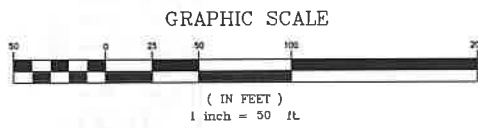
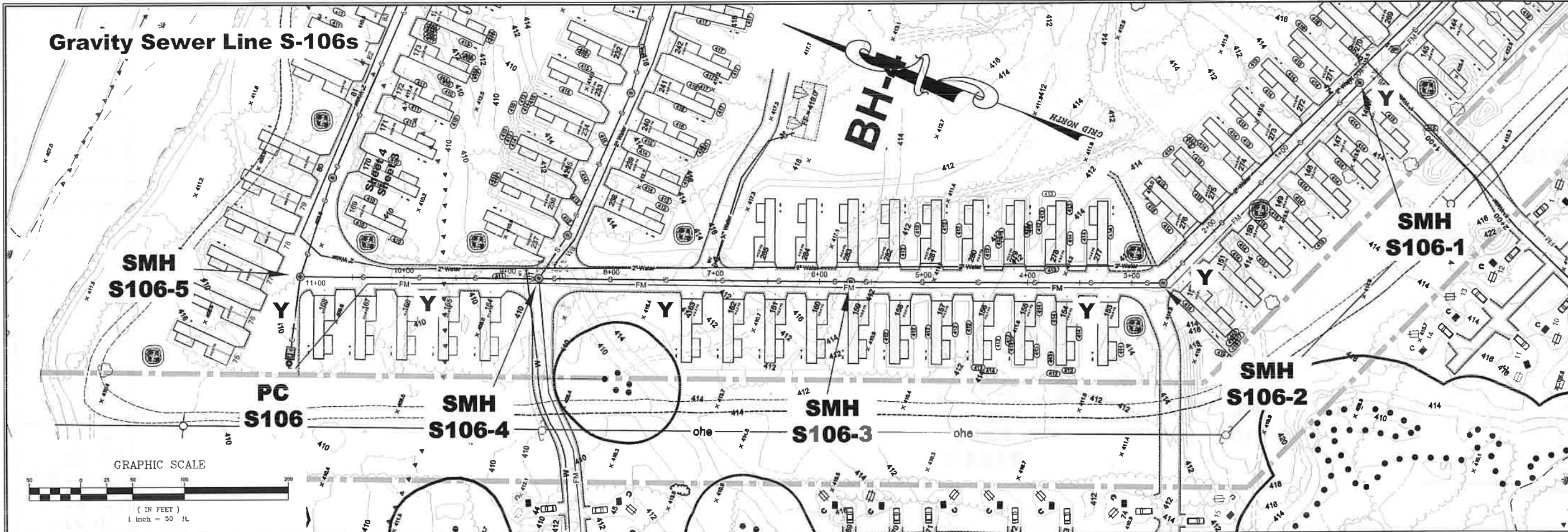


Gravity Sewer Line S-106s

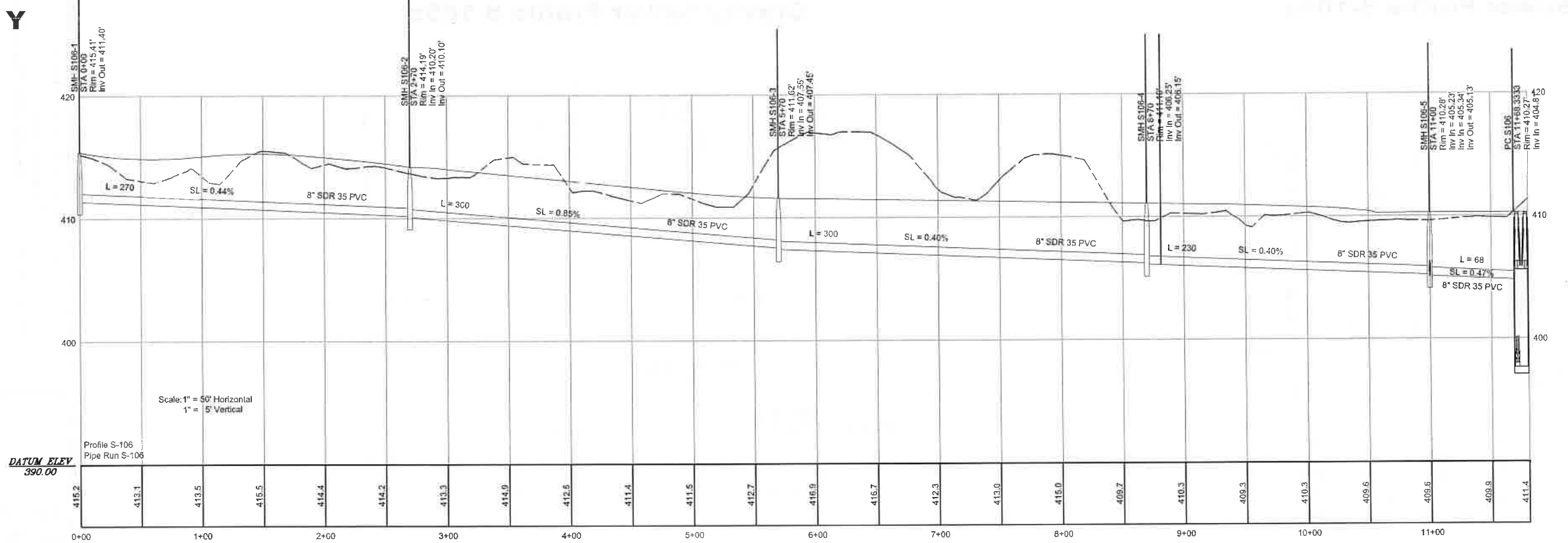


REVISIONS

DATE: March 18, 2022
 SCALE: 1" = 50' H, 1" = 5' V
 FIELD BOOK: 656
 SHEET NO.: 29
 SJS PROJ NO.: 19030
 DWG NO.: 19030 Eng 1.dwg
 TAB: S PP 5



Gravity Sewer Profile S-106s



Gravity Sewer S-106s
 53 Sargent Street
 Northfield, Merrimack County, New Hampshire

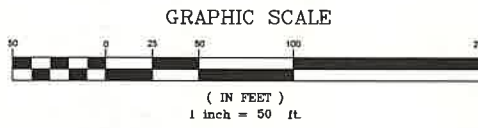
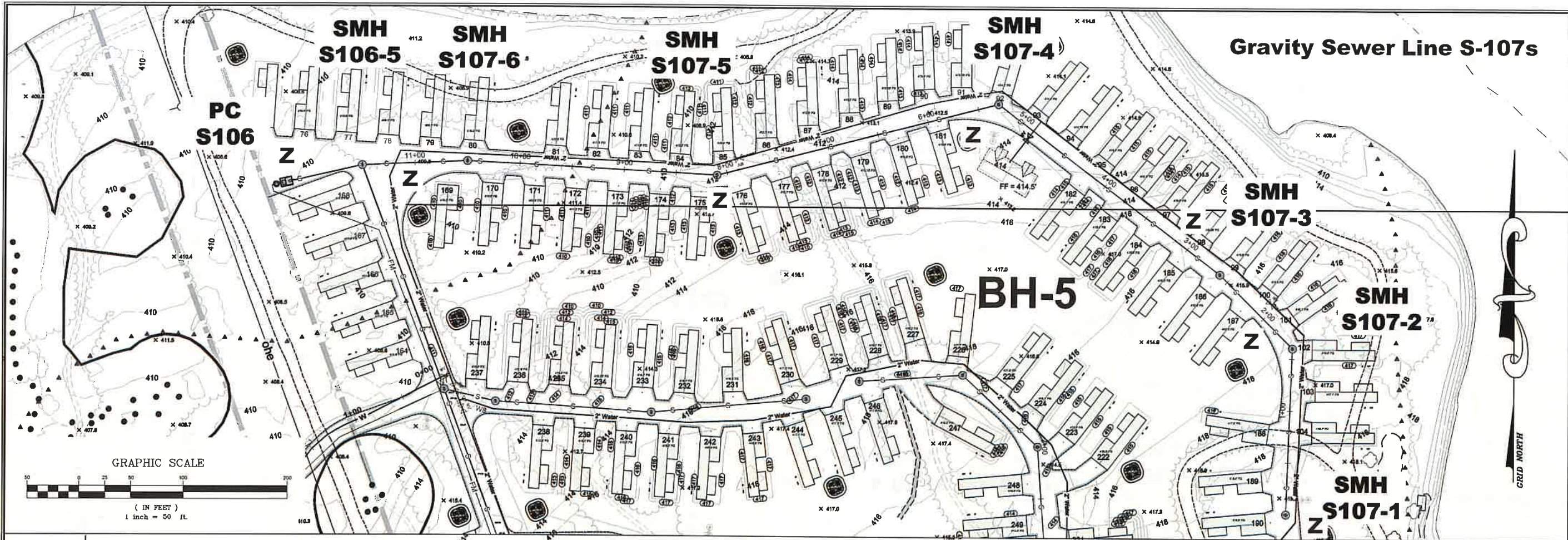
For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
 PHONE (603) 524-1400
 FAX (603) 524-4731

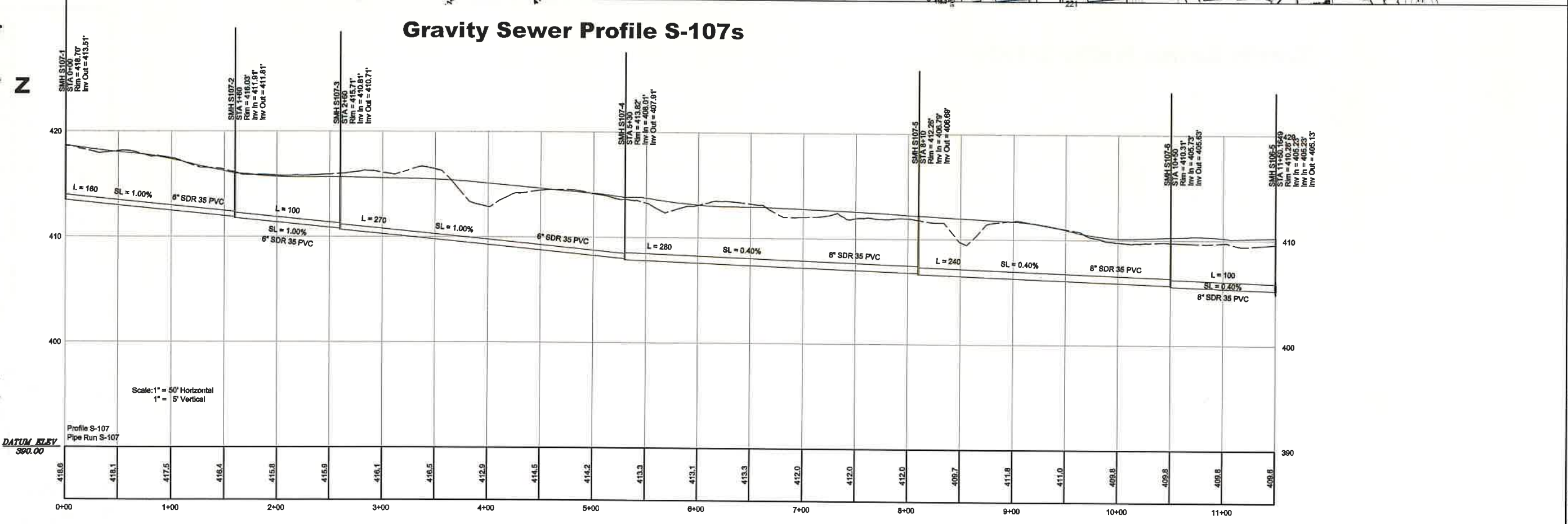
JOB NO.
 19030

SHEET SPP-5

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Gravity Sewer Profile S-107s



REVISIONS

DATE: March 18, 2022
 SCALE: 1" = 50' H, 1" = 5' V
 FIELD BOOK: 656
 SHEET NO.: 30
 SJS PROJ NO.: 19030
 DWG NO.: 19030 Eng 1.dwg
 TAB.: S PP 6



Gravity Sewer S-107
 53 Sargent Street
 Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

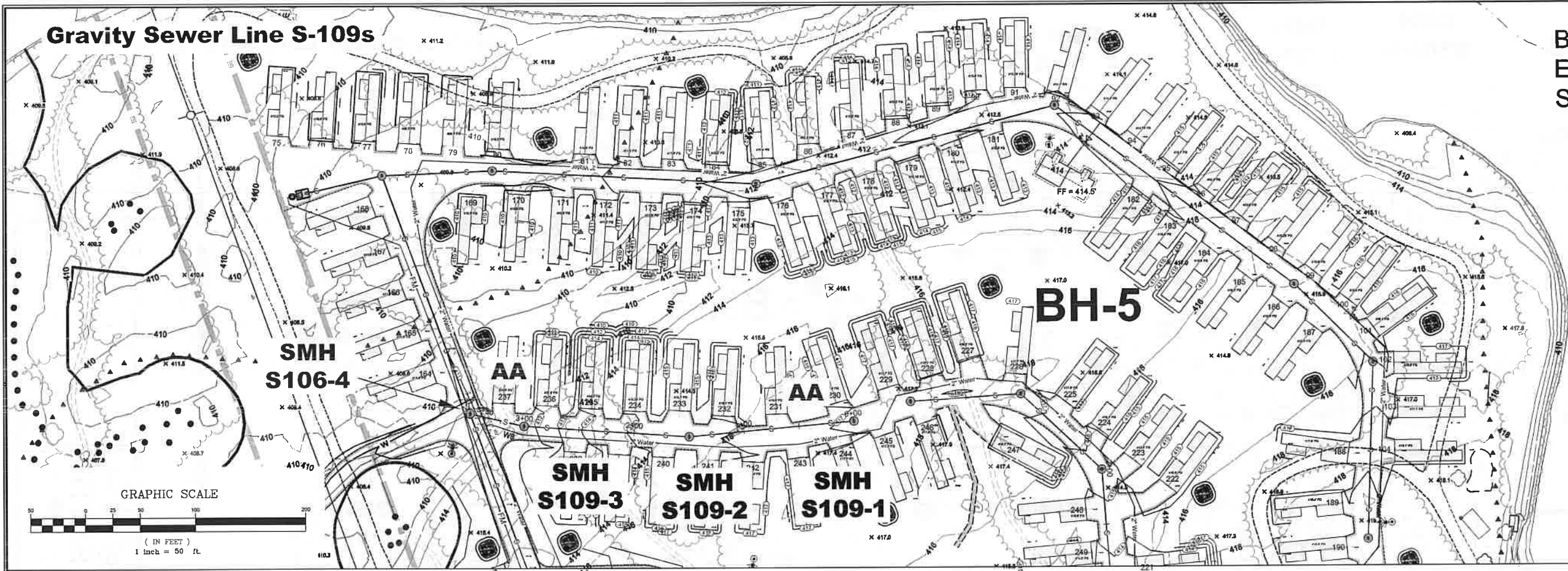
6 LILY POND ROAD, GILFORD, N.H. 03249
 PHONE (603) 524-1485
 FAX (603) 524-4751

JOB NO.
 19030

SHEET SPP-6

Gravity Sewer Line S-109s

**BM 25
ELEV.=41
SPIKE SE**



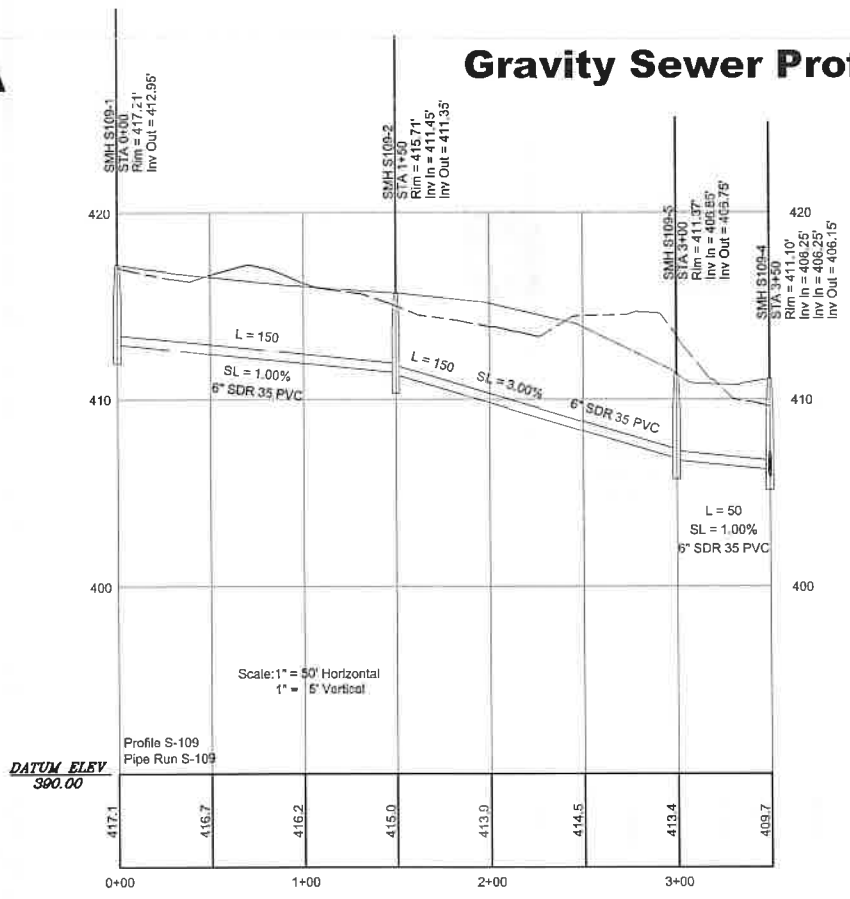
REVISIONS

DATE: March 16, 2022
SCALE: 1" = 50' H, 1" = 5' V
FIELD BOOK: 656
SHEET NO.: 31
SJS PROJ NO.: 19030
DWG NO.: 19030 Eng 1.dwg
TAB.: S PP 7



Gravity Sewer Profile S-109s

AA



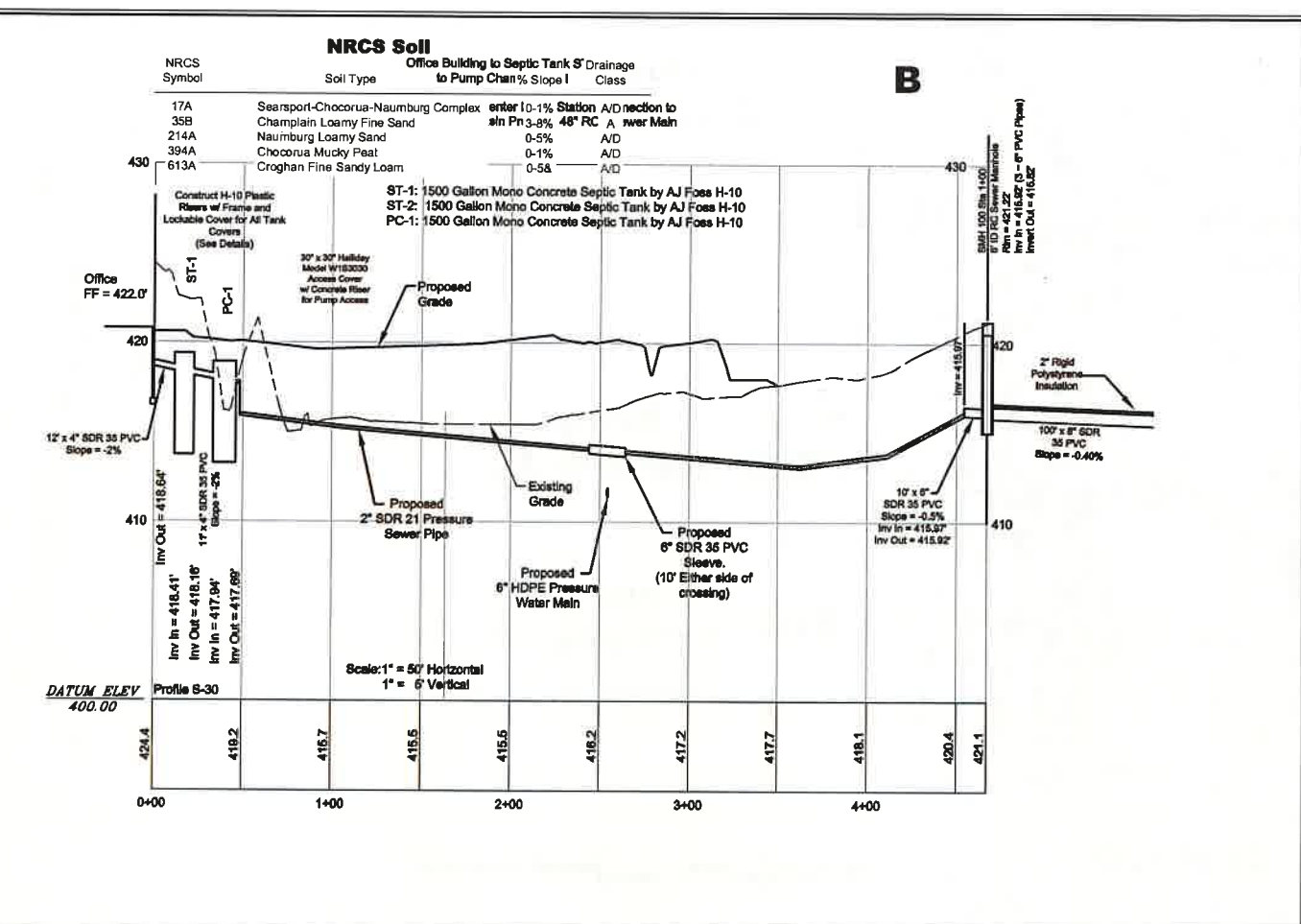
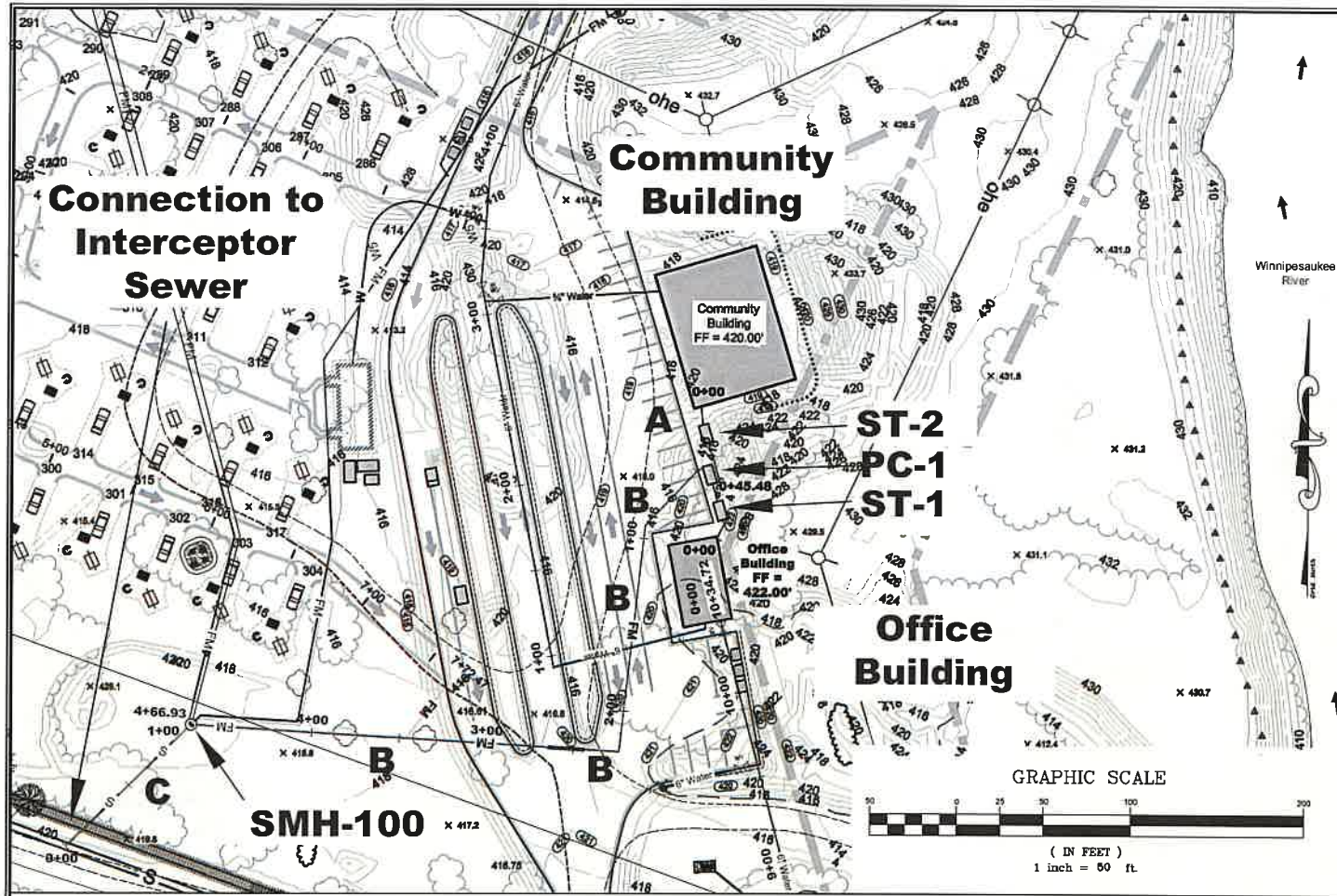
Gravity Sewer S-109s
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 524-1400
FAX (603) 524-4731

JOB NO.
19030

SHEET SPP-7



REVISIONS	
DATE: March 16, 2022	
SCALE: 1" = 50' H, 1" = 5' V	
FIELD BOOK: 656	
SHEET NO.: 32	
SJS PROJ NO.: 19030	
DWG NO.: 19030 Eng 1.dwg	
TAB.: PC-1	

PC-1 at Community Center

Community Building and Office
600 Gallons/Day

24" Plastic Riser and Cover. Cast Base into Tank.

