

NOTE: PROPERTY IS IN THE R-3 ZONE

IMPERVIOUS AREA CALCULATION

PROPERTY SIZE = ± 4,704,480 SF
 EXISTING IMPERVIOUS AREA
 ± 19,600 SF DRIVEWAY TO HOUSE AND BARN
 ± 3,000 SF GREENHOUSES
 ± 1,500 SF HOUSE
 ± 8,100 SF BARN
 TOTAL EXISTING IMPERVIOUS AREA = ± 37,000 SF
 PROPOSED IMPERVIOUS AREA
 5,943 SF OF PARKING AREA
 2400 SF OF BUILDING
 TOTAL PROPOSED IMPERVIOUS AREA = 8,343 SF

PROPOSED PERCENT IMPERVIOUS
 37,000 SF + 5,943 SF = 45,343 SF / 4,704,480 SF = 0.96%

PARKING REQUIREMENTS

RETAIL REQUIRED 8 SPACES (800 SF RETAIL SPACE / 100 SF)
 RETAIL PROPOSED 8 PLUS HANDICAP
 APARTMENT REQUIRED 1 SPACE
 APARTMENT PROPOSED 1 SPACES
 EMPLOYEE PROPOSED 2 SPACES

ZONING TABLE

ZONE R3 (3 ACRES)
 MIN. LOT WIDTH 200 FT
 F.Y. SETBACK 40 FT
 SIDE YARD SETBACK 40 FT
 REAR SETBACK 40 FT
 MAXIMUM BLDG HEIGHT 45 FT
 MAXIMUM LOT COVERAGE 10%

PROJECT DESCRIPTION

THE SUBJECT PROPERTY IS LOCATED AT 142 TOWN STREET IN CORNWALL, CONNECTICUT. THE PROPERTY CONSISTS OF +/-108 ACRES AND IS DEVELOPED WITH A SINGLE-FAMILY HOUSE AND SEVERAL OUTBUILDINGS WHICH SUPPORT AGRICULTURAL ACTIVITIES. THIS PLAN PROPOSES THE CONSTRUCTION OF A 80 FT BY 30 FT CIDER BARN WITH A <1,200 SQUARE FOOT ONE-BEDROOM APARTMENT ON THE SECOND FLOOR. THE CIDER BARN WILL CONSIST OF A STORAGE AREA (+/-800 SF), A CIDER PROCESSING AREA (+/-800 SF), AND A FARM STORE (+/-800 SF). THIS APPLICATION REQUESTS A SPECIAL PERMIT IN ACCORDANCE WITH ARTICLE 10 OF THE CORNWALL ZONING REGULATIONS AS THIS PLAN SHOWS COMPLIANCE WITH THESE REQUIREMENTS.

SEDIMENT & EROSION CONTROL PLAN

THE SUBJECT AREA SLOPES GENTLY TO THE WEST. SILT FENCE AND STAKED HAY BALES ARE PROPOSED TO CONTROL SEDIMENT RUN-OFF DURING CONSTRUCTION (SEE PLAN FOR LOCATION). IN ADDITION, A SLURRY PIT IS PROPOSED TO CONTROL RUN-OFF DURING WELL INSTALLATION. STORMWATER RUNOFF FROM THE ROOF WILL BE COLLECTED AND PIPED TO THE EXISTING SWALE. STORM WATER RUN-OFF FROM THE PARKING LOT WILL BE VIA SHEET FLOW TO THE EXISTING DRAINAGE SWALE AT THE WESTERN END OF THE PROPERTY.

CONSTRUCTION PHASING SEQUENCE

- OBTAIN APPROVAL FROM TORRINGTON AREA HEALTH DEPARTMENT AND THE TOWN OF CORNWALL (INLAND WETLANDS, ZONING, BUILDING, ETC.)
- INSTALL SILT FENCE AS SHOWN ON THIS PLAN.
- INSTALL DRIVEWAY AS DESIGNED AND IMMEDIATELY STABILIZE DISTURBED AREAS.
- INSTALL UNDERGROUND UTILITIES AS SPECIFIED ON THIS PLAN AND IMMEDIATELY STABILIZE TRENCH WITH SEED AND MULCH.
- EXCAVATE FOUNDATION, POUR CONCRETE FOUNDATION, INSTALL ROOF LEADER DRAINS, AND BACKFILL. STABILIZE WITH SEED AND MULCH.
- INSTALL THE SEPTIC SYSTEM AS DESIGNED AND STABILIZE WITH SEED AND MULCH.
- INSTALL WELL AT LOCATION SHOWN ON THIS PLAN. NOTE USE OF SLURRY PIT.
- INSTALL THE CURTAIN DRAIN AS DESIGNED.
- INSPECT SILT FENCE/HAY BALES WEEKLY AND AFTER HEAVY RAIN EVENTS. REPAIR AS NEEDED.
- MAINTAIN SILT FENCE/HAY BALES UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH GRASS.

