be constructed in accordance with the specifications of the Hudson Water Utility and under the Hudson Water Utility's inspections.
- C. All water mains, appurtenances, and other facilities comprising the main extension will become the property of the Hudson Water Utility after the Hudson Water Utility requirements are completed to the satisfaction of the Hudson Water Utility.
- D. Typically, all main extensions will be a minimum size of 8 inches in residential areas, and a minimum size of 12 inches in commercial or industrial areas. Main extensions at less than the minimum size must be approved individually in writing by the Hudson Water Utility.
- E. The size of the main shall be determined by Hudson Water Utility in accordance with conditions surrounding the extension, including the possibility of future expansion and fire protection.
- F. Main extensions will include service lines to the front property line for all existing lots along the main extension. These will be installed at the applicant's expense.

G. LOCATION OF WATER EXTENSIONS:

Location of water main extensions (accessibility), to the maximum extent possible, will be located along existing and proposed roadways. Cross-country locations are to be avoided. Layout and locations are subject to the approval of the Hudson Water Utility. All water mains and apparatus must be physically accessible to the Hudson Water Utility maintenance vehicles.

H. RIGHT OF WAY (R.O.W) AND EASEMENTS:

All water mains and appurtenances are to be located in the Right of Way (R.O.W.'s) or easements providing legal access to the Hudson Water Utility. Legal documents providing such must be approved by the Hudson Water Utility

V. BOOSTER STATIONS AND HIGH SERVICE AREAS:

- A. GENERAL: Where a new service(s) or main extension results in pressure variations exceeding the limits of good engineering practice. The Hudson Water Utility shall require any of the following at its discretion: Booster station, booster pump(s) or pressure reducing devices.
- B. BOOSTER STATIONS: Shall be constructed in accordance with the Hudson Water Utility specifications, Exhibit 9, and shall be paid for by the applicant unless otherwise approved by the Hudson Water Utility. These shall be inspected, approved and owned by the Hudson Water Utility.
- C. BOOSTER PUMPS AND PRESSURE REDUCING DEVICES: Shall be installed by a licensed plumber at the applicant's expense and inspected by the Hudson Water Utility.

VI. JUDICIAL ENFORCEMENT REMEDIES:

A. INJUNCTIVE RELIEF:

When the Hudson Water Utility determines that a customer has violated, or continues to violate, any provision of this Regulation, Hudson Water Utility may petition the Hillsborough County Superior Court through the Town's Attorney for the issuance of a temporary or permanent injunction, as appropriate, that restrains or compels the specific requirement imposed by this Regulation on activities of the customer. The Hudson Water Utility may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the customer to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, implementing any other action against a customer.

B. CIVIL PENALTIES:

- A. A customer who has violated, or continues to violate, any provision of the regulation, or order issued hereunder, shall be liable to the Town for a maximum civil penalty of \$5,000 per violation, per day, plus actual damages incurred by the Hudson Water Utility.
- B. All charges and penalties shall be collected through civil proceedings brought before the Superior Court.
- C. The Town may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the Hudson Water Utility.

- D. In determining the amount of civil liability, the Court shall consider all relevant circumstances including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the user's violation, corrective actions by the user, the compliance history of the user, and any other factor as justice requires.
- E. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, implementing any other action against a user.
- F. The Board of Selectmen may adopt a schedule of fines as appropriate from time to time.
- G. Any person violating any of the provisions of the Regulations shall become liable to the Town for any expense, loss, or damage occasioned by the Town by reason of such violation.

C. CRIMINAL PROSECUTION:

Any customer or user who willfully or negligently violates any provision of the Regulations or any orders or permits issued hereunder shall, upon conviction, be guilty of a violation, punishable by a fine not-to-exceed \$10,000 for each violation. Every separate provision violated shall constitute a separate violation. Every day that a violation occurs shall be deemed a separate violation. Ref. RSA. 38.26

D. NONEXCLUSIVE REMEDIES:

The remedies provided for in the Regulations are not exclusive. The Town may take any, all, or any combination of these actions against a non-compliant user. Further, the Town is empowered to pursue more than one enforcement action against any non-compliant user. These actions may be taken concurrently.

VII. SEVERABILITY:

If any part of these rules and regulations are found to be unenforceable by a court of law, such findings shall not affect the remaining parts, which shall remain in full force and effect.

VIII. CONSTRUCTION OF WATER MAINS AND SERVICES:

8.1 Construction by Licensee

To insure compliance with the foregoing articles and sections of this ordinance, and to facilitate the supervision of the construction, operation and repair of water services and the keeping of records thereof, no person other than those described in this Article shall construct, repair, alter or remove any water, service water connected to or with, or connected directly or indirectly to or into, water system of the Town or intended to connect thus, at some future time, regardless of whether said work is located in a public street or in a public or private land.

8.2 Authorized Parties

- A. The following may, as indicated, construct, repair, alter or remove water mains and services, subject to supervision and approval by the Town Engineer.
1. Regular forces of a contractor employed by the Town operating under orders of the Town Engineer and in the performance of work for the Town.
 2. Regular forces of the Town or the New Hampshire Department of Transportation operating under and subject to permit for the particular job issued by the Town Engineer and engaged in the regular operations of the Department of Transportation or in performance of work for the Town.
 3. Regular forces of any public utility corporation authorized by State law to construct, maintain and operate pipes or ducts within the public highways within the Town, while engaged in work incidental to the regular structures of said utility company and operating under and subject to the conditions of the permit for the particular job issued by the Town Engineer.
 4. Any contractor or person who shall have been duly licensed by the Board of Selectmen to perform work of the type in question during the period provided in such license and when operating under and subject to the conditions of a permit for the particular job issued therefore by the Town Engineer.
 5. A contractor who has a Drainlayer's License issued in the Town of Hudson.

8.3 Performance of Work

Each contractor or person shall be responsible for the good faith performance of all work and all materials furnished on work by his employees or agents. No work shall be sublet by a contractor or person under any permit and/or licensed in any manner to a contractor or person divest of full control and responsibility for all parts of said work. Only competent persons shall be employed on work performed under such permit and/or license, and only suitable material conforming to the standard established by the Town Engineer shall be furnished or used on such work.

8.4 Conformance with Requirements

Should the Town Engineer find that any contractor or person has failed to conform to the requirements of these Rules & Regulations and to the conditions of any permit issued thereunder, or that such contractor has not been faithful in the performance of work or furnishing of materials under his license, the Town Engineer may suspend, cancel or revoke such license and/or permit and may extend the suspension of such license and/or permit for such period or limit the activities of such contractor or person in such manner as may appear to be in the public interest after a duly conducted hearing before the Board of Selectmen and upon their direction. Suspension, cancellation or termination of a permit shall not entitle the permittee to any compensation or reimbursement from the Town or its agents for any alleged loss or expense incurred thereby, and licenses and permits shall be issued only on this condition.

8.5 Construction Materials

All water main pipe material and components related to the water main shall be zinc coated and all pipe shall be certified "Made in the USA". In addition, all main pipe shall be wrapped with poly membrane for additional corrosive protection, prior to backfill.

8.6 Permits

Each permit to construct, alter or repair any water main, building water service under this section shall be issued only after an application as hereinbefore provided has been made. It shall state the limit of time within which the work for construction under the permit shall terminate, unless such time limit shall have been extended in writing by the Town Engineer. Permits shall not be transferable or assignable by the permittee.

IX. EFFECTIVE DATE:

These Rules and Regulations shall be in full force and effect immediately following its passage, approval, and publication, as provided by law.

Duly enacted and ordained this _____ day of _____ by the Board of Selectmen of the Town of Hudson in Hillsborough County, State of New Hampshire, at a duly noticed and duly held session of the said Board of Selectmen.

Hudson, NH by
Board of Selectmen

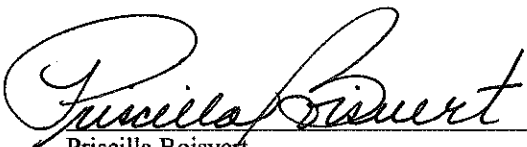
BOS Chairman

Attest: _____

Exhibit 1
Municipality Utility Committee

Adoption of Ordinance 04-03
Creating a Water Utility Committee
and Seeking Volunteers

The Hudson Board of Selectmen, at its meeting on September 13, 2004 adopted Ordinance 04-03, establishing a water utility Committee and is seeking applicants to fill the five citizen openings. Members shall reside in Town and in dwelling units served by the water utility. The Committee will be responsible to 1) Oversee the preparation of bylaws, policies, and procedures for the water utility; 2) Make recommendations for and provide overview regarding an annual budget and provide overview of income and expenditures; 3) Make recommendations for a capital improvement plan and provide overview regarding a capital reserve for the water utility; and 4) Provide overview and make recommendations regarding the ongoing administration and operations of the water utility. Final authority for actions by the Water Utility Committee will remain with the Board of Selectmen. (There are two three-year positions; two two-year positions; and one one-year position.) Applications are available in the Town Clerk's Office at 12 School Street, Hudson, NH and must be returned to the Selectmen's Office no later than 12:00 noon on October 6, 2004.

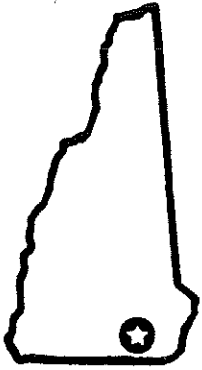


Priscilla Boisvert
Executive Assistant

HLN September 24, 2004

PO #SEL 05051

cc: BOS
Town Administrator
Town Engineer



TOWN OF HUDSON
Board of Selectmen

12 School Street Hudson, New Hampshire 03051 603/886-6024 FAX 603/598-6481



Adoption of Ordinance 04-05

The Hudson Board of Selectmen, at its meeting on November 9, 2004 adopted Ordinance 04-05, amending Ordinance 04-03 that established a Water Utility Committee. The amendment allows one member of the utility to reside in a dwelling not served by Town water.


Priscilla Boisvert, Executive Assistant

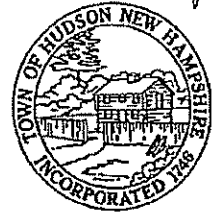
cc: BOS
Town Administrator
Town Engineer

HLN 3 Dec 04 SEL05097



7.B.

Agenda
4-9-13



TOWN OF HUDSON
Office of the Town Administrator
12 School Street
Hudson, New Hampshire 03051

Stephen A. Malizia, Town Administrator - smalizia@hudsonnh.gov -- Tel: 603-886-6024 • Fax: 603-598-6481

To: Board of Selectmen
From: Steve Malizia, Town Administrator
Date: March 28, 2013
Re: Municipal Utility Committee

Approved

At their meeting on March 26, 2013, the Hudson Board of Selectmen reviewed language prepared by Town Attorney Buckley that would consolidate the Sewer and Water Utility Committees into a single Municipal Utility Committee. The Board of Selectmen further amended the language in Hudson Town Code Chapters 142 and 270 to allow for a seven (7) member Municipal Utility Committee, of which three (3) members do not have to be served by either Town Water or Sewer. The Board voted to send the changes to Town Code to a public hearing on April 9, 2013. Should the Board of Selectmen vote to adopt these modifications after the public hearing, the following motion would be appropriate:

5-0

Motion: To adopt the modifications to Hudson Town Code Chapters, 142 and 270 to combine the Sewer and Water Utility Committees into a seven (7) member Municipal Utility Committee of which three (3) members do not have to be served by either Town Water or Sewer. effective May 8, 2013

Wszewy/
Nadeau

Should you have any questions or need additional information, please feel free to contact me.

Agenda
10-11-16
8c



TOWN OF HUDSON

Municipal Utility Committee

David Shaw, Chairman Pat Nichols, Selectmen Liaison



12 School Street Hudson, New Hampshire 03051- Sewer 603-886-6029/ Water 603-886-6002 Fax:603-598-6481

To: Board of Selectmen
From: David Shaw- Chairman *ds*
Municipal Utility Committee
Date: September 28, 2016
Re: Membership change

RECEIVED

SEP 30 2016

TOWN OF HUDSON
SELECTMEN'S OFFICE

*cc - MUC
TC/TC*

On May 14, 2013, the Board of Selectmen appointed all five members of the Water Utility Committee and the five members of the Sewer Utility Committee to the newly combined Municipal Utility Committee. The Municipal Utility Committee was formed with seven members as to keep all of the members of the former two committees.

For the past couple of years, we have had to cancel a number of meetings because we lacked a quorum. We changed to a later start time as a way to attract new members with limited success. We currently have four sitting members and three vacancies.

We respectfully submit a request to the Board to officially change the membership of the Municipal Utility Committee from seven members to five members.

Motion Coutu/Ravitsis to approve the Municipal Utility Committee's request to change their membership from seven (7) to five (5) members, carried 5-0

Exhibit 2

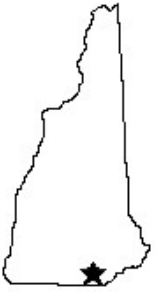
Schedule of Rates & Fees

**Town of Hudson Water Utility
New Customer Water System Access Fee
January 2002**

<u>Year</u>	<u>Supply Fee *</u>	<u>Distribution Fee</u>	<u>Combined Total</u>
2001	\$1,500	\$467	\$1,967
2002	\$1,545	\$659	\$2,204
2003	\$1,591	\$851	\$2,442
2004	\$1,639	\$1,043	\$2,682
2005	\$1,688	\$1,236	\$2,924
2006	\$1,739	\$1,428	\$3,167
2007	\$1,791	\$1,620	\$3,411
2008	\$1,845	\$1,812	\$3,657
2009	\$1,900	\$2,004	\$3,904
2010	\$1,957	\$2,196	\$4,153
2011	\$2,016	\$2,388	\$4,404
2012	\$2,076	\$2,580	\$4,656
2013	\$2,139	\$2,772	\$4,911
2014	\$2,203	\$2,964	\$5,167
2015	\$2,269	\$3,156	\$5,425
2016	\$2,337	\$3,348	\$5,685
2017	\$2,407	\$3,540	\$5,947
2018	\$2,479	\$3,732	\$6,211
2019	\$2,554	\$3,924	\$6,478
2020	\$2,630	\$4,116	\$6,746
2021	\$2,709	\$4,308	\$7,017
2022	\$2,790	\$4,500	\$7,290
2023	\$2,874	\$4,692	\$7,566
2024	\$2,960	\$4,884	\$7,844
2025	\$3,049	\$5,076	\$8,125
2026	\$3,141	\$5,130	\$8,271
2027	\$3,235	\$5,185	\$8,420
2028	\$3,332	\$5,239	\$8,571

* Supply Fee is adjusted by 3% per year for inflation.

**The above fees are based on a 300 gpd average use.
Fees for other water uses are adjusted proportionally.**



TOWN OF HUDSON

SCHEDULE OF RATES & FEES

12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6003 • Tel: 603-886-6000



I. Monthly rates (per tariff approved by Board of Selectmen, 12/9/1997).

A. Usage

1. Fixed meter size rate:

<u>Meter size</u>	<u>Monthly rate</u>
5/8"	\$10.69
3/4"	\$20.58
1"	\$32.21
1 1/2"	\$65.49
2"	\$105.59
3"	\$205.82
4"	\$322.10
6"	\$644.19
8"	\$804.57
10"	\$911.49

2. Volume Charge: \$3.30 per 100 cubic feet (CF).

3. Fire Service.

<u>Service Size</u>	<u>Monthly Rate</u>
2"	\$11.94
3"	\$26.87
4"	\$47.77
6"	\$107.50
8"	\$191.10
10"	\$298.58
12"	\$429.97
Private hydrant	\$77.63
Public hydrant	\$16.20

Note: the fire service size is the pipe diameter at the building or service entrance as determined by the Town Engineer or designated agent.



TOWN OF HUDSON

SCHEDULE OF RATES & FEES



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6003 • Tel: 603-886-6000

- II. Connection fees: (approved by the Board of Selectmen 12/9/1997).
 - A. Application processing and service connection inspection @ \$100.00.
 - B. Meter purchase and installation:

<u>Size</u>	<u>Cost</u>
5/8"	\$350.00
3/4"	\$450.00
1"	\$500.00
1 1/2"	\$750.00
2"	\$1,000.00
3"	\$1,000.00 (plus parts)
>3"	To be determined @ time of application

- C. Inspection fee.
For water main installation and fire service installation - \$5.00/L.F.

- III. New customer water system access fee approved by the Board of Selectmen (January 2002). (see schedule attached)
- IV. Hydrant painting, @ \$170.00/ea.
- V. Backflow permit fee @ \$15.00
- VI. Temporary water meter fee @ \$200/ each (3 available, first come first serve, plus \$3/day and usage)
- VII. Service Charges
 - After Hours Service Fee @ \$250.00
 - Backflow Test* @ \$95
 - Backflow Re-test @ \$95
 - Disconnection Fee @ \$125
 - Installation / Removal Seasonal Meter @ \$95
 - Meter Test** @ \$95
 - Turn Water On/ Off at the curb @ \$95/\$95
 - General Service Fee @ \$95 (minimum)

*Refers to the Policy and Procedure already in effect for Backflow Prevention Devices

**A meter test by the Hudson Water Utility at the customer's expense, unless the meter roves to be malfunctioning, in which case the testing fee will be refunded and prior charges will be adjusted

Exhibit 3

Water Service Application - Residential



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

TOWN OF HUDSON WATER UTILITY

WATER SERVICE APPLICATION (RESIDENTIAL)

Below are the step by step procedures for attaining service. Should you have any questions, please call the Engineering Division at 886-6008.

The Town has contracted with WhiteWater to assist with the installation of meters, and inspections. Once an application and the permit fee have been submitted to the Town, the application will be sent to WhiteWater for review. The application fee is defined on Exhibit A. There is also a one-time Water Access Fee that is required for all new connections to the town water main. The Access Fee is set annually, as per the “New Customer Water System Access Fee” schedule attached, and must be paid prior to service turn-on and/or issuance of a Certificate of Occupancy.

STEP BY STEP PROCEDURES FOR OBTAINING SERVICE

NOTE: A Drainlayer’s License is required for all work on water mains, service lines and related work in public or private right-of-ways connecting to the Town of Hudson Water Utility.

1. Please complete both the Water Connection Permit Application and Water Demand Form. All fees are required to be paid in full prior to service.
2. Complete the enclosed plan by showing the existing water and sewer mains, location of the proposed water and sewer services and distance from main to house, and all applicable dimensions including building ties to the curb stop.
3. Submit the application, water demand form, and plan with the fees to the Town. Payments can be made via cash or check, made payable to: Town of Hudson.
4. The Town will review the application, and you will be contacted when the review process is completed and approved.
5. It is the applicant’s responsibility to hire a contractor to do the installation of the water service line in accordance with Town service specifications, and pay for all water line installation costs. Copies of the appropriate service details can be found online by viewing the [Water Service Specifications](#) link, or obtained in the Engineering Department of Town Hall.

A street opening permit may be required. Please contact the DPW for application and processing at 603-886-6018.

Exhibit 3-Residential Water Service Application-Instructions.DOCX



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

Town of Hudson Water Utility

The water service must be inspected by one of the Town's technicians or agents prior to backfill. Inspections can be scheduled by calling the Engineering Department at 603-886-6008. It is your responsibility to fence any trenches that must be left open until inspection.

6. Your final step to receiving water service involves the installation of the water meter, remote reader, and turning on the water service. Please contact **WhiteWater at 603-324-8318** to have your meter installed. Note that it is the responsibility of the contractor to provide meter fittings for 5/8", 3/4" and 1" meters in addition to the wire installation, as per the specifications shown on Sheet 1. A list of suppliers for the meter fittings and wire is shown on Appendix X. Fittings and wire for 1.5" and 2" meters will still be provided by the Town of Hudson through WhiteWater. A remote wire will be installed from the inside meter location to the outside of your building before the 1.5" and 2" meter can be set. If any part of this wire needs to be installed behind sheet rock or in an area that will not be accessible to WhiteWater at the time the meter is set, it will be required by your contractor to install the wire from the meter location to the outside, as shown on Sheet 1. A 48-hour notice (business hours) is required.

Your meter can not be set until your plumber has installed the internal plumbing to your house in accordance with the service details.

Once the meter is set, a service turn-on can be scheduled through **WhiteWater at 603-324-8318**. The meter can be set and the water turned on during the same appointment.

High & Low Pressure Conditions

The applicant should be aware that the Town of Hudson has adopted the IRC (International Residential Code). This code addresses high and low pressure conditions for water supply. The applicant must address this issue with their plumber.

PRV Requirements

If a Pressure Reducing Valve (PRV) is required, the plumber will be required to perform the installation based on WhiteWater's recommendation. It is the responsibility of the property owner to install a suitable expansion tank and a pressure release valve on water heaters on the premises to prevent damage resulting from lack of pressure relief through the water line. WhiteWater may also require the property owner to install increased levels of backflow prevention protection.

Exhibit 3-Residential Water Service Application-Instructions.DOCX



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

Cross Connection

It is illegal to have a connection between the distribution system and any pipes, pumps, hydrants, fire protection, sprinkler system or tanks whereby non-potable water or other contaminating materials may be discharged or drawn into the water distribution system.

Separation of Water and Sewer

Water mains shall be installed at least **10-feet horizontally** from any existing or proposed sanitary sewer. In cases where it is not practical to maintain a 10-foot separation, a deviation may be allowed on a case-by-case basis. No water pipe shall pass through or come in contact with any part of a sanitary sewer manhole. The water service or main must be at least **18 inches above** the sewer main or service when crossed.

EXHIBIT ‘A’

RESIDENTIAL WATER CONNECTION FEES

1. Application processing & inspections by the Town: **\$100.00**
2. Meter installation & inspections:
 - Meter installation WITHOUT fittings:

5/8”	size @	\$250.00
3/4”	size @	\$350.00
1”	size @	\$400.00
 - Meter installation WITH fittings included:

1 1/2”	size @	\$800.00
2”	size @	\$1,050.00
3”	size @	\$1,050.00
		(plus parts)
>3”		*Cost to be determined at time of application.
3. New customer water system access fee: ***See Exhibit 2**



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

RESIDENTIAL WATER CONNECTION PERMIT APPLICATION

PLEASE NOTE: It will be the responsibility of the applicant to provide meter fittings for 5/8”, 3/4” and 1” meters, as per the specifications shown on Sheet 1. Fittings for 1.5” and 2” meter will still be provided by Town of Hudson through WhiteWater. The costumer shall also be responsible for installing the wire as shown on the attachments.

1. **APPLICANT INFORMATION:** Owner _____ Contractor _____

NAME: _____

ADDRESS: _____

PHONE: _____ EMAIL: _____

BUILDING LOCATION: _____

TAX MAP: _____ LOT: _____

DRAINLAYER’S LICENSE #: _____ **CONTRACTOR:** _____

A Drainlayer’s License is required for all water mains, services, and related work in public and private right-of-ways connecting to the Town of Hudson Water Utility.

OWNER (If different from above): _____

OWNER PHONE #: _____

By applying for this connection, I agree to abide by all applicable Town, State and Federal requirements.

SIGNATURE: _____

For office use:

2a. **PERMIT FEE:** 5/8” Meter Amount: **\$350.00**
Date: _____ Receipt #: _____ Received by: _____

2b. **ACCESS FEE:** Amount: _____
Date: _____ Receipt #: _____ Received by: _____

3. **SERVICE TYPE:** NEW RENEWED METER ONLY



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

4. DEPARTMENT OF PUBLIC WORKS:

Street opening permit required: YES _____ NO _____

SPECIAL CONDITIONS: _____

5. TOWN ENGINEER REVIEW:

SPECIAL CONDITIONS: _____

6. OTHER REQUIREMENTS:

BACK FLOW PREVENTER REQUIRED: Yes _____ No _____

PRESSURE REDUCING VALVE REQUIRED: Yes _____ No _____

PRV Requirements

If a Pressure Reducing Valve (PRV) is required, the plumber will be required to perform the installation based on WhiteWater’s recommendation. It is the responsibility of the property owner to install a suitable expansion tank and a pressure release valve on water heaters on the premises to prevent damage resulting from lack of pressure relief through the water line. WhiteWater may also require the property owner to install increased levels of backflow prevention protection.

Meter Fitting Requirements

It will be the responsibility of the costumer/contractor to provide meter fittings for 5/8”, 3/4” and 1” meters in addition to the wire installation, as per the specifications shown on Sheet 1. Fittings for 1.5” and 2” meters will still be provided by the Town of Hudson through WhiteWater. The costumer shall also be responsible for installing the wire as shown on Sheet 1.

Building Location: _____

Tax Map: _____ Lot: _____



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

RESIDENTIAL WATER DEMAND FORM

PLUMBING FIXTURES	PIPE SIZE CONNECTION	QUANTITY
Bathtub		
Bedpan Washers		
Combination Sink & Tray		
Dental Unit		
Dental Lavatory		
Drinking Foundation		
Kitchen Sink – ½” Connection ¾” Connection		
Lavatory – 3/8” Connection ¾” Connection		
Lavatory Tray – ½” Connection ¾” Connection		
Shower Head (Shower On)		
Service Sink – ½” Connection ¾” Connection		
Urinal – Pedestal Flush Valve Wall Flush Valve Trough (2 Ft. Unit)		
Wash Sink (Each Set of Faucets)		
Water Closet – Flush Valve Tank Type		
Dishwasher – ½” Connection ¾” Connection		
Washing Machine – ½” Connection ¾” Connection 1” Connection		
Hose Connection (Wash Down)		
Hose (50 Ft. Wash Down) ½” ¾” 5/8”		
Irrigation *Please list: # of heads Area – Sq.Ft.		



TOWN OF HUDSON – Engineering Department

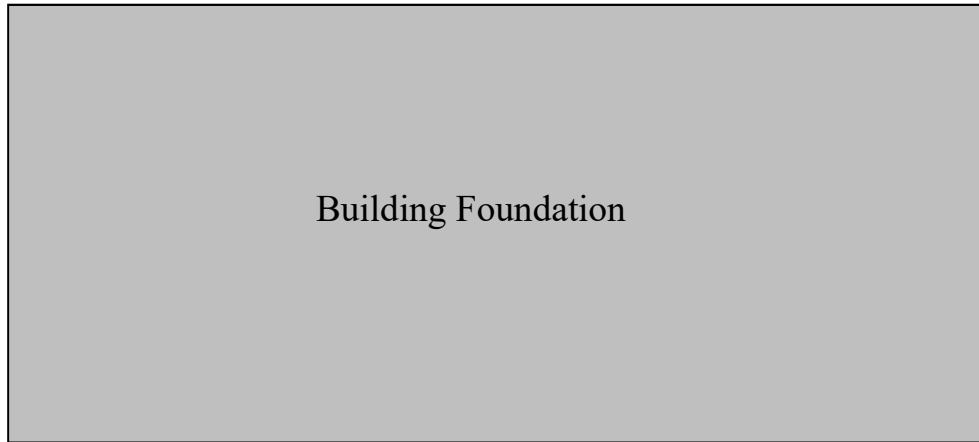


12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

Water Service Sketch

Street Address: _____

Map: _____ Lot: _____



R.O.W. _____



Edge of Pavement _____

Sketch shall show the approximate location of the existing water main, and the location and distance of the proposed water and sewer service.



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

FIRE SERVICE (If applicable)

SUBDIVISION NAME: _____

LOCATION: _____

BUILDING # _____

SERVICE NO. _____

DATE: _____

FIRE SERVICE SIZE: _____

Exhibit 4

Water Service Application – Non-Residential



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

TOWN OF HUDSON WATER UTILITY

WATER SERVICE APPLICATION (NON-RESIDENTIAL)

Below are step by step procedures for attaining service. Should you have any questions concerning what is required, please call the Engineering Division at 886-6008.

The Town has contracted with WhiteWater to assist with the installation of meters and inspections. Once an application and the permit fee have been submitted to the Town, the application will be sent to WhiteWater for review. The application fee is defined on Exhibit A (page 3) of the permit. There is also a one-time **Water Access Fee** that is required for all new connections to the town water main. The Access Fee is set annually, as per the “New Customer Water Access Fee” schedule attached, and must be paid prior to service turn-on and/or issuance of a Certificate of Occupancy.

STEP BY STEP PROCEDURES FOR OBTAINING SERVICE

NOTE: A Drainlayer’s License is required for all work on water mains, service lines and related work in public or private right-of-ways connecting to the Town of Hudson Water Utility.

1. Please complete both the Water Connection Permit Application and Water Demand Form. The linear footage of pipe to be installed will also have to be determined/estimated and filled out on Exhibit A (page 3) of the application.
2. A plan must be submitted showing the existing water main, edge of pavement, building foundation, location of the proposed service and all applicable dimensions including building ties to the curb stop.
3. Submit the application, Water Demand Form, and plan with the \$100.00 application fee made payable to: **Town of Hudson, 12 School Street.**
Note: The inspection fee and meter fee will be paid at time of permit issuance, and the Water Access fee must be paid prior to service turn-on and/or issuance of a Certificate of Occupancy. All fees are required to be paid in full prior to service.
4. The Town and WhiteWater will then review the application. The meter size will be determined by WhiteWater at this time. You will be contacted when the review process is completed and approved. You may then pick up your permit and pay the balance of the application fee, which will be based on the meter size, the LF of installed pipe, and any other additional features (ie: hydrants, etc.).

Exhibit 4-Non Residential Water Service Application-Instructions.docx



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

5. It is the applicant's responsibility to hire a contractor to do the installation of the water service line in accordance with Town service specifications, and pay for all water line installation costs. Copies of the appropriate service details can be found online by viewing the [Water Service Specifications](#) link, or obtained in the Engineering Department of Town Hall.

A street opening permit may be required. Please contact the Hudson Public Works Department for application and processing at 603-886-6018.

The water service must be inspected by one of the Town's technicians or agents prior to backfill. Inspections can be scheduled by calling the Engineering Department at 603-886-6008. It is your responsibility to fence any trenches that must be left open until inspection.

6. Your final step to receiving water service involves the installation of the water meter, remote reader, and turning on the water service. Please contact **WhiteWater at 603-324-8318** to have your meter installed. Note that it is the responsibility of the contractor to provide meter fittings for 5/8", 3/4" and 1" meters in addition to the wire installation, as per the specifications shown on **Sheet 1**. A list of suppliers for the meter fittings and wire is shown on Appendix X. Fittings and wire for 1.5" and 2" meters will still be provided by Town of Hudson through WhiteWater. A remote wire will be installed from the inside meter location to the outside of your building before the 1.5" and 2" meter can be set. If any part of this wire needs to be installed behind sheet rock or in an area that will not be accessible to WhiteWater at the time the meter is set, it will be required by your contractor to install the wire from the meter location to the outside, as shown on Sheet 1. A 48-hour notice is required (business hours) is required.

The Water Department may require a Compound Meter on services that are 2" or larger, that can accurately read both high and low flow rates.

Your meter can not be set until your plumber has installed the internal plumbing to your building in accordance with the service details.

Once the meter is set, then a service turn-on can be scheduled through **WhiteWater at 603-324-8318**. The meter can be set and the water turned on during the same appointment. Again, please be advised that the Water Access fee must be paid prior to service turn-on and/or issuance of a Certificate of Occupancy.



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

High & Low Pressure Conditions

The applicant should be aware that the Town of Hudson has adopted the IRC (International Residential Code). This code addresses high and low pressure conditions for water supply. The applicant must address this issue with their plumber.

PRV Requirements

If a Pressure Reducing Valve (PRV) is required, the plumber will be required to perform the installation based on WhiteWater's recommendation. It is the responsibility of the property owner to install a suitable expansion tank and a pressure release valve on water heaters on the premises to prevent damage resulting from lack of pressure relief through the water line. WhiteWater may also require the property owner to install increased levels of backflow prevention protection.

Cross Connection

It is illegal to have a connection between the distribution system and any pipes, pumps, hydrants, fire protection, sprinkler system or tanks whereby non-potable water or other contaminating materials may be discharged or drawn into the water distribution system.

Separation of Water and Sewer

Water mains shall be installed at least 10-feet horizontally from any existing or proposed sanitary sewer. In cases where it is not practical to maintain a **10-foot separation**, a deviation may be allowed on a case-by-case basis. No water pipe shall pass through or come in contact with any part of a sanitary sewer manhole. The water service or main must be at least **18 inches above** the sewer main or service when crossed.



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

WATER CONNECTION PERMIT APPLICATION (NON-RESIDENTIAL)

PLEASE NOTE THE FOLLOWING CHANGES EFFECTIVE IMMEDIATELY:

It will be the responsibility of the costumer to provide meter fittings for 5/8”, 3/4” and 1” meters, see Sheet 1 for additional information. Fittings for 1.5” and 2” meters will still be provided by Town of Hudson through WhiteWater. The costumer shall also be responsible for installing the wire as shown on the attachments.

1. **APPLICANT INFORMATION:** Owner _____ Contractor _____

NAME: _____

ADDRESS: _____

TELEPHONE: _____ EMAIL: _____

BUILDING LOCATION: _____

TAX MAP: _____ LOT: _____

DRAINLAYER’S LICENSE #: _____ **CONTRACTOR:** _____

A Drainlayer’s License is required for all water mains, service lines and related work in public or private right-of-ways connecting to the Town of Hudson Water Utility.

OWNER (If different from above): _____

OWNER PHONE #: _____

By applying for this connection, I agree to abide by all applicable Town, State and Federal requirements.

SIGNATURE: _____

For office use:

2a. **APPLICATION PROCESSING FEE:** Amount: **\$100.00**

Date: _____ Receipt #: _____ Received by: _____

2b. **PERMIT FEE:** (Meter/Inspections – per Exhibit A) Amount: _____

Date: _____ Receipt #: _____ Received by: _____

2c. **ACCESS FEE:** Amount: _____

Date: _____ Receipt #: _____ Received by: _____

SERVICE TYPE: NEW RENEWED METER ONLY



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

4. DEPARTMENT OF PUBLIC WORKS REVIEW

Street opening permit required: YES _____ NO _____

SPECIAL CONDITIONS: _____

5. TOWN ENGINEER REVIEW (if applicable)

SPECIAL CONDITIONS: _____

6. OTHER REQUIREMENTS

BACK FLOW PREVENTER REQUIRED: Yes _____ No _____

PRESSURE REDUCING VALVE REQUIRED: Yes _____ No _____

PRV Requirements:

If a Pressure Reducing Valve (PRV) is required, the plumber will be required to perform the installation based on WhiteWater’s recommendation. It is the responsibility of the property owner to install a suitable expansion tank and a pressure release valve on water heaters on the premises to prevent damage resulting from lack of pressure relief through the water line. WhiteWater may also require the property owner to install increased levels of backflow prevention protection.

Meter Fitting Requirements:

It will be the responsibility of the costumer to provide meter fittings for 5/8”, 3/4” and 1” meters, see Sheet 1 for additional information. Fittings for 1.5” and 2” meters will still be provided by Town of Hudson through WhiteWater. The costumer shall also be responsible for installing the wire as shown on Sheet 1.

Building Location: _____

Tax Map: _____ Lot: _____



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

EXHIBIT 'A'

1. Application Processing Fee: **\$100.00**

2. Meter installation:

(without fittings)	5/8"	size @	\$250.00
	3/4"	size @	\$350.00
	1"	size @	\$400.00
Meter installation:	1 1/2"	size @	\$800.00
(with fittings)	2"	size @	\$1,050.00
	3"	size @	\$1,050.00
		(plus parts)	

>3" *Cost to be determined at time of application.

- The Water Department may require a Compound Water Meter on water services that are 2" and larger that can accurately read both high and low flow rates.

