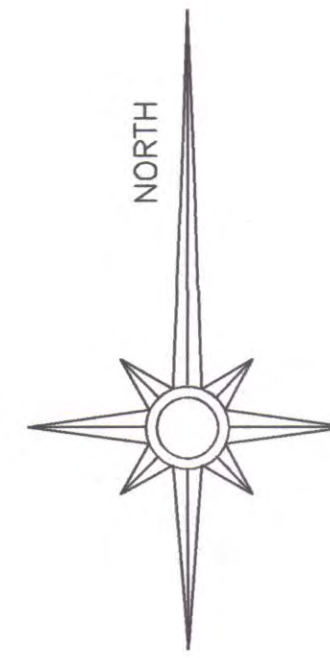


MATCH TO SHEET 2

SEE SHEET 2 OF 2 FOR SURVEY NOTES AND REFERENCES



N/F SERVICE STATION EQUIPMENT INC. 33 LEFFINGWELL ROAD VOLUME 532 PAGE 358

N/F SERVICE STATION EQUIPMENT INC. 33 LEFFINGWELL ROAD VOLUME 532 PAGE 358

N/F CYNTHIA L ALLEN 29 LEFFINGWELL ROAD VOLUME 656 PAGE 59

N/F JOSE ALVAREZ & JEREIDI ALVAREZ 21 LEFFINGWELL ROAD VOLUME 654 PAGE 748

N/F VI T TRUONGCAO & LAN N LA 17 LEFFINGWELL ROAD VOLUME 373 PAGE 568

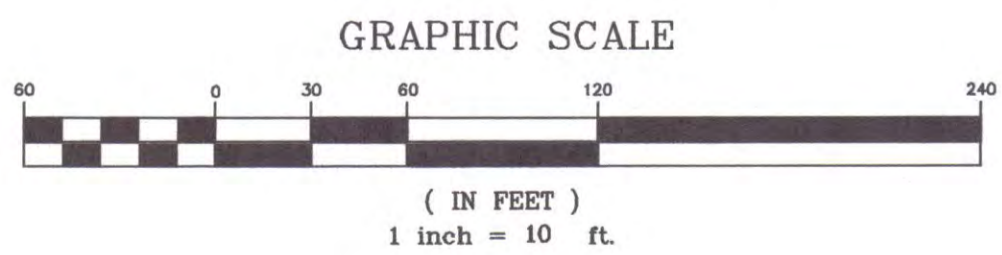
N/F JIN WEN CHEUNG & LAI PING LI 9 LEFFINGWELL ROAD VOLUME 529 PAGE 544

N/F ROBERT M COGGESHALL & KATHY L COGGESHALL 73 OLD FITCH HILL ROAD VOLUME 486 PAGE 192

N/F GOLF HILL ESTATES 18 OLD FITCH HILL ROAD

N/F JESSE DEVELOPMENT 14 OLD FITCH HILL ROAD VOLUME 495 PAGE 1099

N/F ROBERT M COGGESHALL & KATHY L COGGESHALL 9 OLD FITCH HILL ROAD VOLUME 191 PAGE 658



LEGEND
THE FOLLOWING SYMBOLS/ABBREVIATIONS MAY APPEAR ON THIS DRAWING

AC	ACRES	HTB	HIGH TIDE BUSH
BF	BASEMENT FLOOR	SP	SPARTINA PATENS
BIT	BITUMINOUS	SA	SPARTINA ALTERNAFLORA
BCLC	BITUMINOUS CONCRETE LIP CURBING	TBR	TO BE REMOVED
CONC	CONCRETE	TYP	TYPICAL
DIA	DIAMETER	⊕ P-5	SOIL PERC TEST LOCATION
DB	DISTRIBUTION BOX	⊕ THB	SOIL DEEP TEST LOCATION
EOP	EDGE OF PAVEMENT	⊕ W	WELL
ELEV	ELEVATION	⊕ H	HYDRANT
FF	FINISHED FIRST FLOOR	⊕ T	TREE
LF	LINEAR FOOT	---	BUILDING SETBACK LINE
(MIN)	MINIMUM	---	CLEARING LIMIT LINE
M/L	MORE OR LESS	---	EXISTING TREELINE
N/F	NOW OR FORMERLY	---	EXISTING CONTOUR
PVC	POLY VINYL CHLORIDE	---	NEW CONTOUR
SCH40	SCHEDULE 40	---	SEDIMENT FENCE
5.4x	SPOT ELEVATION	---	STORM DRAIN PIPE
SF	SQUARE FEET	---	STONE WALL
TR	TO REMAIN	S	SANITARY SEWER
		W	WATER

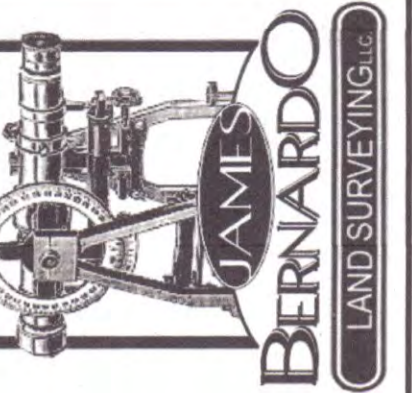
TOTAL AREA=1,477,400 SQ FT M/L
33.9 ACRES M/L



TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

James Bernardo
JAMES BERNARDO LICENSE #70121 DATE 7-14-2022

JAMES BERNARDO
LAND SURVEYING, LLC
102A SPITHEAD ROAD
WATERFORD, CONNECTICUT 06385
(860) 447-0236
WWW.JBSURVEY.COM

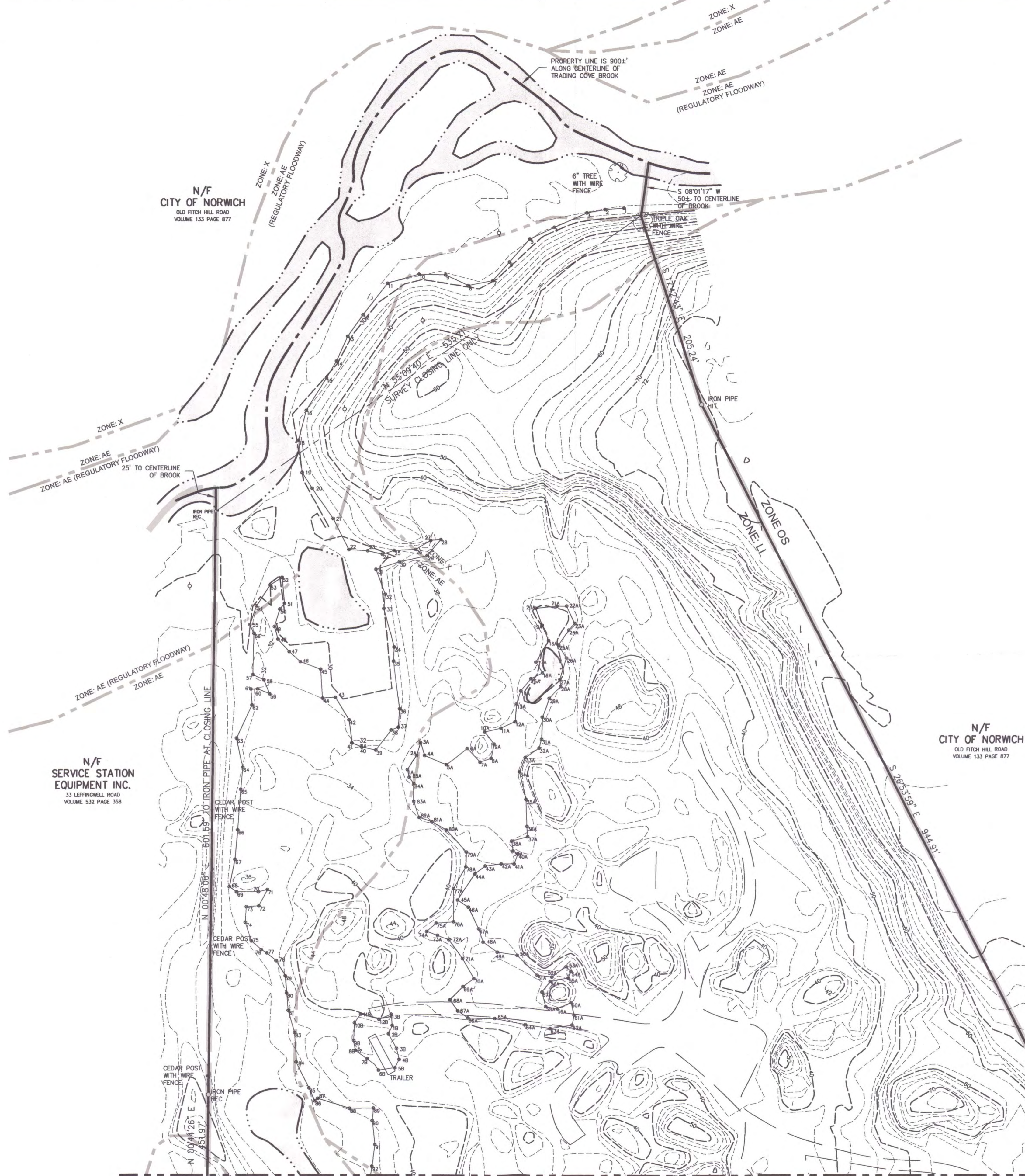
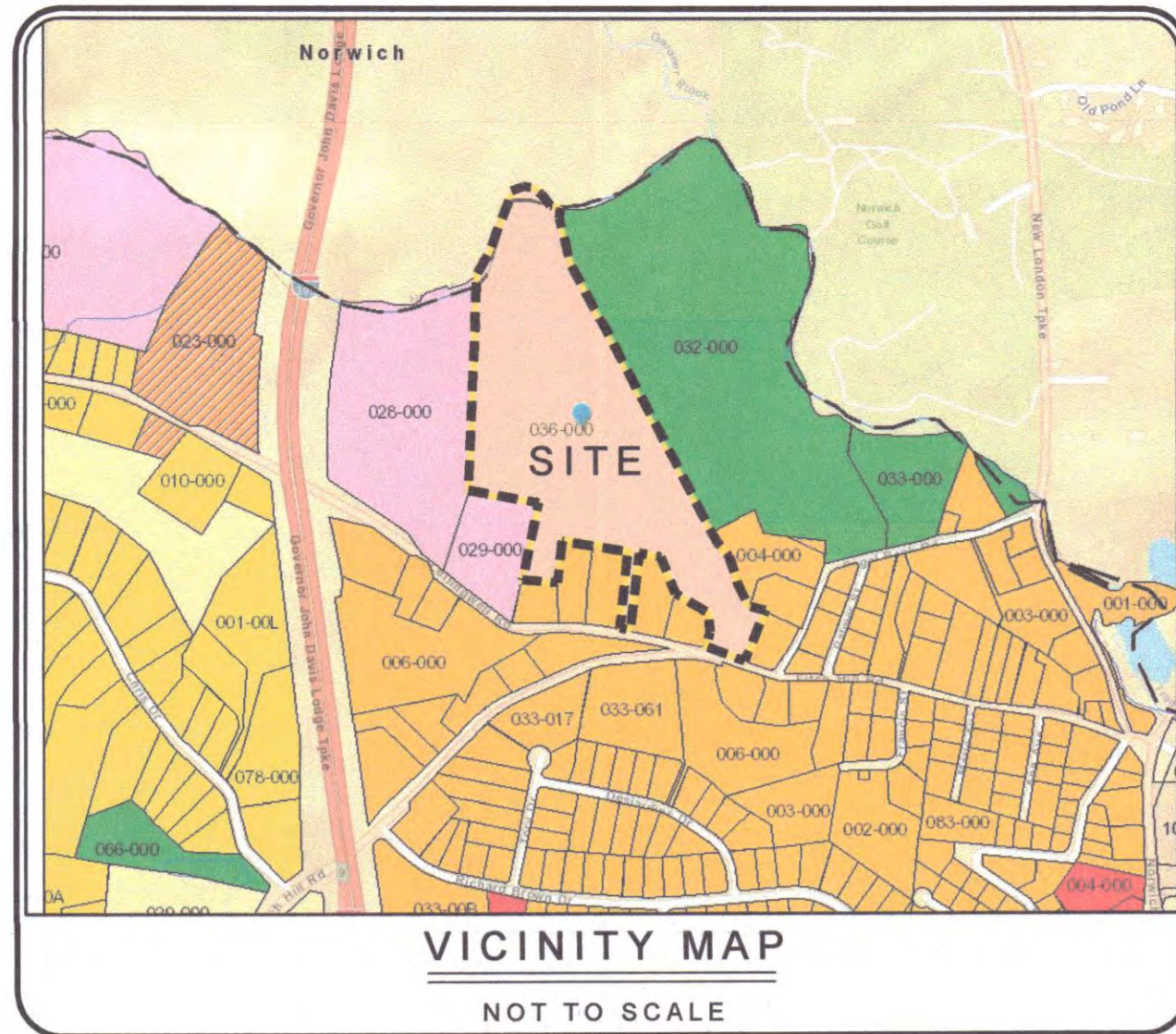


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LR	DESCRIPTION	DATE
A	FLOOD ZONE LINES ADDED AND NOTE 5 REVISED	7-14-2022
REVISIONS		