ENGINEERING NOTES

- BOUNDARY & TOPOGRAPHIC INFORMATION BASED ON SITE SURVEY PLAN COMPLETED BY DAVID J. LITTLE, L.S.S. A FIELD BENCHMARK HAS BEEN PROVIDED (SPIKE). ELEVATIONS TO BE FIELD VERIFIED PRIOR TO INITIATING CONSTRUCTION.
- THE INSTALLATION CONTRACTOR MUST HAVE A VALID SUBSURFACE SEWAGE INSTALLERS LICENSE ISSUED BY THE STATE OF CONNECTICUT.
- LEACHING TRENCH MUST BE STAKED BY A LICENSED SURVEYOR PRIOR TO INITIATING CONSTRUCTION.
- LEACHING TRENCHES MUST REMAIN 18" ABOVE THE RESTRICTIVE LAYER, WHICH WAS DETERMINED TO BE APPROXIMATELY 18" BELOW GRADE. SELECT SAND SHOULD BE UTILIZED AS NECESSARY TO ENSURE AFOREMENTIONED 18" SEPARATION DISTANCE.
- AREA OF PROPOSED SEPTIC SHOULD REMAIN UNDISTURBED PRIOR TO INITIATING CONSTRUCTION OF LEACHING FIELDS.
- SELECT SAND FILL MUST MEET TADH APPROVAL.
- SCARIFY SUBSOIL PRIOR TO PLACEMENT OF SELECT SAND. DO NOT OPERATE WHEELED EQUIPMENT ON SCARIFIED SOIL. THE LOCAL HEALTH DISTRICT SHALL INSPECT SCARIFICATION PRIOR TO PLACEMENT OF SELECT SAND FILL.
- ALL SELECT SAND SHOULD BE PUT IN PLACE BY A TRACKED MACHINE & COMPACTED EVERY FOOT.
- ENGINEER TO OBTAIN ON-SITE SAMPLE OF SEPTIC SAND AND COMPLETE A SIEVE ANALYSIS TO DEMONSTRATE COMPLIANCE WITH HEALTH DEPARTMENT REQUIREMENTS. ENGINEER TO COMPLETE PERCOLATION TEST IN SAND PAD AND COMPLETE AN AS-BUILT OF SEPTIC SYSTEM.
- COVER LEACHING SYSTEM WITH 6" TOPSOIL & GRADE TO PROMOTE DRAINAGE.
- TO THE BEST OF THE ENGINEER'S KNOWLEDGE, NO KNOWN WELLS EXIST WITHIN 75' OF PROPOSED LEACHING SYSTEM. BUILDING WILL BE SERVED BY A PRIVATE WELL GREATER THAN 75' FROM THE PROPOSED SEPTIC TANK & LEACHFIELD.
- UTILIZE SILT FENCE/HAYBALES AS NEEDED TO PREVENT SEDIMENT RUNOFF DURING ALL PHASES OF CONSTRUCTION.
- NOTIFY THE LOCAL HEALTH DISTRICT PRIOR TO INITIATING CONSTRUCTION.
- NOTIFY ENGINEER (860-601-1839) OF ANY CHANGES OR CONDITIONS WHICH AFFECT THE INSTALLATION AS SHOWN ON THIS PLAN.

DESIGN CALCULATIONS – DESIGN PENDING

DESIGN BASIS (1800 SF X 0.1 GPD/SF) + 150 GPD = 330 GPD
 FLOW FACTOR 330/300 = 1.1
 PERCOLATION RATE 20.1-30 MIN/INCH
 PERCOLATION FACTOR 1.5
 DEPTH TO RESTRICTIVE LAYER 18"
 SLOPE 4"/152' = 2.63%
 HYDRAULIC FACTOR 54
 MLSS REQUIRED 1.1 x 1.5 x 54 = 89.1'
 90' (88' OF GALLEY'S WITH PIPE & STONE EXTENDING 1' PAST EACH END OF LINE)
 LONG TERM ACCEPTANCE RATE 0.9 GPD PER SF OF ELA
 LEACHING AREA REQUIRED 1 BEDROOM 565 SF/2 = 282.5 SF
 LEACHING AREA REQUIRED TASTING ROOM 180 GPD/ 0.9 GPD/SF = 200 SF
 TOTAL LEACHING AREA REQUIRED 282.5 SF + 200 SF = 482.5 SF
 LEACHING AREA PROVIDED 531 SF
 USE 88' OF 12" TALL CONCRETE GALLEY'S PLUS 1' STONE & PIPE EXTENDING PAST EACH END OF LINE