Meter Size: _____ \$ _____

4. Hydrant: Cost per hydrant # of hydrants

\$85.00 x _____ = \$ _____

5. Fire Service:

Inspection Fee @ \$4.00 per L.F. of installed pipe:

_____ L.F. x \$4.00 = \$ _____

Total: \$ _____

6. New customer Water System Access Fee: \$ _____

- * Set annually - per attached chart.
- * Must be paid prior to service turn-on.



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

WATER DEMAND FORM

PLUMBING FIXTURES	PIPE SIZE CONNECTION	QUANTITY
Bathtub		
Bedpan Washers		
Combination Sink & Tray		
Dental Unit		
Dental Lavatory		
Drinking Foundation		
Kitchen Sink – 1/2" Connection 3/4" Connection		
Lavatory – 3/8" Connection 3/4" Connection		
Lavatory Tray – 1/2" Connection 3/4" Connection		
Shower Head (Shower On)		
Service Sink – 1/2" Connection 3/4" Connection		
Urinal – Pedestal Flush Valve Wall Flush Valve Trough (2 Ft. Unit)		
Wash Sink (Each Set of Faucets)		
Water Closet – Flush Valve Tank Type		
Dishwasher – 1/2" Connection 3/4" Connection		
Washing Machine – 1/2" Connection 3/4" Connection 1" Connection		
Hose Connection (Wash Down)		
Hose (50 Ft. Wash Down" 1/2" 3/4" 5/8"		
Irrigation *Please give: # of heads Area – Sq. Ft.		



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

FIRE SERVICE

* You must complete this section if your facility will have a Fire Service/sprinkler system.

SUBDIVISION NAME: _____

LOCATION: _____

BUILDING # _____

SERVICE NO. _____

DATE: _____

FIRE SERVICE SIZE: _____



TOWN OF HUDSON – Engineering Department

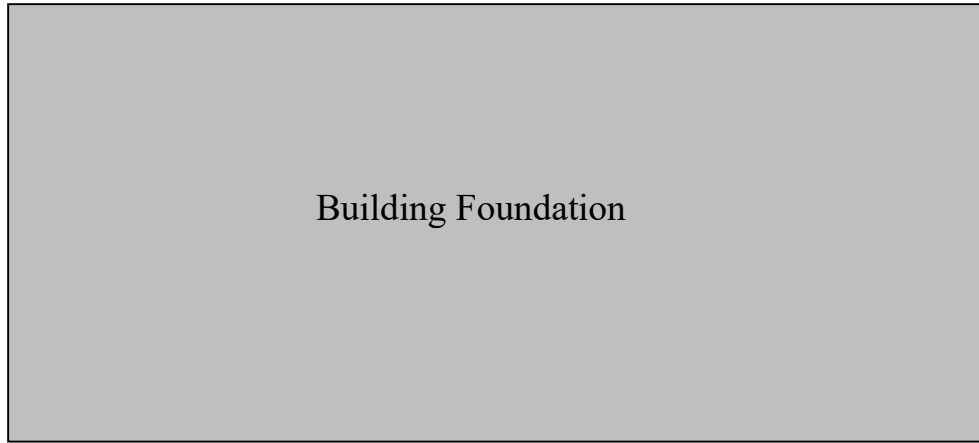


12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

Water Service Sketch

Street Address: _____

Map: _____ Lot: _____



R.O.W. _____



Edge of Pavement _____

R.O.W. _____

Sketch shall show the approximate location of the existing water main, and the location and distance of the proposed water and sewer service.

Exhibit 5

Abatement Form



TOWN OF HUDSON

Water Utility



12 School Street Hudson, New Hampshire 03051 Tel: 603-886-6002 Fax: 603-881-3944

APPLICATION FOR WATER UTILITY ABATEMENT

ABATEMENT # _____

***** APPLICANT MUST FILL IN ALL SPACES BELOW AND SIGN *****

Water Account #: _____ Date: _____

Name of Applicant: _____

Name of Property Owner: _____

Address of Property: _____

Parcel ID: _____ Amount: \$ _____

I/We request an Abatement of water charges on the property listed above for the billing period

_____, for the following reason(s): _____

Signature of Applicant(s): _____ Date: _____

_____ Date: _____

Mailing Address: Street: _____ Town/City: _____

State: _____ Zip Code: _____ Phone #: _____

RETURN COMPLETED APPLICATION TO THE WATER UTILITY CLERK

Do not write below this line- official use only

Date Received: _____ Received By: _____

Type of Request:

Monthly Utility Rents: Monthly Fire Service Fee: Water Connection Fee: Water Access Fee:

Total Abatement Amount: \$ _____ Refund Amount: \$ _____

ABATEMENT RECOMMENDATION REPORT

1. Water Utility Department:

Date of Filing: _____ Utility Clerk: _____

Accuracy check, corrections, and deficiencies: _____

2. Finance Director:

Finance Director Recommends: Approving Abatement: Denying Abatement:

Comments: _____

Signature: _____ Date: _____

3. Municipal Utility Committee:

Date Submitted and Reviewed : _____ - _____

Municipal Utility Committee Recommends: Approving Abatement: Denying Abatement:

Comments: _____

Signature: _____ Date: _____

Recommended Total Abatement/Refund Amount: \$ _____

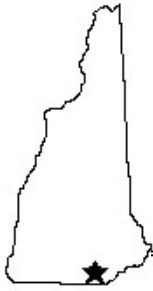
4. Board of Selectman: Granted: Denied: Date: _____

5. Date Notification Letter Sent to Applicant: _____

6. Date Copy given to the Sewer Utility Department: _____

Exhibit 6

Policies & Procedure for Public & Private Fire Hydrants



TOWN OF HUDSON

Hudson Water Utility



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-816-1291

POLICIES & PROCEDURES FOR PUBLIC AND PRIVATE FIRE HYDRANTS

Fire hydrants: Ownership, installation, maintenance replacement (see Section III.H of the “Rules & Regulations”), and fees:

1. All new hydrants in the Town of Hudson are Metropolitan M-94 or Super Centurion A 423- 5 ¼” valves opening left counter clockwise.
2. All hydrants will be connected to the main through a readily accessible, separate gate valve.
3. Hydrants may be owned publicly (by the Hudson Water Utility) or by a private entity.
 - a) Hydrants located in public right of way are considered Town owned.
 - b) Hydrant located on private property or privately owned sites are considered privately.
4. The Hudson Water Utility will inspect **all** hydrants, public and private, twice a year. The two inspections consist of the “dry” and “wet” procedure. Inspection data is categorized and maintained by the O&M contractor, White Water Inc.
 - a) Maintenance shall be conducted in accordance with best industry standards and current NFPA 25 STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER BASED-FIRE PROTECTION SYSTEMS.
5. Public hydrants owned by the Hudson Water Utility are maintained, repaired and/or replaced as needed by the Hudson Water Utility.
6. Privately owned hydrants: each owner on whose property, the privately owned hydrant is located must maintain the hydrant(s) functional. Each owner is responsible for keeping said hydrants in good working order and accessible.

When the Hudson Water Utility through its annual inspections notes deficiencies in private hydrant conditions, it is the responsibility of the hydrant owner to make corrections promptly. Hudson Water Utility will notify the owner in writing and the response will be expected in writing.

Fire and Engineering Department, in addition to WhiteWater, will be copied on the electronic correspondence. Replacement of hydrants may be completed by the Hudson Water Utility at the owner's expense.

7. Snow removal for private hydrants is the responsibility of the owner. A contractor hired by the Hudson Public Works Department conducts snow removal for public hydrants.
8. Hydrants are painted and repainted by the O&M contractor White Water Inc, on a scheduled basis. All hydrant bodies are painted yellow with caps painted as follows:

BLUE for 1,500 GPM or more
GREEN for 1,000 GPM – 1,499 GPM
ORANGE for 500 GPM – 999 GPM
RED for less than 500 GPM
BLACK STEAMER for nonworking hydrants-instead of orange bags

*As outlined by current NFPA standard

The installation applicant pays for initial hydrant painting. This is paid for at the time of the pre-construction meeting for subdivisions or at the time a water service connection application is made for development sites.

9. Location flags are provided by The Hudson Water Utility through O&M contractor WhiteWater Inc, or the Fire Department, and are attached at the time hydrants are painted. Cost for hydrant flags in new development(s) is the developers/owners responsibility.
10. Hydrant locations are determined by the Hudson Fire Department in coordination with the Hudson Engineering Department and the O&M contractor White Water Inc.

A property owner/developer submits three (3) hydrant location plans. These are reviewed and approved by the Fire Department and then signed by the Fire Department, Engineering Department and the owner/developer. Each entity will receive a copy of the signed "hydrant plan". Any change to this after initial approval must go through the same approval process.

The "rule of thumb" for hydrant spacing is:

- 300 feet from each other, for high-density areas.
 - 500 feet from each other, for commercial industry areas.
 - 800 feet from each other, apart for residential areas.
11. Fire flow tests are to be requested and scheduled through the Engineering Department. Typically these are required to be done at "off peak" times. A Hudson

Water Utility O&M representative shall be notified prior to testing and could be required to be present.

12. If there is a fire department sprinkler connection on any building, it will be located no less than 100 feet nor more than 200 feet from a fire hydrant. There will be no parking spaces, trees or bushes in front of any fire hydrants or fire department connections in accordance with a nationally accepted practice found in applicable NFPA standards.
13. A proper water supply must be made available prior to any construction where there are combustible materials. The water flow data for each fire hydrant must be submitted to the Fire Prevention Division and Engineering Department prior to the issuance of any building permits in accordance with **current NFPA standard**.
14. Public and private hydrants shall be accessed only by the Fire Department and Hudson Water Utility staff. The only public fire hydrant access allowed will be for seasonal construction meters installation through a permit application at the Engineering Department.
15. Water Utility Hydrant Fee/ Fire Access Charge

Town of Hudson shall be responsible for the public hydrants, located on public right of way and served by accepted water lines. Private hydrants, located within private properties or served by main service lines, shall be the responsibility of private owner.

Fire Service Fee Matrix

<u>Service Size</u>	<u>Monthly Rate</u>
2"	\$11.94
3"	\$26.87
4"	\$47.77
6"	\$107.50
8"	\$191.10
10"	\$298.58
12"	\$429.97
Private Hydrant	\$77.63
Public Hydrant	\$16.2


Fire Department Chief



Robert M. Buxton

Date: 3/20/19

Town Engineer



Elvis Dhima, P.E.

Date: 3/26/19

Exhibit 7

Drainlayer's License Application



TOWN OF HUDSON DPW

APPLICATION FOR A DRAINLAYER'S LICENSE



2 Constitution Drive • Hudson, New Hampshire 03051 • Tel: 603-886-6018 • Fax: 603-594-1143

I/We _____.

Phone Number: _____ Email _____.

Hereby apply for a Drainlayer's License, in accordance with the Town of Hudson Sewer and Water Ordinance. The applicant must be familiar with applicable ordinances and regulations including Hudson Engineering Specifications, Sewer & Water Ordinance and New Hampshire State Requirements.

For due consideration by the Department of Public Works and Engineering Department, the applicant must enclose a list of references, stating the name, location, scope, and size of prior work done. Applicant will file with Engineering Office. **This license shall be applicable to all drainage, sewer, and water mains and services related work in public and private right of way connecting to any Town of Hudson Utilities. This shall exclude single family sewer/ drainage services installation from the property line/cleanout to foundation by homeowner.**

1. Certificate of Insurance Coverage

- 1) Public Liability Insurance for bodily injury of \$25,000 for one person, and \$100,000 for each occurrence.
- 2) Property Damage \$25,000/\$100,000 aggregate. Coverage shall include underground explosion, collapse hazard, and damage to utilities.
- 3) Worker's Compensation Insurance to the protection of employees.
- 4) Insurance company shall notify the Department of Public Works or Engineering Department of any change and/or termination in the coverage at least 10 days prior to the date of the change and/or termination.
- 5) A bond payable to the Town of Hudson in the sum of, no less than \$10,000.

2. Annual License Fee

A \$250.00 non-refundable fee is required, for the license term, January 1 - December 31. Bond or insurance coverage termination or expiration will automatically cancel the Drainlayer's License.

Signature, Title of Lienholder _____ Date _____

Director of Public Works _____ Date _____

Town Engineer _____ Date _____

DRAINLAYER'S LICENSE REQUIREMENTS

- a. In accordance with
 - Sewer Ordinance 77, Article 15
 - Water Ordinance 274, Water Utility Policies and Procedure Section VIII
- b. Before approval by the Public Works and Engineering Departments, a drainlayer shall submit an application for review.

Part of the application shall include identification of experience in performing sewer installation, including:

- experience
 - type of work done
 - size of projects done
 - at least 3 references (municipality references preferred)
- c. Applicants for a Drainlayer's License will be notified of issuance of license in writing. Such license shall be good during the calendar year unless revoked sooner.
 - d. Licensed drainlayers shall:
 - Execute a bond issued to the Town in the sum of ten thousand dollars (\$10,000.00) to be approved by the Public Works or Engineering Department.
 - Comply, to the satisfaction of the Public Works and Engineering Department, with the Town ordinances and/or rules for which the work is performed.
 - Insure that the excavation is properly guarded at all times for the protection of the public.
 - Ensure that all connections and joints in every private sewer are properly constructed, and leave no obstruction of any kind in any sewer line; and
 - A Hold Harmless agreement to the Town of Hudson must be in place to indemnify any liability for injuries resulting from neglect, carelessness or incompetency in constructing, repairing or connecting any private sewer, or properly fencing or lighting any excavation or obstruction, or in performing any other work connected therewith.

Exhibit 8

Temporary Water Meter Permit Application



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

TEMPORARY WATER METER PERMIT APPLICATION

APPLICANT INFORMATION:

CONTRACTOR NAME: _____

ADDRESS: _____

TELEPHONE: _____ EXT: _____

CONTRACTOR PHONE: _____

HYDRANT LOCATION: _____

TAX MAP: _____ LOT: _____

Application processing fee must accompany permit application.

BY APPLYING FOR THIS CONNECTION, I AGREE TO ABIDE BY ALL APPLICABLE TOWN, STATE AND FEDERAL REQUIREMENTS:

All temporary Water Meters will be installed and removed by the Hudson Water Utility.

The application fee of **\$200.00** will cover the cost of the installation and removal of the meter and the required backflow preventer. The Town of Hudson will also charge a **\$3.00/day rental fee** for this equipment. It is the responsibility of the applicant to pay that rental fee, along with the water usage charge, which will be calculated and invoiced once the meter is removed. The water usage rate is \$3.30/HCF (748 gallons per HCF). The water usage and rental fees will be billed by the Water Department.

The meter installation and removal can be scheduled by calling WhiteWater at 603-324-8318, 24 business-hours after the permit has been pulled.

SIGNATURE: _____

For office use:

APPLICATION PROCESSING FEE: Amount: **\$200.00**
Date: _____ Receipt #: _____ Received by: _____



TOWN OF HUDSON – Engineering Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6000 • Fax: 603-816-1291

For office use:

Approved _____
Engineering Department Date

Comments/Stipulations:

Approved _____
Fire Department Date

Comments/Stipulations:

Location: _____

Tax Map: _____ Lot: _____

Installation Date: _____ Removal Date: _____

Total # of Days: _____ X \$3.00/Day Rental Fee: _____

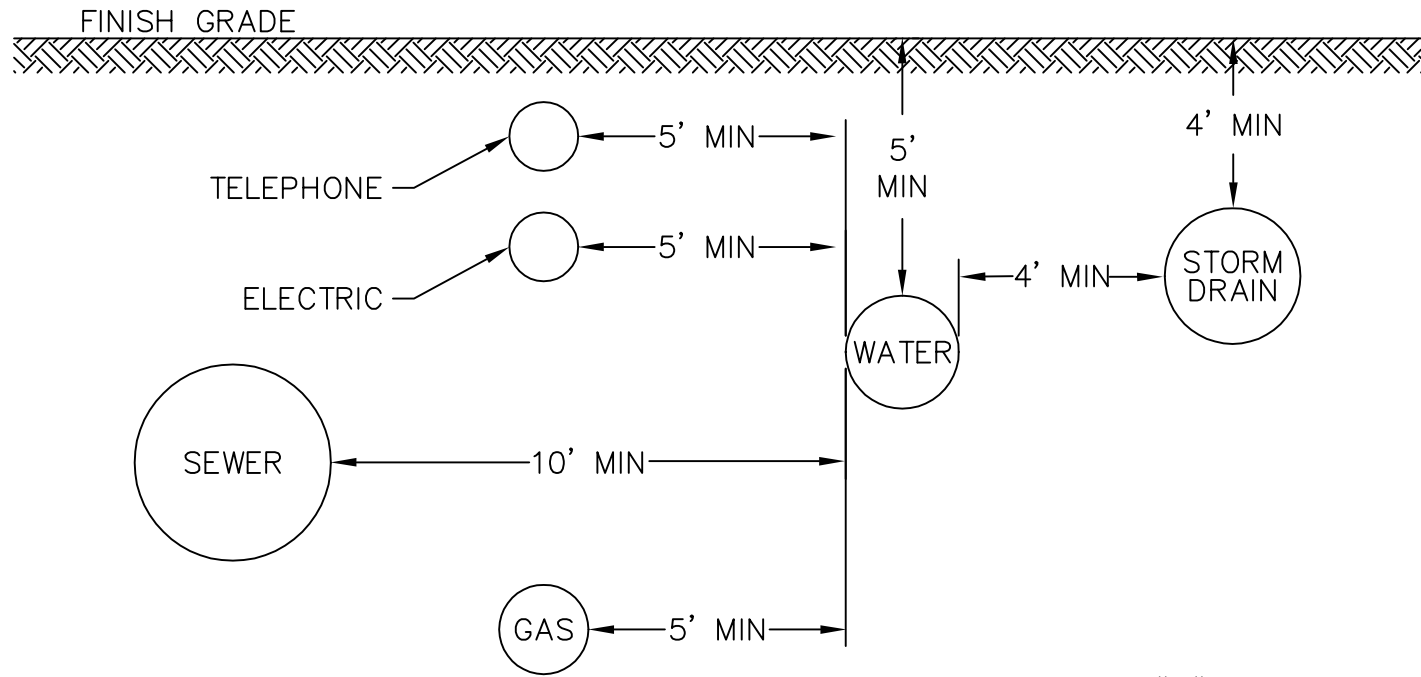
Exhibit 9

Typical Water Details

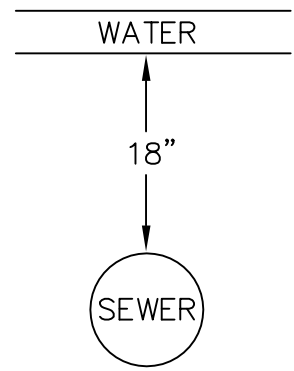
Water Details

Detail	Name
W-1	Utility Separation (Main) Detail
W-2	Water Trench
W-3	Water 1" Release Valve Installation On Ductile Iron
W-4	Water 2" Release Valve Installation On Ductile Iron
W-5	Water Release Valve Installation On PVC
W-6	Water Tee Installation
W-7	Water Thrust Block Behind Fittings Installation
W-8	Water End Of Main Installation
W-9	Water Valve Box Detail
W-10	Water Hydrant Installation
W-11	Utility Separation (Service) Detail
W-12	1-1/2" – 2" Water Service and Valve Box Installation
W-13	Water Service Box Detail in Paved Areas Including Driveways
W-14	Water Service Meter Installation
W-15	Water Slab Construction
W-16	Catch Basin Insulation Detail
W-17	Storm Drain / Water Main Parallel Runs - Elevation View
W-18	Storm Drain / Water Main Intersecting Runs - Elevation View
W-19	Copper Water Service on PVC and Transite Mains
W-20	1" Water Service and Valve Box Installation
W-21	Large Water Service and/or Tapping Sleeve
W-22	Fire Water Service Installation with Standard Foundations
W-23	Fire Service Installation with Slab Foundations
W-24	Domestic Water Service Tapped Off Fire Service
W-25	1-1/2" Through 2" Water Service Entrance
W-26	Fire Service Entrance
W-27	Combined Fire Domestic Water Service Entrance
W-28	Fire Service With Yard Hydrants
W-29	Manufactured Housing or Slab Water Service Entrance
W-30	Domestic Irrigation Water Service Meter Installation

DRAWING: \\HD-FILES\RYTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]




INSERT "A"



NOTES:

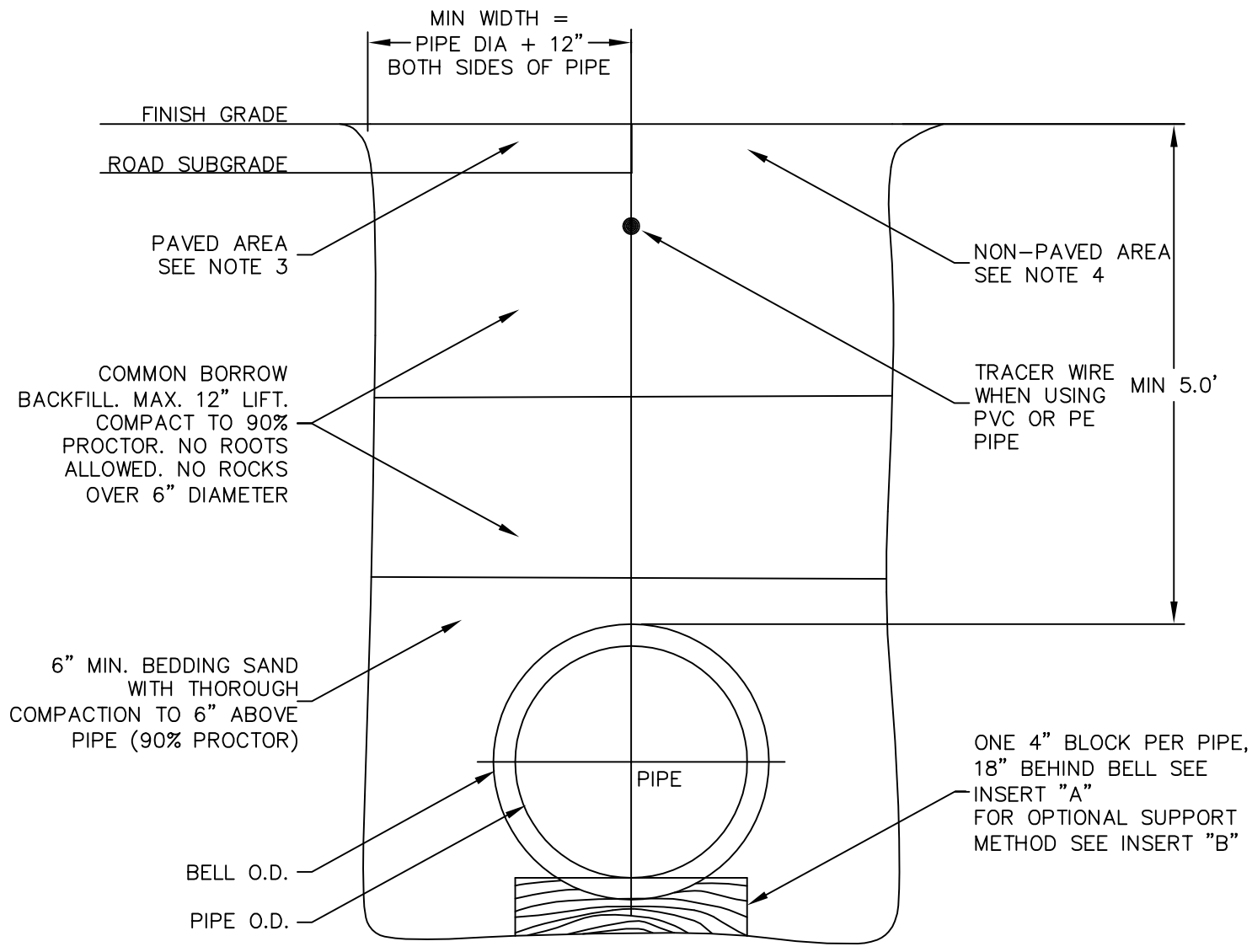
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL WATER MAINS SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. SEE DETAIL A-2 FOR TRENCH DETAIL.
4. SEE DETAIL A-11 FOR OUTSIDE SERVICE ENTRANCE DETAIL.
4. AT CROSSINGS WHERE 10' HORIZONTAL SEPERATION IS NOT POSSIBLE, 18" VERTICAL SEPERATION SHALL BE PROVIDED. SEE INSERT "A".

DRAWINGS COURTESY PENNICHUCK WATER WORKS.

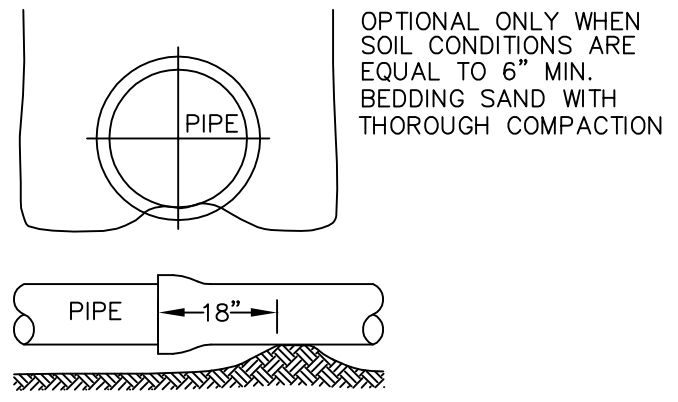
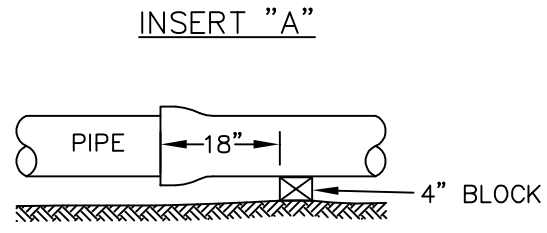
	<p>TOWN OF HUDSON 12 SCHOOL STREET HUDSON, NH 03051</p>
---	--

DETAIL W-1
 WATER UTILITY SEPARATION
 REV: 2019 SCALE: NTS

DRAWING: \\HD-FILESRVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



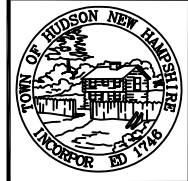
INSERT "B"



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH TOWN OF HUDSON STANDARDS. SEE DEATIL R-1.
4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH TOWN OF HUDSON STANDARDS. SEE DETAIL.

DRAWINGS COURTESY
PENNICHUCK WATER
WORKS.

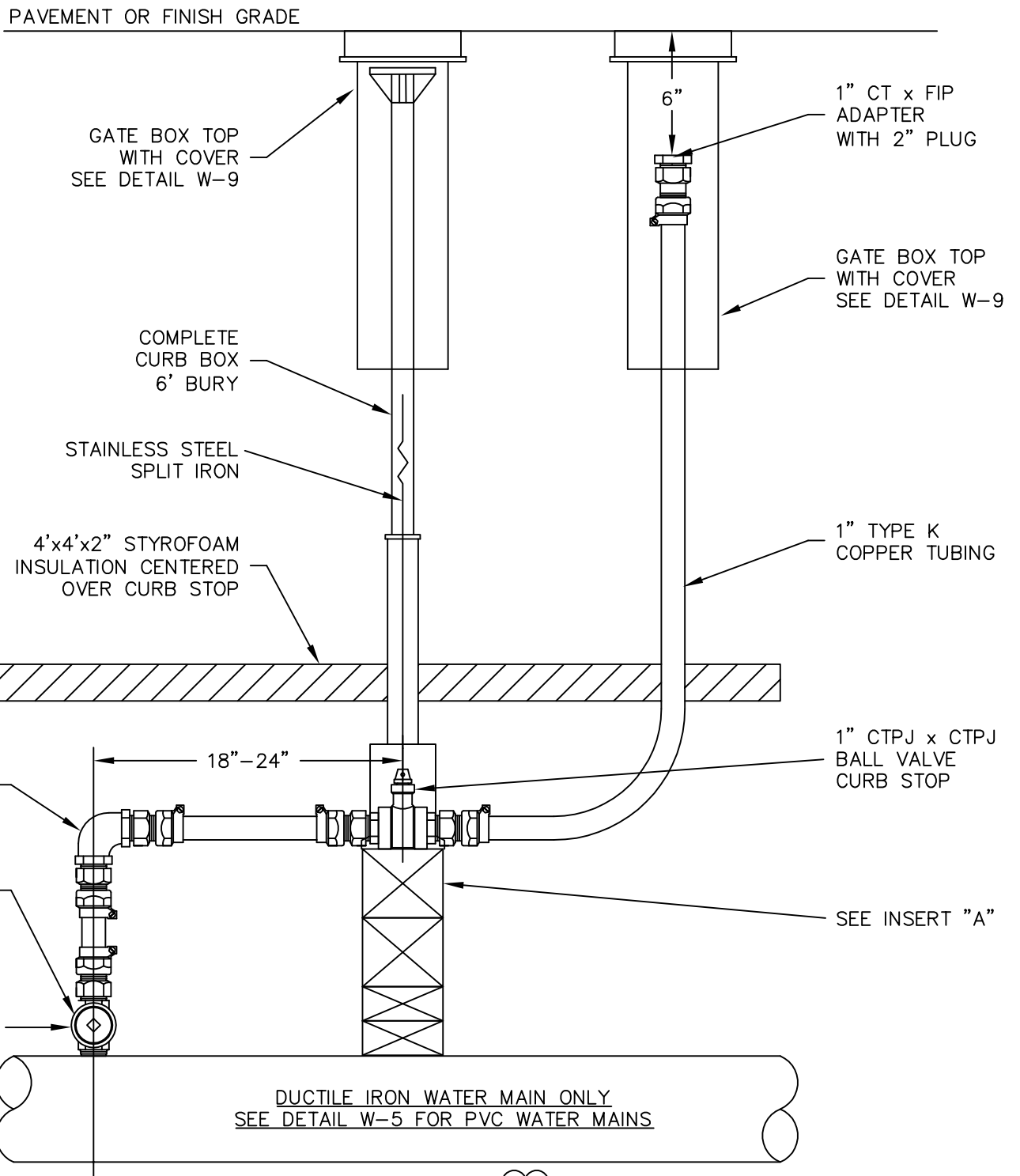


TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

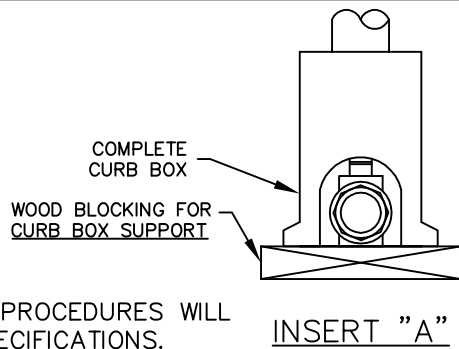
DETAIL W-2
WATER TRENCH
REV: 2019

SCALE: NTS

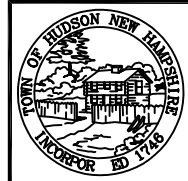
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. WATER MAIN MAY BE DIRECT TAPPED WHEN IT IS 6" OR LARGER DUCTILE IRON.
 3. SEE DETAIL W-5 FOR INSTALLATION ON PVC WATER MAINS.



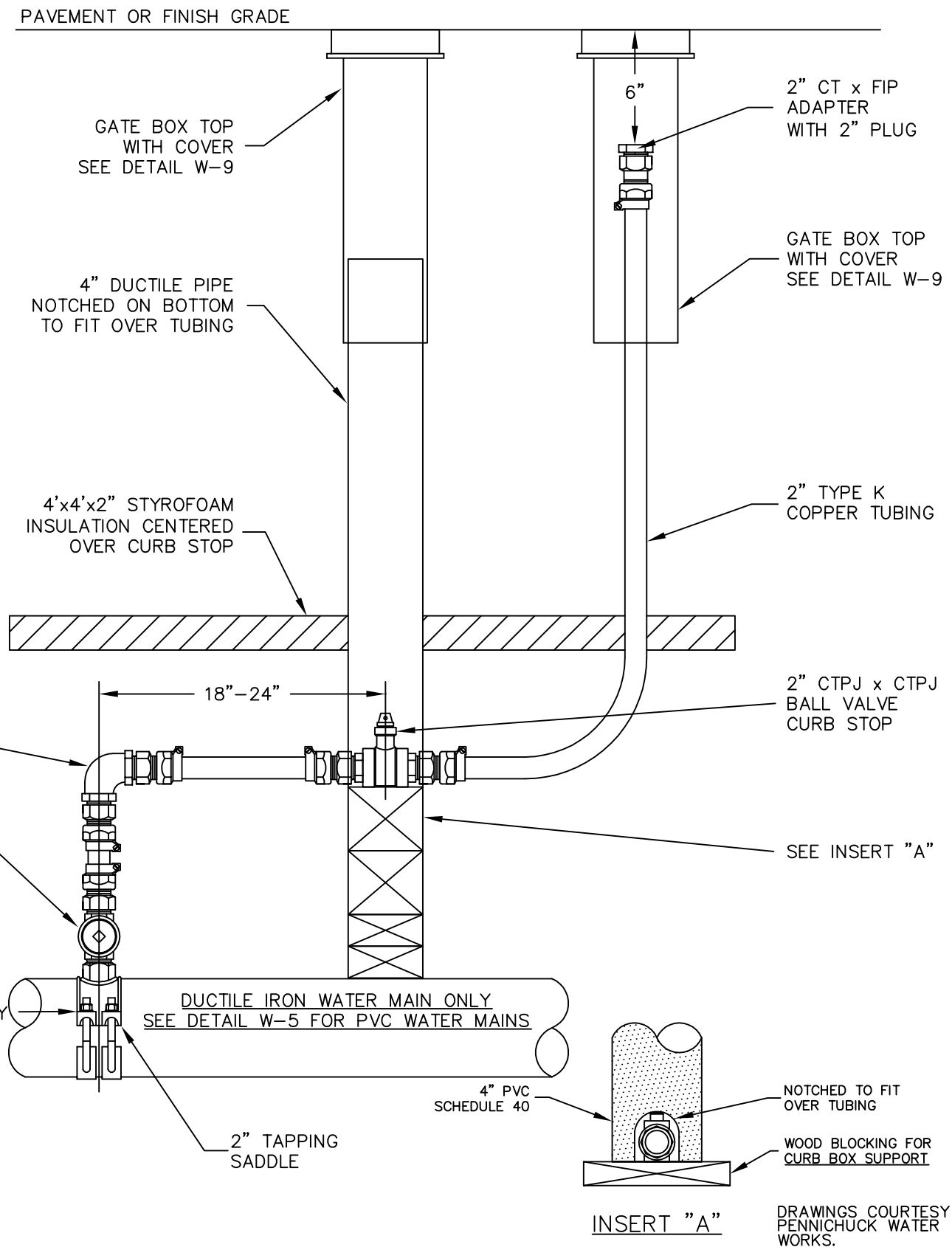
DRAWINGS COURTESY PENNICHUCK WATER WORKS.



TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DETAIL W-3
 WATER 1" RELEASE VALVE
 INSTALLATION ON DUCTILE IRON
 REV: 2019 SCALE: NTS

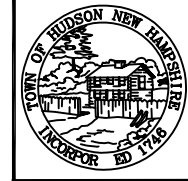
DRAWING: \\HD-FILESRVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. WATER MAIN MAY BE DIRECT TAPPED WHEN IT IS 16" OR LARGER DUCTILE IRON.
3. SEE DETAIL W-5 FOR INSTALLATION ON PVC WATER MAINS.

