

LOCUS MAP
SCALE: 1" = 1,000'

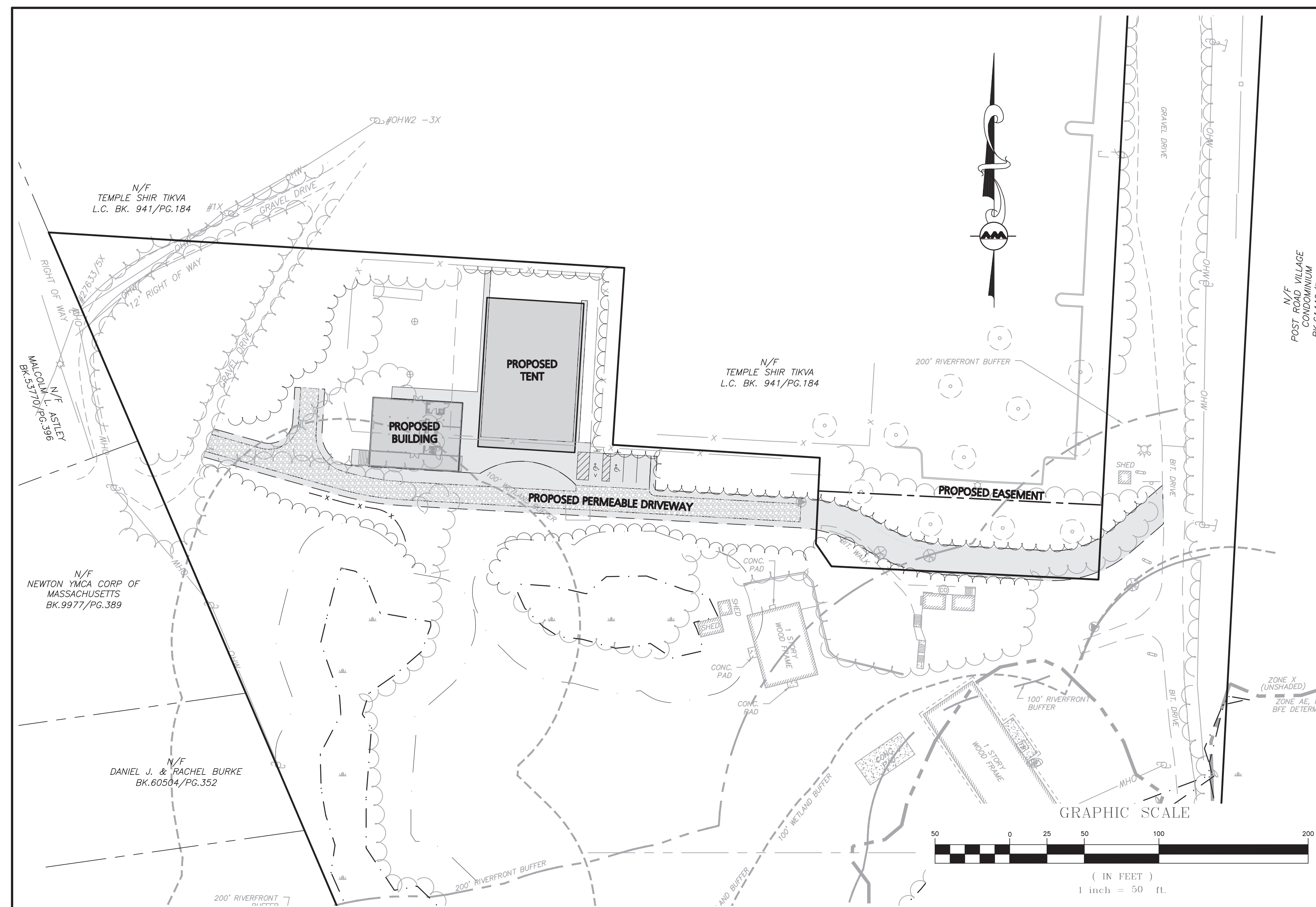
SITE DEVELOPMENT PLANS FOR **CAMP CHICKAMI** 139 BOSTON POST ROAD WAYLAND, MA 01778 MAP 29, LOT 42

APPLICANT/OWNER:
WEST SUBURBAN YMCA
276 CHURCH STREET
NEWTON, MA 02458

CIVIL ENGINEER:
ALLEN & MAJOR ASSOCIATES, INC.
400 HARVEY ROAD
MANCHESTER, NH 03103

SURVEYOR:
ALLEN & MAJOR ASSOCIATES, INC.
100 COMMERCE WAY
WOBBURN, MA 01801

ARCHITECT:
GORMAN RICHARDSON LEWIS ARCHITECTS
239 SOUTH STREET
HOPKINTON, MA 01748



LIST OF DRAWINGS			
DRAWING TITLE	SHEET NO.	ISSUED	REVISION 1
EXISTING CONDITIONS	V-101	11-10-21	12-22-21
EXISTING CONDITIONS	V-102	11-10-21	12-22-21
SITE PREPARATION PLAN	C-101	11-10-21	12-23-21
LAYOUT & MATERIALS PLAN	C-102	11-10-21	12-23-21
GRADING & DRAINAGE PLAN	C-103	11-10-21	12-23-21
UTILITIES PLAN	C-104	11-10-21	12-23-21
TRUCK TURN PLAN	C-105	11-10-21	12-23-21
DETAILS	C-501	11-10-21	12-23-21
DETAILS	C-502	11-10-21	12-23-21
SUBSURFACE SEWAGE DISPOSAL SYSTEM	SSDS-1	11-10-21	12-08-21
SUBSURFACE SEWAGE DISPOSAL SYSTEM	SSDS-2	11-10-21	12-08-21
SUBSURFACE SEWAGE DISPOSAL SYSTEM	SSDS-3	11-10-21	12-08-21
SUBSURFACE SEWAGE DISPOSAL SYSTEM	SSDS-4	11-10-21	12-08-21
FLOOR PLAN - LEVEL 1	A1.1	11-10-21	12-23-21
FLOOR PLAN - LOFT LEVEL	A1.2	11-10-21	12-23-21
EXTERIOR ELEVATIONS	A3.1	11-10-21	12-23-21
EXTERIOR ELEVATIONS	A3.2	11-10-21	12-23-21
BUILDING WALL SECTIONS	A6.1	11-10-21	12-23-21

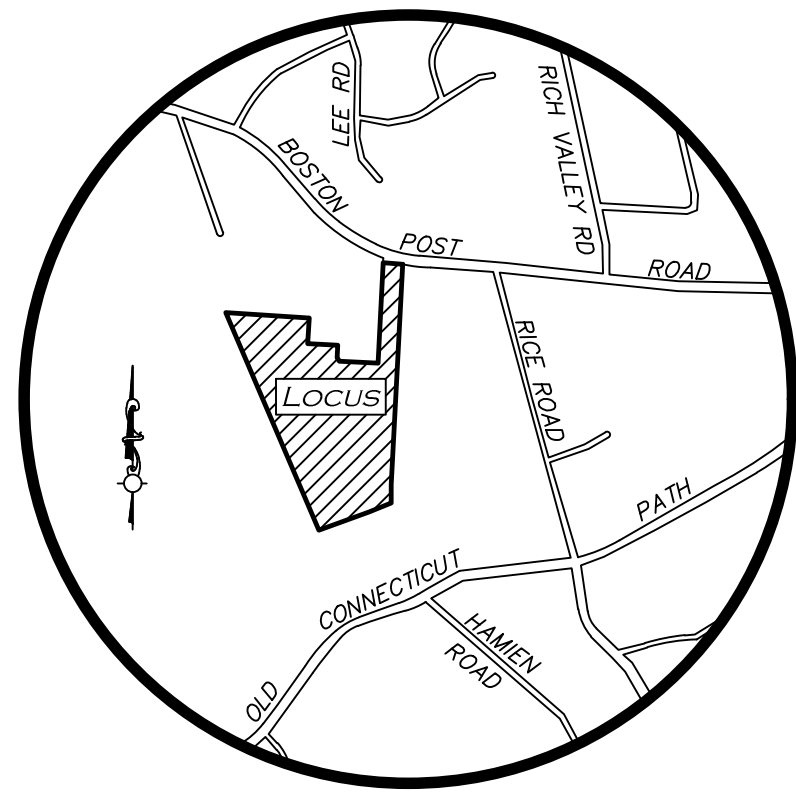
APPROVED BY THE WAYLAND PLANNING BOARD

DATE SITE PLAN ENDORSED:

COMMONWEALTH OF MASSACHUSETTS
BRIAN D. JONES
CIVIL
No. 49212
REGISTERED
PROFESSIONAL ENGINEER
[Signature]
12-23-21
PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

PREPARED BY:
ALLEN & MAJOR ASSOCIATES, INC.
civil & structural engineering • land surveying
environmental consulting • landscape architecture
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ISSUED FOR SITE PLAN REVIEW: NOVEMBER 10, 2021
REVISION 1: DECEMBER 23, 2021



LOCUS MAP
(NOT TO SCALE)

WETLAND NOTE

JURISDICTIONAL WETLANDS WITHIN THE AREA OF INTEREST WERE FLAGGED ON OCTOBER 6, 2020 BY NORMAN LIPSITZ, CERTIFIED PROFESSIONAL LAND SURVEYOR NUMBER 28446.

STONE BOUND WITH DRILL HOLE (FOUND)



UTILITY STATEMENT

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

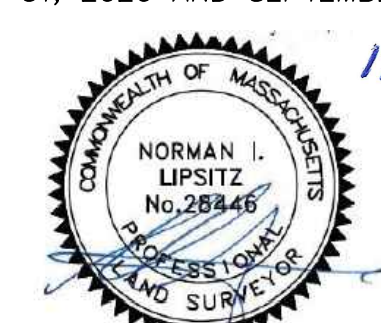
BENCHMARK SUMMARY

TBM #	DESCRIPTION	ELEV.
1	SPIKE IN UTILITY POLE	142.76

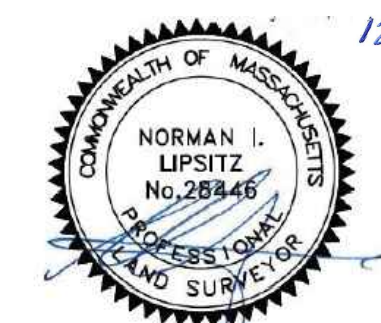
LEGEND

STONE BOUND (SB)	□
IRON PIPE (IP)	○
DRAIN MANHOLE (DMH)	⊙
SEWER MANHOLE (SMH)	⊕
UTILITY POLE	⊖
UTILITY POLE W/RISER	⊗
GUY WIRE	—
WATER SERVICE	—
WATER GATE	—
FIRE ALARM BOX	—
CLEANOUT	—
BOLLARD	—
AREA DRAIN	—
SIGN	—
SIGN	—
MAILBOX	—
BASKETBALL HOOP	—
FLAG POLE	—
FIRE HYDRANT	—
INVERT (INV)	—
LIGHT	—
ELECTRIC METER	—
CONCRETE	—
WETLAND AREA	—
BUILDING	—
BUILDING OVERHANG	—
WETLAND	—
BUFFER ZONE	—
EASEMENT LINE	—
1' CONTOUR	—53—
5' CONTOUR	—55—
PROPERTY LINE	—
ABUTTERS LINE	—
STONE WALL	—
TREE LINE	—
EDGE OF PAVEMENT	—
EDGE OF GRAVEL	—
CURB	—
CHAIN LINK FENCE	x
STOCKADE FENCE	o
SEWER LINE	s
DRAIN LINE	d
OVERHEAD WIRES	OHW
FINISHED FLOOR ELEVATION	FFE
BITUMINOUS	BIT.
CONCRETE	CONC.
GRANITE	GRAN.
REINFORCED CONCRETE PIPE	RCP
POLYVINYL CHLORIDE PIPE	PVC
CORRUGATED METAL PIPE	CMP
CAST IRON PIPE	CI
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.
PLAN BOOK	PB.
PLAN	PL.
LAND COURT	L.C.
LAND COURT CASE	L.C.C.

WE HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN AUGUST 31, 2020 AND SEPTEMBER 30, 2020.

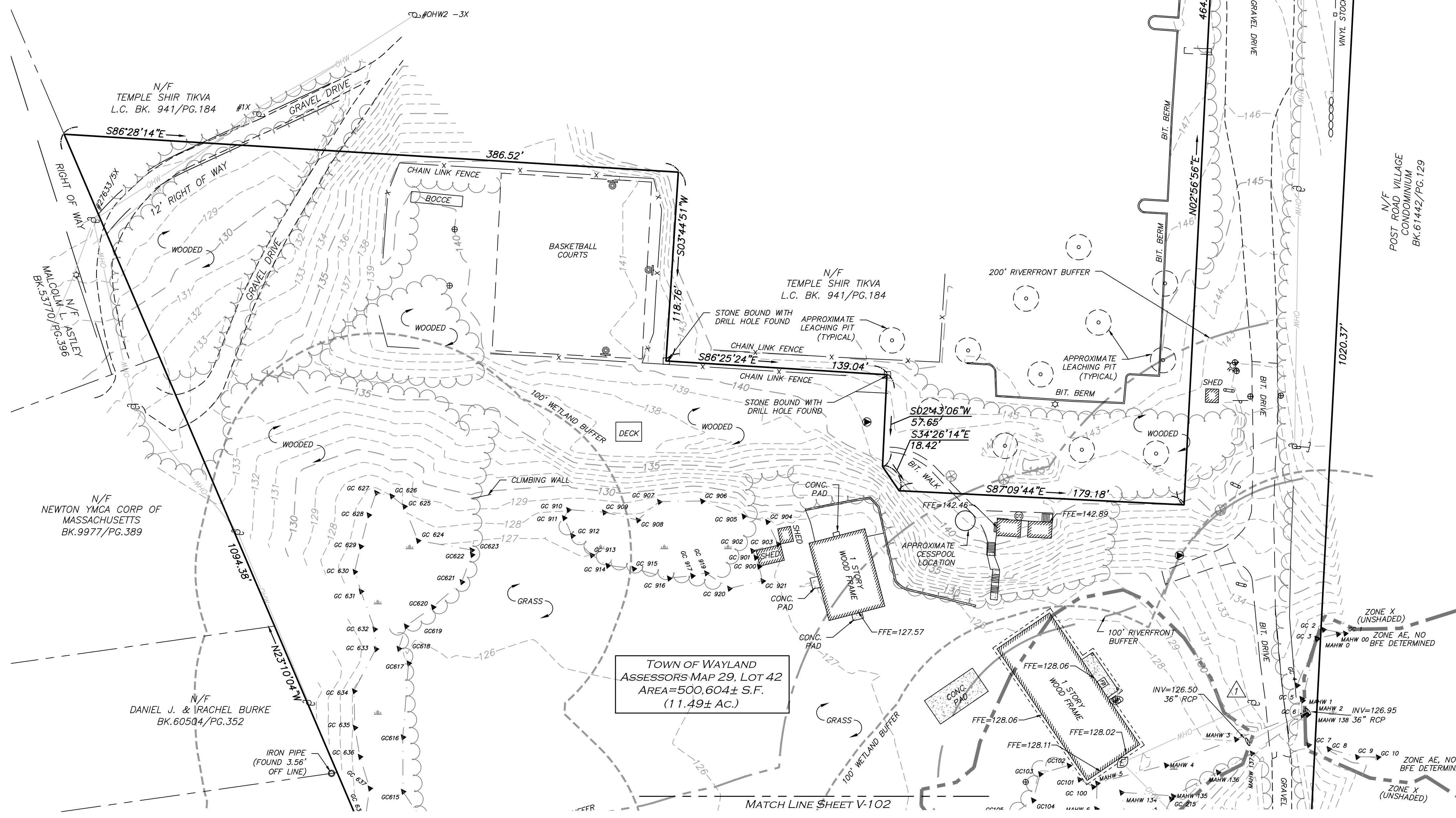


PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



BOSTON POST ROAD
(PUBLIC - VARIABLE WIDTH - S.H.L.O. NO. 4162 & 8241)

R=930.00'
L=394.99'(TIE)
CH=392.03'
S62°49'16"E



LOCUS REFERENCES

- TOWN OF WAYLAND ASSESSORS MAP 29, LOT 42
- DEED BOOK 8499, PAGE 153
- PLAN 685 OF 1945

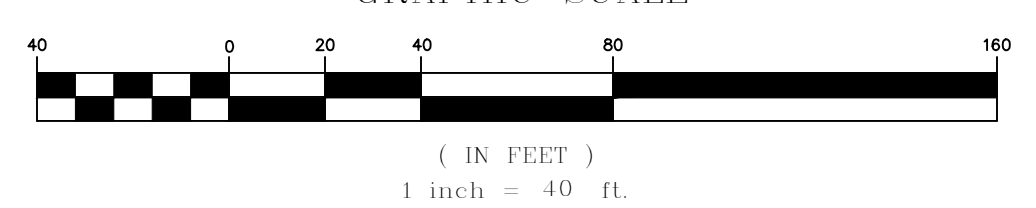
PLAN REFERENCES

- PLAN 1011 OF 1946
- PLAN 174 OF 2013
- L.C.C. 22214A
- S.H.L.O. NO. 4162
- S.H.L.O. NO. 8241

NOTES

- NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
- BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM MIDDLESEX (SOUTH) REGISTRY OF DEEDS IN CAMBRIDGE, MA.
- VERTICAL DATUM IS NAVD 88 ESTABLISHED USING RTK GPS OBSERVATION.
- CONTOUR INTERVAL IS ONE FOOT (1').
- THERE WERE NO STRIPED PARKING STALLS ON THE SUBJECT PREMISES.
- FEMA FLOOD LINES ARE TAKEN FROM MASS GIS AND SHOULD BE CONSIDERED APPROXIMATE.

GRAPHIC SCALE



REV	DATE	DESCRIPTION
1	12/22/01	ADD SEPTIC INFORMATION

APPLICANT/OWNER:
WEST SUBURBAN YMCA
276 CHURCH STREET
NEWTON, MA 02458

PROJECT:
139 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	2562-01A	DATE:	10/02/20
SCALE:	1" = 40'	DWG. NAME:	S-2562-01A
DRAFTED BY:	AJR	CHECKED BY:	NIL

PREPARED BY:

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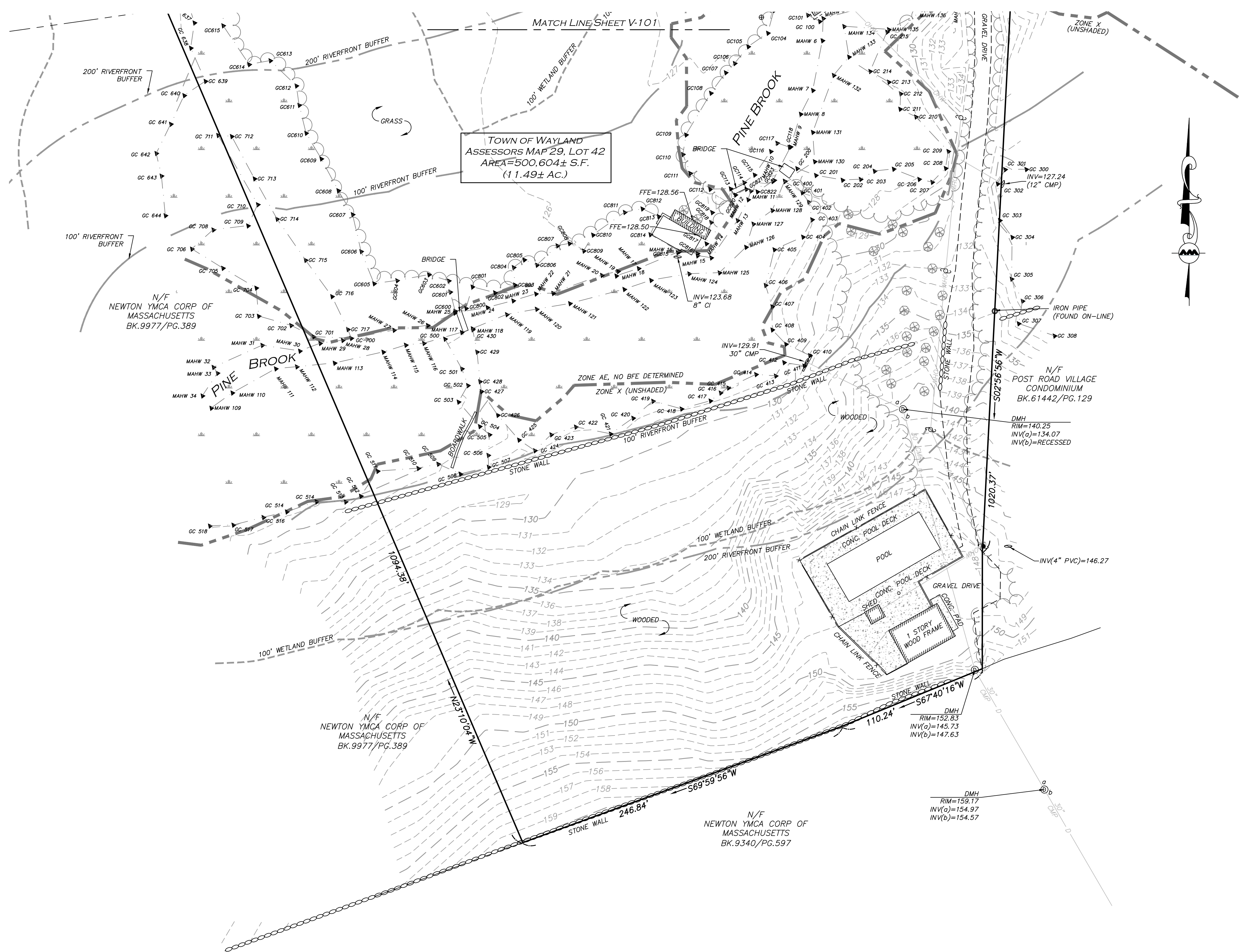
DRAWING TITLE:	SHEET NO.
EXISTING CONDITIONS	V-101

BENCHMARK SUMMARY		
TBM #	DESCRIPTION	ELEV.
1	SPIKE IN UTILITY POLE	142.76

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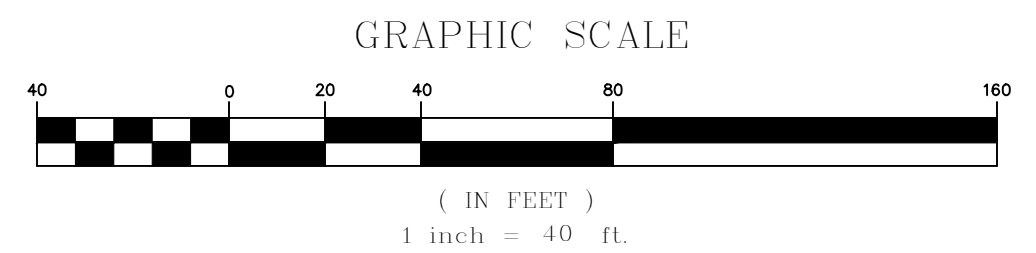
LEGEND	
STONE BOUND (SB)	□
IRON PIPE (IP)	○
DRAIN MANHOLE (DMH)	⊙
SEWER MANHOLE (SMH)	⊕
UTILITY POLE	⊙
UTILITY POLE W/RISER	⊙
GUY WIRE	—
WATER SERVICE	—
WATER GATE	—
FIRE ALARM BOX	—
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BOLLARD	—
AREA DRAIN	—
SIGN	—
SIGN	—
MAILBOX	—
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INVERT (INV)	—
LIGHT	—
ELECTRIC METER	—
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WETLAND AREA	—
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BUILDING OVERHANG	—
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TREE LINE	—
EDGE OF PAVEMENT	—
EDGE OF GRAVEL	—
CURB	—
CHAIN LINK FENCE	x
STOCKADE FENCE	o
SEWER LINE	s
DRAIN LINE	d
OVERHEAD WIRES	OHW
FINISHED FLOOR ELEVATION	FFE
BITUMINOUS	BIT.
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REINFORCED CONCRETE PIPE	RCP
POLYVINYL CHLORIDE PIPE	PVC
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LAND COURT	L.C.
LAND COURT CASE	L.C.C.