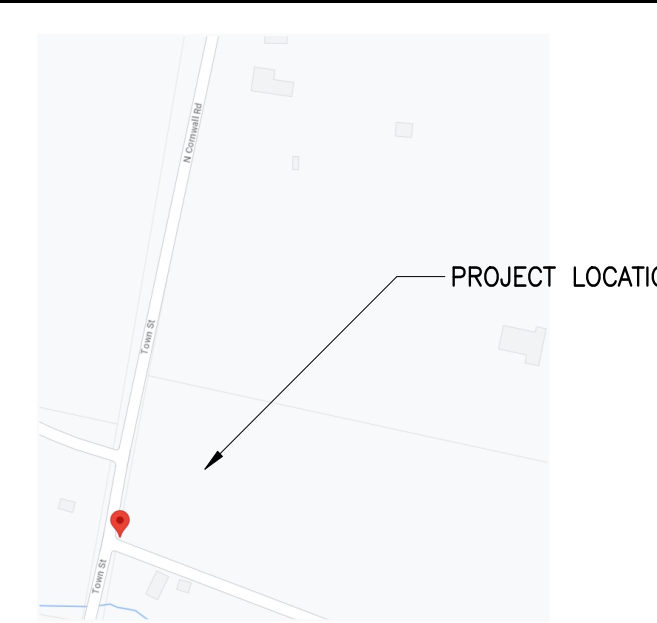
SELECT SAND FILL REQUIREMENTS

SIEVE	% PASSING
#4	100%
#10	70-100%
#40	10-50%
#100	0-20%
#200	0-5%

ASTM C33 REQUIREMENTS

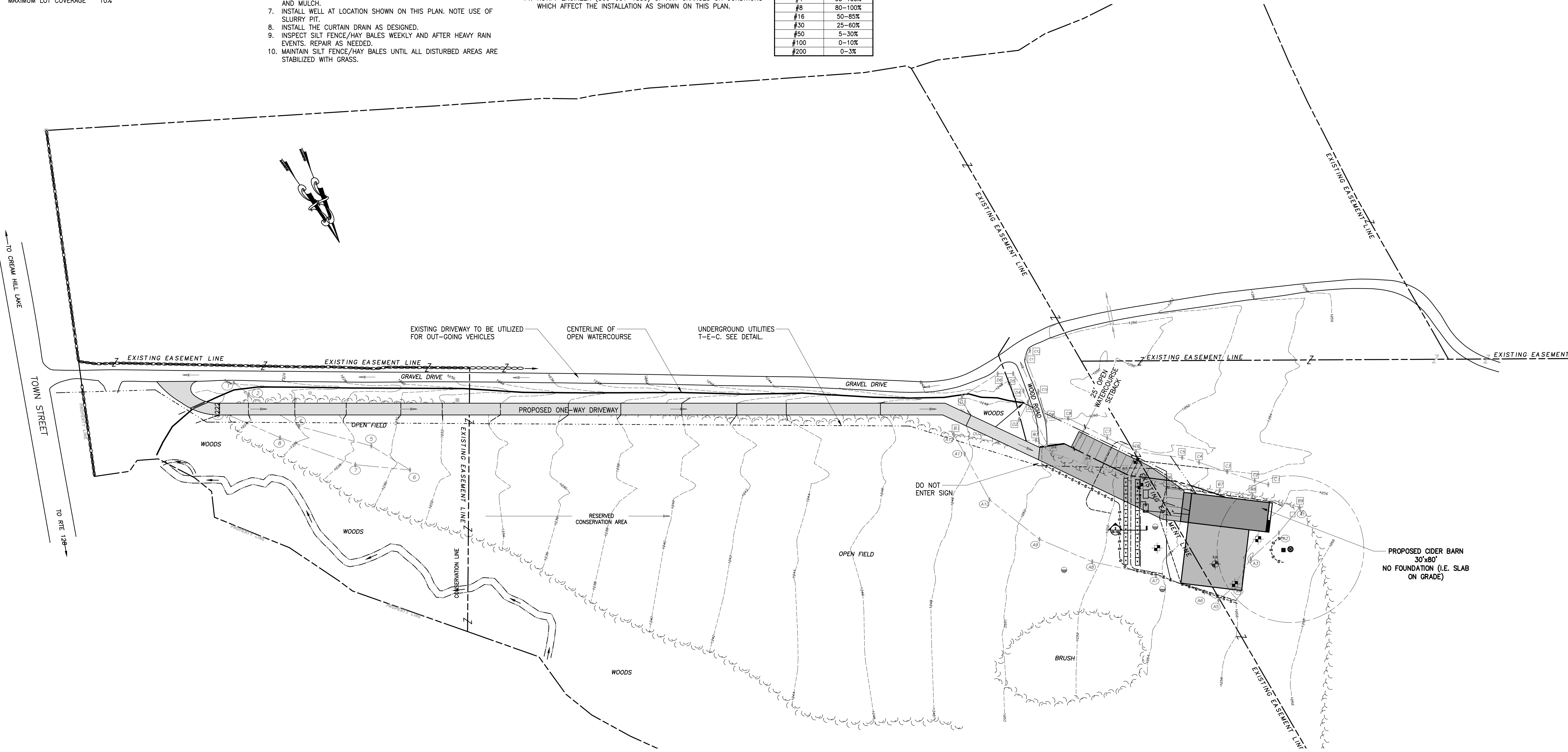
SIEVE	% PASSING
3/8"	100%
#4	95-100%
#8	80-100%
#16	50-85%
#30	25-60%
#50	5-30%
#100	0-10%
#200	0-3%

PROJECT LOCATION KEY PLAN

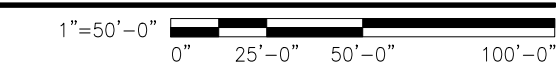


SYMBOLS LEGEND

- BOUNDARY LINE
- SETBACK LINE
- WETLAND LINE
- EASEMENT LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- - - - - SILT FENCE
- UTILITY LINE
- SEWER LINE
- STORMWATER LINE
- TREELINE
- FENCE
- ROCKWALL
- WELL
- PERCOLATION TEST
- TEST PIT



1 CIDER HOUSE SITE DEVELOPMENT PLAN



**Colby Engineering
And Consulting, LLC**

CEC

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GOSHEN, CONNECTICUT 06766
(860) 491-9664