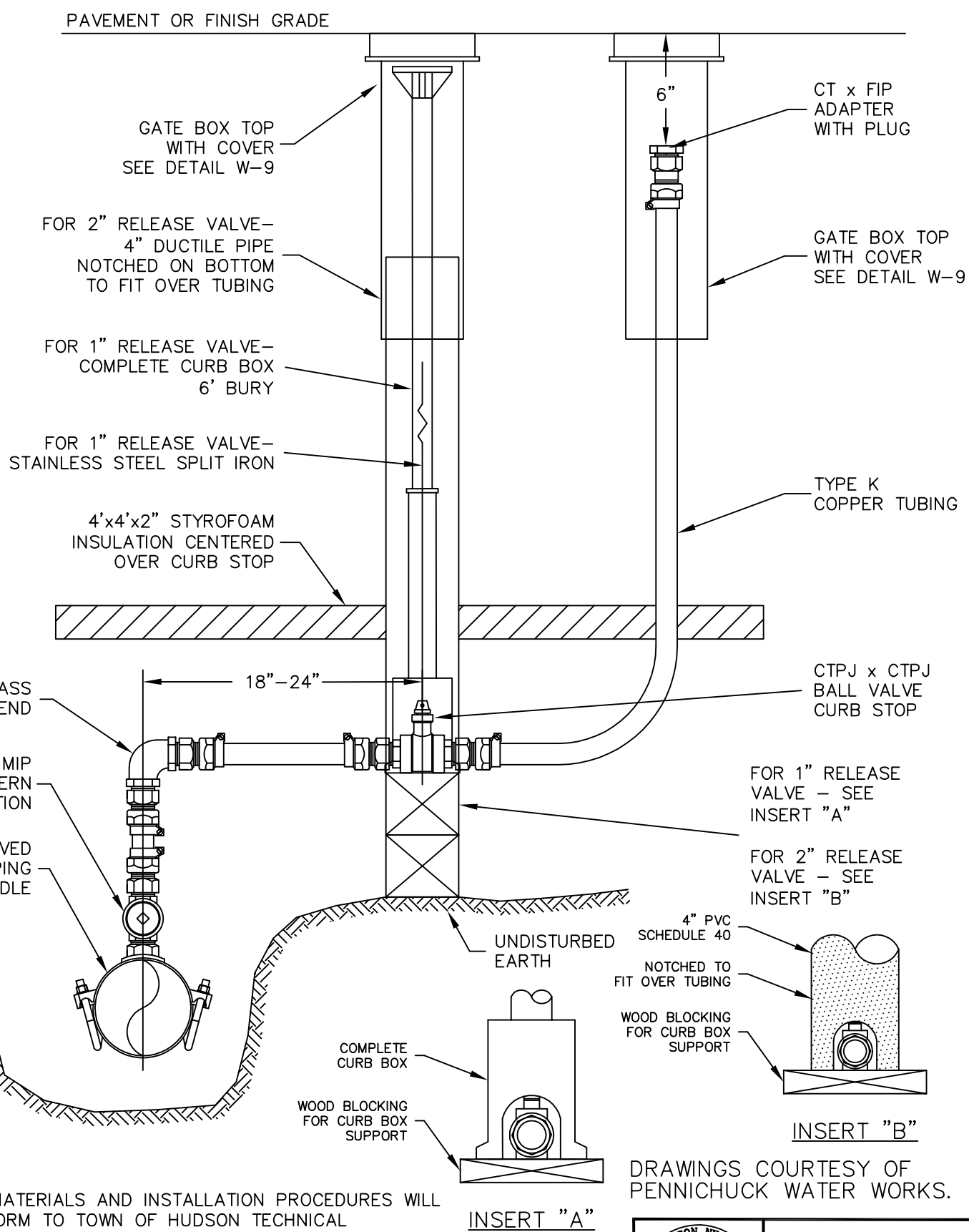
INSERT "A"
DRAWINGS COURTESY PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-4
WATER 2" RELEASE VALVE
INSTALLATION ON DUCTILE IRON
REV: 2019 SCALE: NTS

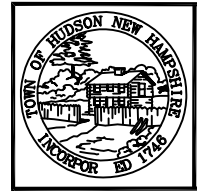
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. IF TAPPING SADDLE IS 1", SEE DETAIL W-3 FOR SIZE OF FITTINGS AND APPROPRIATE GATE BOX TYPE.
3. IF TAPPING SADDLE IS 2", SEE DETAIL W-4 FOR SIZE OF FITTINGS AND APPROPRIATE GATE BOX TYPE
4. SEE DETAILS W-3 AND W-4 FOR INSTALLATION ON DUCTILE IRON WATER MAINS.

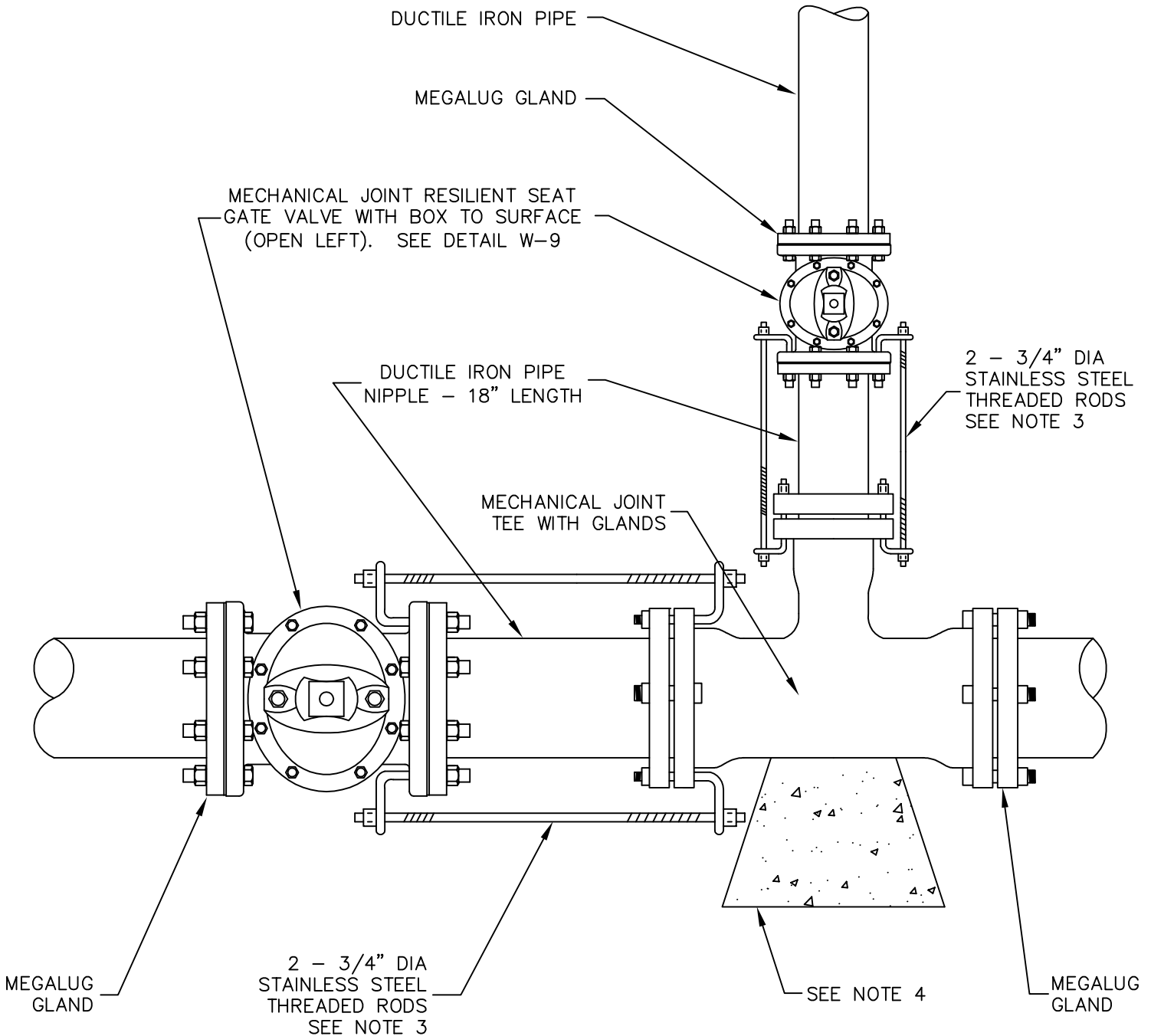
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-5
*WATER RELEASE VALVE
INSTALLATION ON PVC*
REV: 2019 SCALE: NTS

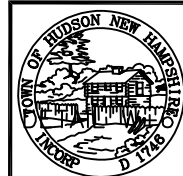
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. ALL THREADED RODS AND NUTS MUST BE STAINLESS STEEL.
4. MIN 2'x2'x4' PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON PAGE 100 OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL W-7.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



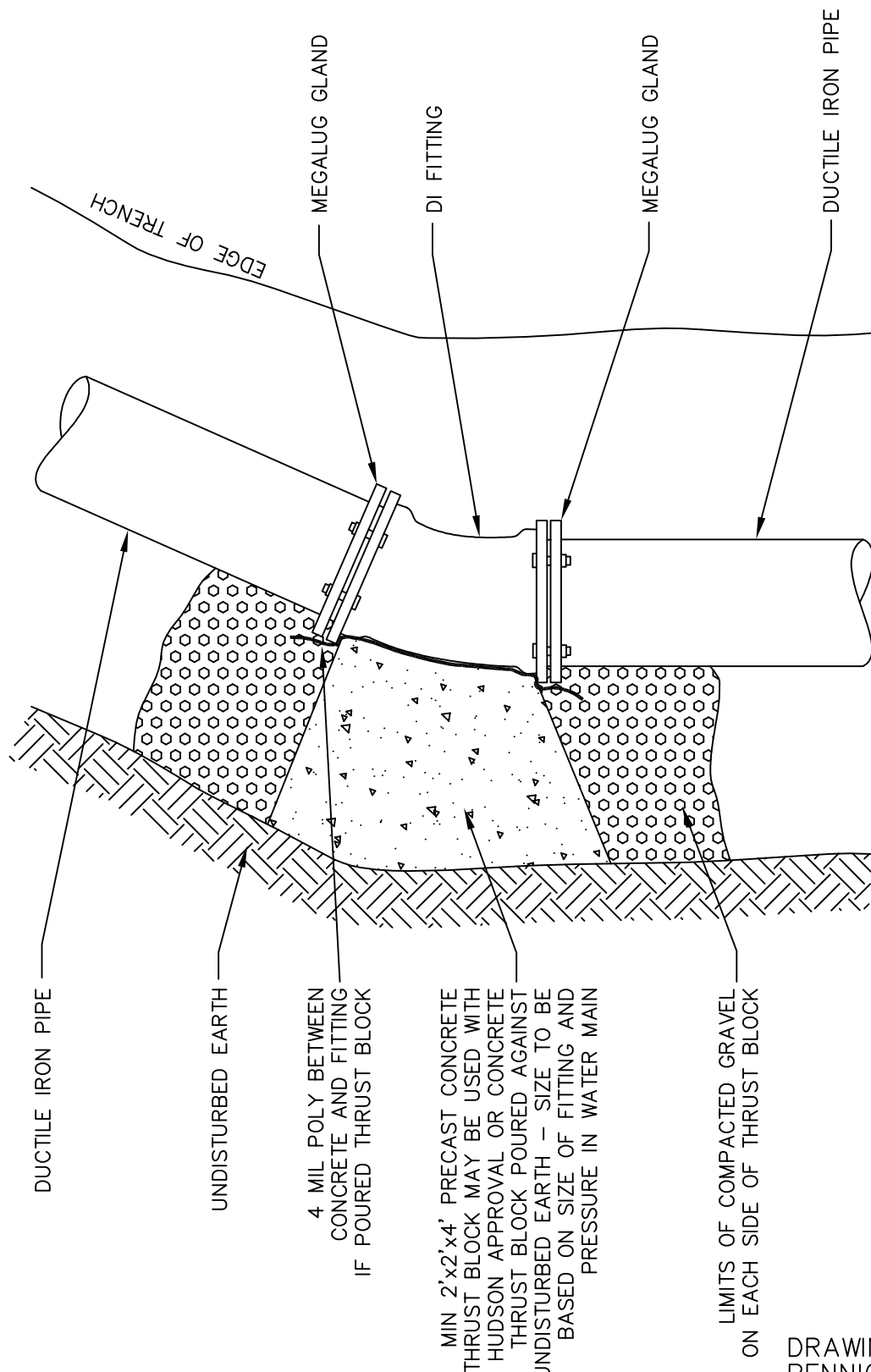
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-6

WATER TEE INSTALLATION

REV: 2019

SCALE: NTS



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

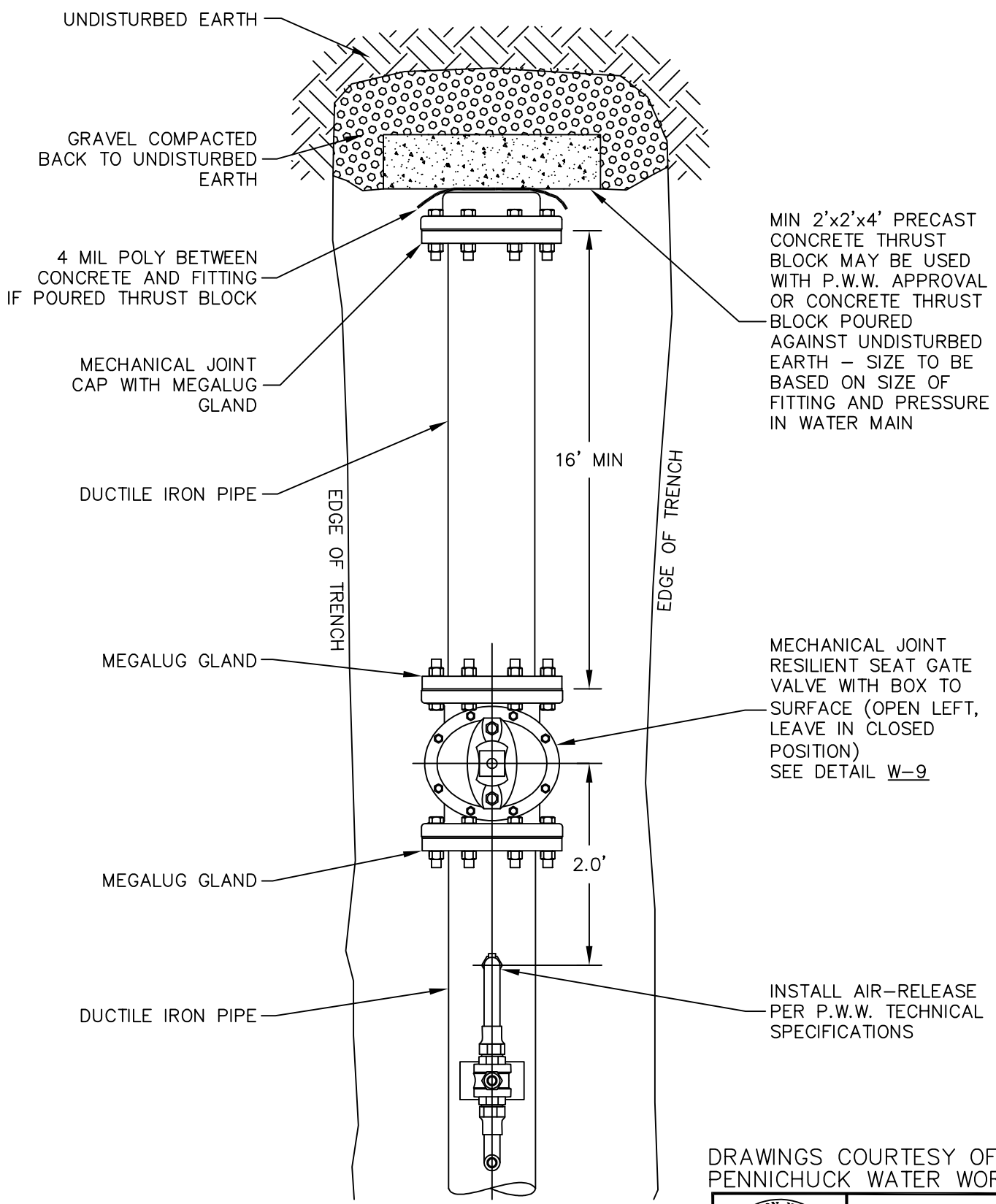
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-7
WATER THRUST BLOCK
BEHIND FITTINGS INSTALLATION
REV: 2019 SCALE: NTS

DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



MIN 2'x2'x4' PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN

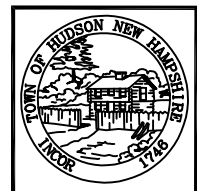
MECHANICAL JOINT RESILIENT SEAT GATE VALVE WITH BOX TO SURFACE (OPEN LEFT, LEAVE IN CLOSED POSITION) SEE DETAIL W-9

INSTALL AIR-RELEASE PER P.W.W. TECHNICAL SPECIFICATIONS

NOTES:

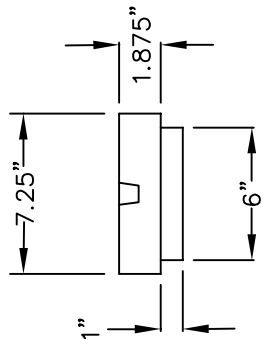
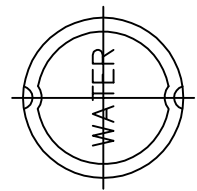
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



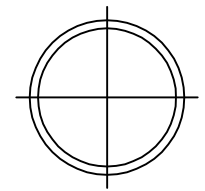
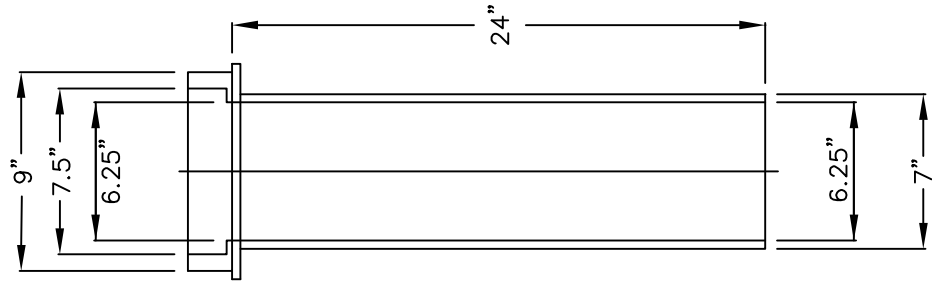
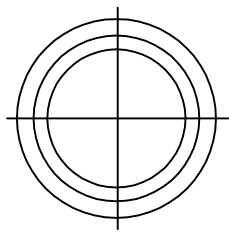
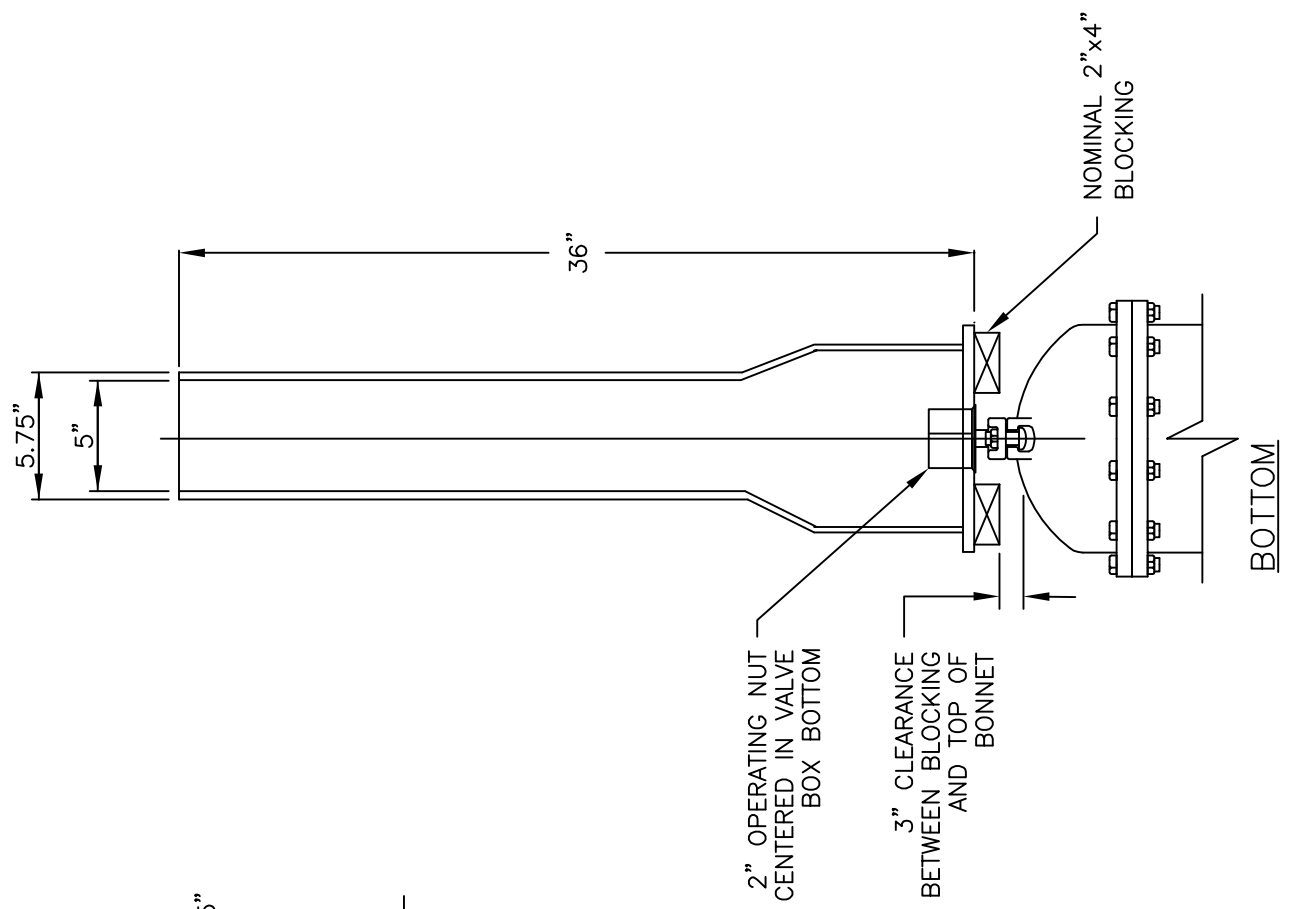
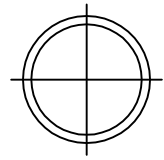
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-8
WATER END OF MAIN INSTALLATION
REV: 2019 SCALE: NTS



DROP STYLE COVER

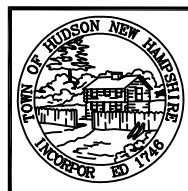
NOTE: COVER MUST BE MARKED "WATER"



TOP

* PARTS FOR STANDARD 5" VALVE BOX COMPLETE, LONGER PARTS AVAILABLE IF NECESSARY

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

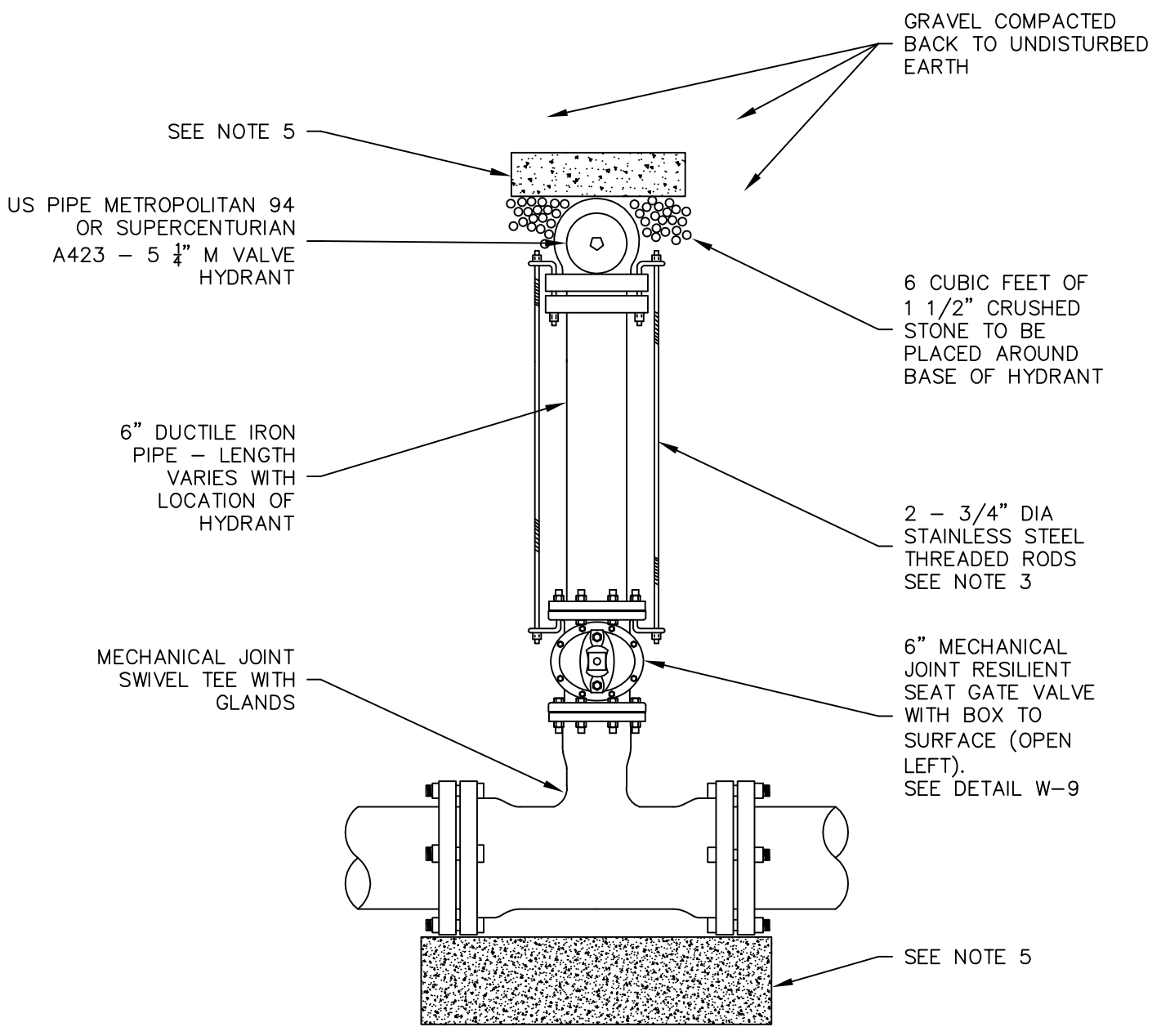


TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-9
WATER VALVE BOX
REV: 2019

SCALE: NTS

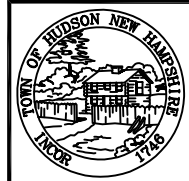
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. ALL THREADED RODS AND NUTS MUST BE STAINLESS STEEL.
4. WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10', SUBSTITUTE MEGALUGS IN LIEU OF THREADED ROD OR GRIP RINGS.
5. MIN OF 2-2'x2'x4' PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL W-7.

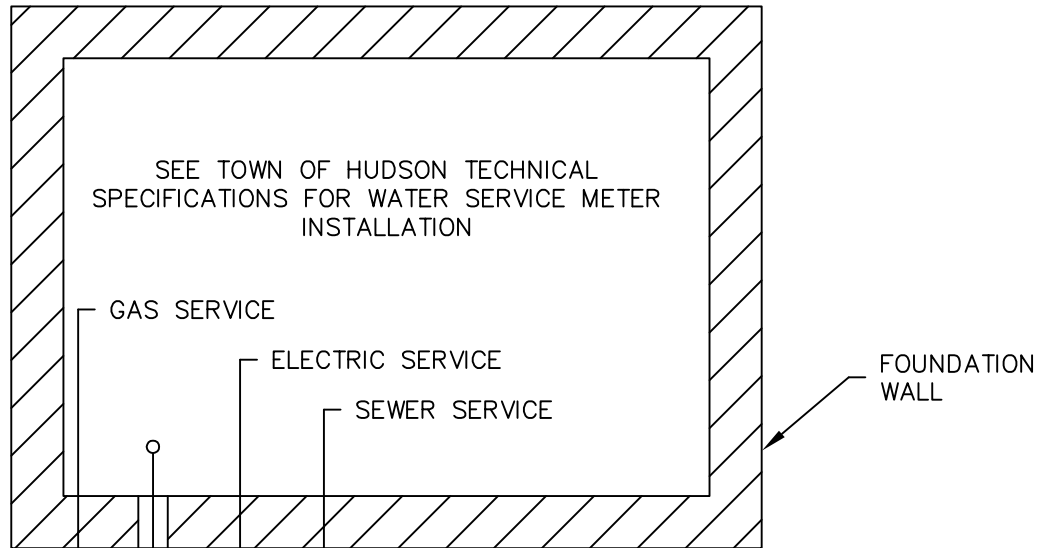
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-10
WATER HYDRANT INSTALLATION
REV: 2019 SCALE: NTS

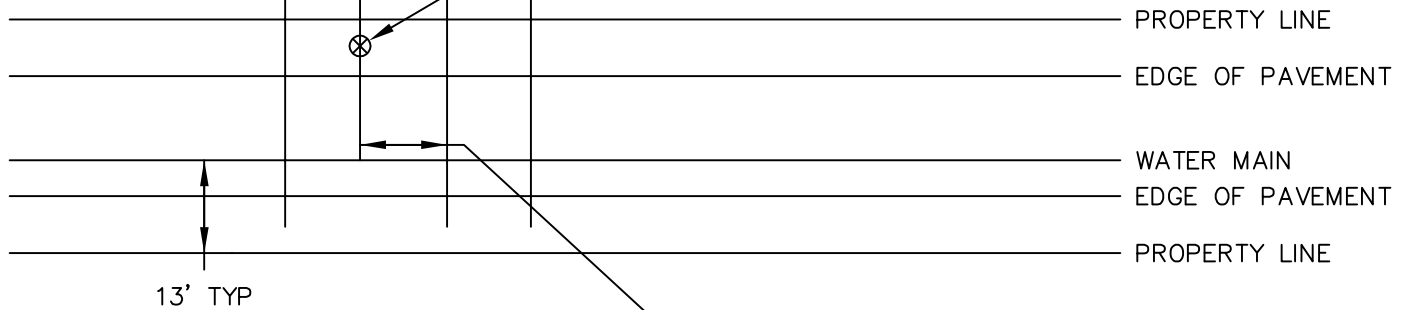
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



5.0' MIN EDGE TO EDGE SEPARATION REQUIRED. WHEN GAS CROSSES THE WATER SERVICE, THE CROSSING MUST BE AT A RIGHT ANGLE TO THE WATER SERVICE.

10.0' MIN EDGE TO EDGE SEPARATION

WHEN PROPERTY LINE DOES NOT EXIST BECAUSE DEVELOPEMENT IS ON COMMUNITY PROPERTY, LOCATE SERVICE CURB STOPS 5.0' OUT OF PAVEMENT OR 12' MAXIMUM FROM EDGE OF PAVEMENT



5.0' MIN EDGE TO EDGE SEPARATION REQUIRED. WHEN ELECTRIC CROSSES THE WATER SERVICE, THE CROSSING MUST BE AT A RIGHT ANGLE TO THE WATER SERVICE.

NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. SERVICE ENTRANCE SHALL BE MADE IN THE FRONT OR SIDE OF BUILDING.
4. SERVICE ENTRANCE MADE IN REAR OF HOUSE WILL NOT BE ACCEPTED UNLESS PREVIOUSLY APPROVED BY P.W.W.
5. SERVICE ENTRANCE LOCATION WILL BE DETERMINED BY THE P.W.W. REPRESENTATIVE ON SITE.
6. IF SERVICE IS TAPPED OFF A FIRE SERVICE, THEN SEE DETAIL W-24.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



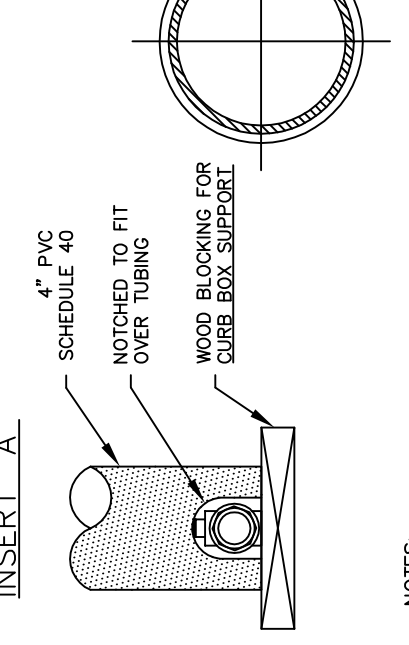
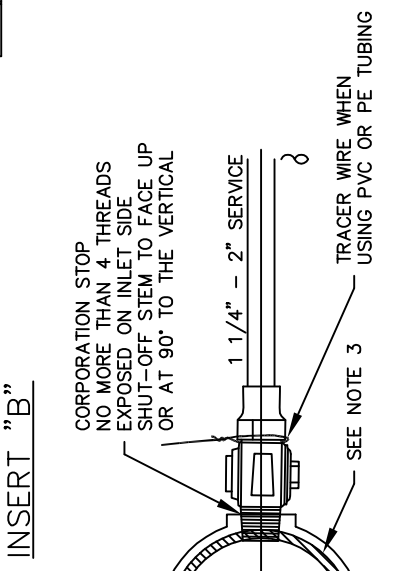
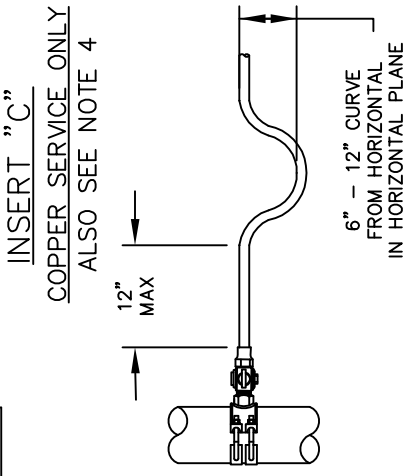
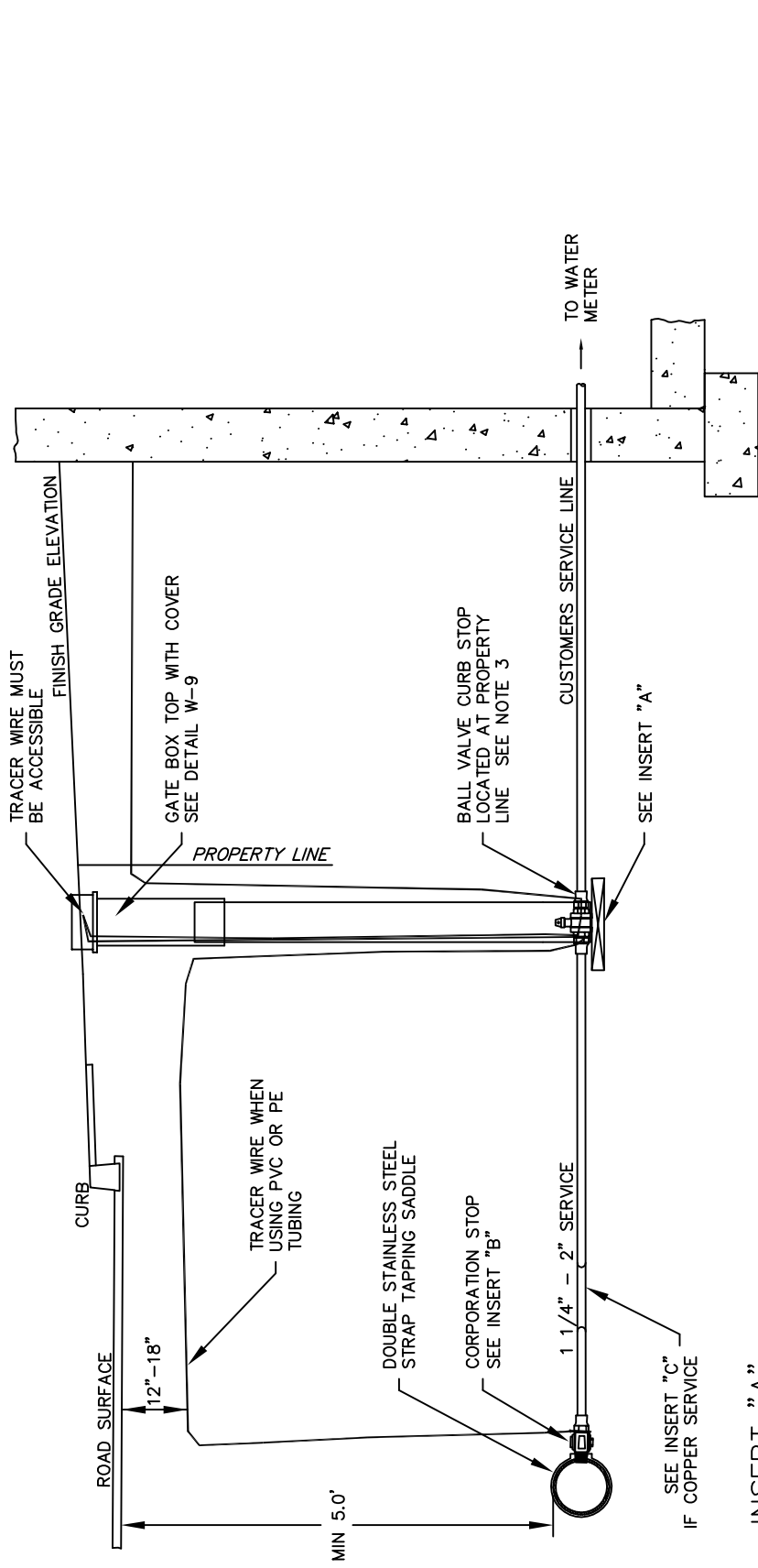
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-11


OUTSIDE WATER SERVICE ENTRANCE

REV: 2019

SCALE: NTS

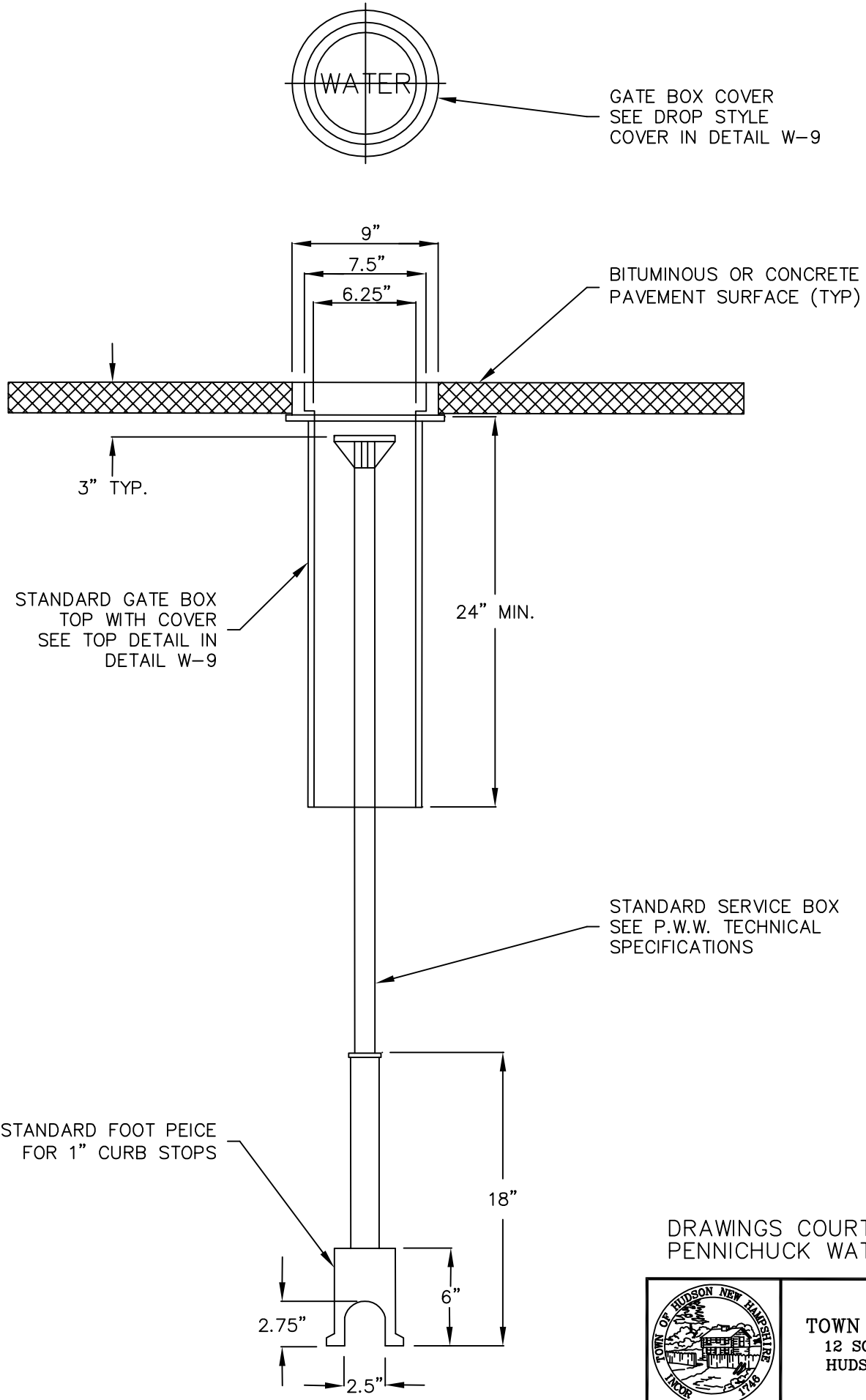


- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER THEN SEE DETAIL W-19.
 5. IF WATER MAIN IS A FIRE SERVICE, THEN SEE DETAIL W-24.

	<p>TOWN OF HUDSON 12 SCHOOL STREET HUDSON, NH 03051</p>
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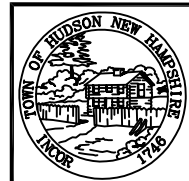
DETAIL W-12
WATER 1" - 2" SERVICE
& VALVE BOX INSTALLATION
 REV: 2019 SCALE: NTS

\\HD-FILESRVTH\ENGINEERING\$\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTE:
 ALL MATERIALS AND INSTALLATION
 PROCEDURES WILL CONFORM TO
 TOWN OF HUDSON TECHNICAL SPECIFICATIONS.

DRAWINGS COURTESY OF
 PENNICHUCK WATER WORKS.



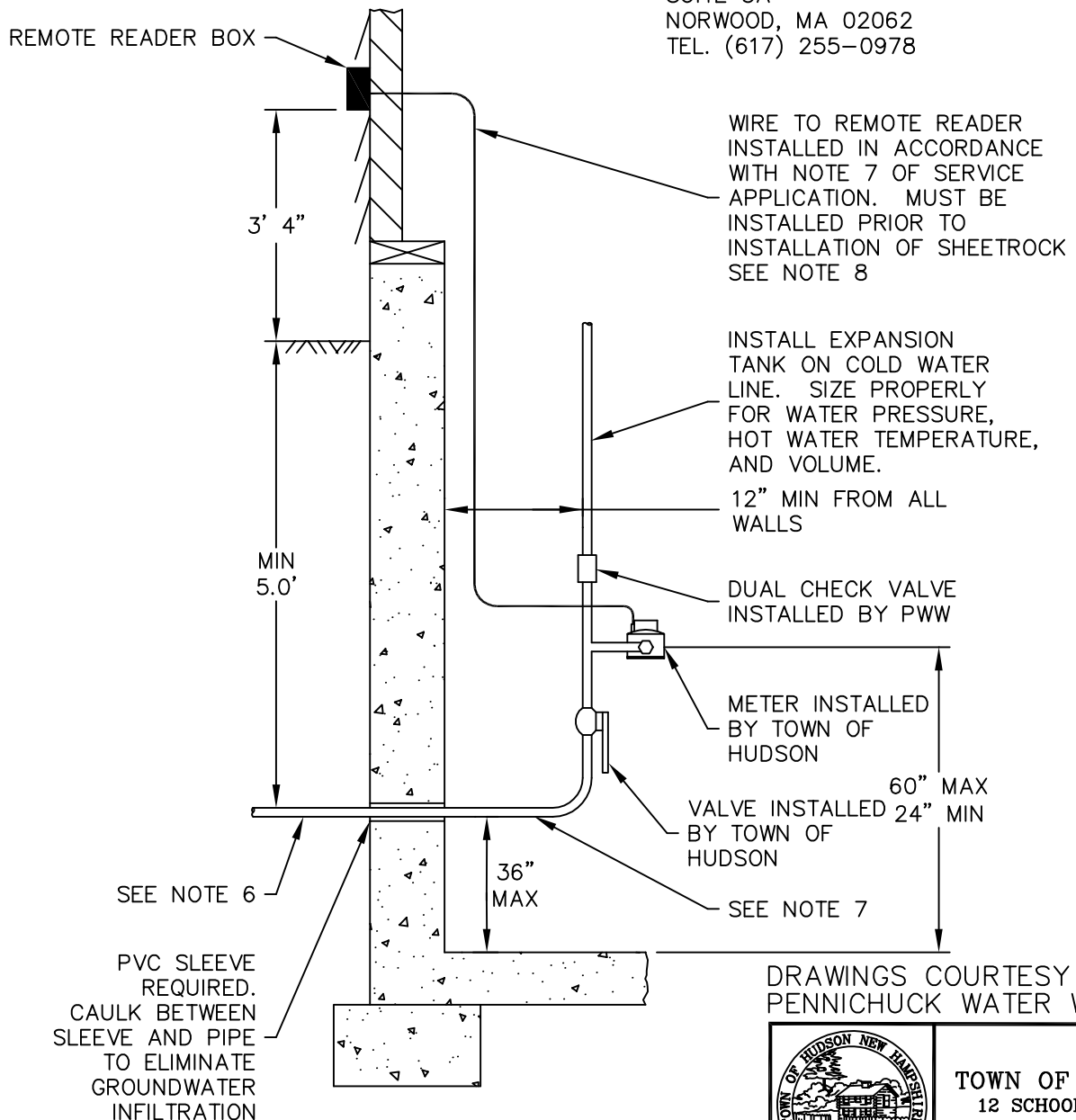
TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DETAIL W-13
 WATER SERVICE BOX IN PAVED AREAS
 REV: 2019 SCALE: NTS

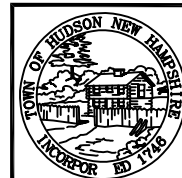
NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON SPECIFICATIONS.
2. SEE SERVICE APPLICATION REQUIREMENTS.
3. INSTALLATION UNDER FOOTING OR THROUGH FOUNDATION WALL AT OWNER'S EXPENSE.
4. OWNER MUST PROVIDE A CLEAN, DRY, ACCESSIBLE, AND WARM (CONTINUALLY ABOVE 45° F) LOCATION FOR THE WATER METER.
5. OUTSIDE READER MUST BE LOCATED ADJACENT TO DRIVEWAY.
6. SERVICE LINE FROM STREET, SIZE & MATERIALS TO BE APPROVED BY TOWN OF HUDSON. ONLY TYPE "K" COPPER TUBING OR 200 PSIG RATED CTS POLYETHYLENE TUBING ARE ACCEPTABLE FOR SERVICE LINES. SAND TO BE USED FOR BACKFILL FOR A MINIMUM OF 6" ABOVE AND BELOW THE SERVICE LINE.
7. PROVIDE A MINIMUM OF 24" OF STRAIGHT COPPER AT SERVICE ENTRANCE INSIDE OF BUILDING TO ALLOW FOR INSTALLATION OF TOWN OF HUDSON METER AND VALVES.
8. METER WIRE TO BE 22 AWG 3-STRAND (BLACK/RED/GREEN COLOR CODE) SOLID STRAND CABLE AVAILABLE FROM:

ACT SERVICES, INC.
 916 PLEASANT STREET
 SUITE 3A
 NORWOOD, MA 02062
 TEL. (617) 255-0978



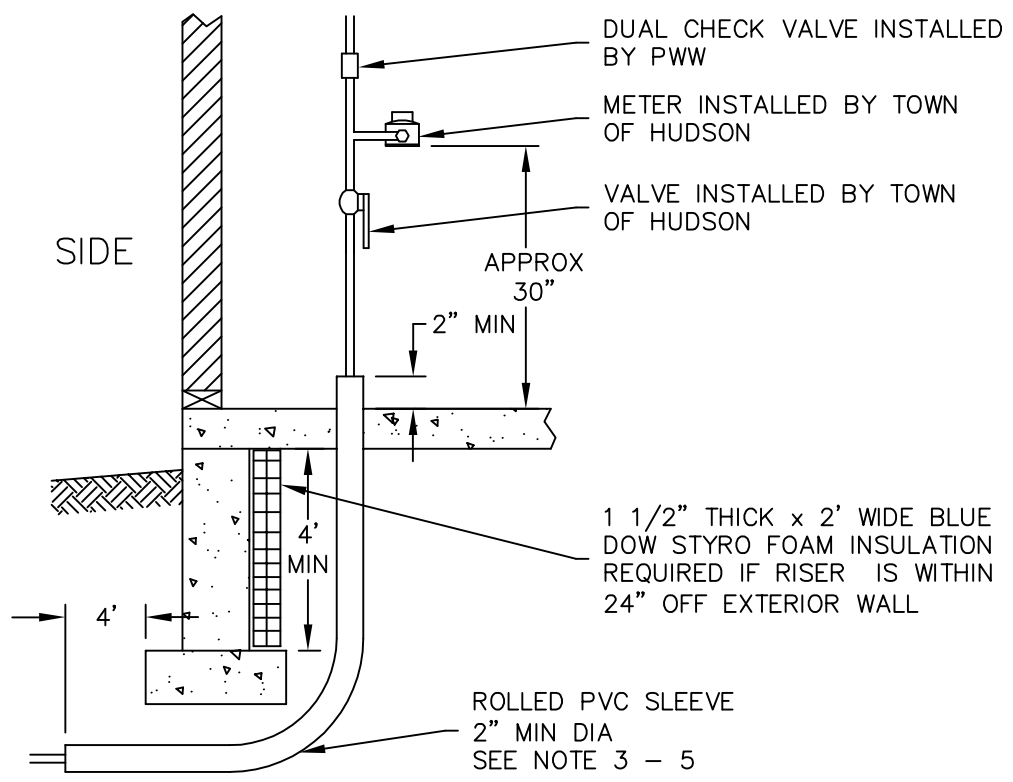
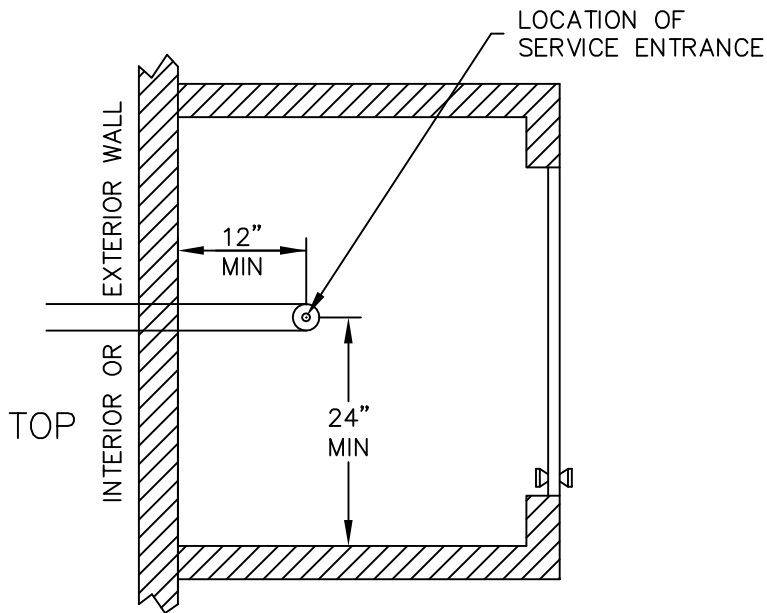
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]

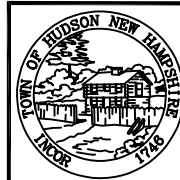
DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\O-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL WATER SERVICES IN SLAB CONSTRUCTION BUILDINGS MUST BE INSTALLED IN PVC PIPE SLEEVES AS SHOWN.
3. NOTES 4 THROUGH 8 ON DETAIL W-14 ALSO APPLY.
4. SLEEVE IS TO EXTEND 4" BEYOND THE EXTERIOR LINE OF THE FOUNDATION WALL WITH ONE CONTINUOUS PIECE OF SLEEVE.
5. ON SLEEVES GREATER THAN 2" IN DIAMETER, SOLVENT WELDED JOINTS WILL BE ACCEPTABLE. HOWEVER, MANUFACTURED BENDS WILL NOT BE ACCEPTABLE.
6. A CLOSET OR UTILITY ROOM MUST BE PROVIDED.

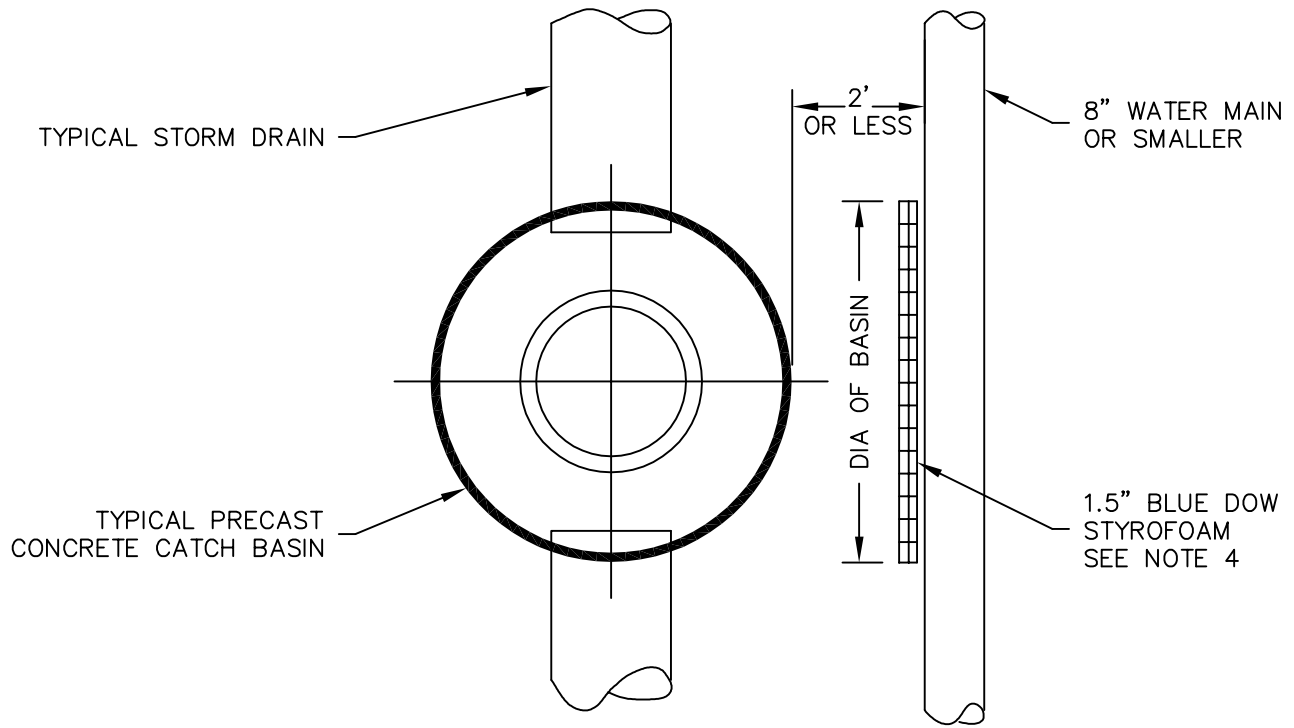
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



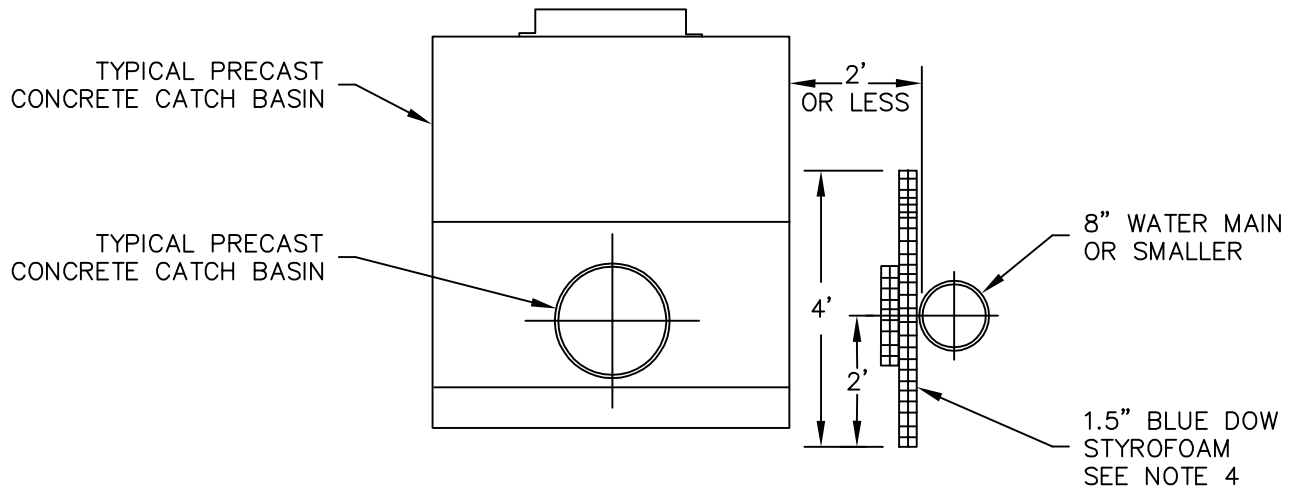
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-15
WATER SLAB CONSTRUCTION
REV: 2019 SCALE: NTS

DRAWING: \\HD-FILES\RVTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



PLAN VIEW



ELEVATION VIEW

NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. P.W.W., INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A PIECE OF INSULATION CENTERED OVER SEAM.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



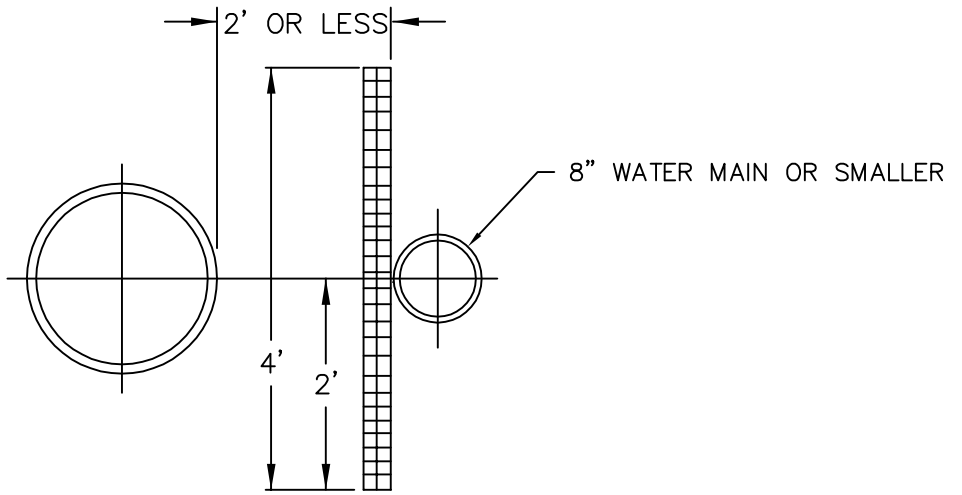
TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DETAIL W-16
 CATCH BASIN INSULATION

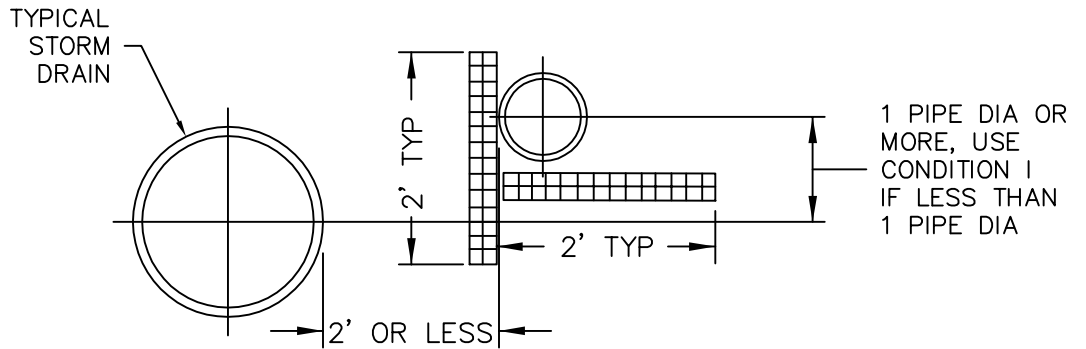
REV: 2019

SCALE: NTS

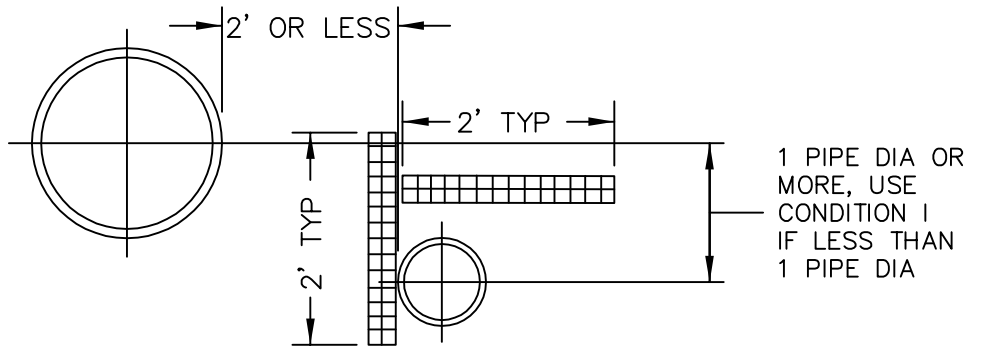
CONDITION I



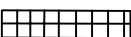
CONDITION II



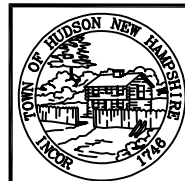
CONDITION III



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. P.W.W., INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
4. INSULATION TO BE RUN HORIZONTALLY AS LONG AS CONDITIONS I, II, OR III ABOVE EXIST. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1' PIECE OF INSULATION CENTERED OVER SEAM.
5.  - 1.5" (MIN) BLUE DOW STYROFOAM

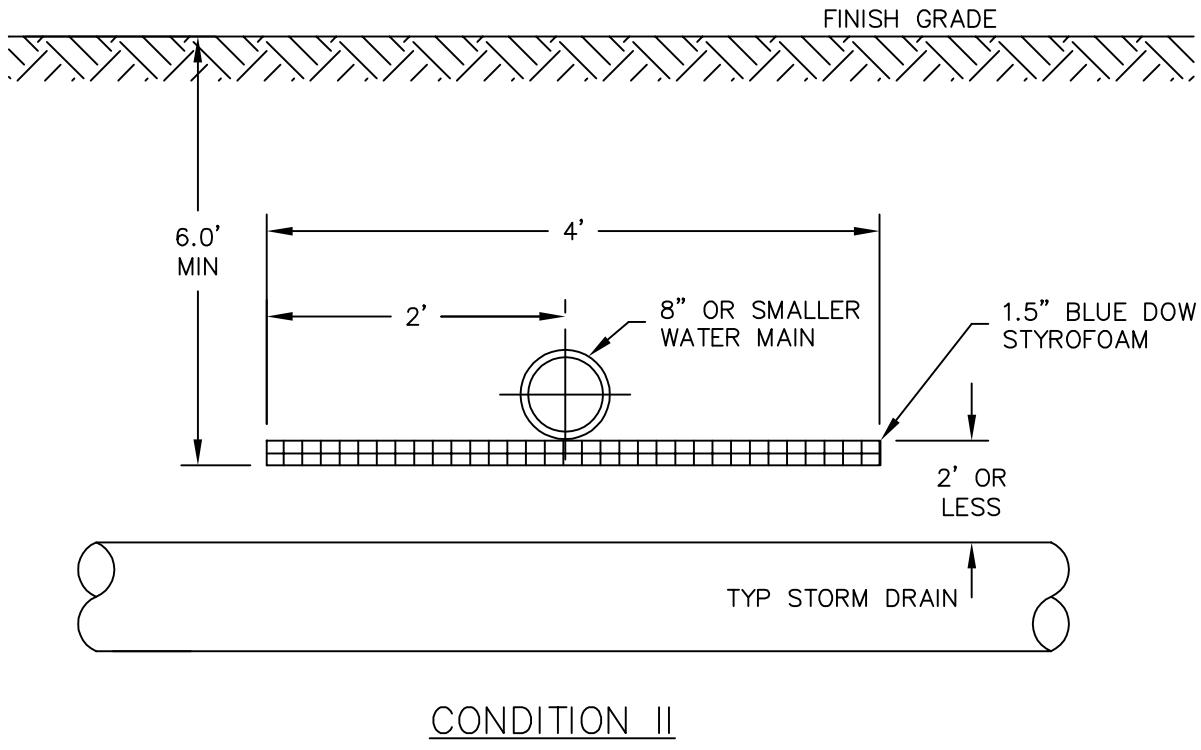
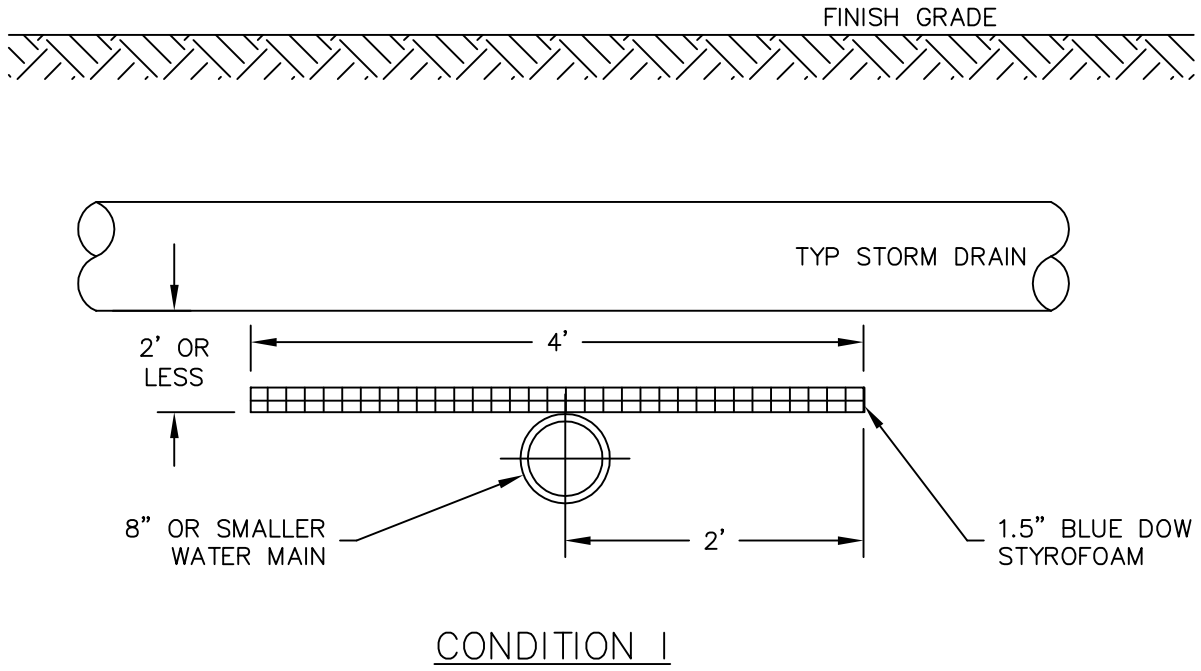
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-17
STORM DRAIN / WATER MAIN
PARALLEL RUNS - ELEVATION VIEW
REV: 2019 SCALE: NTS

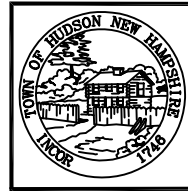
DRAWING: \\HD-FILES\RYTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

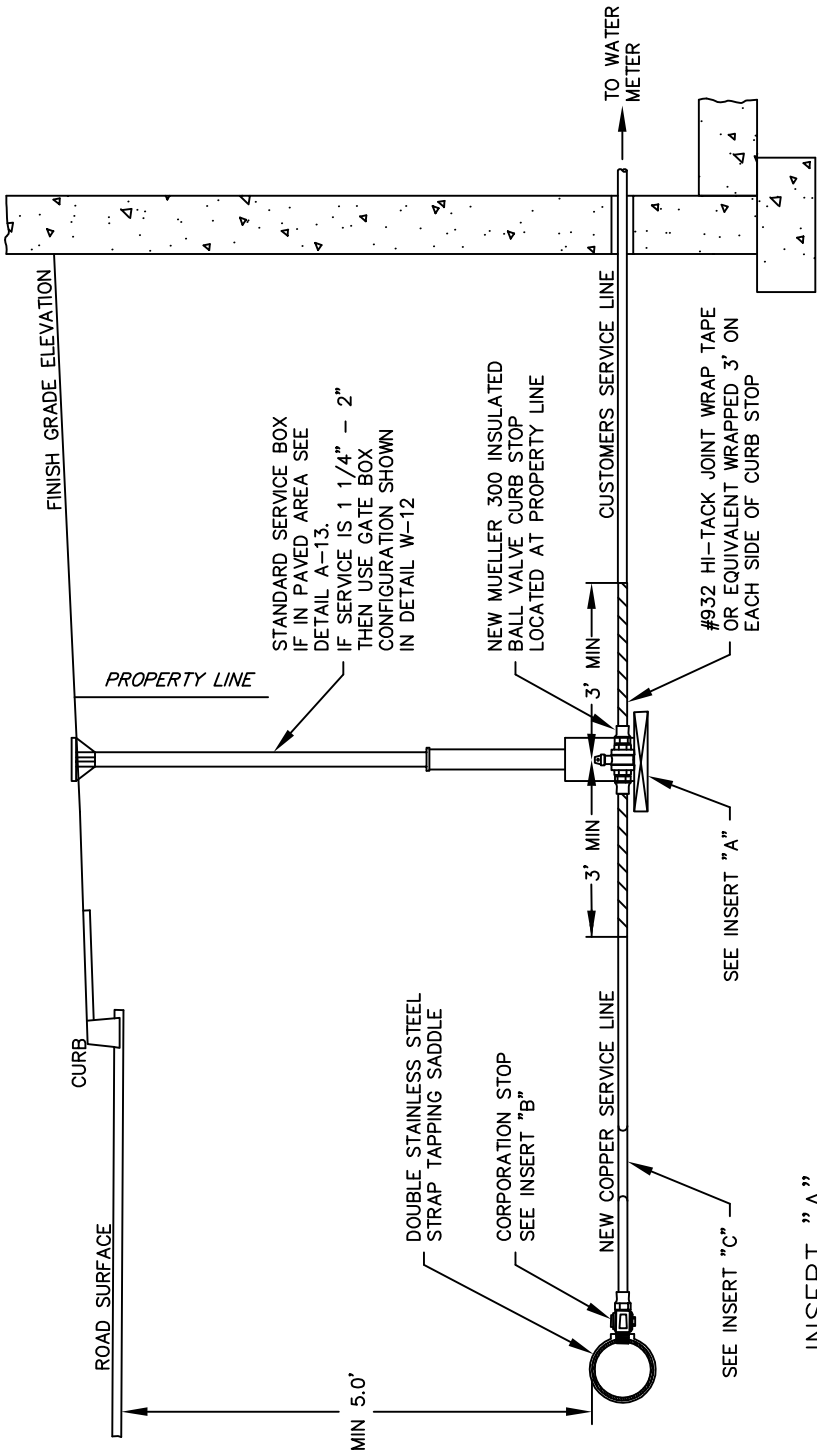
1. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH ~~PAGE~~ 112 PIECE OF INSULATION CENTERED OVER SEAM.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