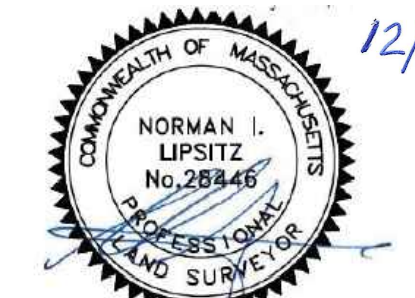
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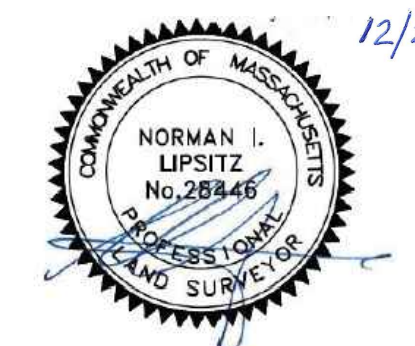
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PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12/22/01	ADD SEPTIC INFORMATION

APPLICANT/OWNER:
WEST SUBURBAN YMCA
 276 CHURCH STREET
 NEWTON, MA 02458

PROJECT:
139 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	2562-01A	DATE:	10/02/20
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SCALE:	1" = 40'	DWG. NAME:	S-2562-01A
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DRAFTED BY:	AJR	CHECKED BY:	NIL
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PREPARED BY:

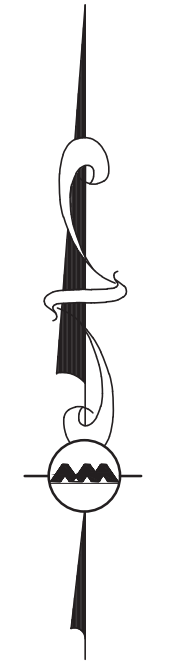
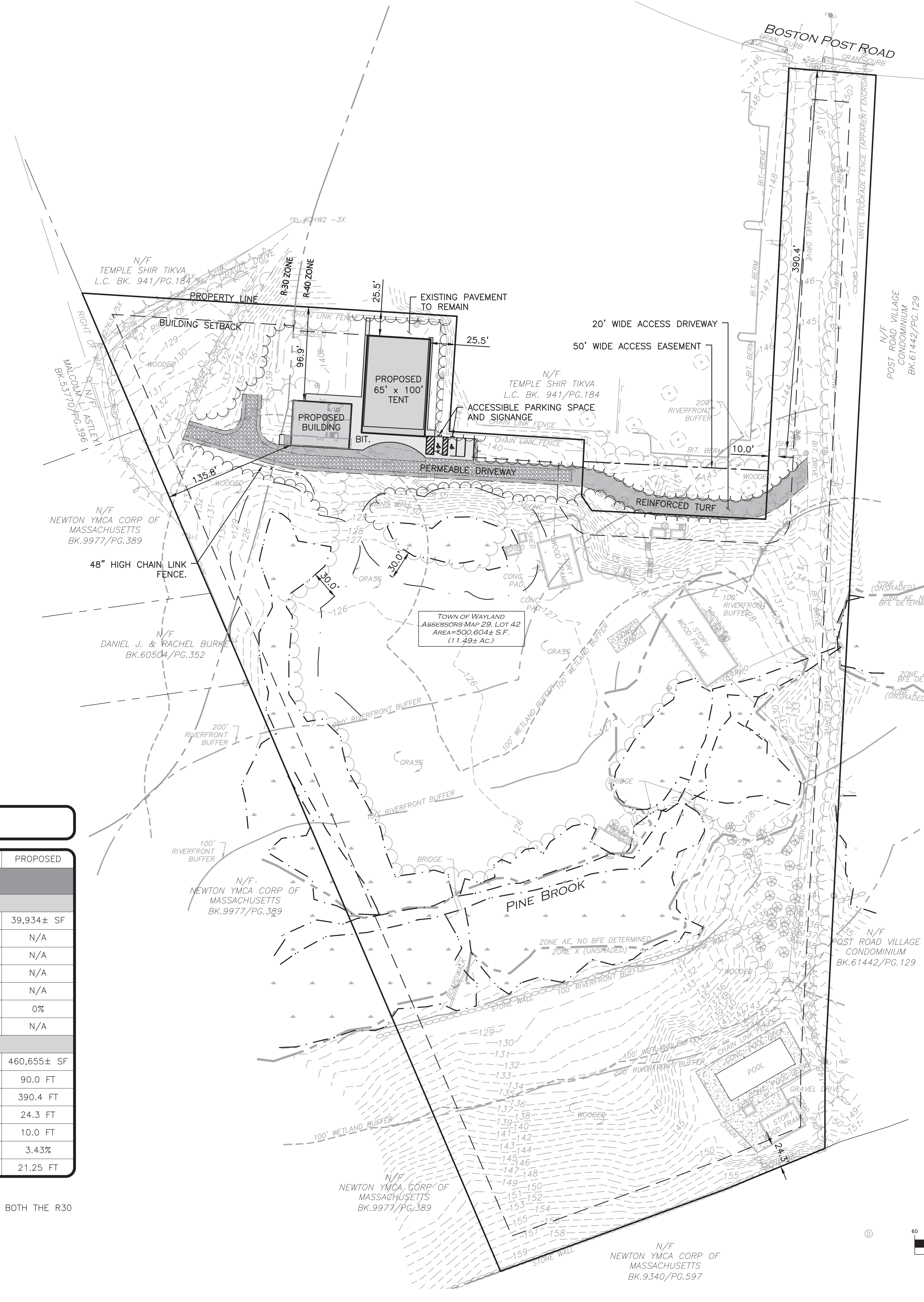
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DRAWING TITLE:	SHEET No.
EXISTING CONDITIONS	V-102

R:\PROJECTS\2562-01\CIVIL\DRAWINGS\CURRENT\C-2562-01_LAYOUT & MATERIALS.DWG



LEGEND	
PROPERTY LINE	---
EASEMENT LINE	- - - -
SIGN	T
BOLLARD	•
BUILDING	[Solid rectangle]
BUILDING ARCHITECTURE	[Hatched rectangle]
RETAINING WALL	[Hatched rectangle]
PARKING STRIPING	[Parallel lines]
SETBACK LINE	[Dashed line]
BITUMINOUS PAVEMENT	[Cross-hatched rectangle]
SNOW STORAGE	[Diagonal lines]
PERMEABLE DRIVEWAY	[Stippled rectangle]
WOOD GUARDRAIL	[V-shaped lines]
CHAIN LINK FENCE	[X-shaped lines]
TREE LINE	[Wavy lines]
ZONE BOUNDARY	[Dashed line]

OFF-STREET PARKING SUMMARY

USE	MINIMUM REQUIRED CALCULATION	MIN REQUIRED	TOTAL PROVIDED
MULTI-USE BUILDING	AS NEEDED PER § 198-506.1.10 "OFF-STREET PARKING"	N/A	7

- NOTES:
- ADA SPACES REQUIRED: FOR 1-25 TOTAL PARKING, 1 SHALL BE THE MINIMUM ADA PARKING PROVIDED ALSO BEING VAN ACCESSIBLE.
 - 506.1.10. FOR ANY AND ALL USES, BUILDINGS, OR STRUCTURES NOT SPECIFICALLY PROVIDED FOR IN THE FOREGOING ENUMERATION, SUCH PARKING SPACES AS THE SITE PLAN APPROVAL GRANTING AUTHORITY, IN ACCORDANCE WITH § 198-603, SHALL DETERMINE TO BE NECESSARY, CONSIDERING THE ACTIVITIES INVOLVED, TO PROVIDE A MAXIMUM OF SAFETY AND A MINIMUM OF CONGESTION ON THE ADJACENT ROADWAYS.

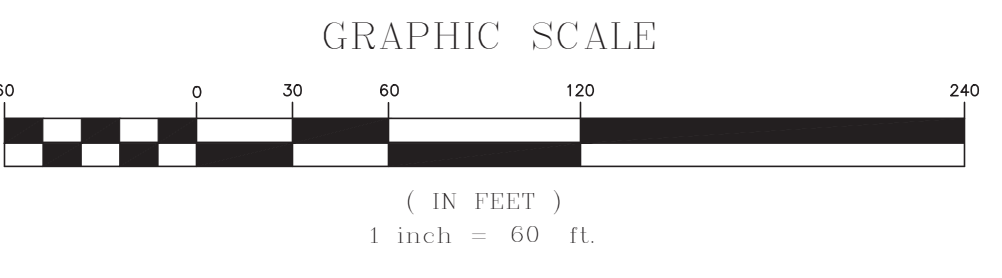
TOWN OF WAYLAND R30 & R40 ZONES

ITEM	REQUIRED/ALLOWED	EXISTING	PROPOSED
DIMENSIONAL REQUIREMENTS			
R30 - SINGLE RESIDENCE (0.92± AC.)			
LOT AREA (MIN)	30,000 SF	39,934± SF	39,934± SF
MINIMUM FRONTAGE (FT)	150 FT	N/A	N/A
FRONT SETBACK (FT)	30 FT	N/A	N/A
REAR SETBACK (FT)	30 FT	N/A	N/A
SIDE SETBACK (FT)	20 FT	N/A	N/A
PERCENT OF LOT COVERAGE (%)	20%	0%	0%
MAXIMUM STRUCTURE HEIGHT (FT)	35 FT	N/A	N/A
R40 - SINGLE RESIDENCE (10.57± AC.)			
LOT AREA (MIN)	40,000 SF	460,655± SF	460,655± SF
MINIMUM FRONTAGE (FT)	180 FT	90.0 FT	90.0 FT
FRONT SETBACK (FT)	30 FT	390.4 FT	390.4 FT
REAR SETBACK (FT)	30 FT	24.3 FT	24.3 FT
SIDE SETBACK (FT)	25 FT	10.0 FT	10.0 FT
PERCENT OF LOT COVERAGE (%)	20%	1.58%	3.43%
MAXIMUM STRUCTURE HEIGHT (FT)	35 FT	-	21.25 FT

- NOTES:
- DIMENSIONAL REQUIREMENTS ARE BROKEN UP BY ZONE AS THE SUBJECT PARCEL IS WITHIN BOTH THE R30 & R40 ZONES.
 - THE DAY CAMP USE IS ALLOWED WITHIN THE R30 & R40 ZONES BY ZBA SPECIAL PERMIT.

PLAN NOTES:

- EXISTING CONDITIONS INFORMATION WAS COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC. IN OCTOBER OF 2020 AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE TOWN OF WAYLAND AND OTHER SOURCES.
- WETLAND RESOURCES AREAS SHOWN HEREON ARE TAKEN FROM THE MA DEP ORDER OF RESOURCE AREA DELINEATION (ORAD) FILE NUMBER 322-0961.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK. THE CONTRACTOR SHALL ALSO CONTACT THE CITY DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF LOCAL UTILITIES.
- THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS OR CONDITIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR.
- THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.



12.23.21

PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12-23-21	PER TOWN REVIEW COMMENTS

APPLICANT/OWNER:
WEST SUBURBAN YMCA
276 CHURCH STREET
NEWTON, MA 02458

PROJECT:
CAMP CHICKAMI
139 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	2562-01	DATE:	11-10-21
SCALE:	1" = 60'	DWG. NAME:	C2562-01
DESIGNED BY:	JG	CHECKED BY:	BDJ

PREPARED BY:

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DRAWING TITLE:	SHEET No.
LAYOUT & MATERIALS PLAN	C-102

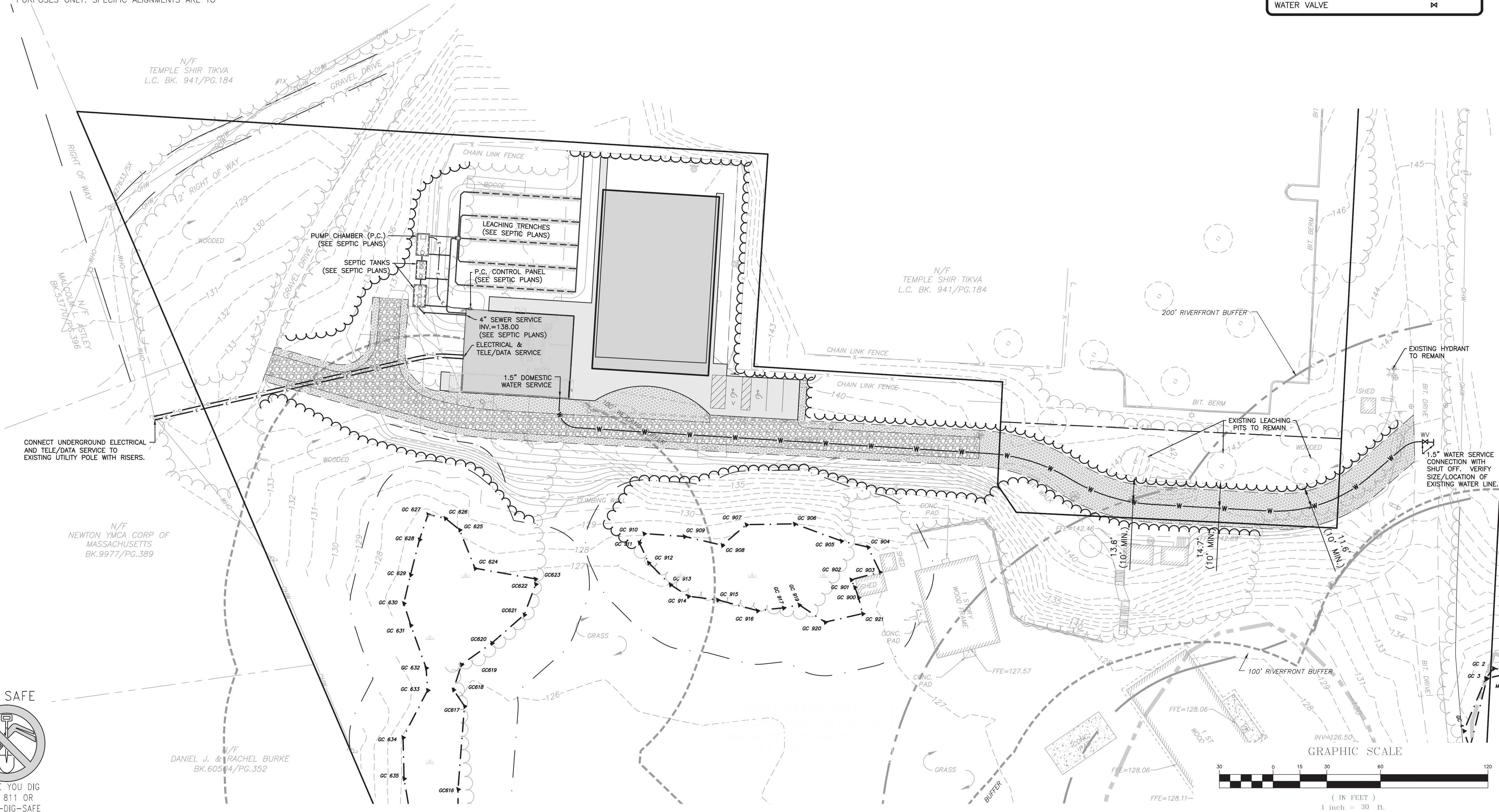
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UTILITY NOTES:

- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION. THE ENGINEER WILL THEN PROVIDE RESOLUTION TO UTILITY CONFLICTS WITHOUT DELAY.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE MUNICIPALITY, MADOT, MADEP, MUTCD, AND AASHTO.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE. THESE PLANS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., DO NOT EXTEND TO, NOR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THE EMPLOYEES, AGENTS OF REPRESENTATIVES IN PERFORMANCE OF THE WORK. THE SEAL OF THE ARCHITECT OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OF OBTAIN THE APPROPRIATE SAFETY SYSTEMS THAT MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- LOCATION OF PROPOSED ELECTRICAL/COMMUNICATION SERVICE IS SCHEMATIC IN NATURE AND FOR COORDINATION PURPOSES ONLY. SPECIFIC ALIGNMENTS ARE TO BE DESIGNED BY OTHERS AND REVIEWED BY THE UTILITY PROVIDING SERVICE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
- ALL ELEVATIONS REFER TO NAVD 88.
- ALL WATER UTILITY WORK SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH AWWA STANDARDS.



LEGEND	
SEWER VENT	
SEWER LINE	
WATER LINE	
SEPTIC TANK	
UTILITY POLE	
ELECTRICAL CONDUIT	
TELE/CABLE CONDUIT	
WATER VALVE	



12.23.21

PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12-23-21	PER TOWN REVIEW COMMENTS

APPLICANT/OWNER:
WEST SUBURBAN YMCA
 276 CHURCH STREET
 NEWTON, MA 02458

PROJECT:
CAMP CHICKAMI
 139 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO. 2562-01 DATE: 11-10-21
 SCALE: 1" = 30' DWG. NAME: C2562-01
 DESIGNED BY: JG CHECKED BY: BDJ

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
 civil engineering • land surveying
 environmental consulting • landscape architecture
 www.allenmajor.com
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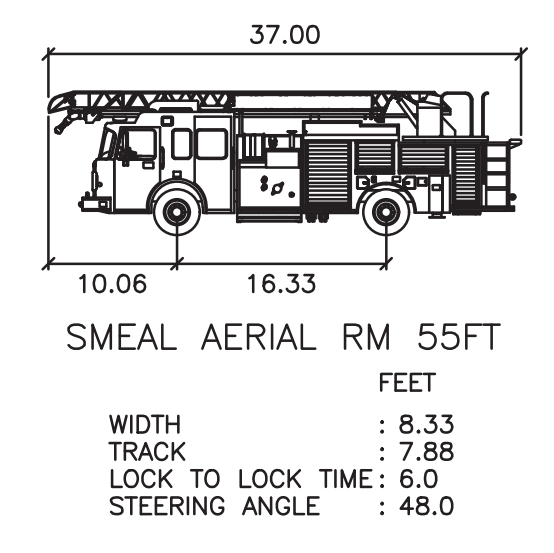
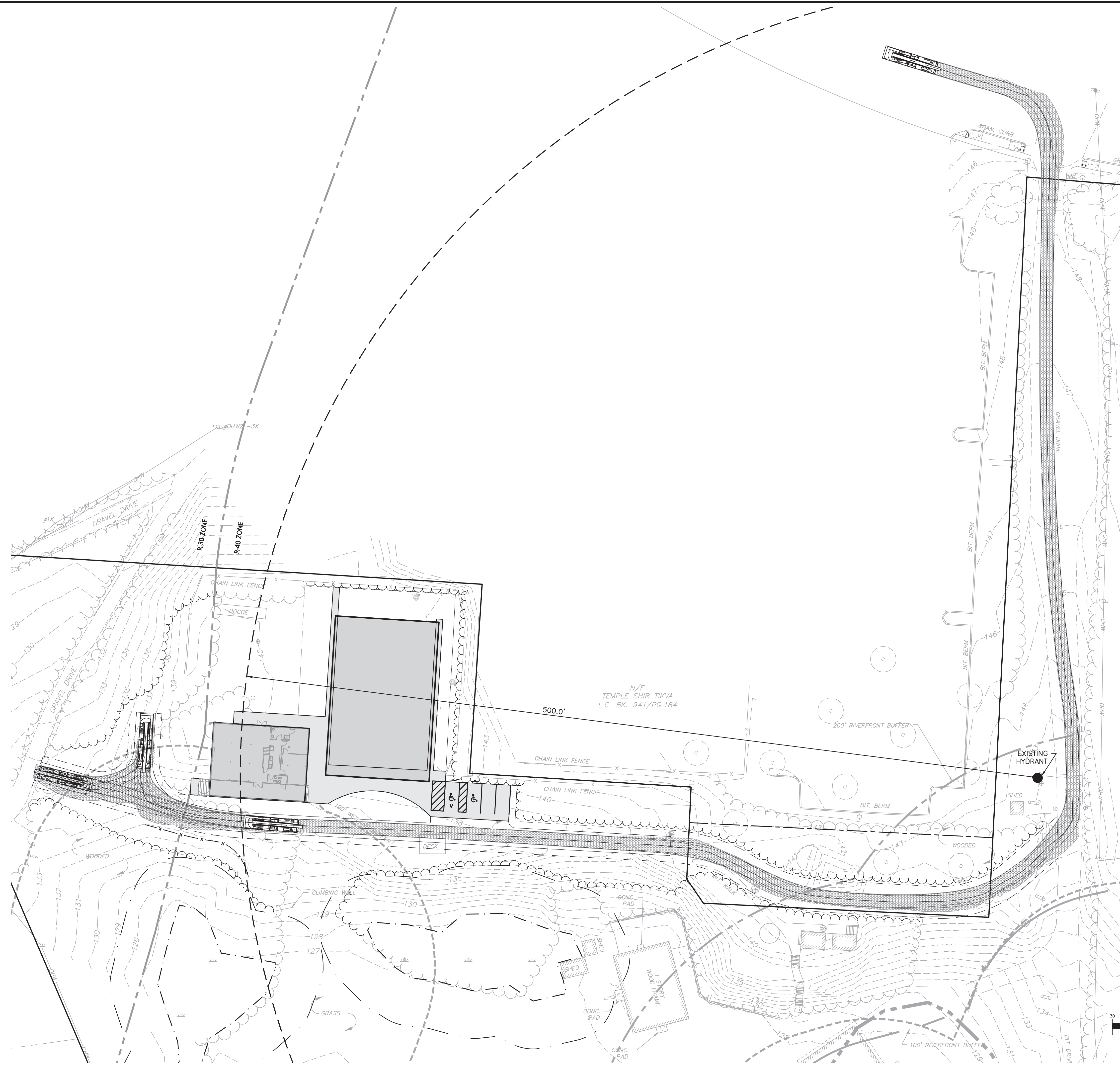
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DRAWING TITLE: UTILITIES PLAN SHEET NO. C-104

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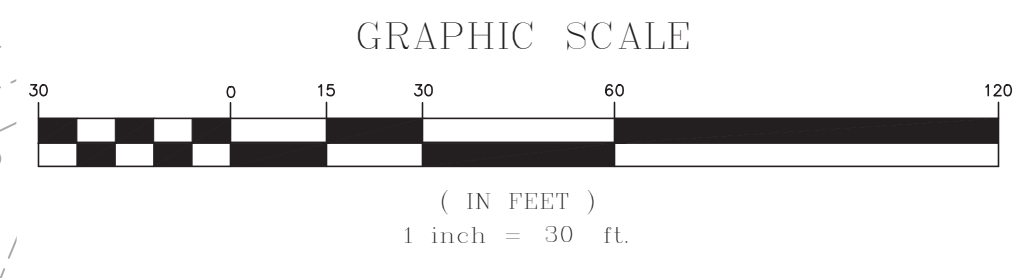
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 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

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PLAN NOTES:

1. THE FIRE TRUCK MOVEMENT SHOWN IS THE ROUTE FROM THE WAYLAND FIRE STATION LOCATED AT 38 COCHITUATE ROAD.
2. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES.
3. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.



12.23.21
 PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12-23-21	PER TOWN REVIEW COMMENTS

APPLICANT/OWNER:
 WEST SUBURBAN YMCA
 276 CHURCH STREET
 NEWTON, MA 02458

PROJECT:
 CAMP CHICKAMI
 139 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	2562-01	DATE:	11-10-21
SCALE:	1" = 30'	DWG. NAME:	C2562-01
DESIGNED BY:	JG	CHECKED BY:	BDJ

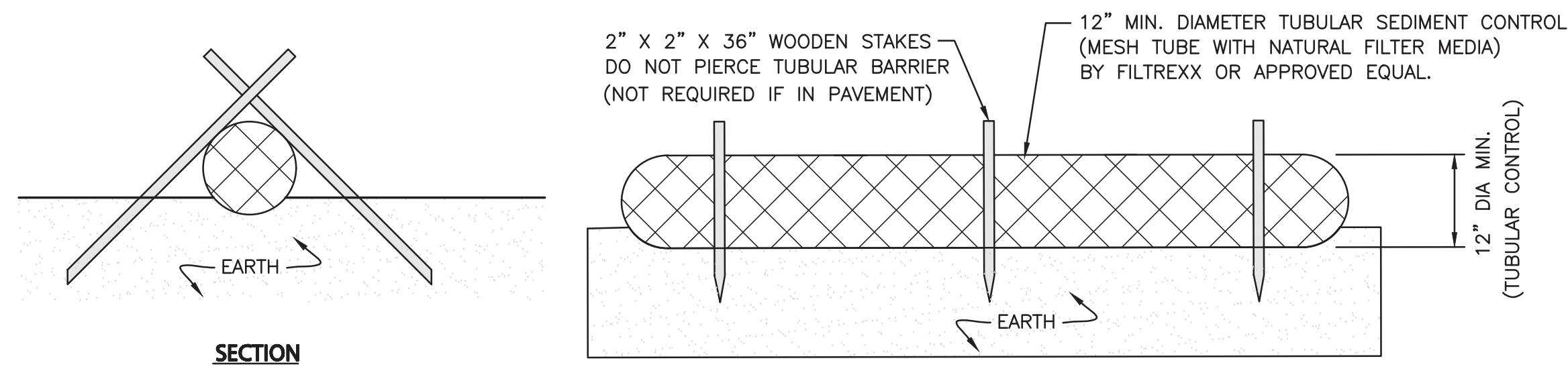
PREPARED BY:

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DRAWING TITLE: **TRUCK TURN PLAN** SHEET No. **C-105**
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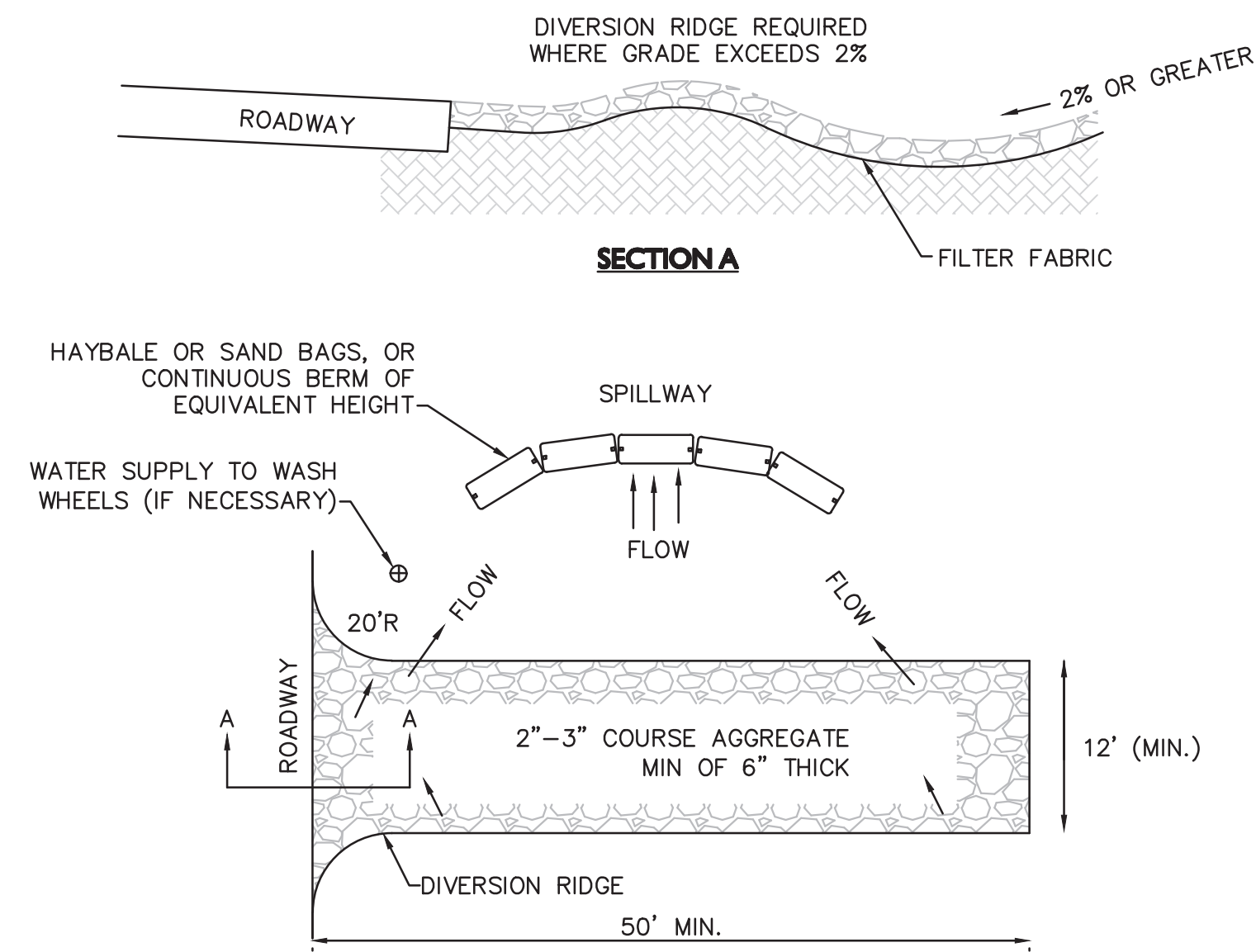


- NOTES:**
1. ALL MATERIALS TO MEET MANUFACTURERS SPECIFICATIONS.
 2. INSTALL WOODEN STAKES IN A CRISS-CROSS PATTERN EVERY 8' ON CENTER.
 3. OVERLAP TUBULAR BARRIER SEGMENTS A MINIMUM OF 12".
 4. THE CONTRACTOR SHALL MAINTAIN THE TUBULAR SEDIMENT CONTROLS IN A FUNCTIONAL CONDITION AT ALL TIMES. THE CONTROLS SHALL BE ROUTINELY INSPECTED BY THE CONTRACTOR.
 5. WHERE THE TUBULAR SEDIMENT CONTROLS REQUIRE REPAIR OR SEDIMENT, IT WILL BE ROUTINELY COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST.
 6. AT A MINIMUM, THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE WHEN THEY REACH 1/3 THE EXPOSED HEIGHT OF THE BARRIER, OR IF MORE FREQUENTLY AS DIRECTED BY THE ENGINEER.