DES'D BY : WGC	APP'D BY : WGC	DRAWN BY : JMM	SCALE : AS-NOTED
REVISION DATE :		DATE : 11-13-23	

VALID WITH RED SEAL ONLY

WILLIAM G. COLBY

**SITE DEVELOPMENT PLAN
PREPARED FOR GORDON RIDGEWAY
#142 TOWN STREET
CORNWALL, CT**

PROJECT # 23005
PLAN # CS-101

PERCOLATION TEST #1

TESTING DATE: 10/05/23
 PIT DEPTH: 18"
 PRESOAK: NONE - SOIL MOISTURE HIGH

TIME	DEPTH	RATE/MINUTE
0	8.75"	-
10	9.75"	10.0
20	10.5"	13.3
30	11.5"	10.0
40	12"	20.0
50	12.5"	20.0

USE 20.1 TO 30 MIN/INCH

PERCOLATION TEST #2

TESTING DATE: 10/05/23
 PIT DEPTH: 18"
 PRESOAK: NONE - SOIL MOISTURE HIGH

TIME	DEPTH	RATE/MINUTE
0	8.5"	-
10	9"	20.0
20	9.5"	20.0
30	10"	20.0
40	10.5"	20.0
50	10.875"	26.7

USE 20.1 TO 30 MIN/INCH

PERCOLATION TEST #3

TESTING DATE: 10/05/23
 PIT DEPTH: 18"
 PRESOAK: NONE - SOIL MOISTURE HIGH

TIME	DEPTH	RATE/MINUTE
0	9"	-
10	9.25"	40.0
20	9.5"	40.0
30	9.75"	40.0
40	10"	40.0
50	10.1875"	53.3

USE 20.1 TO 30 MIN/INCH

TEST PIT #1

TESTING DATE: 09/20/23
 PIT DEPTH: 36"
 LOCATION: FARTHEST NORTH

DEPTH	SOIL DESCRIPTION
0-12"	TOPSOIL
12-18"	LOAM TO CLAY TRANSITION, GRITTY
18-36"	CLAY

NOTES:
 ROOTS = 18" MOTTLES = 18"
 LEDGE = NONE WATER = 18"

TEST PIT #2

TESTING DATE: 09/20/23
 PIT DEPTH: 48"
 LOCATION: SOUTH OF TP#1

DEPTH	SOIL DESCRIPTION
0-10"	TOPSOIL
10-19"	LOAM TO CLAY TRANSITION, GRITTY
19-48"	CLAY

NOTES:
 ROOTS = 19" MOTTLES = 19"
 LEDGE = NONE WATER = 19"

TEST PIT #3

TESTING DATE: 09/20/22
 PIT DEPTH: 48"
 LOCATION: SOUTH OF TP#2

DEPTH	SOIL DESCRIPTION
0-10"	TOPSOIL
10-18"	LOAM TO CLAY TRANSITION, GRITTY
18-48"	CLAY

NOTES:
 ROOTS = 19" MOTTLES = 19"
 LEDGE = NONE WATER = 19"

TEST PIT #4

TESTING DATE: 09/20/23
 PIT DEPTH: 48"
 LOCATION: EAST OF TP#2

DEPTH	SOIL DESCRIPTION
0-10"	TOPSOIL
12-19"	LOAM TO CLAY TRANSITION, GRITTY
19-48"	CLAY

NOTES:
 ROOTS = 19" MOTTLES = 19"
 LEDGE = NONE WATER = 19"

TEST PIT #5

TESTING DATE: 09/20/23
 PIT DEPTH: 48"
 LOCATION: SOUTH OF TP#4

DEPTH	SOIL DESCRIPTION
0-10"	TOPSOIL
10-16"	LOAM TO CLAY TRANSITION, SILTY
16-48"	CLAY

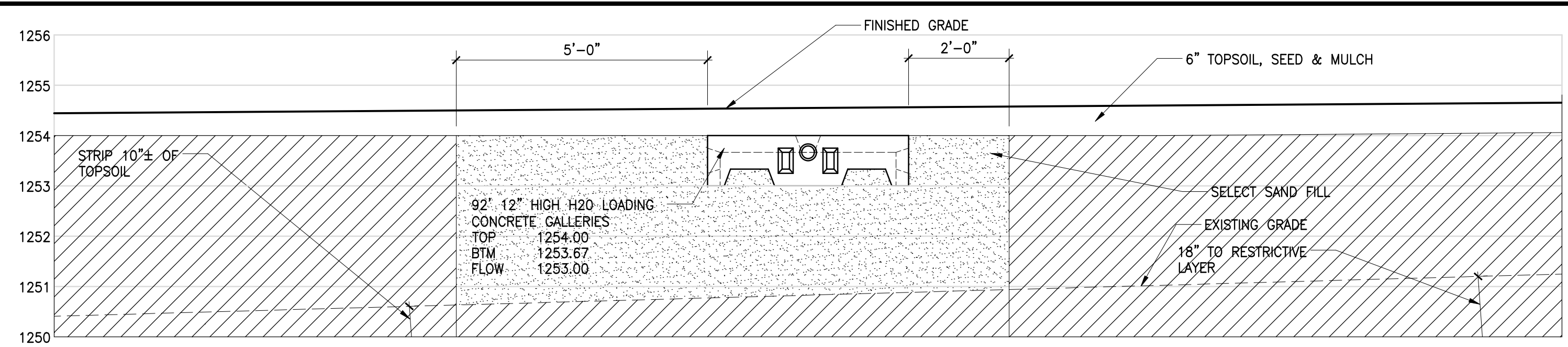
NOTES:
 ROOTS = 16" MOTTLES = 16"
 LEDGE = NONE WATER = 16"