BOUNDARY & TOPOGRAPHIC SURVEY
PROPERTY OF
ANDREW PETROWSKI
FOR PROPERTY LOCATED AT
69 FITCH HILL ROAD & LEFFINGWELL ROAD
TOWN OF MONTVILLE - COUNTY OF NEW LONDON - CONNECTICUT

Sheet No.
S-01
SHEET 1 OF 1
Scale:
1" = 60'
Date
JULY 1, 2022
Project No.
21101-1



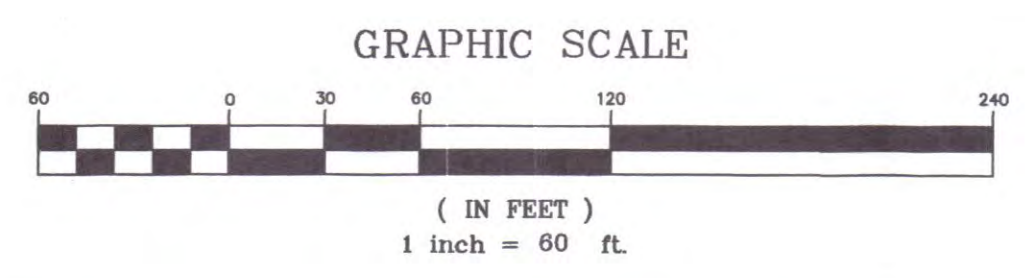
- NOTES:
1. THIS PLAN AND THE SURVEY IT IS BASED ON HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS. THE TYPE OF SURVEY IS AN IMPROVEMENT LOCATION SURVEY. THE BOUNDARY DETERMINATION CATEGORY IS DEPENDENT RESURVEY AND THE HORIZONTAL ACCURACY CONFORMS TO CLASS A-2. TOPOGRAPHIC SURVEY IS CLASS T-D AND THE VERTICAL ACCURACY CONFORMS TO CLASS V-2.
 2. NO DECLARATION IS EXPRESSED OR IMPLIED BY THIS MAP OR COPIES THEREOF UNLESS THE PRINT BEARS THE IMPRESSION TYPE SEAL AND ORIGINAL LIVE SIGNATURE OF THE SURVEYOR WHOSE NAME AND REGISTRATION NUMBER APPEARS BELOW OR THEREON.
 3. REFERENCE IS MADE TO TOWN OF MONTVILLE LAND EVIDENCE RECORDS VOLUME 675 AT PAGE 312 FOR A WARRANTY DEED DATED SEPTEMBER 30, 2021 REGARDING RECORD TITLE TO THE SUBJECT PROPERTY.
 4. THE PROPERTY SHOWN HEREON IS SUBJECT TO, OR MAY BE BENEFITED BY THE FOLLOWING:
 - A. SEE VOLUME 474 AT PAGE 936 FOR A WELL EASEMENT AGREEMENT BY AND BETWEEN FITCH HOMESTEAD, LLC AND ROBERT M. COOGESHALL DATED SEPTEMBER 9, 2005.
 - B. NO RECORD WAS FOUND ON FILE IN THE MONTVILLE LAND RECORDS FOR THE DRAINAGE DISCHARGE PIPE FROM LEFFINGWELL ROAD.
 5. THE SUBJECT PROPERTY IS LOCATED ENTIRELY WITHIN THE LIGHT INDUSTRIAL (LI) ZONE DISTRICT.
 6. BY GRAPHICAL DEPICTION ONLY, THIS PARCEL LIES WITHIN FLOOD HAZARD ZONES: AE (REGULATORY FLOODWAY), AE, X (0.2% ANNUAL CHANCE) & X AS SHOWN ON "NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NEW LONDON COUNTY, CONNECTICUT PANEL 351, COMMUNITY: TOWN OF MONTVILLE MAP NUMBER: 09010C0213G MAP EFFECTIVE: 7/18/2011, FEDERAL EMERGENCY MANAGEMENT AGENCY".
 7. THE SUBJECT PROPERTY IS SHOWN ON THE MONTVILLE TAX ASSESSOR MAP 62 AS LOT 36 AND HAS AN ASSIGNED STREET ADDRESS OF 69 FITCH HILL ROAD
 8. BEARINGS AND COORDINATES NOTED HEREON ARE REFERENCED TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD 83) EPOCH 2011 (2010.0). ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONNECTICUT PANEL 351, COMMUNITY: TOWN OF MONTVILLE MAP NUMBER: 09010C0213G MAP EFFECTIVE: 7/18/2011, FEDERAL EMERGENCY MANAGEMENT AGENCY".

LATITUDE = N41.303892795°
 LONGITUDE = W72.050613875°
 ELLIPSOID HEIGHT = -10.7997 METERS

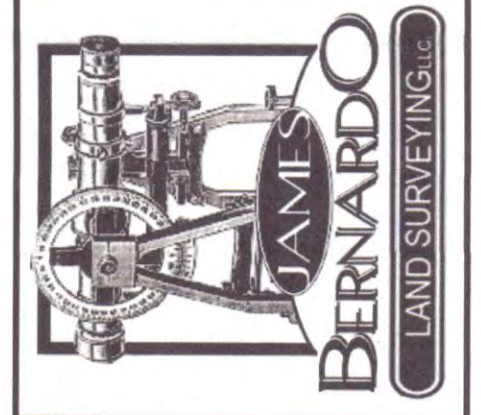
- MAP REFERENCES:
1. PLAN OF PROPERTIES OF THE THAMES HOTEL CORPORATION AND JOHN S. DAWSON MONTVILLE & NORWICH CONNECTICUT SCALE: 1"=100' CHANDLER, PALMER & KING ADDITIONS: SEPTEMBER 1977 NOVEMBER 1975 SHEET 2 OF 2 (BOOK: 5 PAGE: 37).
 2. KORENIEWICZ SUBDIVISION "SITE DEVELOPMENT PLAN" PREPARED FOR KAREN COMEROSKI 17 LEFFINGWELL ROAD MONTVILLE, CONNECTICUT SCALE: 1"=30' APRIL, 2002 I.D. NO. 02-675 SHEET 1 OF 1 REVISED 4-18-02 BY BOUNDARIES, LLC (DRAWING #1809).
 3. SUBDIVISION PLAN MADE FOR HELEN COOGESHALL & WARREN COOGESHALL OWNERS & DEVELOPERS FITCH HILL & OLD FITCH HILL RDS MONTVILLE, CONN. SCALE: 1"=20' BY JAMES F. MCNALLY LS MAR. 20, 1987 (BOOK: 8 PAGE: 89).
 4. SUBDIVISION PLAN PROPERTY OF HELEN COOGESHALL FITCH HILL ROAD & LEFFINGWELL ROAD MONTVILLE, CONNECTICUT DATE: FEBRUARY 16, 1980 SCALE: 1"=40' SHEET 1 OF 1 BY CHANDLER, PALMER & KING (DRAWING #1183).
 5. GOLF HILL ESTATES OLD FITCH HILL ROAD, MONTVILLE, CT. SITE PLAN JAVEE DEVELOPMENT, LLC DATE: APRIL 2005 SCALE: 1"=20' REVISED: 9/5/05 BY CLA ENGINEERS, INC. (FILE #2063).
 6. FAIRWAY ESTATES OLD FITCH HILL ROAD, MONTVILLE, CT. SURVEY/LOT LINE RECONFIGURATION PLAN JAVEE DEVELOPMENT, LC DATE: JAN. 2003 SCALE: 1"=40' BY CLA ENGINEERS, INC.
 7. IMPROVEMENT LOCATION AND TOPOGRAPHIC SURVEY "LOT LINE REVISION PLAN" PREPARED FOR MARTIN MCINNEY 33 LEFFINGWELL ROAD MONTVILLE, CONNECTICUT SCALE: 1"=40' JULY 2007 JOB I.D. NO. 04-1055 BY BOUNDARIES, LLC. (DRAWING #2322).

LEGEND
THE FOLLOWING SYMBOLS/ABBREVIATIONS MAY APPEAR ON THIS DRAWING

AC	ACRES	HTB	HIGH TIDE BUSH
BF	BASEMENT FLOOR	SP	SPARTINA PATENS
BIT	BITUMINOUS	SA	SPARTINA ALTERNAFLORA
BCLC	BITUMINOUS CONCRETE LIP CURBING	TBR	TO BE REMOVED
CONC	CONCRETE	TYP	TYPICAL
DIA	DIAMETER	STP	SOIL PERC TEST LOCATION
DB	DISTRIBUTION BOX	SDP	SOIL DEEP TEST LOCATION
EOP	EDGE OF PAVEMENT	W	WELL
ELEV	ELEVATION	H	HYDRANT
FF	FINISHED FIRST FLOOR	T	TREE
LF	LINEAR FOOT	BSL	BUILDING SETBACK LINE
(MIN)	MINIMUM	CLL	CLEARING LIMIT LINE
M/L	MORE OR LESS	EL	EXISTING TREELINE
N/F	NOW OR FORMERLY	EX	EXISTING CONTOUR
PVC	POLY VINYL CHLORIDE	NC	NEW CONTOUR
SCH40	SCHEDULE 40	SF	SEDIMENT FENCE
S.4x	SPOT ELEVATION	SDP	STORM DRAIN PIPE
SF	SQUARE FEET	SW	STONE WALL
TR	TO REMAIN	S	SANITARY SEWER
		W	WATER



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 LAND SURVEYING, LLC
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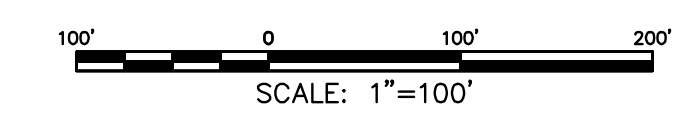
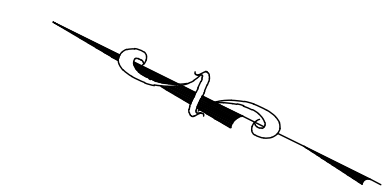
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LTR	DESCRIPTION	DATE
A	FLOOD ZONE LINES ADDED AND NOTE 5 REVISED	7-14-2022

REVISIONS		
LTR	DESCRIPTION	DATE

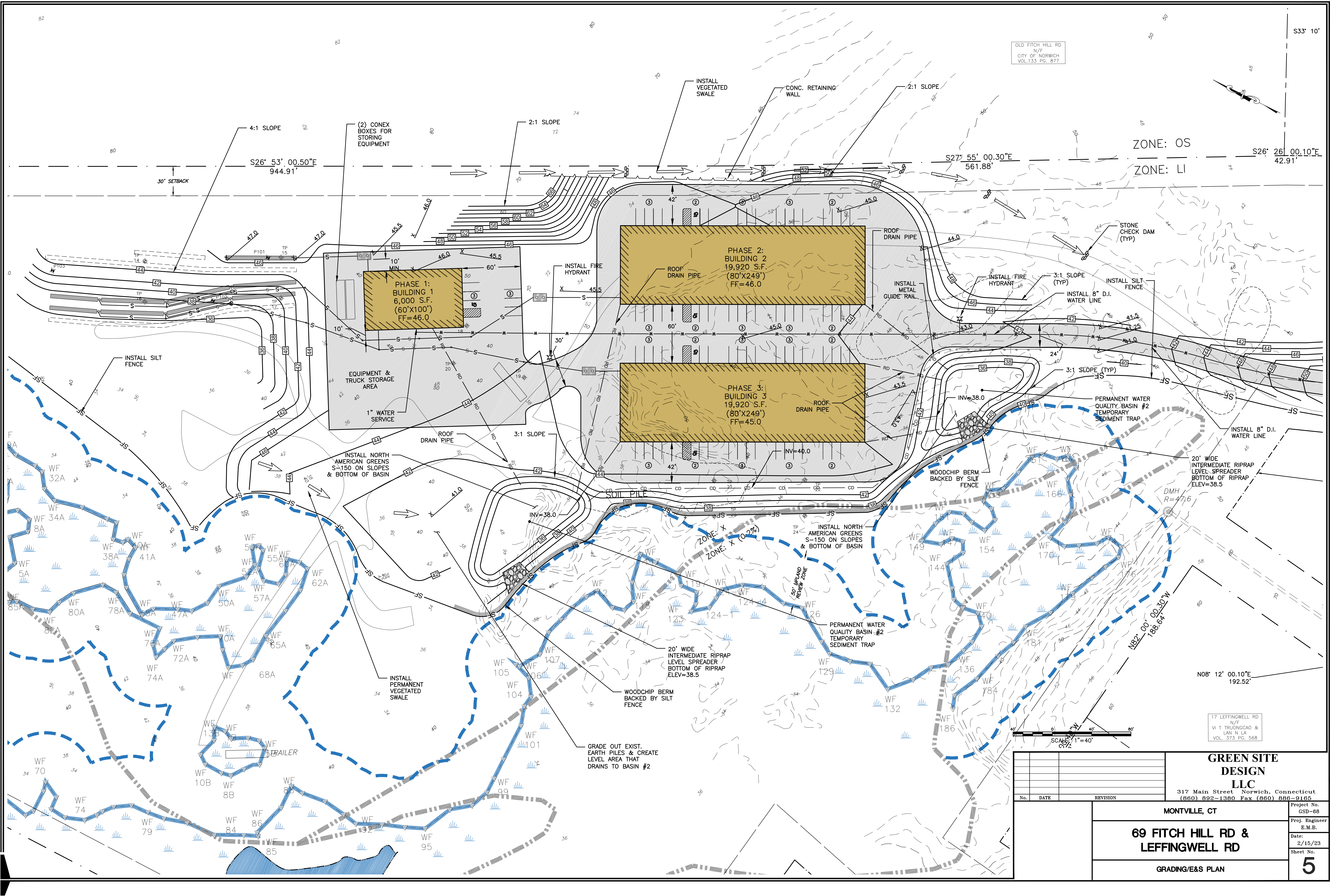
BOUNDARY & TOPOGRAPHIC SURVEY
 PROPERTY OF
ANDREW PETROWSKI
 FOR PROPERTY LOCATED AT
69 FITCH HILL ROAD
& LEFFINGWELL ROAD
 TOWN OF MONTVILLE - COUNTY OF NEW LONDON - CONNECTICUT