TUBULAR SEDIMENT BARRIER
NOT TO SCALE

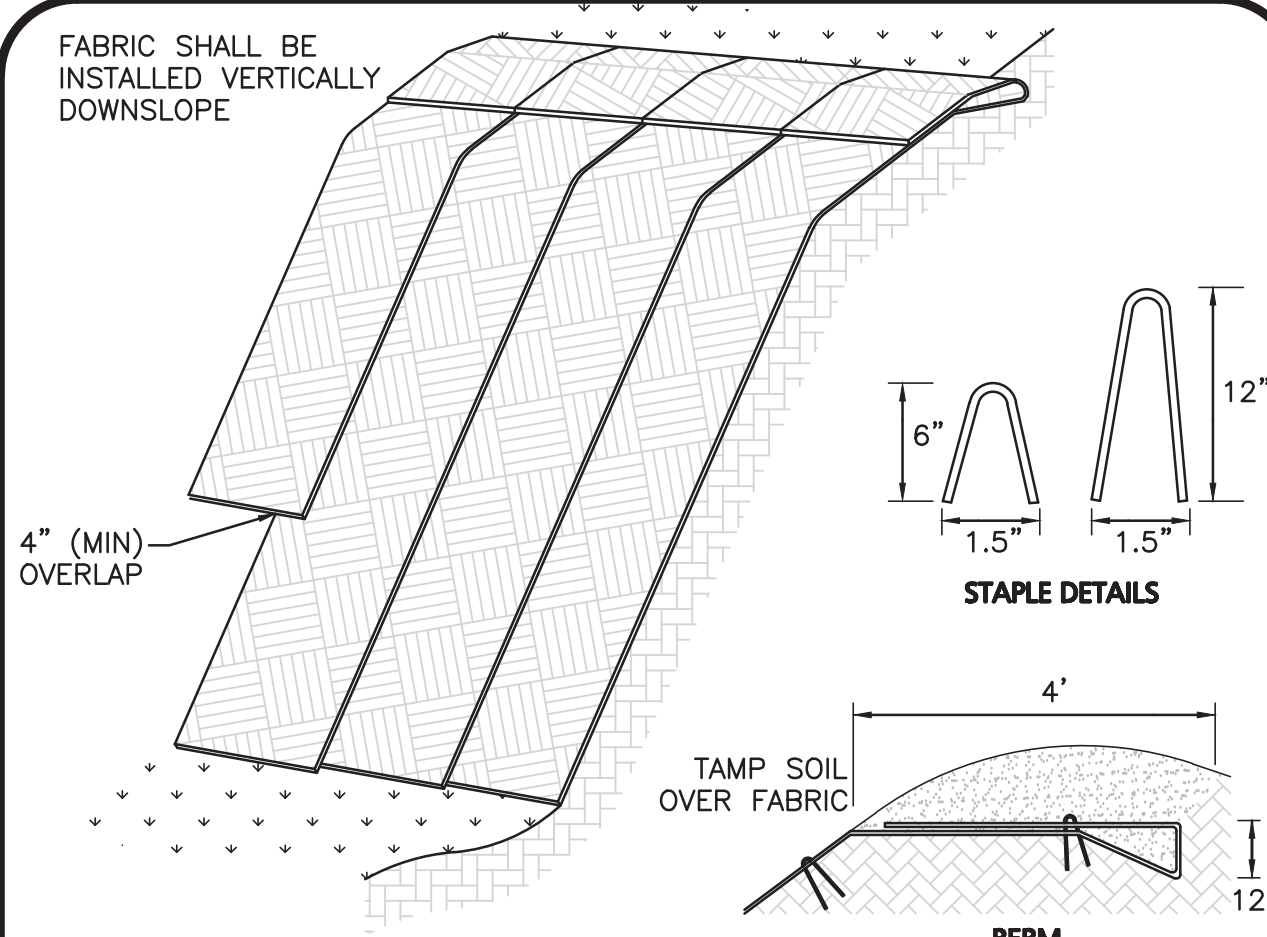
1

- NOTES:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. USE SANDBAGS, HAYBALES, OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.



TEMPORARY CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE

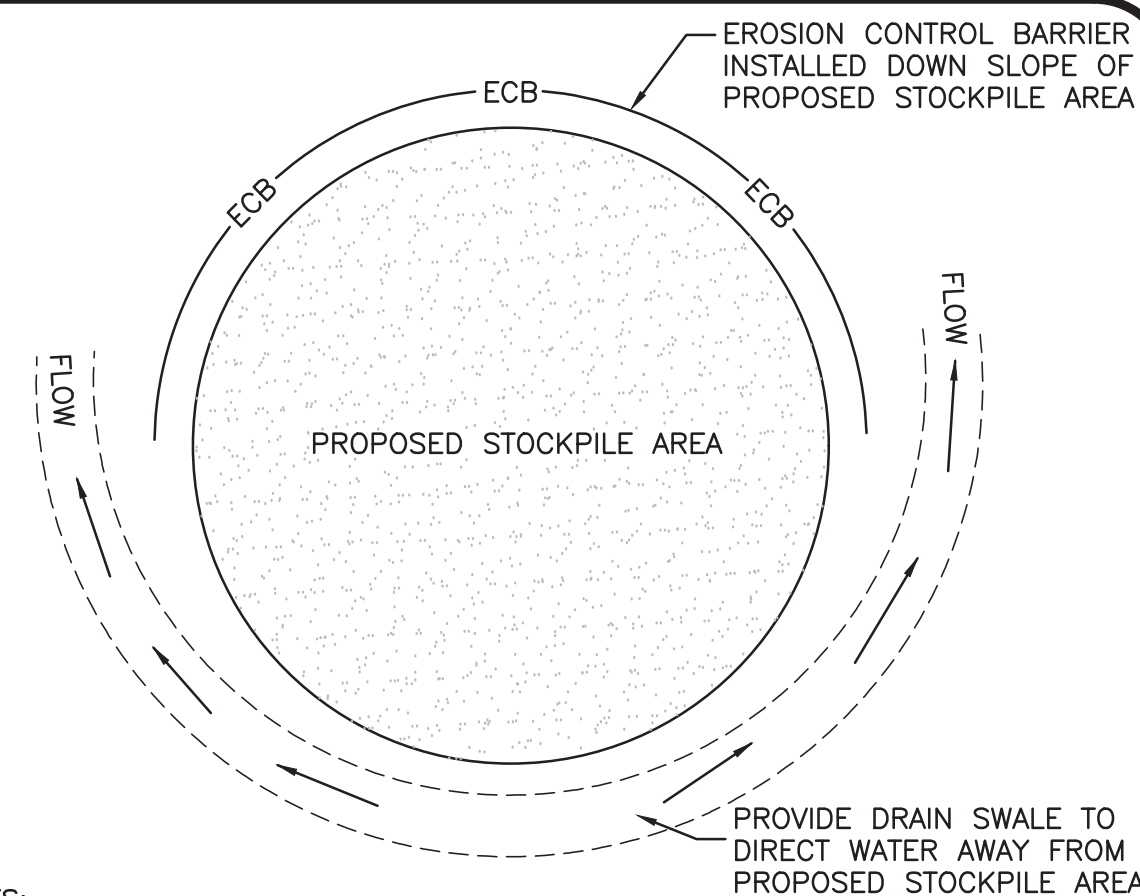
2



- NOTE:**
1. SOLE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. FABRIC SHALL HAVE GOOD SOIL CONTACT.
 2. APPLY PERMANENT SEEDING BEFORE PLACING FABRIC.
 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 4. CHOOSE MATERIAL BASED ON SLOPE, SOILS, AND APPLICATION.

EROSION CONTROL FABRIC
NOT TO SCALE

3



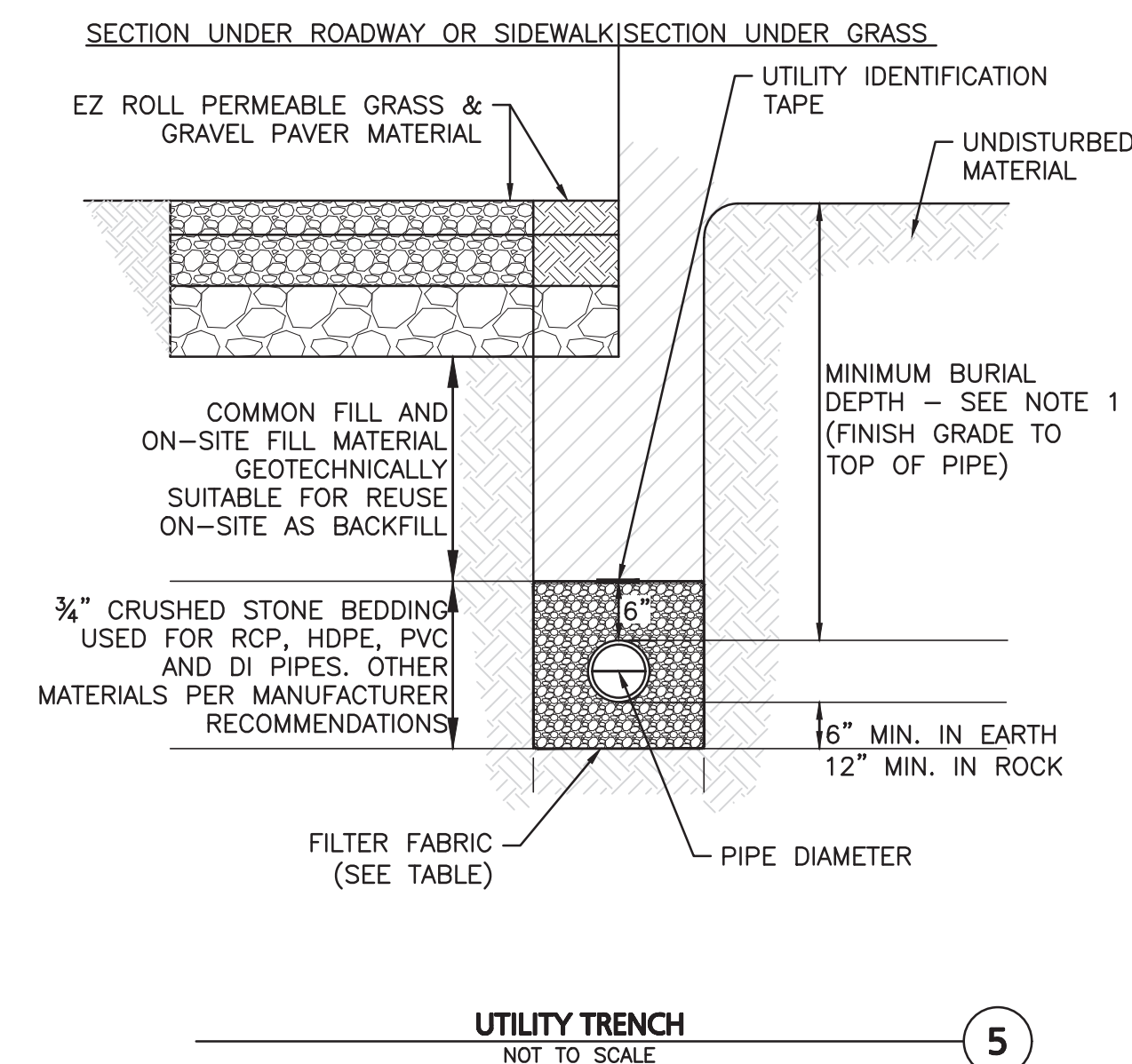
- NOTES:**
1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH STRAW AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

STOCKPILE PROTECTION DETAIL
NOT TO SCALE

4

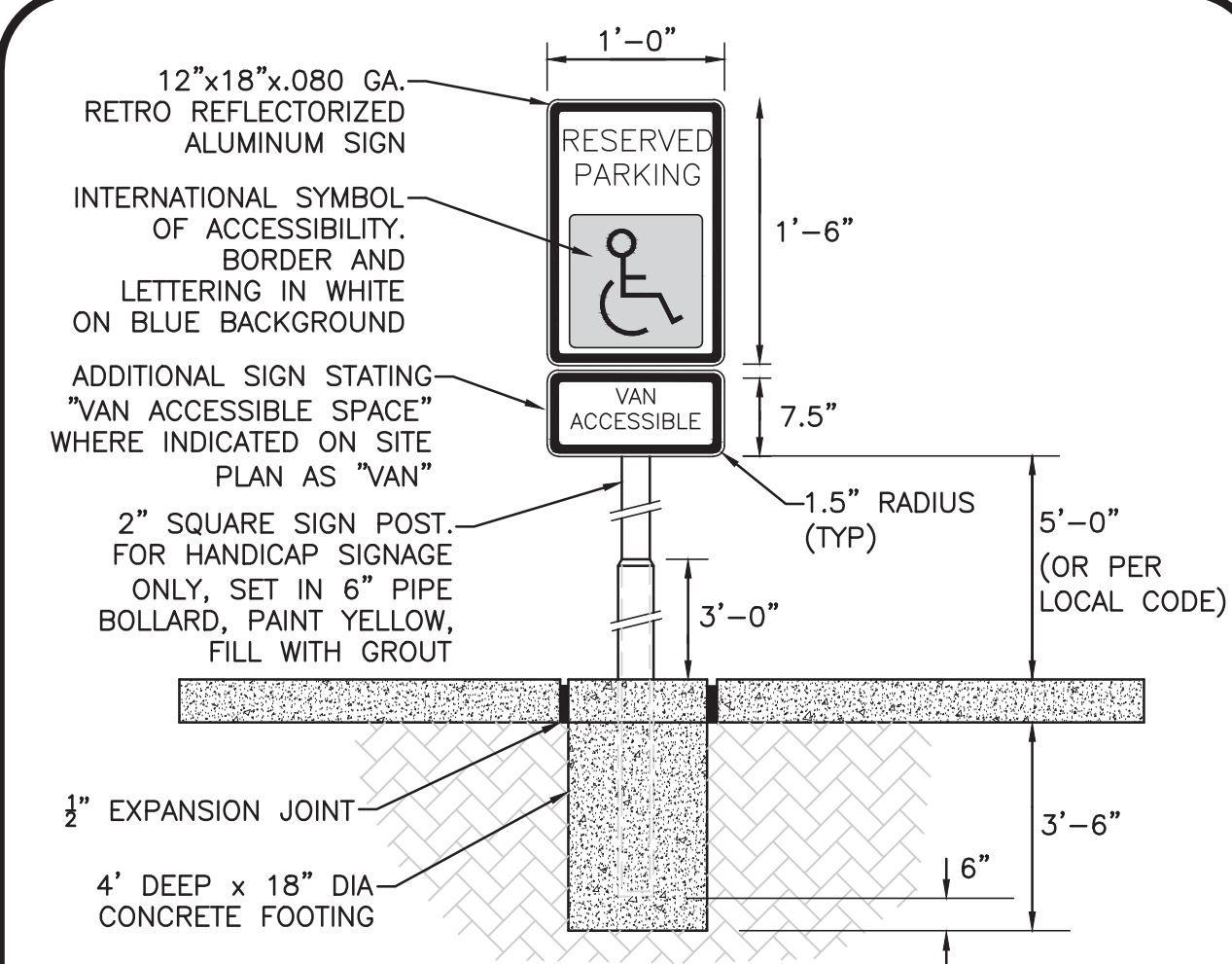
- NOTES:**
1. MINIMUM BURIAL DEPTH (FINISH GRADE TO TOP OF PIPE)
GRAVITY PIPE (SEWER & DRAIN) - SEE PLAN OR PROFILE
PRESSURE PIPE UNDER PAVING - 4'
PRESSURE PIPE BENEATH UNPAVED - 3'
WATER PIPE - 5'
 2. WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
 3. WHERE WASTE FILLS ARE ENCOUNTERED AT SUBGRADE LEVEL FOR NEW UTILITIES, THE FILL SHOULD BE OVER-EXCAVATED, THE SUBGRADE SHOULD BE RE-COMPACTED, AND BACKFILL CONSISTING OF PIPE BEDDING MATERIAL, CRUSHED STONE OR OTHER SUITABLE GRANULAR FILL SHOULD BE PLACED TO A SUFFICIENT DEPTH TO CREATE A FIRM AND STABLE SUBGRADE (TYPICALLY 12 TO 18 INCHES OVER-EXCAVATION).
 4. REFER TO EZ ROLL PERMEABLE GRASS & GRAVEL PAVER DETAIL.

	FILTER FABRIC USE	
	SOIL TYPE	
ABOVE GROUND WATER	FILTER FABRIC NOT REQUIRED	FILTER FABRIC NOT REQUIRED
BELOW GROUND WATER	FILTER FABRIC REQUIRED	FILTER FABRIC NOT REQUIRED



UTILITY TRENCH
NOT TO SCALE

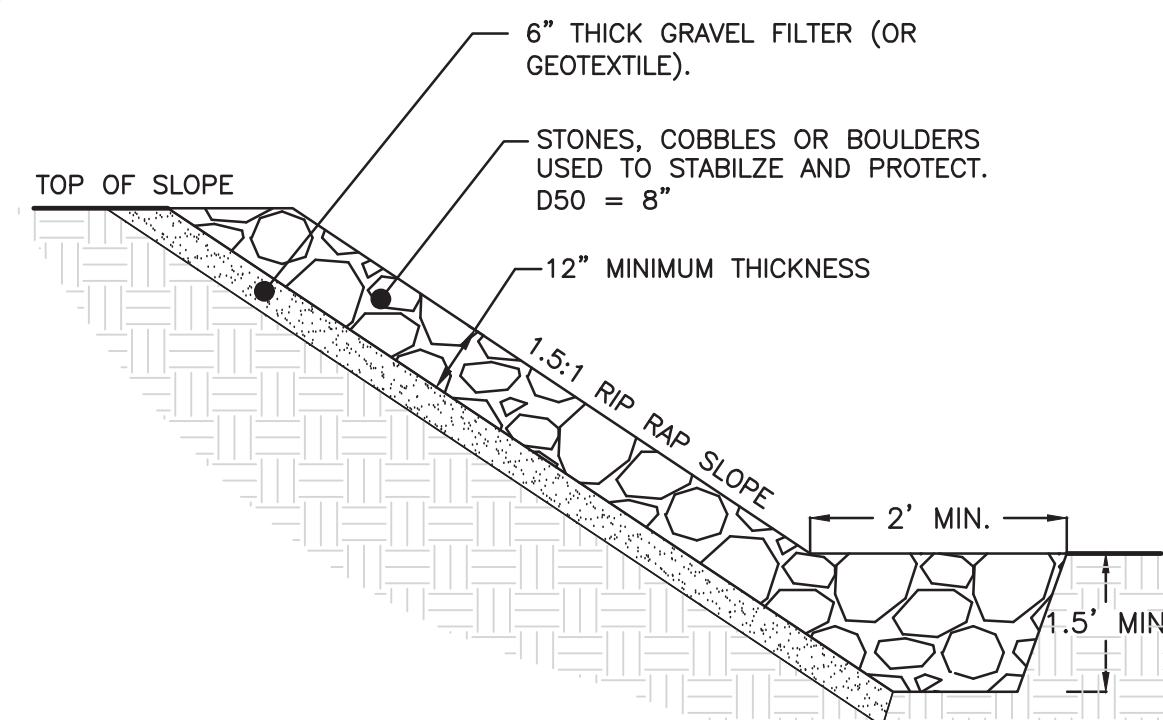
5



- NOTES:**
1. SPECIFIC CODE SHALL BE REFERENCED FOR LOCAL AND STATE REQUIREMENTS.
 2. PROVIDE (1) SIGN PER HANDICAP SPACE. SEE SITE PLAN FOR EXACT LOCATION.
 3. EXPANSION JOINT MATERIAL NOT REQUIRED WITH FLEXIBLE PAVEMENT.

ACCESSIBLE PARKING SIGN POST
NOT TO SCALE

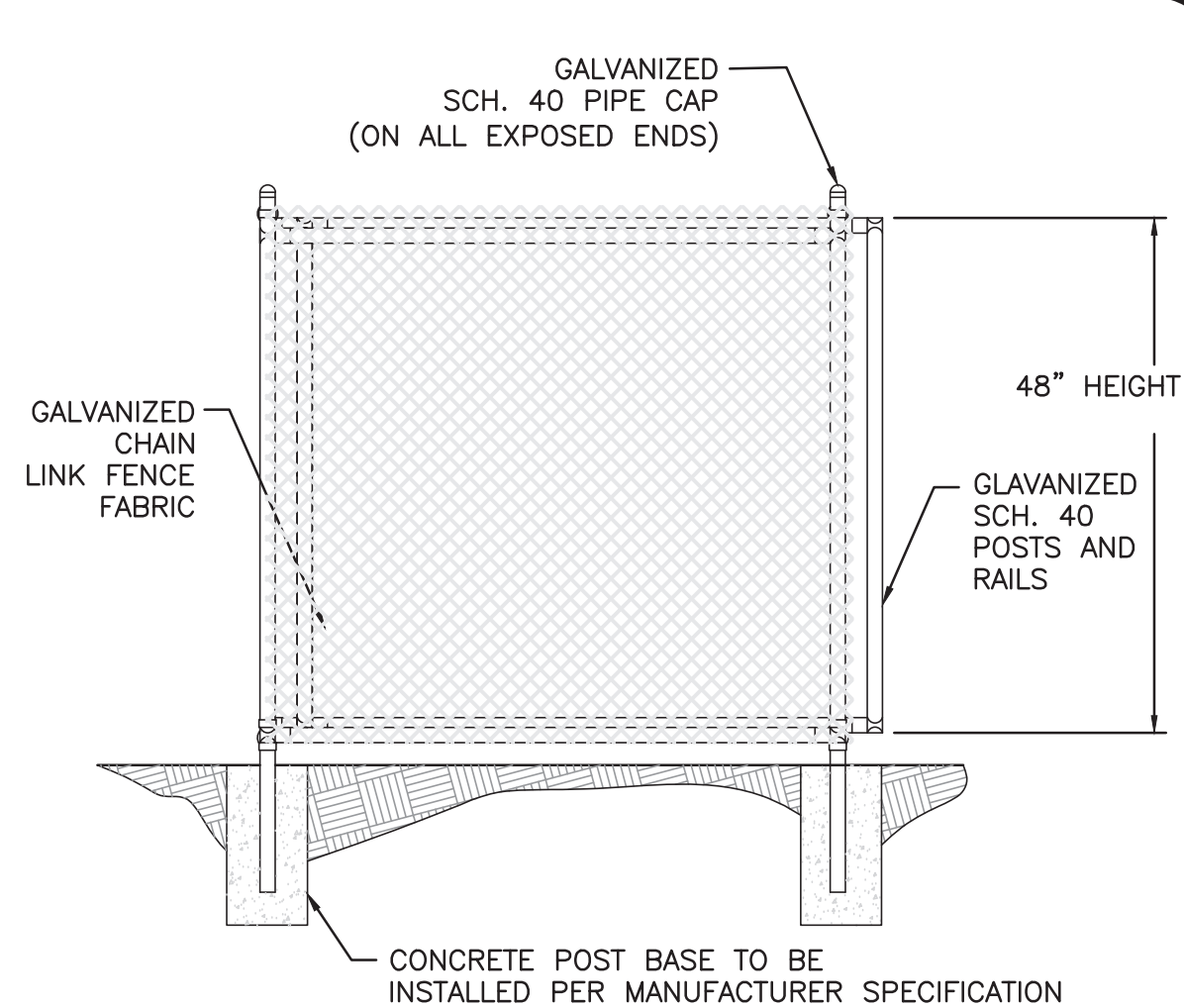
6



- NOTES:**
1. STONE FOR RIP RAP SHALL BE HARD, DURABLE AND ANGULAR.
 2. RIP RAP SHALL BE PLACED SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF STONE WITH MINIMUM OF VOIDS.
 3. CARE SHALL BE TAKEN NOT TO DISLODGE THE FILTER LAYER WHEN PLACING THE STONES.

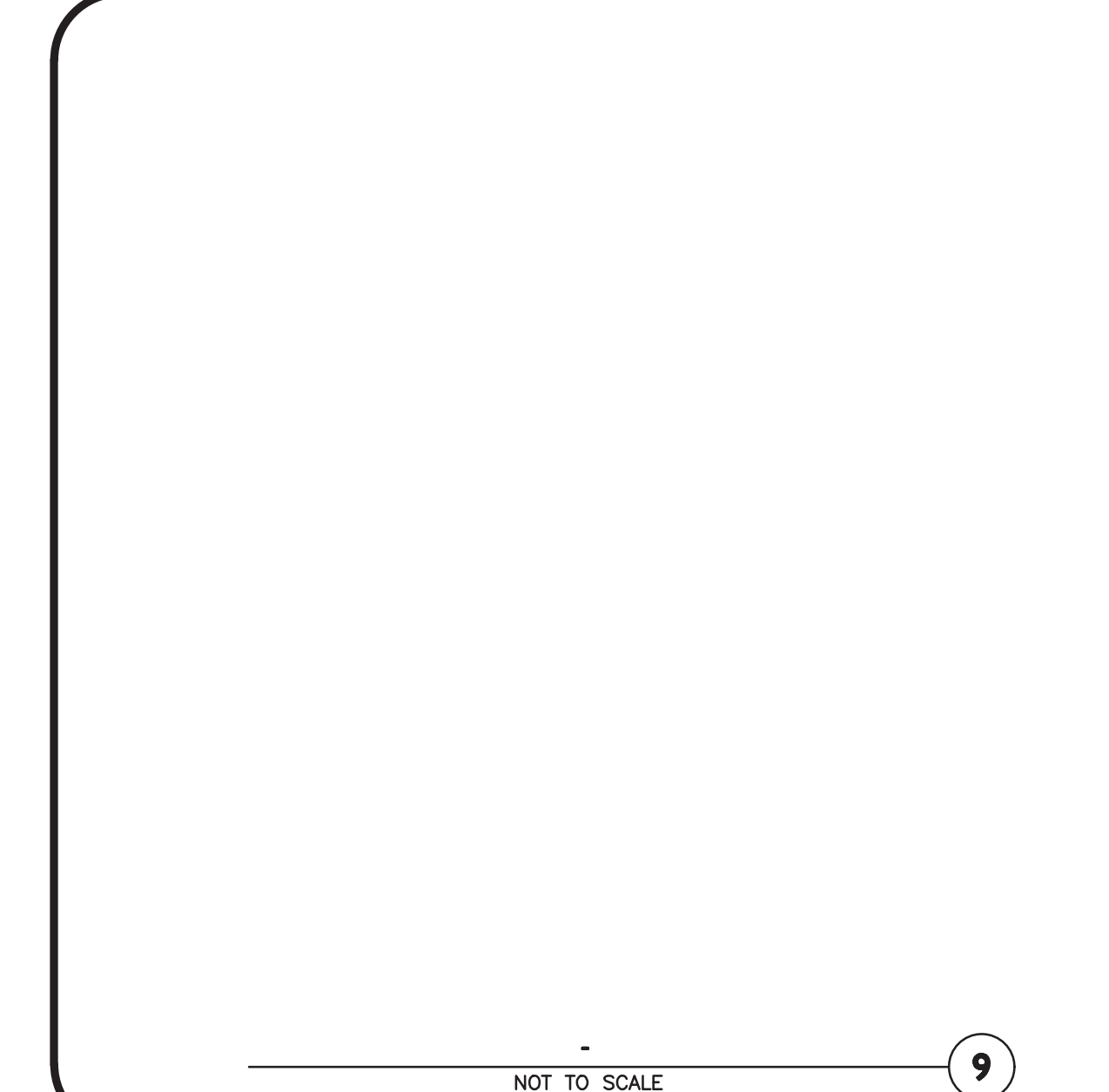
RIP RAP SLOPE
NOT TO SCALE

7



CHAIN LINK FENCE
NOT TO SCALE

8



9



12-23-21

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12-23-21	PER TOWN REVIEW COMMENTS

APPLICANT/OWNER:

WEST SUBURBAN YMCA
276 CHURCH STREET
NEWTON, MA 02458

PROJECT:

CAMP CHICKAMI
139 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO. 2562-01 DATE: 11-10-21

SCALE: AS SHOWN DWG. NAME: C2562-01

DESIGNED BY: JG CHECKED BY: BDJ

PREPARED BY:

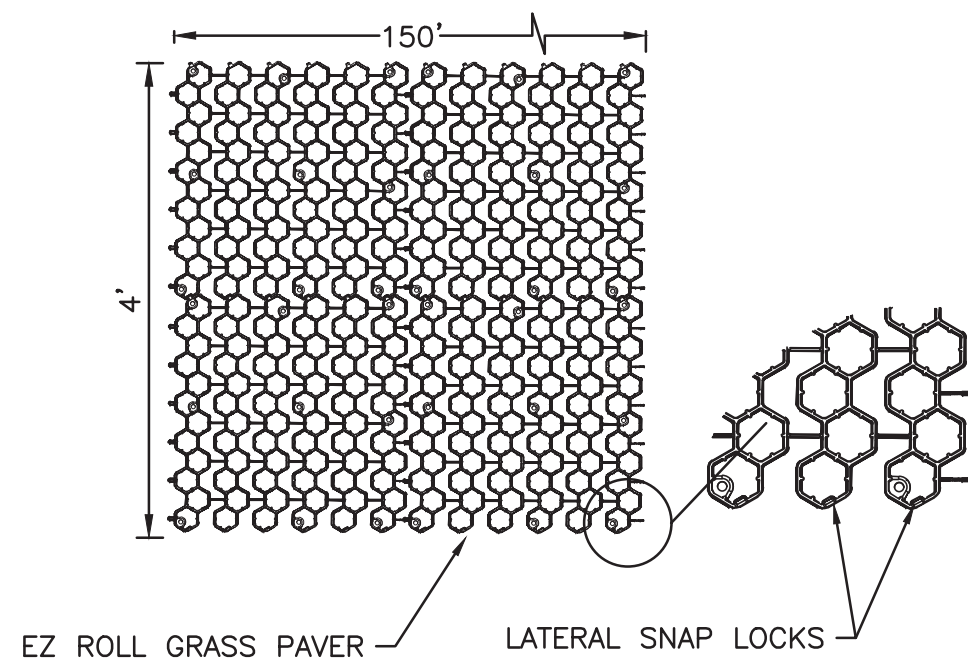
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DRAWING TITLE: SHEET No.