TEST PIT #6

TESTING DATE: 09/20/23
 PIT DEPTH: 48"
 LOCATION: SOUTH OF TP#4

DEPTH	SOIL DESCRIPTION
0-10"	TOPSOIL
10-16"	LOAM TO CLAY TRANSITION, SILTY
16-48"	CLAY

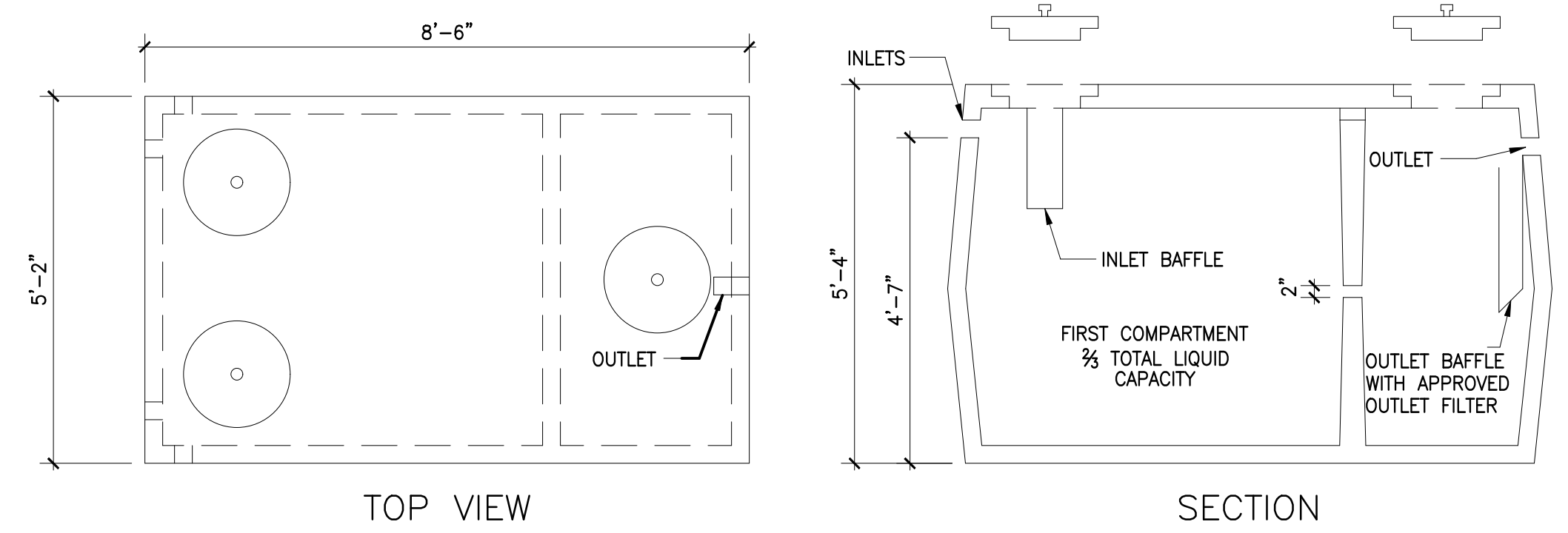
NOTES:
 ROOTS = 16" MOTTLES = 16"
 LEDGE = NONE WATER = 16"