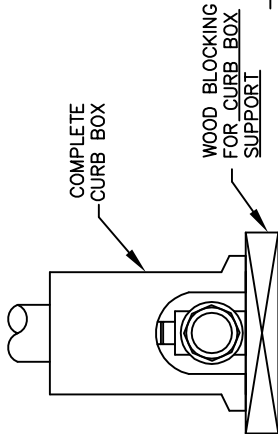


TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

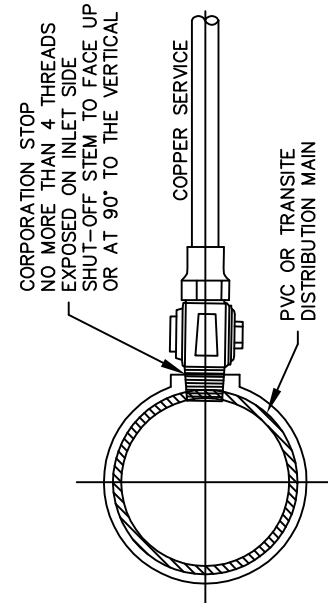
DETAIL W-18
STORM DRAIN, WATER MAIN
INTERSECTING RUNS - ELEV. VIEW
REV: 2019 SCALE: NTS



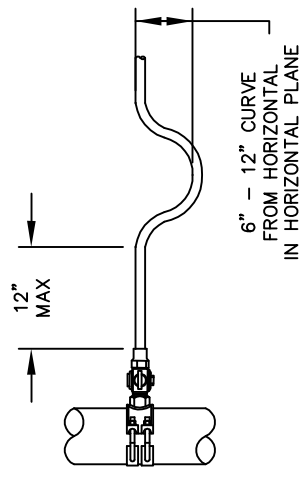
INSERT "A"



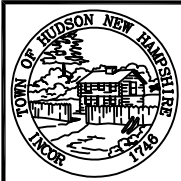
INSERT "B"



INSERT "C"



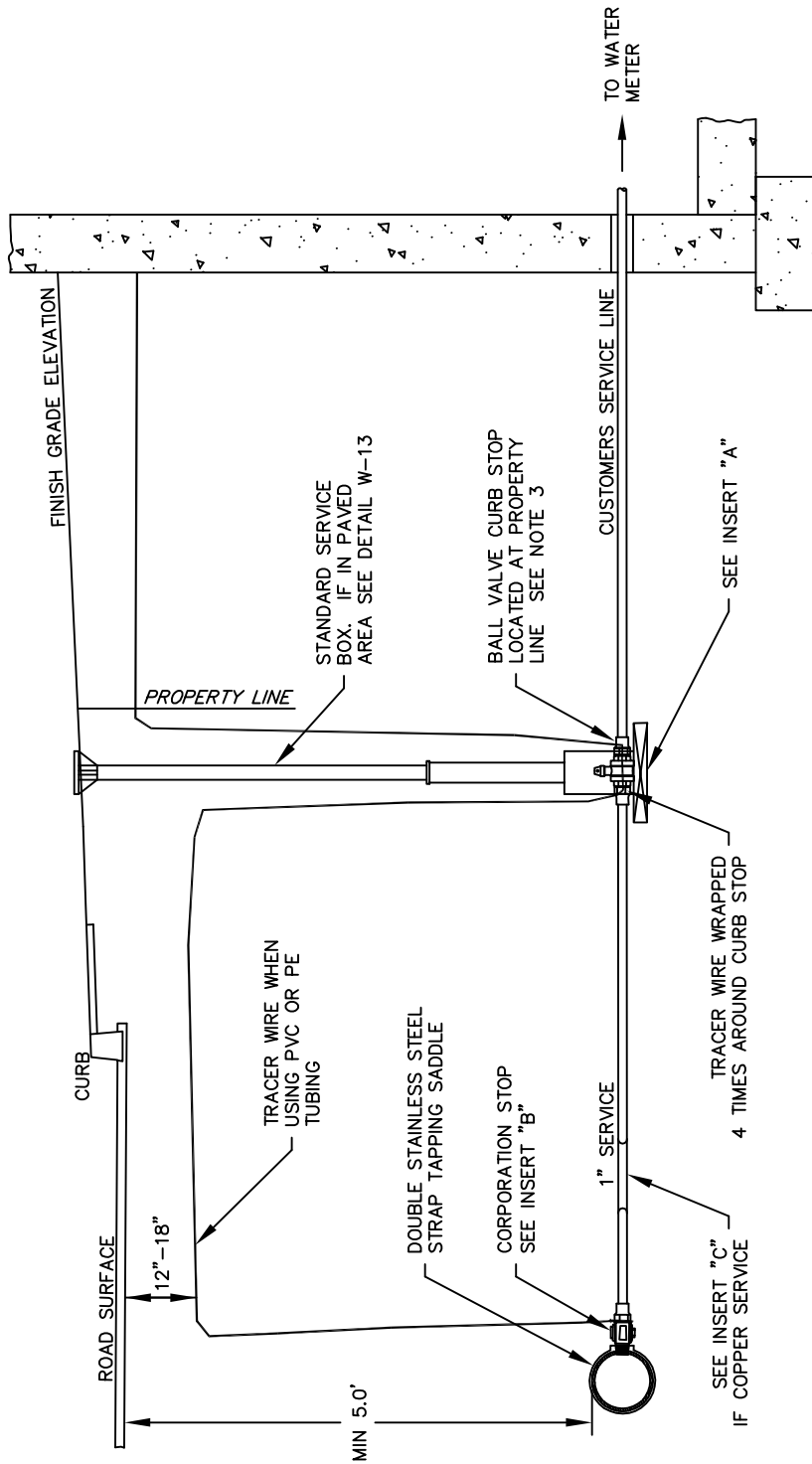
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



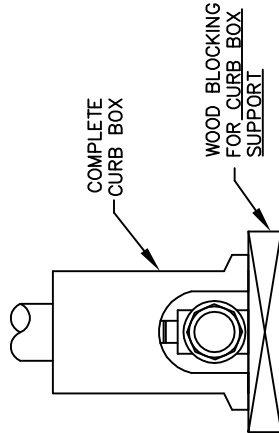
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-19
COPPER WATER SERVICE
ON PVC AND TRANSITE MAINS
REV: 2019 SCALE: NTS

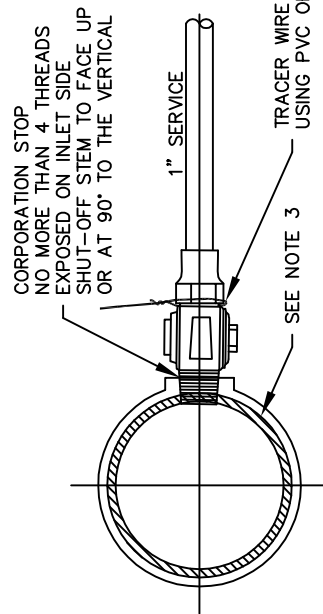
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS A FIRE SERVICE, THEN SEE DETAIL W-24.



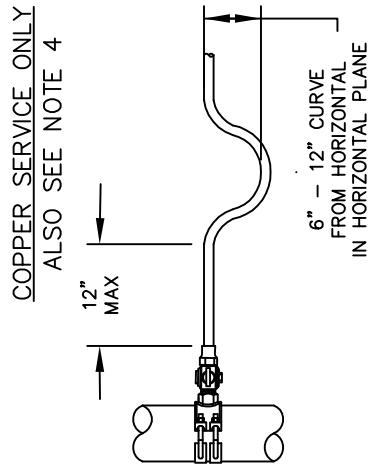
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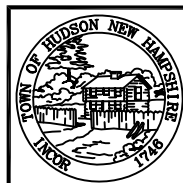
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INSERT "C"

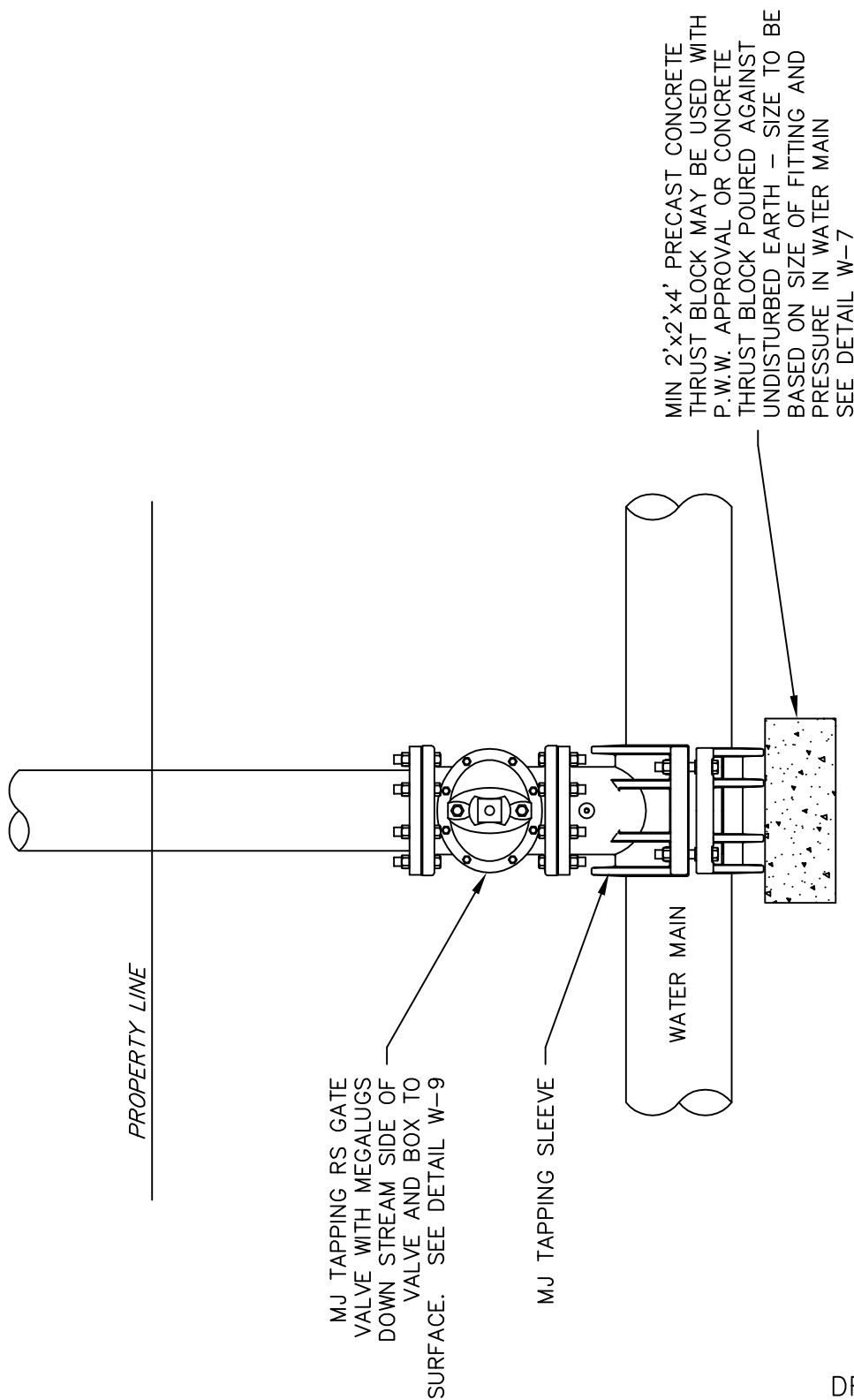


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. IF WATER MAIN IS PVC OR TRANSITE, A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS PVC OR TRANSITE, AND THE NEW WATER SERVICE IS COPPER THEN SEE DETAIL W-19.
 5. IF WATER MAIN IS A FIRE SERVICE, THEN SEE DETAIL W-24.



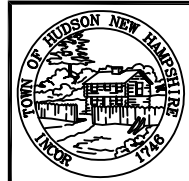
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-20
1" - 2" WATER SERVICE
AND VALVE BOX INSTALLATION
REV: 2019 SCALE: NTS



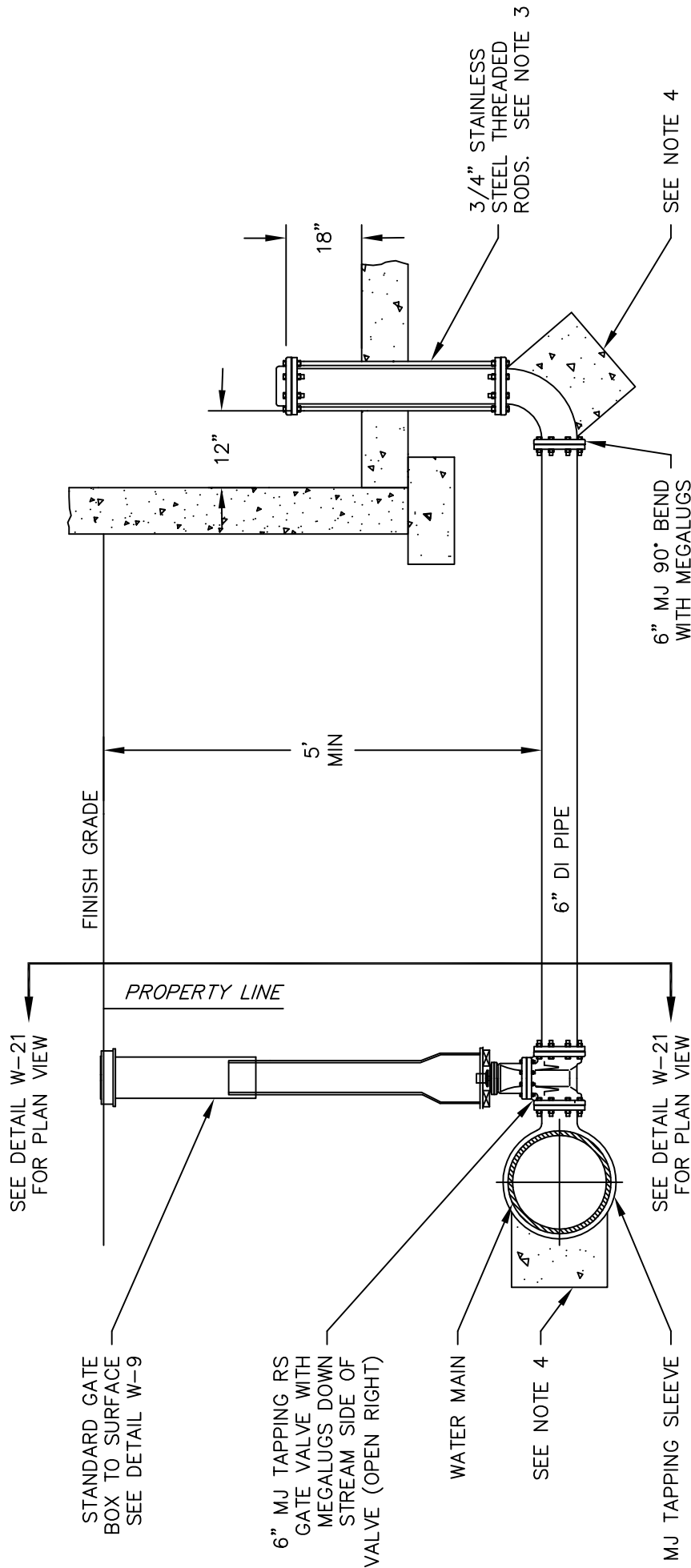
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. SEE DETAIL W-22 FOR CROSS-SECTIONAL VIEW.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-21
LARGE WATER
SERVICE CONNECTION
REV: 2019 SCALE: NTS



NOTES:
 1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.

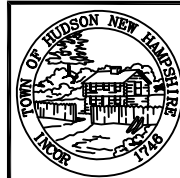
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

3. ALL THREADED RODS AND NUTS MUST BE STAINLESS STEEL.

4. MIN 2'x2'x4' PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH TOWN OF HUDSON APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL W-7.

5. SEE DETAIL W-23 FOR FIRE SERVICE INSTALLATION WITH SLAB FOUNDATIONS.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

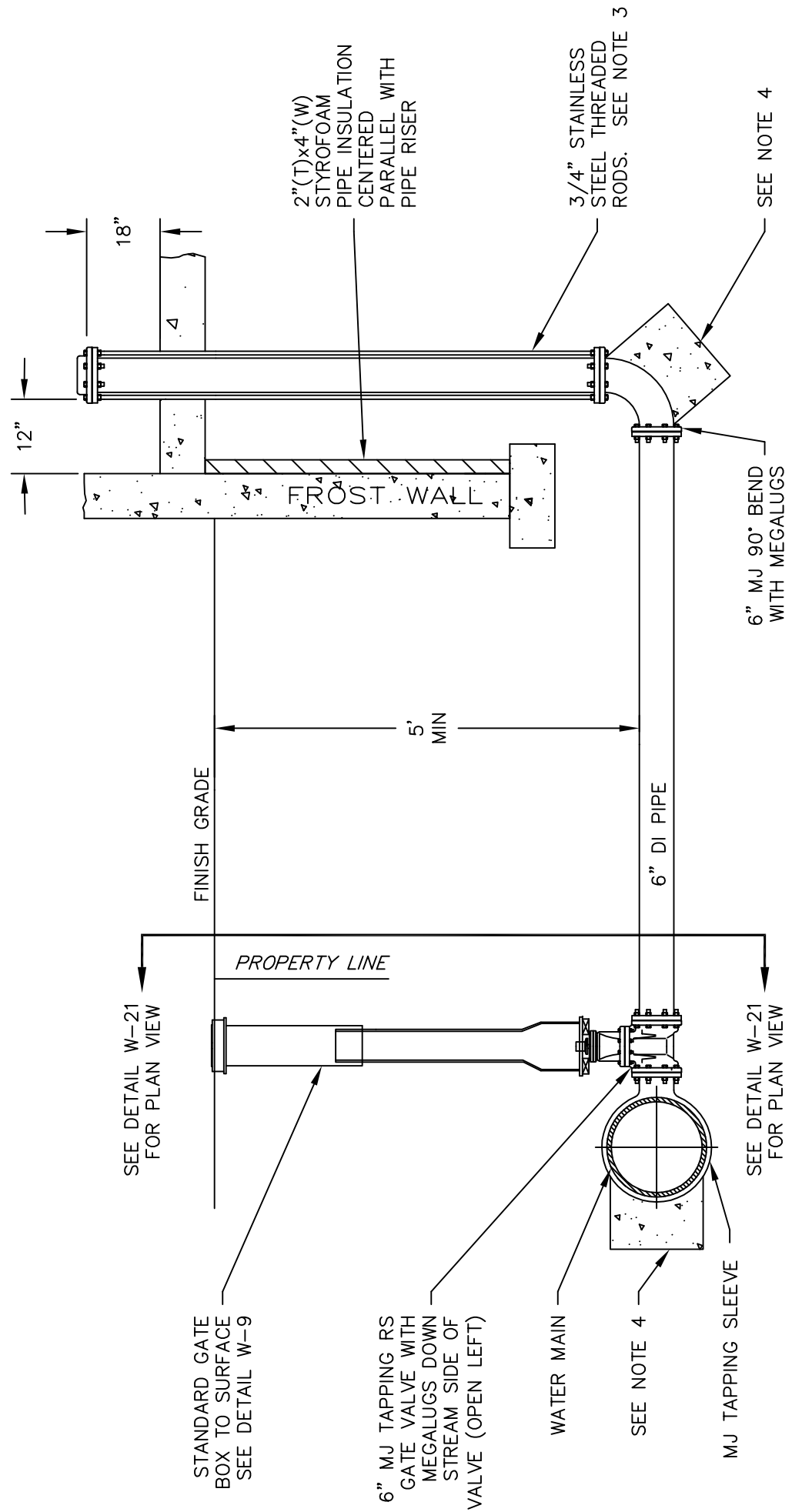


TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DETAIL W-22
 FIRE SERVICE INSTALLATION
 WITH STANDARD FOUNDATIONS

REV: 2019

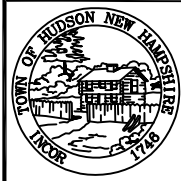
SCALE: NTS



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. ALL THREADED RODS AND NUTS MUST BE STAINLESS STEEL.
4. MIN 2'x2'x4' PRECAST CONCRETE THRUST BLOCK MAY BE USED WITH P.W.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL W-7.
5. SEE DETAIL W-22 FOR FIRE SERVICE INSTALLATION WITH STANDARD FOUNDATIONS.

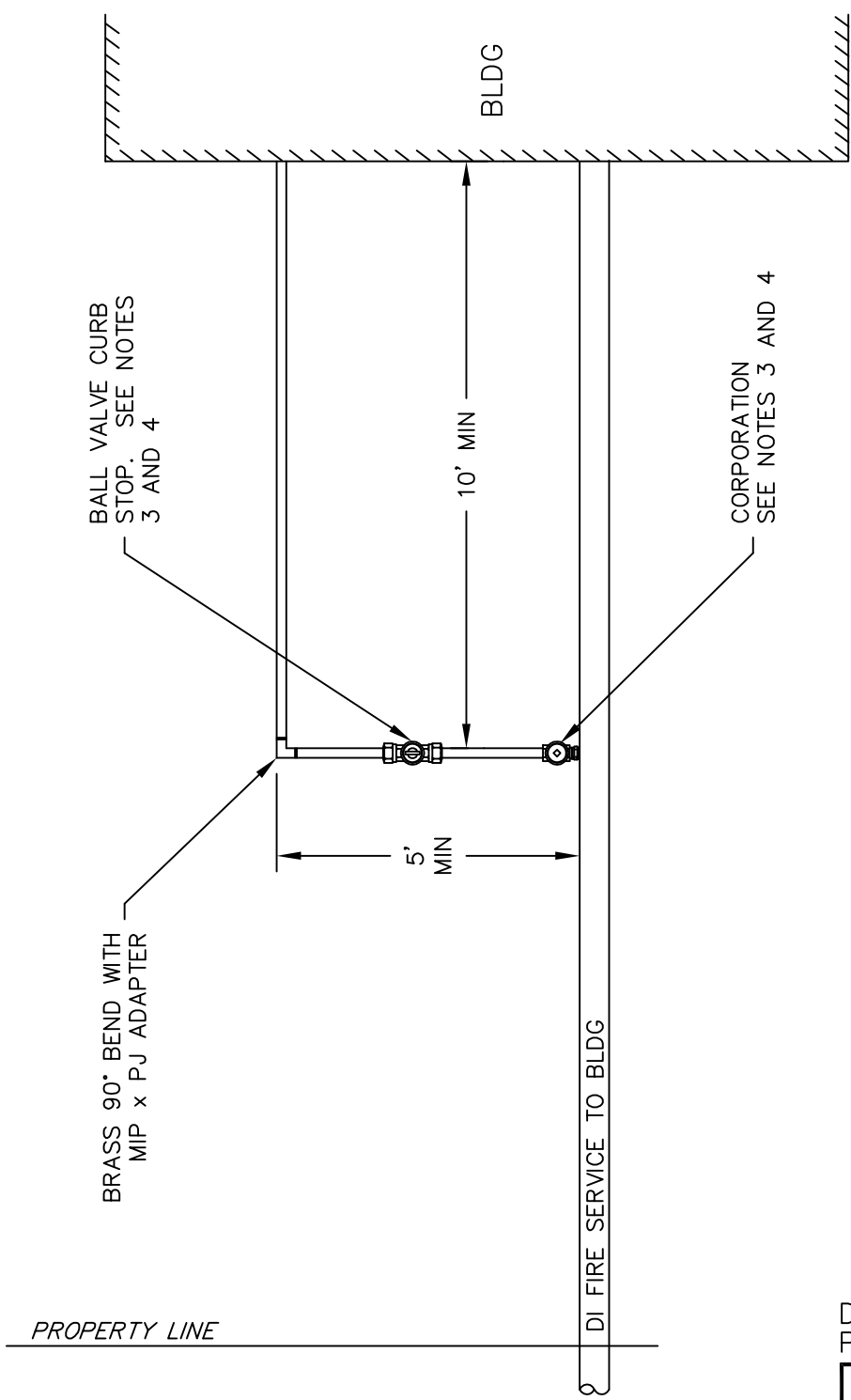
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

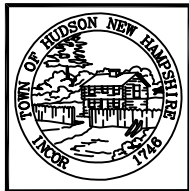
DETAIL W-23
*FIRE SERVICE INSTALLATION
WITH SLAB FOUNDATIONS*

REV: 2019 SCALE: NTS



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.W.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. SEE DETAIL W-20 FOR 1" SERVICE AND VALVE BOX INSTALLATION DETAIL.
 4. SEE DETAIL W-12 FOR 1 1/4" - 2" SERVICE AND VALVE BOX INSTALLATION DETAIL.
 5. SEE DETAIL W-11 FOR OUTSIDE SERVICE ENTRANCE PLAN VIEW.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

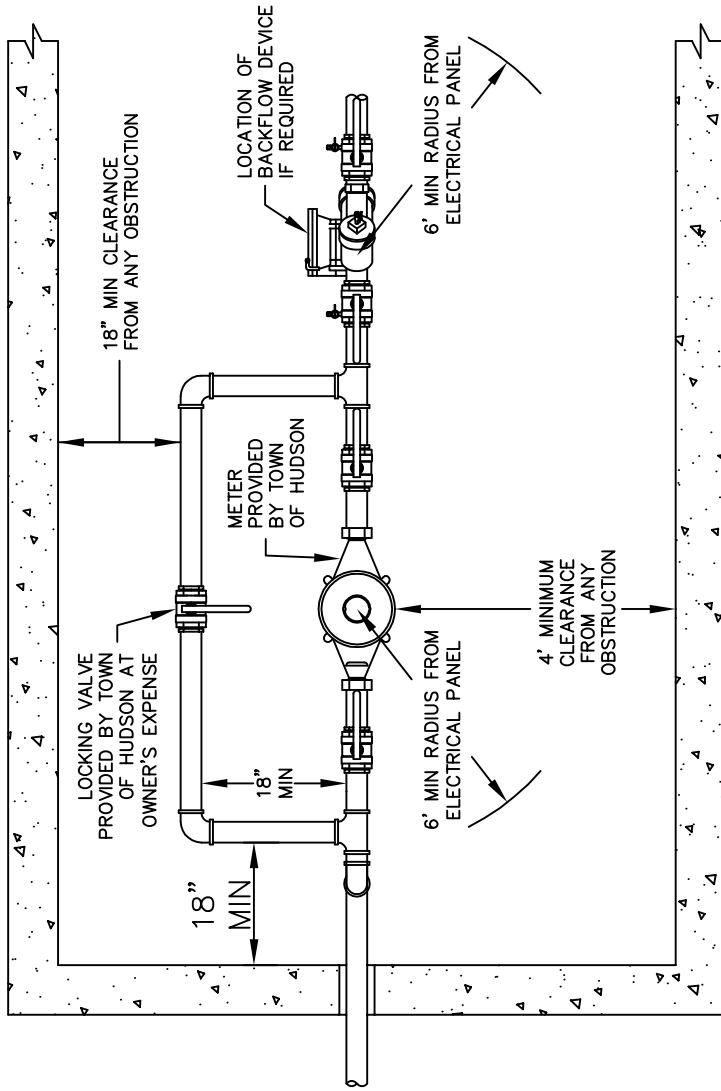


TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

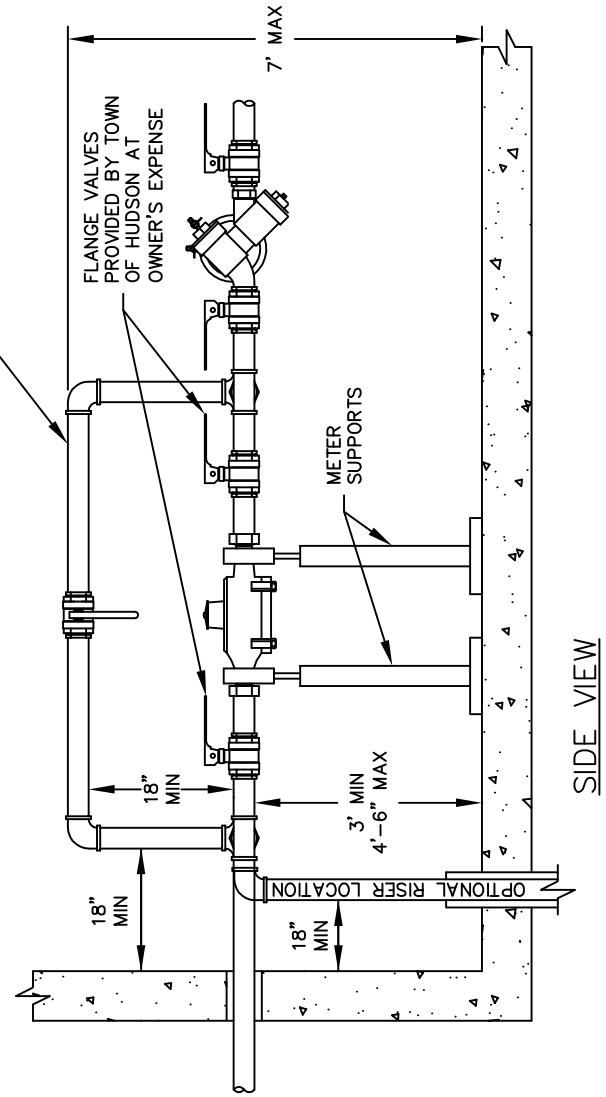
DETAIL W-24
 DOMESTIC WATER SERVICE
 TAPPED OFF FIRE SERVICE
 REV: 2019 SCALE: NTS

NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. PRV WHEN NECESSARY WILL BE INSTALLED AND PURCHASED BY OWNER OR CONTRACTOR.
3. 1 1/2" METER = 13" LAYING LENGTH.
4. 2" METER = 17" LAYING LENGTH.
5. SEE DETAIL W-27 FOR COMBINED FIRE AND DOMESTIC SERVICE ENTRANCE DETAIL.
6. ANY ELECTRICAL PANEL MUST MAINTAIN A 6' MINIMUM RADIUS FROM METER AND BACKFLOW.



TOP VIEW



SIDE VIEW

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

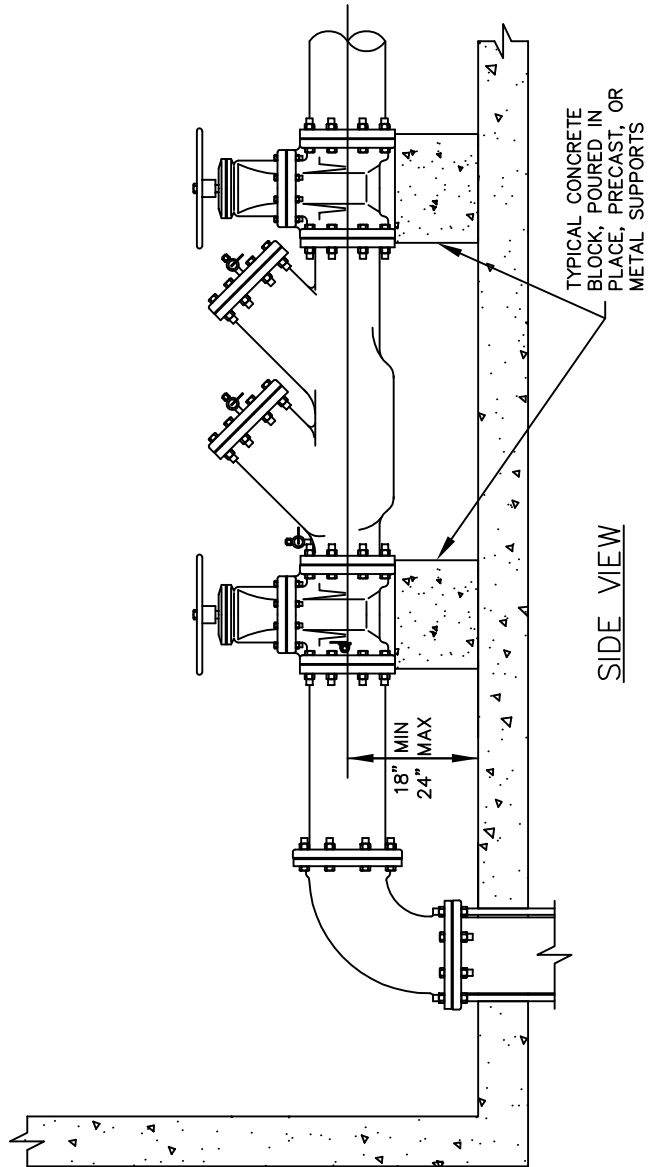
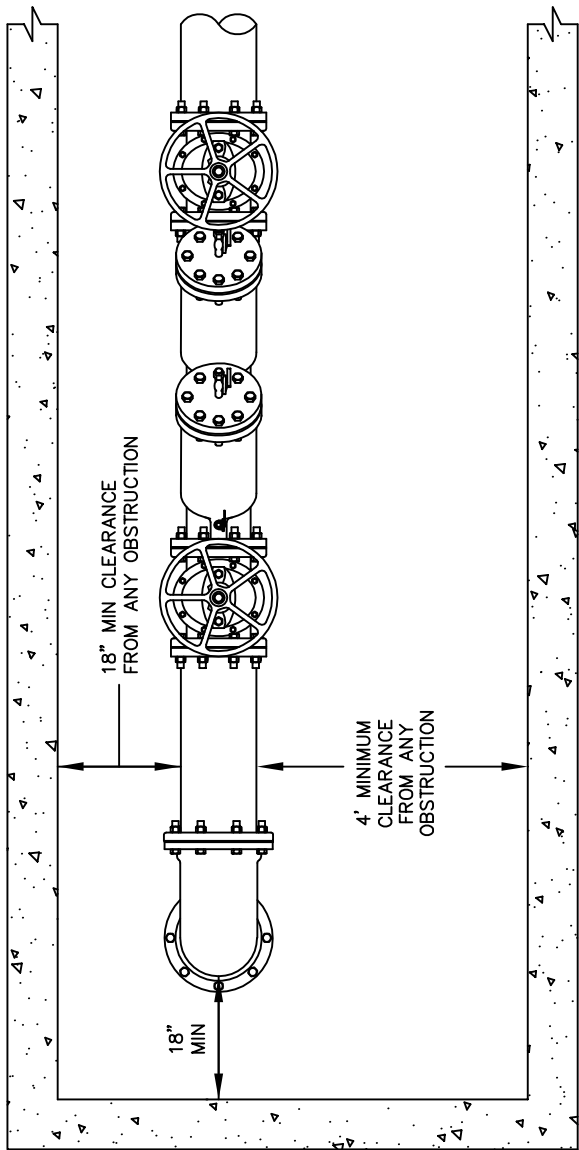


TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

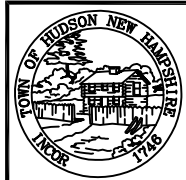
DETAIL W-25
1 1/2" THRU 2" WATER
SERVICE ENTRANCE
REV: 2019

SCALE: NTS

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. BACKFLOW PREVENTOR REQUIRED ON ALL FIRE SERVICES. TYPE AND LOCATION SUBJECT TO P.W.W. APPROVAL.
 3. SEE DETAIL W-27 FOR COMBINED FIRE AND DOMESTIC SERVICE ENTRANCE DETAIL.



DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



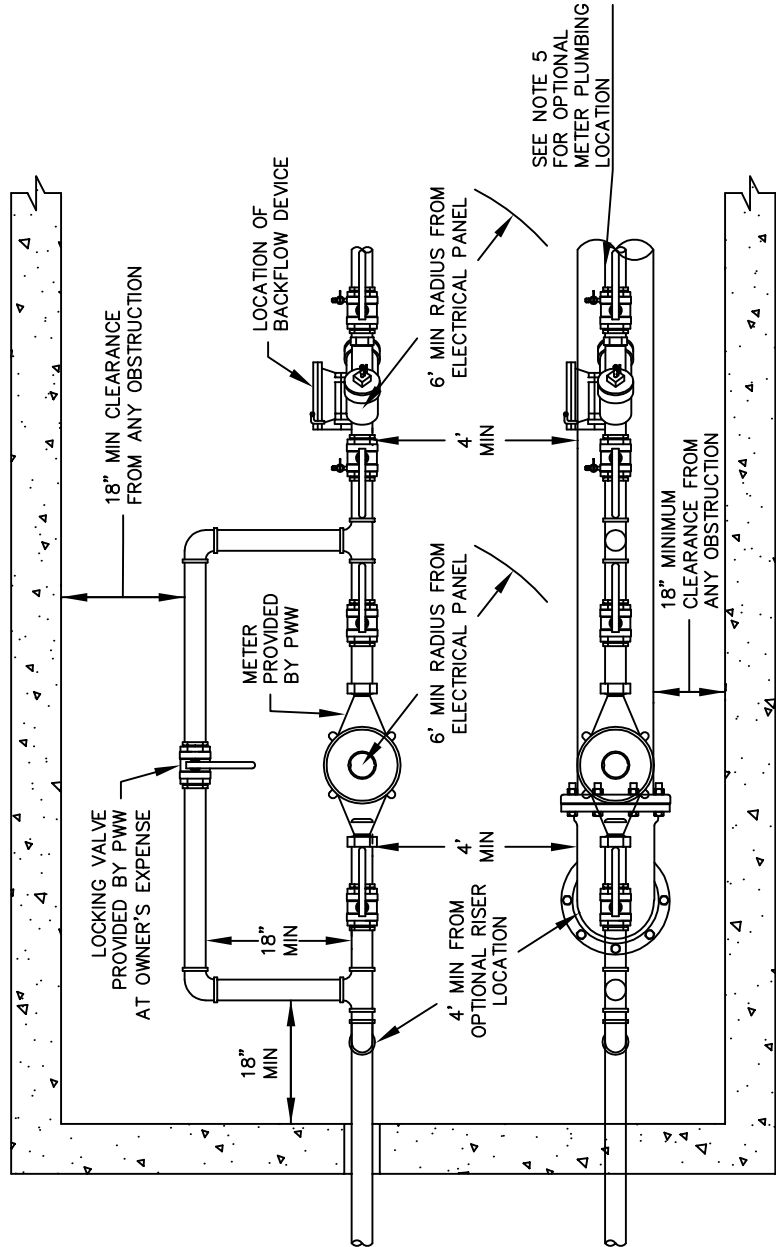
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-26
FIRE SERVICE ENTRANCE

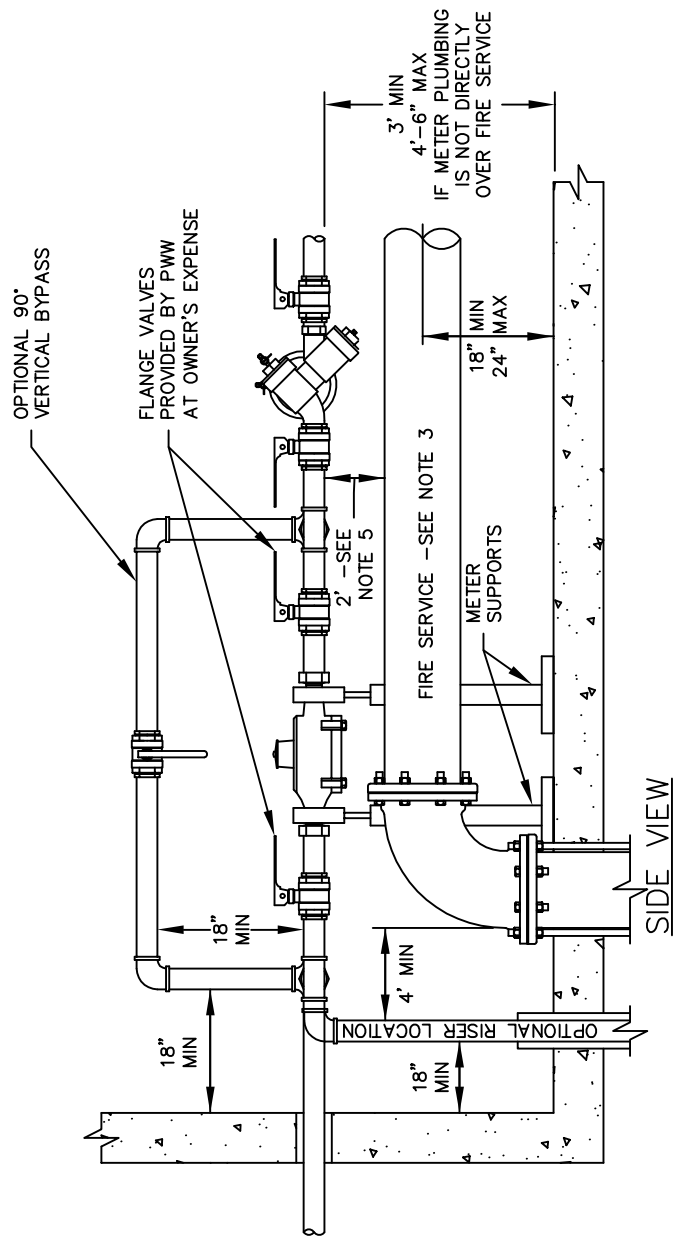
REV: 2019

SCALE: NTS

- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. PRV WHEN NECESSARY WILL BE INSTALLED AND PURCHASED BY OWNER OR CONTRACTOR.
 3. BACKFLOW PREVENTOR REQUIRED ON ALL FIRE SERVICES. TYPE AND LOCATION SUBJECT TO P.W.W. APPROVAL. SEE DETAIL W-26.
 4. ANY ELECTRICAL PANEL MUST MAINTAIN A 6' MINIMUM RADIUS FROM METER AND BACKFLOW.
 5. METER PLUMBING MAY BE INSTALLED DIRECTLY OVER THE FIRE SERVICE PROVIDED THAT 2' CLEARANCE IS MAINTAINED AND 4' MINIMUM CLEARANCE FROM ANY OBSTRUCTION IS ALSO MAINTAINED.
 6. 1 1/2" METER = 13" LAYING LENGTH.
 7. 2" METER = 17" LAYING LENGTH.

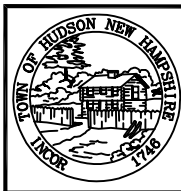


TOP VIEW



SIDE VIEW

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.

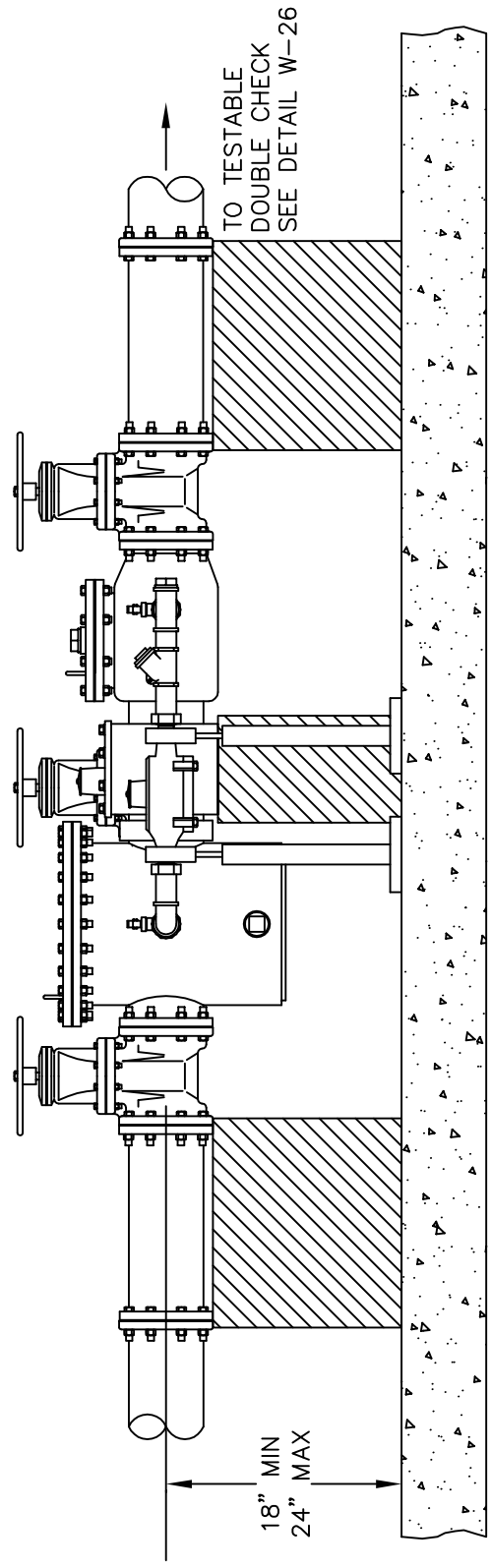
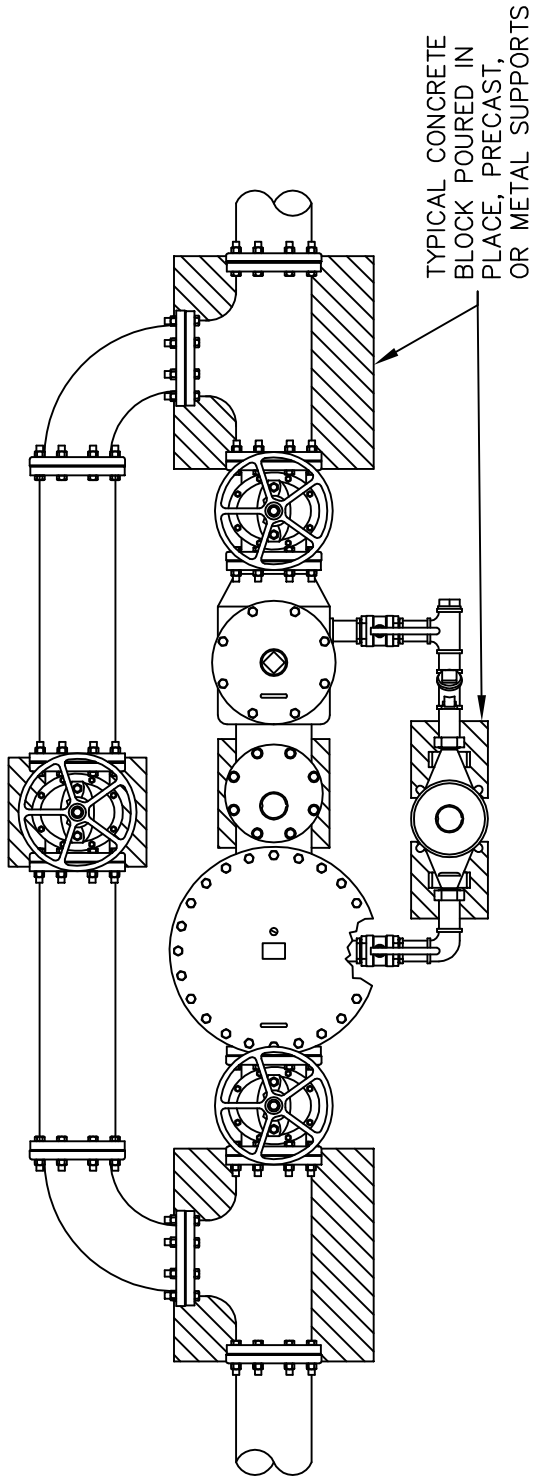


TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-27
COMBINED FIRE DOMESTIC
WATER SERVICE ENTRANCE

REV: 2019

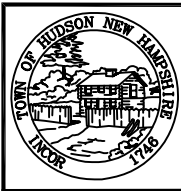
SCALE: NTS



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.

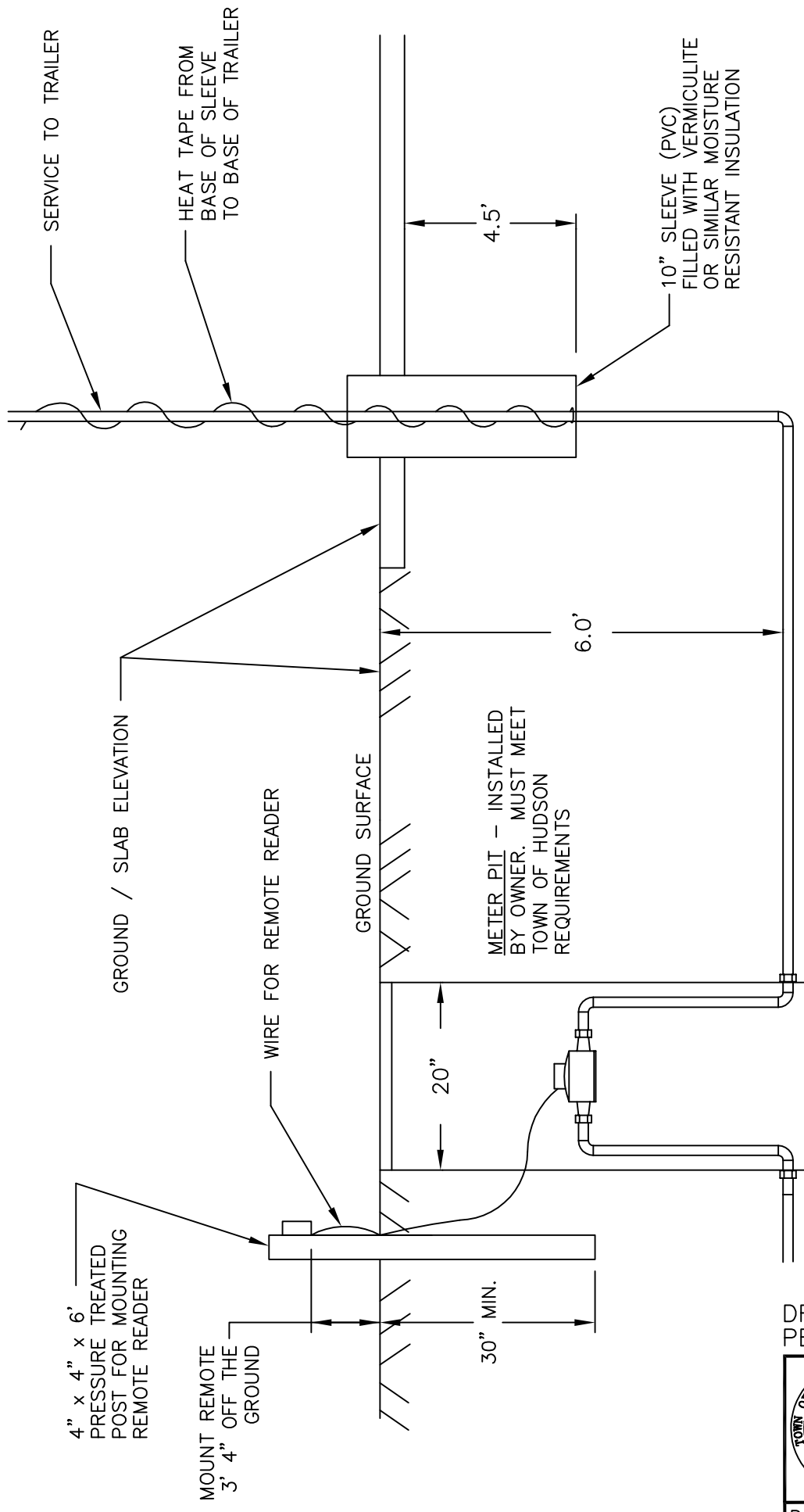
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



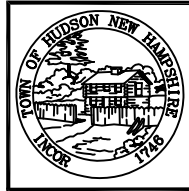
TOWN OF HUDSON
 12 SCHOOL STREET
 HUDSON, NH 03051

DETAIL W-28
 FIRE SERVICE
 WITH YARD HYDRANTS
 REV: 2019

SCALE: NTS



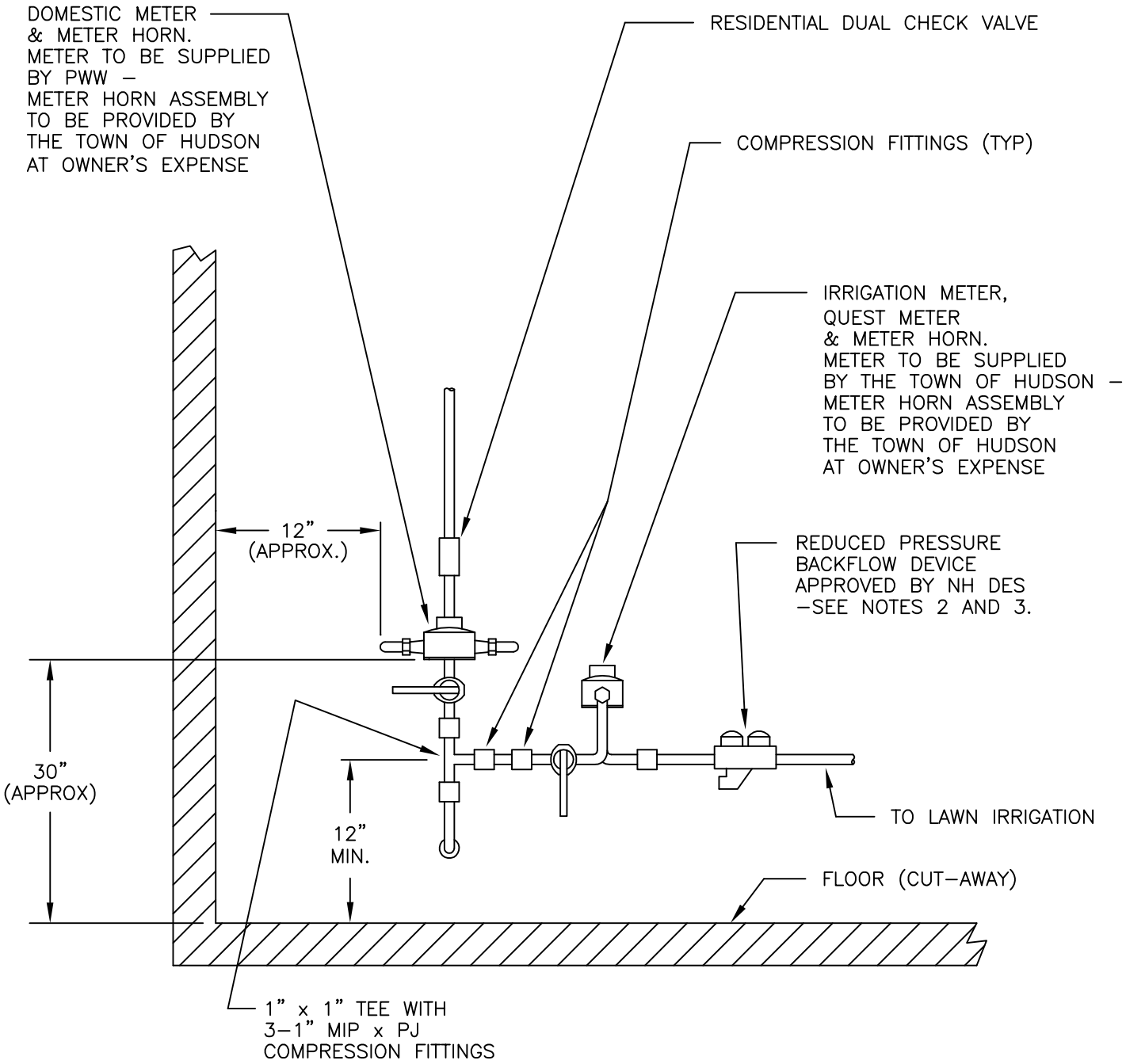
DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-29
MOBILE HOME OR SLAB
WATER SERVICE ENTRANCE
REV: 2019 SCALE: NTS

DRAWING: \\HD-FILES\RYTH\ENGINEERING\WATER\0-WATER RULES AND REGULATIONS\NEW\ENGINEERING WATER DETAILS.DWG [MODEL]



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. REDUCED PRESSURE BACKFLOW DEVICE MUST BE INSTALLED OUTSIDE WHERE SERVICE EXITS HOUSE, OR A POSITIVE DRAIN BE INSTALLED IN BASEMENT.
3. A PRESSURE VACUUM BREAKER CAN BE INSTALLED INSTEAD OF A REDUCED PRESSURE BACKFLOW DEVICE, PROVIDED THE PRESSURE VACUUM BREAKER IS INSTALLED A MINIMUM OF 18" HIGHER THAN THE PAGE 124 HIGHEST SPRINKLER HEAD.

DRAWINGS COURTESY OF PENNICHUCK WATER WORKS.



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

DETAIL W-30
DOMESTIC IRRIGATION WATER SERVICE METER INSTALLATION
REV: 2019 SCALE: NTS

Exhibit 10

Water Line Extension Form

AGREEMENT

_____ WATER SYSTEM EXTENSION

THIS AGREEMENT is made _____ day of _____, 20____, by and between (*the applicant*), with an address of _____ and the Town of Hudson, a municipal corporation of Hillsborough County, New Hampshire, with offices at 12 School Street, Hudson, New Hampshire 03051 (the “Town”).

RECITALS:

- 1.01 (*The applicant*) is the owner of certain real estate situated in Hudson, Hillsborough County, New Hampshire, with an address of _____, and shown as Map _____, Lot _____ on the Town of Hudson Tax Maps (the “Premises”).
- 1.02 Presently, the Town’s water system extends along _____ Road to a point approximately _____ feet from the common boundary line between the Premises and Lot _____ to the _____ of the Premises.
- 1.03 _____ desires to extend the Town’s water system to the Premises and then further extend the Town’s water system through the Premises _____ as shown on the Subdivision Plan for the purpose of providing water to Lot _____ as shown on the Subdivision Plan.

Agreement to do Work

- 2.01 The parties agree that the recitals set forth above are true, accurate and complete.
- 2.02 (*The applicant*) shall cause the following work to be undertaken and completed the (project) “Work”:
 - 2.02.1 The installation of a _____ inch water main from the end of the existing town water main located on _____ Road to the Premises. Such _____ inch water main shall be located on the Premises within the Proposed access Access and Utility Easement as shown on the Subdivision Plan.

2.02.2 (*The applicant*) shall undertake all necessary work within _____ Road and on its Premises to install the water main, gate valves, service lines, with gates and fire hydrants. This work shall include, but is not limited to, reclaiming pavement with trenching and installation of the water main and service lines. This work shall also include associated loaming and seeding on or adjacent to the premises. The scope of work and limits of construction shall be approved prior to the commencement of construction by the _____. All such work shall be undertaken in coordination with the _____ and the Town of Hudson Town Engineer. All such work shall be approved as to quality and workmanship by the Public Works Department _____ and the Town of Hudson Town Engineer.

Preliminary or Related Matters

3.01 (*The applicant*) shall convey easements to the town of Hudson for the proposed _____ Access and Utility Easement as shown on the Subdivision Plan in form and substance satisfactory to the Town of Hudson, (see attached standard form).

Inspections

4.01 (*The applicant*) shall pay all applicable fees and inspection costs related to the Work.

Certain Fees/Bonding

5.01 (*The applicant*) shall pay any and all hook-up assessments or extension fees including capital assessment fees to provide municipal water service to the Premises.

5.02 Prior to the commencement of Work, (*the applicant*) the Town (through its Board of Selectmen), and _____ shall establish mutually acceptable amounts for the bonding of _____ Work.

5.03 Prior to the commencement of Work, (*the applicant*) shall provide the Town with a bond, letter of credit or combination thereof to constitute the surety for the Work.

General

6.01 (*The applicant*) has appended hereto a certificate of authority confirming that it has authorized certain duly authorized agents and/or employees of _____ to enter into this Agreement on behalf of _____ and bind _____ hereto.

6.02 The Town represents to (*the applicant*) that its Board of Selectmen are duly authorized to approve this Agreement on behalf on the Town and bind the Town hereto.

6.03 This Agreement is a complete and accurate statement of the agreement between the parties and any and all prior agreements, representations, understandings, oral or written by and between the parties with respect to the subject matter hereof, are hereby expressly superceded, and this Agreement constitutes the entire agreement of the parties with respect to the subject matter hereto.

6.04 This Agreement shall be governed by and construed in accordance with the law of the State of New Hampshire without regard to its conflict of law rules or principles.

IN WITNESS WHEREOF, the Town and (*the applicant*) have caused this Agreement to be duly executed by their respective representatives the date first set forth above.

Witness

By: _____

Its: _____
Duly Authorized Owner

Town of Hudson its Board of Selectman

Witness

By: _____

Its: _____
Duly Authorized Selectmen

Witness

By: _____

Its: _____
Duly Authorized Selectmen

Witness

By: _____

Its: _____
Duly Authorized Selectmen

Witness

By: _____

Its: _____
Duly Authorized Selectmen

Witness

By: _____

Its: _____
Duly Authorized Selectmen

Exhibit 11
Water Line Acceptance

WATER LINE ACCEPTANCE PROCEDURES

The following items are required to apply for a new Water Line Acceptance:

1. Water Acceptance Application
2. Water Easement Deed (A sample copy may be obtained at the Engineering Office)
3. Hold Harmless Agreement (If area is private, this will not be needed.)
4. As-Built Plan
5. Copy of Water Leakage Testing and Bacteria Test
6. Bond for 10% of the cost for the main for one year (one year warranty)

A project inspector will go out and inspect the water lines to ensure all work has been completed.

Once completed, make a copy of the package and create a memo to the Municipal Utilities Committee (MUC) for acceptance. The MUC meets on the third Tuesday of each month. The Water Acceptance Application will need to have everyone's signature on it for approval.

Once the application has been approved by the MUC, they will forward a recommendation to the Board of Selectmen for approval.

Once the application has been approved by the BOS, the applicant will be allowed to apply for Water Permits on the approved lots.

Exhibit 12

Notice of Water Acceptance Application

“NOTICE OF WATER ACCEPTANCE”

1. The water line as described herein:

Project Name: _____ Contractor: _____

Owner: _____

Street and Station (Location): _____

Has been inspected and tested and is in compliance with the Town of Hudson requirements for water construction (inspection and test report on file with the DPW).

2. Portions which are Public Water are described as (attach legal documentation) and are so dedicated as such:

3. Portions which are Private Water are described as: _____

4. The following sites/lots/units which have “accessibility” are: (list by Tax Map & Lot #'s)

Access fees for these lots/sites are to be assessed as of _____ (Date)

5. I, _____ (owner), state that the above-described water(s) has been constructed in accordance with the requirements for water construction of the Town of Hudson, and I further understand and accept the conditions set forth by the Town of Hudson for Public and Private Waters and accessibility.

Owner

Date

6. In accordance with the above stipulation and description, this water is recommended for **acceptance**.

Town Engineer or Authorized Agent

Date

Public Works Director or Authorized Agent

Date

7. In accordance with the above stipulations and descriptions, this water is hereby recommended for Acceptance by the Municipal Utility Committee and is subject to all rules and regulations and fees of the Hudson Water Utility.

Approved at meeting of:

MUC Chairman

Date

8. Water Accepted by Water Utility and Town of Hudson

Approved at meeting of:

Board of Selectmen Chairman

Date

cc: Owner Water Foreman Town Engineer Building Inspector Planning Board

Exhibit 13

Hold Harmless Agreement

HOLD HARMLESS AGREEMENT

Developer/Company Name _____,
a New Hampshire *limited liability* _____ company with its principal office at
address _____, in consideration of the review and
acceptance by the Town of Hudson, New Hampshire of (1) certain as-built utility plans
for the development known as *Development Name* _____ entitled
“ _____ Utility As-Built Plan and Profiles,” and “Utility As-Built Plan and
Profile Storm Drainage” prepared by *Engineering Firm* _____,
dated _____ (the “Plans”); and (2) as-built plan for _____ of the
Development Name _____, hereby agrees to hold the Town of
Hudson harmless with regard to any digging or damage to the roadways or utilities
within the development, including drainage components such as trench drain, in
connection with the maintenance and repairs to the water mains dedicated to the Town
of Hudson within the roadways. This Hold Harmless Agreement shall remain in effect
indefinitely or until the roadways have been accepted by the Town of Hudson.

Date: _____, 20 _____

By _____
Developer Name

By: _____
Print Name/Signature

ACKNOWLEDGMENT

STATE OF NEW HAMPSHIRE
COUNTY OF HILLSBOROUGH

On this _____, before me personally appeared _____, and
acknowledged the foregoing instrument to be a voluntary act and deed.

Notary Public
My Commission Expires: _____

Exhibit 14
Water Easement Deed Template

WATER EASEMENT DEED

_____, the GRANTOR, for valuable consideration received, grants and conveys with Warranty Covenants to the Town of Hudson, a New Hampshire Municipal Corporation with offices at Town Hall, 12 School Street, Hudson, Hillsborough County, State of New Hampshire, the TOWN, an easement in, over, under and through a certain tract of land situated in the Town of Hudson, Hillsborough County, State of New Hampshire. The easement areas are shown on a plan entitled "Consolidation and Subdivision Plan". _____ Hudson, New Hampshire, _____, Prepared for _____, Dated _____, Prepared by _____. Being recorded at the Hillsborough County Registry of Deeds as Plan No. _____. The easements are described as a portion of a foot wide Right of Way labeled as _____ and more specifically described in the attached Exhibit A.

The purpose of this conveyance is to grant an easement in order for the TOWN to layout, construct, build, install, maintain, repair, improve, remove, replace and/or rebuild a water line for the transportation of water and to provide access thereto.

The GRANTOR shall not make any improvements within or abutting this easement which interferes with or will interfere with the TOWN's exercise of its right under this deed.

The TOWN, its employees, and its agents have the right to enter and leave the easement area with workers, equipment and materials in order to inspect and survey the easement and to carry out the easement purposes.

The rights, conditions, restrictions and duties created by this deed shall run with the land and shall accrue to and be binding on the successor's-in-interest, heirs and assigns of the GRANTOR and the TOWN.

Witness

By: _____
Duly Authorized

ACKNOWLEDGMENT

STATE OF NEW HAMPSHIRE
COUNTY OF HILLSBOROUGH

On this _____, before me personally appeared _____,
and acknowledged the foregoing instrument to be a voluntary act and deed.

Notary Public

My Commission Expires: _____



TOWN OF HUDSON

Recreation Department



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-816-1291

TO: Steve Malizia, Town Administrator
Board of Selectmen

FROM: Elvis Dhima, P.E.
Dave Yates

DATE: January 29th, 2020

RE: Engineering Assessment Update – Liberty Field

The Board of Selectmen requested an engineering assessment of Liberty Field, which was completed recently.

The assessment summary is listed below:

1. Water puddling appears to be caused by site runoff from the parking lot and access driveway, off site runoffs and ground water.
2. Estimated ground water elevation in the mid field was found at 35 inches deep, but is expected to be higher during the spring season.
3. The top loam layer is very rich soil and does not drain well.
4. Recommendations include conducting an engineering design, for up to \$20,000, to design lifting the field by a foot, installing swales on the sides and around the parking area to redirecting runoffs from the field.
5. Cost estimate for the above, would be \$200,000.

Based on this information below are the options available at this time.

Option 1.

Move forward with the recommendations listed above.

Option 2.

Go out to bid for the design phase, which will be based on 2020 spring conditions, to determine the most cost efficient design to address the wet conditions of the field.



Wilcox & Barton INC.

CIVIL • ENVIRONMENTAL • GEOTECHNICAL

**GEOTECHNICAL INVESTIGATION & SUMMARY REPORT
FREEDOM FIELDS
190 DERRY ROAD
HUDSON, NEW HAMPSHIRE**

Prepared for:

Mr. Elvis Dhima P.E.
Town of Hudson, New Hampshire
12 School Street
Hudson, New Hampshire 03051

Prepared by:

Wilcox & Barton, Inc.
2 Capital Plaza, Suite 305
Concord, New Hampshire 03301
Contact: Erin R. Lambert, PE, (603) 369-4190 x527

December 30, 2019

Wilcox & Barton, Inc. Project No.: HUDS0001

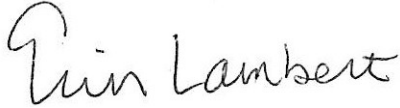
WWW.WILCOXANDBARTON.COM
1 (888) 777-5805

CERTIFICATION

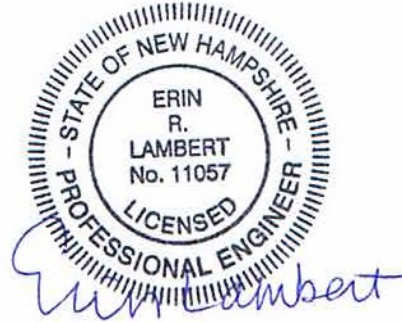
The following personnel have prepared and/or reviewed this report for accuracy, content, and quality of presentation.

Document: Geotechnical Investigation & Summary Report
Freedom Fields, Hudson, New Hampshire

Date/Version: December 30, 2019



Erin R. Lambert, P.E., LEED AP
Associate Vice President, Senior Engineer



James P. Ricker, P.G.
Vice President

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Figure 1	Site Location Map
Figure 2	Site Plan with Approximate Location of New Features Since Field Construction
Figure 3	Site Plan with Proposed Stormwater Improvements
Figure 4	Engineers Cost Estimate

Appendices

Appendix A	Site Photos
Appendix B	GSI Geotechnical Report

1.0 BACKGROUND

The Town of Hudson constructed a multi-use athletic field in 2017, located at Hills Garrison Elementary School. The field is west and downhill of the original two fields at the site. The location of the site is shown on Figure 1 - *Site Location Map* and site details are depicted on Figure 2 – *Site Plan with Approximate Location of New Features Since Field Construction*. In 2018, the field experienced ponding on its east side and adjacent areas. This report will explore possible reasons for the ponding on the field and state some alternatives to mitigate it.