DETAILS C-501

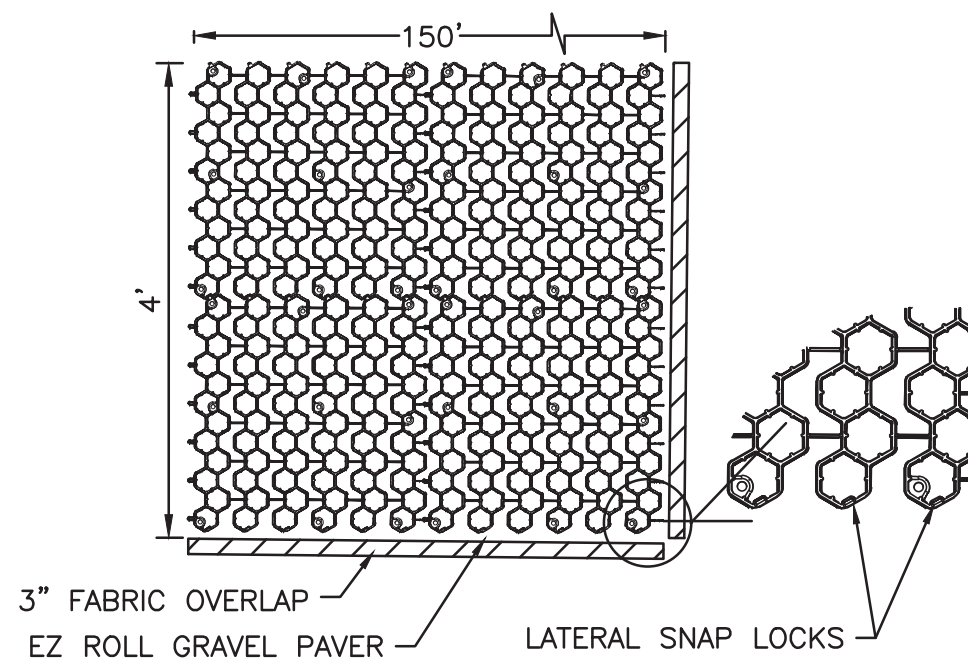


EZ ROLL GRASS PAVER NOTES:

- ENGINEERING PROPERTIES:**
1. COMPRESSIVE STRENGTH OF EZ ROLL:
EMPTY PAVERS: ULTIMATE LOAD = 53,683 LBS / 373 PSI
FILLED PAVERS: ULTIMATE LOAD = 400,000 LBS
- TOP SOIL FILL:**
2. NDS RECOMMENDS NATIVE TOP SOIL FOR BACKFILL INSIDE THE PAVERS.
 3. EXTEND TOP SOIL INSIDE PAVER AN ADDITIONAL 1/4 TO 1/2 INCH ABOVE PAVER SURFACE AND MATCH SURROUNDING GRADE. PROPOSED FINISHED GRADE SLOPE PER PROJECT GRADING PLAN. PROTECT PAVER AREA UNTIL GRASS IS SUFFICIENTLY ESTABLISHED TO HANDLE TRAFFIC. PROVIDE 1" (MIN.) CLEARANCE BETWEEN ANY CONCRETE EDGE AND PAVER.
 4. GRASS PAVERS ARE TO BE USED FOR AREAS OF PEDESTRIAN USE, EROSION CONTROL, AND OCCASIONAL VEHICULAR TRAFFIC USE (E.G., OVERFLOW PARKING AND EMERGENCY/FIRE LANES).
- AASHTO #57 BASE ROCK:**
5. GRADATION OF AASHTO #57 COARSE BASE ROCK: 100% PASSING 1 1/2" SCREEN, 95-100% PASSING 1", 25-60% PASSING 3/4", AND 0-10% PASSING #8 SCREEN.
 6. THICKNESS OF AGGREGATE LAYER IS AS FOLLOWS: NO BASE REQUIRED FOR EROSION CONTROL AND PEDESTRIAN-ONLY LOADS (COMPACTION OF NATIVE SOIL RECOMMENDED FOR SLOPES UP TO 3%); 4 INCHES FOR LIGHT LOADS (GOLF CARTS); 6 INCHES FOR MEDIUM LOADS (CARS AND PICKUP TRUCKS); 8 INCHES FOR HEAVY LOADS (FIRE TRUCKS).
 7. COMPACT WITH ONE TO THREE PASSES OF 5-TON STEEL WHEEL ROLLER SINCE IT IS DIFFICULT TO MEASURE DENSITY OF COARSE AGGREGATE, APPROACH OF REQUIRING A FIXED DENSITY IS NOT APPLICABLE.
- SUBGRADE NATIVE SOIL:**
8. COMPACT SUBGRADE NATIVE SOILS TO 95% STANDARD PROCTOR DENSITY PER ASTM D696 FOR SOILS WITH CALIFORNIA BEARING RATIO >20%, R VALUE >30, AASHTO A-1, A-2, AND A-3 SOILS.
 9. NDS RECOMMENDS THAT ENGINEER-OF-RECORD CONSIDER HIGHER LEVEL OF COMPACTION FOR CBR 5 TO 20%, R-VALUE 10 TO 30, AASHTO A-4 SOILS FOR HEAVY LOADS WHERE INFILTRATION INTO NATIVE SOILS IS NOT A REQUIREMENT.
 10. NDS RECOMMENDS THAT ENGINEER-OF-RECORD CONSULT WITH PROJECT GEOTECHNICAL ENGINEER FOR POTENTIAL SOIL MODIFICATION (E.G., LIME TREATMENT) AND COMPACTION LEVEL FOR CBR <5% AND R-VALUE <10, AASHTO A-5, A-6, AND A-7 SOILS.

PLAN VIEW

EZ ROLL GRASS PAVER PRODUCT DESCRIPTION
CELL SIZE: 2-1/4" HEXAGONAL CELLS
STOCK ROLL SIZES: 4'W X 150'L (600 SQ. FT.)

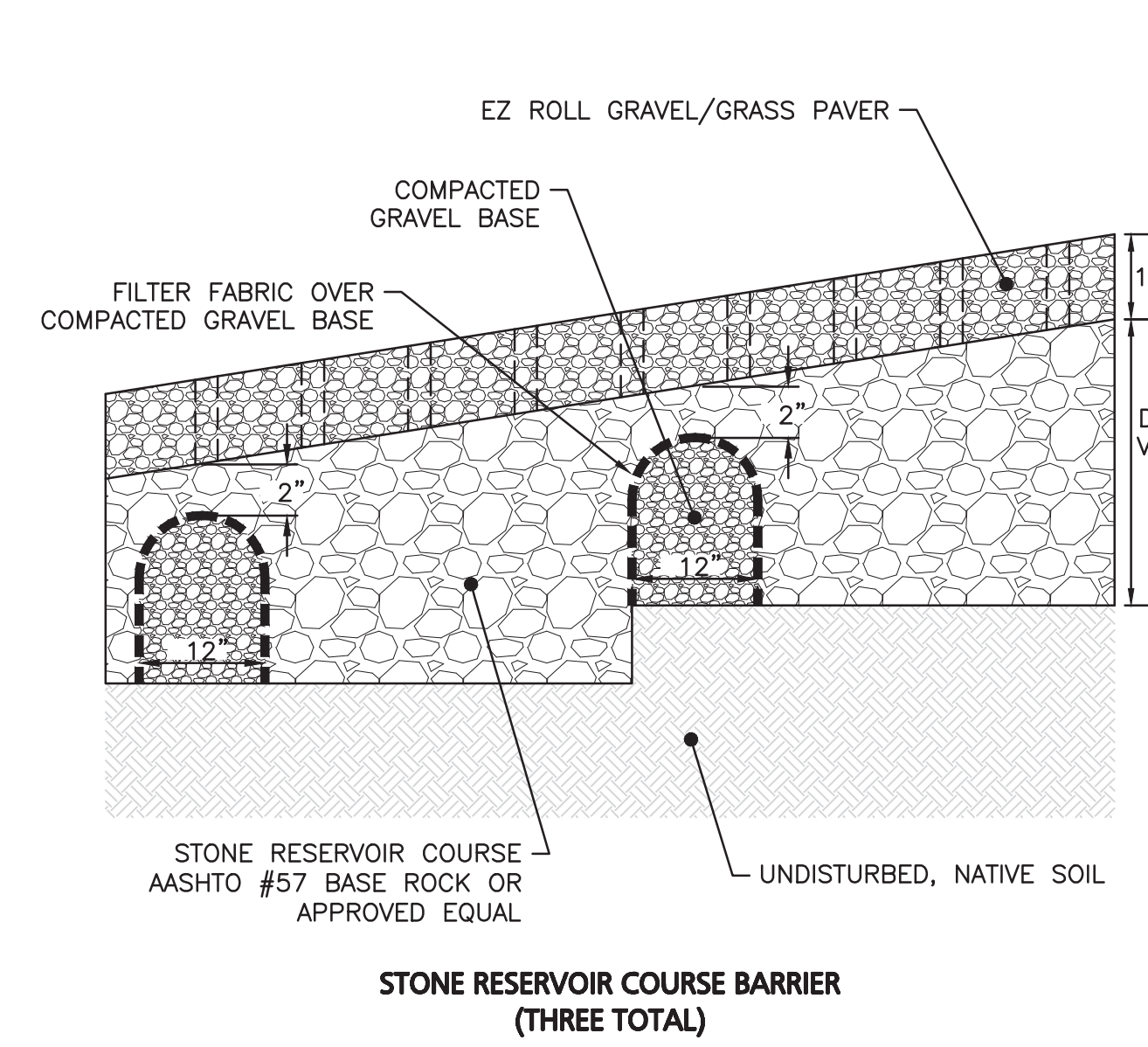


EZ ROLL GRAVEL PAVER NOTES:

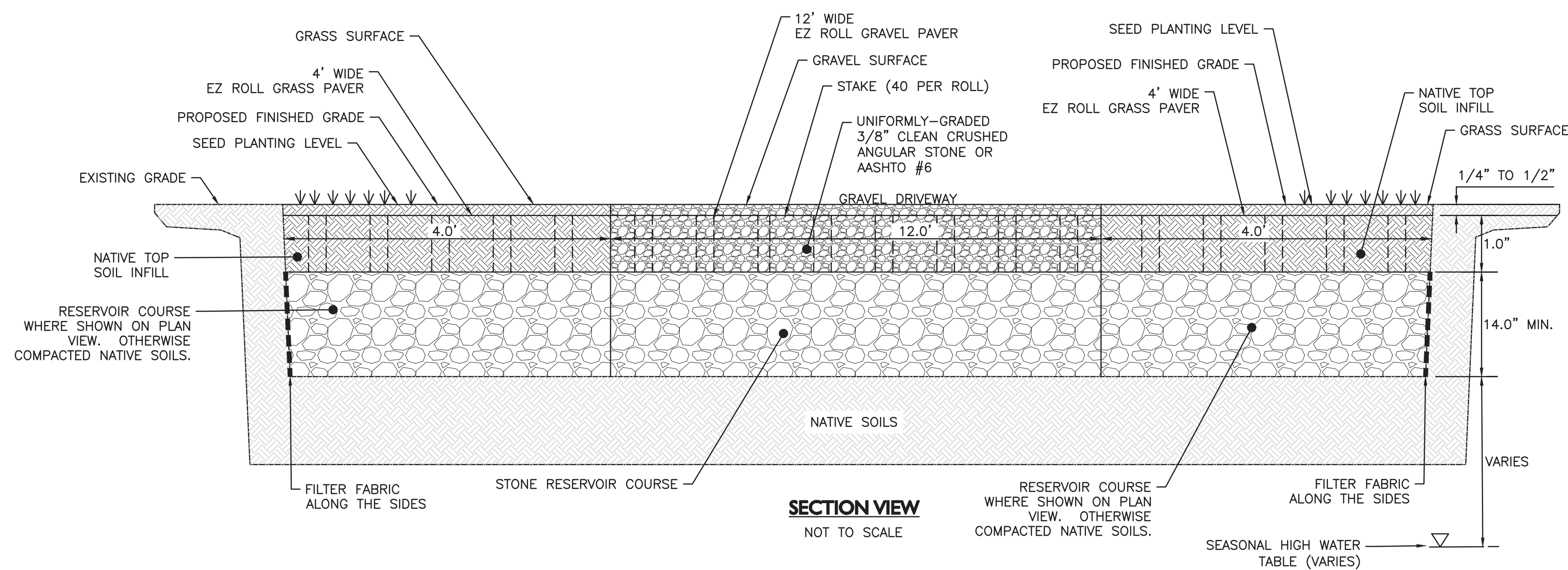
- ENGINEERING PROPERTIES:**
1. COMPRESSIVE STRENGTH OF EZ ROLL:
EMPTY PAVERS: ULTIMATE LOAD = 53,683 LBS / 373 PSI
FILLED PAVERS: ULTIMATE LOAD = 500,000 LBS
 2. POROSITY OF AASHTO #57 AGGREGATE = 0.4
- GRAVEL FILL:**
3. NDS RECOMMENDS UNIFORMLY-GRADED 3/8" CLEAN CRUSHED ANGULAR STONE OR AASHTO #6.
 4. EXTEND 3/8" GRAVEL INSIDE PAVER AN ADDITIONAL 1/4 TO 1/2 INCH ABOVE PAVER SURFACE AND MATCH SURROUNDING GRADE. PROPOSED FINISHED GRADE SLOPE PER PROJECT GRADING PLAN. PROVIDE 1" (MIN.) CLEARANCE BETWEEN ANY CONCRETE EDGE AND PAVER.
- AASHTO #57 BASE ROCK:**
5. GRADATION OF AASHTO #57 COARSE BASE ROCK: 100% PASSING 1 1/2" SCREEN, 95-100% PASSING 1", 25-60% PASSING 3/4", AND 0-10% PASSING #8 SCREEN.
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 7. COMPACT WITH ONE TO THREE PASSES OF 5-TON STEEL WHEEL ROLLER SINCE IT IS DIFFICULT TO MEASURE DENSITY OF COARSE AGGREGATE, APPROACH OF REQUIRING A FIXED DENSITY IS NOT APPLICABLE.
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8. COMPACT SUBGRADE NATIVE SOILS TO 95% STANDARD PROCTOR DENSITY PER ASTM D696 FOR SOILS WITH CALIFORNIA BEARING RATIO >20%, R VALUE >30, AASHTO A-1, A-2, AND A-3 SOILS.
 9. NDS RECOMMENDS THAT ENGINEER-OF-RECORD CONSIDER HIGHER LEVEL OF COMPACTION FOR CBR 5 TO 20%, R-VALUE 10 TO 30, AASHTO A-4 SOILS FOR HEAVY LOADS WHERE INFILTRATION INTO NATIVE SOILS IS NOT A REQUIREMENT.
 10. NDS RECOMMENDS THAT ENGINEER-OF-RECORD CONSULT WITH PROJECT GEOTECHNICAL ENGINEER FOR POTENTIAL SOIL MODIFICATION (E.G., LIME TREATMENT) AND COMPACTION LEVEL FOR CBR <5% AND R-VALUE <10, AASHTO A-5, A-6, AND A-7 SOILS.

PLAN VIEW

EZ ROLL GRAVEL PAVER PRODUCT DESCRIPTION
CELL SIZE: 2-1/4" HEXAGONAL CELLS
STOCK ROLL SIZES: 4'W X 150'L (600 SQ. FT.)

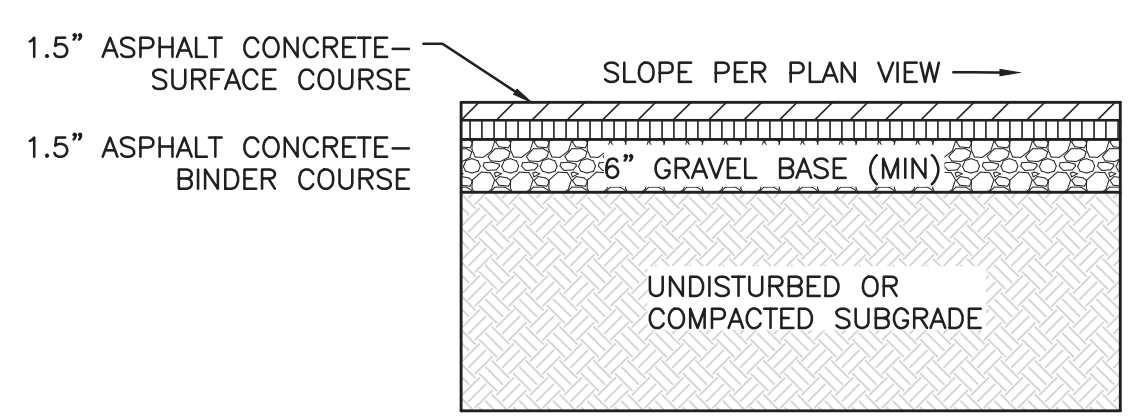


STONE RESERVOIR COURSE BARRIER (THREE TOTAL)



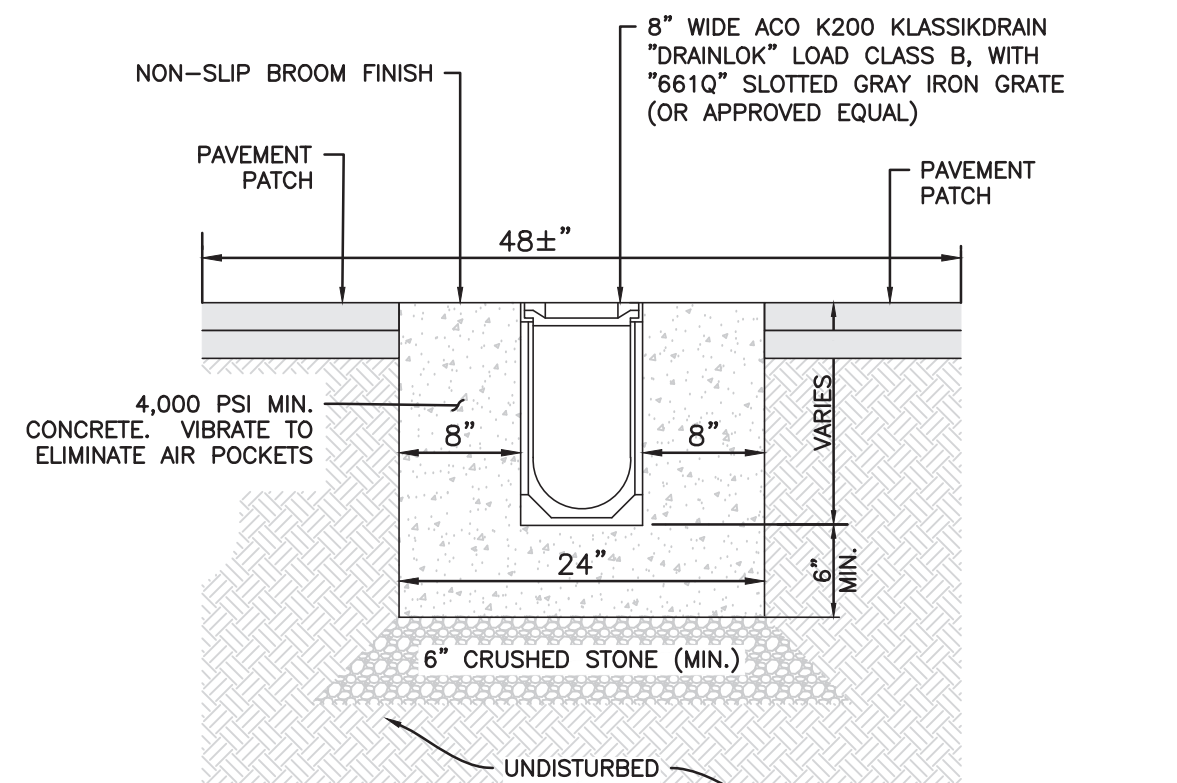
SECTION VIEW
NOT TO SCALE

EZ ROLL GRASS & GRAVEL PAVER DETAIL
NOT TO SCALE



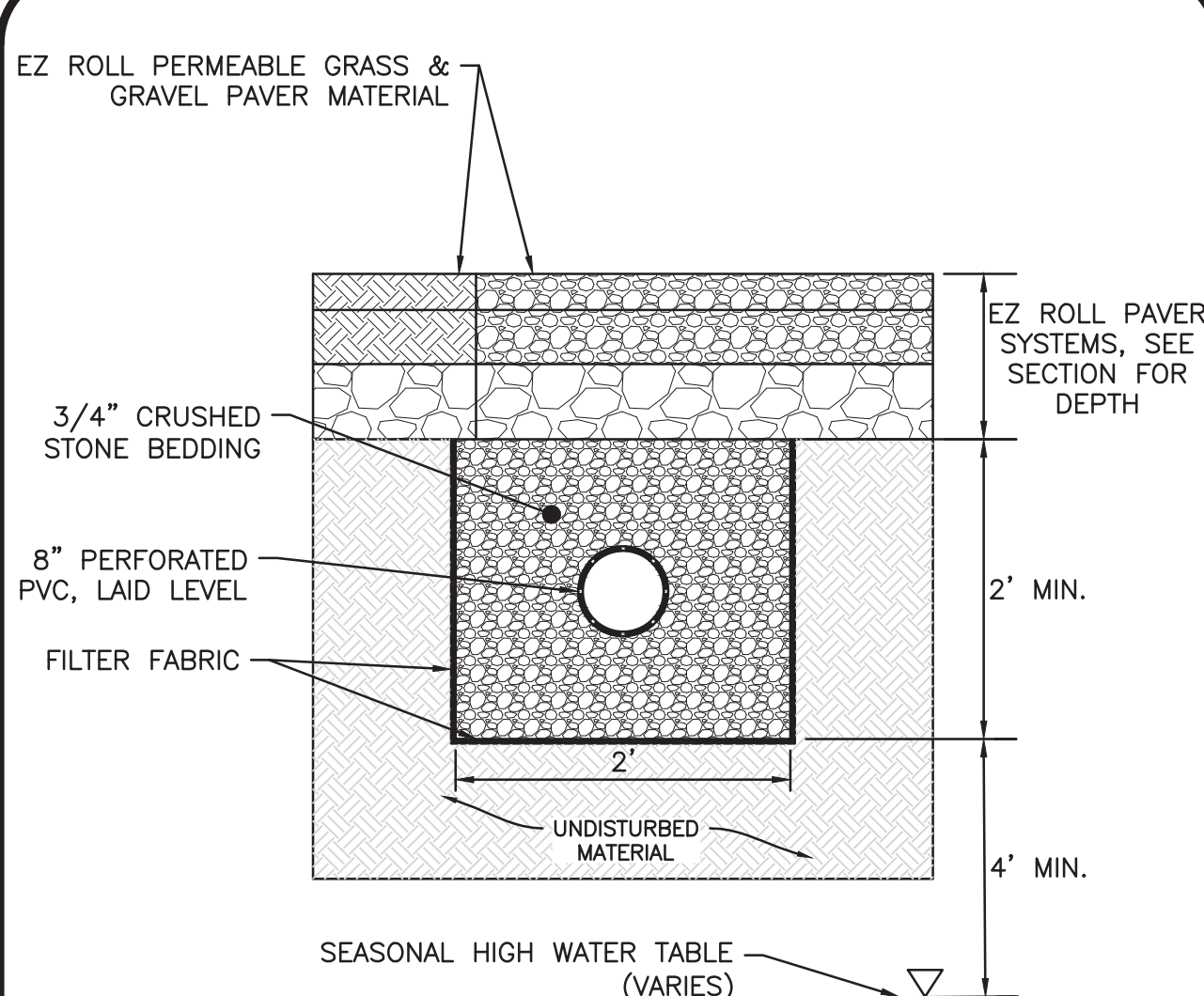
- NOTES:**
1. REFERENCE PLANS FOR ELEVATIONS.
 2. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95% OF ASTM D 1557 LABORATORY DENSITY.
 3. BASE COURSE SHALL EXTEND 6 INCHES BEYOND PAVEMENT EDGE WHERE PAVEMENT DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.
 4. PAVEMENT EDGES SHALL BE TAMPED WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.