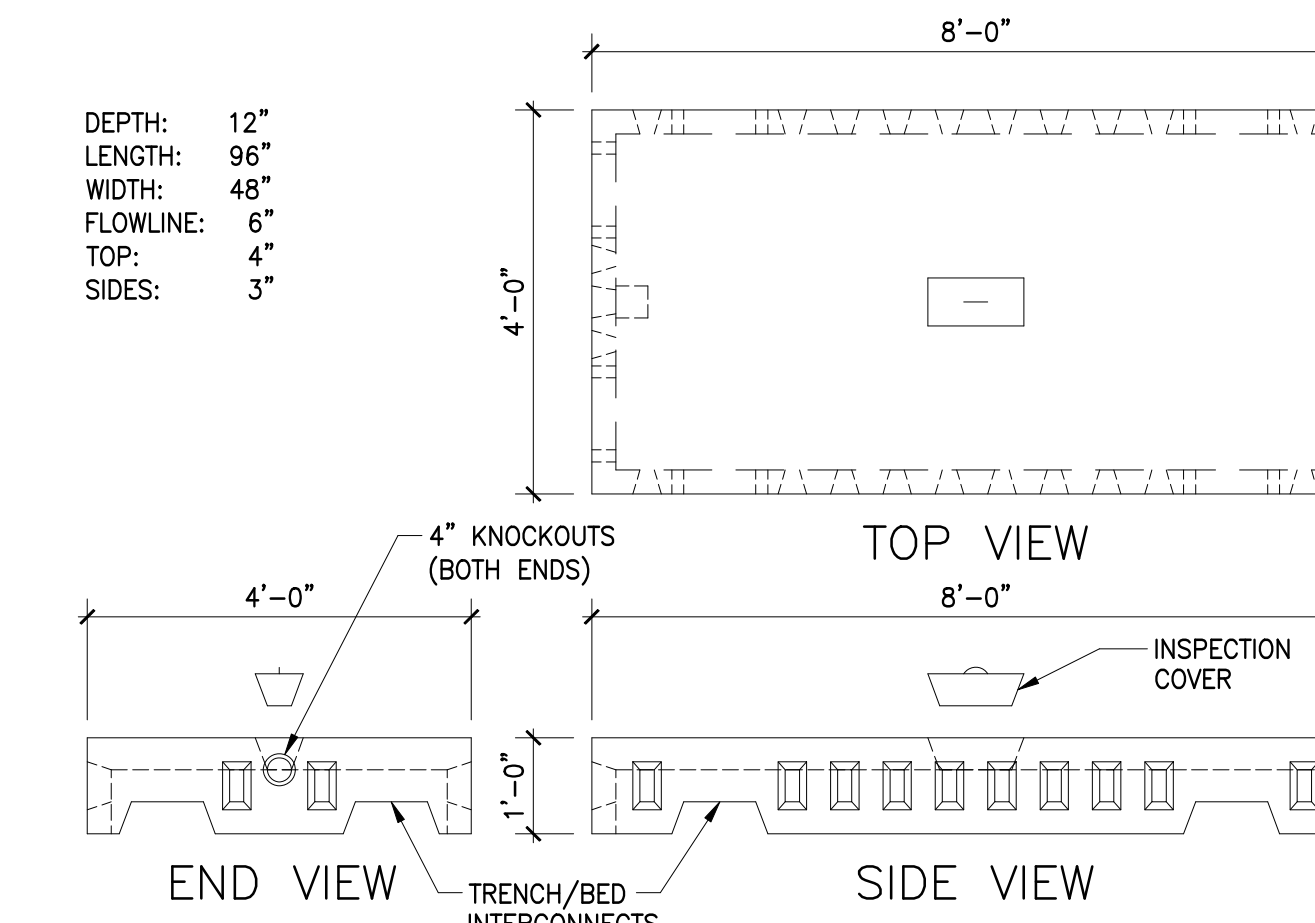
2 SYSTEM PROFILE SECTION - CIDER HOUSE

SYMBOLS LEGEND

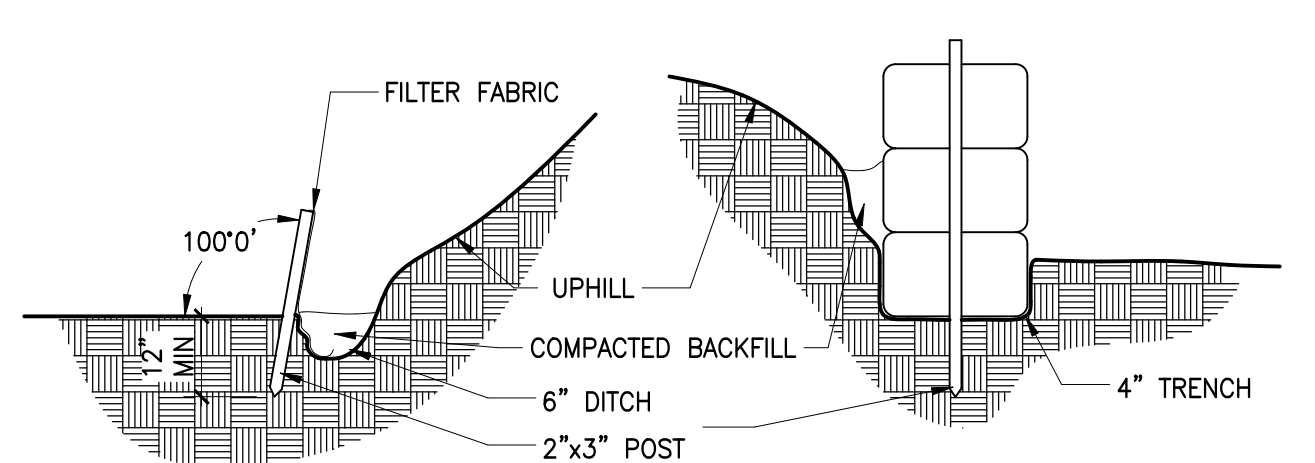
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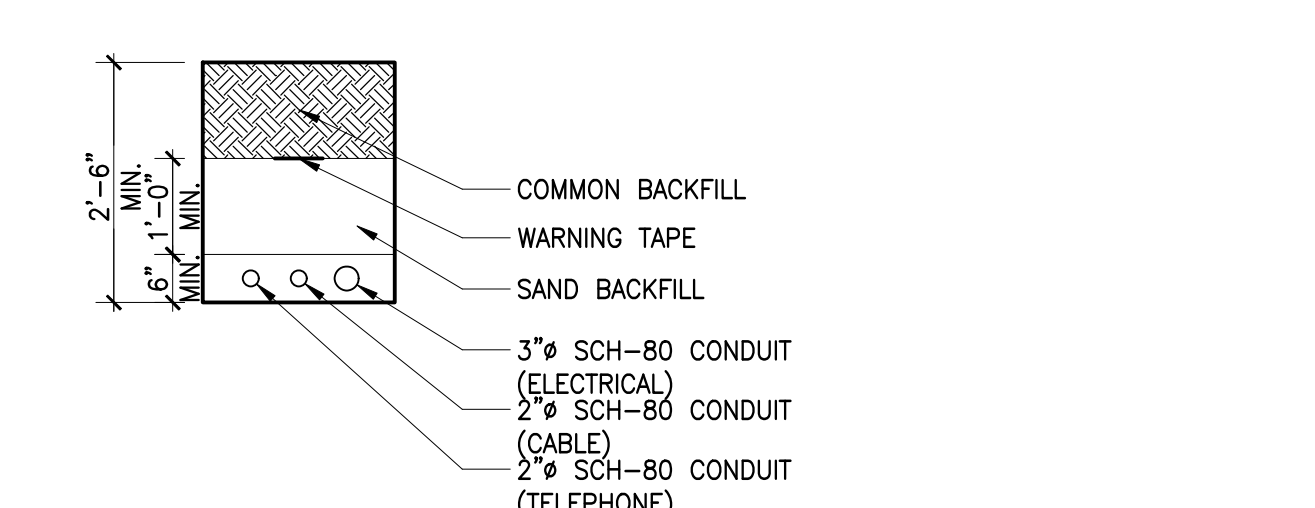
3 RICHARDS 1000 GALLON SEPTIC TANK DETAIL