2.0 EXISTING CONDITIONS

The site consists of a 230'x265' grass athletic field, two small sheds, a gravel parking area and a gravel driveway for site access from the original fields at the top of the hill. There are no drainage improvements on the site. The parking lot is graded to drain towards the driveway, where runoff then continue down the driveway and ponds on the east side of the field. The flow concentrates to the extent that there is visible erosion at the bottom of the driveway. Impervious ground cover does not allow for stormwater to be infiltrated into the ground, which means that since the parking lot is pitched towards the driveway, and the driveway is pitched towards the field, nearly all of the rain that falls on the parking lot and driveway are directed to the low point on the east side of the athletic field. This area is approximately 20,000 square feet.

3.0 FIELD INVESTIGATION

3.1 Site Soils

Geotechnical Services Inc. (GSI) conducted a field investigation to assess the soil conditions and permeability within the athletic field. They prepared a report summarizing the results of the in-situ soils properties of the soils on the site. The investigation included auguring six shallow holes along the perimeter of the field, one near each corner, and two at the ends of the midline of the field. During the tests, dark brown coarse to medium sand was found to a depth of about six inches below ground surface (bgs), tan fine to coarse sand was found at depths of about 6 to 12 inches bgs, and brown fine to coarse sand was found from about 12 to 24 inches bgs. In Test Hole #5, ground water was observed at 35 inches below the surface. Standing water was observed in other test holes as well between excavation and backfill. Whereas November is typically a time of year when the water table is low, groundwater may be present closer to the ground surface at other times of year. GSI observed the field surface to be uneven with patchy, sporadic vegetation, which may result from an overly saturated surface that is subject to increased wear. Photographs of the site are included in Appendix A. Observations for each test hole are presented in the full technical report included in Appendix B and summarized in Section 4.0 below.

3.2 Guelph Permeameter Testing

The Guelph Permeameter test was employed to measure the permeability of the athletic field soils. The Guelph Permeameter is a constant head permeameter that utilizes a syphon principal to measure the in-situ saturated hydraulic conductivity. The Guelph Permeameter testing yielded

field saturated hydraulic conductivity rates within a range of 0.1 to 1.5 inches per hour. Saturated hydraulic conductivity was observed to be highest at the northwest corner of the field and decreasing rapidly toward the east and south. Minimal infiltration was noted in test hole locations #5 and #6. It is likely that the shallow groundwater observed on site influences the permeability rates, slowing them further.

3.3 Laboratory Testing

GSI collected a series of seven samples and delivered them to the GSI laboratory in Weare, New Hampshire. The topsoil was determined to contain 32 to 34 percent silt. The underlying sands had a highly variable silt content of between 5 and 26 percent. Although three out of four sieves conducted on the sands indicated a silt content less than 10 percent, the difficulty in infiltrating through the overlying soils, the quantity of runoff which reaches the field area, and the proximity to groundwater are all assumed to negatively affect the draining characteristics of the athletic field.

4.0 OBSERVATIONS

The following are observations made during visits to the site, and include comments on how they may affect drainage:

- A new gravel parking lot has been constructed upgradient of the athletic field to the east. The parking lot is graded south towards the driveway and no drainage controls were observed on the site. The additional impervious area increases the rate and volume of stormwater on the site;
- The slope of the driveway is moderate to steep with no drainage controls; therefore, stormwater tends to concentrate and channelize and erosion was observed in the driveway in these areas. The path of stormwater is toward the southeast corner of the athletic field, which is a low point;
- A topographic depression is visible at the site along the east side of the field;
- There was little to no grade change observed along the north and south sides of the field; therefore, stormwater does not drain out of the area; and
- The slope across the field from east to west appears to be nearly flat.

5.0 RECOMMENDATIONS

The geotechnical investigation confirmed that the site soils are poorly drained and the groundwater table is high. In addition to the geotechnical findings, stormwater plays a large role in the ponding issue on the field. Stormwater ponds on the east end of the field from the combination of upgradient impervious surfaces (parking lot and driveway), steep slopes, lack of drainage controls and poorly drained soils.

To address the stormwater issues, we recommend the following:

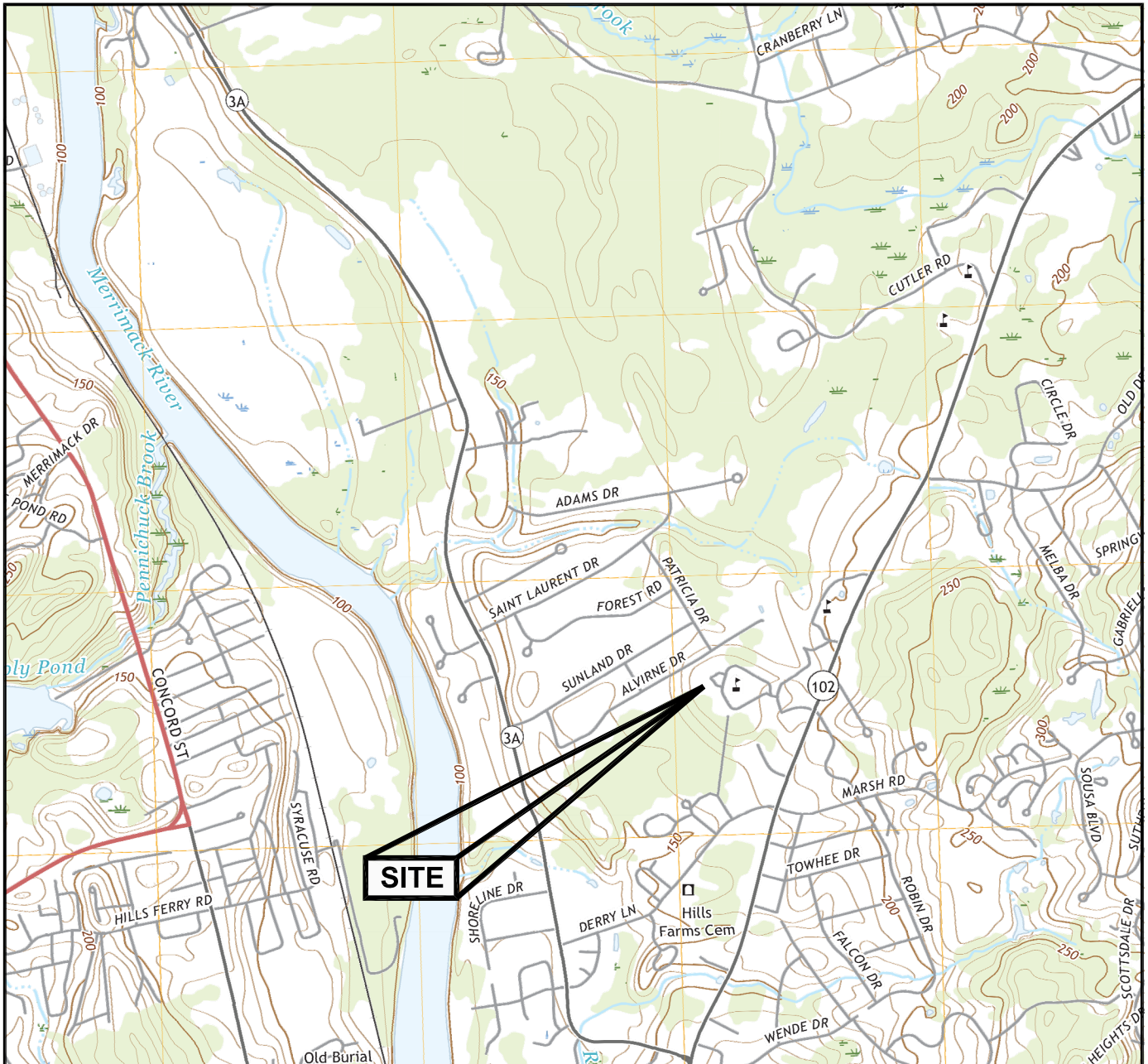
- Obtain an existing conditions survey, including topography of the as-built conditions.
- Prepare an existing drainage model to confirm the upgradient contributing drainage area and further understand how stormwater flows through the site and where it ponds.
- Prepare a proposed drainage model and design stormwater controls to eliminate stormwater from the upgradient area flowing onto the athletic field. Based on field observations and the construction plans for the athletic field, we anticipate the following Best Management Practices (BMPs) to control stormwater:
 - Construct a swale along the western edge of the gravel parking area, draining to the woods at the northern property line;
 - Grade the parking area away from the driveway and towards the new swale;
 - Grade the portion of the road shown in the site plan towards the swale; and
 - Utilize the grade change on the south side of the field to form a swale, draining to the west side of the field.

To address the soils in the athletic field, we recommend the following:

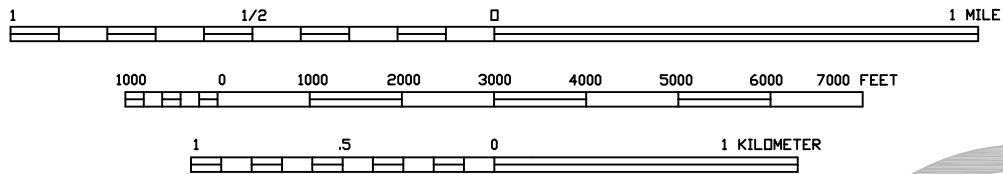
- Obtain an existing conditions survey including topography of the as-built conditions;
- Regrade the field if a positive 1% slope does not exist across the field from east to west;
- Install underdrains beneath the field to daylight on the north side of the field in order to lower the groundwater elevation beneath the field; and
- Based on the results of the existing conditions survey, it may be necessary to raise the elevation of the field to provide enough elevation different to daylight the underdrains.

An underdrain system would consist of 6-inch HDPE perforated pipes surrounded by crushed stone and wrapped in filter fabric. To provide an estimated cost for the above-recommended improvements, we have assumed an underdrain system comprised of 4 6-inch pipes installed the width of the field (235 feet). We have also assumed the grade change would be 2 feet at the east end of the field and 1 foot at the west end of the field for an average grade change of 1.5 feet. To assist with evaluating the recommended improvements and budgeting, estimated construction costs are included on Figure 4 – *Engineers Cost Estimate*.

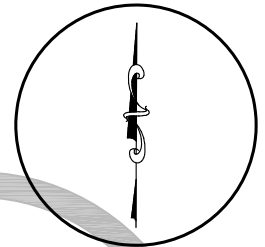
FIGURES



SCALE: 1:24,000



CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

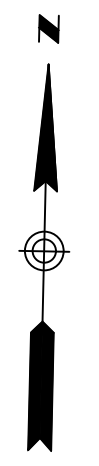


DATE DECEMBER 3, 2019	SCALE As shown	FILE HUDS0001_SITE LOCATION MAP
APPROVED BY ERL	DRAWN BY ARC	REVISED
CLIENT TOWN OF HUDSON	JOB NUMBER HUDS0002	
LOCATION FREEDOM FIELD HUDSON, NH 03051	MAP SOURCE NASHUA NORTH, NH USGS QUAD 2018	

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SITE LOCATION MAP

Figure 1



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

190R DERRY ROAD
DONALD W. ERION
C/O RICHARD MAYNARD
23 EAST PEARL STREET
NASHUA NH 03060

PROPOSED IRRIGATION WELL TO BE DEVELOPED BY OTHERS, 15 GPM MINIMUM AND ELECTRICAL COMPONENTS INCLUDED. ELECTRICAL FEED TO COME FROM THE EXISTING SHED (ITEM B)

REVISED TREELINE (APPROXIMATE)

GRADES ABOVE PARKING LOT ARE SIGNIFICANTLY STEEPER

REMOVE AND RELOCATE EXISTING FENCE 30' (ITEM 607.25)

VISIBLE PONDING AREA

1.1% SLOPE

1.1% SLOPE

LOAM AND HYDROSEED (ITEM 641 & 646.31A)

PROPOSED FIELD 365'X230' 6" GRAVEL AND 4" OF LOAM (SEE DETAIL)

6"X12' CRUSHED STONE FOR DRIVES 2" PAVEMENT RECLAIM ROAD RAMP ACCESS 8% SLOPE (ITEM 304.45) (SEE DETAIL)

ADDITIONAL IMPERVIOUS PARKING LOT

PROPOSED SILT FENCE (ITEM 645.531)

PROPOSED CHAIN LINK FENCE (ITEM 607.25) PROPOSED POST ASSEMBLIES (ITEM 607.425)

NEW CRUSHED STONE DRIVEWAY

APPROXIMATE LOCATION OF SHEDS

215 WEBSTER STREET
DONALD W. ERION
C/O RICHARD MAYNARD
23 EAST PEARL STREET
NASHUA NH 03060

188 DERRY ROAD
FRANCOEUR, RACHEL A. TR.
23 WOODCREST DR
HUDSON NH 03051



FIGURE 2

SITE PLAN WITH APPROXIMATE LOCATION OF NEW FEATURES SINCE FIELD CONSTRUCTION

BASE PLAN

NO.	DATE	REVISION

ALVIRNE HIGH SCHOOL-FREEDOM FIELD 2
SITE PLAN
PREPARED FOR: TOWN OF HUDSON,
12 SCHOOL STREET
HUDSON, NEW HAMPSHIRE

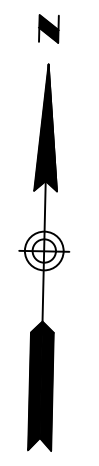
SCALE: 1" = 50' DATE: APRIL 2017

TOWN ENGINEER'S OFFICE

SHEET 3

E. Z. D.	E. Z. D.
DESIGNED	DRAFTED

PLOTTED: 03/23/17 10:36AM BY: EDHIMA
 LAST SAVED: 03/23/17 10:33AM BY: EDHIMA
 DRAWING: G:\ALVIRNE_SCHOOL\NEW_SOCCER_FIELD\SOCCER_FIELD.DWG [PROPOSED]



TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051

190R DERRY ROAD
DONALD W. ERION
C/O RICHARD MAYNARD
23 EAST PEARL STREET
NASHUA NH 03060

RAISE FIELD TO AN ELEVATION TO ALLOW UNDERDRAIN TO DAYLIGHT

INSTALL FILED UNDERDRAINS AT AN ELEVATION BASED ON SURVEY DATA. SPACING TO BE DETERMINED DURING DESIGN (FIGURE SHOWS 4 UNDERDRAIN EXTENDING WIDTH OF THE FIELD).

INSTALL SWALE TO CAPTURE RUNOFF FROM PARKING LOT AND DIRECT STORMWATER TO PERIMETER SWALE (NORTH OF FIELD)

PROPOSED IRRIGATION WELL TO BE DEVELOPED BY OTHERS, 15 GPM MINIMUM AND ELECTRICAL COMPONENTS INCLUDED. ELECTRICAL FEED TO COME FROM THE EXISTING SHED (ITEM B)

REGRADE GRAVEL PARKING AREA

GRADE ROAD TOWARDS PROPOSED SWALE

REMOVE AND RELOCATE EXISTING FENCE 30' (ITEM 607.25)

LOAM AND HYDROSEED (ITEM 641 & 646.31A)

PROPOSED FIELD 365' X 230' 6" GRAVEL AND 4" OF LOAM (SEE DETAIL)

6" X 12" CRUSHED STONE FOR DRIVES 2" PAVEMENT RECLAIM ROAD RAMP ACCESS 8% SLOPE (ITEM 304.45) (SEE DETAIL)

PROPOSED SILT FENCE (ITEM 645.531)

PROPOSED CHAIN LINK FENCE (ITEM 607.25) PROPOSED POST ASSEMBLIES (ITEM 607.425)

REGRADE TO DIRECT STORMWATER TO PERIMETER SWALE AND AWAY FROM FIELD

APPROXIMATE LOCATION OF SHEDS

ENHANCE SWALE ALONG SOUTHERN PROPERTY LINE

215 WEBSTER STREET
DONALD W. ERION
C/O RICHARD MAYNARD
23 EAST PEARL STREET
NASHUA NH 03060

188 DERRY ROAD
FRANCOEUR, RACHEL A. TR.
23 WOODCREST DR
HUDSON NH 03051



FIGURE 3

SITE PLAN WITH SUMMARY OF RECOMMENDATIONS

BASE PLAN

NO.	DATE	REVISION

ALVIRNE HIGH SCHOOL-FREEDOM FIELD 2
SITE PLAN
PREPARED FOR: TOWN OF HUDSON,
12 SCHOOL STREET
HUDSON, NEW HAMPSHIRE

SCALE: 1" = 50' DATE: APRIL 2017

TOWN ENGINEER'S OFFICE

SHEET 3

E. Z. D.	E. Z. D.
DESIGNED	DRAFTED

PLOTTED: 03/23/17 10:36AM BY: EDHIMA
 LAST SAVED: 03/23/17 10:33AM BY: EDHIMA
 DRAWING: G:\ALVIRNE_SCHOOL\NEW_SCHOOLER_FIELD\SOCCER_FIELD.DWG [PROPOSED]

Freedom Field Improvements
Figure 4 - Engineers Estimate (12/30/2019)

	Unit	Unit Price	Estimated Cost
Mobilization (5%)	1 LS	\$ 7,971 LS	\$ 7,971
SWPPP & Erosion Control	1 LS	\$ 5,000 LS	\$ 5,000
 <u>Raise Grade</u>			
Strip/Stockpile Topsoil	1 LS	\$ 5,000 LF	\$ 5,000
Sand (Assume 1.5 feet)	3,460 CY	\$ 25 LF	\$ 86,493
Top Soil - Screen, Place	870 CY	\$ 25 CY	\$ 21,759
Hydroseed	1 LS	\$ 3,000 LS	\$ 3,000
 <u>Underdrain</u>			
Solid HDPE	300 LF	\$ 12 LF	\$ 3,600
HDPE Perforated Pipe	940 LF	\$ 12 LF	\$ 11,280
3/4" Crushed Stone	78 CY	\$ 30 CY	\$ 2,350
Filter Fabric	940 LF	\$ 1 LF	\$ 940
Subtotal: Raise Grade & Install Underdrain			\$ 134,422

Upgradient Drainage Improvements

Regrade Driveway and Parking Lot			
Enhance Perimeter Swale			
Loam & Seed Disturbed Areas			
Subtotal: Upgradient Drainage Improvements			\$ 25,000

Subtotal	\$ 172,393
Contingency (20%)	\$ 34,478.69

Estimated Construction Cost \$ 206,872.12

Estimated Engineering Costs

Existing Conditions Survey	\$3,000 - \$5,000
Site Design (incl. Drainage Model)	\$10,000 - \$12,000
Construction Documents	\$2,000 - \$3,000
Estimated Engineering Costs	\$15,000 - \$20,000

Construction Assumptions

Raise grade 2 ft. on east end, 1 ft at west end. Average grade change 1.5 ft
Underdrain: 4 drains across field (north to south) connected along north end
Recommend 20% contingency. Following design contingency can be reduced to 10%



APPENDIX A

Site Photos

Site Photographs
Freedom Athletic Field
Hudson, New Hampshire



Photo 1: Drainage to depressed area. Looking northeast from the gate to the field



Photo 2: View up driveway, looking east from gate to field

Site Photographs
Freedom Athletic Field
Hudson, New Hampshire



Photo 2: Visible erosion from flow concentration



Photo 3: Parking lot drainage directed toward driveway



Photo 5: Drainage from two sides toward depression



Photo 5: View northward down east fence

APPENDIX B
Geotechnical Report



December 4, 2019

Erin Lambert
Wilcox & Barton, Inc,
57 Hoit Road
Concord, NH 03301

RE: Field Investigation and Guelph Permeameter Testing
Freedom Fields
Derry Road
Hudson, New Hampshire

GSI Project No. 219291

Geotechnical Services, Inc. (GSI) submits this letter report in connection with the November 27, 2019 site visit by GSI to sample in-situ soils and conduct Guelph Permeameter testing at the project site located in Hudson, New Hampshire.

BACKGROUND

The Freedom Fields project is located southwest of the Hills Garrison Elementary School at 190 Derry Road in Hudson, New Hampshire. The fields are accessed by a gravel drive south of the school. The original Freedom Fields were constructed south of the school at the top of a large hill. Following the completion of these fields, the town financed the construction of an additional multi-use field west and downhill from the first set of fields. The new Freedom field lies 40 feet lower in elevation than the fields at the top of the hill. The field as defined by the civil plan set consists of a 365 by 230-foot field built utilizing 6-inches of gravel and 6-inches of loam. Site development details and grading information are contained on the civil plan set entitled "Town of Hudson, New Hampshire – Freedom Fields -2," prepared by the Town of Hudson, New Hampshire dated April 2017.

Since the field was constructed, it has been observed that stormwater runoff from the slope uphill from the field is directed toward the field due to the site topography. The gravel road built to access the field has eroded due to the runoff. The runoff water has been documented to collect and pond on the field surface saturating the field surface for extended periods of time. A crushed stone pad was constructed adjacent to the field entrance, presumably due to ponding of water by the gate.



▲ 55 North Stark Highway Weare NH ▲ 603/529/7766 ▲ FAX 603/529/7080

▲ 30 Newbury Street, Boston, MA ▲ 617/861/2617



View of athletic field from the gravel access drive

FIELD INVESTIGATION

An on-site field investigation was undertaken to assess the soil conditions and permeability within the athletic field. A series of six (6) shallow test holes were advanced to depths of 2 to 3 feet below existing grades. The composition and stratigraphy of the soils were documented, and samples were collected for grain size analysis. The samples were classified according to the Burmister classification system. Test hole locations are depicted on the attached Figure 1.

Field descriptions of the soils encountered, observed depth to groundwater when observed, and other pertinent observations are as follows:

Test Hole #1 (Northwest corner of the athletic field)

0 to 6": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

6" to 8": Light gray/brown, damp, fine to coarse Sand, little Gravel, little Silt

8" to 24"+: Brown, damp, fine to coarse Sand, little Silt, trace Gravel

Test Hole #2 (North and center of the athletic field)

0 to 7": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

7" to 12": Tan, damp, fine to coarse Sand, some Gravel, little Silt

12" to 26"+: Brown, damp, fine to coarse Sand, trace to little Silt

Test Hole #3 (Northeast corner of the athletic field)

0 to 7": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

7" to 11": Tan, damp, fine to coarse Sand, some Gravel, little Silt

11" to 25"+: Brown, damp, fine to coarse Sand, trace to little Silt

Test Hole #4 (Southeast corner of the athletic field)

0 to 6": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

6" to 11": Tan, damp, fine to coarse Sand, some Gravel, little Silt

11" to 27"+: Brown, damp, fine to coarse Sand, trace to little Silt

Test Hole #5 (South and center of the athletic field)

0 to 7": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

7" to 11": Tan, damp, fine to coarse Sand, some Gravel, little Silt

11" to 29": Tan, damp, fine to medium Sand, some Silt

29" to 35"+: Brown, damp, fine to coarse Sand, trace to little Silt

Groundwater at 35"

Test Hole #6 (Southwest corner of the athletic field)

0 to 8": Dark brown, damp, fine to medium Sand, some Silt, trace small roots

8" to 11": Tan/brown, damp, fine to coarse Sand, some Gravel, little Silt

11" to 20": Brown, damp, fine to coarse Sand, trace Gravel, trace Silt

20" to 27"+: Dark brown, fine to coarse Sand, some Silt, trace roots

In addition to the groundwater observation at test hole #5, standing water was observed in multiple test holes in the interim time before being backfilled. Groundwater levels within the month of November are historically lower than other times of the year, therefore, groundwater may be present closer to ground surface at other times. GSI also observed the field surface to be uneven with sporadic, patchy vegetation, which may result from an overly saturated surface subject to wear.



Athletic field surface

GUELPH PERMEAMETER TESTING

To measure the in-situ permeability of the existing soils within the athletic field, the Guelph Permeameter test was employed. The Guelph Permeameter is a constant head permeameter that utilizes a siphon principle to measure in-situ hydraulic conductivity. The purpose of this testing was to evaluate the saturated hydraulic conductivity or K_{sat} of the infiltrating soils to determine the effect of soil infiltration and permeability upon the drainage characteristics of the athletic field.



Guelph testing in progress

The Guelph permeameter test each consists of one test run at 10cm and one at 5cm to determine a statistical average for the rate of hydraulic conductivity based on differing head heights. Tests were conducted at all six of the test holes. The Guelph permeameter testing yielded field saturated hydraulic conductivity rates within a highly variable range of 0.1 to 1.5 inches per hour. Saturated hydraulic conductivity was observed to be highest at the northwest corner of the field and decreasing rapidly toward the east and south. Minimal infiltration was noted at test hole locations #5 and #6. It is likely that the shallow groundwater observed on site has an effect on the permeability rates, slowing them further.

LABORATORY TESTING

A series of seven samples were collected at the site and delivered to the GSI laboratory in Weare, New Hampshire for grain size analysis. Seven sieve analysis were completed upon samples of the topsoil and underlying strata. The topsoil was found to contain 32 to 34 percent silt. The sands below had a highly variable Silt content of 5 to 26 percent. Although three out of four sieves conducted upon the sands indicated a silt content less than 10 percent, the difficulty in infiltrating through the overlying soils, the quantity of runoff which reaches the field area, and the proximity to groundwater are all assumed to negatively affect the draining characteristics of the athletic field.

GSI appreciates the opportunity to be of service to you on this project. We trust that this letter report will be responsive to your needs at this time. If you have any questions or comments regarding this letter report, please feel free to call.

Very truly yours,

GEOTECHNICAL SERVICES, INC.

Kevin Maynard
Staff Engineer

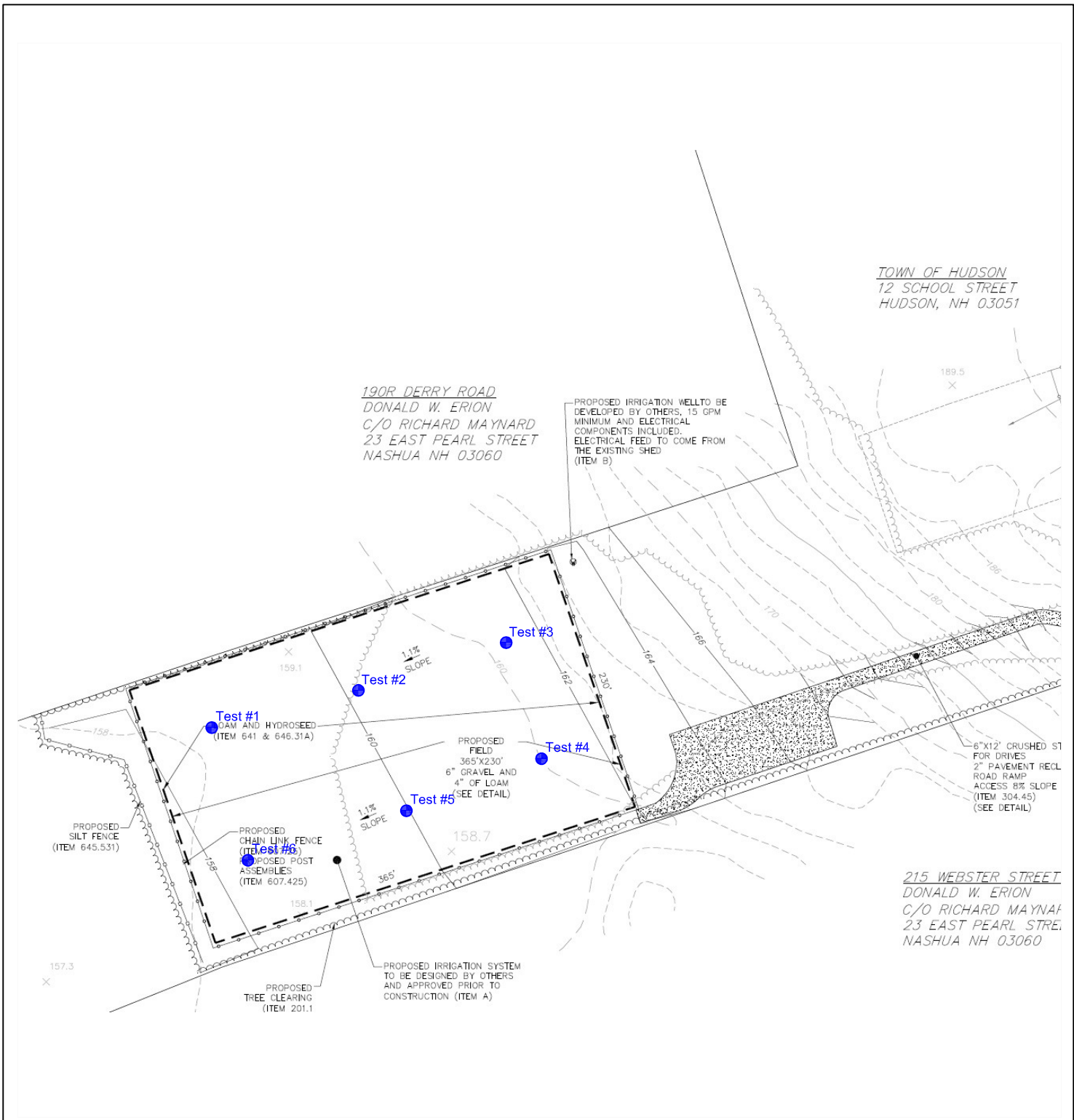


Harry Wetherbee, P.E.
Principal Engineer



Attachments:
Guelph Permeameter Test Location Plan
Guelph Permeameter Test Results
Laboratory Test Results





● Test #1 Guelph Permeameter Test Location (Approximate)

<p style="text-align: center;">GUELPH PERMEAMETER TEST LOCATION PLAN</p>	<p style="text-align: center;">GS GEOTECHNICAL SERVICES INC. 55 NORTH STARK HIGHWAY, WEARE, NH 03281 TEL. (603) 529-7766 FAX. (603) 529-7780</p>		
	<p style="text-align: center;">Freedom Fields Hudson, New Hampshire</p>	<p>DRAWN BY: KJM</p>	<p>DATE: July 2019</p>
<p>CHECKED BY: HKW</p>		<p>SCALE: NTS</p>	
<p>FILE NAME: Freedom Fields.dwg</p>		<p>PROJECT NO.: 219291</p>	



Guelph Permeameter Worksheet

Project: Freedom Fields	Test Date: 11/27/2019
Project #: 219291	Location: Test Locaton #1
Location: Hudson, New Hampshire	Depth: N/A
Tested by: Kevin Maynard	Reservoir: Combined
Soil Description: Sandy Loam	Reservoir Constant: 35.41

Well Head Height = 5cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	36.0	-	-
2	1	1.00	36.5	0.5	0.5
3	2	1.00	37.0	0.5	0.5
4	3	1.00	37.5	0.5	0.5
5	4	1.00	38.0	0.5	0.5
6	5	1.00	38.5	0.5	0.5
7	6	1.00	39.0	0.5	0.5
8	7	1.00	39.5	0.5	0.5
9	8	1.00	40.0	0.5	0.5
10	9				

Rate of Water Level
Change/60 = R1
R1 = 0.008 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	25.0	-	-
2	1	1.00	26.1	1.1	1.1
3	2	1.00	27.2	1.1	1.1
4	3	1.00	28.3	1.1	1.1
5	4	1.00	29.4	1.1	1.1
6	5	1.00	30.5	1.1	1.1
7	6	1.00	31.6	1.1	1.1
8	7	1.00	32.7	1.1	1.1
9	8	1.00	33.8	1.1	1.1
10	9	1.00	34.9	1.1	1.1

Rate of Water Level
Change/60 = R2
R2 = 0.018 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 1.07E-03 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 1.5 \text{ in/hour}$



Guelph Permeameter Worksheet

Project: Freedom Fields	Test Date: 11/27/2019
Project #: 219291	Location: Test Locaton #2
Location: Hudson, New Hampshire	Depth: N/A
Tested by: Kevin Maynard	Reservoir: Combined
Soil Description: Silty Loam	Reservoir Constant: 35.41

Well Head Height = 5cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	11.0	-	-
2	1	1.00	11.2	0.2	0.2
3	2	1.00	11.4	0.2	0.2
4	3	1.00	11.6	0.2	0.2
5	4	1.00	11.8	0.2	0.2
6	5	1.00	12.0	0.2	0.2
7	6	1.00	12.2	0.2	0.2
8	7	1.00	12.4	0.2	0.2
9	8	1.00	12.6	0.2	0.2
10	9				

Rate of Water Level
Change/60 = R1
R1 = 0.003 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	7.0	-	-
2	1	1.00	7.5	0.5	0.5
3	2	1.00	8.0	0.5	0.5
4	3	1.00	8.5	0.5	0.5
5	4	1.00	9.0	0.5	0.5
6	5	1.00	9.5	0.5	0.5
7	6	1.00	10.0	0.5	0.5
8	7	1.00	10.5	0.5	0.5
9	8	1.00	11.0	0.5	0.5
10	9	1.00	11.5	0.5	0.5

Rate of Water Level
Change/60 = R2
R2 = 0.008 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 5.72E-04 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 0.8 \text{ in/hour}$



Guelph Permeameter Worksheet

Project: Freedom Fields	Test Date: 11/27/2019
Project #: 219291	Location: Test Locaton #3
Location: Hudson, New Hampshire	Depth: N/A
Tested by: Kevin Maynard	Reservoir: Combined
Soil Description: Silty Loam	Reservoir Constant: 35.41

Well Head Height = 5cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	30.0	-	-
2	1	1.00	30.2	0.2	0.2
3	2	1.00	30.3	0.1	0.1
4	3	1.00	30.4	0.1	0.1
5	4	1.00	30.5	0.1	0.1
6	5	1.00	30.6	0.1	0.1
7	6	1.00	30.7	0.1	0.1
8	7	1.00	30.8	0.1	0.1
9	8	1.00	30.9	0.1	0.1
10	9				

Rate of Water Level
Change/60 = R1
R1 = 0.002 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	27.0	-	-
2	1	1.00	27.3	0.3	0.3
3	2	1.00	27.6	0.3	0.3
4	3	1.00	27.9	0.3	0.3
5	4	1.00	28.1	0.2	0.2
6	5	1.00	28.4	0.3	0.3
7	6	1.00	28.7	0.3	0.3
8	7	1.00	29.0	0.3	0.3
9	8	1.00	29.3	0.3	0.3
10	9	1.00	29.6	0.3	0.3

Rate of Water Level
Change/60 = R2
R2 = 0.005 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 4.07E-04 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 0.6 \text{ in/hour}$



Guelph Permeameter Worksheet

Project: Freedom Fields	Test Date: 11/27/2019
Project #: 219291	Location: Test Locaton #4
Location: Hudson, New Hampshire	Depth: N/A
Tested by: Kevin Maynard	Reservoir: Combined
Soil Description: Silty Loam	Reservoir Constant: 35.41

Well Head Height = 5cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	4.0	-	-
2	1	1.00	4.1	0.1	0.1
3	2	1.00	4.2	0.1	0.1
4	3	1.00	4.3	0.1	0.1
5	4	1.00	4.4	0.1	0.1
6	5	1.00	4.5	0.1	0.1
7	6	1.00	4.6	0.1	0.1
8	7	1.00	4.7	0.1	0.1
9	8	1.00	4.8	0.1	0.1
10	9				

Rate of Water Level
Change/60 = R1
R1 = 0.002 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	1.0	-	-
2	1	1.00	1.2	0.2	0.2
3	2	1.00	1.4	0.2	0.2
4	3	1.00	1.6	0.2	0.2
5	4	1.00	1.8	0.2	0.2
6	5	1.00	2.0	0.2	0.2
7	6	1.00	2.2	0.2	0.2
8	7	1.00	2.4	0.2	0.2
9	8	1.00			
10	9	1.00			