Sheet No.
S-02
 SHEET 2 OF 2
 Scale:
1"=60'
 Date
JULY 1, 2022
 Project No.
21101-1



			GREEN SITE DESIGN LLC	
			317 Main Street Norwich, Connecticut (860) 892-1380 Fax (860) 886-9165	
			MONTVILLE, CT	
			69 FITCH HILL RD & LEFFINGWELL RD	
			SITE PLAN	
No.	DATE	REVISION	Project No. GSD-68	Proj. Engineer E.M.B.
			Date: 2/15/23	Sheet No. 4

Y:\PROJECTS\68 - Petrowski Site Plan\Drawings\GSD-68 - Petrowski Site Plan_V9_rev1.dwg, 5/1/2023, 2:28:34 PM, DWG To PDF.pc3



OLD FITCH HILL RD
N/W
CITY OF NORWICH
VOL.133 PG. 877

17 LEFFINGWELL RD
N/W
VI T TRUONGCAO &
LAN N LA
VOL. 373 PG. 568

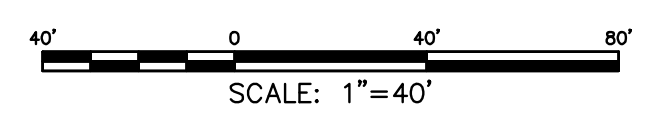
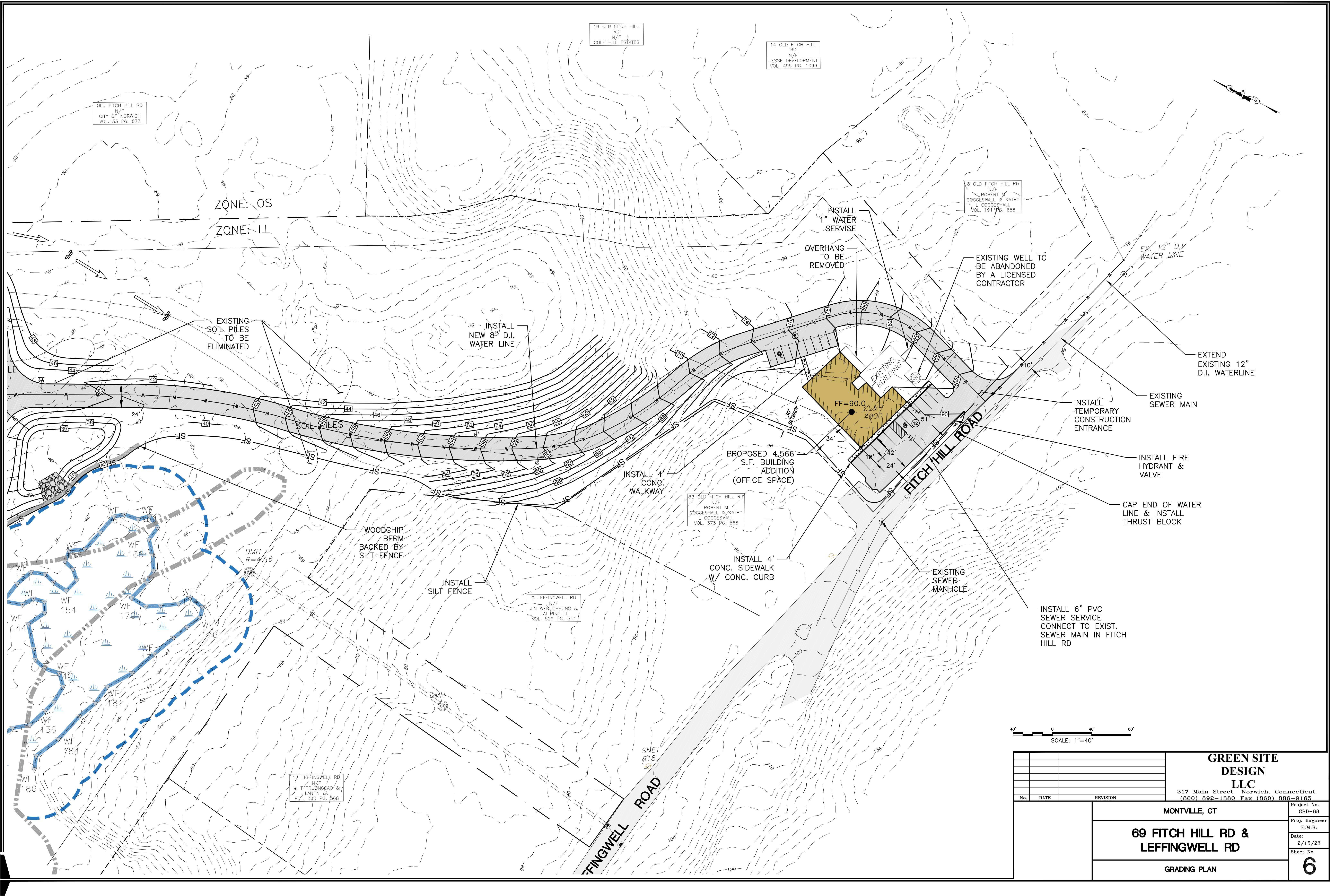
No.	DATE	REVISION

GREEN SITE DESIGN LLC
 317 Main Street Norwich, Connecticut
 (860) 892-1380 Fax (860) 886-9165

MONTVILLE, CT
69 FITCH HILL RD & LEFFINGWELL RD
 GRADING/E&S PLAN

Project No. GSD-68
 Proj. Engineer E.M.B.
 Date: 2/15/23
 Sheet No. **5**

SCALE: 1"=40'



GREEN SITE DESIGN LLC 317 Main Street Norwich, Connecticut (860) 892-1380 Fax (860) 886-9165			Project No. GSD-68
			Proj. Engineer E.M.B.
69 FITCH HILL RD & LEFFINGWELL RD GRADING PLAN			Date: 2/15/23
			Sheet No. 6

Y:\PROJECTS\68 - Perowski Site Plan\Drawings\GSD-68 - Perowski Site Plan V9_rev1.dwg, 5/1/2023, 11:45:48 AM, DWG To PDF.pc3

S26° 53' 00.50"E
944.91'

2,000 GAL SEPTIC TANK (H-20 LOADING)
W/ MANHOLES TO GRADE
INV IN=38.3
INV OUT=38.05

BUILDING 1 RESERVE SYSTEM

BUILDING 2 RESERVE SYSTEM

BUILDING 2 SEPTIC SYSTEM
INSTALL 64 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=35.5

BUILDING 1 SEPTIC SYSTEM
INSTALL 72 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=45.0

DISTRIBUTION BOX (H-20 LOADING)
INV IN=35.15
INV OUT=35.1

BUILDING 3 SEPTIC SYSTEM
INSTALL 64 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=43.0

1,000 GAL SEPTIC TANK (H-20 LOADING)
W/ MANHOLES TO GRADE
INV IN=42.75
INV OUT=42.5

OVERSIZED D-BOX (H-20 LOADING)
INV IN=36.35
INV OUT=36.3

BUILDING 3 RESERVE SYSTEM

BUILDING 2
19,920 S.F.
FF=46.0

BUILDING 1
6,000 S.F.
(60'X100')
FF=46.0

BUILDING 3
19,920 S.F.
FF=45.0

DISTRIBUTION BOX (H-20 LOADING)
INV IN=36.05
INV OUT=36.0

BUILDING 2 SEPTIC SYSTEM
INSTALL 48 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=35.5

BUILDING 3 SEPTIC SYSTEM
INSTALL 64 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=34.5

BUILDING 3 SEPTIC SYSTEM
INSTALL 48 LF OF 12" CONC. GALLERY
BOTTOM OF TRENCH ELEV=34.5

DISTRIBUTION BOX (H-20 LOADING)
INV IN=36.05
INV OUT=36.0

OVERSIZED D-BOX (H-20 LOADING)
INV IN=36.05
INV OUT=36.0

2,000 GAL SEPTIC TANK (H-20 LOADING)
W/ MANHOLES TO GRADE
INV IN=38.45
INV OUT=38.20

EXISTING DIRT DRIVE

SCALE: 1"=20'