600 GPD from Office & Center

Inv In = 417.94'

1500 Mono H-10 Foss Tank

Volume = 31.6 Gallons per Vertical Inch

1.5" Swing Check Valve PVC

Duplex MYERS ME40 Effluent Pump on Block Pad

2" Union

2" Gate Valve

Junction Box (Structural Plastic)

2" Force main to SMH 100

Float Switches

30" x 30" Halliday Model W1S3030 Access Cover

Top of Cover = 420.50±

Finish Grade = 420.18'

Top of Tank = 418.94'

Inv Out = 417.69'

728 Gallons Storage between Alarm and Outlet

100 Gallon Pump Cycle

Alarm On = 415.77'

Pump 2 On = 415.87'

Pump 1 On = 415.57'

Pump Off = 415.31'

Pump 1 Cycle 1 = 3.03', 100 Gal.

Pump 2 Cycle 2 = 3.13', 138 Gal.

Inside Bottom of Tank = 413.81'

Bottom of Tank = 413.28'

LEGEND

- Gate
- Check
- Union

DUPLIX PUMP VALVE DIAGRAM
Not to Scale

Lead Pump

Force Main

Lag Pump

PUMP PERFORMANCE CURVE
Myers Pumps

ME 40

Total Head in Feet

Gallons Per Minute

23.0' TDH

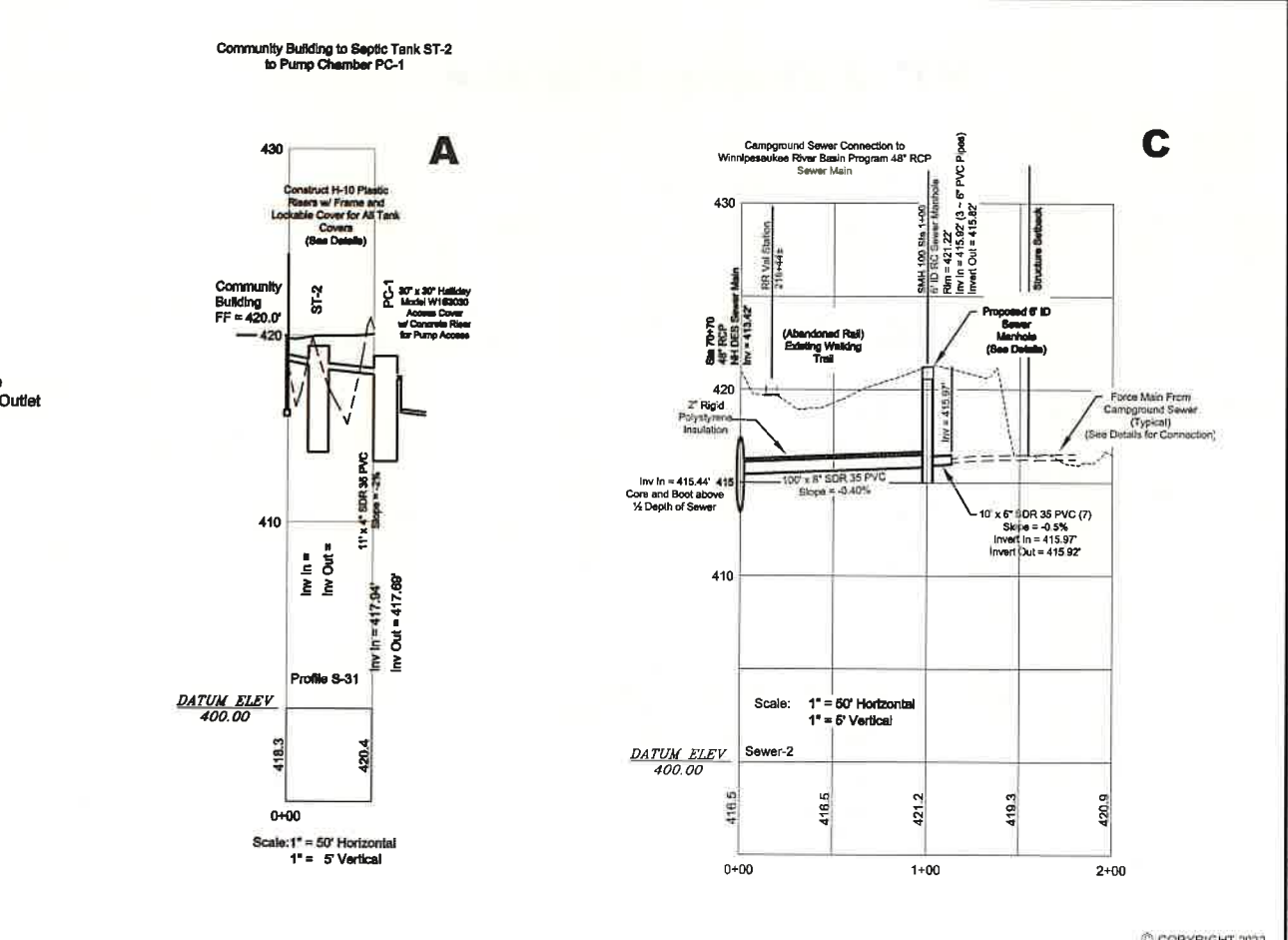
36 GPM

PUMP NOTES

Furnish & install duplex Myers ME40, (or equal) effluent pump capable of pumping 36 GPM at a TDH of 23'. Pump chamber to be vented with 3" PVC to the roof of the Center. Provide control panel to be mounted in the utility room or in NEMA 4X outdoor panel. Control pumps to alternate and override.

Pumps set for 100 gallon pump cycle with a run time of 2.8 minutes and force main velocity of 3.6 fps.

Pumps and appurtenances to be installed per manufacturer's recommendations and current electrical code.



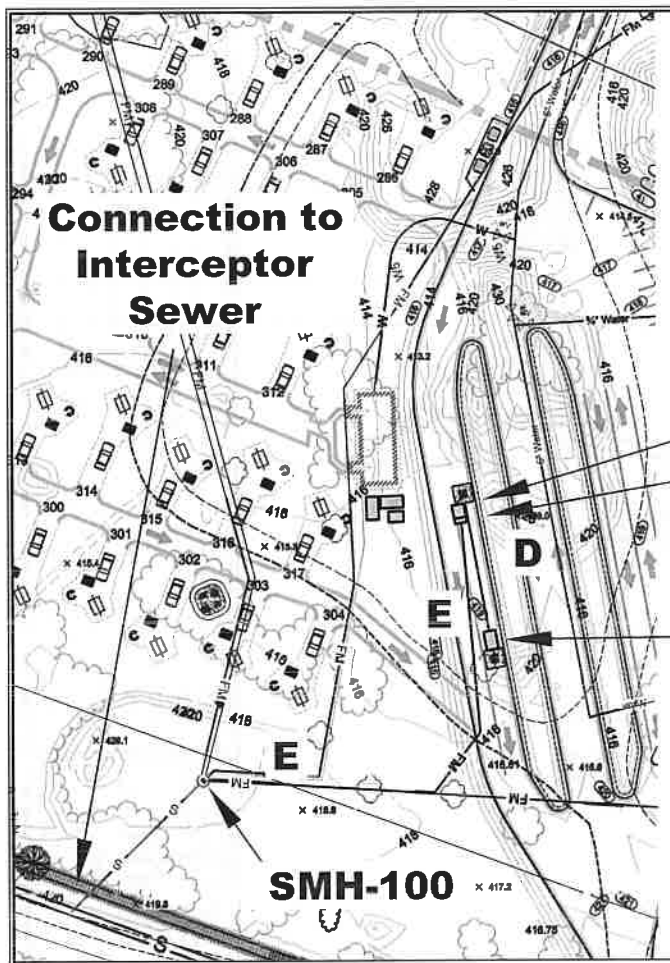
Pump Station PC-1
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

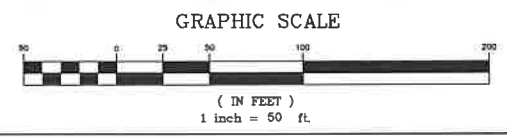
6 LILY POND ROAD, GILFORD, N. H. 03249
PHONE (603) 524-1480
FAX (603) 524-4731

JOB NO.
19030

SHEET S-1

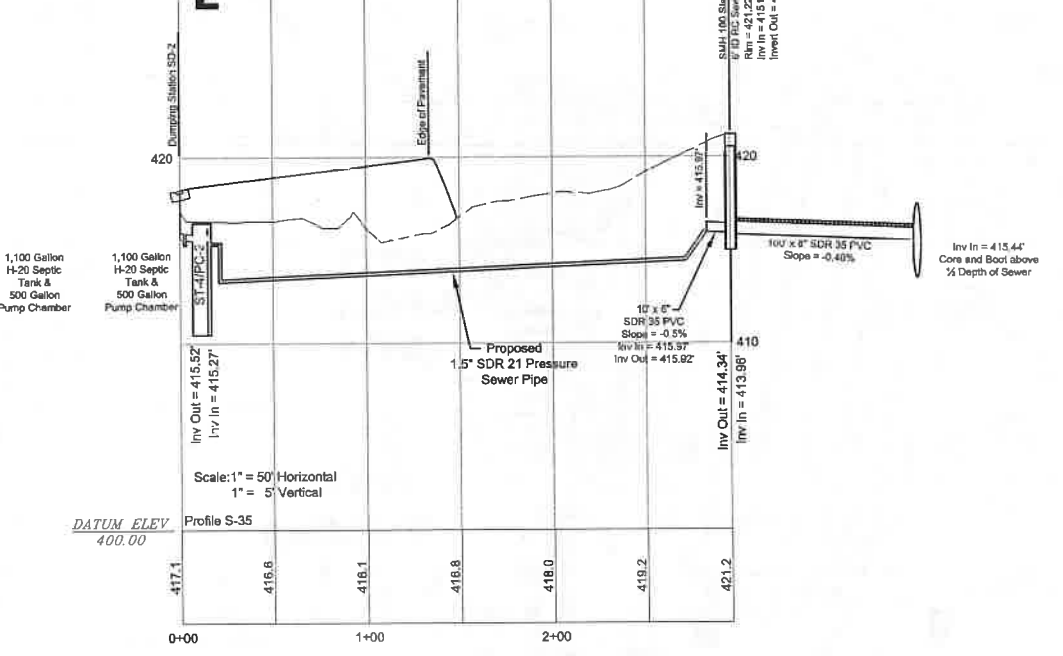
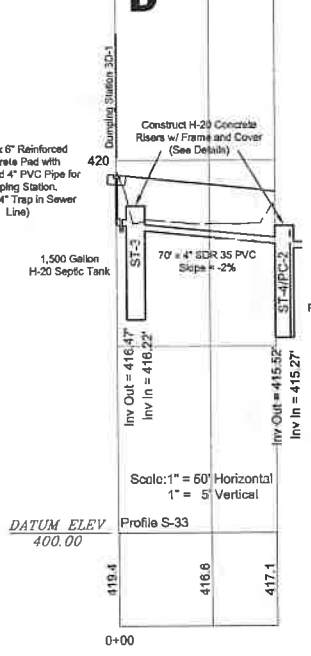


Dump Stations (2)



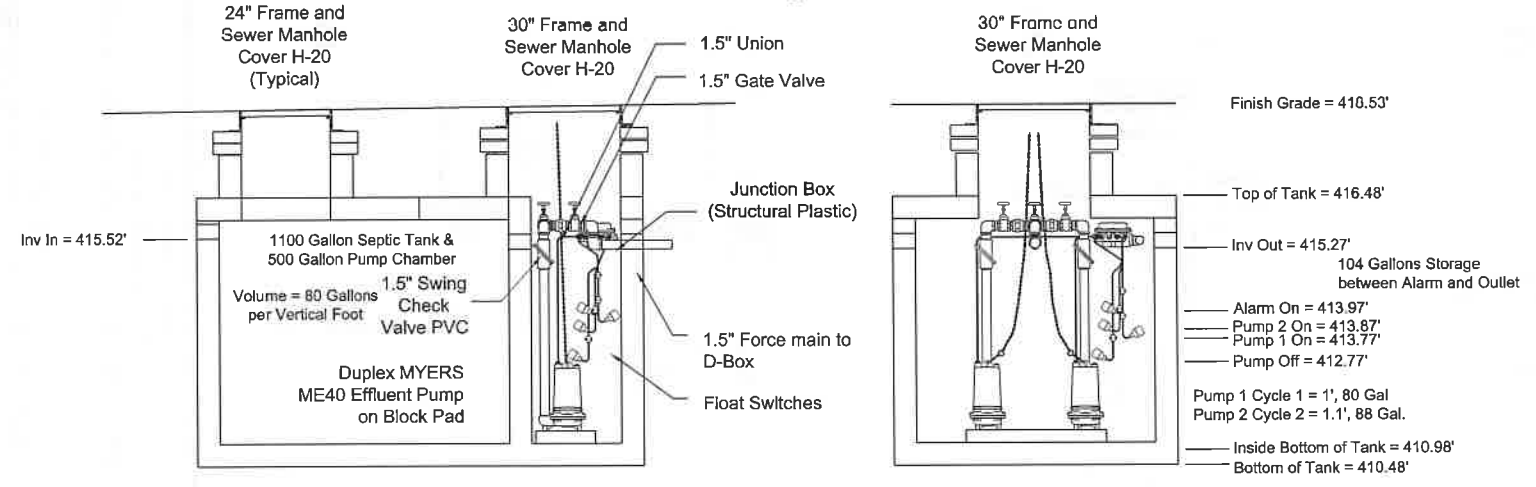
NRCS Soil

NRCS Symbol	Soil Type	Dump Station	Slope	Drainage Class
17A	Seabrook-Chocoma-Nauburg Complex	3D-2 to PC-2 to SMH 100	0-1%	A/D
35B	Champlain Loamy Fine Sand		3-8%	A
214A	Naumburg Loamy Sand		0-5%	A/D
394A	Chocoma Mucky Peat		U-1%	A/D
613A	Croghan Fine Sandy Loam		0-5%	A/D

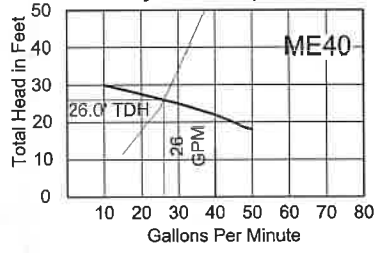


ST-3: 1500 Gallon Concrete Septic Tank by AJ Foss H-20
ST-4 & PC-2: 1100 Gallon Concrete Septic Tank w/ 500 Gallon Pump Chamber by AJ Foss H-20

PC-2 Dump Station



PUMP PERFORMANCE CURVE
Myers Pumps



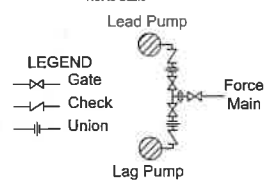
PUMP NOTES

Furnish & install duplex Myers ME40, (or equal) effluent pump capable of pumping 26 GPM at a TDH of 26'. Pump chamber to be vented with 3" PVC to the roof of the Center. Provide control panel to be mounted on a weather proof pedestal with NEMA 4X box. Pumps to alternate and override.

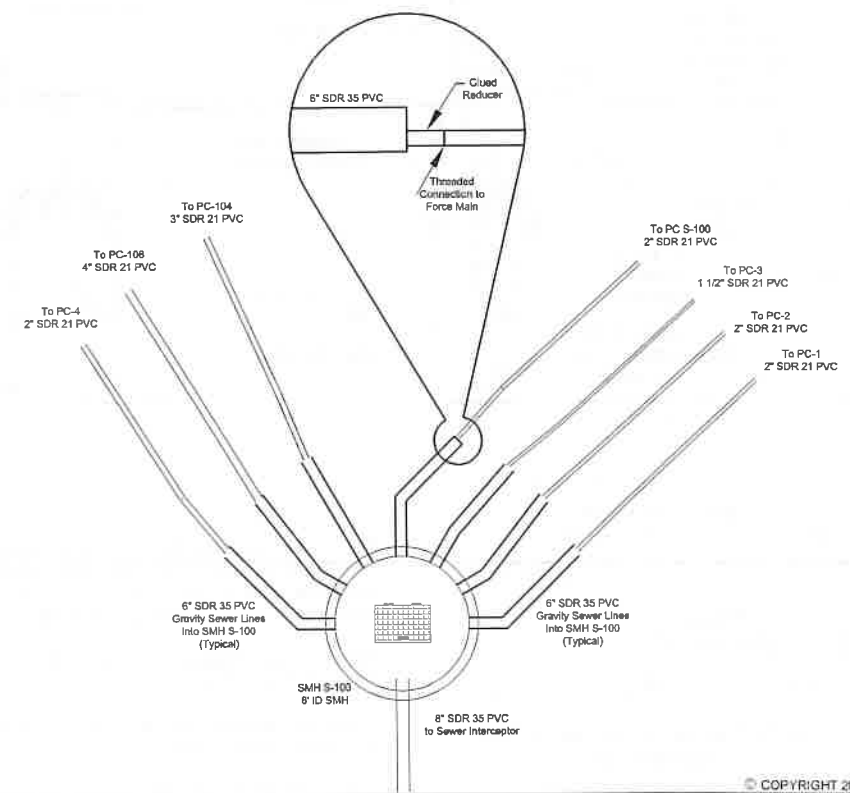
Pumps set for 80 gallon pump cycle with a run time of 3.1 minutes and force main velocity of 3.9 fps.

Pumps and appurtenances to be installed per manufacturer's recommendations and current electrical code.

DUPLIX PUMP VALVE DIAGRAM
Not to Scale



SMH S-100 Force Mains In, 8" SDR 35 PVC Out to Interceptor Sewer



REVISIONS

DATE: March 18, 2022

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

FIELD BOOK: 656

SHEET NO.: 33

SUS PROJ NO.: 19030

DWG NO.: 19030 Eng 1.dwg

TAB.: PC-2

STEVEN SMITH ASSOCIATES, INC.
A Division of DuBois

Pump Station PC-2
53 Sargent Street
Northfield, Merrimack County, New Hampshire

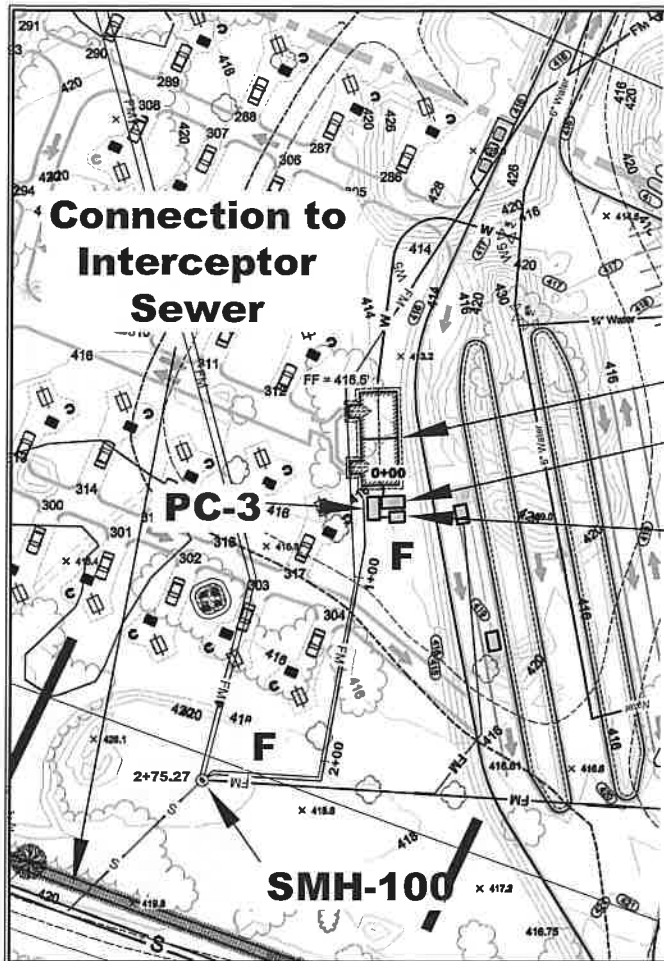
For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 524-1468
FAX (603) 524-4751

JOB NO.
19030

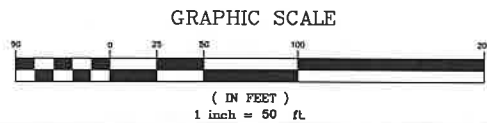
SHEET S-2

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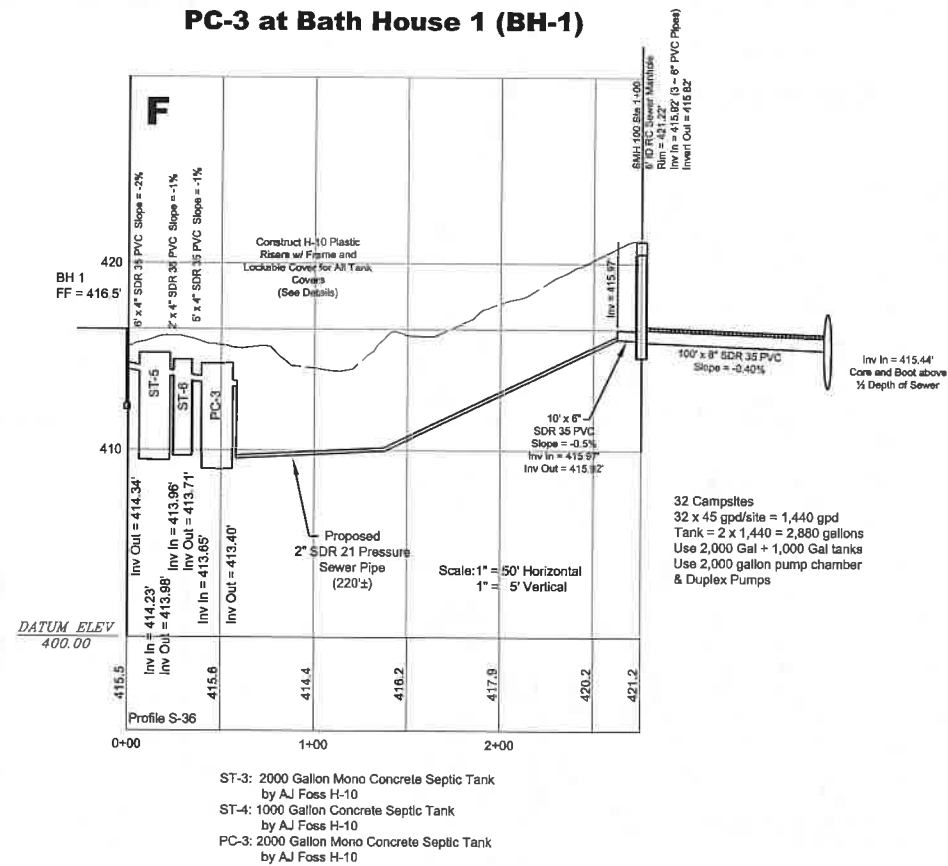