BITUMINOUS PAVEMENT
NOT TO SCALE

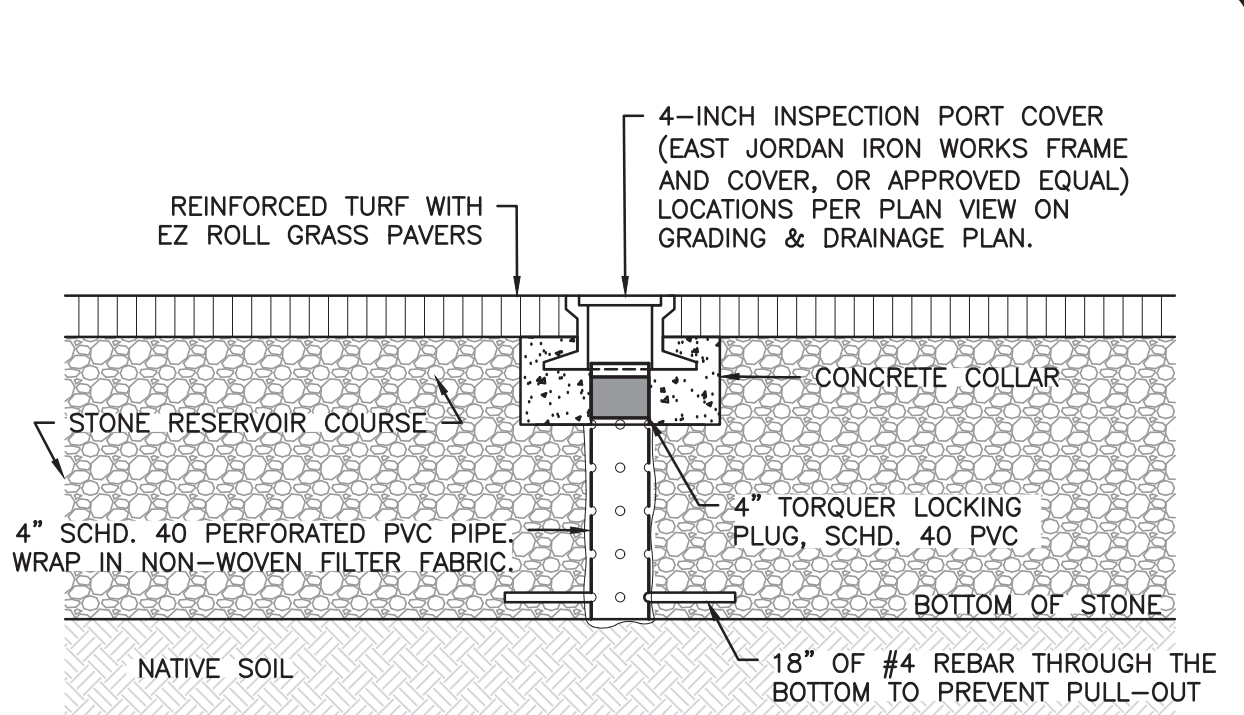


- NOTES:**
1. PROVIDE PRE-SLOPED TRENCH SECTION DEPTH AS REQUIRED TO FACILITATE FLOW TO OUTLET.
 2. TRENCH DRAIN SLOPED 0.5% PER FOOT (MIN.) TOWARDS OUTLET.
 3. FINAL SECTION OF THE TRENCH DRAIN SHALL USE THE ACO K2 TYPE 900 "CATCH BASIN" TO PROVIDE ADDITIONAL DEPTH/COVER FOR OUTFLET PIPE.
 4. TRENCH DRAIN SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
 5. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR REVIEW PRIOR TO PURCHASE OF MATERIALS.

TRENCH DRAIN
NOT TO SCALE



PERFORATED INFILTRATION PIPE
NOT TO SCALE



INSPECTION PORT
NOT TO SCALE



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DESIGNED BY: JG CHECKED BY: BDJ

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
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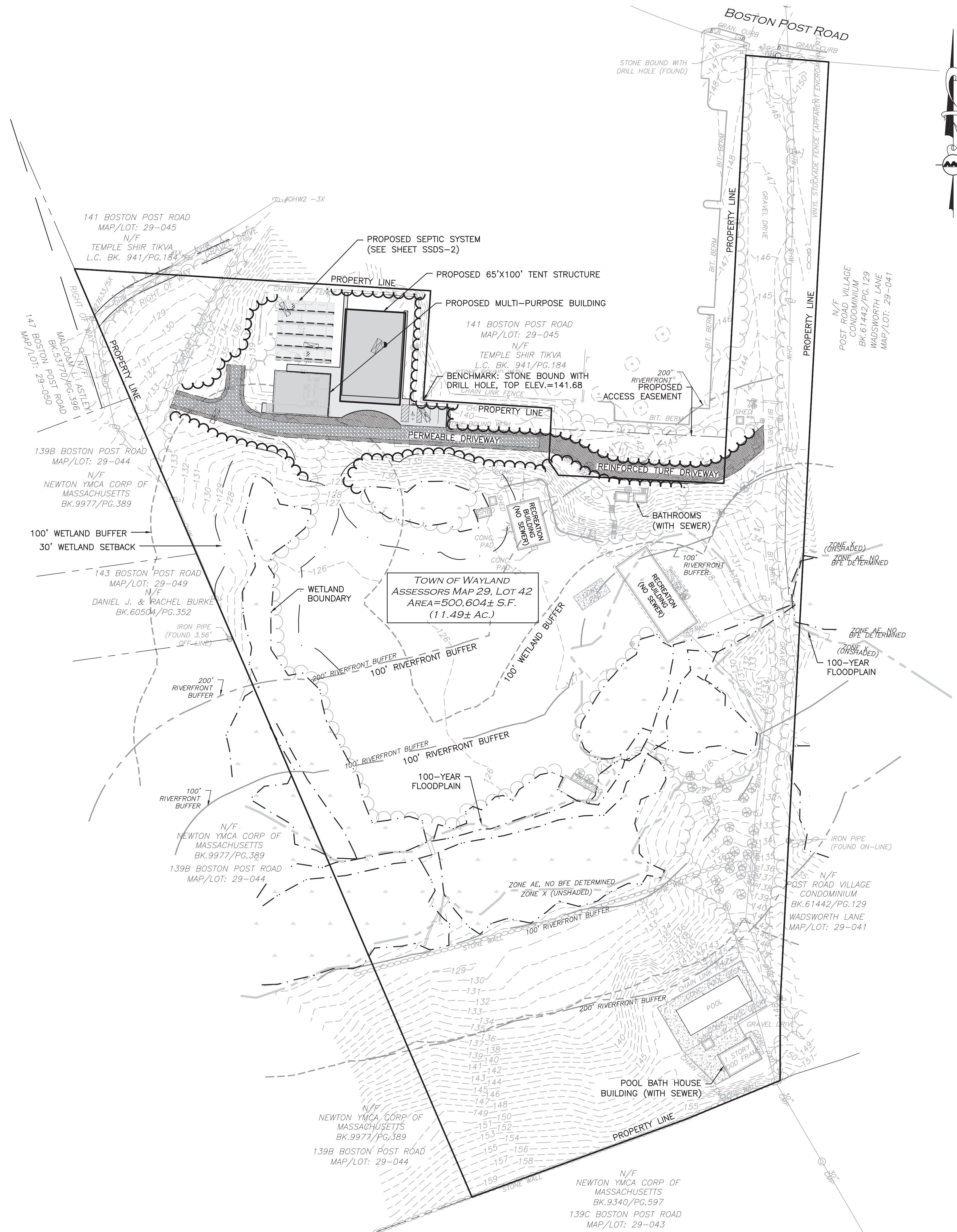
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DRAWING TITLE: **DETAILS** SHEET No. **C-502**

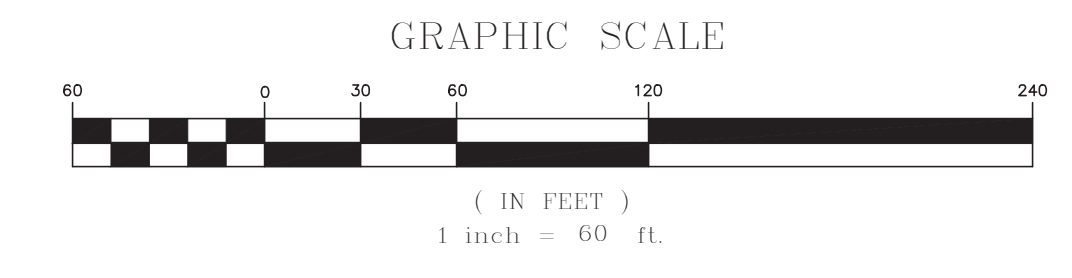
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R:\PROJECTS\2562-01\CIVIL\DRAWINGS\CURRENT\C-2562-01-SEPTIC SYSTEM.DWG



GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF WAYLAND.
2. FILL MATERIAL FOR THE LEACHING AREA SHALL CONFORM WITH SECTION 15.255 OF THE STATE ENVIRONMENTAL CODE. FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL SHALL BE CLEAN, GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. THE PARTICLE SIZE DISTRIBUTION SHALL CONFORM WITH SECTION 15.255 (3) OF THE STATE ENVIRONMENTAL CODE, TITLE 5.
3. REMOVE ALL TOPSOIL, SUBSOIL, AND OTHER IMPERVIOUS LAYERS WITHIN FIVE (5) FEET HORIZONTALLY OF THE PROPOSED LEACHING FACILITY AND REPLACE WITH MATERIAL SPECIFIED IN SECTION 15.255 (3) OF THE STATE ENVIRONMENTAL CODE, TITLE 5.
4. THE BOARD OF HEALTH SHALL REQUIRE INSPECTION OF ALL CONSTRUCTION BY THE DESIGN ENGINEER AND/OR BY AN AGENT OF THE BOARD OF HEALTH AND THE DESIGN ENGINEER.
5. SHOP DRAWINGS SHALL BE SUBMITTED TO THE APPROVING AUTHORITY.
6. THE INSTALLER IS RESPONSIBLE FOR MAKING ARRANGEMENTS FOR INSPECTION OF THE THE INSTALLATION OF THE SYSTEM WITH THE TOWN OF WAYLAND BOARD OF HEALTH AND THE DESIGN ENGINEER.
7. ALL PIPING SHALL CONSIST OF PVC PIPE, SCHEDULE 40, GENERAL PURPOSE SEWER PIPE UNLESS OTHERWISE NOTED. ALL FITTINGS SHALL BE SCHEDULE 40. ALL JOINTING SHALL BE CEMENT. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. ANY ALTERATIONS MUST BE APPROVED IN WRITING PRIOR TO CONSTRUCTION. FOR PROPER PERFORMANCE, THE SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE A YEAR. WHEN THE TOTAL DEPTH OF SCUM AND/OR SOLIDS EXCEEDS 1/3 OF THE LIQUID DEPTH OF THE TANK, THE TANK MUST BE PUMPED.
9. ALL EXISTING STRUCTURES IN THE SYSTEM SHALL BE LOCATED BY CONTRACTOR AND THE HORIZONTAL AND VERTICAL LOCATION VERIFIED PRIOR TO CONSTRUCTION. IF THERE ARE CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY BEFORE CONSTRUCTION MAY BEGIN.
10. THE INSTALLER IS TO BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL OF ALL COMPONENTS.
11. ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SITE PLANS.
12. THE CONTRACTOR SHALL CONTACT DIGSAFE IN ORDER TO COMPLY WITH THE REQUIREMENTS OF MASSACHUSETTS GENERAL LAWS CHAPTER 82 AND SECTION 40, AS AMENDED.
13. SYSTEM INSTALLER IS TO BE LICENSED BY THE LOCAL BOARD OF HEALTH. INSTALLER MUST PROVIDE WRITTEN CERTIFICATION OF SYSTEM CONSTRUCTION.
14. SYSTEM AREA SHALL BE STAKED AND FLAGGED FROM DATE OF INSTALLATION UNTIL CERTIFICATE OF COMPLIANCE IS ISSUED.
15. GENERAL CONTRACTOR SHALL COORDINATE THEIR ACTIVITIES WITH THOSE OF ANY OTHER CONTRACTORS ON-SITE SO AS TO INSURE THAT WORK PROCEEDS AS SMOOTHLY AS POSSIBLE AND THAT DELAYS ARE KEPT TO A MINIMUM.
16. CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO INSURE THAT UNAUTHORIZED INDIVIDUALS ARE NOT ALLOWED TO ENTER THE WORK AREAS. LIMIT OF WORK SHALL HAVE ADEQUATE MARKINGS TO INSURE THAT ONLY AUTHORIZED PERSONNEL ENTER THE WORK AREA.
17. CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING OF EXCAVATIONS AS MAY BE REQUIRED. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THAT NO DAMAGE IS DONE DURING DEWATERING OPERATIONS.
18. ALL CONCRETE STRUCTURES AND MANHOLE FRAMES AND COVERS, SHALL BE DESIGNED FOR MINIMUM OF H-10 WHEEL LOADING OR OR GREATER AS SPECIFIED ON THE DETAIL SHEETS.
19. ALL ELEVATIONS REFER TO NAVD 1988.
20. WETLAND RESOURCES AREAS SHOWN HEREON ARE TAKEN FROM THE MA DEP ORDER OF RESOURCE AREA DELINEATION (ORAD) FILE NUMBER 322-0961.
21. THE COMPONENTS OF THE SOIL ABSORPTION SYSTEM SHALL BE MARKED WITH MAGNETIC TAPE PURSUANT TO SECTION 15.221 OF THE TITLE 5 STATE ENVIRONMENTAL CODE.
22. WETLAND RESOURCE AREAS WERE FLAGGED BY GODDARD CONSULTING, LLC, AND FIELD SURVEY LOCATED BY ALLEN & MAJOR ASSOCIATES, INC. THE WETLAND RESOURCE AREAS SHOWN HEREON REFERENCE AN ORDER OF RESOURCE AREA DELINEATION (ORAD) ISSUED BY THE TOWN OF WAYLAND CONSERVATION COMMISSION ON NOVEMBER 24, 2020 AND RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS, BOOK 76637, PAGE 75. THE ORAD IS VALID UNTIL NOVEMBER 24, 2023.



12.23.21

PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
1	12-08-21	PER BOH 12-07-21 REVIEW

APPLICANT/OWNER:
WEST SUBURBAN YMCA
 276 CHURCH STREET
 NEWTON, MA 02458

PROJECT:
CAMP CHICKAMI
 139 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	2562-01	DATE:	11-10-21
SCALE:	1" = 60'	DWG. NAME:	C2562-01
DESIGNED BY:	JG	CHECKED BY:	BDJ

PREPARED BY:

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DRAWING TITLE: SUBSURFACE SEWAGE DISPOSAL SYSTEM OVERALL SITE PLAN	SHEET No. SSDS-1
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TEST PIT LOGS

TP1	TP2	TP3
0" HTM (FILL) 29" AB, SANDY LOAM 10YR 3 36" Bw, FINE LOAMY SAND 2.5Y 3 42" C, FINE LOAMY SAND 2.5Y 3 120" DEPTH TO BEDROCK: >120" WEeping FROM FACE: NONE STANDING WATER: NONE E.S.H.G.W.: 80" (133.33) PERCOLATION TEST: 3 MPI	0" HTM (FILL) 20" C, FINE LOAMY SAND 2.5Y 3 MIN. 5% REDOX AT 84" 124" DEPTH TO BEDROCK: >124" WEeping FROM FACE: NONE STANDING WATER: NONE E.S.H.G.W.: 84" (133.75) PERCOLATION TEST: 2 MPI	0" HTM (FILL) 4" Bw, FINE LOAMY SAND 10YR 3 9" C, FINE LOAMY SAND 2.5Y 3 MIN. 5% REDOX AT 84" 132" DEPTH TO BEDROCK: >132" WEeping FROM FACE: NONE STANDING WATER: NONE E.S.H.G.W.: 84" (133.0) PERCOLATION TEST: 3 MPI

PERFORMED BY: BRIAN D. JONES, P.E., SE2731 - ALLEN & MAJOR ASSOCIATES, INC.
 WITNESSED BY DARREN R. MACCAUGHEY - WAYLAND BOARD OF HEALTH
 TEST PITS 1 AND 2 PERFORMED ON APRIL 26, 2021
 TEST PIT 3 PERFORMED ON OCTOBER 19, 2021

SEPTIC SYSTEM DESIGN CRITERIA

DAILY DESIGN SEWAGE FLOW:

DAY CAMP WITH UP TO 150 OCCUPANTS
 150 OCCUPANTS x 10 GPD = 1,500 GALLONS PER DAY

SEPTIC TANK CAPACITY:

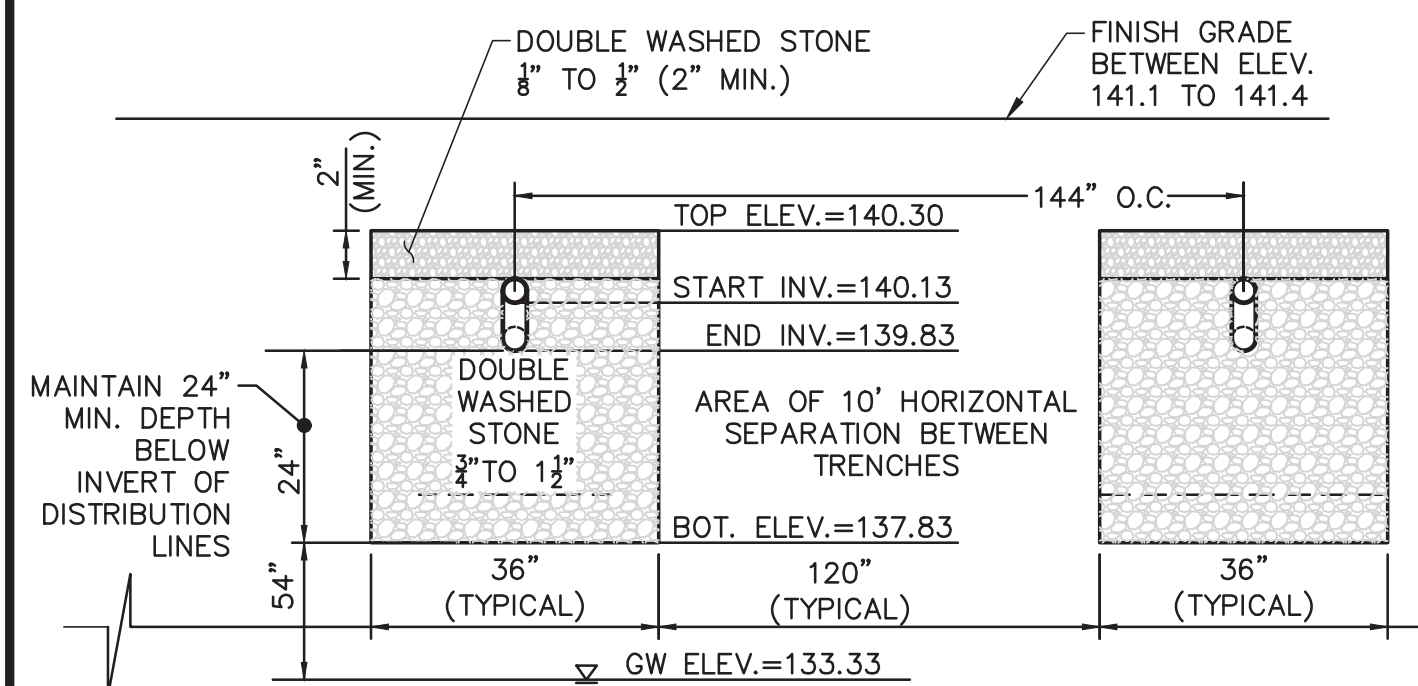
TANK#1: 200% DESIGN FLOW = 3,000 GALLONS
 TANK#2: 100% DESIGN FLOW = 1,500 GALLONS

SOIL ABSORPTION CAPACITY: CLASS I SOIL (LOAMY SAND), PERC 3 MIN./INCH

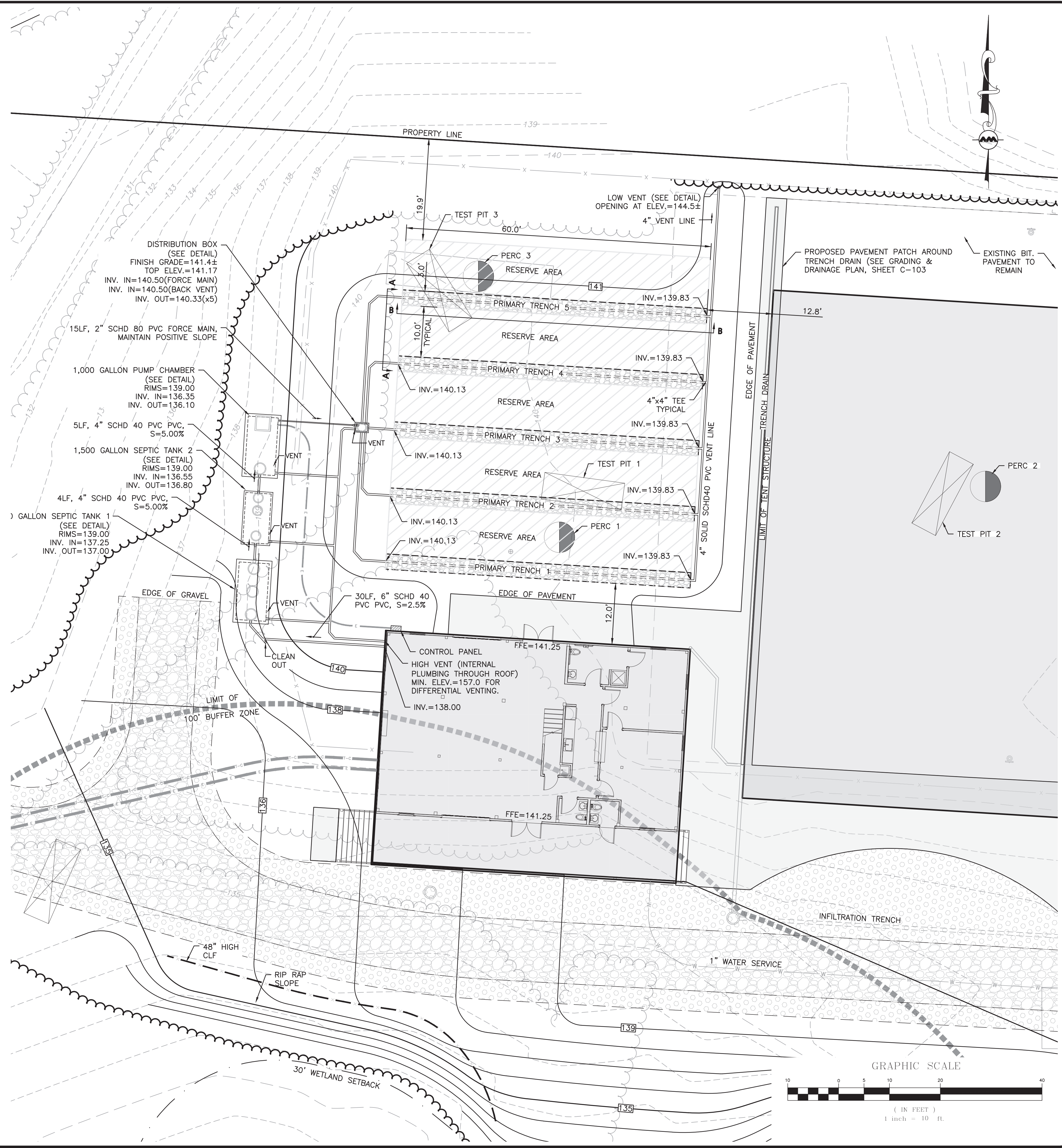
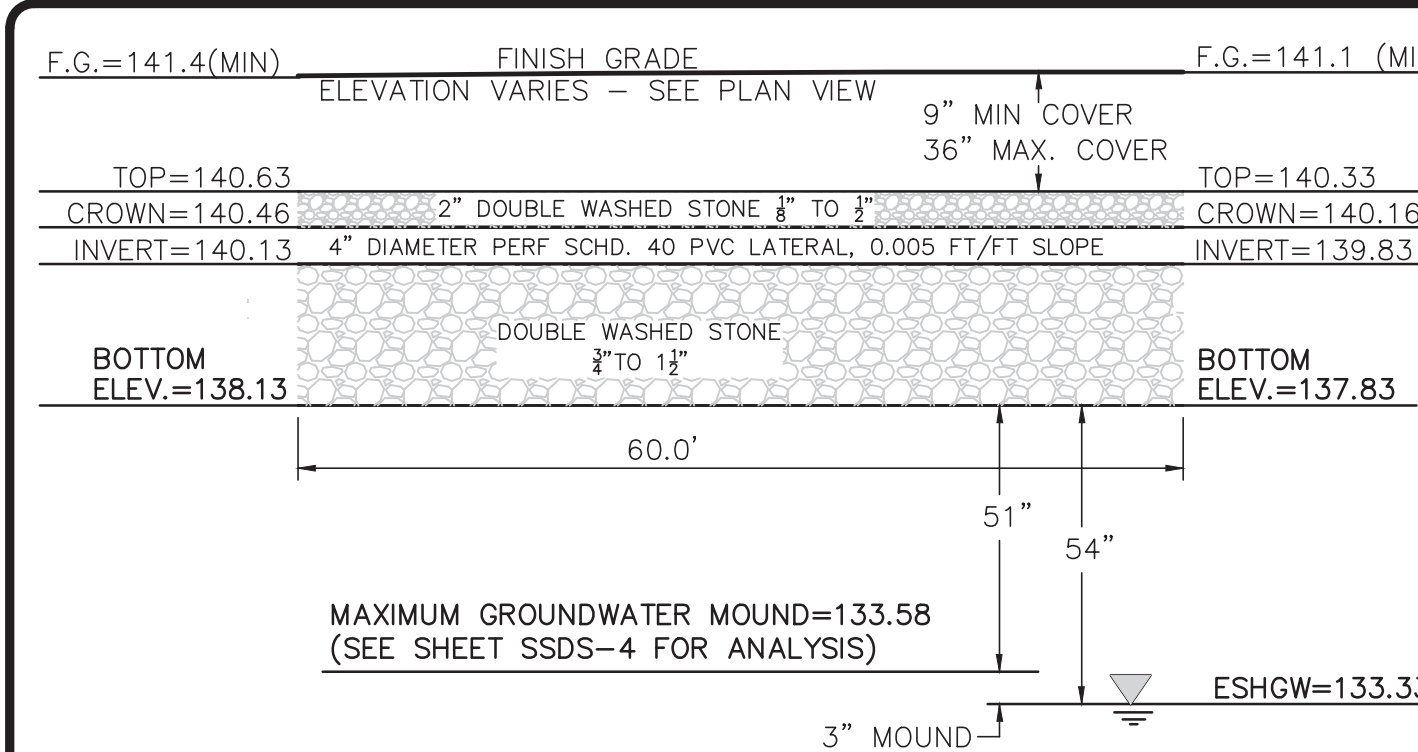
REQUIRED:
 $(1,500 \text{ GPD}) / (0.74 \text{ GPD/SF}) = 2,027 \text{ S.F.}$

PROVIDED:
 TRENCH BOTTOM AREA: (5 ROWS)*(60' LONG)*(3' WIDE) = 900 S.F.
 TRENCH SIDE AREA: (5 ROWS)*(60' LONG)*(2 SIDES)*(2' DEEP) = 1,200 S.F.
 TRENCH TOTAL AREA PROVIDED: = 2,100 S.F.