GREEN SITE DESIGN
LLC

317 Main Street Norwich, Connecticut
(860) 892-1380 Fax (860) 886-9165

MONTVILLE, CT

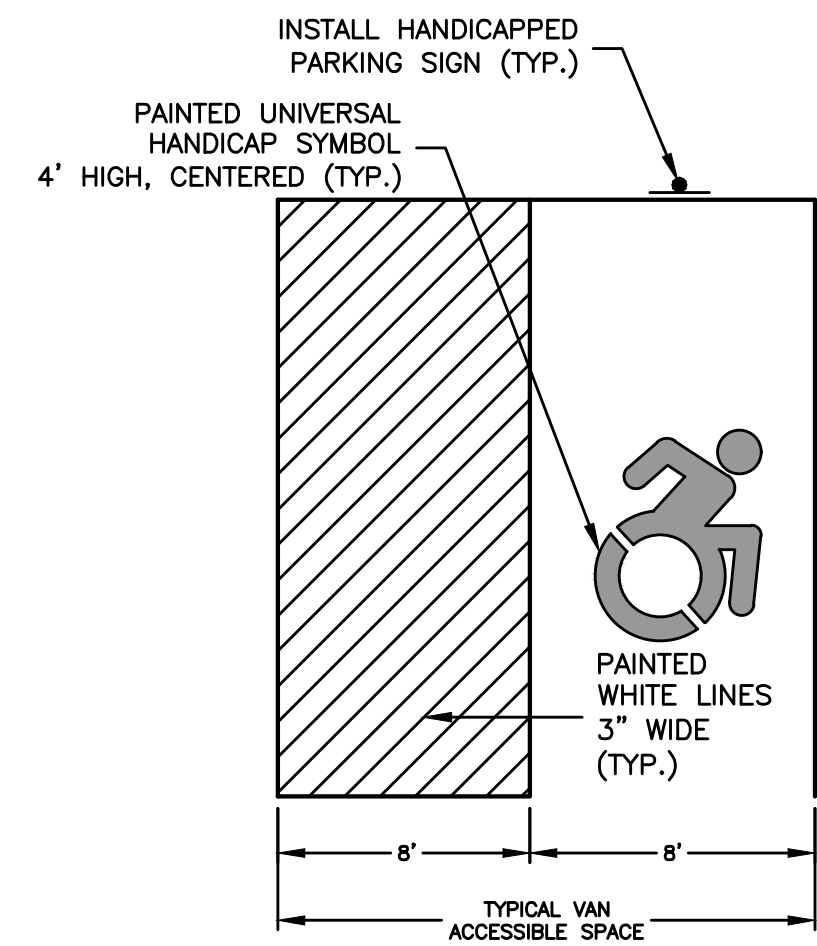
**69 FITCH HILL RD &
LEFFINGWELL RD**

SEPTIC PLAN

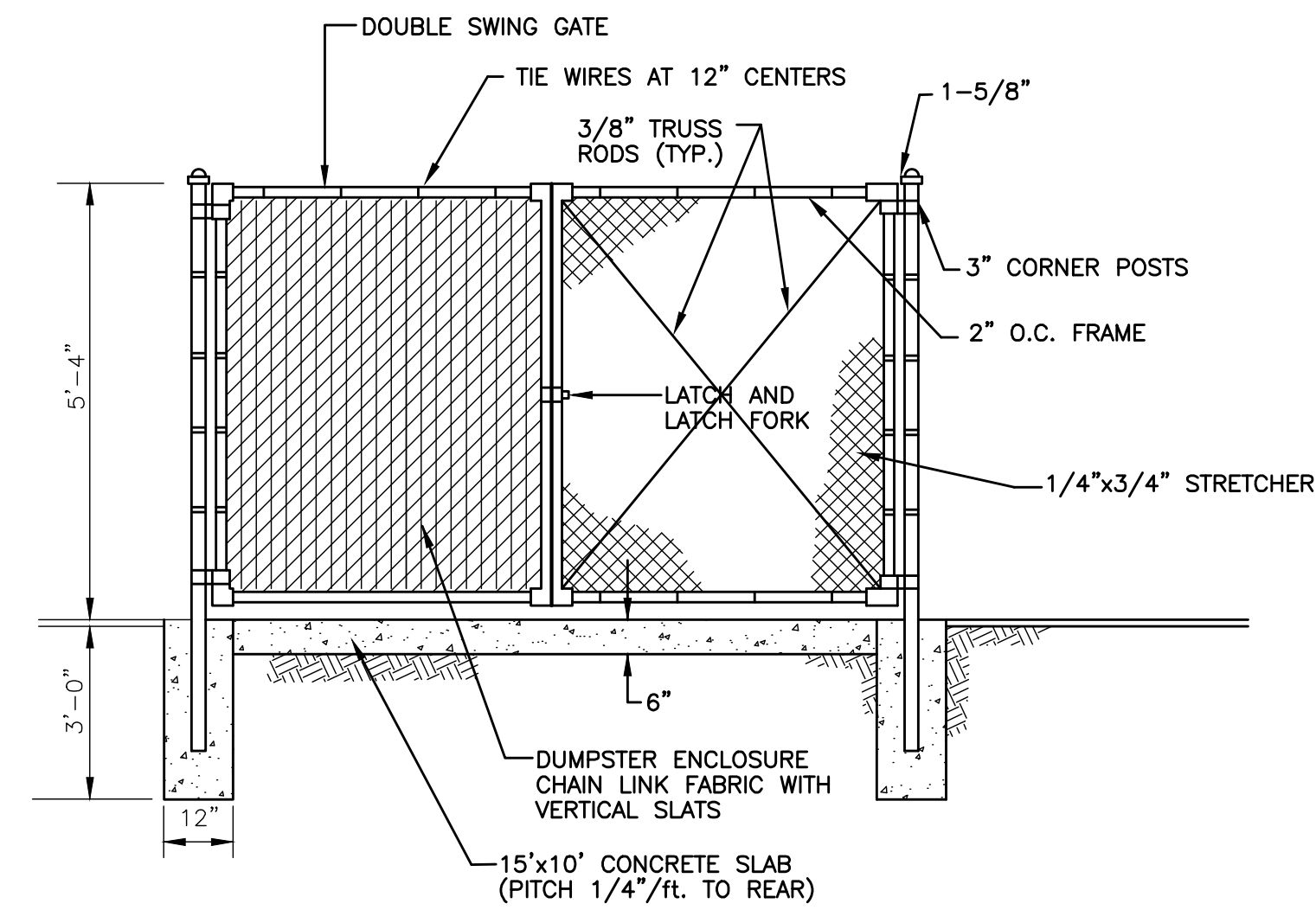
Project No.
GSD-68
Proj. Engineer
E.M.B.
Date:
2/15/23
Sheet No.

7

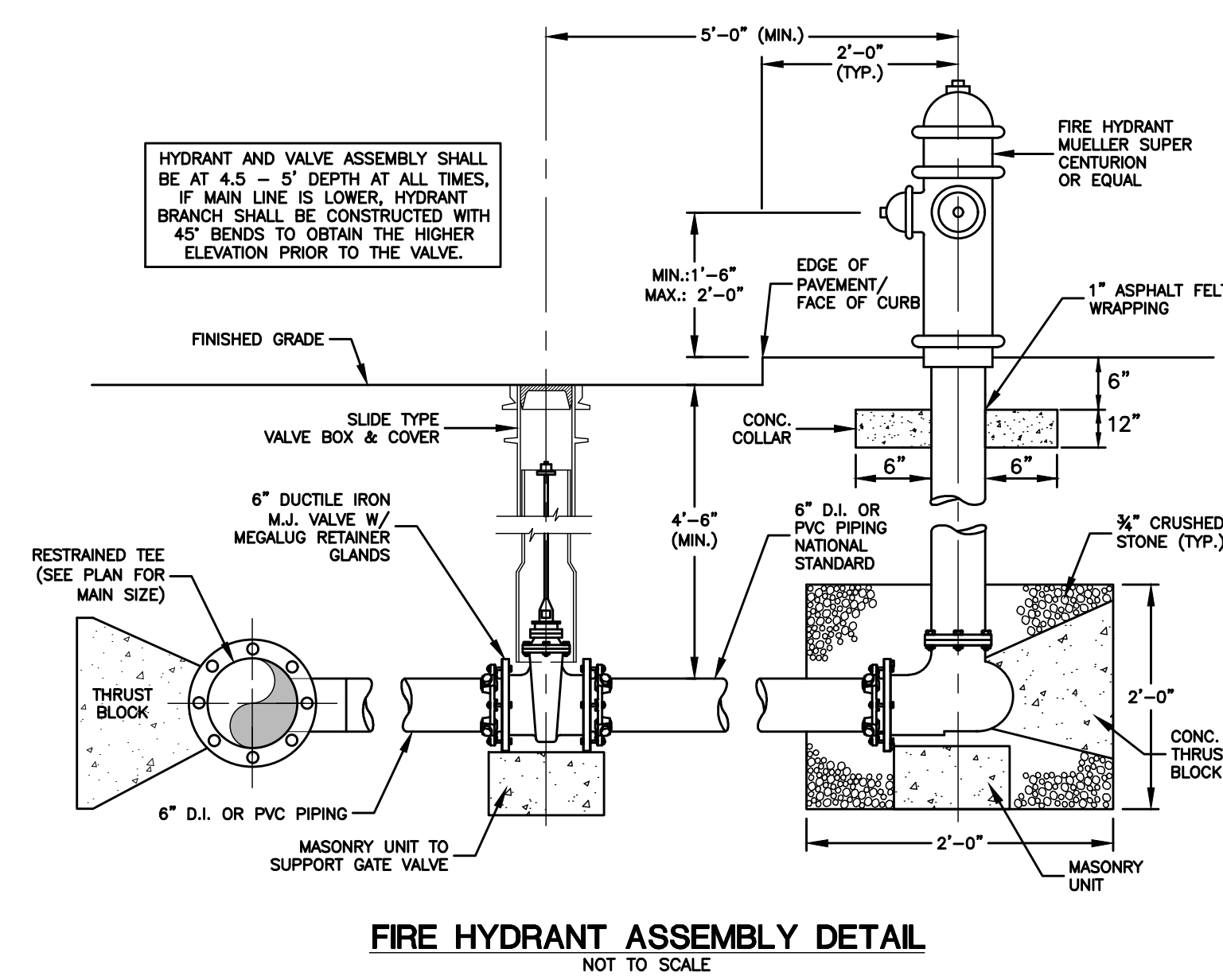
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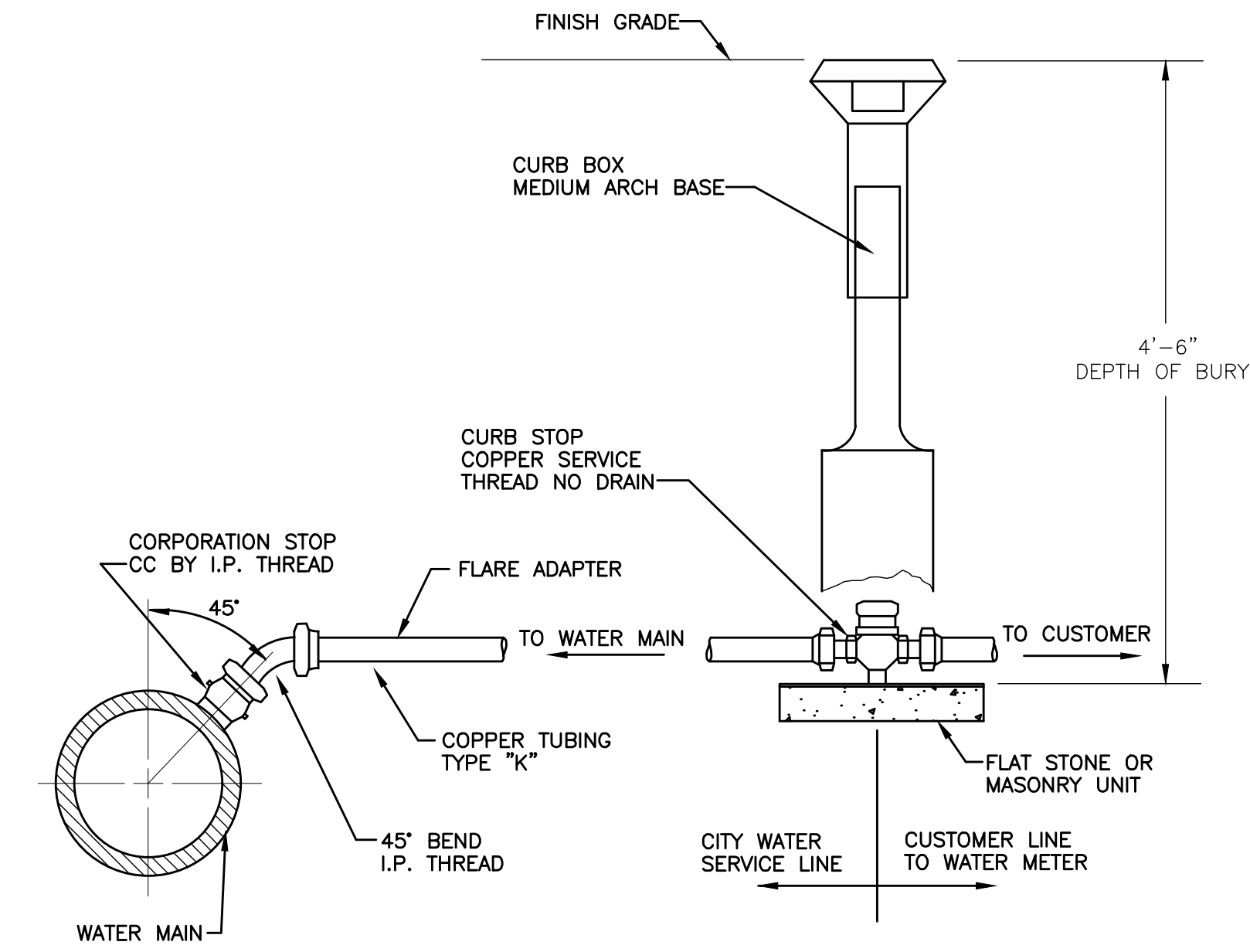
TYPICAL HANDICAP VAN PARKING SPACE
NOT TO SCALE