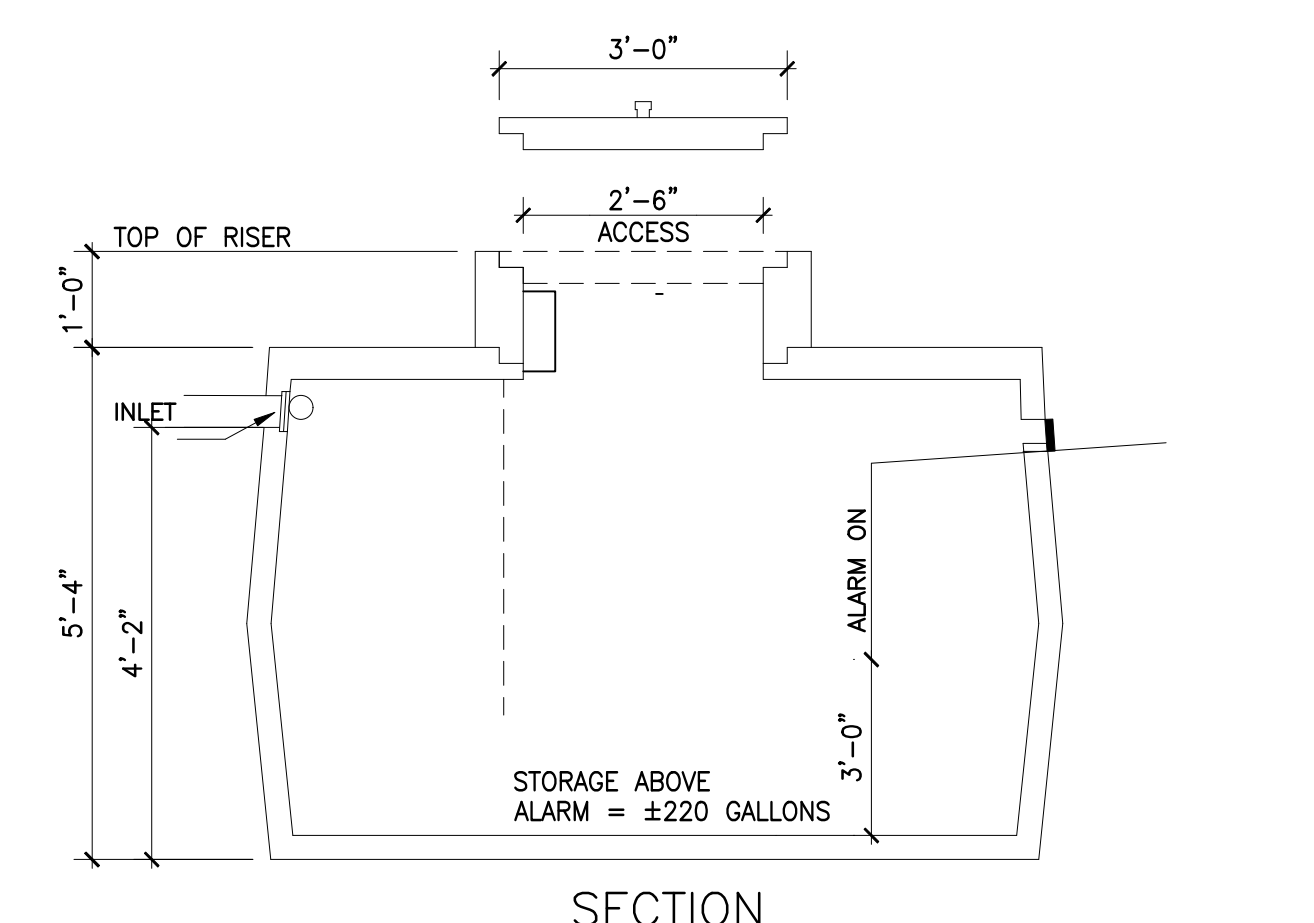
4 RICHARDS LO-PRO 12" LEACHING CHAMBER DETAIL