Bath House 1 Sewer Connection

Bath House 1
ST-5
ST-6



PC-3 at Bath House 1 (BH-1)



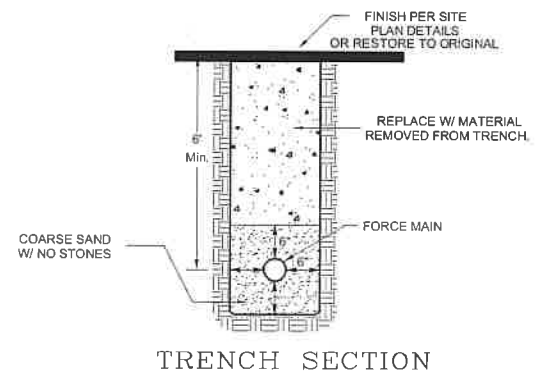
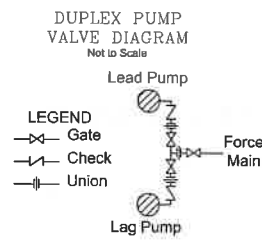
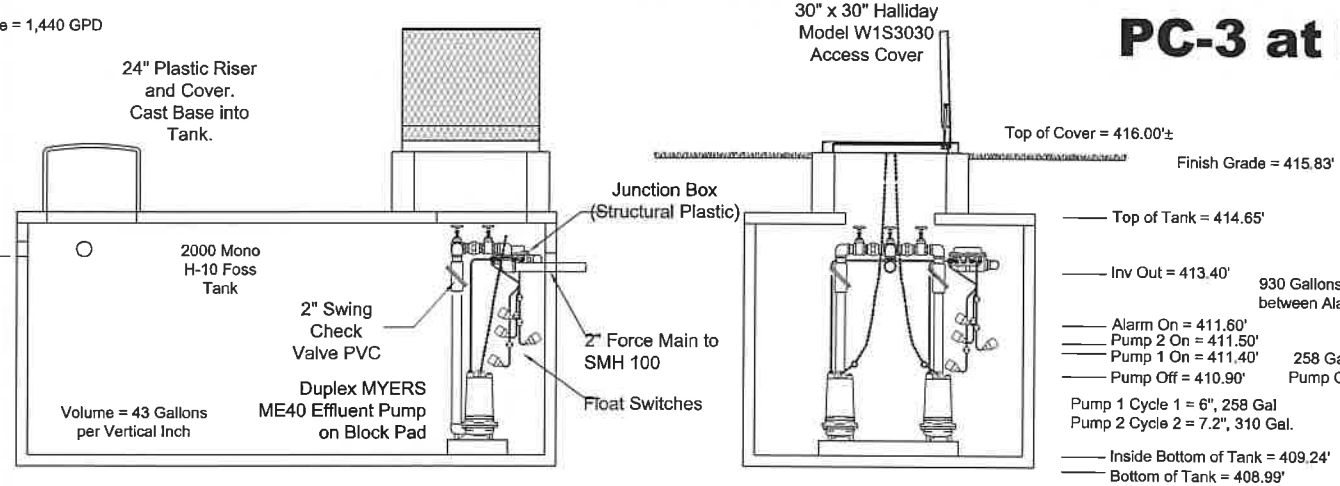
NO.	REVISIONS

DATE: March 18, 2022
 SCALE: 1" = 50' H, 1" = 5' V
 FIELD BOOK: 656
 SHEET NO.: 34
 SJS PROJ NO.: 19030
 DWG NO.: 19030_Eng_1.dwg
 TAB.: PC-3

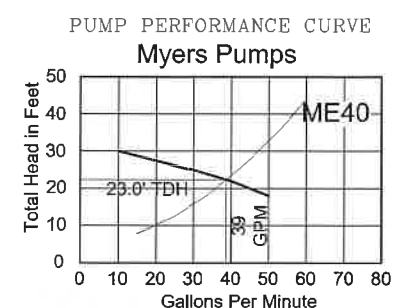


22 Campsites x 45 GPD/Site = 1,440 GPD

PC-3 at Bath House 1



ME 40



PUMP NOTES

Furnish & install duplex Myers ME40, (or equal) effluent pump capable of pumping 39 GPM at a TDH of 22.5'. Pump chamber to be vented with 3" PVC to the roof of BH-1. Provide control panel to be mounted in BH-1. Control pumps to alternate and override.

Pumps set for 258 gallon pump cycle with a run time of 6.6 minutes and force main velocity of 4.1 fps.

Pumps and appurtenances to be installed per manufacturer's recommendations and current electrical code.

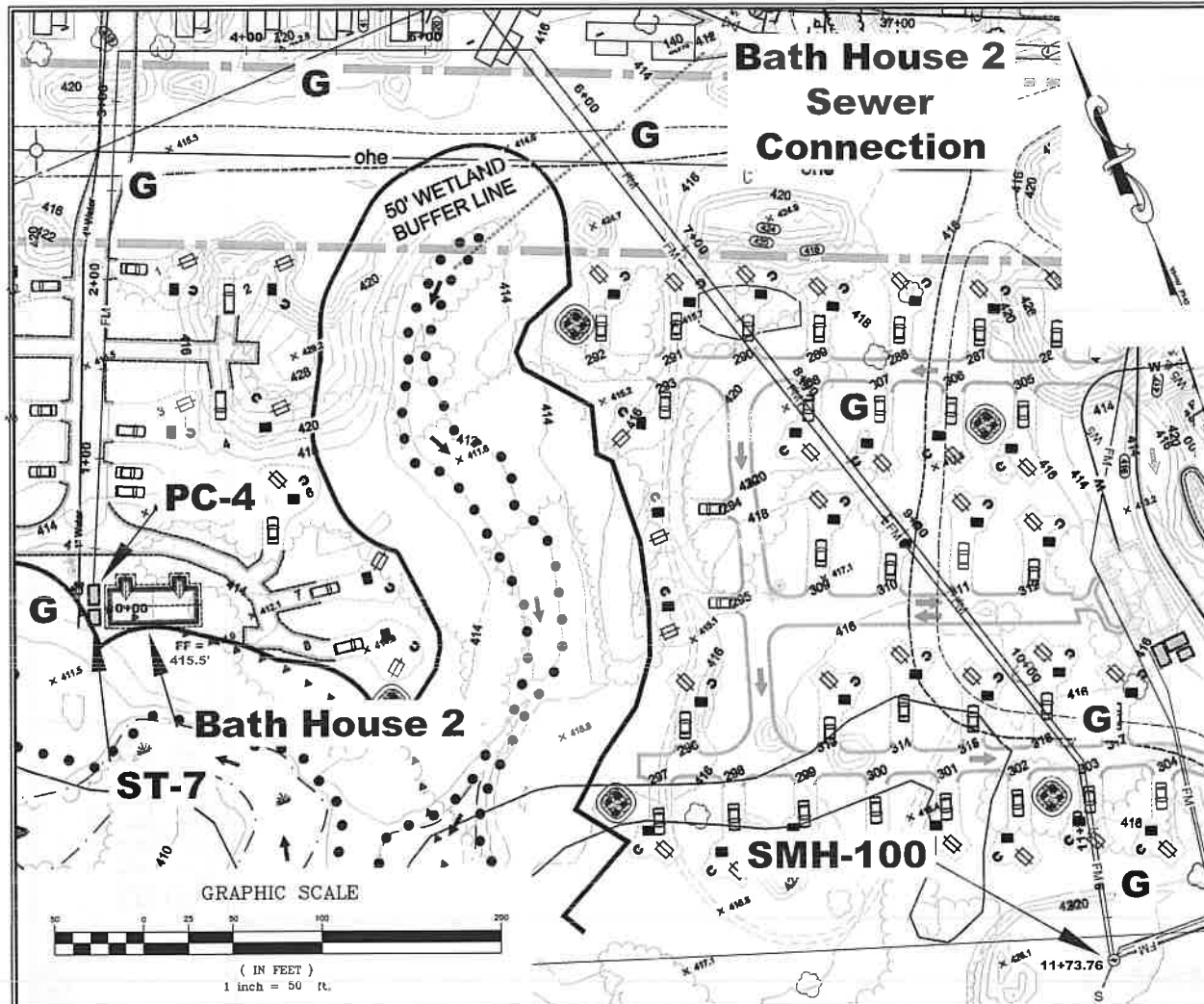
Pump Station PC-3
 53 Sargent Street
 Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
 PHONE (603) 524-1468
 FAX (603) 524-4751

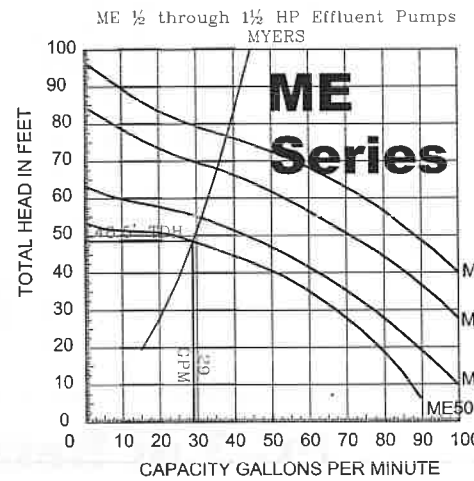
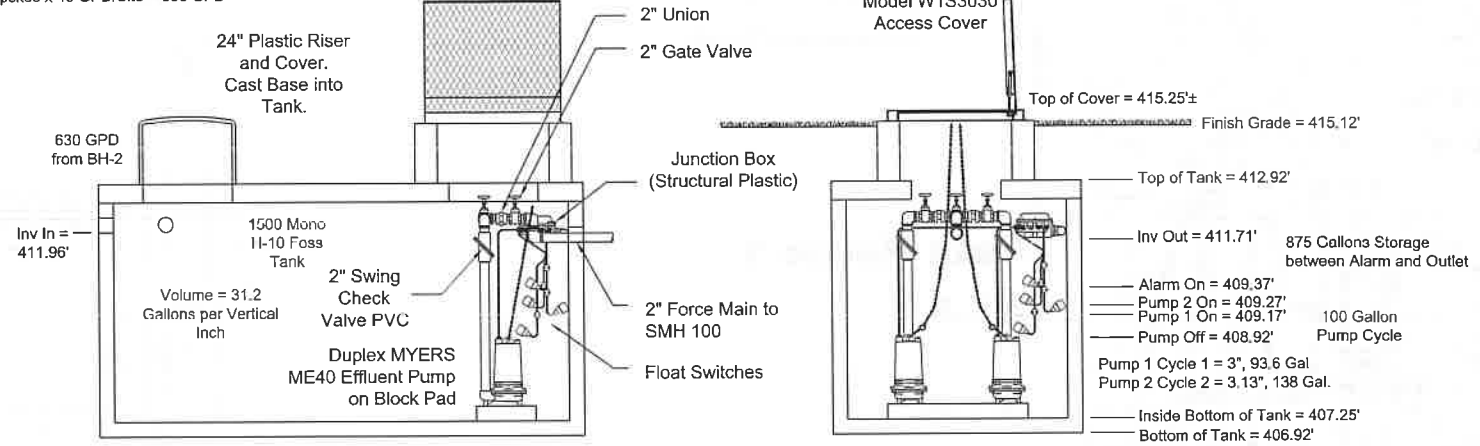
JOB NO.
 19030

SHEET S-3



PC-4 at Bath House 2

14 Campsites x 45 GPD/Site - 630 GPD



PUMP NOTES

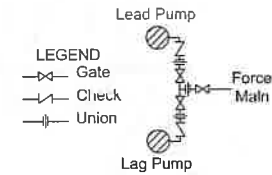
Furnish & install duplex Myers ME50, (or equal) 1/2 hp effluent pumps capable of pumping 29 GPM at a TDH of 48.5'. Pump chamber to be vented with 3" PVC to the roof of the BH-2. Provide control panel to be mounted in the utility room of the BH-2. Control pumps to alternate and override.

Pumps set for 93.6 gallon pump cycle with a run time of 3.23 minutes and force main velocity of 3.0 fps.

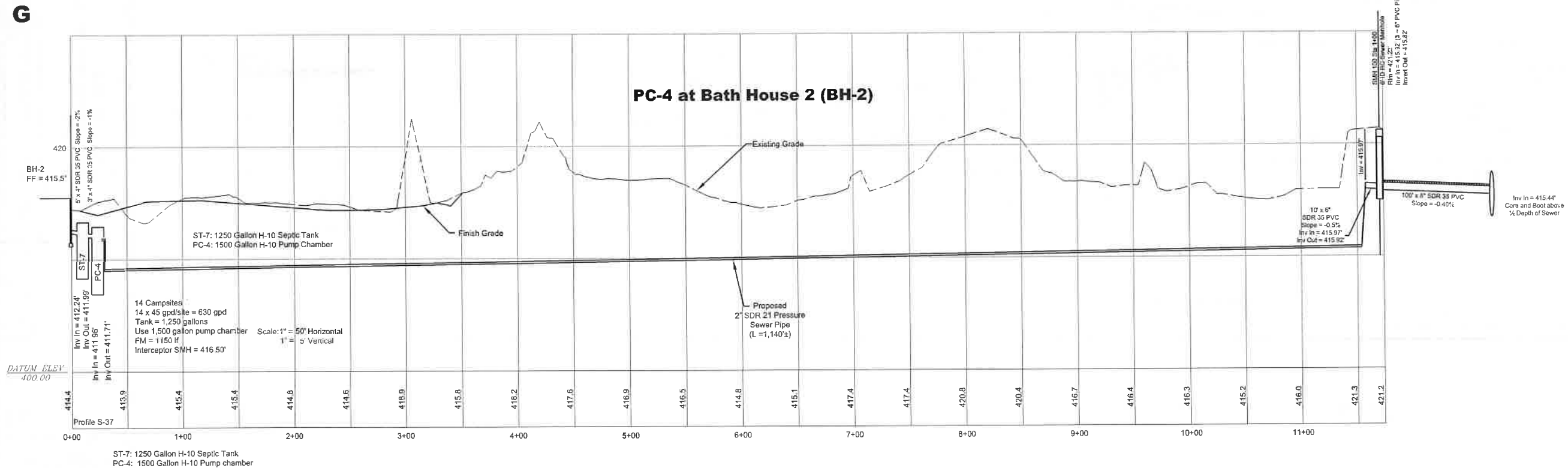
Pumps and appurtenances to be installed per manufacturer's recommendations and current electrical code.

DUPLEX PUMP VALVE DIAGRAM

Not to Scale



PC-4 at Bath House 2 (BH-2)



REVISIONS

DATE: March 18, 2022
SCALE: 1" = 50' H, 1" = 5' V
FIELD BOOK: 656
SHEET NO.: 35
SUS PROJ NO.: 19030
DWG NO.: 19030 Eng 1.dwg
TAB: PC 4



Pump Station PC-4
53 Sargent Street
Northfield, Merrimack County, New Hampshire
For
Winni River Campground, LLC

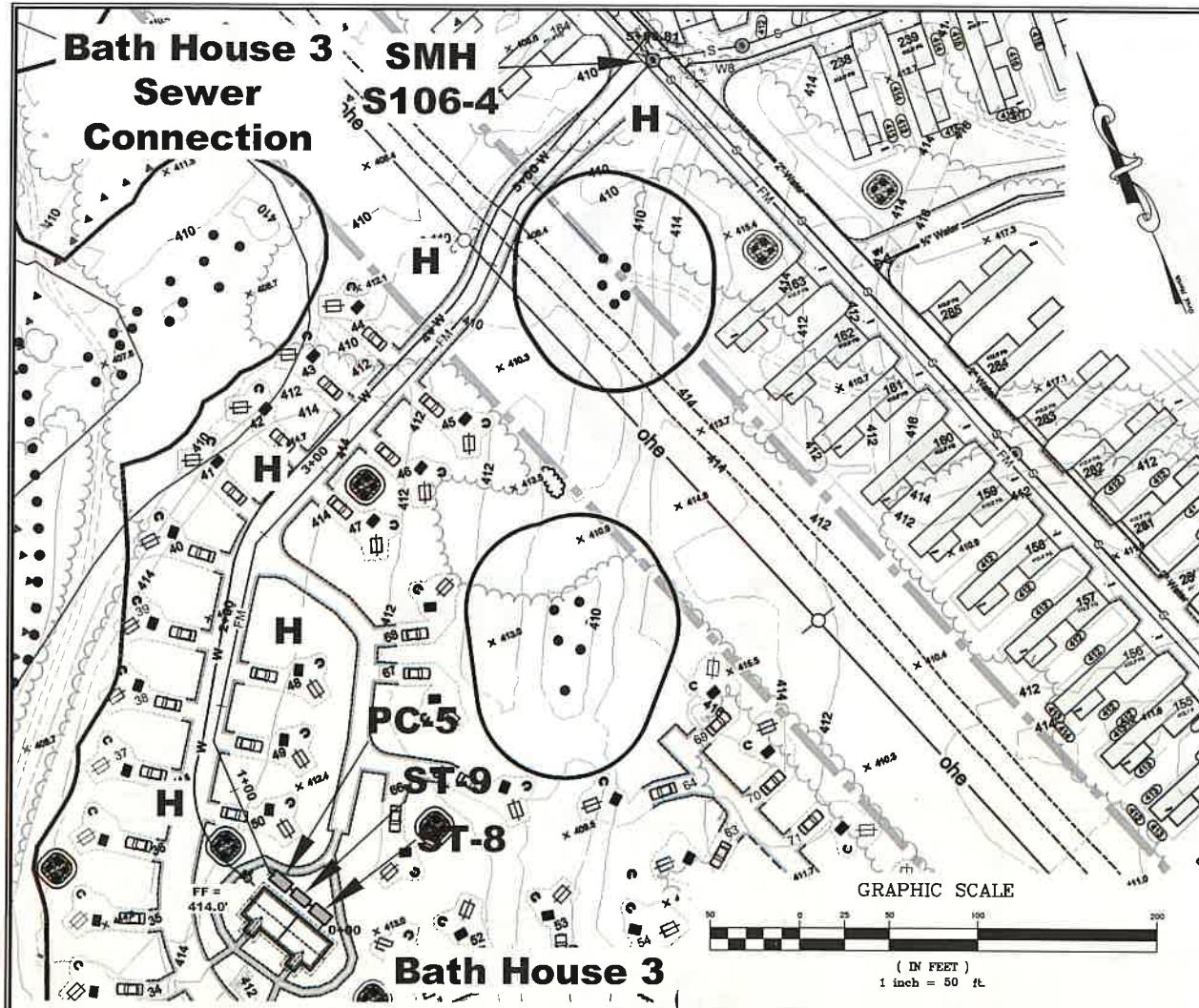
G LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 524-1408
FAX (603) 524-4731

JOB NO.
19030

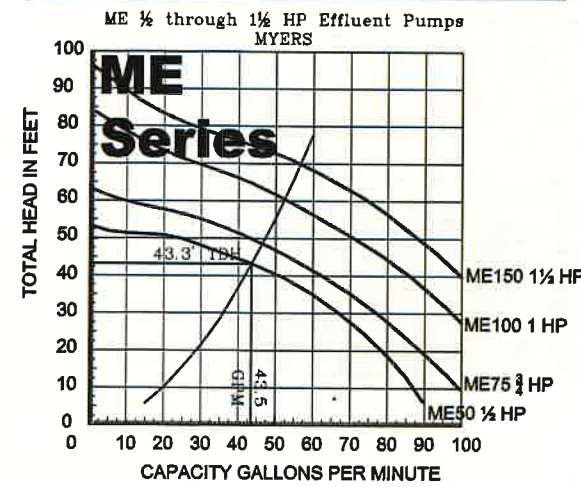
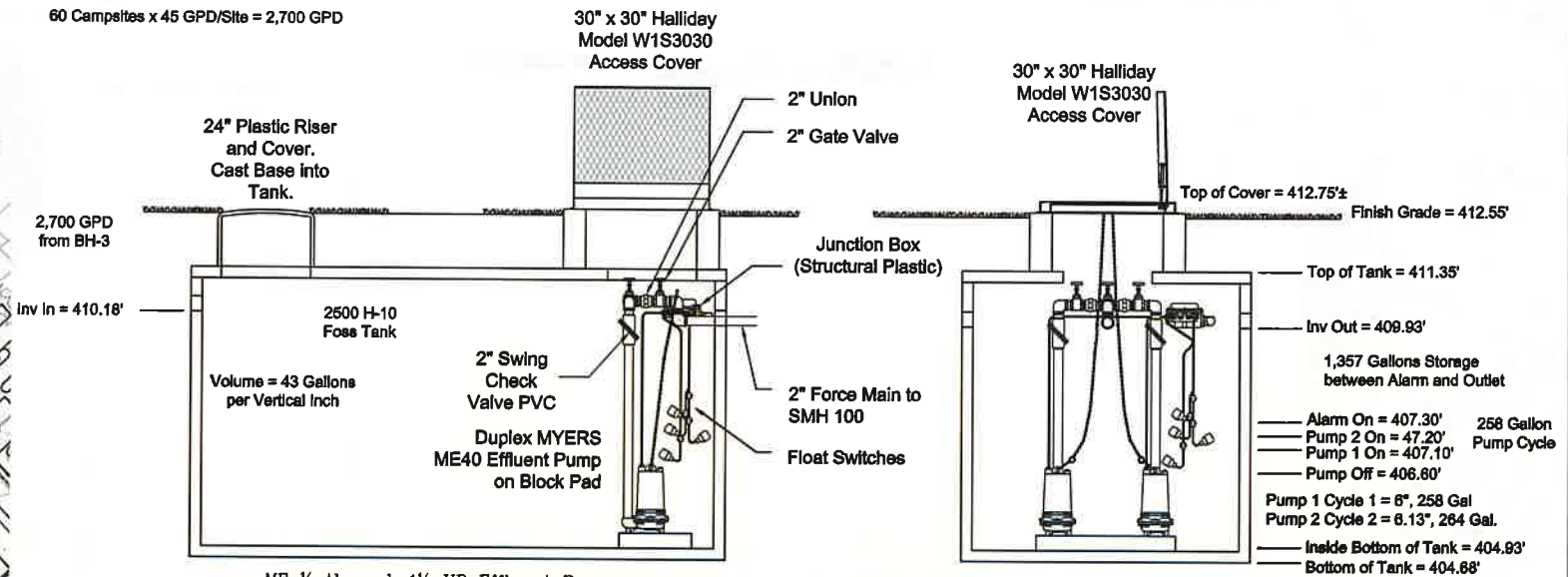
SHEET S-4

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PC-5 at Bath House 3



60 Campsites x 45 GPD/Site = 2,700 GPD



PUMP NOTES

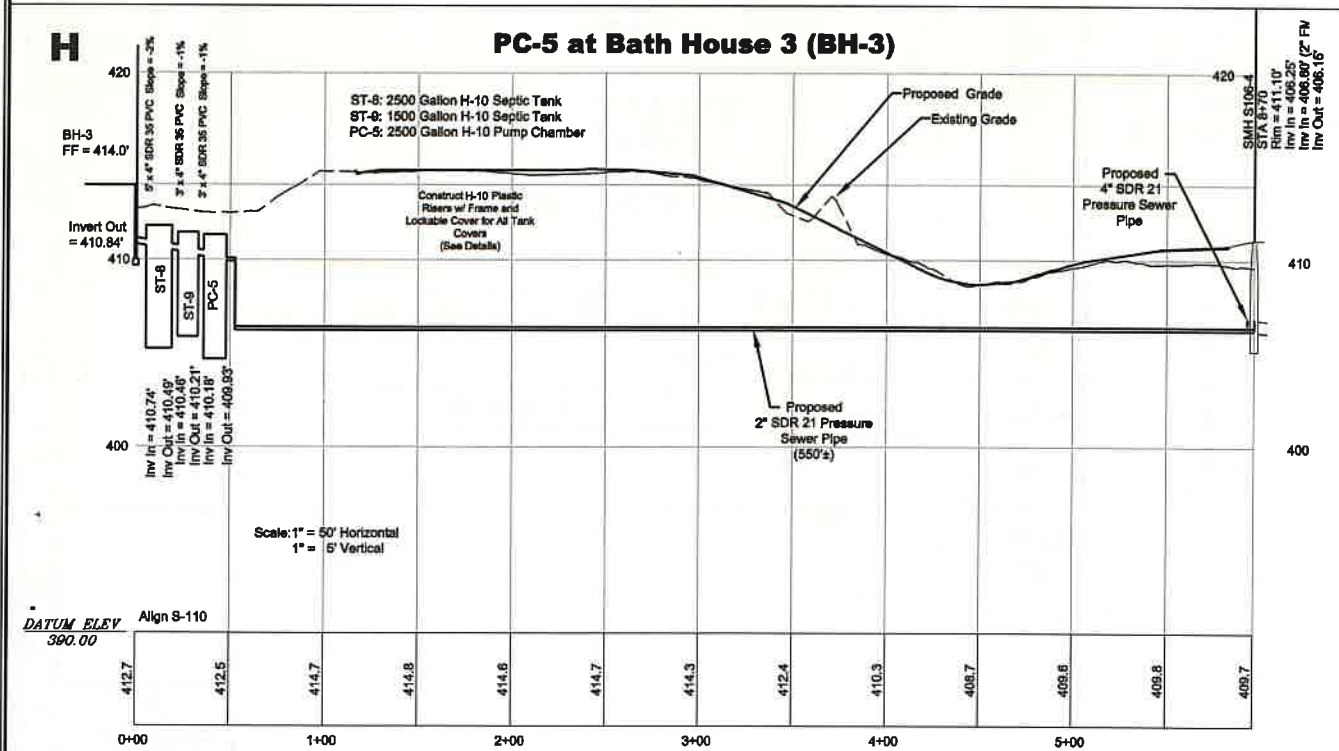
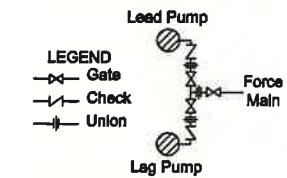
Furnish & install duplex Myers ME50, (or equal) 1/2 hp effluent pumps capable of pumping 43.5 GPM at a TDH of 43.5'. Pump chamber to be vented with 3" PVC to the roof of the BH-3. Provide control panel to be mounted in the utility room of the BH-3. Control pumps to alternate and override.