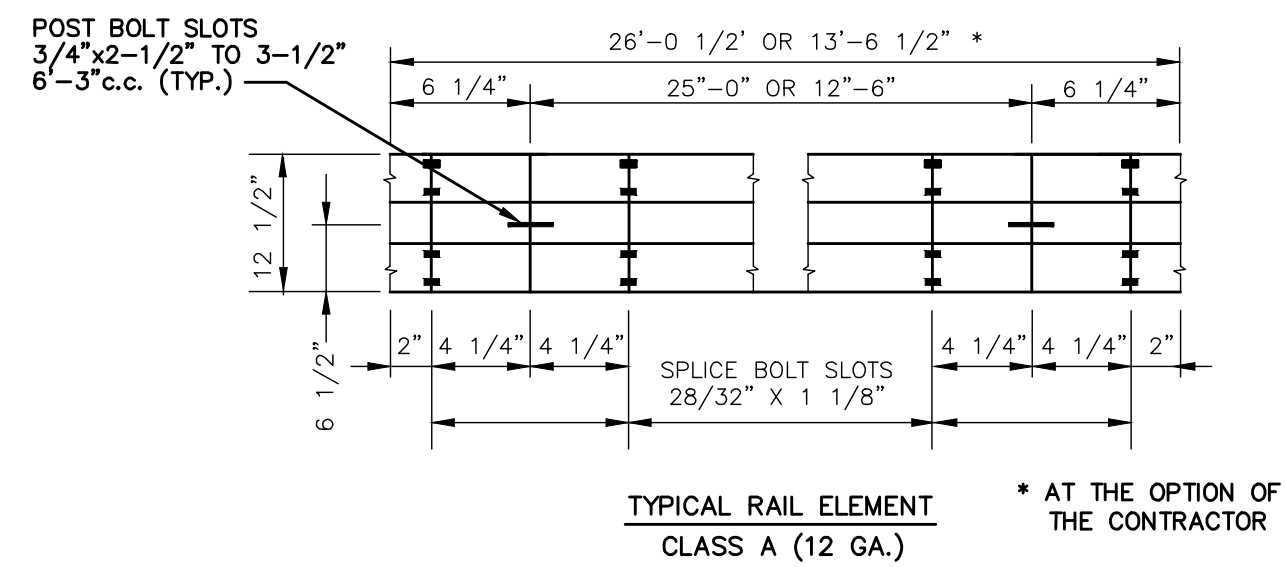
CHAIN LINK FENCE/DUMPSTER ENCLOSURE
NOT TO SCALE



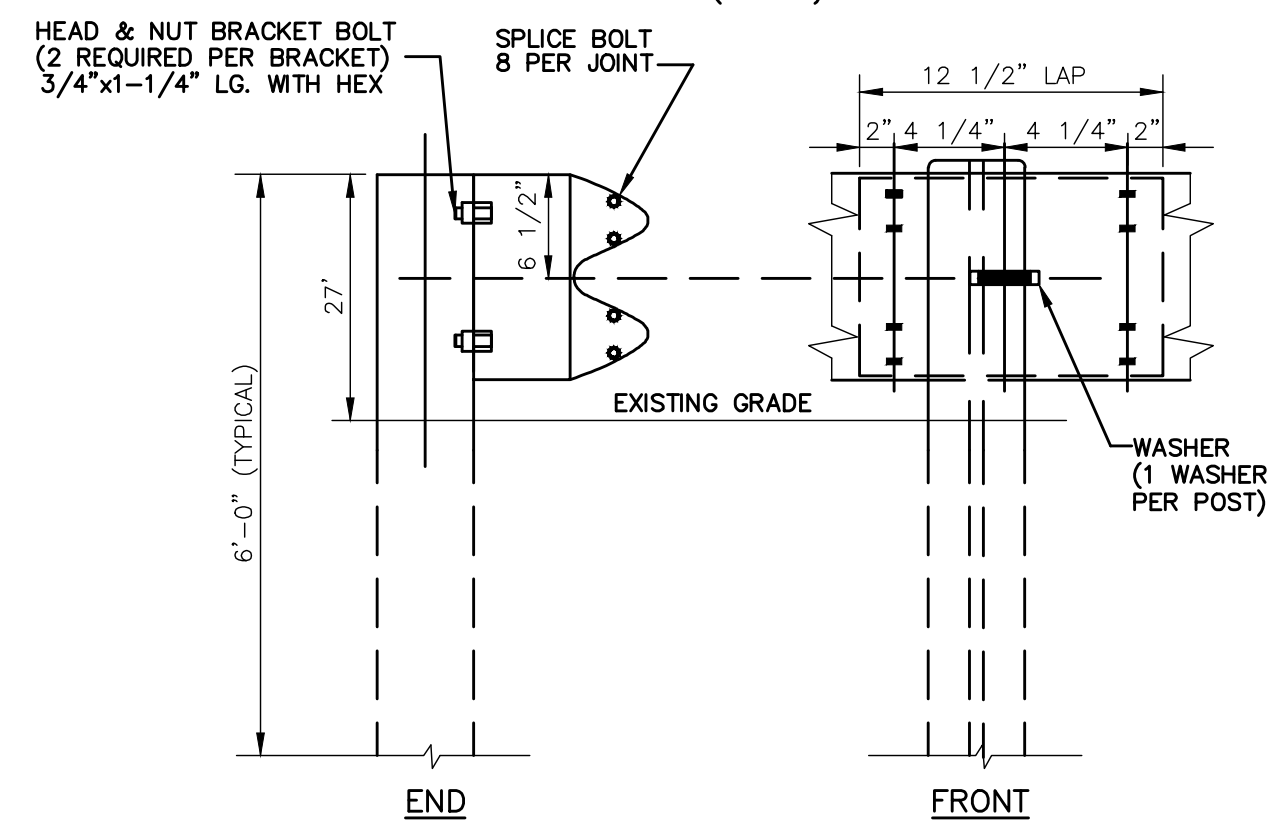
FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



WATER SERVICE CONNECTION DETAIL
NOT TO SCALE

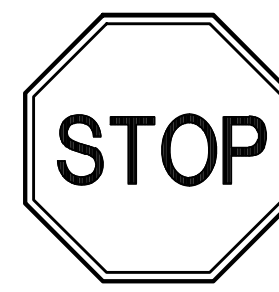


TYPICAL RAIL ELEMENT
CLASS A (12 GA.)



METAL BEAM RAIL
NOT TO SCALE

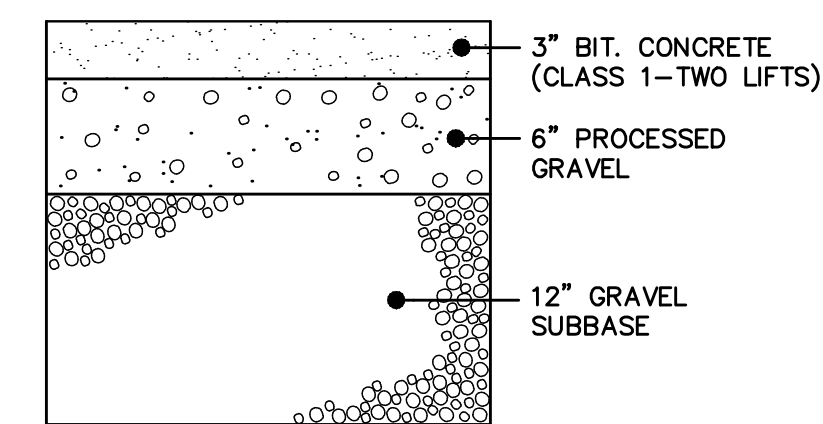
INSTALLATION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF CT. D.O.T.



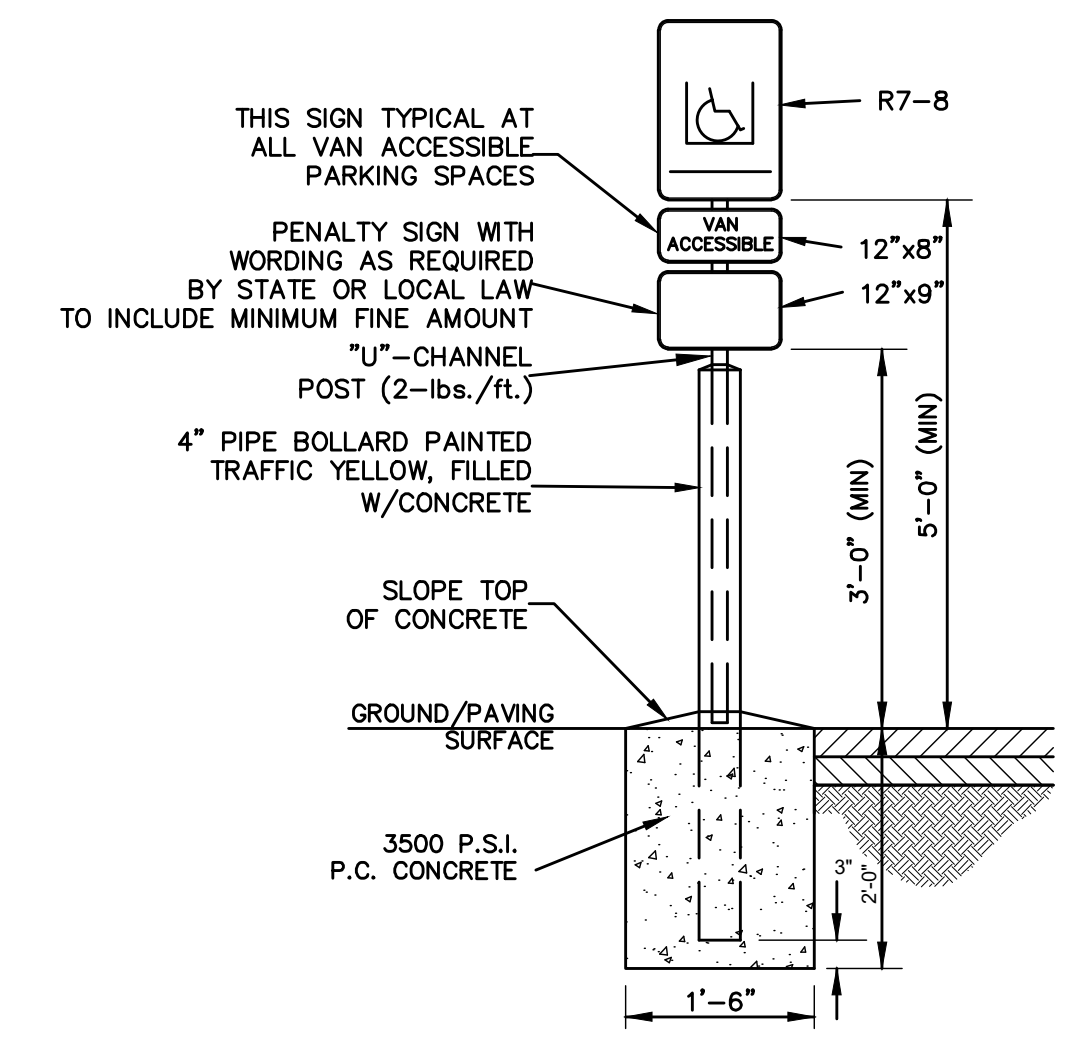
NOTE:
SIGNS TO BE INSTALLED IN ACCORDANCE WITH STATE OF CONNECTICUT D.O.T. STANDARDS

SECURE ALL SIGNS TO 1/2" DIA. GALVANIZED STEEL POST WITH (2) 1/4" DIA. GALVANIZED BOLTS (1 TOP, 1 BOTTOM) (TYP)

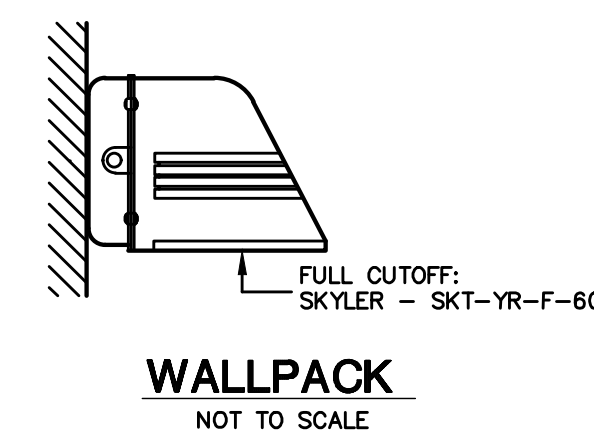
TRAFFIC SIGNAGE
NOT TO SCALE



PAVING SECTION
NOT TO SCALE



VAN ACCESSIBLE PARKING SIGN
NOT TO SCALE



WALLPACK
NOT TO SCALE

GREEN SITE DESIGN LLC		
317 Main Street Norwich, Connecticut (860) 892-1380 Fax (860) 886-9165		
No.	DATE	REVISION
MONTVILLE, CT		
69 FITCH HILL RD & LEFFINGWELL RD		
SITE DETAILS		
Project No.	GSD-68	
Proj. Engineer	E.M.B.	
Date:	2/15/23	
Sheet No.	8	

PERC TEST DATA

PERC #101 4/19/2023
 PRE-SOAK, 10:54:00-10:54:55 AM
 BOTTOM OF HOLE AT 24"
 INTERVAL: 12-24"

TEST 1
 TIME DEPTH (IN) CHANGE (IN)
 12:59:00 12" -0.0
 12:59:54 24" -12.0
 END OF TEST 1

TEST 2
 TIME DEPTH (IN) CHANGE (IN)
 13:04:00 12" -0.0
 13:04:54 24" -12.0
 END OF TEST 2

TEST 3
 TIME DEPTH (IN) CHANGE (IN)
 13:06:00 12" -0.0
 13:06:58 24" -12.0
 END OF TEST 3

TEST 4
 TIME DEPTH (IN) CHANGE (IN)
 13:10:00 12" -0.0
 13:10:55 24" -12.0
 END OF TEST 4

TEST 5
 TIME DEPTH (IN) CHANGE (IN)
 13:13:00 12" -0.0
 13:13:58 24" -12.0
 END OF TEST 5

AVERAGE OF TESTS 1-5 =
 $(0.90+0.90+0.97+0.92+0.97)/5 = 0.93$ MPI
 IN=12" TO 24" = 12"
 0.93 MIN/12" = 0.08 MPI

PERC #102 4/19/2023
 PRE-SOAK, 9:33-9:36 AM
 BOTTOM OF HOLE AT 26"
 INTERVAL: 14-26"

TIME DEPTH (IN) CHANGE (IN)
 9:43:00 10.5" -1.0
 9:43:30 11.5" -1.0
 9:44:00 12.5" -1.0
 9:44:30 13" -0.5
 9:45:00 13.5" -0.5
 9:45:30 14" -0.5
 *CAVED IN AT 19"
 END OF TEST 1

MIN=9:43:00-9:45:30 = 2.5 MIN
 IN=12" TO 19" = 7"
 2.5 MIN/7" = 0.36 MPI

NEW INTERVAL DUE TO CAVE IN
 BOTTOM OF HOLE AT 29"
 INTERVAL: 17-29"

9:55:00 17" -0.0
 9:55:30 19" -2.0
 9:56:00 20" -1.0
 9:56:30 21" -1.0
 9:57:00 22" -1.0
 9:57:30 23" -1.0
 *CAVED IN AT 23"
 END OF TEST 3

MIN=9:55:00 TO 9:57:30 = 2.5 MIN
 IN=17" TO 23" = 6"
 2.5 MIN/6" = 0.42 MPI

AVERAGE OF TESTS 1-3 =
 $(0.36+0.36+0.36)/3 = 0.38$ MPI

PERC #103 4/19/2023
 PRE-SOAK, 10:11 AM
 BOTTOM OF HOLE AT 24"
 INTERVAL: 12-24"

TIME DEPTH (IN) CHANGE (IN)
 13:29 12" -0.0
 13:31 13.5" -1.5
 13:33 14.5" -1.0
 13:35 15.5" -1.0
 13:37 16" -0.5
 13:39 16.5" -0.5
 13:41 17.5" -1.0
 13:43 18" -0.5
 13:45 18.5" -0.5
 13:47 19" -0.5
 13:49 19.5" -0.5
 13:51 20" -0.5
 13:53 20.5" -0.5
 13:55 21" -0.5
 13:57 21.5" -0.5
 13:59 22" -0.5
 END OF TEST

MIN=13:29 TO 13:59 = 30 MIN
 IN=12" TO 22" = 10"
 30 MIN/10" = 3.0 MPI

TEST HOLE DATA

TEST HOLES RECORDED BY CHRISTOPHER MADDEN, MARCH 03 2023

TH #14
 0-14" BROWN LOAMY SAND TOPSOIL
 14-96" LIGHT BROWN FINE SAND
 NO BEDROCK
 NO WATER
 NO MOTTLING
 NO ROOTS
 NO RESTRICTIVE