Rate of Water Level
Change/60 = R2
R2 = 0.003 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 1.65E-04 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 0.2 \text{ in/hour}$



Guelph Permeameter Worksheet

Project: Freedom Fields Project #: 219291 Location: Hudson, New Hampshire Tested by: Kevin Maynard Soil Description: Silty Loam Groundwater observed at 31" Well Head Height = 5cm	Test Date: 11/27/2019 Location: Test Locaton #5 Depth: N/A Reservoir: Combined Reservoir Constant: 35.41
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Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	51.5	-	-
2	2	2.00	51.6	0.1	0.1
3	4	2.00	51.7	0.1	0.1
4	6	2.00	51.8	0.1	0.0
5	8	2.00	51.9	0.1	0.1
6	10	2.00	52.0	0.1	0.1
7	12	2.00	52.1	0.1	0.1
8					
9					
10					

Rate of Water Level
 Change/60 = R1
 R1 = 0.001 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	50.0	-	-
2	1	1.00	50.1	0.1	0.1
3	2	1.00	50.2	0.1	0.1
4	3	1.00	50.3	0.1	0.1
5	4	1.00	50.4	0.1	0.1
6	5	1.00	50.5	0.1	0.1
7	6	1.00	50.6	0.1	0.1
8	7	1.00	50.7	0.1	0.1
9	8	1.00			
10	9	1.00			

Rate of Water Level
 Change/60 = R2
 R2 = 0.002 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 8.25E-05 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 0.1 \text{ in/hour}$



Guelph Permeameter Worksheet

Project: Freedom Fields Project #: 219291 Location: Hudson, New Hampshire Tested by: Kevin Maynard Soil Description: Silty Loam Groundwater observed at 34" Well Head Height = 5cm	Test Date: 11/27/2019 Location: Test Locaton #6 Depth: N/A Reservoir: Combined Reservoir Constant: 35.41
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Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	38.0	-	-
2	2	2.00	38.1	0.1	0.1
3	4	2.00	38.2	0.1	0.1
4	6	2.00	38.3	0.1	0.0
5	8	2.00	38.4	0.1	0.1
6	10	2.00	38.5	0.1	0.1
7	12	2.00	38.6	0.1	0.1
8					
9					
10					

Rate of Water Level
 Change/60 = R1
 R1 = 0.001 cm/sec

Well Head Height = 10cm

Reading Number	Time Time (m)	Time Interval (m)	Water Level (cm)	W Level Change (cm)	Rate of Water Level Change (cm/min)
1	-	-	37.0	-	-
2	1	1.00	37.1	0.1	0.1
3	2	1.00	37.2	0.1	0.1
4	3	1.00	37.3	0.1	0.1
5	4	1.00	37.4	0.1	0.1
6	5	1.00	37.5	0.1	0.1
7	6	1.00	37.6	0.1	0.1
8	7	1.00	37.7	0.1	0.1
9	8	1.00	37.8	0.1	0.1
10	9	1.00			

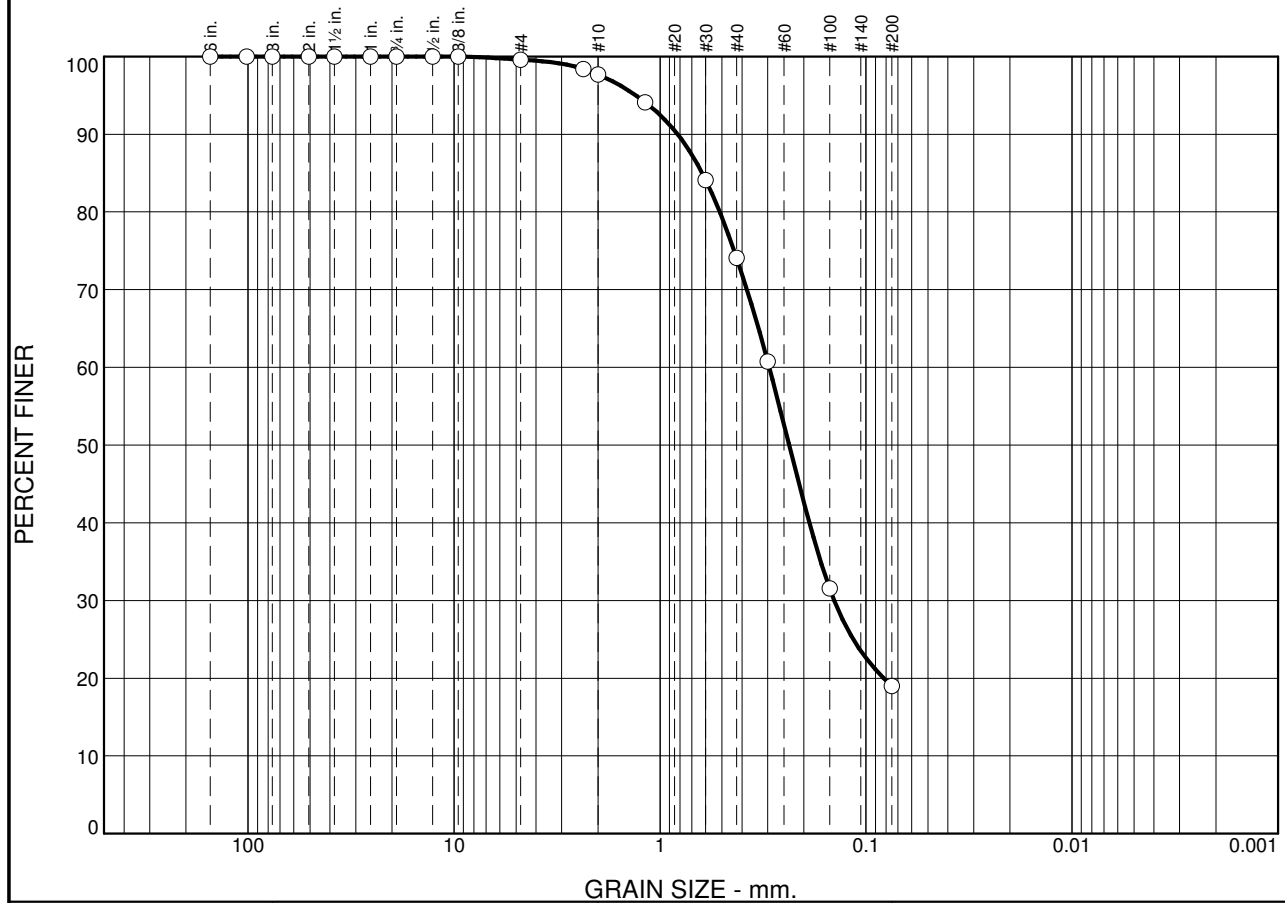
Rate of Water Level
 Change/60 = R2
 R2 = 0.002 cm/sec

Field Saturated Conductivity:

$K_{sat} \text{ (cm/sec)} = (.145 R2 - .191 R1) = 8.25E-05 \text{ cm/sec}$

$K_{sat} \text{ (in/hr)} = (202 R2 - 270 R1) = 0.1 \text{ in/hour}$

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	2.3	13.6	31.5	33.6	19.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
#4	99.6		
#8	98.4		
#10	97.7		
#16	94.1		
#30	84.1		
#40	74.1		
#50	60.7		
#100	31.6		
#200	19.0		

Material Description

Topsoil - coarse to fine SAND, little Silt, trace fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 0.6238 D₆₀= 0.2949 D₅₀= 0.2361

D₃₀= 0.1425 D₁₅= D₁₀=

C_u= C_c=

Classification

USCS= AASHTO=

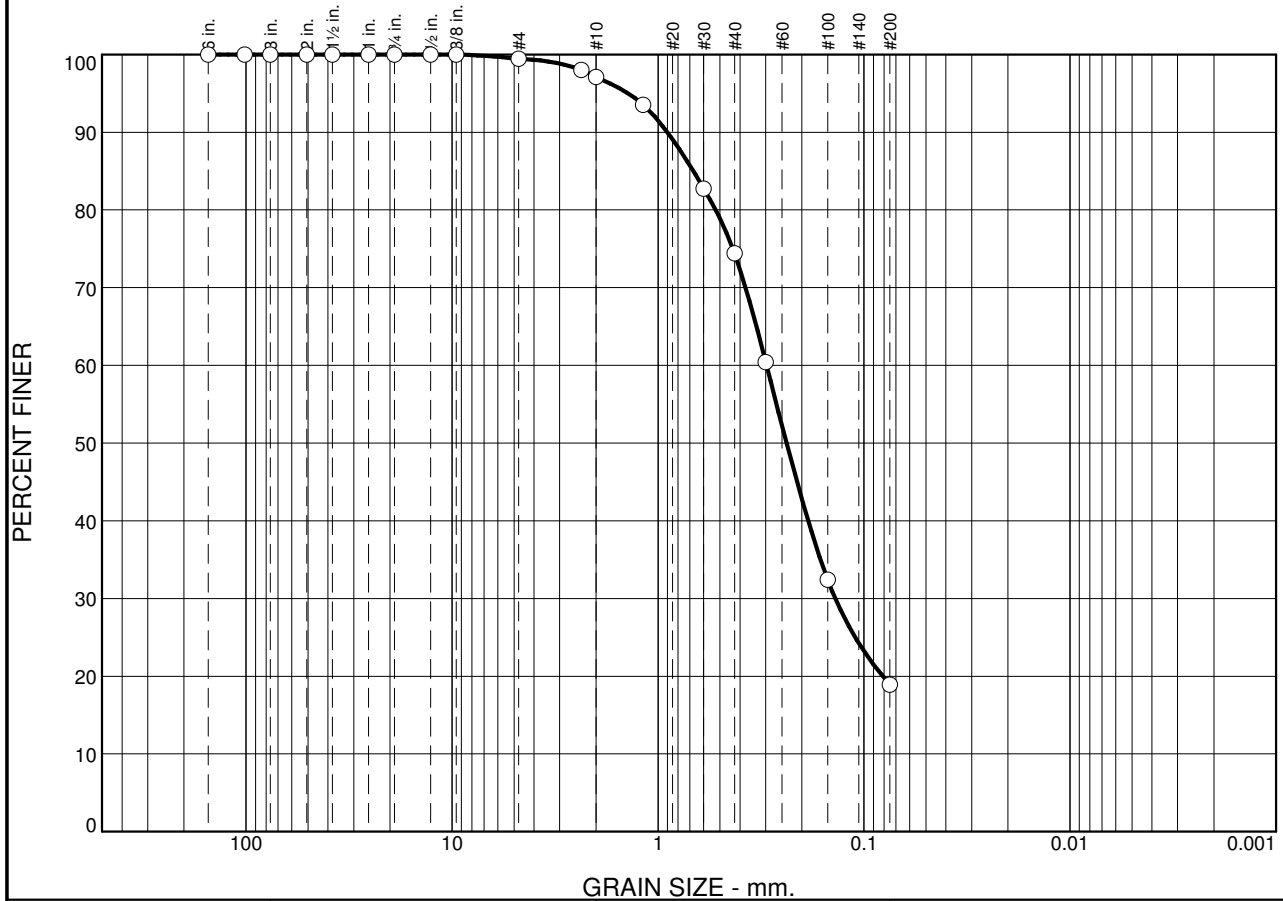
Remarks

* (no specification provided)

Sample No.: L-525-19 **Source of Sample:** On-Site Materials **Date:** 12/9/19
Location: Test Hole #2 **Elev./Depth:** 0-7"

GEOTECHNICAL SERVICES, INC.	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire	
Weare, New Hampshire	Project No: 219291	Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	2.9	14.3	30.5	33.4	18.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
#4	99.5		
#8	98.0		
#10	97.1		
#16	93.5		
#30	82.8		
#40	74.4		
#50	60.4		
#100	32.4		
#200	18.9		

Material Description

Topsoil - coarse to fine SAND, little Silt, trace fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 0.6741 D₆₀= 0.2973 D₅₀= 0.2375
D₃₀= 0.1377 D₁₅= D₁₀=
C_u= C_c=

Classification

USCS= AASHTO=

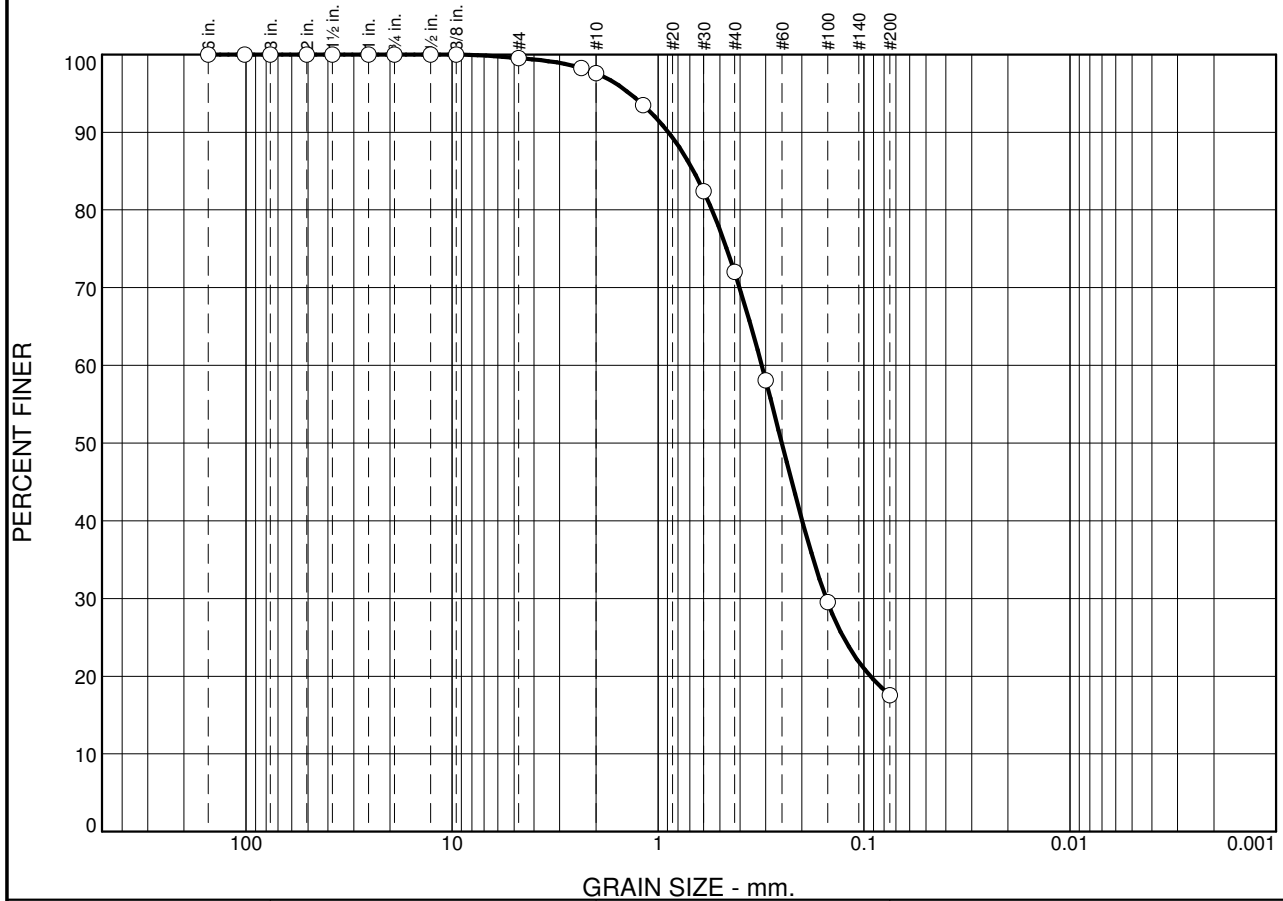
Remarks

* (no specification provided)

Sample No.: L-526-19 **Source of Sample:** On-Site Materials **Date:** 12/9/19
Location: Test Hole #4 **Elev./Depth:** 0-6"

GEOTECHNICAL SERVICES, INC.	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire	
Weare, New Hampshire	Project No: 219291	Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	2.4	15.2	32.5	32.4	17.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
#4	99.5		
#8	98.3		
#10	97.6		
#16	93.5		
#30	82.4		
#40	72.0		
#50	58.1		
#100	29.5		
#200	17.5		

Material Description

Topsoil - coarse to fine SAND, little Silt, trace fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 0.6725 D₆₀= 0.3137 D₅₀= 0.2505
D₃₀= 0.1524 D₁₅= D₁₀=
C_u= C_c=

Classification

USCS= AASHTO=

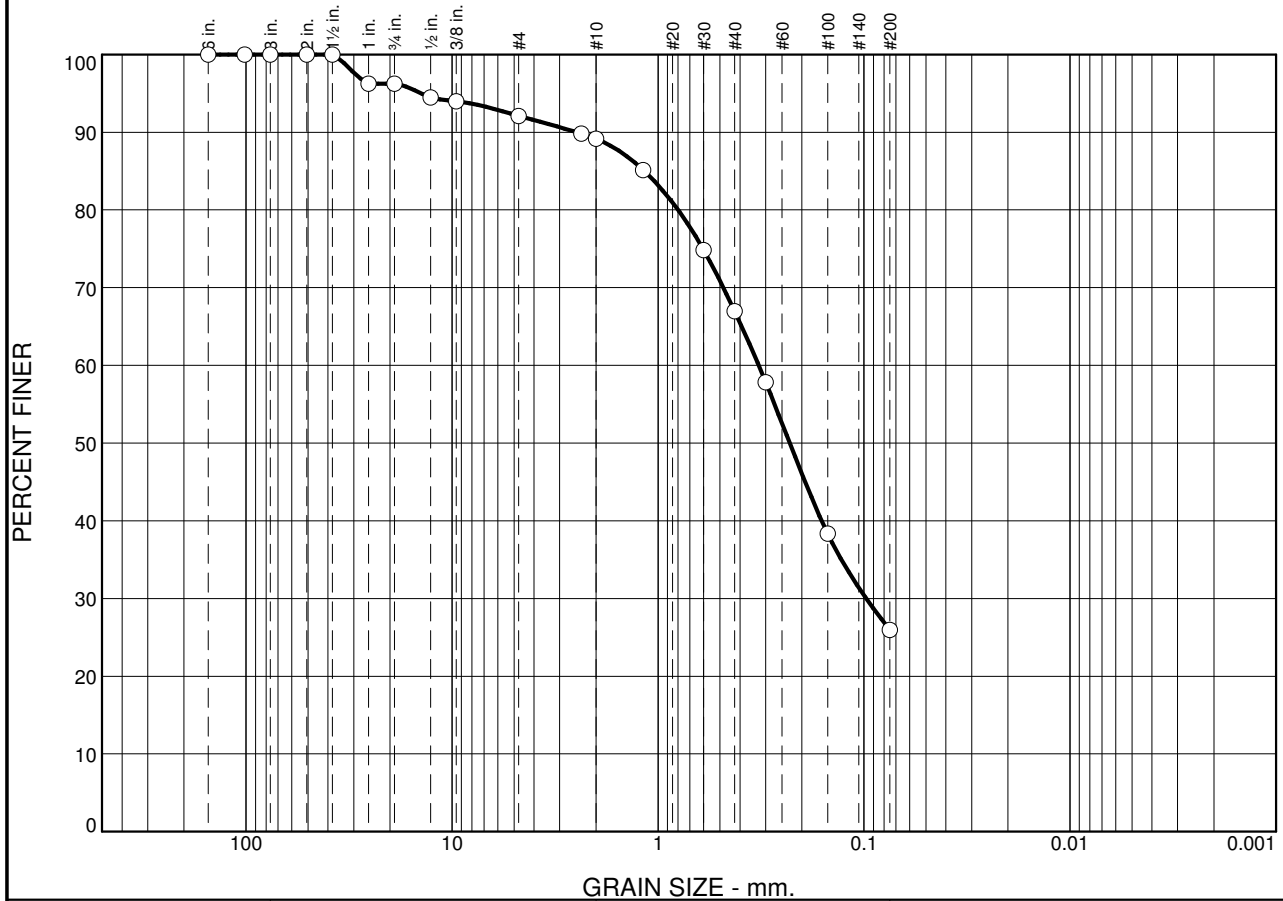
Remarks

* (no specification provided)

Sample No.: L-527-19 **Source of Sample:** On-Site Materials **Date:** 12/9/19
Location: Test Hole #5 **Elev./Depth:** 0-7"

GEOTECHNICAL SERVICES, INC.	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire	
Weare, New Hampshire	Project No.: 219291	Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	3.8	2.2	4.8	14.4	22.3	26.5	26.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	96.2		
0.75"	96.2		
0.5"	94.5		
0.375"	94.0		
#4	92.1		
#8	89.8		
#10	89.2		
#16	85.1		
#30	74.8		
#40	67.0		
#50	57.8		
#100	38.4		
#200	26.0		

Material Description

coarse to fine SAND, some Silt, little coarse to fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.1665 D₆₀= 0.3246 D₅₀= 0.2294
D₃₀= 0.0975 D₁₅= D₁₀=
C_u= C_c=

Classification

USCS= AASHTO=

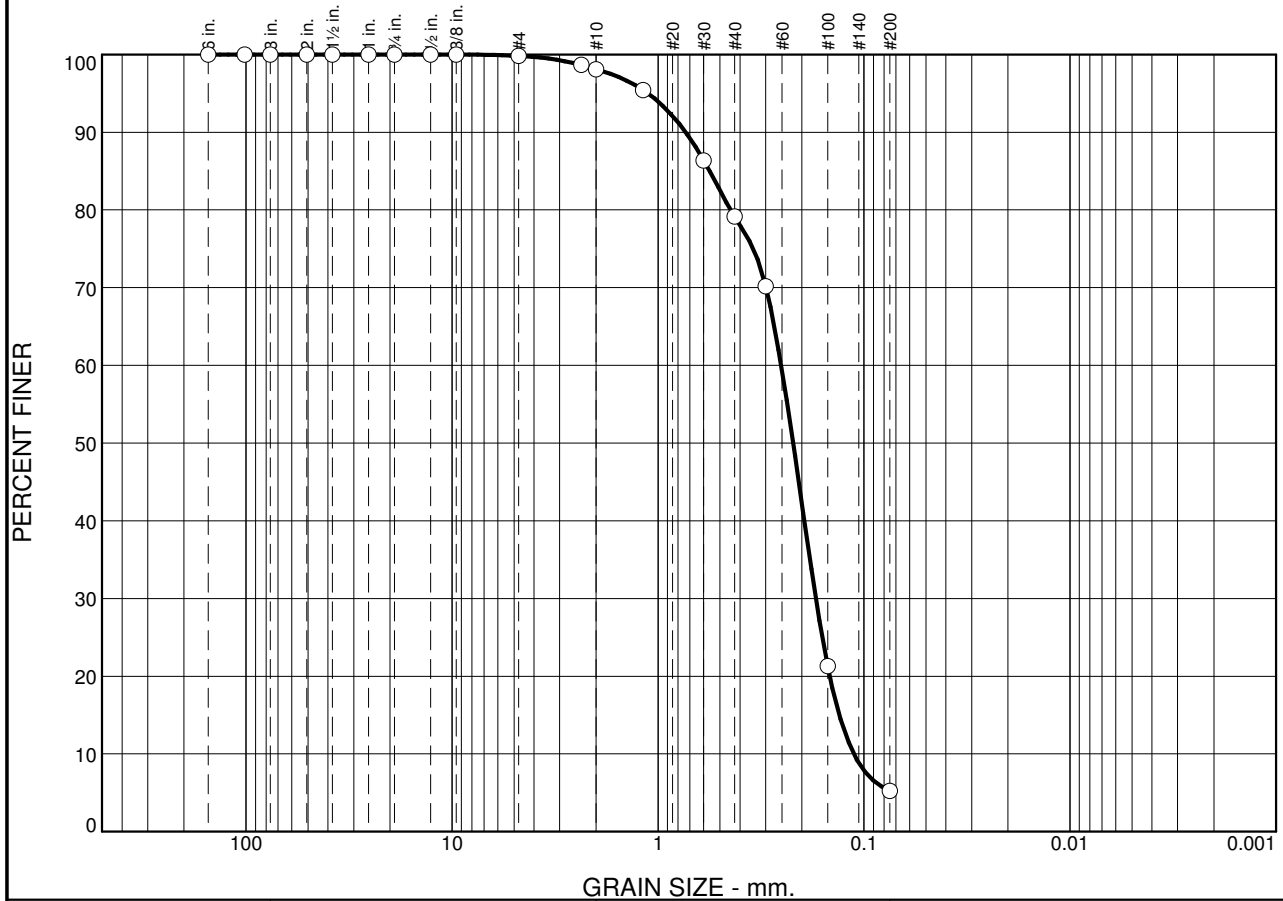
Remarks

* (no specification provided)

Sample No.: L-528-19 **Source of Sample:** On-Site Materials **Date:** 12/11/19
Location: Test Hole #5 **Elev./Depth:** 11"-29"

GEOTECHNICAL SERVICES, INC.	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire	
Weare, New Hampshire	Project No.: 219291	Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	1.9	11.7	27.1	54.1	5.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
#4	99.8		
#8	98.7		
#10	98.1		
#16	95.4		
#30	86.4		
#40	79.1		
#50	70.2		
#100	21.3		
#200	5.2		

Material Description
coarse to fine SAND, trace Silt, trace fine Gravel

Atterberg Limits
 PL= LL= PI=

Coefficients
 D₈₅= 0.5617 D₆₀= 0.2523 D₅₀= 0.2209
 D₃₀= 0.1712 D₁₅= 0.1316 D₁₀= 0.1121
 C_u= 2.25 C_c= 1.04

Classification
 USCS= AASHTO=

Remarks

* (no specification provided)

Sample No.: L-529-19 **Source of Sample:** On-Site Materials **Date:** 12/9/19
Location: Test Hole #5 **Elev./Depth:** 29"-35"

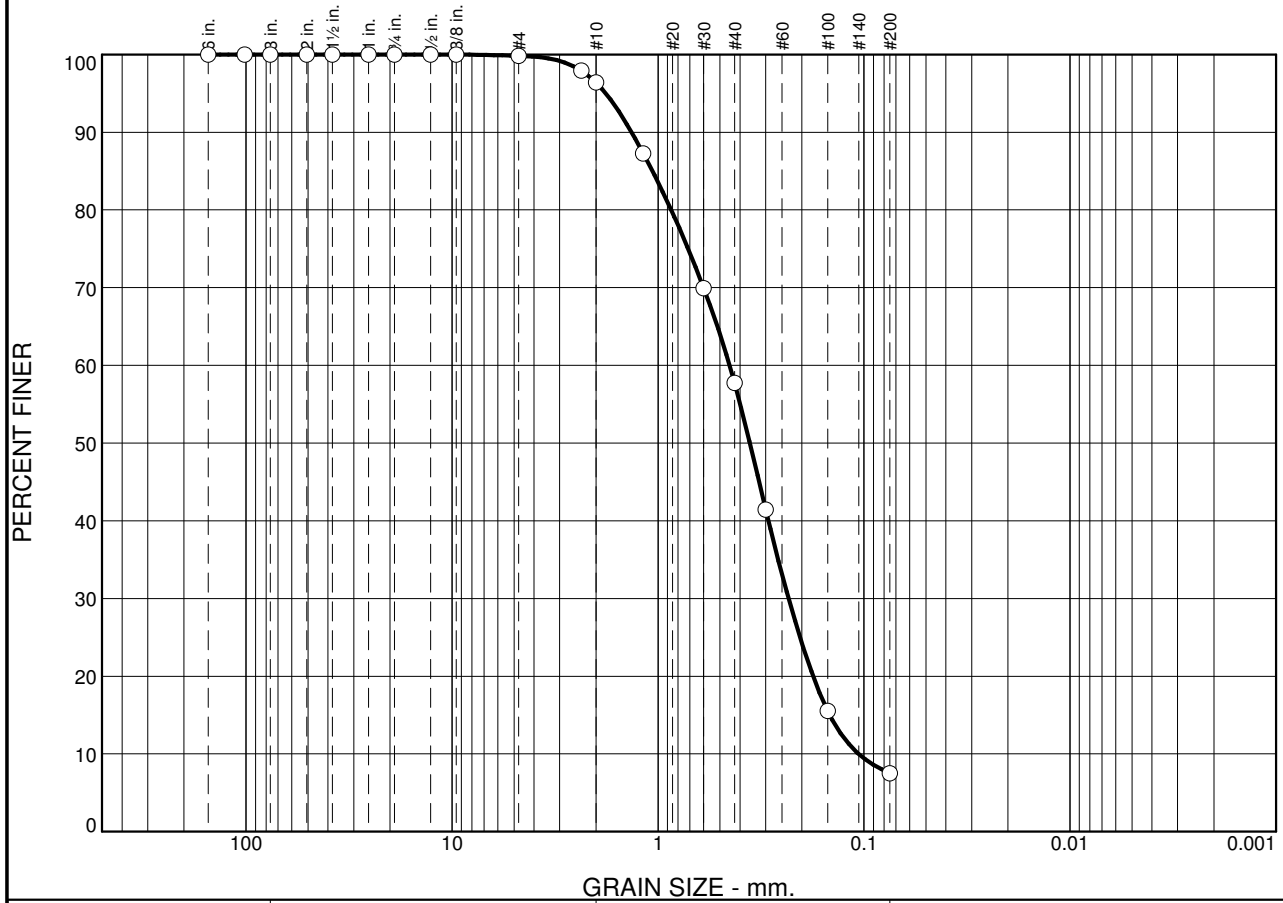
GEOTECHNICAL SERVICES, INC.

Weare, New Hampshire

Client: Wilcox & Barton
Project: Freedom Fields
Hudson, New Hampshire
Project No: 219291

Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	0.0	3.6	26.5	36.8	25.6	7.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	100.0		
0.375"	100.0		
#4	99.8		
#8	97.9		
#10	96.4		
#16	87.3		
#30	69.9		
#40	57.7		
#50	41.4		
#100	15.5		
#200	7.5		

Material Description

coarse to fine SAND, trace Silt, trace fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.0645 D₆₀= 0.4492 D₅₀= 0.3583
D₃₀= 0.2323 D₁₅= 0.1465 D₁₀= 0.1062
C_u= 4.23 C_c= 1.13

Classification

USCS= AASHTO=

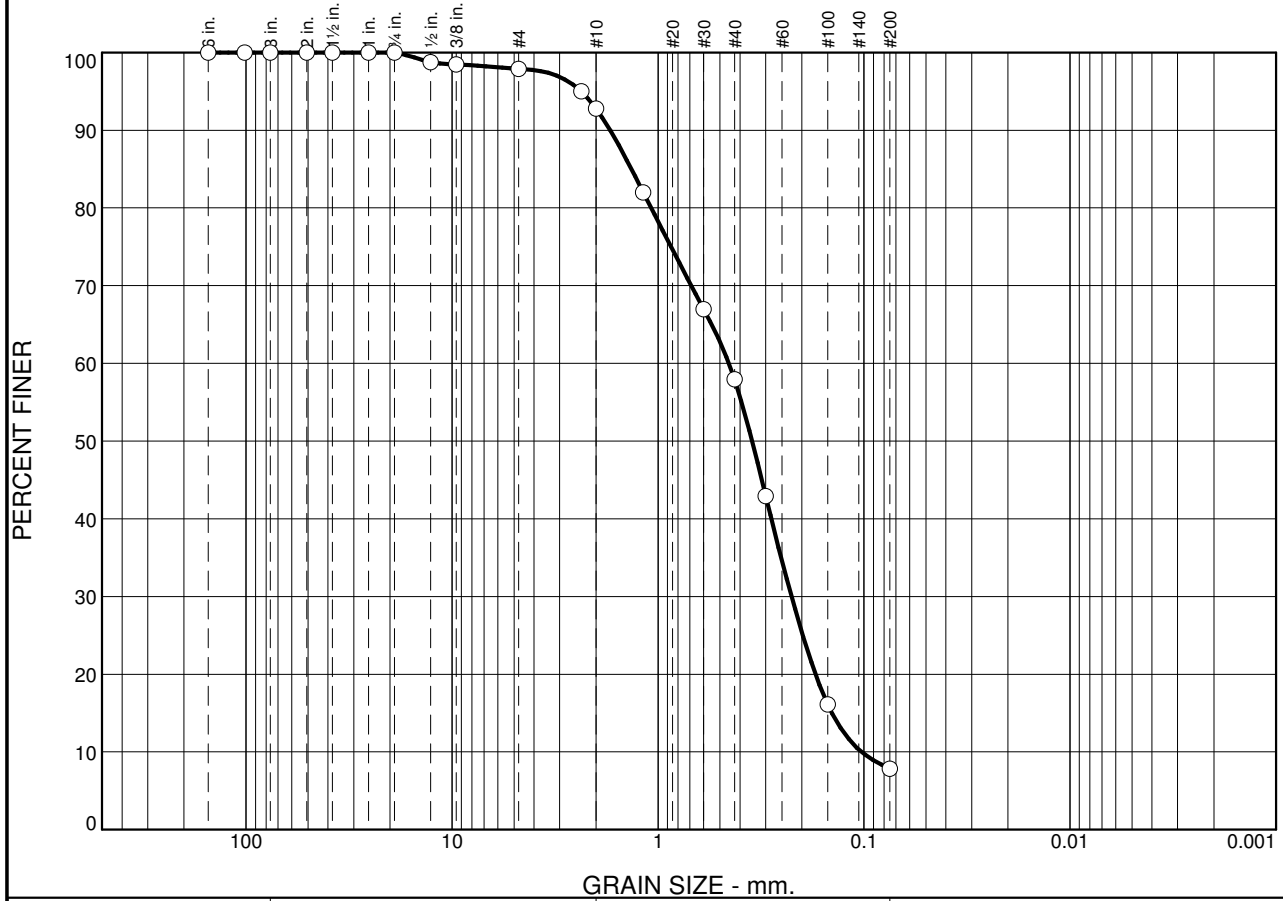
Remarks

* (no specification provided)

Sample No.: L-530-19 **Source of Sample:** On-Site Materials **Date:** 12/9/19
Location: Test Hole #6 **Elev./Depth:** 11"-27"

GEOTECHNICAL SERVICES, INC.	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire	
Weare, New Hampshire	Project No: 219291	Figure

Particle Size Distribution Report



% +3"	% Gravel			% Sand			% Fines
	Coarse	Medium	Fine	Coarse	Medium	Fine	
0.0	0.0	1.5	5.7	25.9	32.3	26.8	7.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6"	100.0		
4"	100.0		
3"	100.0		
2"	100.0		
1.5"	100.0		
1"	100.0		
0.75"	100.0		
0.5"	98.8		
0.375"	98.5		
#4	97.9		
#8	95.0		
#10	92.8		
#16	82.0		
#30	66.9		
#40	57.9		
#50	42.9		
#100	16.1		
#200	7.8		

Material Description

coarse to fine SAND, trace Silt, trace med to fine Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.3472 D₆₀= 0.4528 D₅₀= 0.3495
D₃₀= 0.2248 D₁₅= 0.1430 D₁₀= 0.1029
C_u= 4.40 C_c= 1.08

Classification

USCS= AASHTO=

Remarks

* (no specification provided)

Sample No.: L-531-19 **Source of Sample:** On-Site Materials **Date:** 12/11/19
Location: Test Hole #2 **Elev./Depth:** 8"-24"

GEOTECHNICAL SERVICES, INC. Weare, New Hampshire	Client: Wilcox & Barton Project: Freedom Fields Hudson, New Hampshire Project No.: 219291	Figure
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Wet Conditions



Wet Conditions