TRENCH CROSS SECTION A-A



TRENCH CROSS SECTION B-B



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 NEWTON, MA 02458

PROJECT:
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 139 BOSTON POST ROAD
 WAYLAND, MA

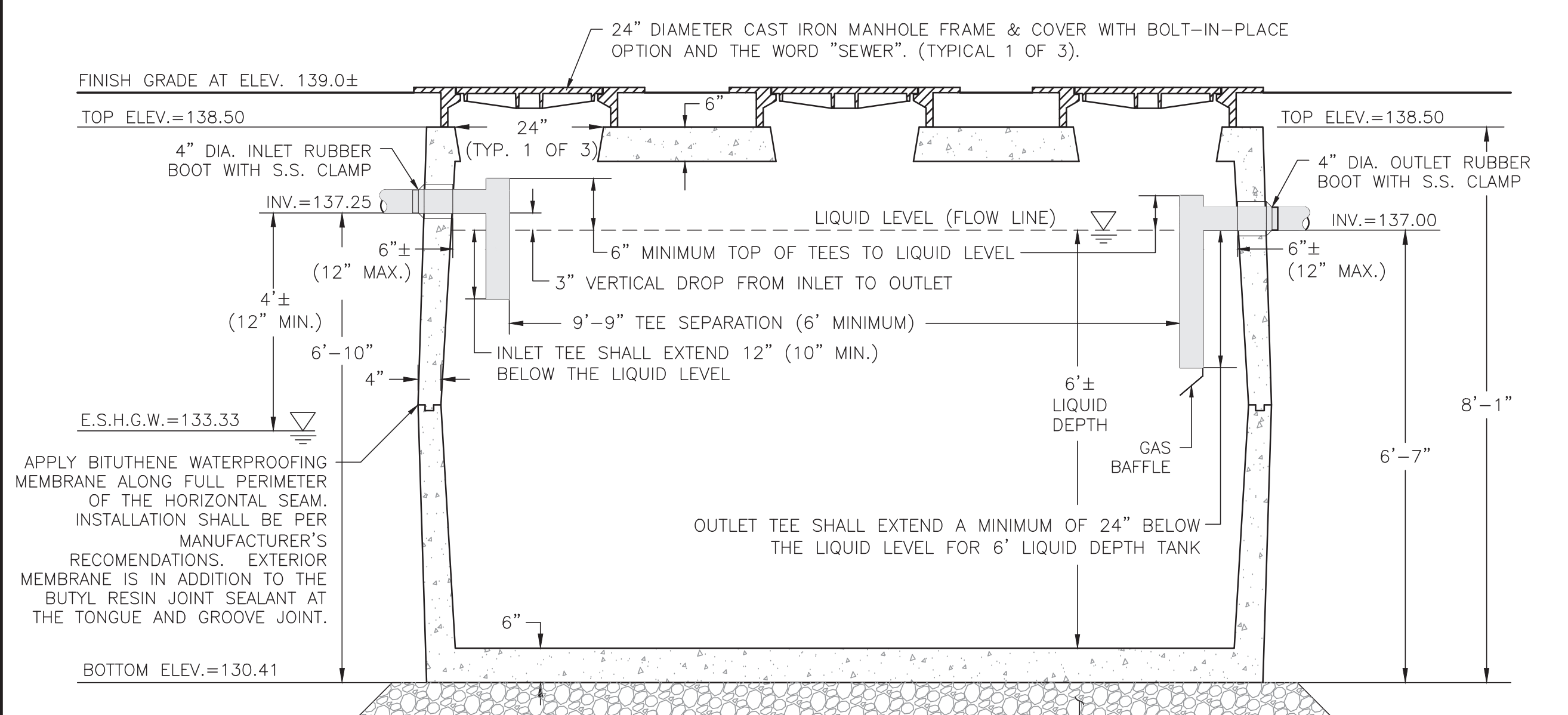
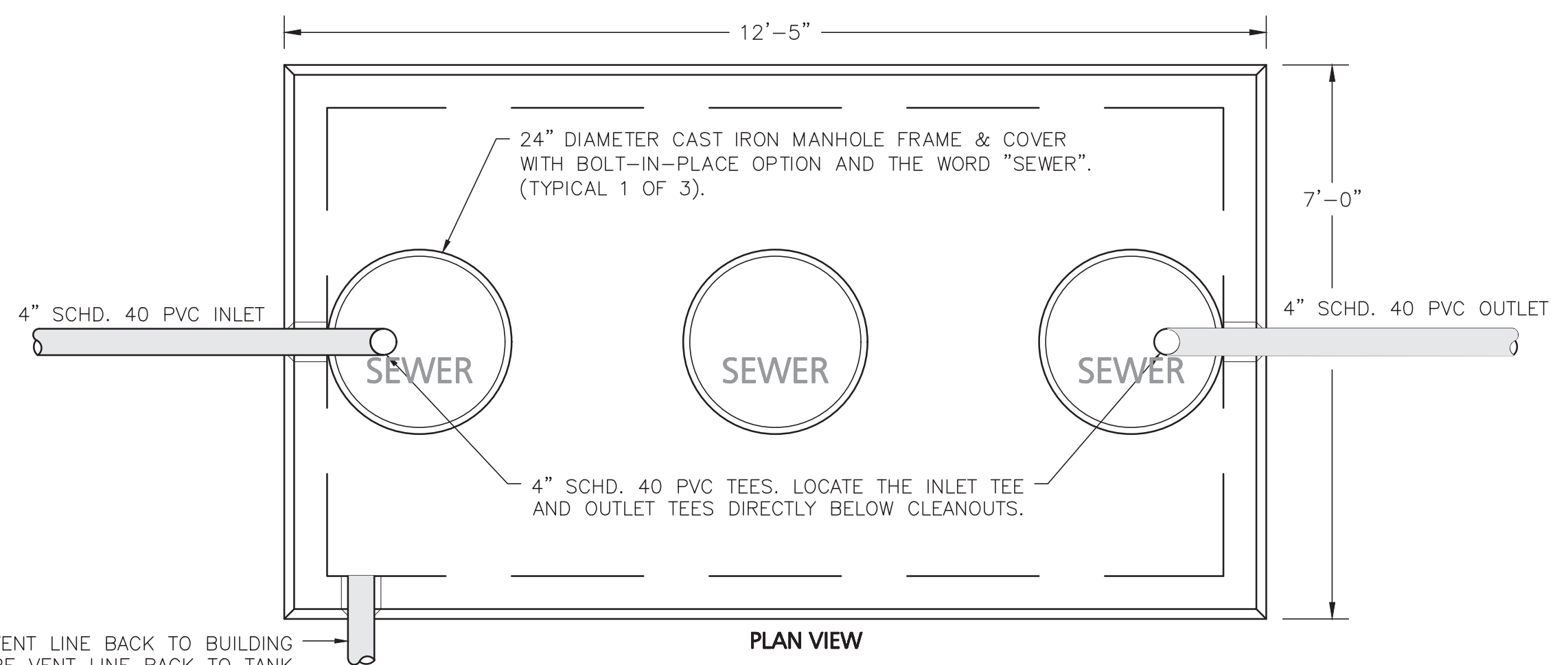
PROJECT NO.	2562-01	DATE:	11-10-21
SCALE:	1" = 10'	DWG. NAME:	C2562-01
DESIGNED BY:	JG	CHECKED BY:	BDJ

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DRAWING TITLE: **SUBSURFACE SEWAGE DISPOSAL SYSTEM LAYOUT**
 SHEET No. **SSDS-2**

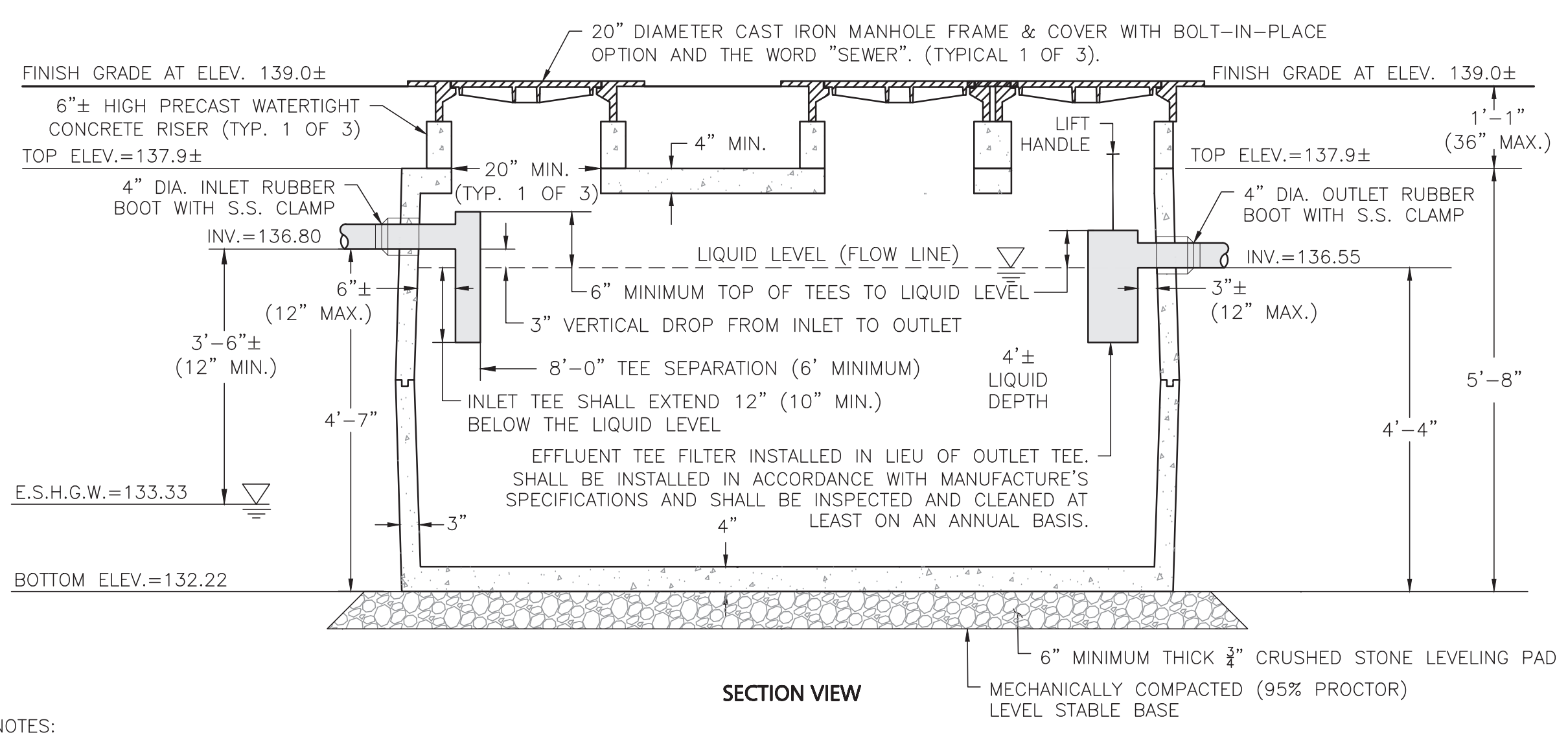
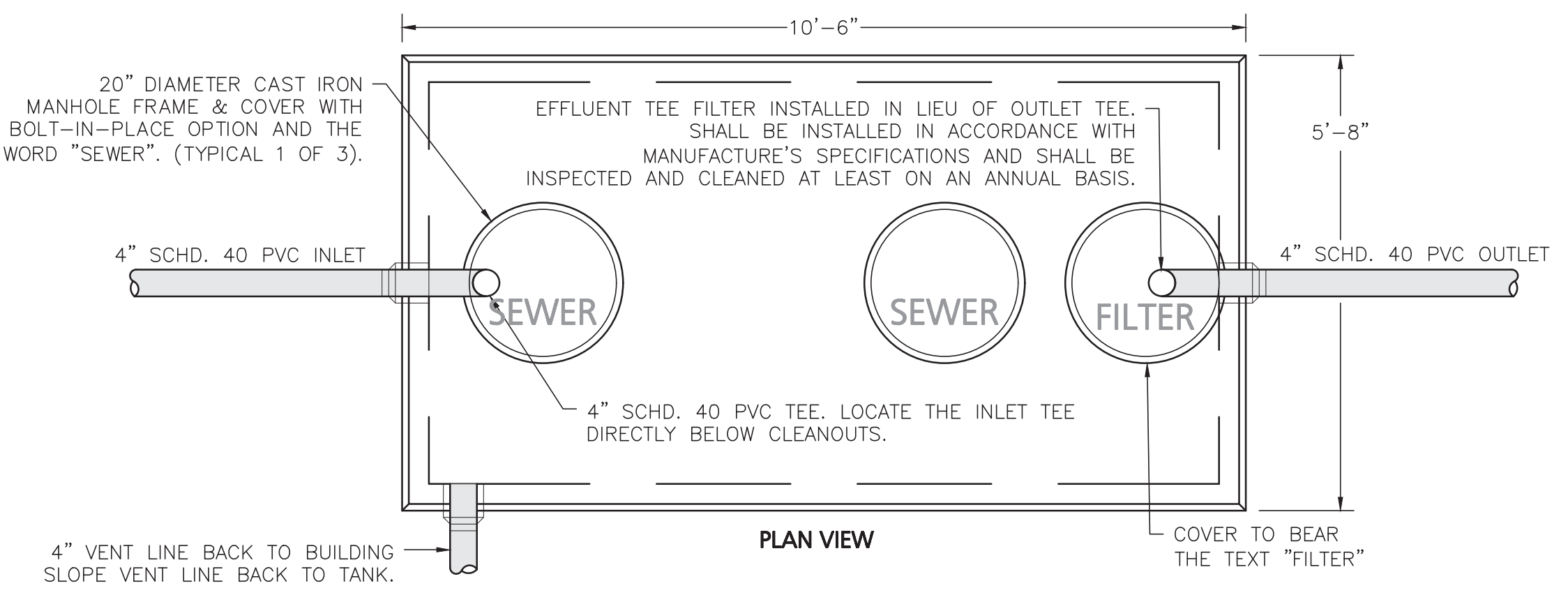
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NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227-96. TANK SHALL BE EMBOSSED WITH A SEAL STATING THAT THIS ASTM STANDARD HAS BEEN MET.
4. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
5. DESIGNED FOR 1 TO 4 FEET COVER AND MEETING AASHTO H-10 LOADING (MINIMUM FOR NON-TRAFFIC AREAS).

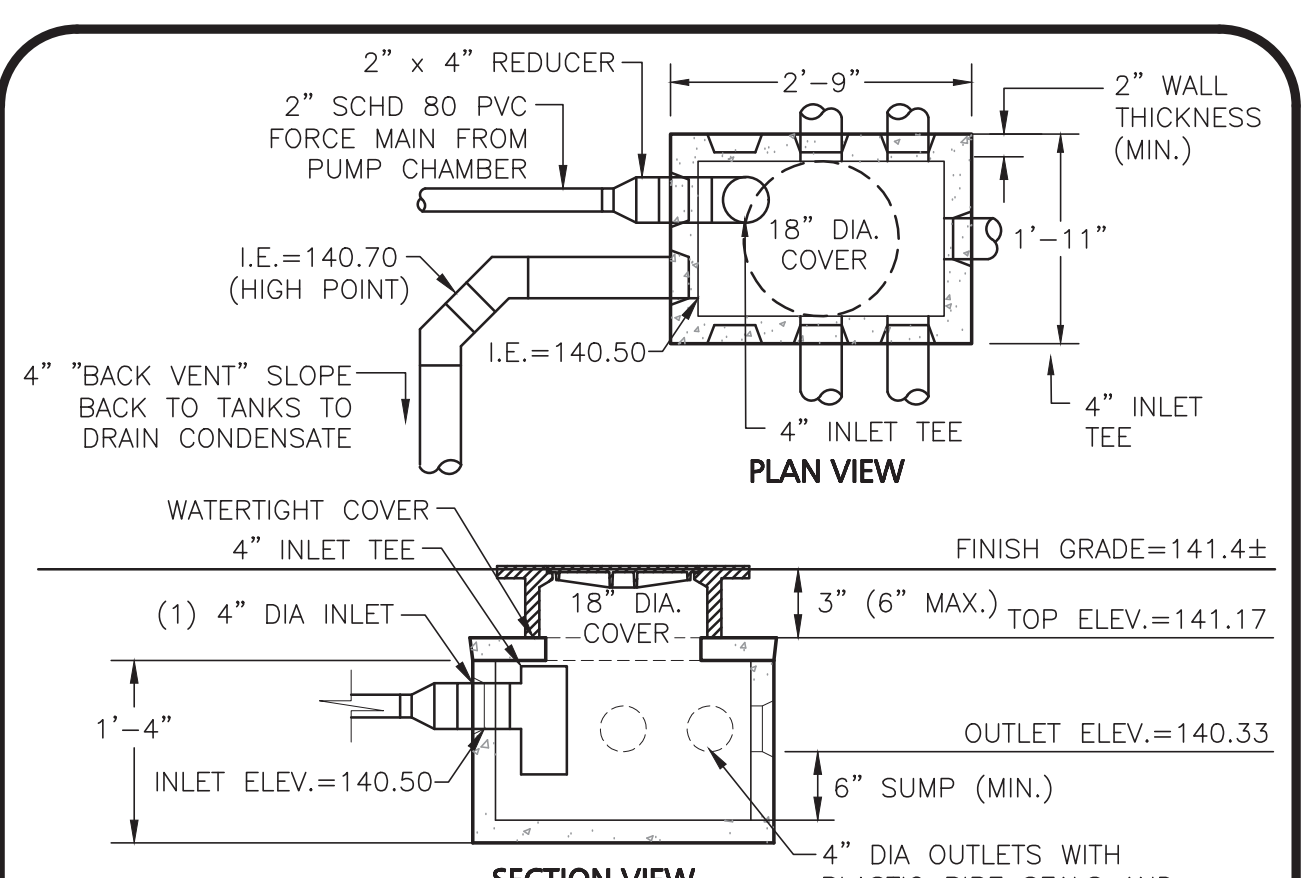
3,000 GALLON SEPTIC TANK ①
NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227-96. TANK SHALL BE EMBOSSED WITH A SEAL STATING THAT THIS ASTM STANDARD HAS BEEN MET.
4. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
5. DESIGNED FOR 1 TO 4 FEET OF COVER AND MEETING AASHTO H-10 LOADING (MINIMUM FOR NON-TRAFFIC AREAS).

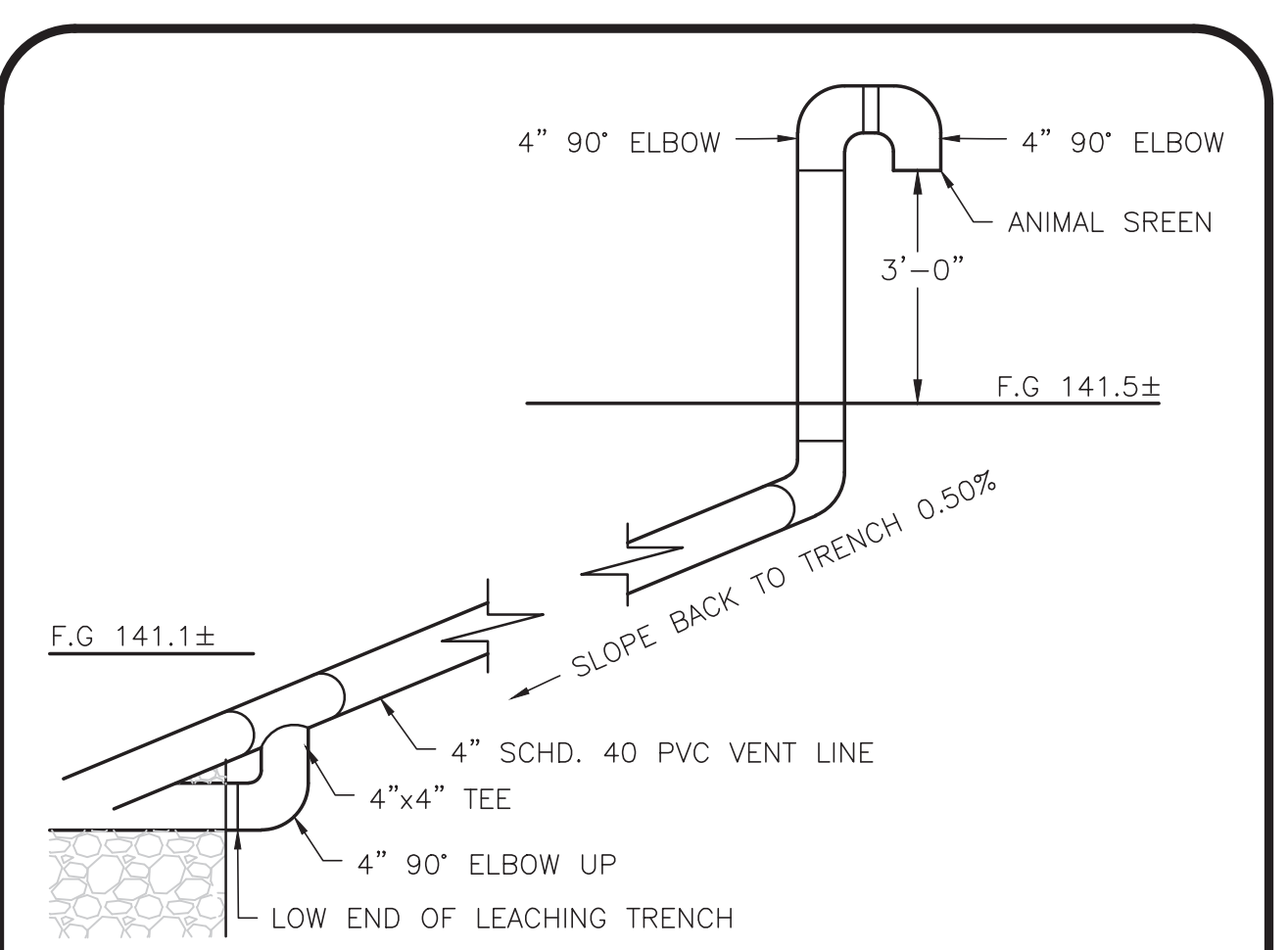
1,500 GALLON SEPTIC TANK ②
NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MIN. AFTER 28 DAYS.
2. MINIMUM H-20 LOAD RATING (LOCAL REGULATION).
3. OUTLETS SHALL BE EQUIPPED WITH "SPEED LEVELERS" BY TUF-TITE.
4. OUTLET DISTRIBUTION LINES SHALL LAID LEVEL FOR THE FIRST TWO FEET.
5. THE DISTRIBUTION BOX SHALL BE "BACK-VENTED" TO THE SECOND SEPTIC TANK USING A 4" DIAMETER SCHD. 40 PVC PIPE (LOCAL REGULATION)
6. THE DISTRIBUTION BOX SHALL HAVE A WATER-TIGHT, CAST IRON MANHOLE FRAME COVER THAT ARE A MINIMUM OF 18" IN DIAMETER (LOCAL REGULATION).

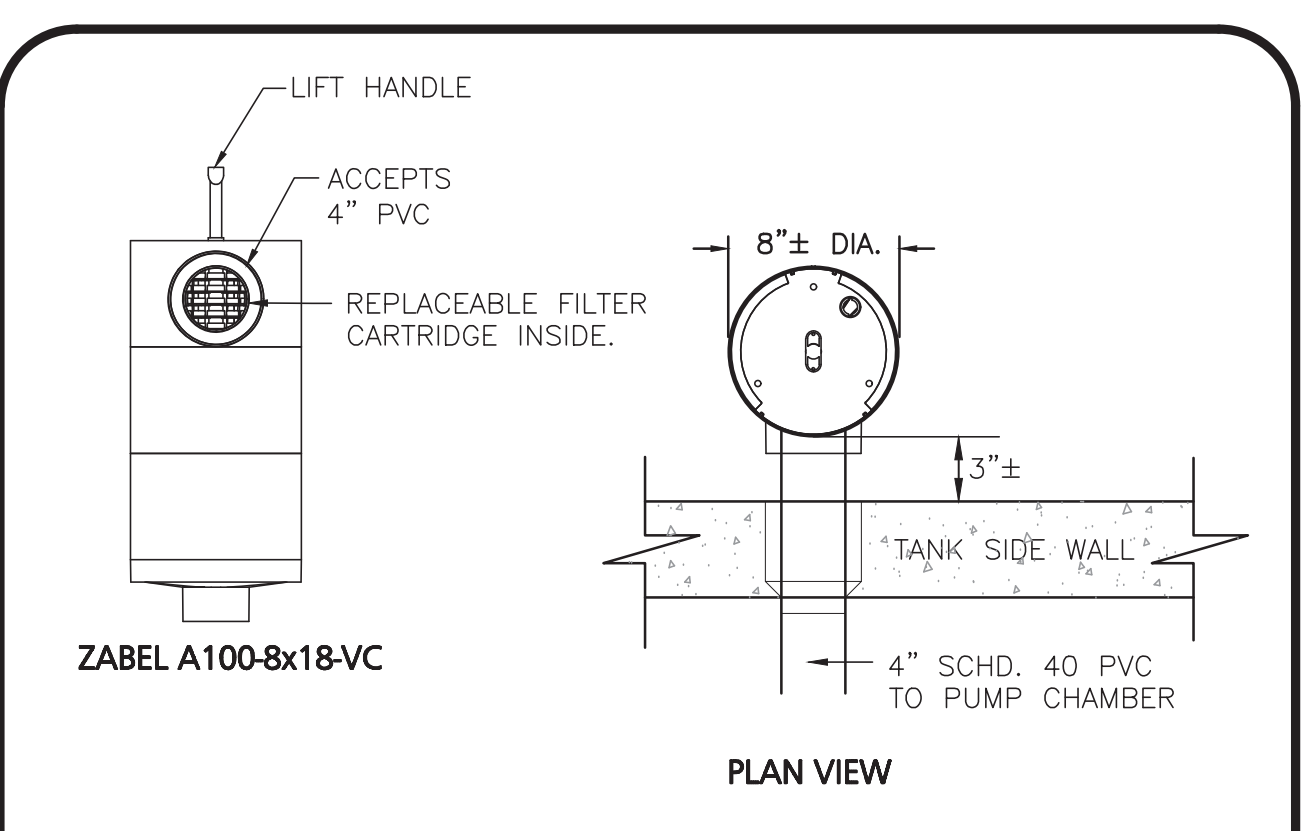
DISTRIBUTION BOX ③
NOT TO SCALE



NOTES:

1. SYSTEM VENTING SHALL USE THE SAME DIAMETER PIPE AS THE DISTRIBUTION AREA (4" DIAMETER).
2. OPEN END SHALL INCLUDE A SCREEN TO PREVENT THE ENTRANCE OF ANIMALS.
3. EACH DISTRIBUTION LINE SHALL CONNECT TO THE VENT LINE.