TH #15
 0-16" BROWN LOAMY SAND TOPSOIL
 16-98" STRATIFIED GREY BROWN SAND AND GRAVEL
 NO BEDROCK
 NO WATER
 NO MOTTLING
 NO ROOTS
 NO RESTRICTIVE

TH #16
 0-12" BROWN LOAM SAND TOPSOIL
 12-96" LIGHT BROWN FINE SAND
 NO BEDROCK
 WATER 44"
 MOTTLING 40"
 NO ROOTS
 RESTRICTIVE 40"

TH #17
 0-96" STRATIFIED SAND AND GRAVEL, NO TOPSOIL
 NO BEDROCK
 WATER 48"
 MOTTLING 29"
 NO ROOTS
 RESTRICTIVE 29"

TH #18
 NO TOPSOIL
 0-70" GREY AND BROWN CLAY
 70-89" COARSE SAND AND GRAVEL
 NO BEDROCK
 NO WATER
 MOTTLING 11"
 NO ROOTS
 RESTRICTIVE 11"

TH #19
 0-10" BROWN LOAMY SAND TOPSOIL
 10-84" STRATIFIED BROWN AND LIGHT BROWN SAND W/SILT
 NO BEDROCK
 NO WATER
 NO MOTTLING
 NO ROOTS
 NO RESTRICTIVE

TH #22
 0-19" FILL
 19-21" BLACK SILTY LOAM, ORIGINAL TOPSOIL
 21-28" BROWN FINE SANDY LOAM
 28-43" GRAVELLY SANDY LOAM
 43-100" SAND
 NO BEDROCK
 WATER 43"
 MOTTLING 28"
 NO ROOTS
 RESTRICTIVE 28"

TH #23
 0-10" FILL
 10-22" WETLAND TOPSOIL
 22-45" GREY SILT LAYER
 45-87" GREY AND BROWN MEDIUM SAND
 NO BEDROCK
 WATER 45"
 NO MOTTLING
 NO ROOTS
 RESTRICTIVE 45"

TH #24
 0-3" TOPSOIL
 3-10" FINE SAND
 10-58" GREY FINE SAND W/MOTTLES
 42-74" BANDS OF GRAVELLY SAND
 NO BEDROCK
 WATER 42"
 MOTTLING 10"
 NO ROOTS
 RESTRICTIVE 10"

SEPTIC SYSTEMS DESIGN

BUILDING #1: A&B EXCAVATION
 6,000 SF A&B EXCAVATION (20% OFFICE & 80% INDUSTRIAL)
 1,200 SF OFFICE = $(1,200/200)(20) = 120$ GPD
 4,800 SF INDUSTRIAL = $(4,800*0.1) = 480$ GPD
 TOTAL = 600 GPD

PRIMARY SYSTEM
 PERCOLATION RATE: 0-10 MINUTES
 LEACHING AREA REQUIRED: $600 \text{ GPD}/1.5" = 400 \text{ SF}$.
 *NON-PROBLEMATIC SEWER SYSTEMS
 USE 12" CONC. GALLERIES
 EFFECTIVE LEACHING AREA OF TRENCH = 5.9 SF/LF
 REQUIRED LENGTH = $400/5.9 \text{ SF/LF} = 68 \text{ LF}$
 USE 72" OF 12" CONC. GALLERIES - 1 ROW

MLSS CALCULATION
 NO RESTRICTIVE LAYER

BUILDINGS #2 & 3: FLEX SPACE
 19,920 SF FLEX SPACE - INDUSTRIAL
 19,920 SF (0.1) = 1,992 GPD

PRIMARY SYSTEM
 PERCOLATION RATE: 0-10 MINUTES
 LEACHING AREA REQUIRED: $1,992 \text{ GPD}/1.5" = 1,328 \text{ SF}$
 *NON-PROBLEMATIC SEWER SYSTEMS
 USE 12" CONC. GALLERIES
 EFFECTIVE LEACHING AREA OF TRENCH = 5.9 SF/LF
 REQUIRED LENGTH = $1,328 \text{ SF}/5.9 \text{ SF/LF} = 226 \text{ LF}$
 USE ONE ROW OF 240 LF

MLSS CALCULATION
 RESTRICTIVE LAYER = $(29+40)/2 = 34"$
 SLOPE = 3%
 HP=34 FF=2,080/300=6.9 PF=1.0
 MLSS = $(34)(6.9)(1.0) = 235 \text{ FT}$

SEPTIC/SELECT FILL

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER. SELECT FILL EXCEEDING 6% PASSING THE #200 SIEVE BASED ON A WET SIEVE TEST CANNOT BE APPROVED BY THE DESIGN ENGINEER.

- THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCH SIEVE.
- UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE.
- NOTE: THIS IS THE GRAVEL PORTION OF THE SAMPLE.
- THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
- THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA.

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50	10-75
#100	0-20	0-5
#200	0-5	0-2.5

PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%. THE SELECT FILL MUST BE TESTED AFTER PLACEMENT AND MUST HAVE A PERCOLATION RATE AT LEAST AS FAST AS THE DESIGN RATE OF LESS THAN 20 MIN/INCH

SEPTIC SYSTEM GENERAL NOTES

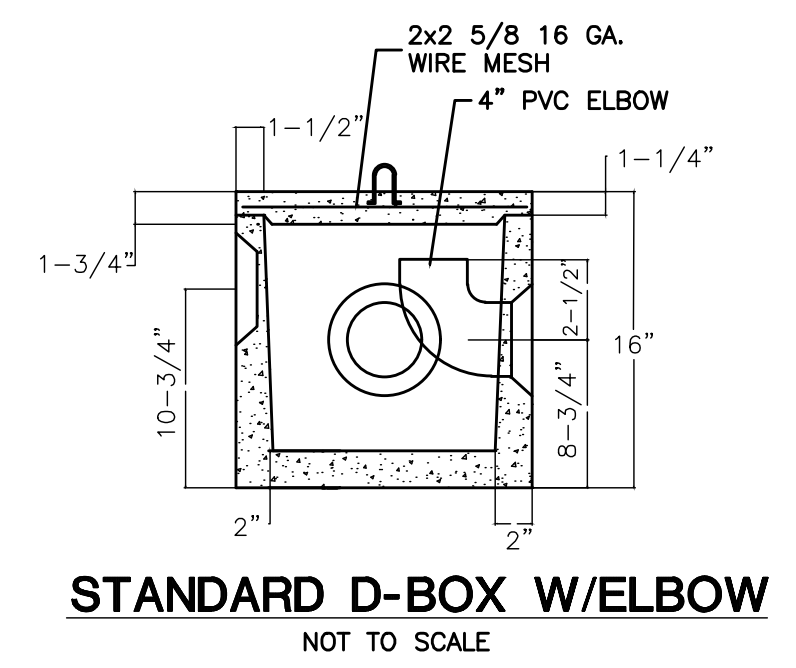
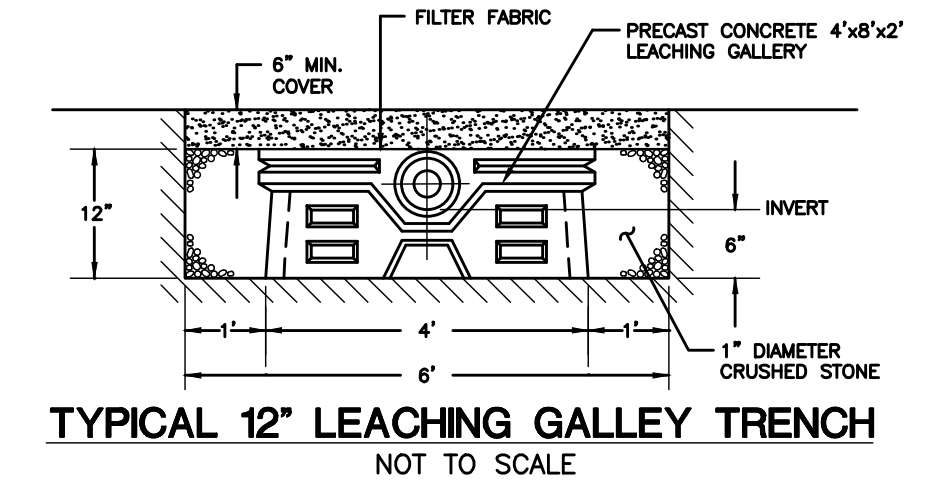
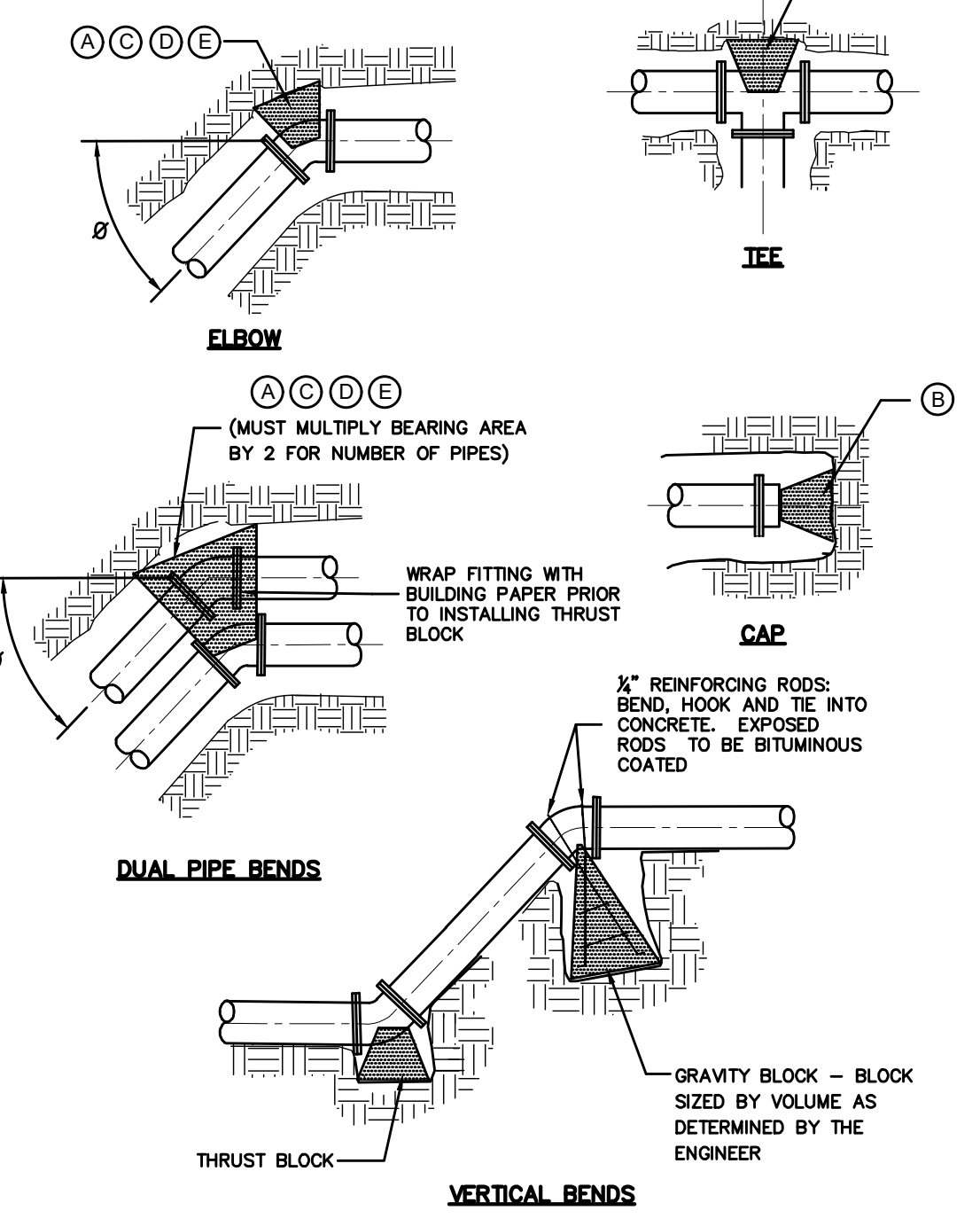
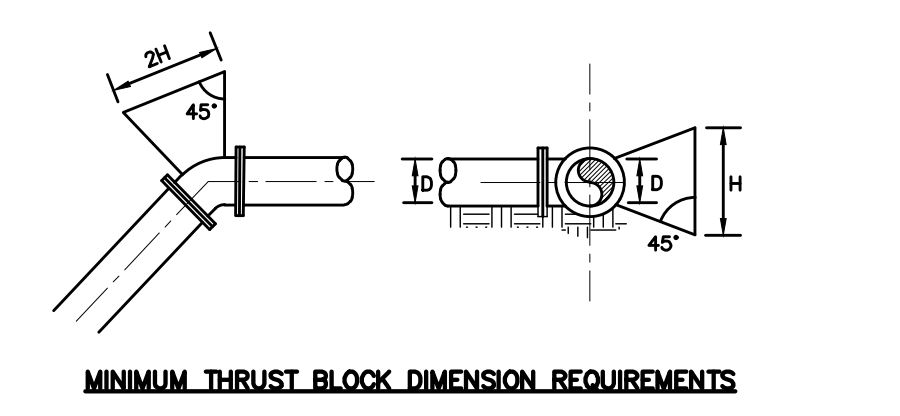
- TOPOGRAPHIC INFORMATION ON THIS PLAN PROVIDED BY CLA ENGINEERS
- PROPOSED HOUSE AND SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
- ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE, SELECT FILL) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM.
- AFTER THE FILL IS PLACED AND COMPACTED, IT MUST BE PERC TESTED PRIOR TO INSTALLATION OF ALL THE SEPTIC SYSTEMS.
- WHERE SEWER LINE CROSSES WATER LINE, THERE ARE TO BE NO JOINTS WITHIN 5 FEET ON EITHER SIDE OF THE WATER LINE, INCLUDING SERVICES.
- SEWER LINE FROM FOUNDATION WALL TO SEPTIC SHALL BE 4" SCHEDULE 40 PVC - ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE.
- TRENCHES SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING OF 8 FEET.
- PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO ASTM D-3034 AND SDR-35.
- IF BLASTING IS REQUIRED A PRE-BLAST SURVEY WILL BE REQUIRED. CALL BEFORE YOU DIG: 1-800-922-4455.
- THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM.
- A VERTICAL BENCHMARK SHALL BE PROVIDED WITHIN 50 FEET OF THE PROPOSED HOUSE LOCATION PRIOR TO THE START OF CONSTRUCTION.
- CLEAR AND GRUB THE AREA WHERE THE SEPTIC SYSTEM AND HOUSE ARE TO BE CONSTRUCTED. ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILED FOR FUTURE USE.
- ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
- TOPSOIL SHALL BE RE-APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES.
- ALL EXISTING UTILITIES TO BE ACCURATELY LOCATED PRIOR TO CONSTRUCTION.

SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL
 AREAS SHOWN ARE BASED ON 200 P.S.I. TEST PRESSURE (SEE NOTE BELOW)

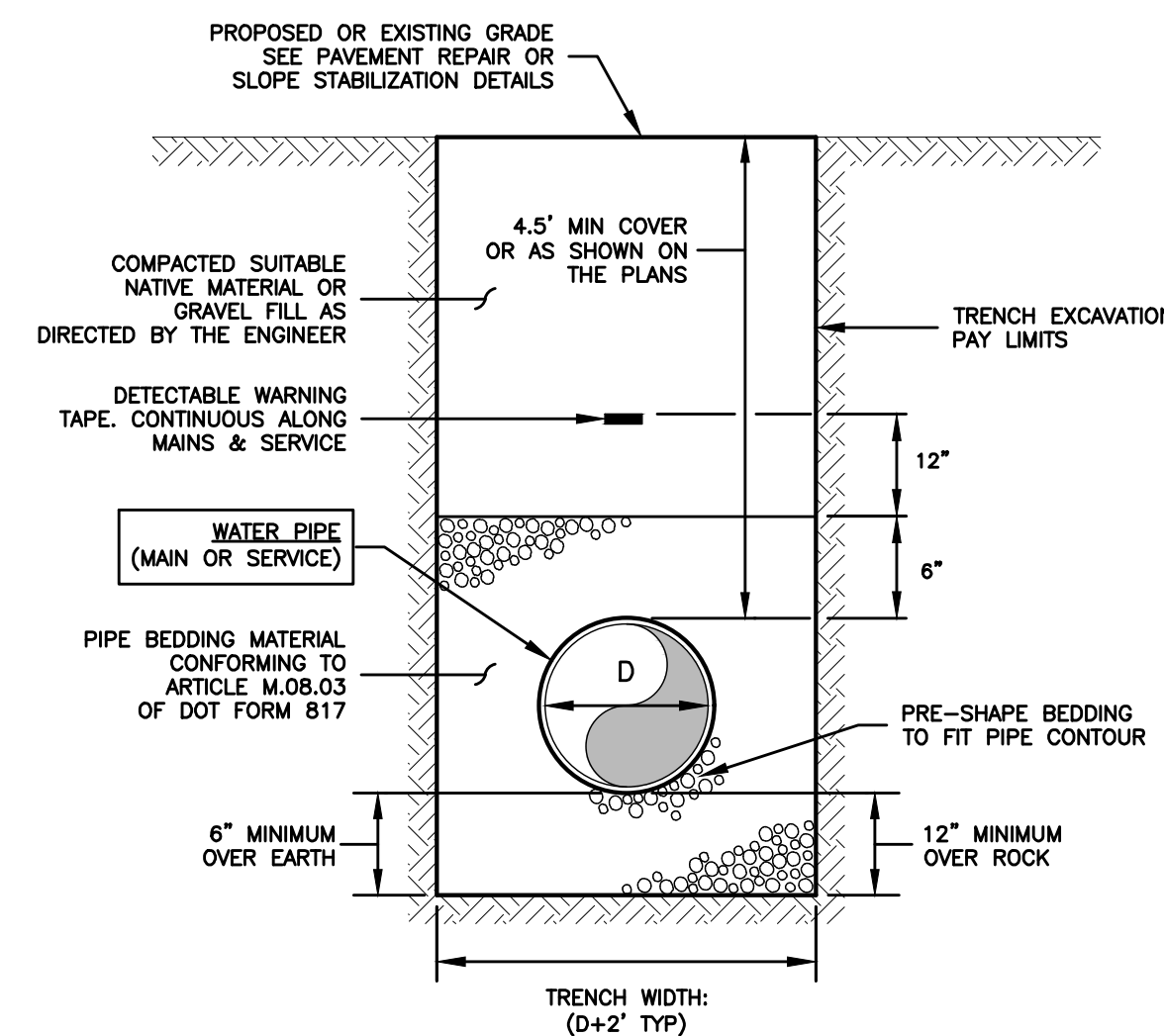
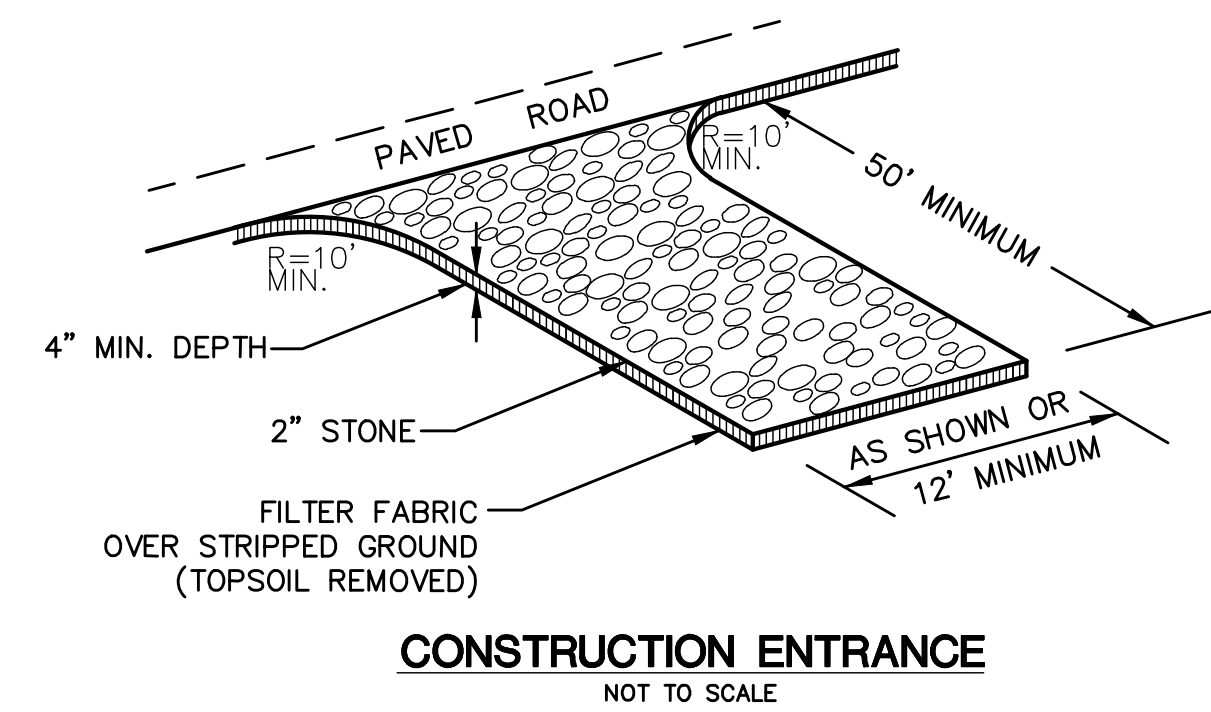
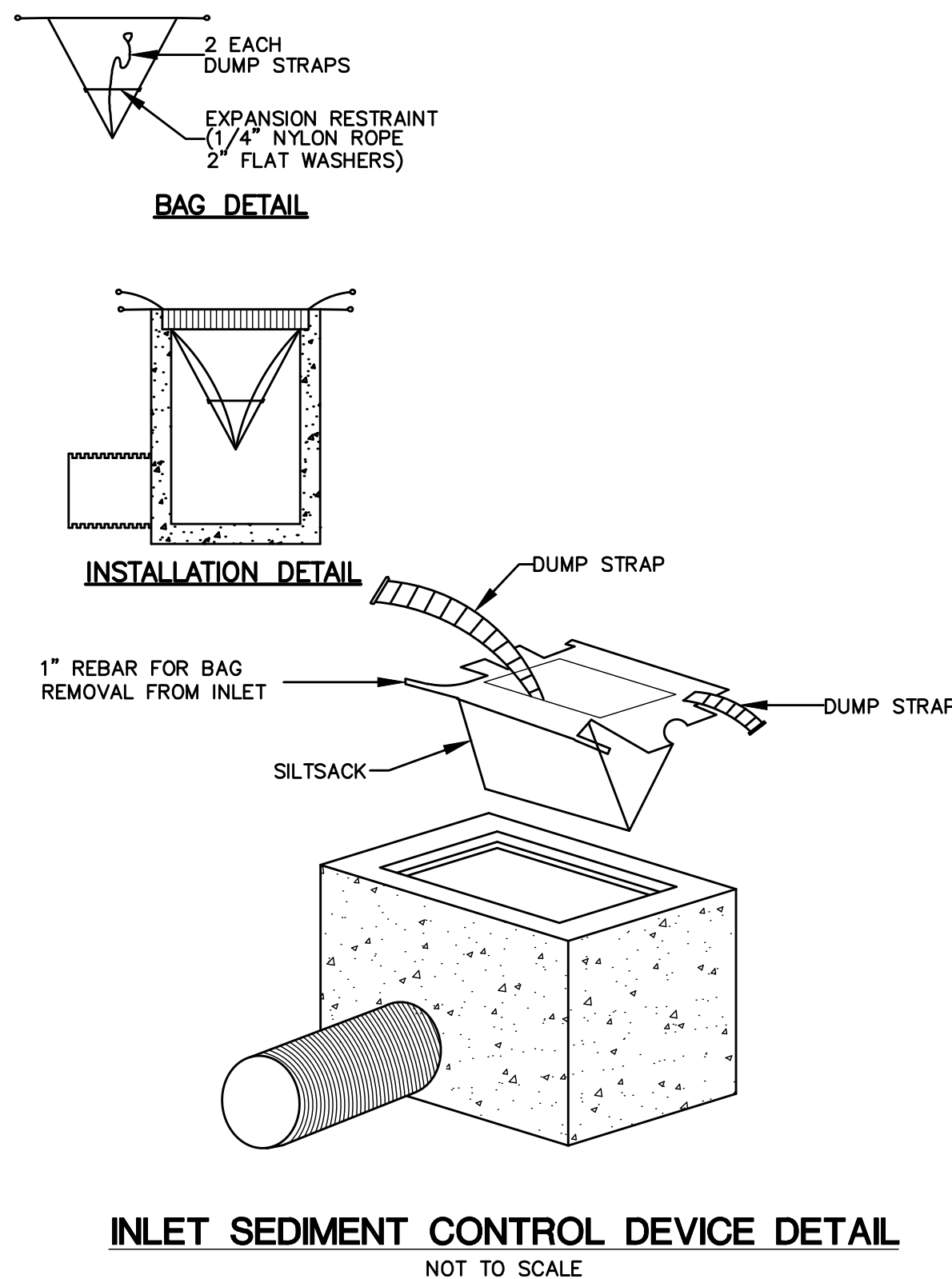
REACTION TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	18"	24"
A	1.8	4.4	7.8	11.2	17.2	30.8	36.0	69.2
B	1.4	3.2	5.6	8.4	12.2	21.8	27.8	49.5
C	1.0	2.4	4.2	6.0	9.4	16.6	19.4	37.6
D	0.6	1.2	2.2	3.0	4.8	8.6	10.0	19.2
E	0.2	0.6	1.0	1.6	2.4	4.2	5.0	9.6

OTHER TEST PRESSURES FOR THE ABOVE REACTIONS
 SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE, AT 100 PSI TEST PRESSURE THE ABOVE NUMBERS ARE HALVED. THE ABOVE NUMBERS REPRESENT MINIMUM ALLOWABLE SIZES FOR THRUST BLOCKS

- NOTES:
- FOUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING. PLACE BOARD IN FRONT OF ALL CAPS BEFORE POURING THRUST BLOCK.
 - REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF ONE TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
 - TEST PRESSURE FOR WATER MAINS SHALL BE 200 P.S.I.