Pumps set for 258 gallon pump cycle with a run time of 5.93 minutes and force main velocity of 4.5 fps.

Pumps and appurtenances to be installed per manufacturer's recommendations and current electrical code.

DUPLEX PUMP VALVE DIAGRAM

Not to Scale



REVISIONS

DATE: March 18, 2022
SCALE: 1" = 50' H, 1" = 5' V
FIELD BOOK: 656
SHEET NO.: 36
SJS PROJ NO.: 19030
DWG NO.: 19030 Eng 1.dwg
TAB.: PC-5

STEVEN SMITH ASSOCIATES, INC.
A Division of DuBois

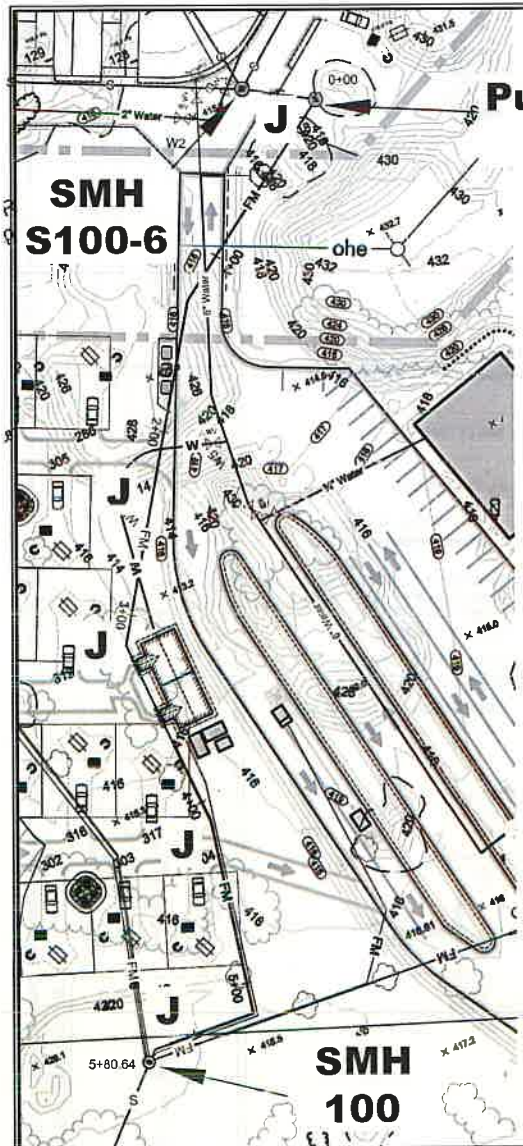
PHONE (603) 824-1408
FAX (603) 824-4731

Pump Station PC-5
53 Sargent Street
Northfield, Merrimack County, New Hampshire

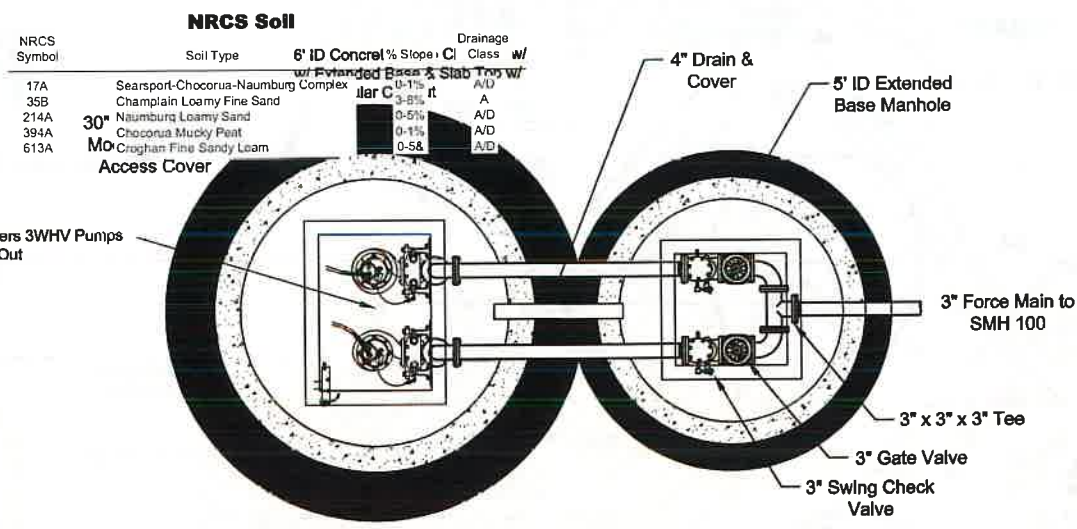
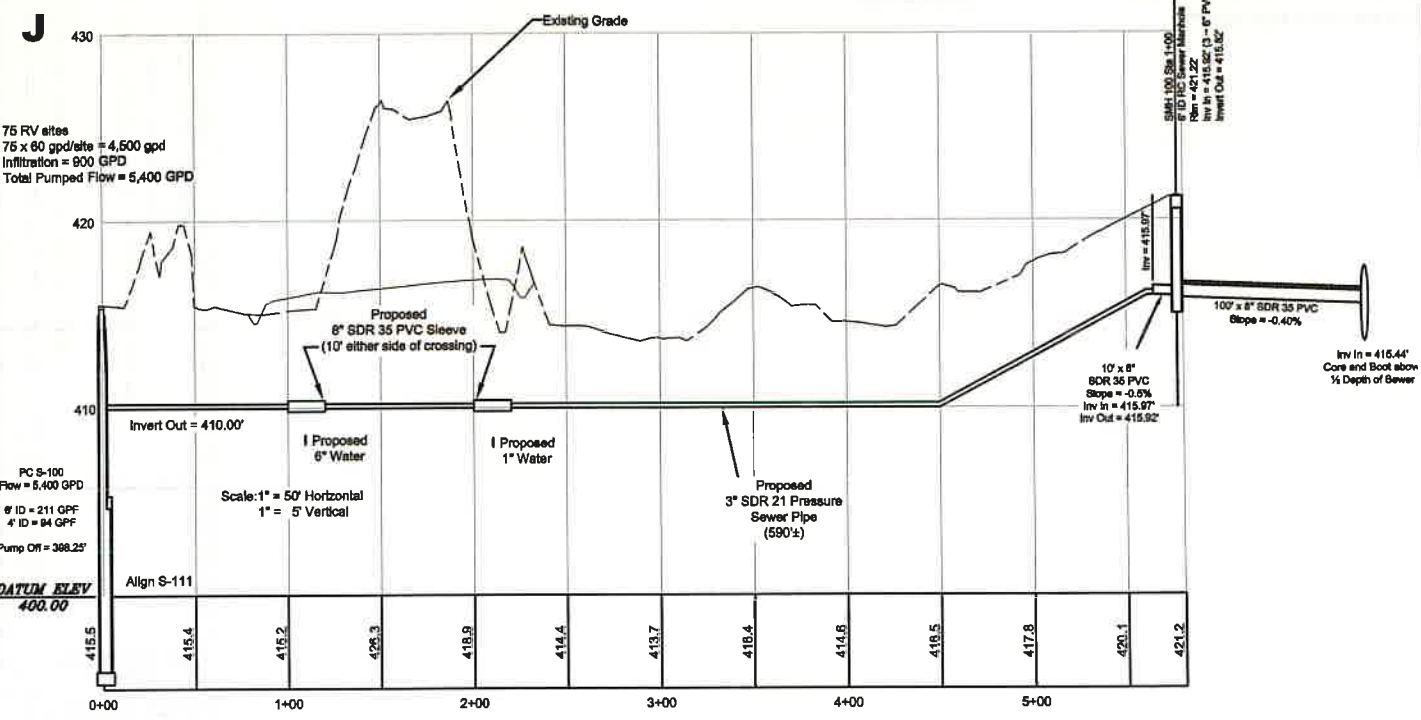
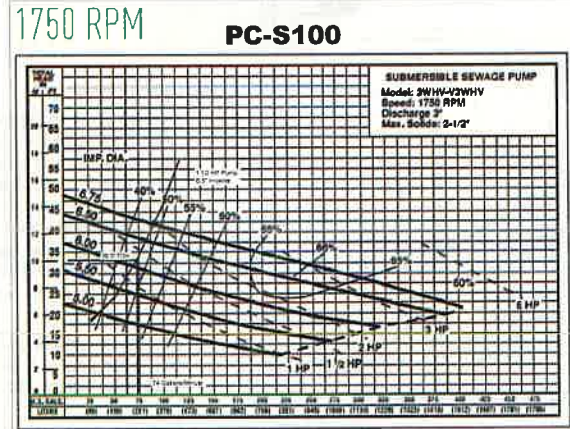
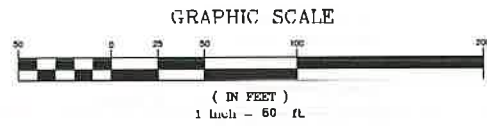
For
Winni River Campground, LLC

JOB NO.
19030

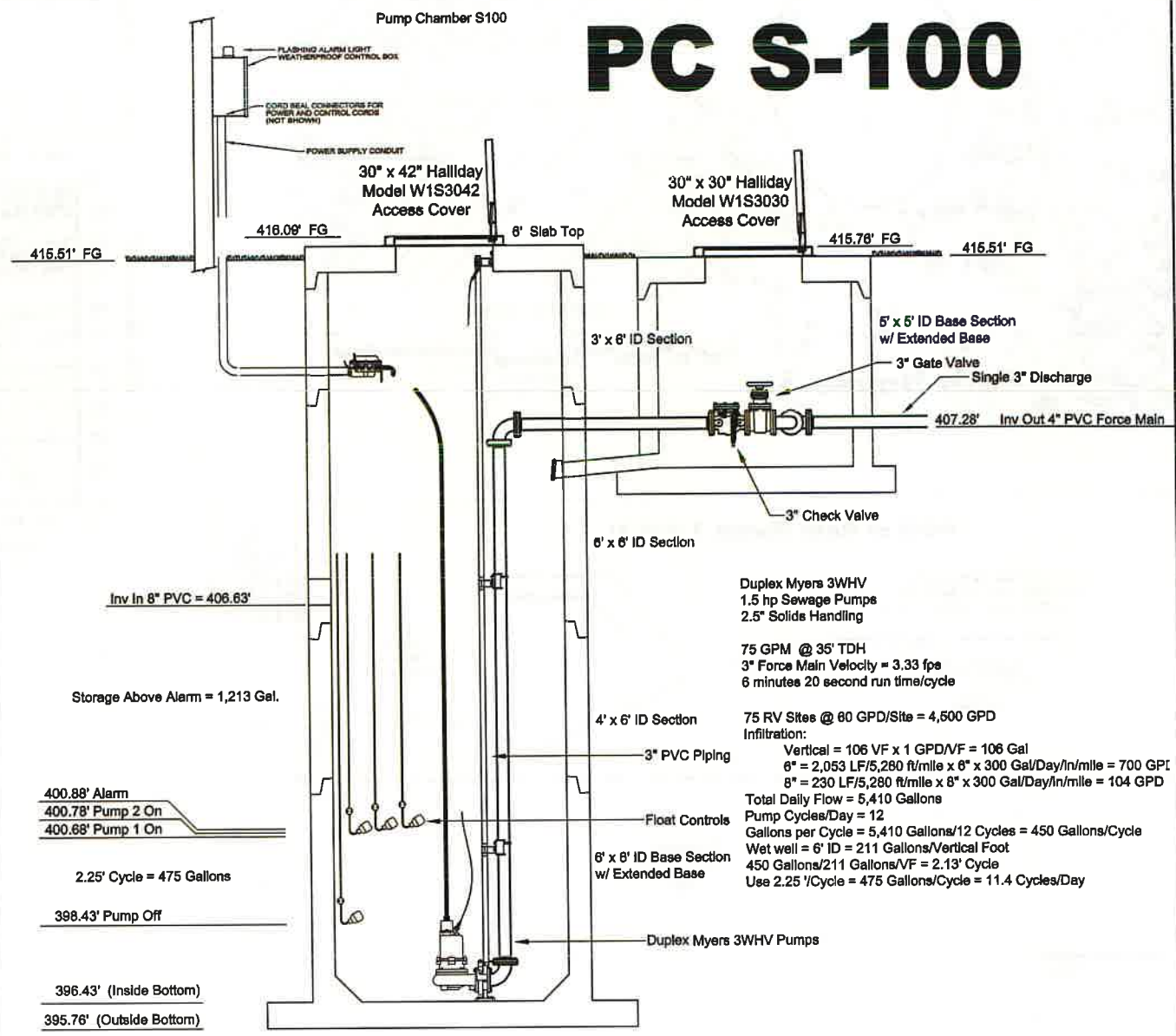
SHEET S-5



**Pump Station
PC S-100**



PC S-100



REVISIONS

DATE: March 18, 2022

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

FIELD BOOK: 656

SHEET NO.: 37

SJS PROJ NO.: 19030

DWG NO.: 19030 Eng 1.dwg

TAB.: PC S 100

STEVEN SMITH ASSOCIATES, INC.
A Division of Publicis

Pump Station PC S-100
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

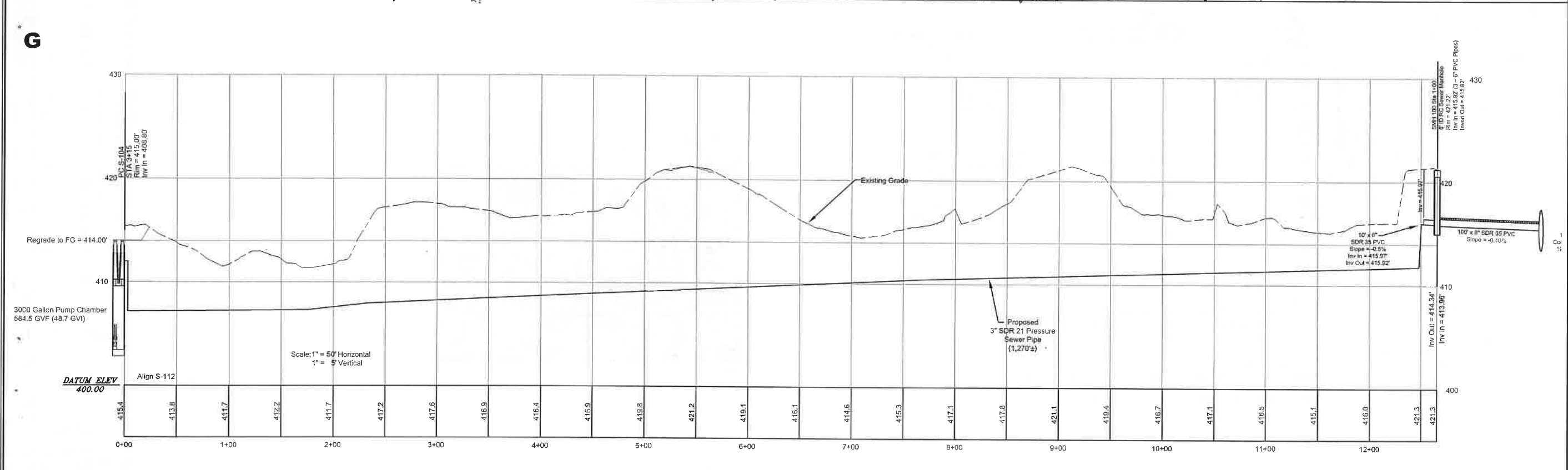
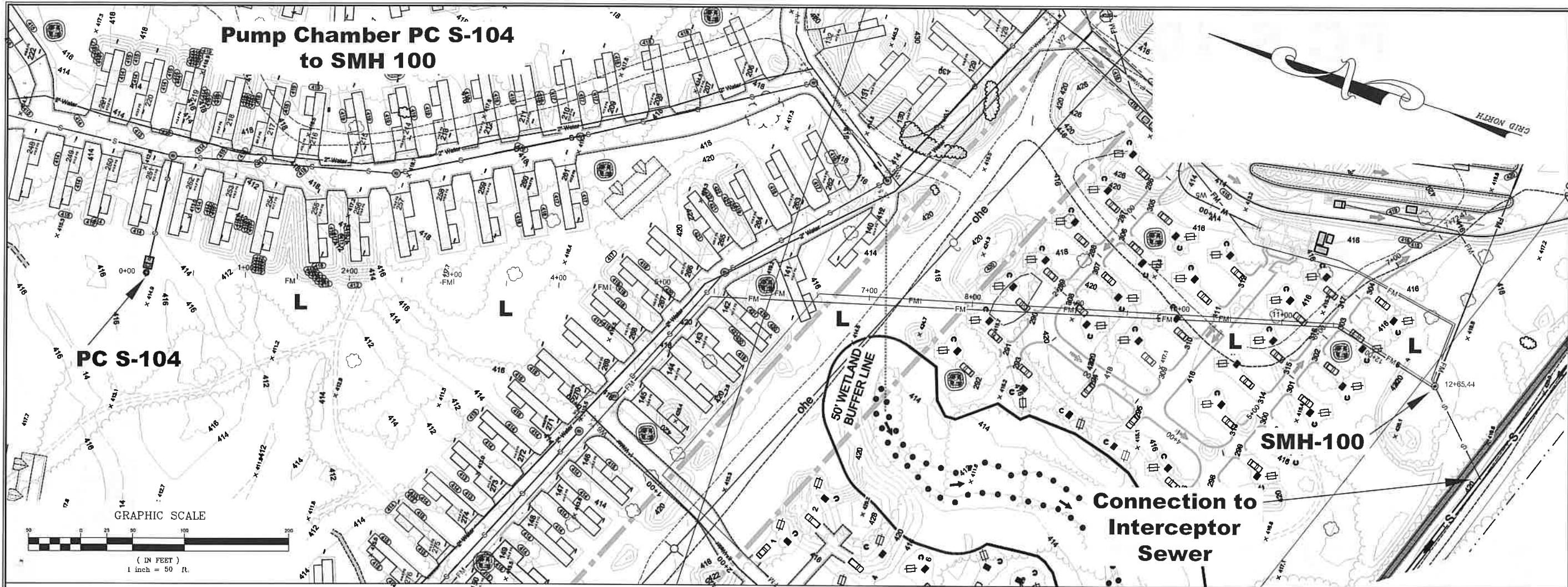
PHONE (603) 524-1488
FAX (603) 524-1751

6 LILY POND ROAD, GILFORD, N.H. 03249

JOB NO. 19030

SHEET S-6

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REVISIONS

DATE: March 18, 2022
 SCALE: 1" = 50' H, 1" = 5' V
 FIELD BOOK: 656
 SHEET NO.: 38
 SJS PROJ NO.: 19030
 DWG NO.: 19030 Eng 1.dwg
 TAB.: PC 104



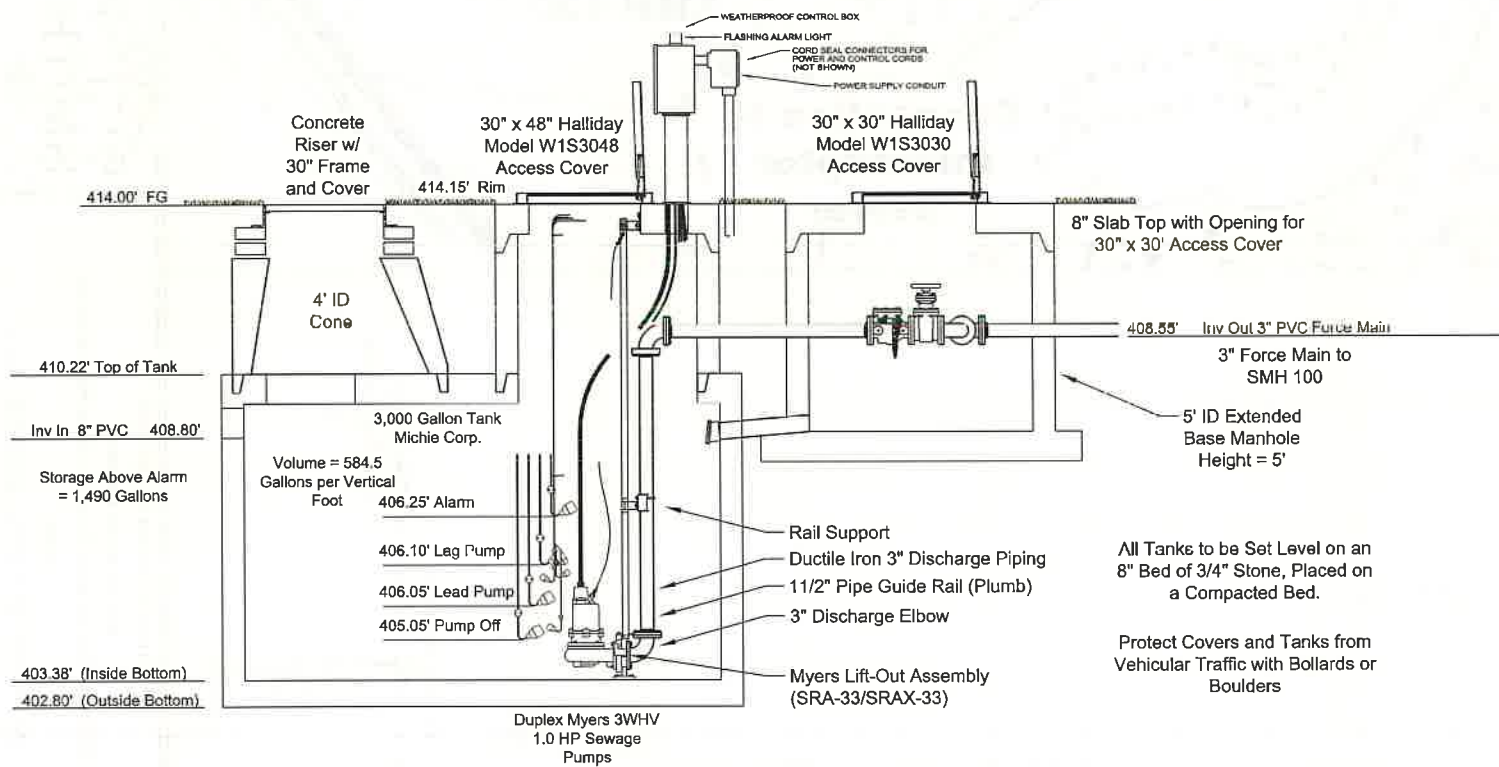
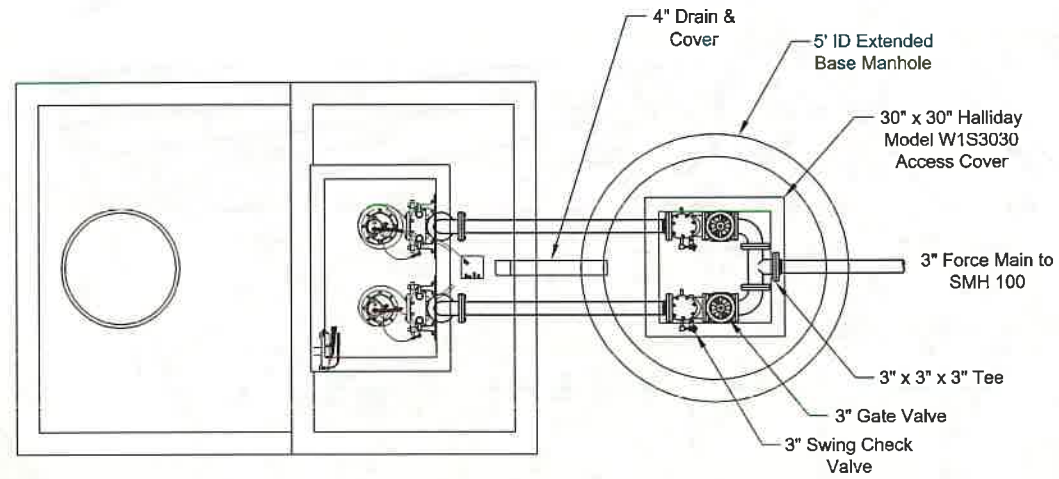
Pump Station PC S-104
 53 Sargent Street
 Northfield, Merrimack County, New Hampshire
 For
 Winni River Campground, LLC

G LILY POND ROAD, GILFORD, N.H. 03249
 PHONE: (603) 524-1448
 FAX: (603) 524-4731

JOB NO. 19030
 SHEET S-9

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PC S-104



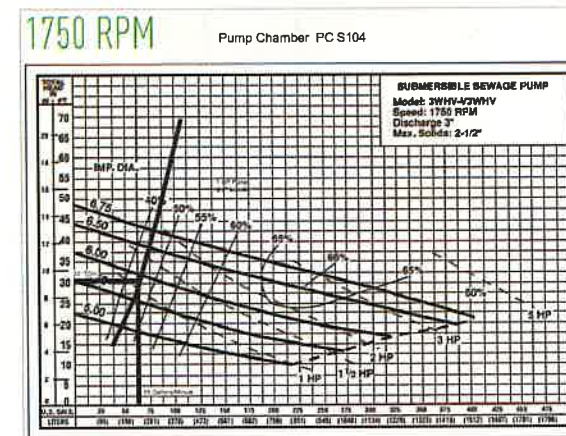
All Tanks to be Set Level on an 8" Bed of 3/4" Stone, Placed on a Compacted Bed.