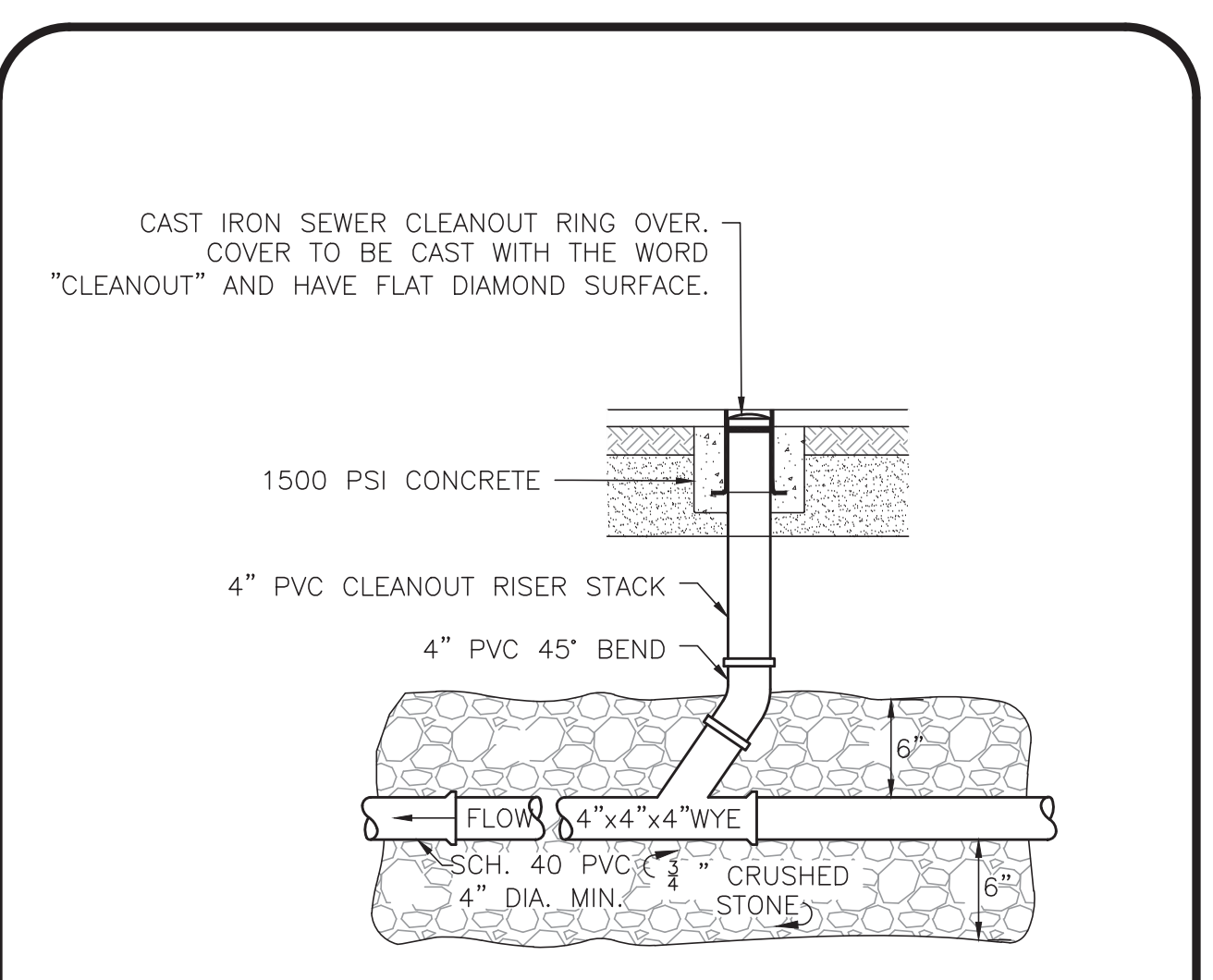
LOW VENT DETAIL ④
NOT TO SCALE



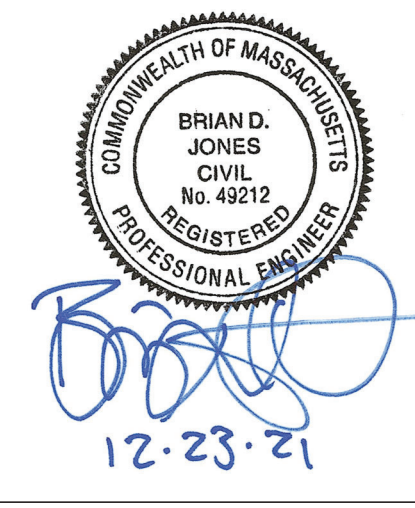
NOTES:

1. ALL PIPE MATERIAL AND FITTINGS SHALL BE SCHED. 40 PVC.
2. ZABEL A100-8x18-VC IS SIZED TO HANDLE FLOW RATES FROM 1,200 TO 2,400 GALLONS PER DAY (GPD).
3. UNIT SHALL BE EQUIPPED WITH THE OPTIONAL LIFT HANDLE.
4. INSTALLATION SHALL BE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

EFFLUENT TEE FILTER ⑤
NOT TO SCALE



CLEAN OUT ⑥
NOT TO SCALE



PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

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WEST SUBURBAN YMCA
276 CHURCH STREET
NEWTON, MA 02458

PROJECT:
CAMP CHICKAMI
139 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	2562-01	DATE:	11-10-21
SCALE:	1" = 8'	DWG. NAME:	C2562-01
DESIGNED BY:	JG	CHECKED BY:	BDJ

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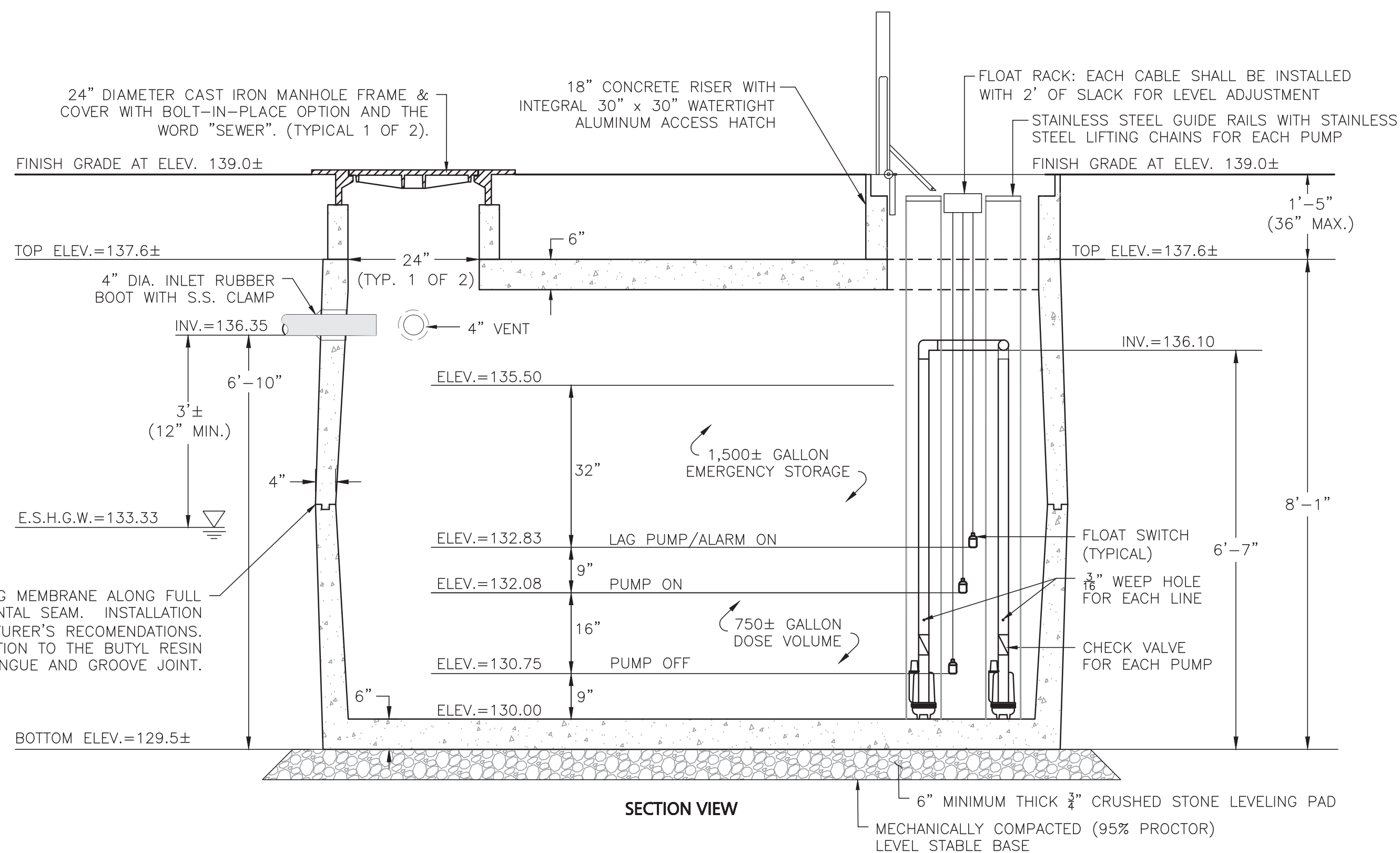
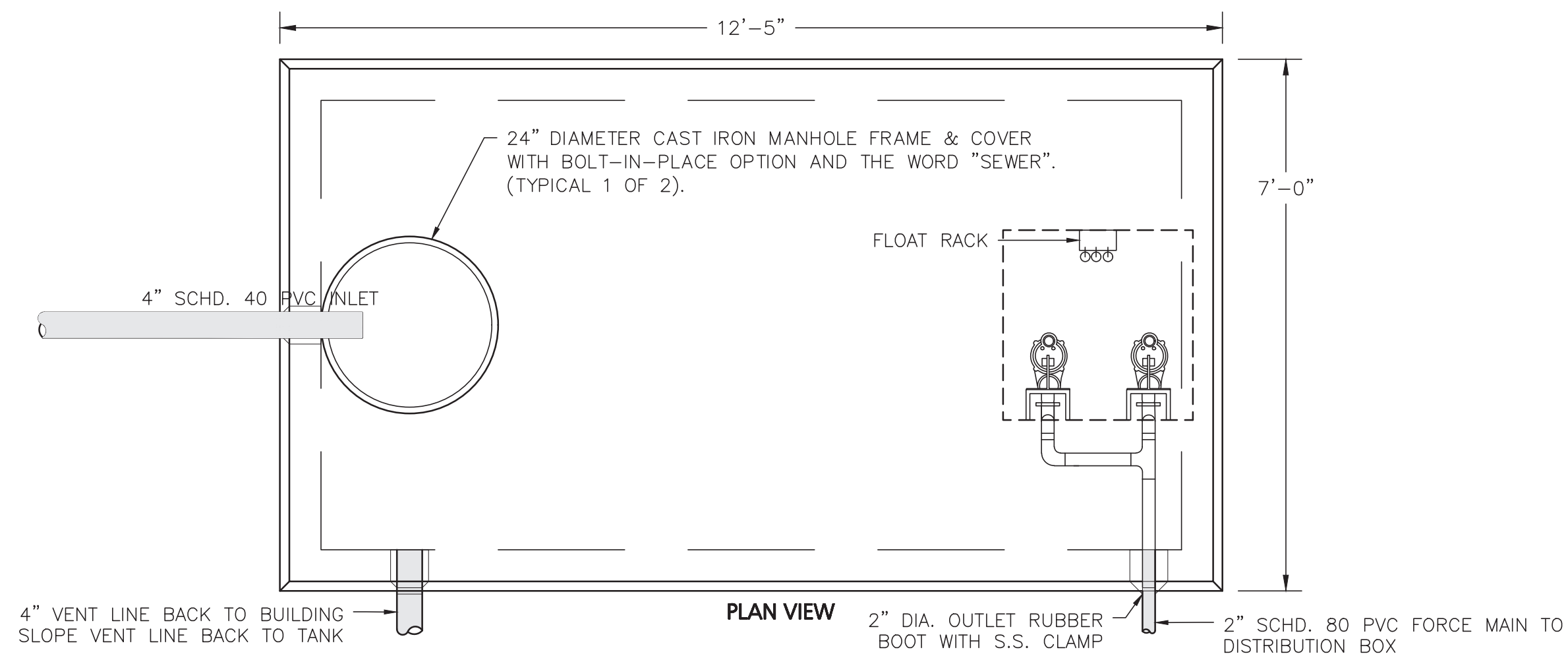
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DRAWING TITLE:	SHEET No.
SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS	SSDS-3

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APPLY BITUMENE WATERPROOFING MEMBRANE ALONG FULL PERIMETER OF THE HORIZONTAL SEAM. INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. EXTERIOR MEMBRANE IS IN ADDITION TO THE BUTYL RESIN JOINT SEALANT AT THE TONGUE AND GROOVE JOINT.

NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT TITLE 5 (310 CMR) OF THE STATE ENVIRONMENTAL CODE AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF WAYLAND.
- THE TANK SHALL BE CONSTRUCTED OF PRECAST OR CAST IN PLACE REINFORCED CONCRETE; WATERTIGHT AND ABLE TO WITHSTAND H₂O LOADING. THE CHAMBER MAY BE SEGMENTAL PROVIDED THE JOINTS ARE WATERTIGHT.
- THE TANK SHALL MEET THE MINIMUM REQUIREMENTS OF 310 CMR 15.226 "CONSTRUCTION OF SEPTIC TANKS", WHICH INCLUDES THE FOLLOWING MINIMUM STANDARDS:
 - CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS AND A MINIMUM DENSITY OF 140 PCF.
 - CEMENT SHALL BE PORTLAND TYPE 1 OR 3 PER ASTM C150-96.
 - ADMIXTURES SHALL CONFORM TO ASTM C233-95.
 - REINFORCING SHALL CONFORM TO ASTM A615 FOR WIRE FABRIC. GRADE #4 R'd OR EQUIVALENT.
 - THE MINIMUM WALL THICKNESS SHALL BE FOUR INCHES.
- THE TANK SHALL BE SET LEVEL ON A STABLE BASE WHICH HAS BEEN MECHANICALLY COMPACTED TO 95% DENSITY (PROCTOR).
- THE TANK AND COVERS SHALL BE CONSTRUCTED TO WITHSTAND MINIMUM H-10 LOADING (NON-TRAFFIC AREAS).
- THE TANK PIPE PENETRATIONS SHALL BE MADE WITH A KOR-N-SEAL BOOT OR EQUAL FLEXIBLE WATERTIGHT CONNECTION.
- THE TANK SHALL BE EMBOSSED WITH A SEAL STATING THAT ASTM C1227-96 HAS BEEN MET.
- THE TANK SHALL HAVE A MINIMUM EMERGENCY STORAGE CAPACITY ABOVE THE WORKING LEVEL EQUAL TO THE DAILY DESIGN FLOW (1,500 GPD) OF THE SYSTEM.
- THE TANK SHALL BE EQUIPPED WITH TWO PUMPS THE DISCHARGE LINES OF WHICH SHALL BE VALVED TO ALLOW DOSING OF THE ENTIRE LEACHING AREA BY EITHER PUMP.
- PUMPS SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
 - 37.5 GALLONS PER MINUTE (GPM) AT 12 FEET TOTAL DYNAMIC HEAD (TDH)
 - DESIGN PUMP (OR APPROVED EQUAL): MODEL SE-411, 0.4 BHP WITH A 4.25" IMPELLER DIAMETER AS MANUFACTURED BY BARNES. (SINGLE PHASE, 115 VOLT)
 - CAPABLE OF PASSING A MINIMUM SOLID SIZE 1 1/2" DIAMETER.
 - 2" DISCHARGE.
 - PUMPS SHALL BE SUBMERSIBLE NON-CLOG PUMPS MOUNTED ON GUIDE RAILS AND BE EQUIPPED WITH QUICK DISCONNECT SYSTEM AT THE DISCHARGE.
- PUMPS SHALL OPERATE IN THE FOLLOWING SEQUENCE:
 - PUMPS OFF
 - PRIMARY (LEAD) PUMP ON
 - BACKUP (LAG) PUMP ON AND ALARM ON
 - PUMPS MUST ALTERNATE DURING NORMAL USE.
- PUMPS SHALL BE EQUIPPED WITH AN AUDIBLE AND VISUAL HIGH WATER ALARM LOCATED IN THE BUILDING SERVED WHICH IS POWERED BY A SEPARATE CIRCUIT FROM THE CIRCUIT TO THE PUMPS.
- PUMP CONTROLS SHALL BE MOUNTED ON THE BUILDING AS SHOWN ON THE SITE PLAN AND SHALL MEET THE FOLLOWING PERFORMANCE STANDARDS (MINIMUM):
 - WEATHERPROOF OUTDOOR NEMA 3R ENCLOSURE OF GALVANIZED STEEL WITH ENAMEL FINISH.
 - DESIGNED FOR USE WITH STANDARD FLOAT SWITCHES (FOUR SWITCHES FOR DUPLEX OPERATION).
 - ALTERNATOR RELAY TO EQUALIZE PUMP WEAR.
 - OVERRIDE RELAY FOR LAG PUMP IF FIRST PUMP FAILS.
 - LAG PUMP DELAY CIRCUITRY
 - AUXILIARY ALARM CONTACTS
 - CONDENSATION HEATER
 - LIGHTNING ARRESTOR
 - FULL INNER DOOR
 - A HAND-OFF-AUTO SELECTOR SWITCH FOR EACH PUMP.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION OF DOSING CHAMBER, PUMPS AND CONTROLS.



12.23.11

PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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139 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO. 2562-01 DATE: 11-10-21

SCALE: 1" = 4'-0" DWG. NAME: C2562-01

DESIGNED BY: JG CHECKED BY: BDJ

PREPARED BY:



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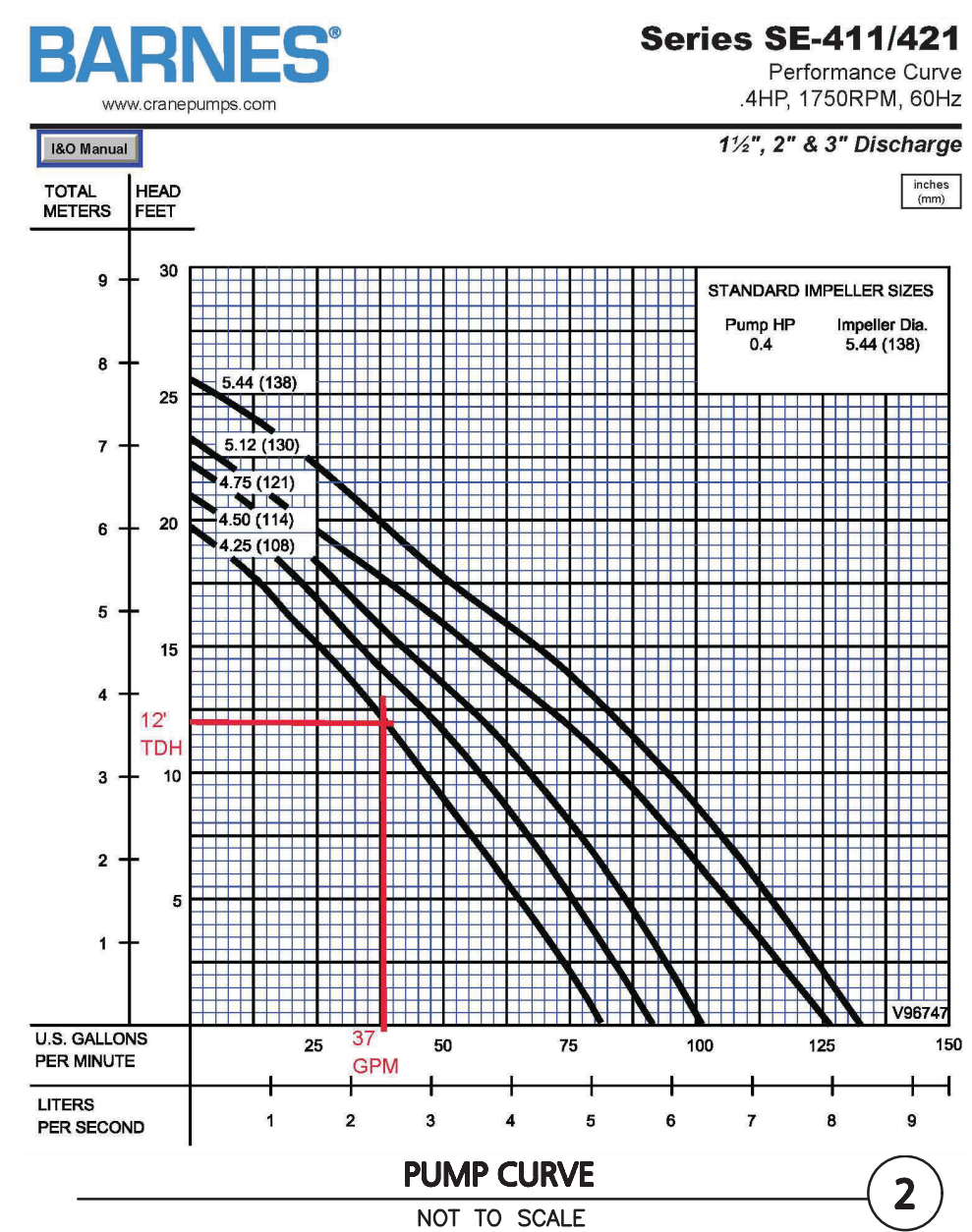
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DRAWING TITLE: SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS SHEET No. SSSD-4

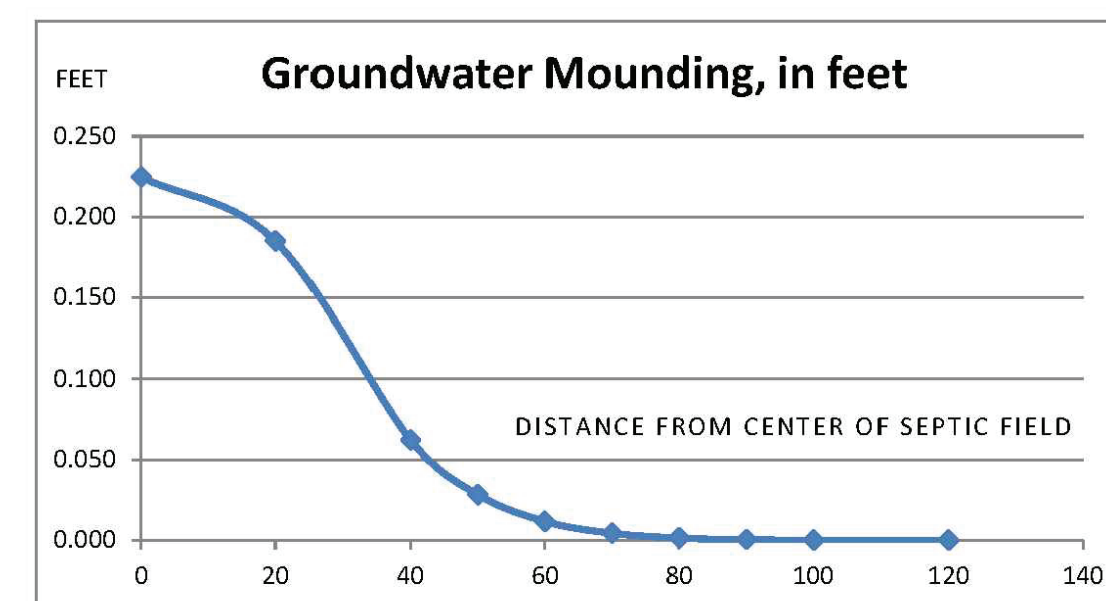
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Input Values	Symbol	Description
0.1110	R	Recharge (infiltration) rate (feet/day)
0.200	Sy	Specific yield, Sy (dimensionless, between 0 and 1)
26.00	K	Horizontal hydraulic conductivity, Kh (feet/day)*
30.000	x	1/2 length of basin (x direction, in feet)
30.000	y	1/2 width of basin (y direction, in feet)
0.500	t	duration of infiltration period (days)
5.000	h(0)	initial thickness of saturated zone (feet)

- *"R", RECHARGE VALUE CALCULATED USING THE DOSE VOLUME OF 750 GALLONS APPLIED TO THE BOTTOM BED AREA (SIDE WALL AREA NOT USED). (750 GALLONS) / (7.48 GALLONS/C.F.) / (900 S.F. BOTTOM BED) = 0.111 FEET/DAY
- *"Sy", SPECIFIC YIELD OF 20% TAKEN FROM PUBLISHED DATA FOR LOAMY SANDS
- *"K", HYDRAULIC CONDUCTIVITY TAKEN FROM NRCS PUBLISHED DATA FOR MAPPED SOILS: 92 MICROMETERS / SECOND, WHICH CONVERTS TO 26 FEET PER DAY.
- *"x" AND "y" DIMENSIONS TAKEN FROM OUTSIDE DIMENSIONS OF THE LEACHING TRENCHES
- *"t", DURATION IS 1/2 DAY FOR THE 750 GALLONS DOSE.
- *"h(0)", INITIAL SATURATED THICKNESS IS CONSERVATIVELY ASSUMED TO BE 5', SINCE NO BEDROCK WAS ENCOUNTERED TO A DEPTH OF ELEVATION 127.0 (TEST PIT 5)

MOUNDING ANALYSIS RESULTS	Symbol	Description
5.276	h(max)	maximum thickness of saturated zone (beneath center of basin at end of infiltration period)
0.225	Δh(max)	maximum groundwater mounding (beneath center of basin at end of infiltration period)



NOTES:

- THE SPREADSHEET USED IN SOLVING THE HANTUSH (1967) EQUATION FOR GROUND-WATER MOUNDING BENEATH A SEPTIC SYSTEM IS BASED ON THE USGS SCIENTIFIC INVESTIGATIONS REPORT 2010-5102 "GROUNDWATER MOUNDING BENEATH HYPOTHETICAL STORMWATER INFILTRATION BASINS".
- THE MAXIMUM GROUNDWATER MOUND WAS DETERMINED TO BE 0.225 FEET OR APPROXIMATELY 3" AT THE CENTER OF THE LEACHING AREA.

MOUNDING ANALYSIS NOT TO SCALE

NOT TO SCALE



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GENERAL PLAN NOTES	
1.)	ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE COMMONWEALTH OF MASSACHUSETTS BUILDING CODE AND ANY OTHER APPLICABLE CODES AND REGULATIONS.
2.)	THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND/OR DAMAGED CORE BUILDING ELEMENTS THAT COULD AFFECT PROPER EXECUTION OF NEW WORK.
3.)	NOTIFY THE ARCHITECT OF FLOOR CRACKS LARGER THAN 1/8" IN WIDTH.
4.)	ALL DIMENSIONS ARE TO THE FACE OF EXISTING WALL AND CENTERLINE OF INTERIOR STUD WALL OR OPENINGS UNLESS OTHERWISE NOTED.
5.)	REFER TO MEP DRAWINGS FOR REMOVAL / RELOCATION OF ALL ELECTRICAL, MECHANICAL & FIRE DETECTION EQUIPMENT, ETC.
6.)	REPAIR ALL DAMAGED DRYWALL LIKE NEW IN AREA OF CONSTRUCTION.
7.)	INSTALL WOOD BLOCKING IN NEW WALLS AS REQUIRED FOR WALL MOUNTING EQUIPMENT AND MILLWORK.
8.)	ALL NEW WALL PARTITIONS ARE TYPE 1 UNLESS OTHERWISE NOTED.
9.)	REFER TO A10.1 SHEETS FOR FINISHES.