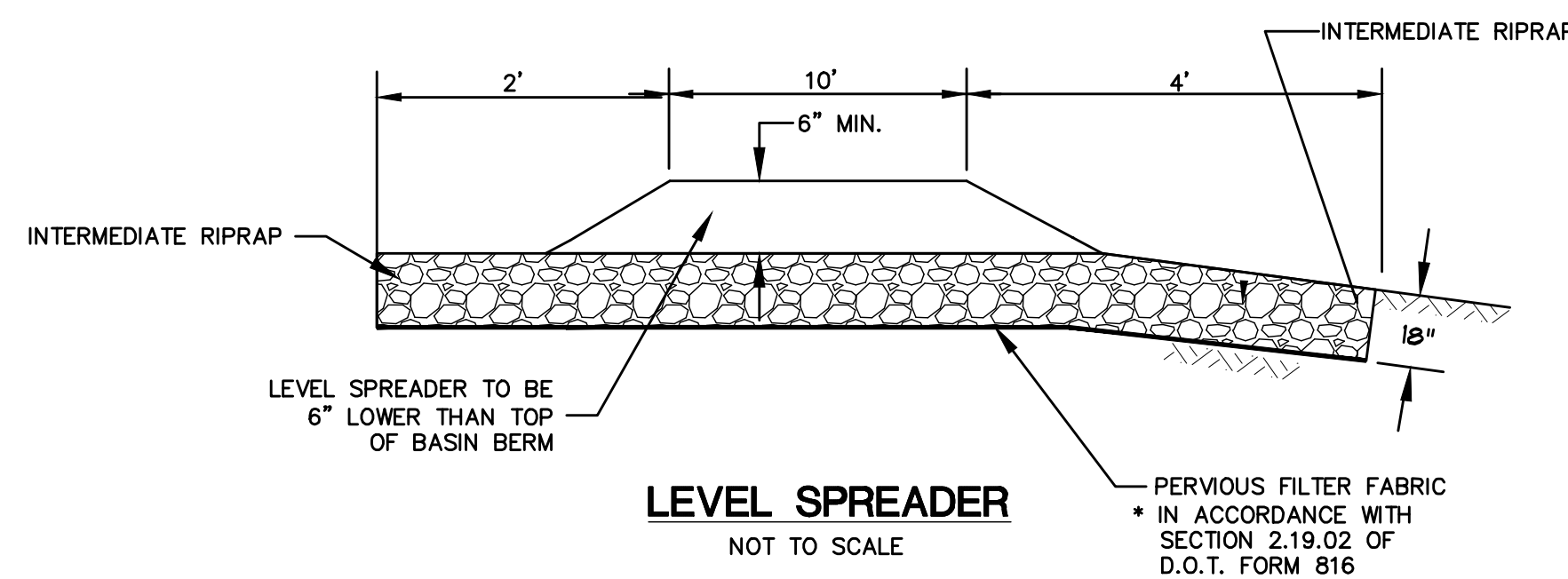
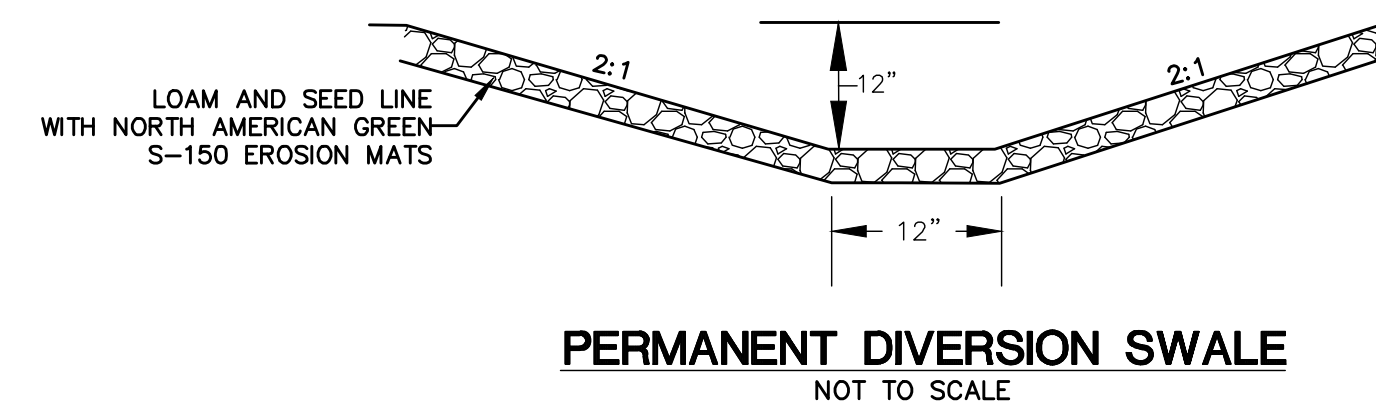
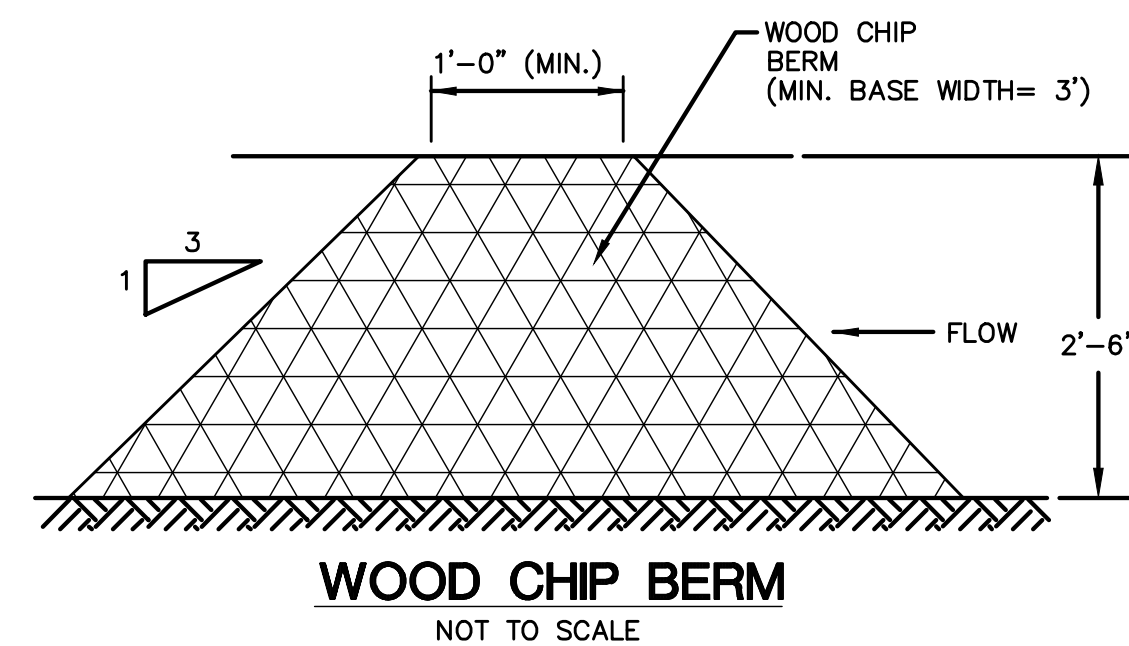
<p>GREEN SITE DESIGN LLC 317 Main Street Norwich, Connecticut (860) 892-1380 Fax (860) 886-9165</p>			Project No. GSD-68
			Proj. Engineer E.M.B.
<p>MONTVILLE, CT</p>			Date: 2/15/23
<p>69 FITCH HILL RD & LEFFINGWELL RD</p>			Sheet No. 9
<p>SEPTIC DETAILS</p>			



- NOTES:**
1. D=INSIDE DIAMETER OF PIPE.
 2. TRENCH WIDTHS NOTED ARE SET TO ESTABLISH PAY LIMITS ONLY.
 3. ALL EXCAVATIONS MUST MEET OSHA STANDARDS.
 4. CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.
 5. BEDDING MATERIAL TO CONFORM TO M.08.03.1 AS PER CT DOT FORM 817.

TRENCH DETAIL: WATER MAIN & SERVICE

NOT TO SCALE



POLLUTION PREVENTION PLAN

1. **POLLUTION PREVENTION TEAM**
THE OWNERS WILL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.

PARKING LOTS, DRIVEWAYS AND OTHER IMPERVIOUS SURFACES SHALL BE SWEEP CLEAN OF SAND AND LITTER AND ANY OTHER POLLUTANTS AT LEAST TWICE A YEAR.
A. BETWEEN NOVEMBER 15 AND DECEMBER 15 (AFTER LEAF FALL)
B. DURING APRIL (AFTER SNOW MELT) NO WASHING VEHICLES OR EQUIPMENT IN PARKING AREAS.
2. **MAINTENANCE AND INSPECTION**
A. MONTHLY INSPECTION OF STORM WATER STRUCTURES AND OUTFALLS.
B. CLEAN SEDIMENT AND DEBRIS FROM STRUCTURES AND OUTFALLS ONCE A YEAR DURING APRIL.
C. SUBMIT MAINTENANCE & INSPECTION REPORT TO THE PLANNING DEPARTMENT AND THE DIRECTOR OF PUBLIC WORKS
3. CLEAN SEDIMENT AND DEBRIS FROM BASIN ONCE A YEAR, DURING APRIL
4. **SPILL OR ACCIDENTAL DISCHARGE**
COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.

CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338 AND THE MONTVILLE FIRST SELECTMAN.

IN THE EVENT A SPILL OCCURS THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
A. STOP THE SOURCE OF THE SPILL
B. CONTAIN THE SPILL
C. COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
D. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
5. BEST MANAGEMENT PRACTICES FOR FUTURE UPKEEP OF THE SITE WILL INCLUDE NON-CHEMICAL LAWN CARE & MINIMAL USE OF FERTILIZERS, DE-ICING OR WINTER OPERATIONS WITHOUT THE USE OF CALCIUM, AND NO EXTERIOR WASHING OF VEHICLES OR DISCHARGING OF INTERIOR WASH WATER.

OPERATION AND MAINTENANCE OF DRAINAGE SYSTEM

1. THE PROPERTY OWNER IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM.
2. ALL STORMWATER BASINS AND RIPRAP LEVEL SPREADERS SHALL BE CLEANED OUT TWICE A YEAR, IN THE FALL AFTER THE LEAVES HAVE FALLEN AND IN THE SPRING AND ALL SEDIMENTS ARE TO BE REMOVED.
3. THE STORMWATER BASINS SHALL BE MOWED TWICE A YEAR.

EROSION CONTROL & SEDIMENTATION NARRATIVE

1. PRIOR TO THE INSTALLATION OF ANY EROSION AND SEDIMENT CONTROL MEASURES, THE OWNER AND CONTRACTOR SHALL MEET WITH THE TOWN OF SALEM ZONING ENFORCEMENT OFFICER. THERE ARE 7.0 ACRES OF DISTURBANCE PROPOSED FOR THIS PROJECT.
2. STAKE LIMITS OF CLEARANCE
3. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON SHEETS 5 & 6 PRIOR TO SITE DISTURBANCE. ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED TO BE NECESSARY BY THE ZONING ENFORCEMENT OFFICER.
4. INSTALL CONSTRUCTION ENTRANCE PER DETAIL.
5. THE CONTRACTOR SHALL CONTACT THE ZONING ENFORCEMENT OFFICER FOR INSPECTION OF THE SEDIMENT AND EROSION CONTROL MEASURES. PRIOR TO SITE DISTURBANCE CONSTRUCTION SHALL NOT BEGIN UNTIL SUCH TIME AS THE ZONING ENFORCEMENT OFFICER HAS REVIEWED AND APPROVED THE INSTALLATION OF THE SEDIMENTATION AND EROSION CONTROL MEASURES.
6. CONTRACTOR TO INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES, SEDIMENTATION BASINS & SWALES AT LEAST WEEKLY AND AFTER EVERY STORM EVENT AND REPAIR AND MAINTAIN AS NECESSARY.
7. CLEARING & GRUBBING OF THE AREA TO BE GRADED, TOPSOIL TO BE REMOVED & STOCKPILED IN AN AREA OF BUILDING & SURROUNDED WITH SILT FENCE.
8. CONSTRUCT WATER QUALITY BASINS TO FUNCTION AS TEMPORARY SEDIMENT TRAPS PRIOR TO ROUGH GRADING OF THE SITE.
9. INSTALL DIVERSION SWALES AS SHOWN ON SHEET 3 AND DETAIL ON THIS SHEET.
10. ROUGH GRADE SITE, EXCAVATE FOR BUILDING FOOTINGS, INSTALL SEPTIC & UTILITIES.
11. BUILDING CONSTRUCTION TO PROCEED.
12. INSTALL SEPTIC SYSTEM & UTILITIES.
13. TOPSOIL SHALL BE RE-APPLIED TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES.
14. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED.
15. THE BASIN MUST BE CLEANED OUT & VEGETATION HAS BEEN ESTABLISHED IN THE WATER QUALITY BASINS.
16. INSTALLATION OF BIT. CONC. PAVEMENT
17. SEEDING SHOULD TAKE PLACE BETWEEN APRIL 1 AND JUNE 1 OR AUGUST 15 AND OCTOBER 1.
18. THE FOLLOWING SEEDING MIXTURES SHALL BE PROVIDED ON ALL DISTURBED AREAS.
KENTUCKY BLUE GRASS 20 LB's/AC
CREEPING RED FESCUE 20 LB's/AC
PERENNIAL RYEGRASS 5 LB's/AC
19. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO CONNECTICUT GUIDELINES FOR SOIL AND SEDIMENT CONTROL.

GREEN SITE DESIGN LLC		
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