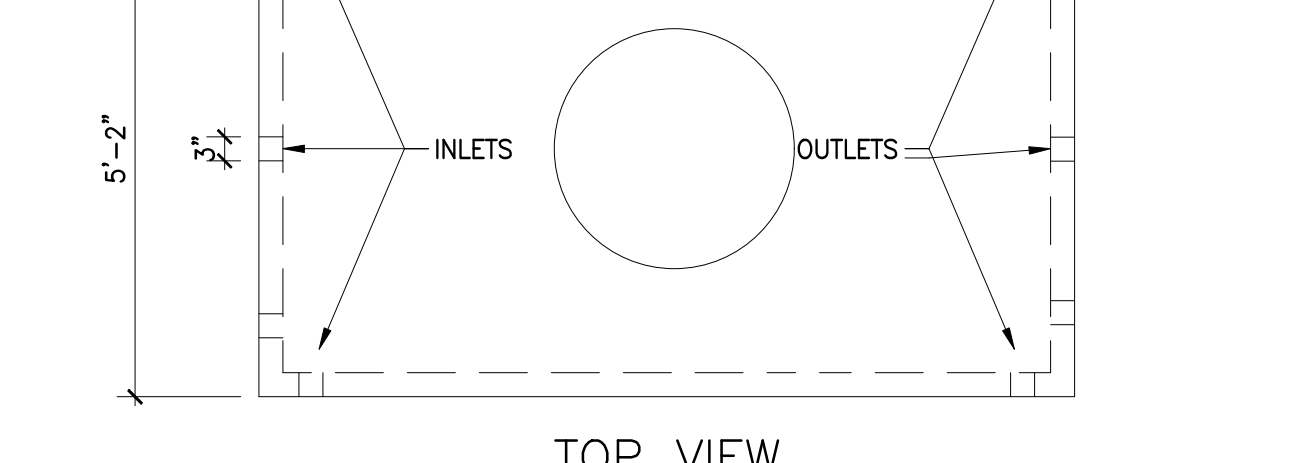
5 SOIL EROSION CONTROL PROVISIONS



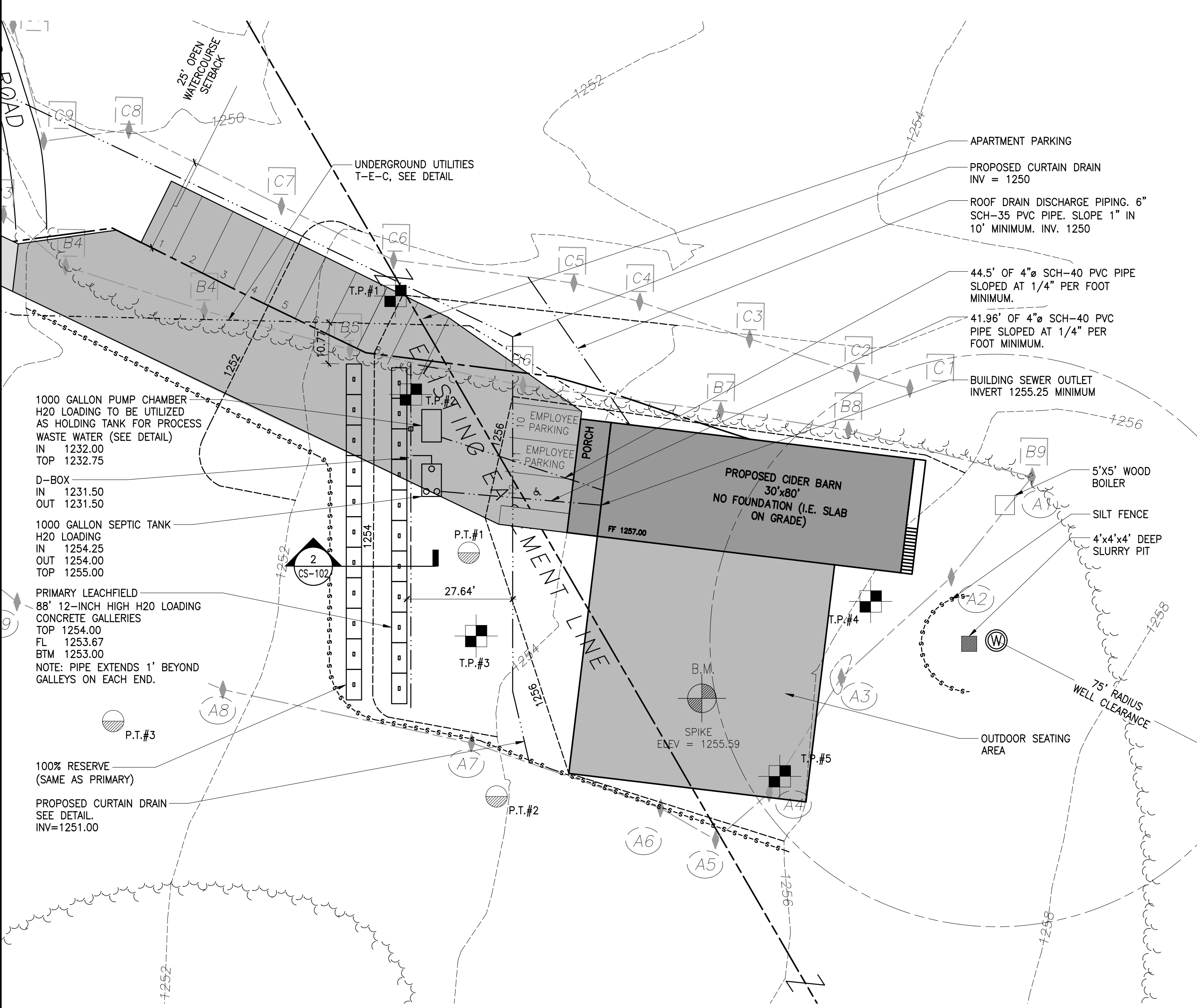
7 TELEPHONE, CABLE & ELECTRIC TRENCH DETAIL



6 1000 GALLON HOLDING TANK



8 HIGH OVERFLOW D-BOX DETAIL



1 ENLARGED SITE PLAN

**Colby Engineering
And Consulting, LLC**

CEC

4 BRYNMOOR COURT
GOSHEN, CONNECTICUT 06756

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**SITE DEVELOPMENT PLAN & DETAILS
 PREPARED FOR GORDON RIDGEWAY
 #142 TOWN STREET
 CORNWALL, CT**

23005

CS-102