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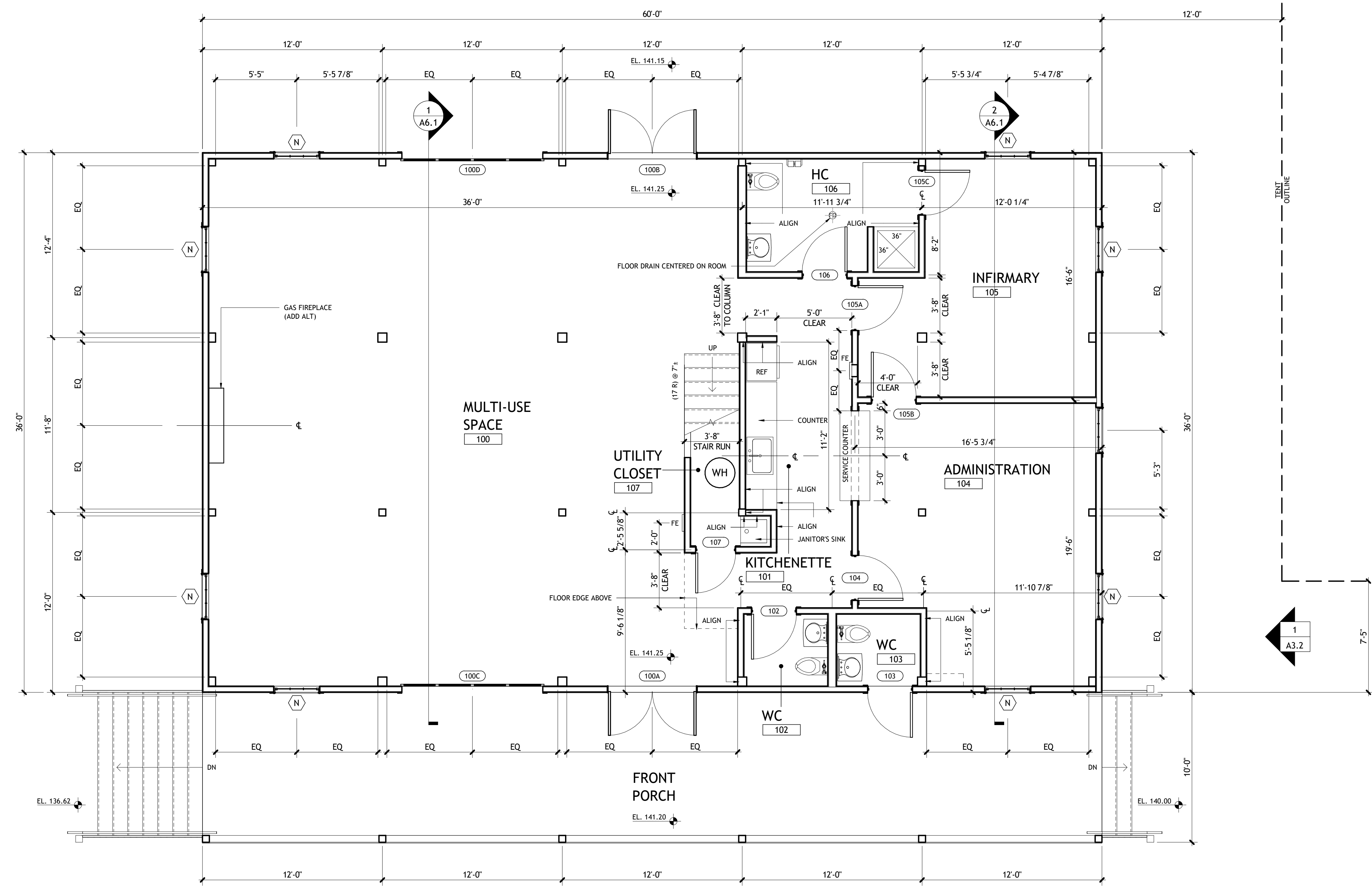
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Drawn By: JG
Checked By: SR

FLOOR PLAN LEVEL 1

A1.1



1 LEVEL 1
SCALE: 1/4" = 1'-0"

PLAN LEGEND	
	NEW DOOR
	EXISTING DOOR TO REMAIN
	NEW WINDOW
	EXISTING WINDOW TO REMAIN
	DEMO/CONST NOTE
	NEW WALL
	EXISTING WALL TO REMAIN
	NEW STAIR
	EXISTING STAIR TO REMAIN
	EXISTING FIRE EXTINGUISHER/F.E. CABINET TO REMAIN
	NEW/RELOCATED FIRE EXTINGUISHER/F.E. CABINET
	LIMIT OF FLOOR FINISH
	NOT IN CONTRACT



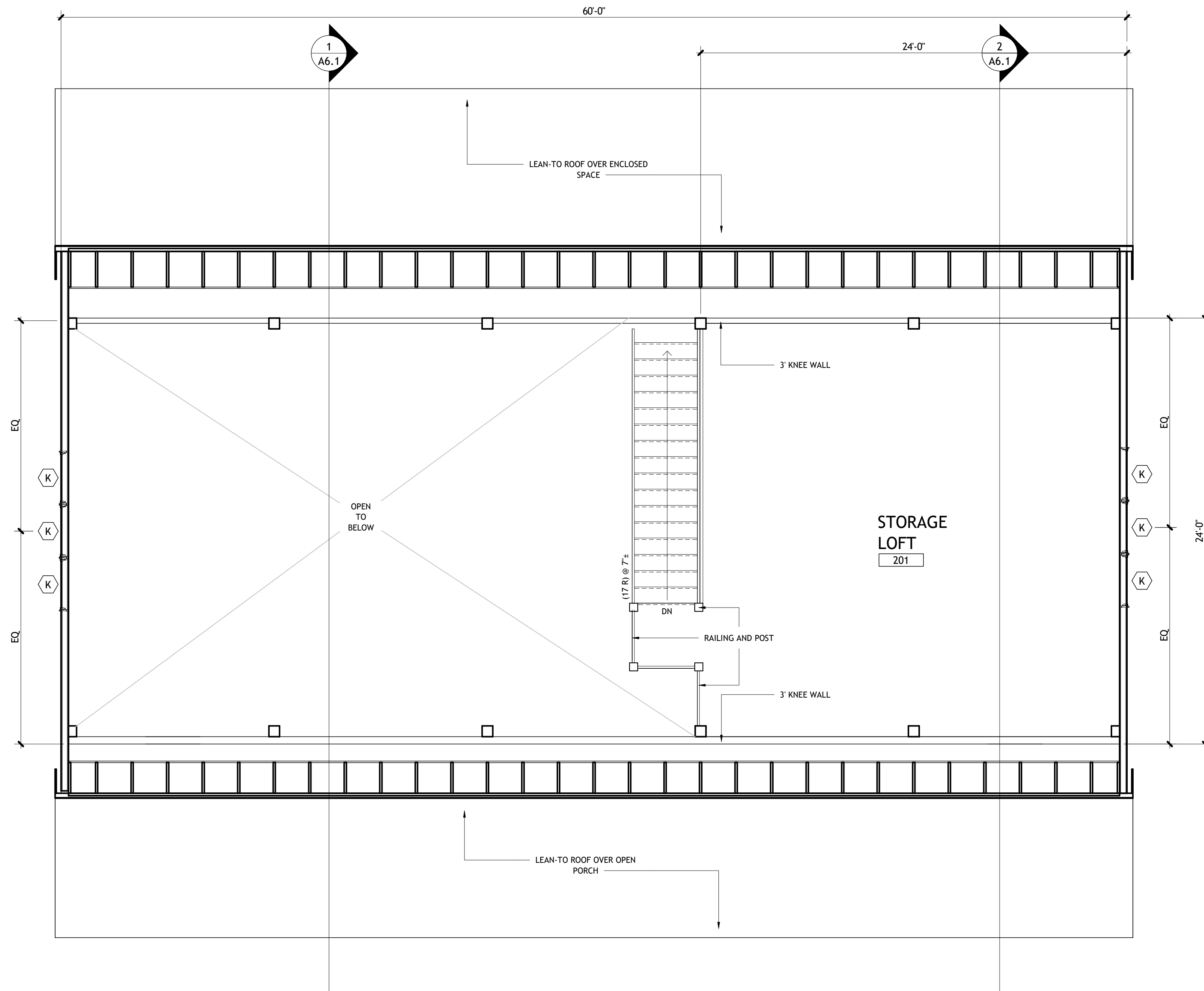
Camp Chickami

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1 LOFT LEVEL
SCALE: 1/4" = 1'-0"

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**FLOOR PLAN
LOFT LEVEL**

A1.2

2019038.02 - WEST SUBURBAN YMCA REVISION 1 - DECEMBER 23, 2021

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Camp Chickami

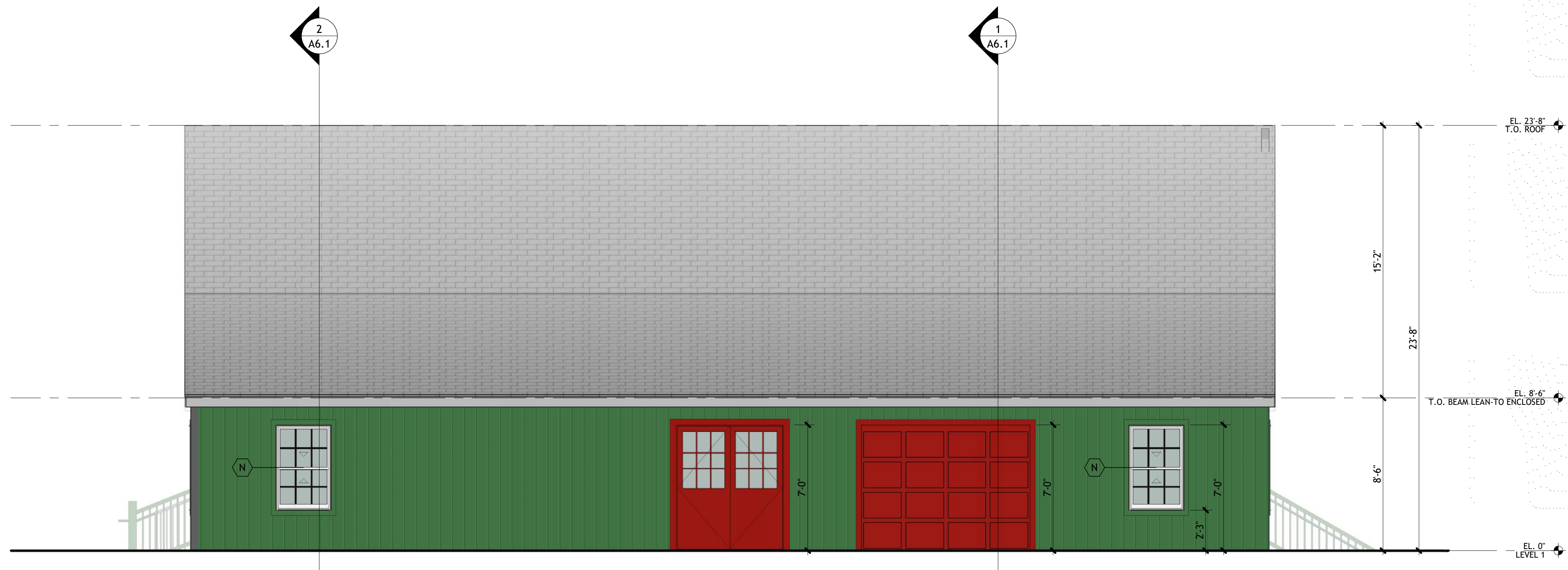
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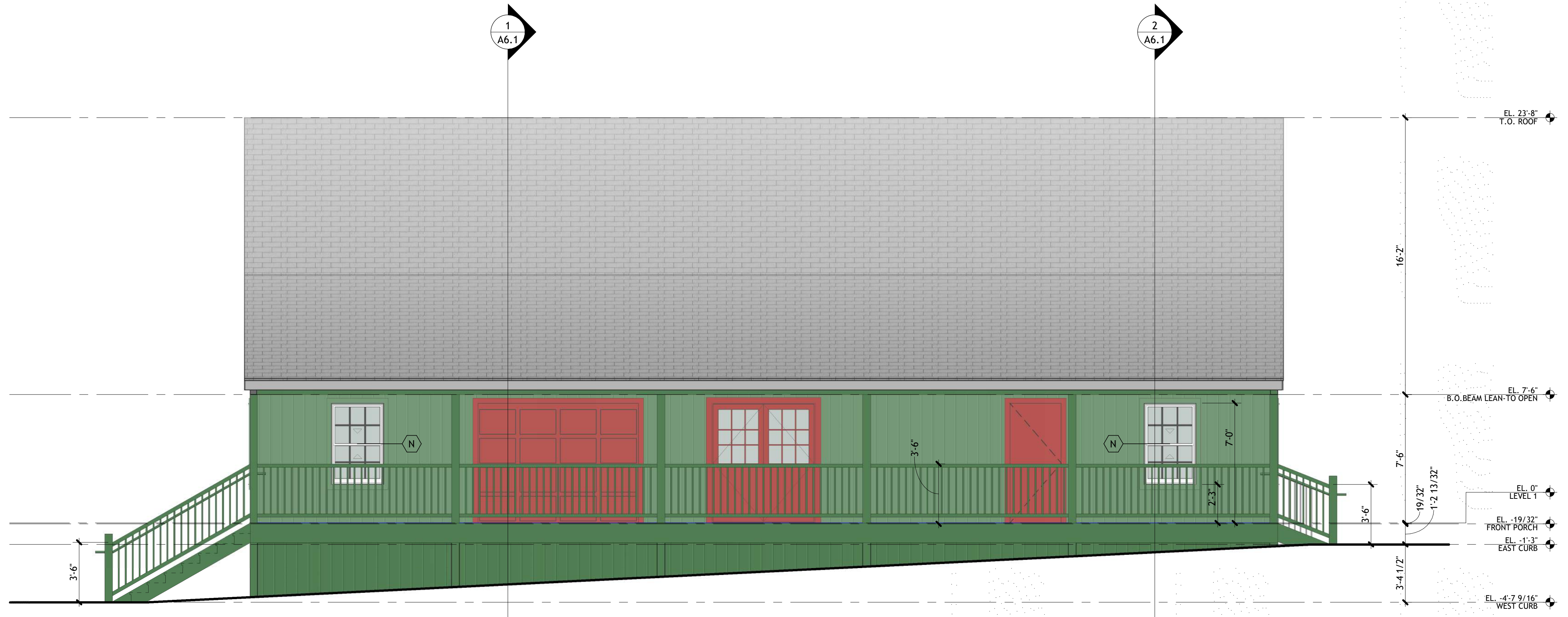
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1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

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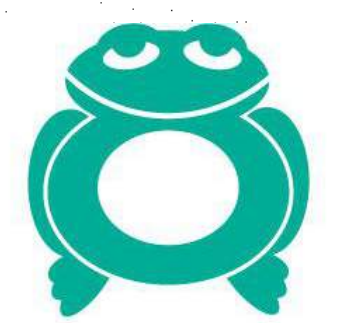
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EXTERIOR ELEVATIONS

A3.1

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Camp Chickami

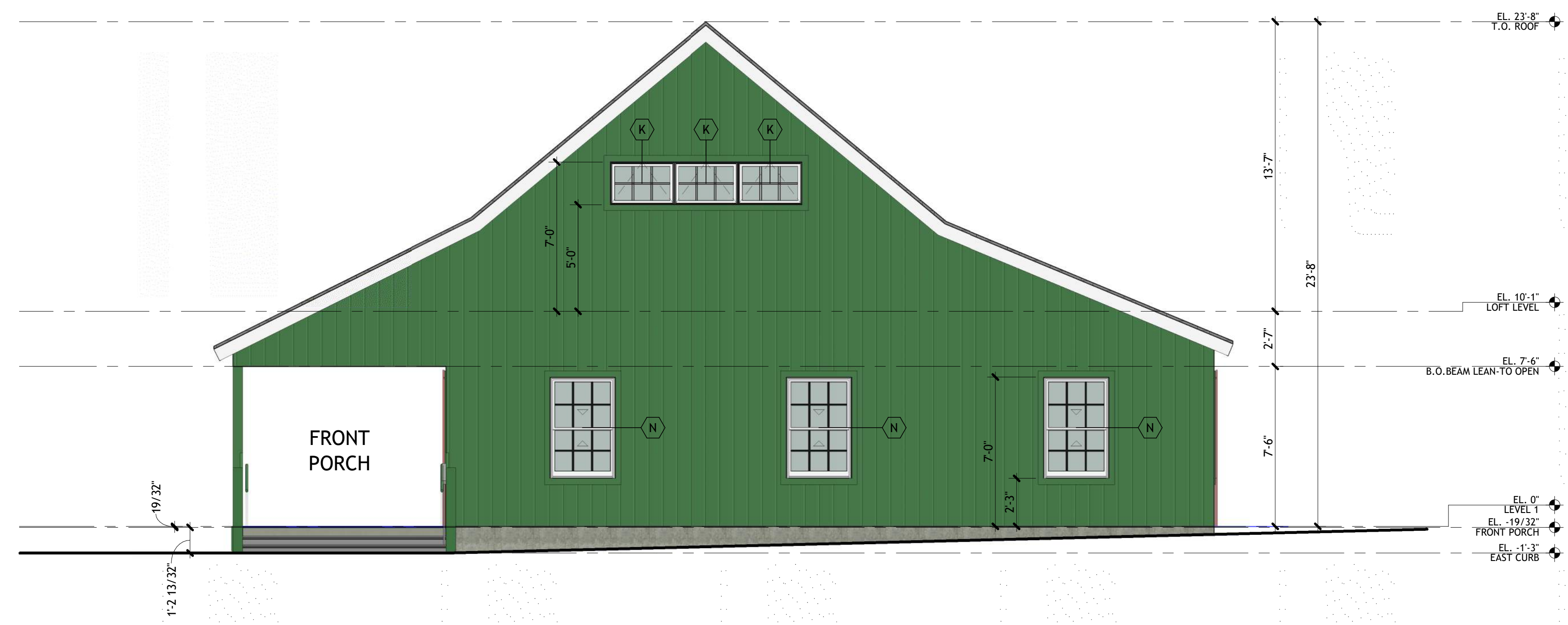
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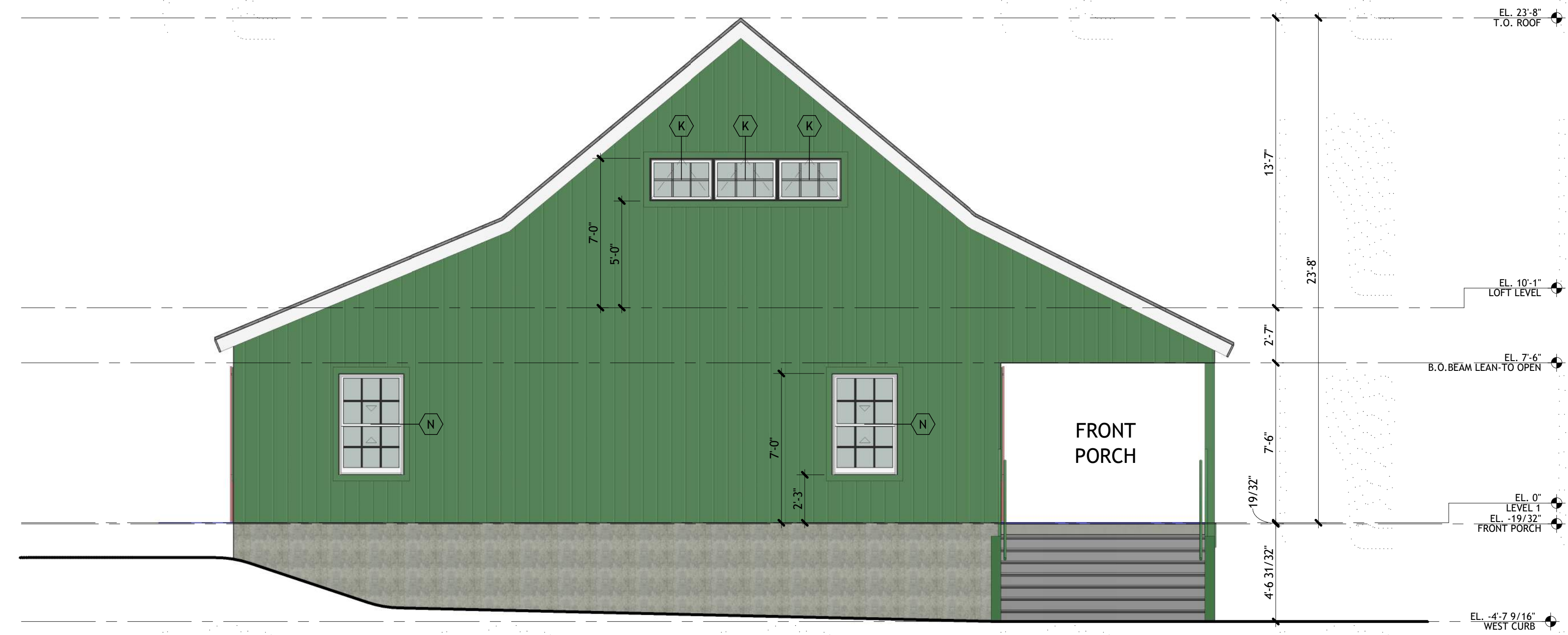
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1 EAST ELEVATION
SCALE: 1/4" = 1'-0"



2 WEST ELEVATION
SCALE: 1/4" = 1'-0"

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EXTERIOR ELEVATIONS

A3.2

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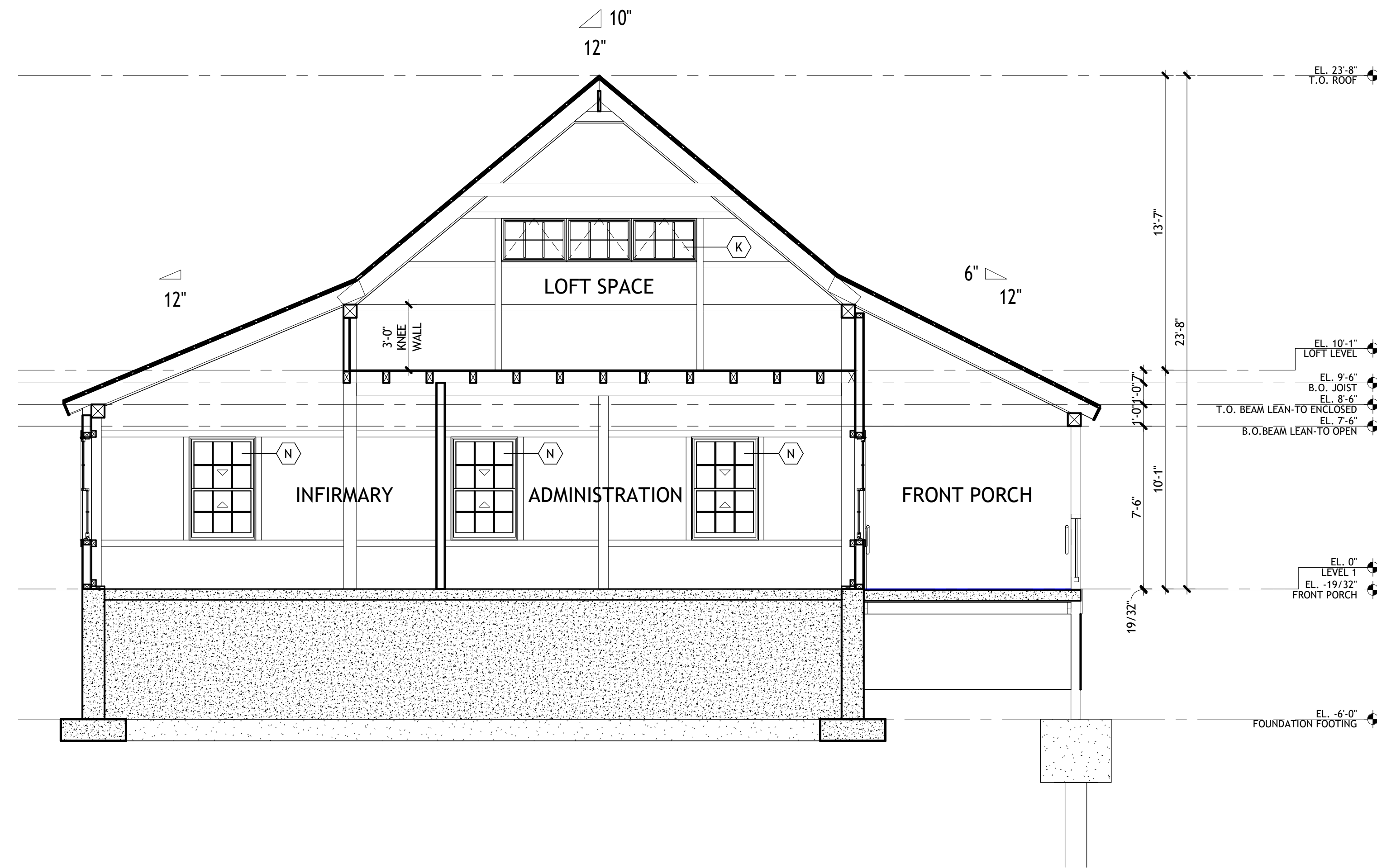
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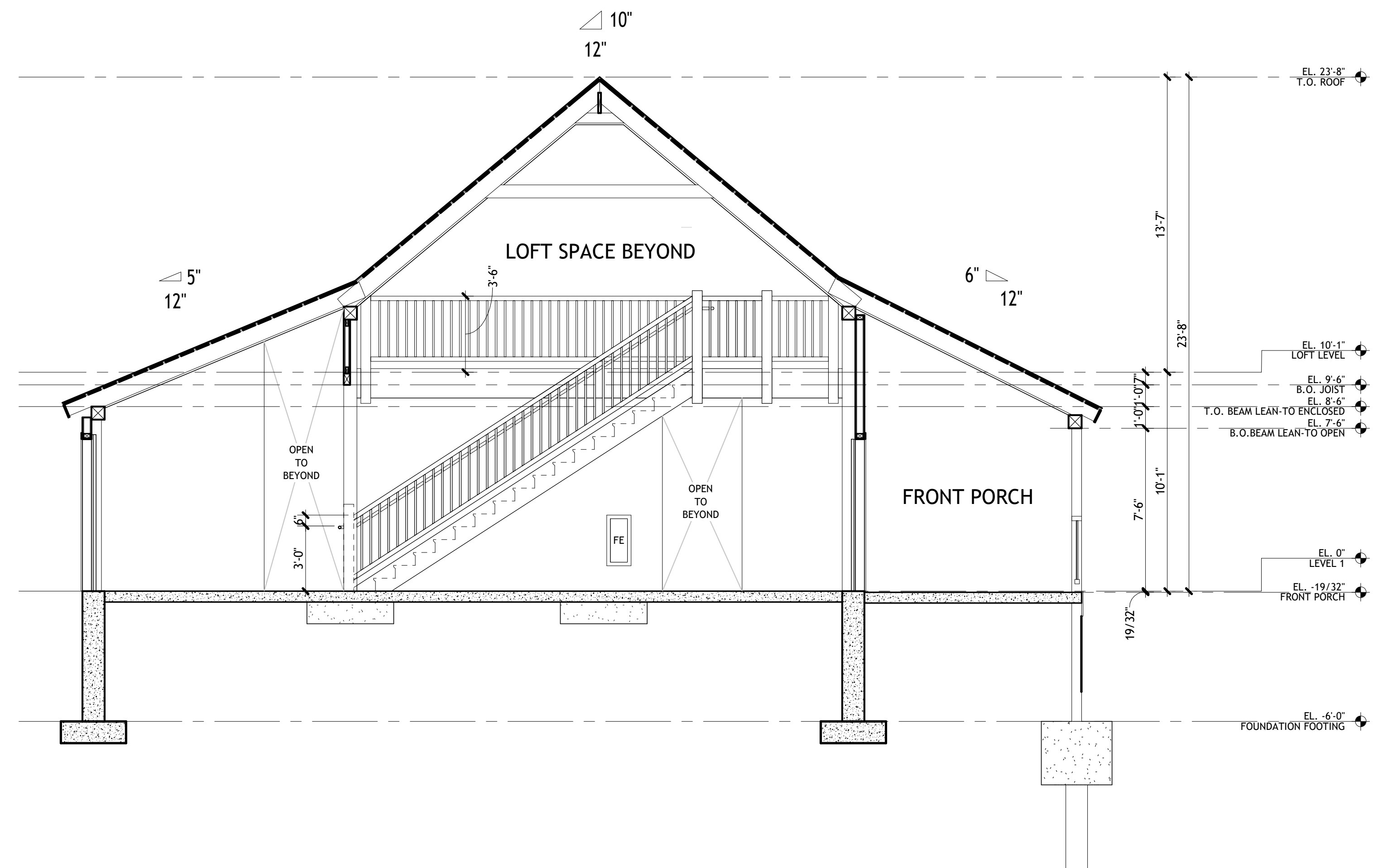
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2 CROSS BUILDING SECTION @ LOFT
SCALE: 1/4" = 1'-0"



1 CROSS BUILDING SECTION
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**BUILDING
SECTIONS**

A6.1