Protect Covers and Tanks from Vehicular Traffic with Bollards or Boulders

Duplex Myers 3WHV
1.0 hp Sewage Pumps
2.5" Solids Handling

55 GPM @ 31' TDH
3" Force Main Velocity = 2.45 fps
10 minute run time/cycle

27 RV Sites @ 60 GPD/ Site = 1,620 GPD Infiltration:
Vertical = 30 VF x 1 GPD/VF = 30 Gal
6" = 585 LF/5,280 ft/mile x 6" x 300 Gal/Day/in/mile = 200 GPD
8" = 100 LF/5,280 ft/mile x 8" x 300 Gal/Day/in/mile = 45 GPD
Total Daily Flow = 1,895 Gallons
Pump Cycles/Day = 3.5
Gallons per Cycle = 1,895 Gallons/3.5 Cycles = 548 Gallons/Cycle
Wet well = 548.5 Gallons/Vertical Foot
548.5 Gallons/Cycle / 548.5 Gallons/VF = 1.00'/Cycle



REVISIONS

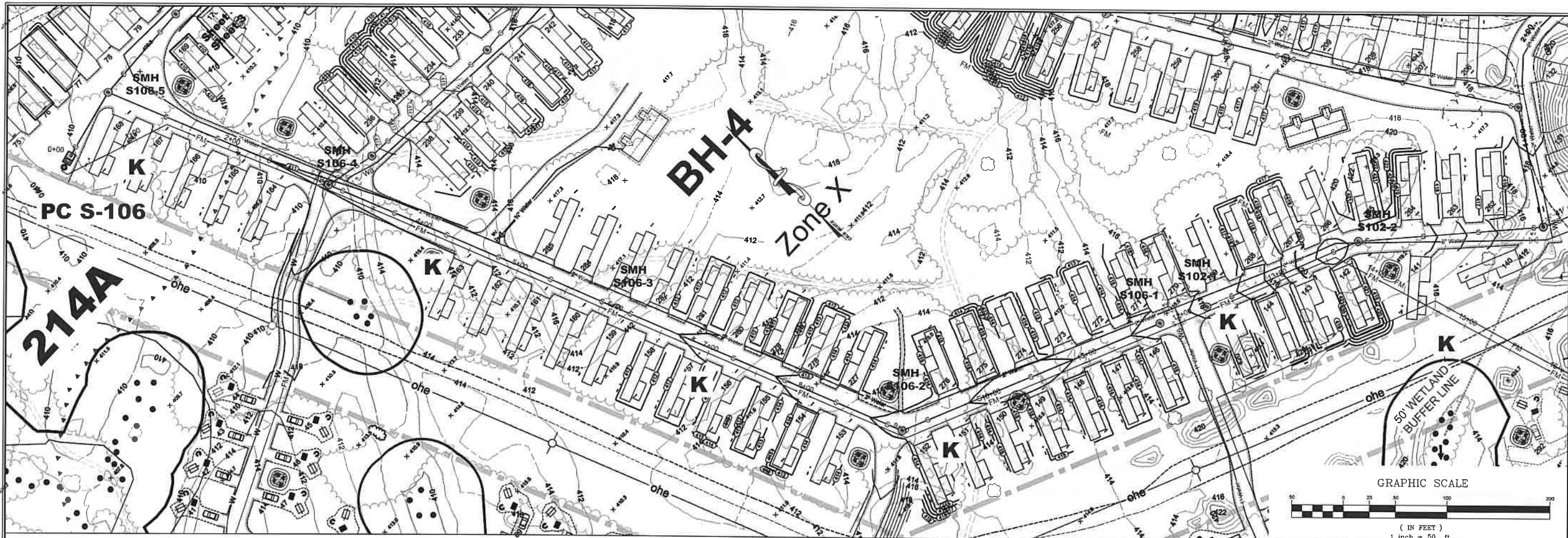
DATE: March 18, 2022
SCALE: 1" = 50' H, 1" = 5' V
FIELD BOOK: 656
SHEET NO.: 39
SJS PROJ NO.: 19030
DWG NO.: 19030 Eng 1.dwg
TAB: PC 104.2



Pump Station PC S-104
53 Sargent Street
Northfield, Merrimack County, New Hampshire
For
Winni River Campground, LLC
PHONE (603) 524-1488
FAX (603) 524-4751

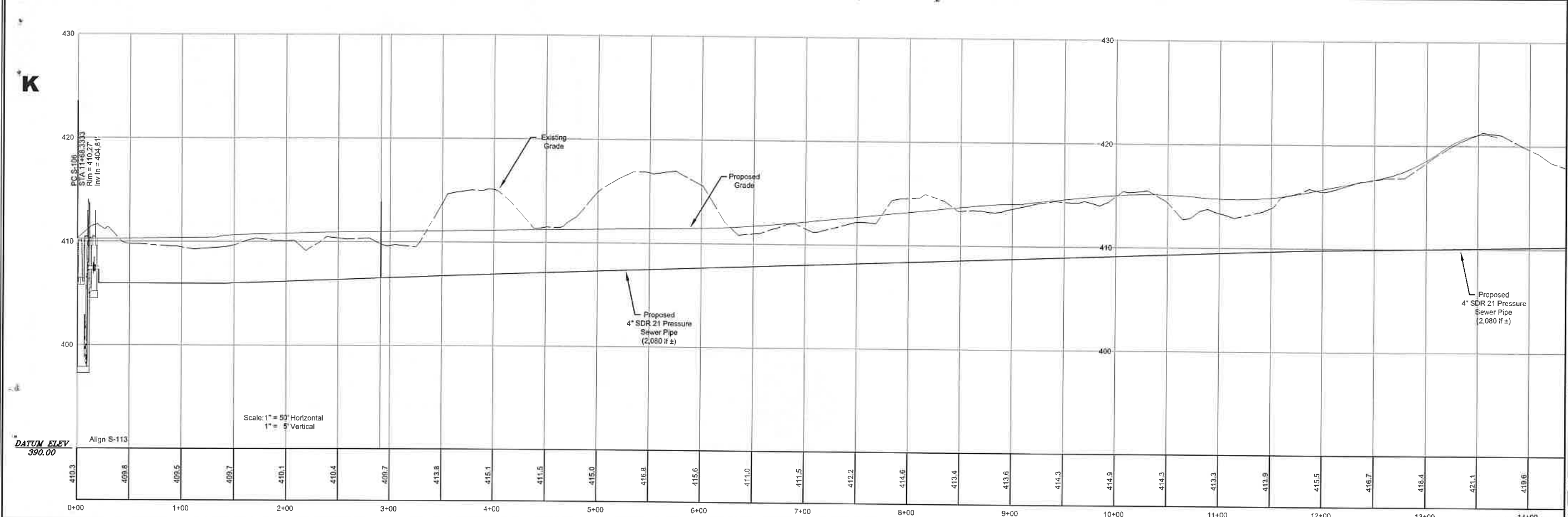
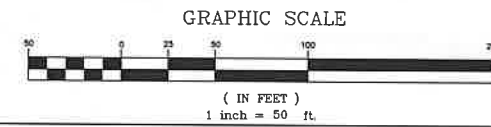
JOB NO.
19030

SHEET S-10

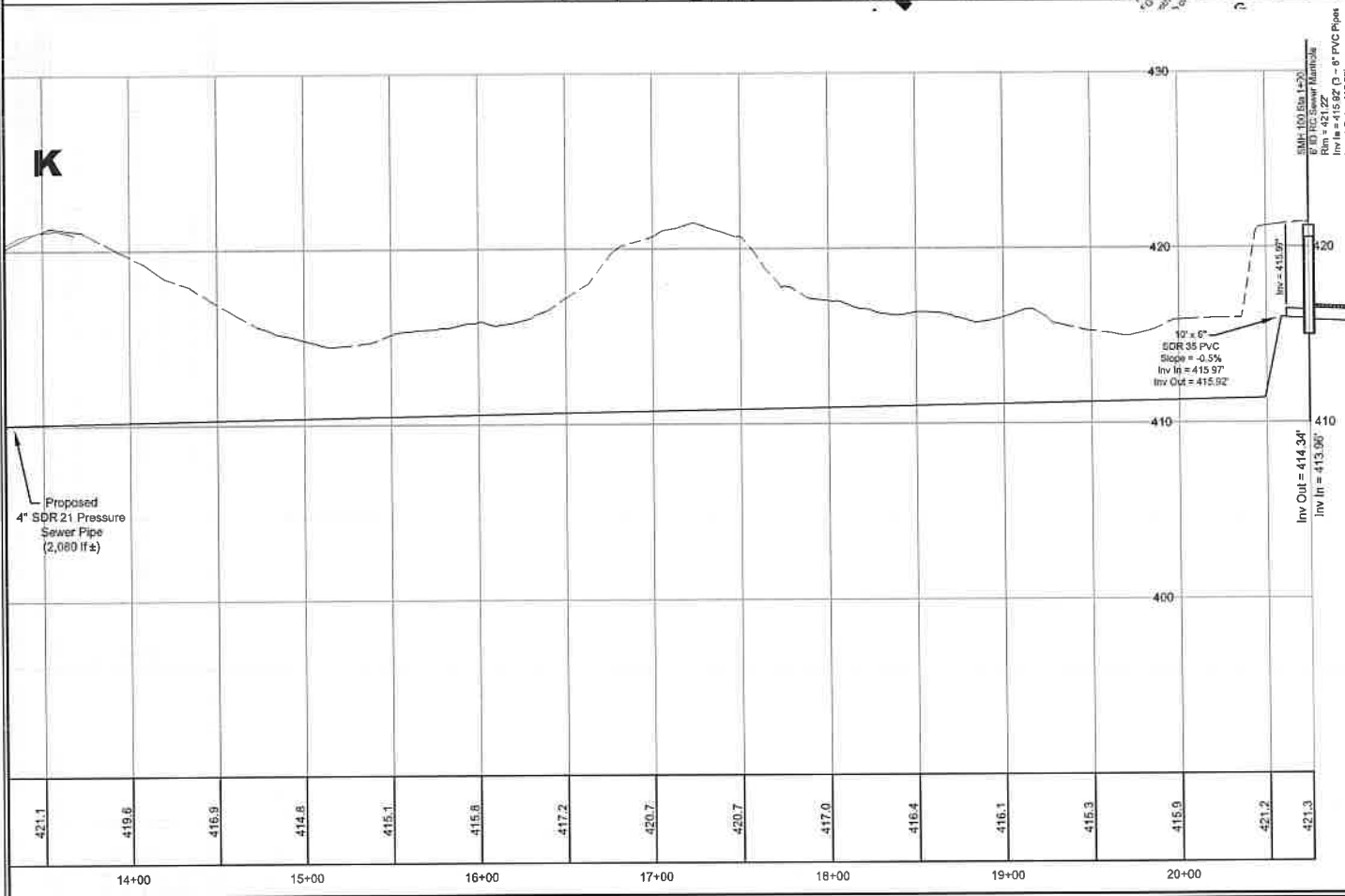
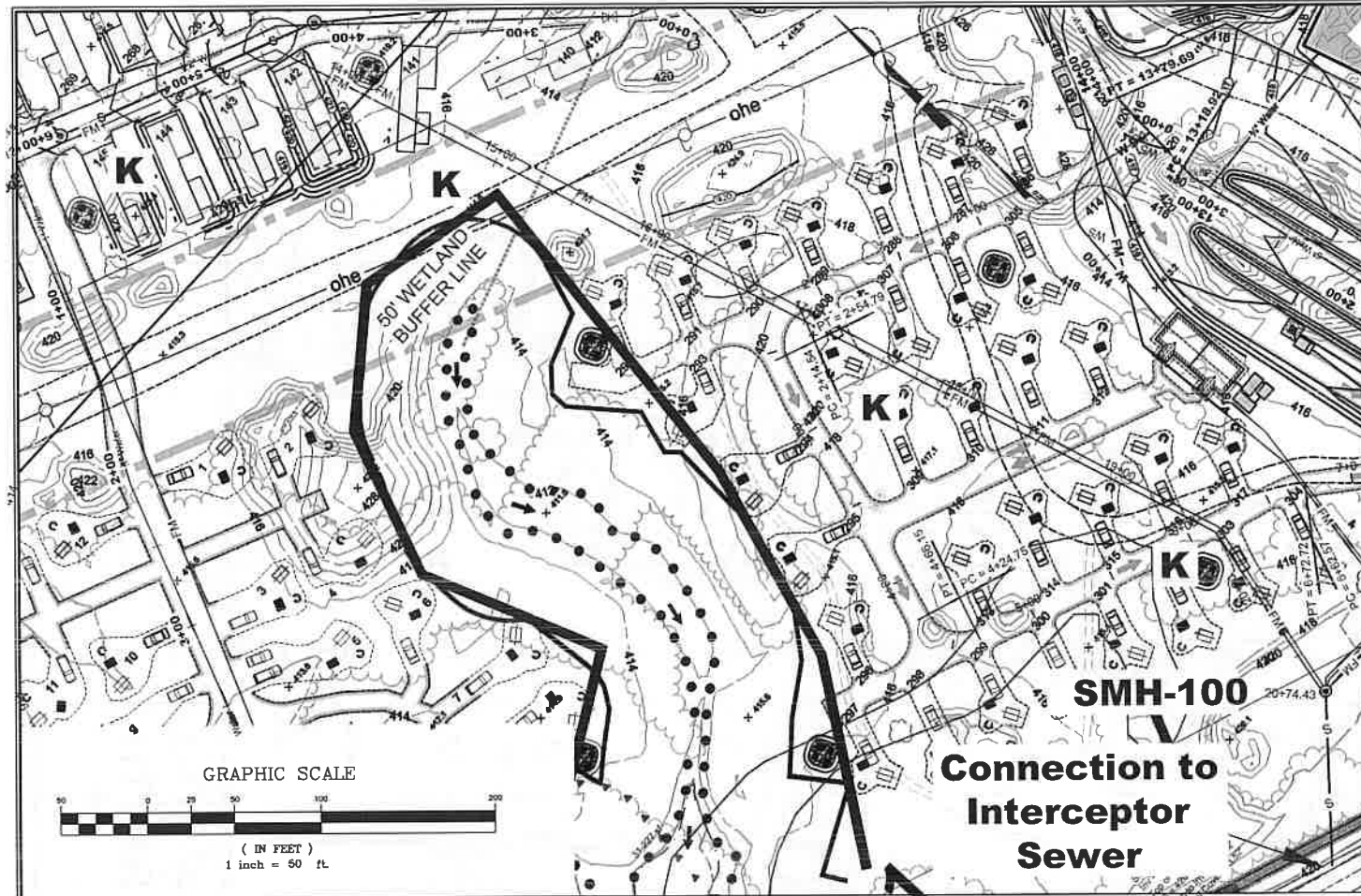


REVISIONS

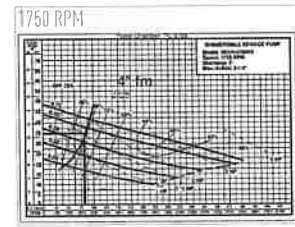
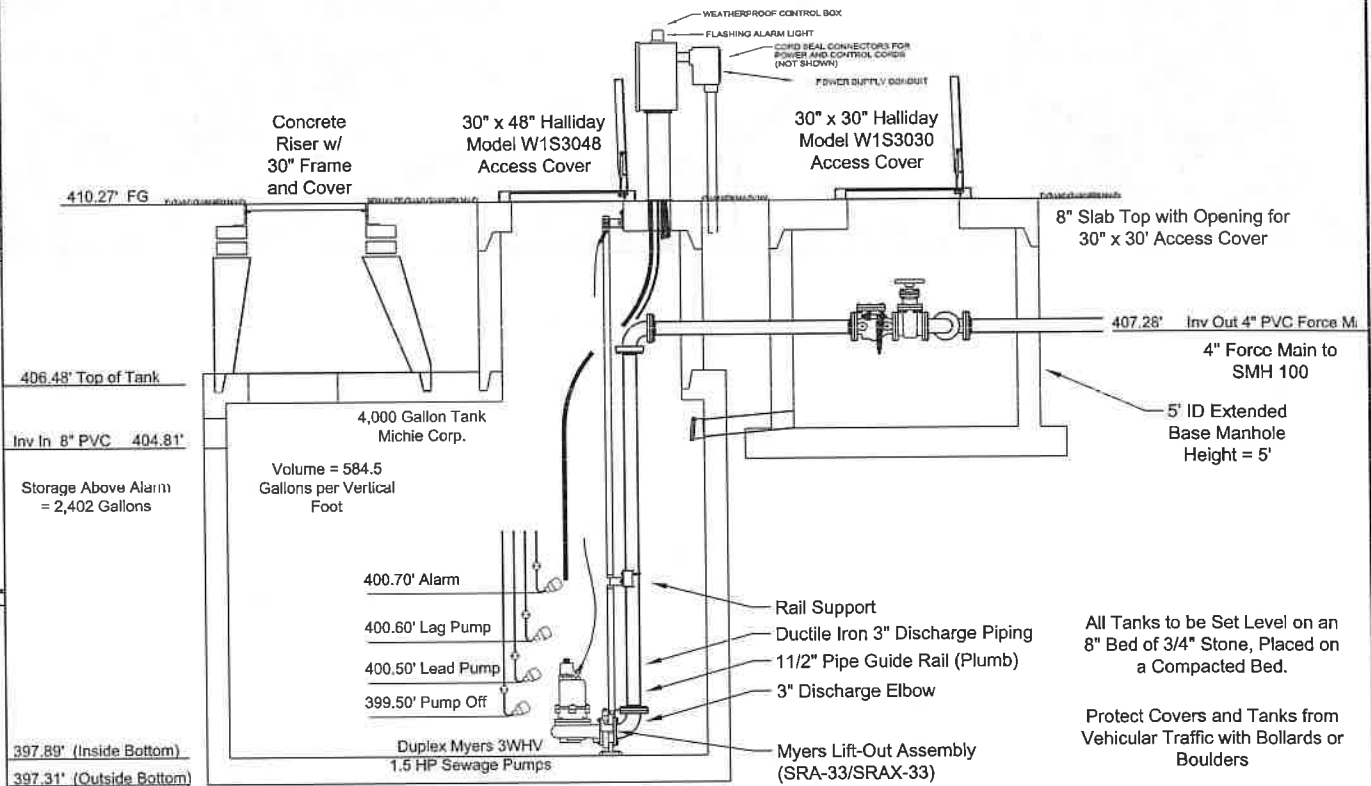
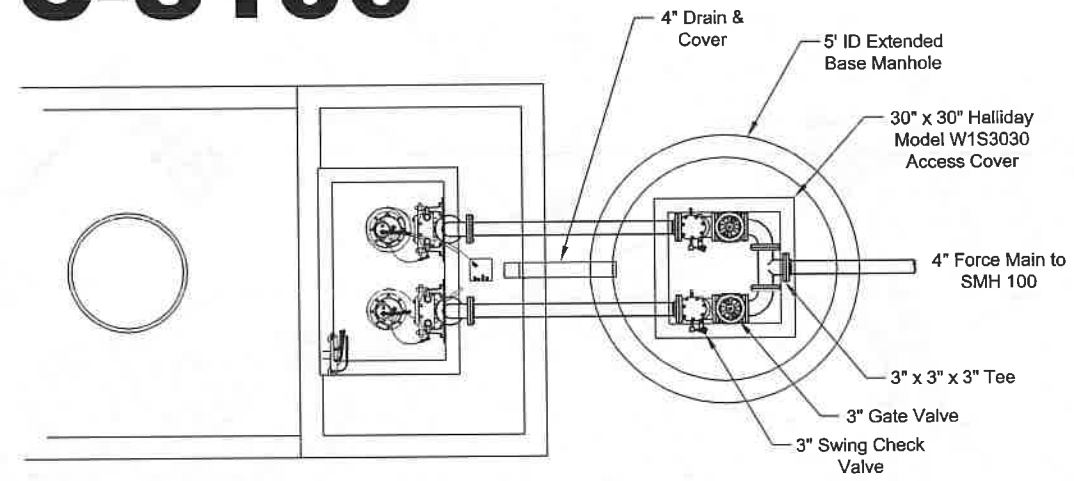
DATE: March 18, 2022
 SCALE: 1" = 50' H, 1" = 5' V
 FIELD BOOK: 656
 SHEET NO.: 40
 SJS PROJ NO.: 19030
 DWG NO.: 19030 Eng 1.dwg
 TAB: PC 106



Pump Station PC S-106
 53 Sargent Street
 Northfield, Merrimack County, New Hampshire
 For
 Winni River Campground, LLC
 G LILY POND ROAD, GILFORD, N.H. 03249
 PHONE (603) 654-1406
 FAX (603) 524-4731



PC-S106



Duplex Myers 3WHV
1.5 hp Sewage Pumps
2.5" Solids Handling

80 GPM @ 35' TDH
4" Force Main Velocity = 2.04 fps
7.3 minute run time/cycle
14 Cycles/Day
Total Run Time = 1.7 Hours/Day ±

106 RV Sites @ 60 GPD/ Site = 6,360 GPD
Infiltration:
Vertical = 71 VF x 1 GPD/VF = 71 Gal
6" = 880 LF/5,280 ft/mile x 6" x 300 Gal/Day/in/mile = 300 GPD
8" = 1,788 LF/5,280 ft/mile x 8" x 300 Gal/Day/in/mile = 813 GPD
Total Daily Flow = 7,544 Gallons
Pump Cycles/Day = 13
Gallons per Cycle = 7,544 Gallons/14 Cycles = 538 Gallons/Cycle
Wet well = 548.5 Gallons/Vertical Foot
548.5 Gallons/Cycle / 548.5 Gallons/VF = 1.00'/Cycle

REVISIONS

DATE: March 18, 2022
SCALE: 1" = 50' H, 1" = 5' V
FIELD BOOK: 656
SHEET NO.: 41
SJS PROJ NO.: 19030
DWG NO.: 19030 Eng 1.dwg
TAB: PC-106-2

STEVEN SMITH ASSOCIATES, INC.
A Division of DuBois & King, Inc.

Pump Station PC-106
53 Sargent Street
Northfield, Merrimack County, New Hampshire

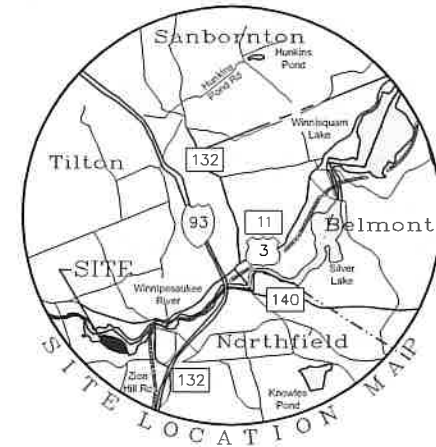
For
Winni River Campground, LLC

6 LILY PONT ROAD, GILFORD, N.H. 03249
PHONE (603) 624-1488
FAX (603) 624-4731

JOB NO.
19030

SHEET S-8

Reference Plan Electrical Needs for Pumps, Street Lights, Bath Houses, RV Sites, Office and Community Building



- Bath House (BH)**
- BH-1
 - BH-2
 - BH-3
 - BH-4
 - BH-5

Street Light (25 Max.) Typical

**RV Sites (208)
50 Amp Services Each**

Electrical Loads

Office:

Community Center:

Bath House 1:

Bath House 2:

Bath House 3:

Bath House 4:

Bath House 5:

Street Lighting: (25± Fixtures)

Pump Chamber PC-1: Duplex 0.4 hp pumps

Pump Chamber PC-2: Duplex 0.4 hp pumps

Pump Chamber PC-3: Duplex 0.4 hp pumps

Pump Chamber PC-4: Duplex 0.5 hp pumps

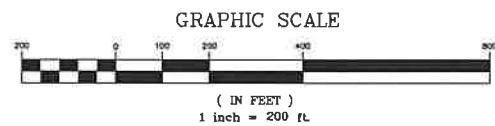
Pump Chamber PC-5: Duplex 0.5 hp pumps

Pump Chamber PC S-100: Duplex 1.5 hp pumps

Pump Chamber PC S-104: Duplex 1.0 hp pumps

Pump Chamber PC S-106: Duplex 1.5 hp pumps

RV Campsites: 208 ~ 50 Amp Hookups



REVISIONS

DATE: March 18, 2022
SCALE: 1" = 200'

FIELD BOOK: 656

SHEET NO.: 42

SJS PROJ NO.: 19030

DWG NO.: 19030 Eng 1.dwg

TAB.: Electric Index Plan



Electric Reference Plan
53 Sargent Street

Northfield, Merrimack County, New Hampshire

For

Winni River Campground, LLC

PHONE (603) 524-1488
FAX (603) 524-4751

G LILY POND ROAD, GILFORD, N.H. 03249

JOB NO.
19030

SHEET 42

Rain Gardens

A key component of the control of stormwater on this site is the incorporation of multiple rain gardens scattered throughout the site in and around disturbed areas. The contractor is to use some discretion so that the structure will catch rainwater and not bypass it.

Start with excavating a three foot hole with a footprint of approximately 225 sq. ft. (15' x 15', 10' x 20' etc).

Scarify the bottom of the excavation.

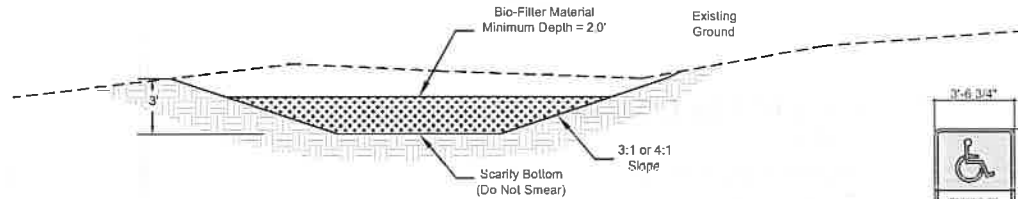
Refill the excavation with bio filter material leaving the surface of the garden about 1' below the surrounding ground on the low side.

Slope the edges around the top of the garden a 3:1 or 4:1.

The garden can be planted with native shrubs or grasses.

This includes the depressed islands (2) by the office, community building and pump-outs.

Construct one garden for every 10 sites constructed.



THE BIO FILTER MIX SOIL FILTER MUST CONSIST OF THE FOLLOWING:

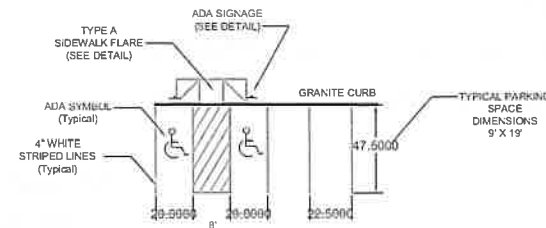
COMPONENT MATERIAL	% OF MIXTURE (BY VOLUME)	% OF WEIGHT PASSING	SIEVE NO.
ASTM C-33 CONCRETE SAND	55%-65%		
LOAMY SAND TOPSOIL	15-25% 20-30%	15%-25%	200 SIEVE
MODERATELY FINE SHREDED BARK OR WOOD FIBER MULCH (WOOD CHIPS ARE ACCEPTABLE)	15-25% 20-30%	<5%	200 SIEVE



NOTES:

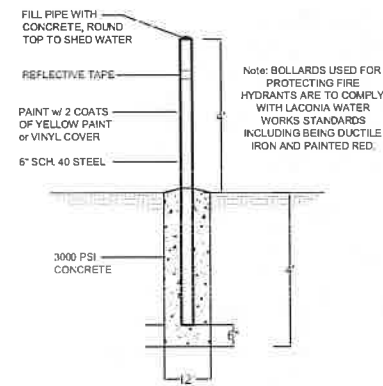
- ALL LETTERS ARE 1" SERIES 'C' PER 2003 MUTCD.
- TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
- BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
- FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
- CONTRACTOR SHALL VERIFY FINE AMOUNT AND ORDINANCE NUMBER.
- ONE (1) SIGN REQUIRED FOR EACH ACCESSIBLE PARKING SPACE.
- INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
- SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, IF ALIGNED WITHIN 12' OF CENTER OF PARKING SPACE.

TYPICAL ACCESS & PARKING LOT SECTION



PARKING STRIPING

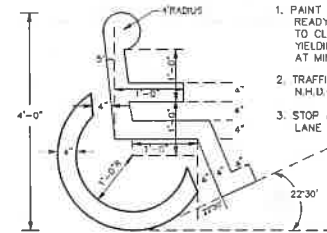
1.) PAINT SHALL BE WHITE HIGHWAY MARKING PAINT ONLY.



BOLLARD TYPICAL

(Not To Scale)

Bollards to be 1' outside corner of all buildings.



ADA PARKING SYMBOL

- PAINT TO BE AASHTO M 248, TYPE N, READY MIXED. PAINT TO BE APPLIED TO CLEAN DRY SURFACE BY METHOD YIELDING SHARP DEFINITION OF EDGES AT MINIMUM 40°F.
- TRAFFIC DIRECTION ARROWS, WHITE PER M.H.D.O.I. SPECS AND SITE REQUIREMENTS.
- STOP & YIELD LINES 12" WIDE X FULL LANE WIDTH.

CONSTRUCTION NOTES:

- ALL TREE STUMPS, DYING TREES UNSUITABLE MATERIAL AND LARGE BOULDERS WITHIN PROPOSED CONSTRUCTION AREA WILL BE REMOVED. ALL VEGETATION CLEARED FROM THIS SITE TO BE REMOVED OR CHIPPED.
- ALL EMBANKMENTS SHALL BE GRADED, RAKED, LOAMED, MULCHED OR MATTED AND SEEDED OR OTHERWISE STABILIZED TO PREVENT EROSION.
- ALL TOPSOIL, LOAM, CLAY, MUD, PEAT, STUMPS AND OTHER IMPROPER ROAD FOUNDATION MATERIAL AND EXCESS MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION AREA FOR THE BUILDINGS AND CAMP SITES.
- REMOVE ALL TOPSOIL FROM AREAS TO BE FILLED WHERE LOAM OR IMPROPER MATERIAL EXCEEDS 12" IN DEPTH. SUCH MATERIAL MUST BE EXCAVATED AND REPLACED WITH BANK RUN GRAVEL OR CRUSHED ROCK.
- CONTRACTOR WILL COMPLY WITH THE FOLLOWING DIVISION/SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, DATED 2016 OR LATER:

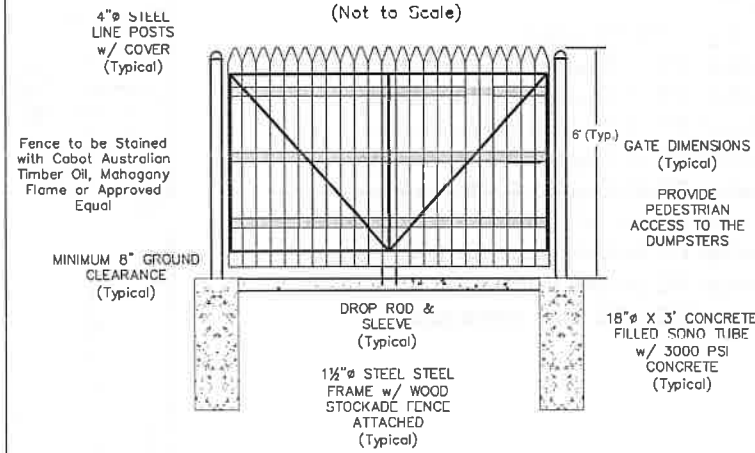
DIVISION 200 EARTHWORKS
DIVISION 300 BASE COURSES
DIVISION 400 PAVEMENTS, DIV. 600 CULVERTS AND CATCH BASINS
DIVISION 641, 643, 644, 645 & 646
- ALL DISTURBED AREA AND AREAS MOST SUSCEPTIBLE TO EROSION ARE TO BE SEEDED TO 120 lbs./acre OF A MIXTURE CONSISTING OF 40 lbs. OF CREEPING RED FESCUE, 50 lbs. PERENNIAL RYE GRASS, 25 lbs. KENTUCKY BLUEGRASS AND 5 lbs. OF RED TOP. THE AREA WILL BE LIMED AT THE RATE OF 3 tons/acre AND FERTILIZED AT THE RATE OF 800 lbs./acre OF 10-2-10. HAY MULCH WILL BE APPLIED AT 3,000 lbs./acre.
- THE CONTRACTOR SHALL CHECK FOR UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION. CONTACT DIG SAFE @ 1-888-344-7233.
- THE CONTRACTOR SHALL MATCH EXISTING DRIVES AND OVERLAY MIN. 10' INTO EACH DRIVE WAY. ANY PRIVATE OR PUBLIC UTILITY OR PROPERTY DISTURBED BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED IN KIND.
- THE CONTRACTOR SHALL STABILIZE ALL DITCHES, SWALES AND PIPE INLETS PRIOR TO DIRECTING FLOW TO THEM.
- PARKING SPACES SHALL BE STRIPED WITH 4" LINES AS SHOWN ON PLANS.
- ALL WATER MAIN AND SERVICE CONNECTION CONSTRUCTION SHALL CONFORM TO TOWN OF NORTHFIELD WATER WORKS SPECIFICATIONS.

CONSTRUCTION SEQUENCE:

- PRIOR TO EARTH WORK OPERATIONS CONSTRUCT SILT SOCK, CHECK DAMS, DIVERSION SWALES AND ALL PERIMETER MEASURES.
- REMOVE TREES, BRUSH, STUMPS WITHIN THE CUT/FILL SLOPE AREAS ETC. TO CLEARING LIMITS.
- GRUB AND DISPOSE OF DEBRIS. LOAM AND TOPSOIL TO BE STOCKPILED ON OR OFF SITE AND STABILIZED.
- EXCAVATE AND REMOVE EXCESS MATERIAL TO SUB GRADE ELEVATIONS. STABILIZE ALL EXPOSED CUT & FILL SLOPES WITHIN 15 DAYS OF EXPOSURE.
- INSTALL TEMPORARY SEDIMENT TRAPS AND DIVERSIONS AS NECESSARY TO CONTAIN SITE RUNOFF AND DIVERT OFFSITE RUNOFF AROUND THE CONSTRUCTION AREA.
- CONSTRUCT BUILDINGS and/or CAMPSITES.
- STABILIZE AREAS AROUND CONSTRUCTED CAMPSITES.
- REPAIR ANY ERODED AREAS OR TROUBLE SPOTS.
- LOAM, SEED, MULCH & FERTILIZE ALL SLOPES. INSTALL EROSION CONTROL BLANKET IF NEEDED.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING. REMOVE TEMPORARY EROSION CONTROL MEASURES, WITHIN 15 DAYS AFTER THE CONSTRUCTION IS COMPLETED OR AS DIRECTED BY THE ENGINEER.
- FOR ADDITIONAL SEQUENCE NOTES SEE EROSION CONTROL STANDARDS SHEET.

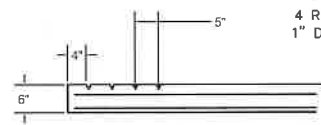
DUMPSTER ENCLOSURE DETAIL

(Not to Scale)



REINFORCED CONCRETE PAD w/ VEE GROOVES. (4000 PSI, AIR ENTRAINED, 4" X 4" WWF, 1 1/2" UP 2 1/2" DOWN FROM TOP)

CONCENTRIC LINES OF VEE GROOVES AROUND PAD FOR SPILL PREVENTION
4 RINGS OF 1" WIDE X 1" DEEP, VEE GROOVES



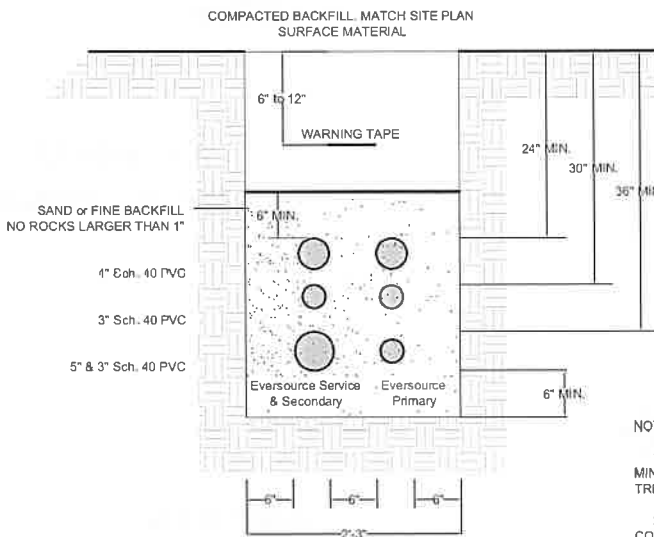
VEE GROOVE IN DUMPSTER PAD DETAIL

Haunch Detail



DUMPSTER ENCLOSURE DETAIL

(Not to Scale)



UTILITY TRENCH

NOTE:

- TRENCH WIDTH AS REQUIRED TO MAINTAIN 6" MINIMUM SPACING BETWEEN ALL CONDUITS AND THE TRENCH SIDEWALLS.
- CONDUIT SIZE AND DEPTH OF COVER MAY VARY. CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION TO CONFIRM CONDUIT REQUIREMENTS.

REVISIONS

DATE: March 18, 2022

SCALE: 1" = 200'

FIELD BOOK: 656

SHEET NO.: 19030

SJS PROJ NO.: 19030

DWG NO.: 19030 Eng. 1.dwg

TAB.: Misc. Details

Miscellaneous Details
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 524-1488
FAX (603) 524-4737

JOB NO.
19030

SHEET 43

GENERAL NOTES FOR EROSION CONTROL;

ESTABLISH PERIMETER PROTECTION OF SILT SOCK PRIOR TO EARTH ALTERING ON THIS SITE. SILT FENCE IS NOT AN ACCEPTABLE ALTERNATE ON THIS SITE.

ESTABLISH STABLE CONSTRUCTION EXIT AS EQUIPMENT BEGINS TO ENTER AND LEAVE THE PROPERTY. (IF NECESSARY)

PROTECT SWALES BY DIVERTING RUNOFF AND KEEPING STORMWATER FLOWS FROM GETTING TO THEM UNTIL THEY ARE FULLY ESTABLISHED AND STABLE.

PROVIDE CONTINUOUS MONITORING OF EROSION CONTROL MEASURES TO ASSURE EFFECTIVENESS. CONSULT ENGINEER AND ADJUST TO MEET SPECIFIC SITE NEEDS FOR EROSION AND SEDIMENT CONTROL.

FOLLOW CONSTRUCTION SEQUENCING ON EROSION CONTROL STANDARDS SHEET.

ESTABLISH TEMPORARY or PERMANENT VEGETATION AS SOON AS POSSIBLE. DO NOT LEAVE EXPOSED AREAS UNPROTECTED.

PROTECT ANY EXISTING SWALES WITH CHECK DAMS. CLEAN AND REMOVE AT COMPLETION OF PROJECT

PROJECT IS NOT COMPLETE UNTIL SITE IS STABLE, PERMANENT EROSION CONTROL MEASURES ARE IN PLACE AND FUNCTIONING PER DESIGN AND TEMPORARY EROSION CONTROL MEASURES HAVE BEEN REMOVED

ADDITIONAL BACKUP EROSION CONTROL MATERIALS ARE TO BE KEPT ON SITE DURING CONSTRUCTION IN CASE OF UNANTICIPATED WEATHER EVENTS, INCLUDING EROSION STONE, SILT SOCK, 4 MIL PLASTIC AND SOME FABRIC.

THE CONTRACTOR WILL BE REQUIRED TO CONTROL FUGITIVE DUSTS THROUGHOUT CONSTRUCTION.

NO PESTICIDES OR HERBICIDES ARE TO BE USED OUTSIDE THIS BUILDING FOR CONSTRUCTION OR MAINTENANCE OF THE SITE.

INVASIVE SPECIES LISTED UNDER NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES BANNED INVASIVE SPECIES ENCOUNTERED IN THE CONSTRUCTION AREA MUST BE MADE NOT VIABLE AND DISPOSED OF IN SUCH A WAY AS TO PREVENT SPREADING OF THE SPECIES. (AS RECOMMENDED BY THE NEW HAMPSHIRE GUIDE TO UPLAND INVASIVE SPECIES, (See www.agriculture.nh.gov))

REVISIONS

DATE: March 18, 2022
SCALE: 1" = 200'

FIELD BOOK: 656

SHEET NO.: 44

SJS PROJ NO.: 19030

DWG NO.: 19030 Eng I.dwg

TAB.: Erosion Control

Erosion Control Plan
53 Sargent Street

Northfield, Merrimack County, New Hampshire

For

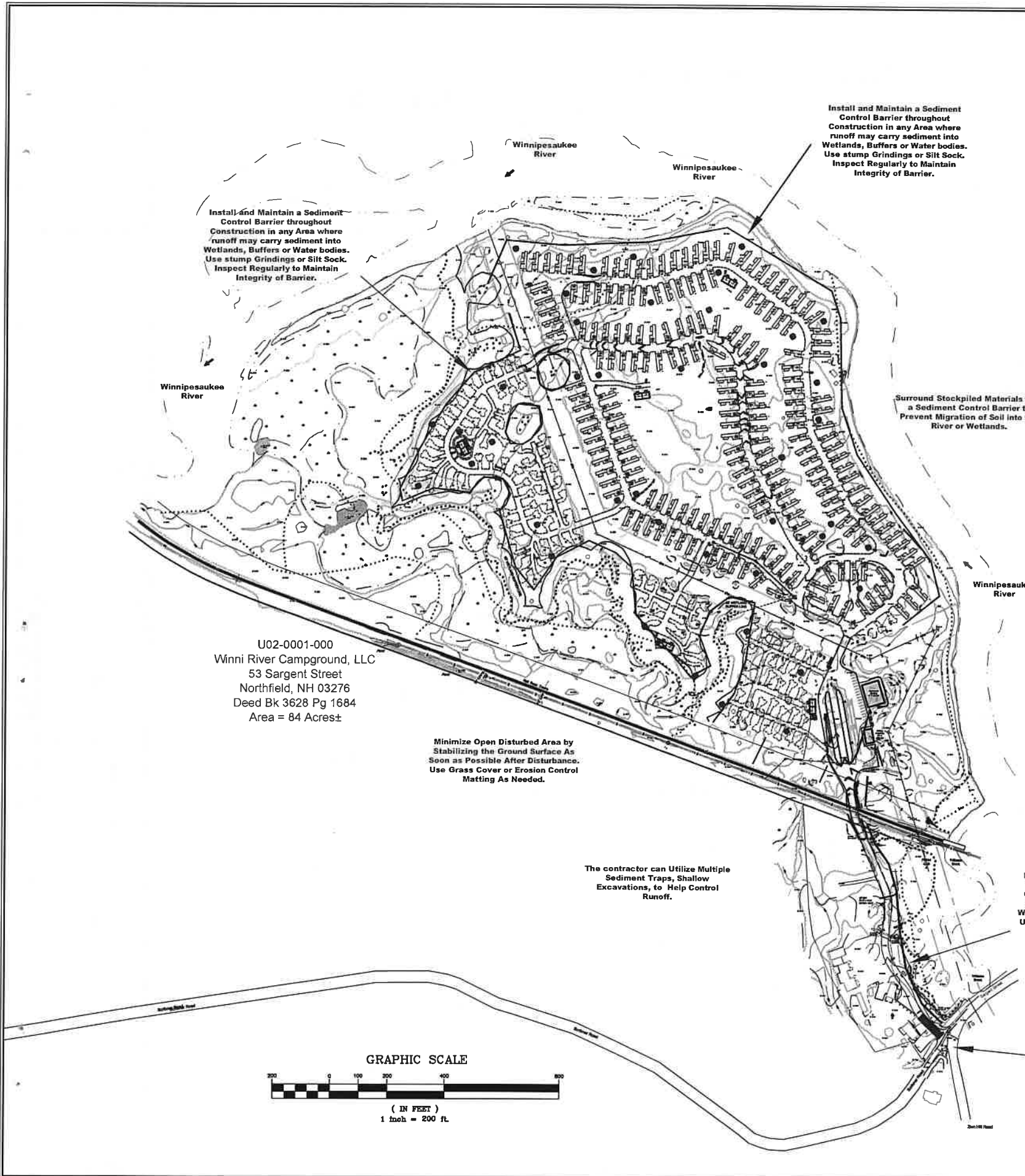
Winni River Campground, LLC

PHONE (603) 524-1468
FAX (603) 524-4731

6 LILY POND ROAD, GILFORD, N.H. 03249

JOB NO.
19030

SHEET 44



Install and Maintain a Sediment Control Barrier throughout Construction in any Area where runoff may carry sediment into Wetlands, Buffers or Water bodies. Use stump Grindings or Silt Sock. Inspect Regularly to Maintain Integrity of Barrier.

Install and Maintain a Sediment Control Barrier throughout Construction in any Area where runoff may carry sediment into Wetlands, Buffers or Water bodies. Use stump Grindings or Silt Sock. Inspect Regularly to Maintain Integrity of Barrier.

Surround Stockpiled Materials with a Sediment Control Barrier to Prevent Migration of Soil into the River or Wetlands.

Minimize Open Disturbed Area by Stabilizing the Ground Surface As Soon as Possible After Disturbance. Use Grass Cover or Erosion Control Matting As Needed.

The contractor can Utilize Multiple Sediment Traps, Shallow Excavations, to Help Control Runoff.

Install and Maintain a Sediment Control Barrier throughout Construction in any Area where runoff may carry sediment into Wetlands, Buffers or Water bodies. Use stump Grindings or Silt Sock. Inspect Regularly to Maintain Integrity of Barrier.

The Contractor Shall Limit Open disturbed Areas to a maximum of 5 Acres at a Time. Stabilize Before Disturbing More.

Maintain a Stable Construction Exit Throughout Construction to Minimize Transport of Sediment off Site

U02-0001-000
Winni River Campground, LLC
53 Sargent Street
Northfield, NH 03276
Deed Bk 3628 Pg 1684
Area = 84 Acres±

GRAPHIC SCALE



(IN FEET)
1 inch = 200 ft.

CONSTRUCTION SEQUENCE FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES

- Prior to earth work operations, construct temporary sediment and detention measures, including but not limited to silt fencing and barrier fences per design plans. A stable construction entrance must be installed and stabilized early on in the construction sequence, prior to rough grading of the site. Ditches and swales shall be stabilized prior to directing water to them.
- Note that any constructed ditch, swale, pond, trap etc. that conveys or receives moving water must be stable before directing water to it. This may require the use of sod instead of seed and mulch in some areas.
- Grub and dispose of debris. Loam and topsoil to be stockpiled in a central location and then stabilized and protect with a sediment barrier around the down slope edge.
- Construct permanent and temporary culverts as necessary. Provide stable inlet and outlet areas for all culverts.
- Construct underground utilities, (water, sewer, drains, electric, telephone, cable, fire alarm etc)
- Whenever drainage structures are installed, protect openings with stone dams prior to water being allowed to enter.
- Construct roads, parking lots and/or temporary accesses to sub-grade, then stabilize all exposed cut and fill slopes within 15 days of exposure. All areas shall be stabilized within 45 days of initial disturbance. The contractor shall stabilize all roadways and parking lots within 72 hours of achieving finished grade.
- Begin permanent and temporary seeding and mulching. All areas shall be stabilized within 72 hours of achieving finished grade.
- All cut and fill slopes shall be loamed, fertilized, seeded and mulched within 72 hours of achieving finished grade. No area shall be left unstabilized for more than 15 days.
- Construct temporary diversion channels, water bars, swales, traps & other best management practices as necessary to limit erosion, minimize concentrated flows, divert flows from sensitive areas and filter sediment before runoff.
- During construction, the contractor shall inspect the drainage paths and erosion and sediment control measures on site after every 1/2" rainfall and at least once each week. The contractor shall modify and/or repair sediment and erosion control measures to maintain stability of disturbed areas. Consult with the Engineer before any changes to the design are made.
- Apply additional mulch and seed to areas most susceptible to erosion.
- PAVE ALL DESIGNATED AREAS. Monitor the roadside ditches and treatment swales. Repair any eroded areas.
- Complete permanent seeding and landscaping. Remove temporary erosion control measures only after the site is stable.

TEMPORARY EROSION CONTROL MEASURES

- All temporary erosion control practices shall be monitored and maintained in working order throughout construction.
- Unpaved disturbed areas shall be seeded as follows:
 - 4" loam seedbed
 - 1 lb. seed per 50 square yards per Temporary Seed Specifications.
 - Mulch to protect seed/seedlings/slopes per Temporary Seed Specifications.
 - Fertilizer per Temporary Seed Specifications.
 - Lime per Temporary Seed Specifications
- Sediment in sediment basins and behind check dams shall be removed when it reaches 1/3 of the structure height.
- Baled hay and straw, mulch, and seed preparation shall be per NHDOT Specifications.
- Fugitive dust shall be controlled by site watering as necessary.
- Soil is not to be tracked off site. Daily sweeping is required to maintain clean routes into and out of the site.
- The contractor shall monitor the site for evidence of sediment leaving the site and shall consult with the engineer to remedy this.

WINTER CONSTRUCTION NOTES

- All proposed vegetated areas that do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion blankets appropriate for the design flow conditions.
 - Slopes less than 3:1
 - Seeding of Winter Rye
 - Mulching with hay or straw
 - Slopes equal to or greater than 3:1
 - Seeding of Winter Rye
 - Installing an erosion control blanket w/ staples placed per manufacturer's specifications
 - Other areas
 - Seeding with Winter Rye
 - Place evenly 3 to 4 tons of mulch per acre
 - Secure with stapled/anchored netting
 - The above shall not be done on frozen ground or snow
- All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
 - 1 1/2" clean hard stone or North American Green S75 erosion control blankets or appropriate for the design flow conditions
 - Rebuild to design specifications during the following growing season
- After November 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3" of crushed gravel per NHDOT item 304.3.

- TEMPORARY SEED & WINTER CONTROL SPECIFICATIONS**
- Winter Rye: 112 lbs/acre (2.5 lbs/1,000 s.f.) Seed August 15 to November 1 only
 - Oats: 80 lbs/acre (2 lbs/1,000 s.f.) Seed April 1 to May 30 only
 - Annual Ryegrass w/ Winter Rye in the fall or Oats in the spring: 40 lbs/acre (1 lb/1,000 s.f.)
 - Fertilizer: 10/0/10 @ 500 lbs/acre (80 lbs/1,000 s.f.)
 - Mulch: 3-4 tons/acre (150-200 lbs/1,000 s.f.)

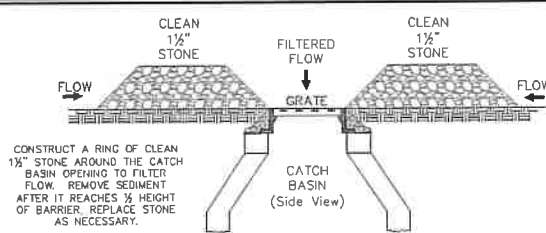
PERMANENT SEED SPECIFICATIONS

- Unless otherwise specified in these plans, if the plans call for an area to be seeded, it shall meet the following specification, but in no case will allow for less than a stable, permanent vegetative cover.
- A 4" seedbed of loam, free of unsuitable, hazardous or frozen material and free of construction debris and rocks.
 - Well incorporated fertilizer and or limestone to meet growing requirements for nutrients and pH of the seed species. A soil test to determine this requirement is preferred but in the absence of soil tests the following shall be used:
 - Fertilizer: 10/0/10 @ 500 lbs/acre (80 lbs/1,000 s.f.)
 - 10/0/10 @ 500 lbs/acre with slow release nitrogen if in any protected shoreland
 - Seedbed rolled and lightly scarified per industry standards to promote rapid germination.
 - Uniformly broadcast, drilled or hydroseeded seed to meet minimum seeding rates for the species. Unless otherwise specified use a uniform mix of NH DOT Park Seed Type 15: (Creeping Red Fescue at 40 lbs/acre, Perennial Ryegrass at 50 lbs/acre, Kentucky Bluegrass at 25 lbs/acre and Redtop at 5 lbs/acre for a total of 120 lbs/acre) Seed must not be wet, moldy or otherwise damaged. Seed must meet purity and germination requirements of NH DOT Section 644 Grass Seed. Seed tags and Proof of Seed Purity to be provided to the Engineer prior to seeding.
 - Mulch: 3-4 tons/acre (150-200 lbs/1,000 s.f.) (Hay is not acceptable unless free of seed.)
 - Water, re-grade or loam, reseed, fertilize and mulch as necessary to establish a stable vegetative cover.

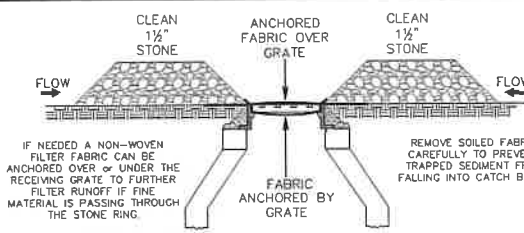
- SHORELAND WATER QUALITY PROTECTION ACT (SWQPA)**
- From the reference line to 25' only limestone can be used. (i.e. no other fertilizers/chemicals)
 - From 25' to 250', fertilizer can be used but only fertilizer that has slow release nitrogen, (a nitrogen component which is at least 50% slow release nitrogen components) and only low phosphorous fertilizer, (2% or less P in fertilizer composition)
 - From 0' to 50' pesticides and herbicides can only be applied by a licensed applicator.

- SATISFACTION OF PERMIT REQUIREMENTS**
- The contractor is responsible for complying with the requirements of any EPA Storm Water Pollution Prevention Plan (SWPPP), NH DES Alteration of Terrain Permit, Shoreland Water Quality Protection Act Permit or NH DES Wetlands Permit if applicable as well as any other local, state or federal permits or requirements connected with these plans. The contractor shall satisfy himself that he is aware of the applicable requirements. The contractor shall work with the owner to satisfy notification to "start and/or terminate work" requirements associated with any of these permits.

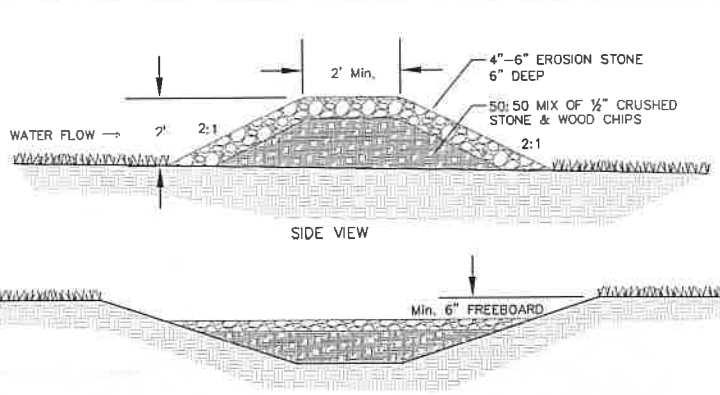
- PHOSPHOROUS IN FERTILIZERS**
- Under no circumstances are fertilizers to be used that contain phosphorous. All N/P/K formulas must have a 0 for the P. If soil testing proves that phosphorous is needed as a supplement it can only be used with the approval of the Engineer and the local governing jurisdiction.



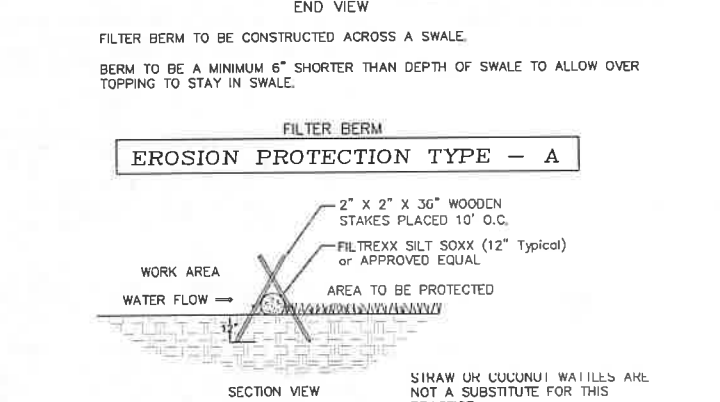
EROSION PROTECTION TYPE - B



EROSION PROTECTION TYPE - H



EROSION PROTECTION TYPE - A



EROSION PROTECTION TYPE - G

EROSION PROTECTION TYPE - J

BLASTING - BEST MANAGEMENT PRACTICES

A. Best Management Practices for Blasting All activities related in blasting shall follow Best Management Practices (BMPs) to prevent contamination of groundwater including preparing, reviewing and following an approved blasting plan; proper drilling, explosive handling and loading procedures; observing the entire blasting procedures; evaluating blasting performance; and handling and storage of blasted rock.

- Loading practices. The following blasthole loading practices to minimize environmental effects shall be followed:
 - Drilling logs shall be maintained by the driller and communicated directly to the blaster. The logs shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.
 - Explosive products shall be managed on -site so that they are either used in the borehole, returned to the the delivery vehicle, or placed in secure containers for off-site disposal.
 - Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured containers for off-site disposal.
 - Loaded explosives shall be detonated as soon as possible and shall not be left in the blastholes overnight, unless weather or other safety concerns reasonably dictate that detonation should be postponed.
 - Loading equipment shall be cleaned in an area where wastewater can be properly contained and handled in a manner that prevents release of contaminants to the environment.
 - Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking and column rise need to be attended to.

- Explosive Selection. The following BMPs shall be followed to reduce the potential for groundwater contamination when explosives are used:
 - Explosive products shall be selected that are appropriate for site conditions and safe blast execution.
 - Explosive products shall be selected that have the appropriate water resistance for the site conditions present to minimize the potential for hazardous effect of the product upon groundwater.
 - Perchlorates are not to be found in the blasting products or residue.

- Prevention of Misfires. Appropriate practices shall be developed and implemented to prevent misfires.

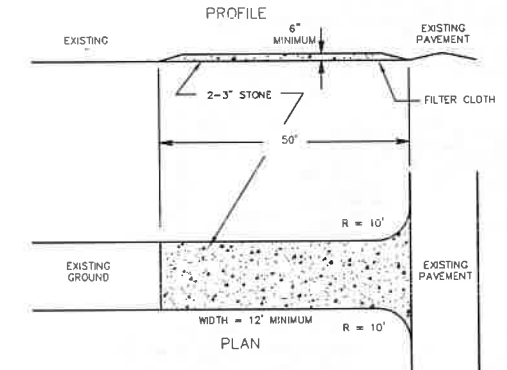
- Muck Pile Management. Muck piles (the blasted pieces of rock) and rock piles shall be managed in a manner to reduce the potential for contamination by implementing the following measures:
 - Remove the muck pile from the blast area as soon as reasonably possible.
 - Manage the interaction of blasted rock piles and stormwater to prevent contamination of water supply wells or surface water.

- Spill Prevention Measures and Spill Mitigation. Spill prevention and spill mitigation measures shall be implemented to prevent the release of fuel and other related substances to the environment. The measures shall include at a minimum:
 - The fuel storage requirements shall include:
 - Storage of regulated substances on an impervious surface.
 - Secure storage areas against unauthorized entry.
 - Label regulated containers clearly and visibly.
 - Inspect storage areas weekly.
 - Cover regulated containers in outside storage areas.
 - Whenever possible, keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and 400 feet from public wells.
 - Secondary containment is required for containers containing regulated substances stored outside, except for on premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.

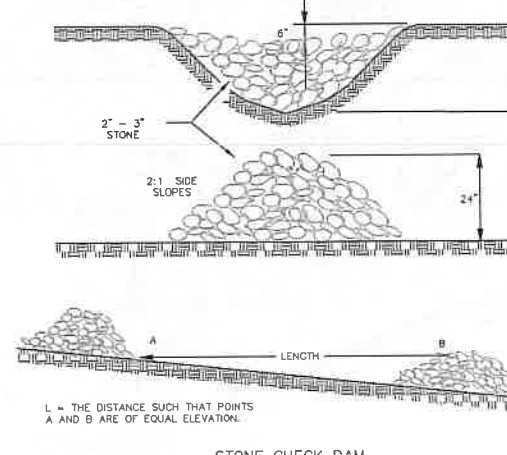
- The fuel handling requirements shall include:
 - Except when in use, keep containers containing regulated substances closed and sealed.
 - Place drip pans under spigots, valves, and pumps.
 - Have spill control and containment equipment readily available in all work areas.
 - Use funnels and drip pans when transferring regulated substances.
 - Perform transfers of regulated substances over an impervious surface.

- The training of on-site employees and the on-site posting of release response information describing what to do in the event of a spill of regulated substances.

- Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with the regulations of the New Hampshire Department of Environmental Services (note these requirements are summarized in WD-DWGB-22-6 Best Management Practices for Fueling and Maintenance of Excavation and Earthmoving Equipment" or its successor document. (see <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documen>)



EROSION PROTECTION TYPE - F



EROSION PROTECTION TYPE - K

REVISIONS

DATE: March 18, 2022	SCALE: 1"=200'
FIELD BOOK: 656	SHEET NO.: 45
SJS PROJ NO.: 19030	DWG NO.: 19030 Eng. l.d.w
TAB.: Eros. Stds	

Erosion Control Standards
53 Sargent Street
Northfield, Merrimack County, New Hampshire

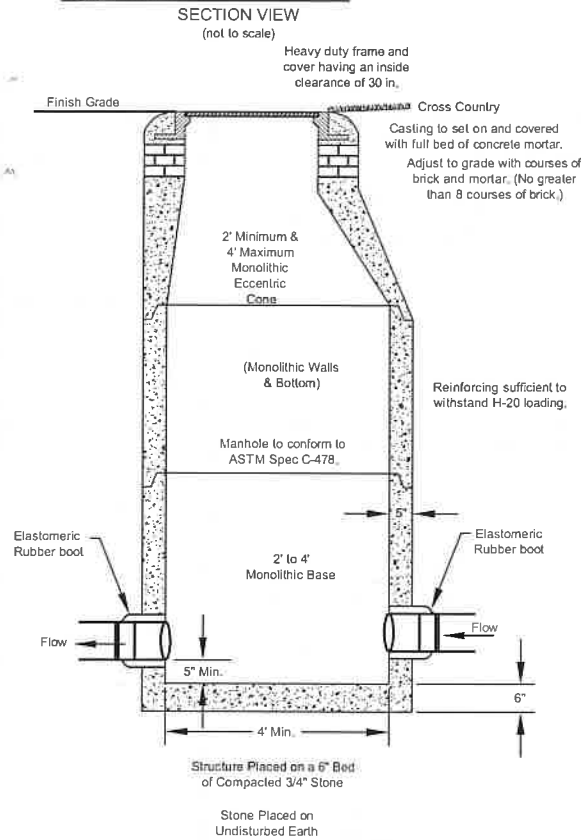
For
Winni River Campground, LLC

6 LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 824-1468
FAX (603) 824-1711

JOB NO. 19030
SHEET 45

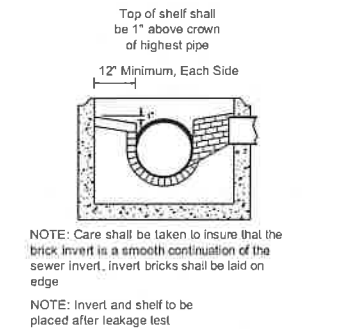
© COPYRIGHT 2022

Typical Sewer Manhole



Manhole Steps are Prohibited from New Gilford Manhole Structures

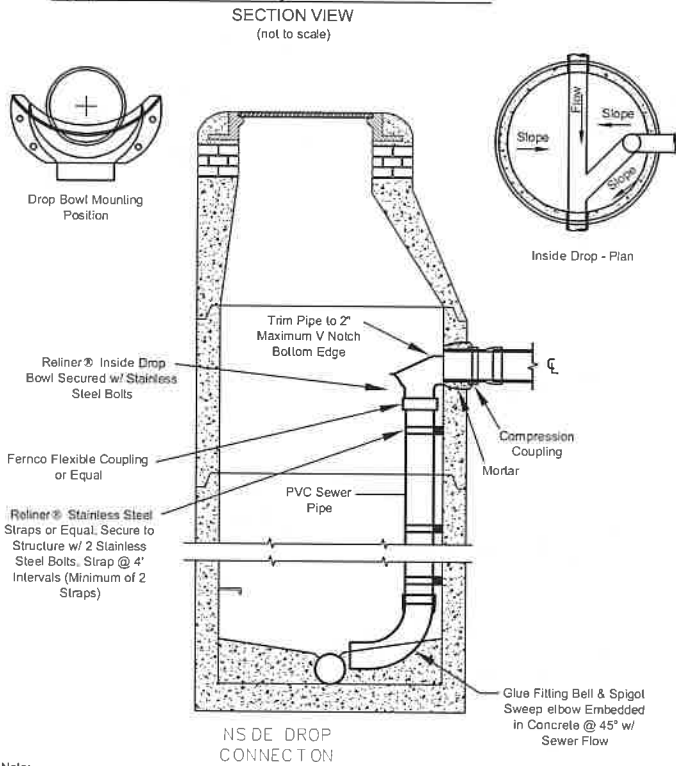
NOTE: THESE ARE TYPICAL SEWER STANDARDS, WORKMANSHIP, MATERIALS AND TESTING MUST ALSO COMPLY WITH NH DEPARTMENT OF ENVIRONMENTAL SERVICES SEWER STANDARDS.



NOTE: THESE STANDARDS ARE TO BE CONSIDERED AS MINIMUM REQUIREMENTS. ANY DEVIATION FROM THESE STANDARDS WILL REQUIRE THE GILFORD DEPT. OF PUBLIC WORKS APPROVAL.

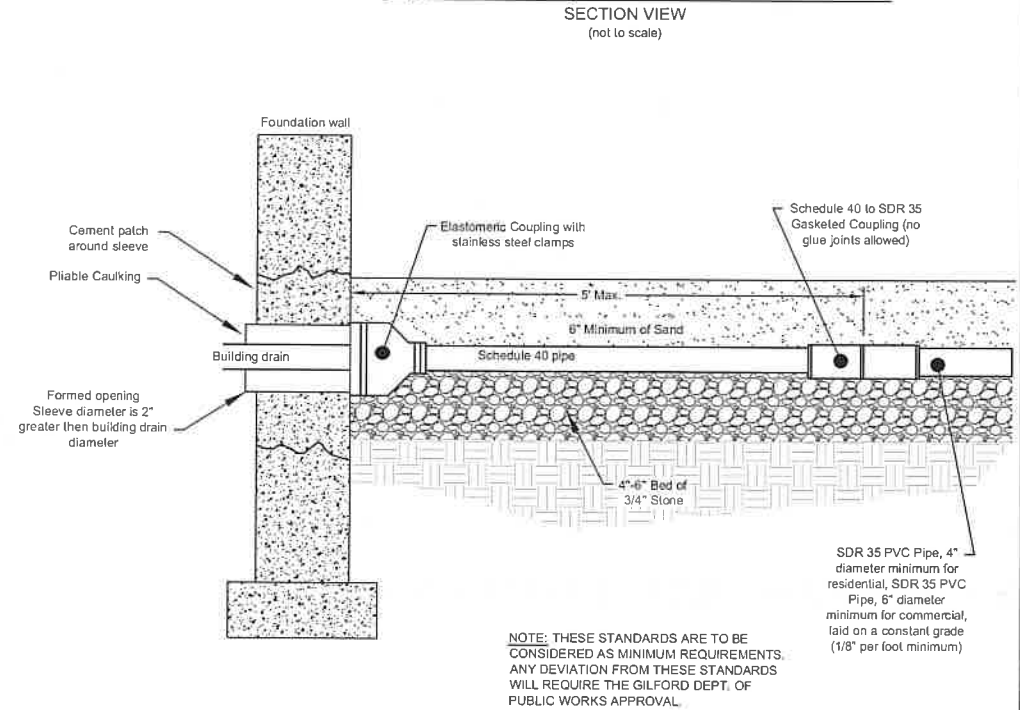
- NOTES:
- It is the intention that any manhole, including all component parts, have adequate space, strength and leakproof qualities considered necessary for the intended service. Space requirements and configurations, shall be as shown on the drawings. Manholes must be of precast sections, with or without steel reinforcement, with adequate jointing. In any approved manhole, the complete structure shall be of such material and quality as to withstand H-20 loading and prevent leakage in excess of one gallon per day per vertical foot of manhole.
 - Precast concrete barrel sections, cones and bases shall conform to ASTM C 478.
 - Leakage test shall be performed in accordance with the specifications.
 - Inverts and shelves: Manholes shall have a brick paved shelf and invert, constructed to conform to the size of pipe and flow. At changes in direction, the inverts shall be laid out in curves of the longest radius possible tangent to the center line of the sewer pipes. Shelves shall be constructed to the elevation of the highest pipe. Crown and slope to drain toward the flowing through channel. Underlayment of invert and shelf shall consist of brick masonry.
 - Frames and covers: Manhole frames and covers shall be of heavy duty design and provide a 30-inch clear opening. A 3-inch (minimum height) letter "S" for sewers shall be plainly cast into the center of each cover.
 - Bedding: All structures shall be bedded in 3/4" crushed stone. Bedding shall be free of clay, loam, organic matter and meet ASTM C33: 100% passing 1/2-inch screen, 90-100% passing 3/4-inch screen, 20-55% passing 3/8-inch screen, 0-10% passing the #4 sieve and 0-5% passing the #8 sieve. Where ordered by the engineer to stabilize the base, 1/2-inch to 1 1/4-inch crushed stone shall be used.
 - Shallow manhole: In lieu of a cone section, when manhole depth is less than 6 feet, a reinforced concrete slab cover may be used having an eccentric entrance opening and capable of supporting H-20 loads.
 - Manhole steps are prohibited from all new manhole structures.
 - Horizontal joints between sections of precast concrete barrels shall, in general, depend for watertightness upon an elastomeric or mastic-like gasket.
 - Horizontal joints between concrete sections shall be by one of the following methods or an approved equal.
 - asphalt impregnated polyurethane gasket 1 1/2" x 2"
 - rubber like gasket
 - bitumastic sealant
 - rubber like o-ring set in recess
 - For bitumastic type joints, the amount of sealant shall be sufficient to fill at least 75% of the joint cavity.
 - All gaskets and sealants shall be installed in accordance with manufacturers' written instructions.

Typical Inside Drop Sewer Manhole



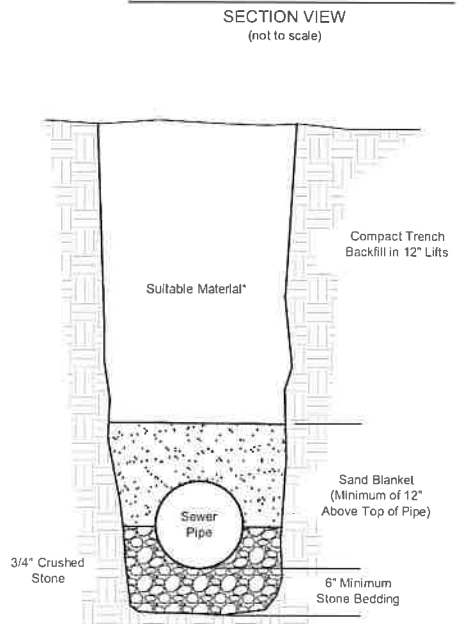
- Note:
- All inside drop connections for services and collector sewers shall use the Drop Bowl as produced by: Reliner-Duran, Inc., 53 MI, Archer Rd., Lyme, CT 06371 (860) 434-0277
 - Secure drop pipe to manhole wall with Reliner-Duran, Inc. stainless steel adjustable clamping brackets.

Typical Sanitary Sewer Connection Detail



NOTE: THESE STANDARDS ARE TO BE CONSIDERED AS MINIMUM REQUIREMENTS. ANY DEVIATION FROM THESE STANDARDS WILL REQUIRE THE GILFORD DEPT. OF PUBLIC WORKS APPROVAL.

SANITARY SEWER TRENCH DETAIL SUITABLE MATERIALS



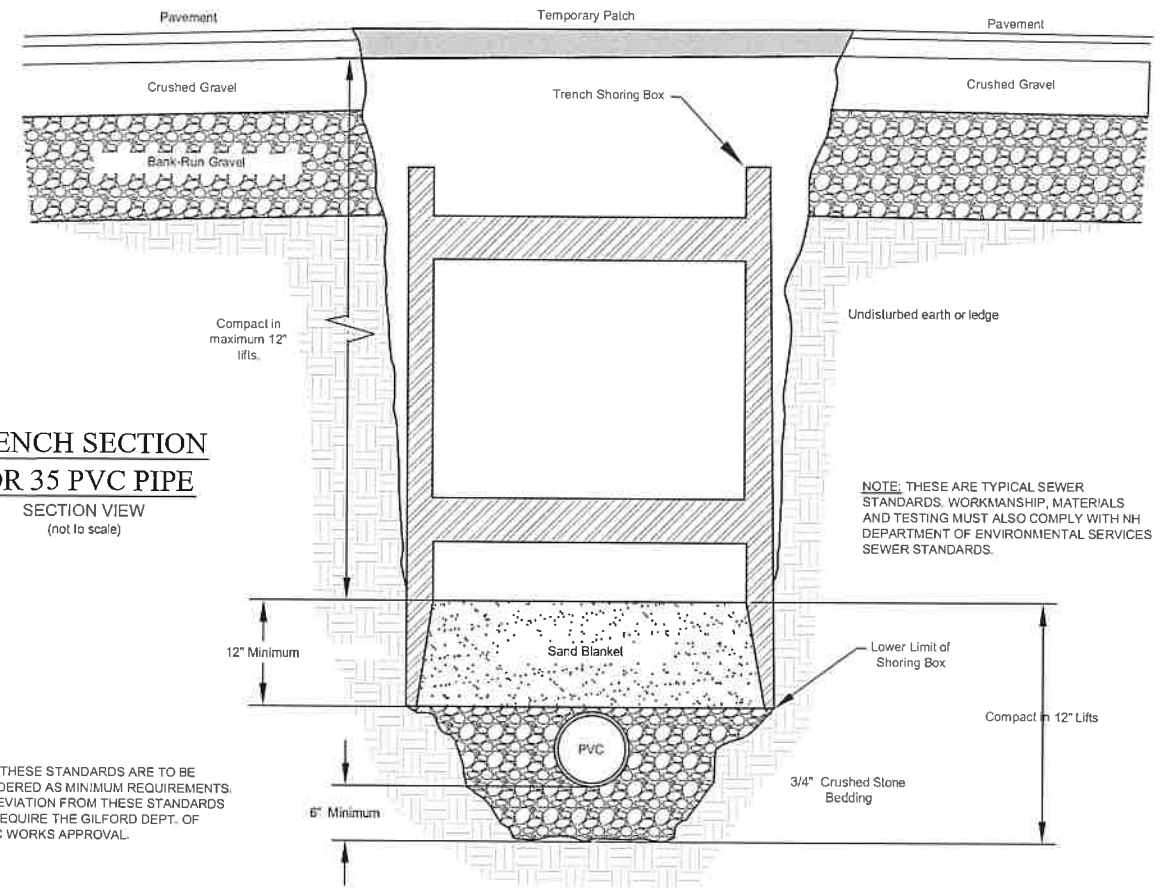
*Suitable Materials
In roads, road shoulders, walk-ways, and traveled ways, suitable material for trench backfill shall be the natural material excavated during the course of construction but shall exclude debris, pieces of pavement, organic matter, top soil, all wet or soft muck, peat or clay, all excavated ledge material, and all rocks over 6" in largest dimension, or any material which, as determined by the engineer, will not provide sufficient support or maintain the completed construction in a stable condition.

In cross country construction, suitable material shall be as described above except that the engineer may permit the use of top soil, loam, muck or peat if he is satisfied that the completed construction will be entirely stable and provided that easy access to the sewer for maintenance and possible reconstruction, when necessary will be preserved. The backfill shall be mounded to a height of 6" above the original ground surface. The pipe bedding and sand blanket must be as shown on the sanitary sewer trench detail.

Pipe trench bedding material shall be #67 stone (ASTM C33/C33M) per Env-Wq 704.11 (a)
Sand blanket material shall conform with provisions of Env-Wq 704.11 (b).

TRENCH SECTION SDR 35 PVC PIPE

SECTION VIEW (not to scale)



NOTE: THESE STANDARDS ARE TO BE CONSIDERED AS MINIMUM REQUIREMENTS. ANY DEVIATION FROM THESE STANDARDS WILL REQUIRE THE GILFORD DEPT. OF PUBLIC WORKS APPROVAL.

REVISIONS

DATE: March 18, 2022	SCALE: 1"=200'
FIELD BOOK: 656	SHEET NO.: 46
SJS PROJ NO.: 19030	DWG NO.: 19030 Eng. I.dwg
TAB: Sewer Slids	

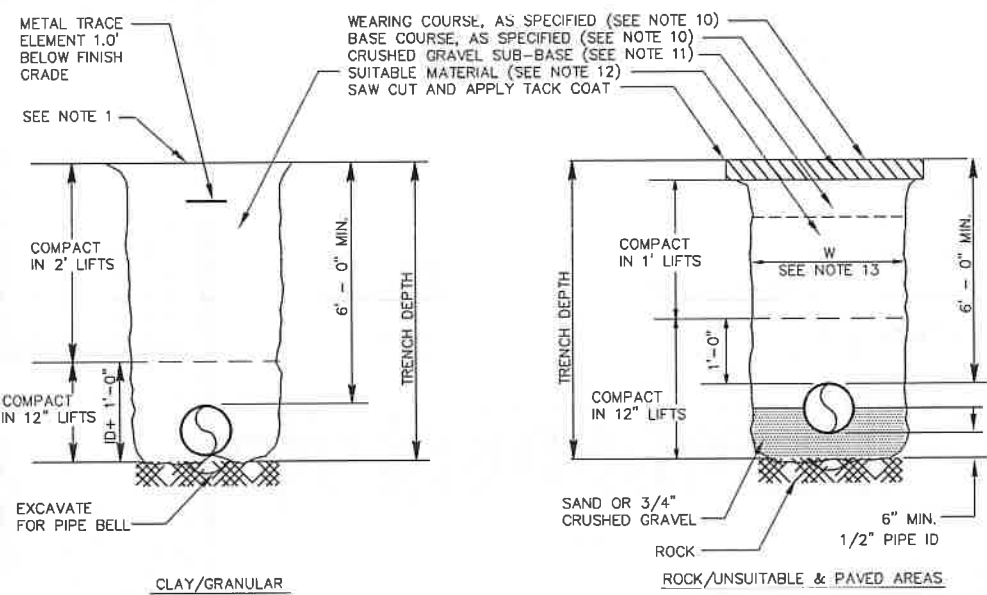
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Sewer Construction Standards
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

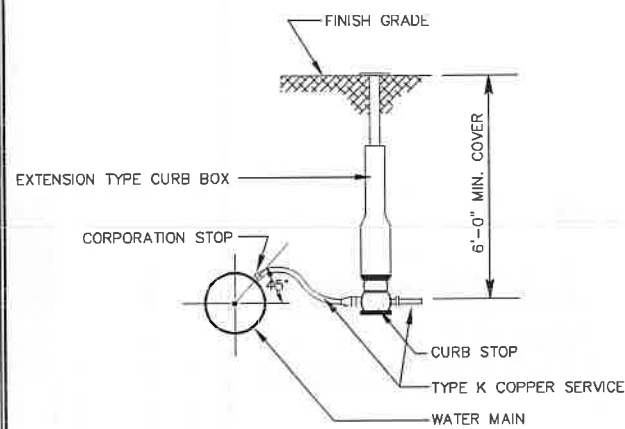
6 LILY POND ROAD, GILFORD, N.H. 03249
PHONE (603) 524-1488
FAX (603) 524-4731

JOB NO. 19030
SHEET 46



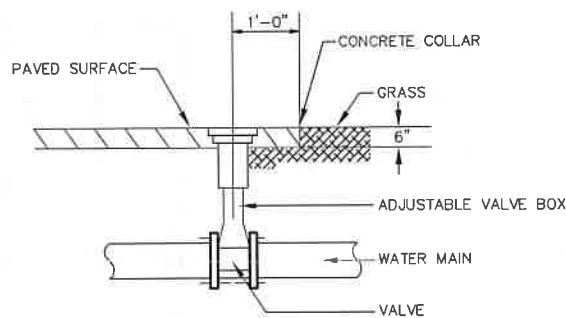
TRENCHING AND BEDDING DETAILS FOR WATER PIPE

N.T.S.



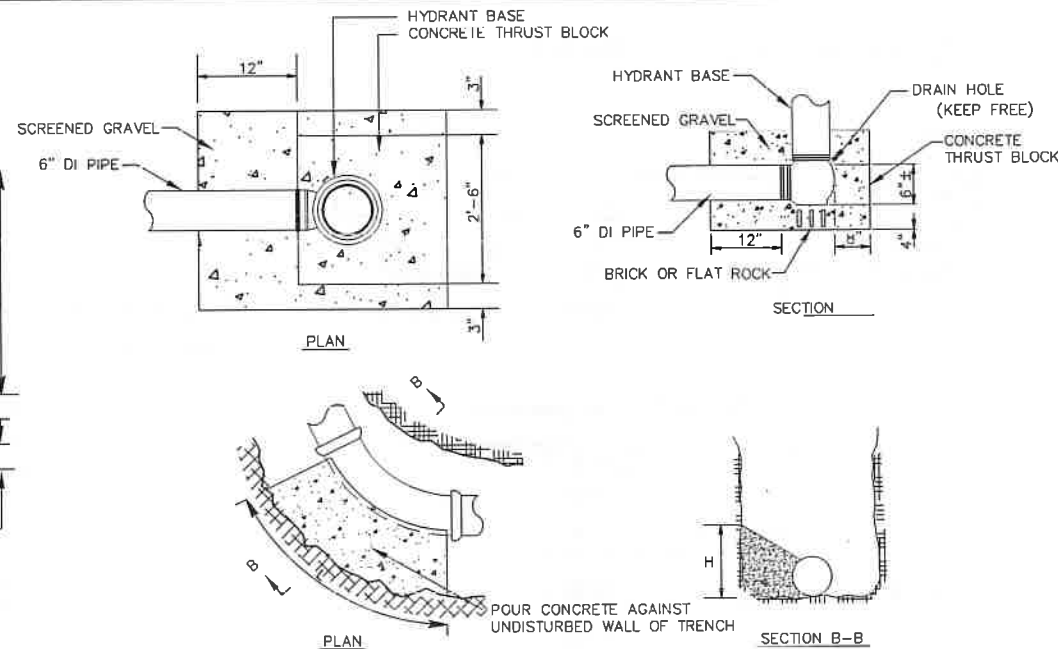
SERVICE LATERAL DETAIL

N.T.S.



VALVE BOX DETAIL

N.T.S.

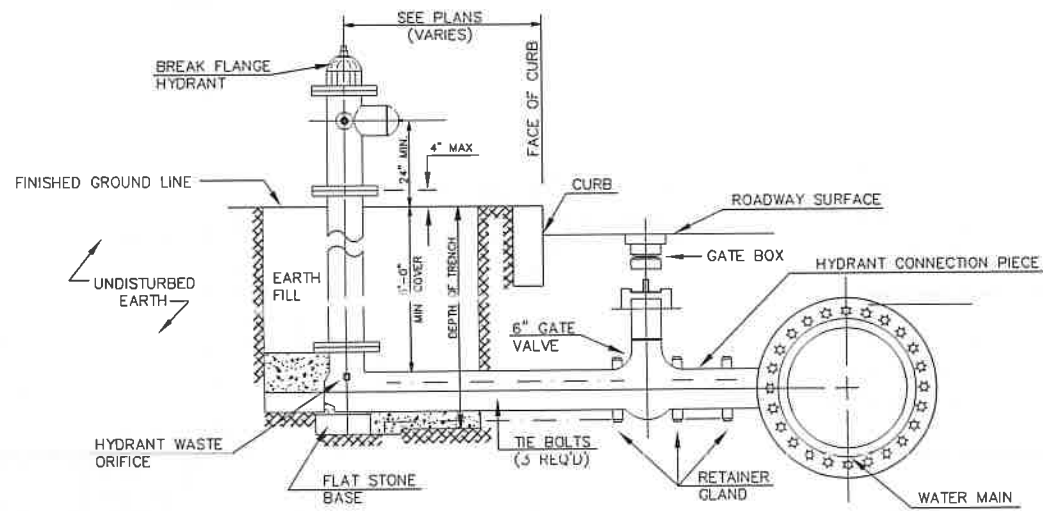


NORMAL DIAMETER OF FITTING	BEARING AREAS - SQUARE FEET				
	DEAD END	BRANCH OF TEE	90° BEND	45° BEND	BEND SMALLER THAN 45° GREATER THAN 10°
6"	2	2	3	2	2
8"	4	4	5	3	2
10"	6	6	8	4	2
12"	8	8	10	6	3
14"	12	12	16	9	4
16"	12	12	20	10	5

- NOTES
- 1 ALL BENDS, TEE HYDRANTS AND DEAD ENDS SHALL BE BRACED WITH CONCRETE THRUST BLOCKS
 - 2 BEARING AREA IS AREA OF CONCRETE IN CONTACT WITH WALL OF TRENCH H X L
 - 3 HEIGHT (H) AND LENGTH (L) AS REQUIRED TO OBTAIN BEARING AREA IN TABLE

THRUST BLOCK DETAILS

N.T.S.



TYPICAL HYDRANT INSTALLATION

N.T.S.

PIPE I.D.	W
8	36
10	36
12	36
15	36
16	36
18	48
21	48
24	54
27	60
30	60
36	64

THE DIMENSION W MAY BE INCREASED BY 1'-0" FOR TRENCHES 10'-15' DEPTH AND 2'-0" FOR TRENCHES 15'-20' IN DEPTH. ADJUSTMENTS IN WIDTH WILL BE DETERMINED BY THE ENGINEER.

WATER MAIN AND WATER SERVICE NOTES:

1. Water mains shall be Class 52 cement lined ductile iron pipe with asphalt coating on the outside. Water mains are to be laid using 18 or 20 foot pipe lengths with either mechanical or push-on type joints.
2. Radii for curved pipelines shown on these plans exceed the minimum radius of curvature produced by succession of joint deflections for the pipe size utilized.
3. All fittings shall be cement lined ductile iron with asphalt coated outside, either long or short pattern. All fittings are to have mechanical joints with retaining glands and have a rated working pressure of 350 psi.
4. Valves on water mains less than 12" except for tapping sleeves, are to be Metropolitan Valves or Waterous Series 500 or US Metroseal Resilient Seated Gate Valves, all mechanical joint, right to open, and asphalt coated. Valves on water mains 12" or larger can be Metropolitan Valves, Henry Pratt Co. (Ground Hag) (MJ), Dresser 450 BF (MJ), Mueller Line Seal III (MJ) or Allis Chalmers Steamseal (MJ).
5. All fire hydrants are to be Eddy F2640 or WATEROUS PACER WB-67-250 meeting AWWA Standards C509-0185 with a rated working pressure of 200 psi. All hydrants are to open right, have a gate valve on the branch, have a 6"-6" trench bury, be break flange mounted, have 2-2 1/2" NST Nozzle and 1-4 1/2" NST Steamer Nozzle, NS 5 sided 63/64 operating nut, have no drain and be painted with a red body and silver caps, chains and operating nut.
6. Domestic service pipe is to be Type K, heavy underground soft copper tubing 3/4" to 2" in diameter with Ford or Mueller corporation stops tapped in the water main and ball valve curb stops at the property line (R.O.W.).
7. All water main loop junctions are to be constructed with mechanical joint gate valves to allow for isolation.
8. A minimum lateral clearance of 10' between water main and sanitary sewer is to be maintained. Where water mains cross sanitary sewers a vertical clearance of 18" is to be maintained between the two. If a push-on type joint comes within 10' of either side of a sanitary sewer a joint clamp or sleeve must be used.
9. Restore to original grade condition and material unless determined otherwise by the Engineer. Seeded areas to receive 4" of topsoil, seed, fertilizer & mulch.
10. Hot bituminous pavement
Wearing course: 1 inch
Base course: 2 inches
11. 1 1/2" crushed gravel sub-base 8 inches thick, 16" coarse sand sub-base.
12. Suitable Material: In roads, road shoulder, walkways and traveled ways suitable material for trench backfill shall be the natural material excavated during the course of construction, but shall exclude debris, pieces of pavement, organic matter, top soil, all wet or soft muck, peat or clay, all excavated ledge material, and all rocks over 6" in largest dimension, or any material which, sufficiently support or maintain the completed construction in a stable condition.
13. W=Maximum allowable trench width to a plane 12" above the pipe. For pipes 15" nominal diameter or less, W shall be no more than 36"; for pipes greater than 15" nominal diameter, W shall be 24" plus pipe O.D. W shall also be the pavement width for ledge excavation and for ordered excavation below grade.

REVISIONS

DATE: March 18, 2022

SCALE: 1"=200'

FIELD BOOK: 656

SHEET NO.: 47

SJS PROJ NO.: 19030

DWG NO.: 19030 Eng 1.dwg

TAB.: Water Side

Water Line Construction Standards
53 Sargent Street
Northfield, Merrimack County, New Hampshire

For
Winni River Campground, LLC

PHONE (603) 224-1400
FAX (603) 224-1751

6 LILYPONE ROAD, GILFORD, N.H. 03249

JOB NO.
19030

SHEET 47

**NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS**

NO.	DATE	DESCRIPTION	BY	CHKD.

WINNI RIVER
CAMPGROUND
53 SARCENT STREET
NORTHFIELD, NH

ELECTRICAL
SERVICES UPGRADE
CAMPGROUND

SHEET TITLE

ELECTRICAL SITE
PLAN

DATE: JAN, 2022
DRAWN BY: MCM
CHECKED BY: EJD
DATE: 5/27/20
APP. ARCHIVE #
WHH
SHEET NUMBER

E-100



SEE DRAWING E-101 FOR CONTINUATION



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SO. BURLINGTON, VT
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LACONIA, NH
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PROFESSIONAL SEAL

**NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS**

NO.	DATE	DESCRIPTION	BY	CHK'D

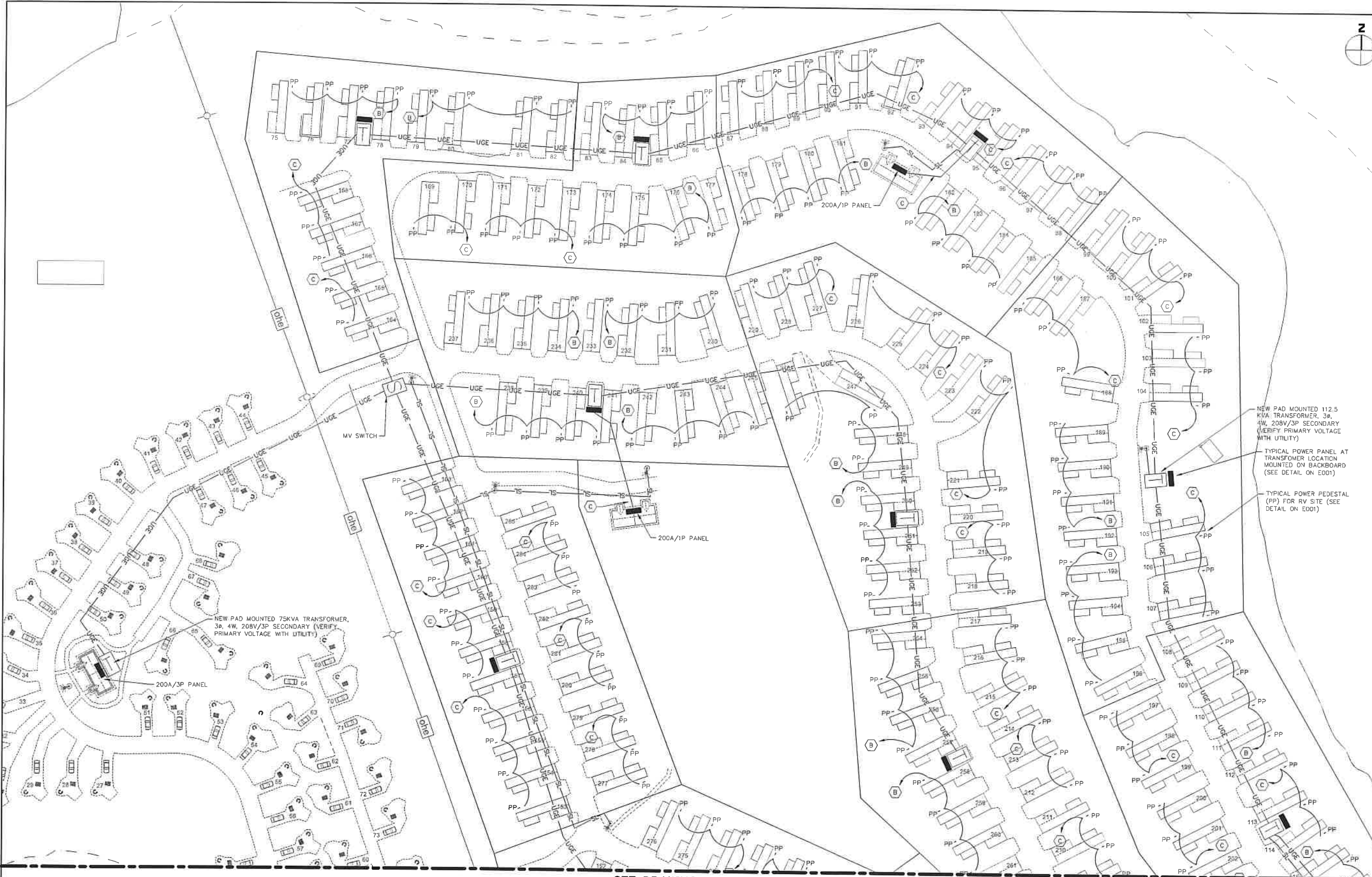
WINNI RIVER
CAMPGROUND
53 SARGENT STREET
NORTHFIELD, NH

ELECTRICAL
SERVICES UPGRADE
WINNI RIVER
CAMPGROUND

SHEET TITLE
ELECTRICAL SITE
PLAN

DRAWN BY	DATE
MCM	JAN. 2022
CHECKED BY	DATE PROJECT #
EJD	527678
PROJ. ENG.	DATE ARCHIVE #
WHH	
SHEET NUMBER	

E-101



SEE DRAWING E-100 FOR CONTINUATION

1 SITE POWER PLAN - NORTH
SCALE: 1/4" = 1'-0"

CABLE / CONDUIT SCHEDULE

(A)	(1) 4" C W/4#500KCMIL
(B)	(1) 2-1/2" C W/ 3#300KCMIL & 1#1GND
(C)	(1) 2 1/2" C W/ 3#250KCMIL & 1#4GND
—SL—	(1) 1" C W/ 3#10 & 1#10GND
—UGE—	(1) 4" C W/ 3#1 AWG ALUMN.

I:\30521878 Winn River Campground Electrical Services\Drawings\Electrical\527678 E-101.dwg 2/11/2022 2:23 PM