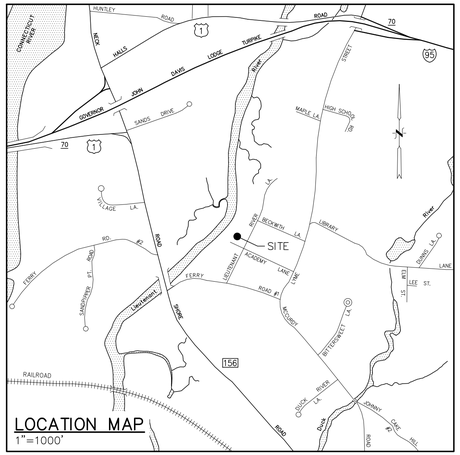


LOCATION MAP
1"=1000'

GENERAL NOTES:

1. THIS PLAN WAS COMPILED USING THE FOLLOWING REFERENCE INFORMATION:
   - A) A CLASS A–2 SURVEY MAP ENTITLED "PROPERTY SURVEY AND TOPOGRAPHY, PREPARED FOR GRANT L. & MARGARET C. CAMBRIDGE, ACADEMY LANE, OLD LYME, CONNECTICUT", SCALE: 1"=20', DATED: SEPTEMBER 2, 2020 WITH REVISIONS THROUGH DECEMBER 4, 2020, PREPARED BY RICHARD W. GATES, LAND SURVEYOR.
   - B) OLD LYME WPCA LIQUID WASTE DISPOSAL TICKETS FOR 6 AND 8 LIEUTENANT RIVER LANE, OLD LYME, CONNECTICUT ON FILE AT LEDGE LIGHT HEALTH DISTRICT.
   - C) A 2016 AERIAL IMAGE OF 15 ACADEMY LANE, OLD LYME CONNECTICUT AND SURROUNDING PROPERTIES, MAP TILE: 1106755E, SOURCE: CONNECTICUT ENVIRONMENTAL CONDITIONS ONLINE (CT ECO).
2. THE PROPERTY OWNER IS GRANT & MARGARET CAMBRIDGE OF 15 ACADEMY LANE, OLD LYME, CT 06371. THE APPLICANT IS SAPIA BUILDERS, LLC.
3. THE SUBJECT PARCEL IS IDENTIFIED AS LOT 29 ON TAX ASSESSOR'S MAP 57. THE DEED REFERENCE OF THE PROPERTY IS VOLUME 437 PAGE 1067. THE AREA OF THE PARCEL IS 42,860± S.F. OR 0.98± ACRES.
4. THE SUBJECT PROPERTY IS LOCATED WITHIN THE 'RESIDENCE R–15' ZONING DISTRICT. THIS PROPERTY IS LOCATED WITHIN THE COASTAL AREA MANAGEMENT ZONE AND THE CONNECTICUT RIVER GATEWAY CONSERVATION ZONE. THIS PARCEL IS LOCATED PARTIALLY WITHIN FEMA FLOOD HAZARD ZONE AE (EL. 11) AND THE OLD LYME FLOOD ORDINANCE ADDS ONE FOOT TO ELEVATION 12 (NAVD–88).
6. THE APPLICANT IS PROPOSING TO CONSTRUCT BUILDING ADDITIONS ONTO THE EXISTING 4–BEDROOM, 2 1/2–STORY, YEAR–ROUND DWELLING AS SHOWN AND CONVERT IT FROM 4 TO 3 BEDROOMS, REMOVE THE EXISTING NON–CONFORMING DETACHED GARAGE, CONSTRUCT A NEW 1–BEDROOM, 2–STORY, YEAR–ROUND CARRIAGE HOUSE (RECENTLY APPROVED AND TO BE BUILT), CONSTRUCT A NEW POOL HOUSE AND INGROUND POOL, INSTALL A NEW PEA STONE DRIVEWAY AND OTHER ASSOCIATED IMPROVEMENTS. ALL BUILDINGS AND THE POOL WILL BE LOCATED ENTIRELY OUTSIDE OF FEMA FLOOD ZONE AE (EL. 11).
7. THE PURPOSE OF THIS PLAN IS FOR REVIEW BY THE OLD LYME ZONING BOARD OF APPEALS TO SEEK NECESSARY VARIANCES, THE OLD LYME ZONING COMMISSION FOR A SPECIAL PERMIT AND THE LEDGE LIGHT HEALTH DISTRICT (LLHD) FOR COMPLIANCE WITH THE CONNECTICUT PUBLIC HEALTH CODE.
8. THIS PROPERTY IS SERVED BY A PRIVATE WELL AND SUBSURFACE SEWAGE DISPOSAL SYSTEMS. THERE ARE NO KNOWN WELLS OR ANY OTHER KNOWN DESIGN CONFLICTS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEMS.
9. ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD–88 DATUM PER REF. MAP A.

THE PURPOSE OF THIS PLAN IS GENERALLY FOR ZONING. FOR CLARITY, SOME SITE FEATURES MAY NOT BE SHOWN OR CALLED OUT ON THIS PLAN. REFER TO THE GRADING, SEPTIC & UTILITY PLAN ON SHEET 2 OF 4 FOR MORE INFORMATION.

BUILDING GROSS FLOOR AREA

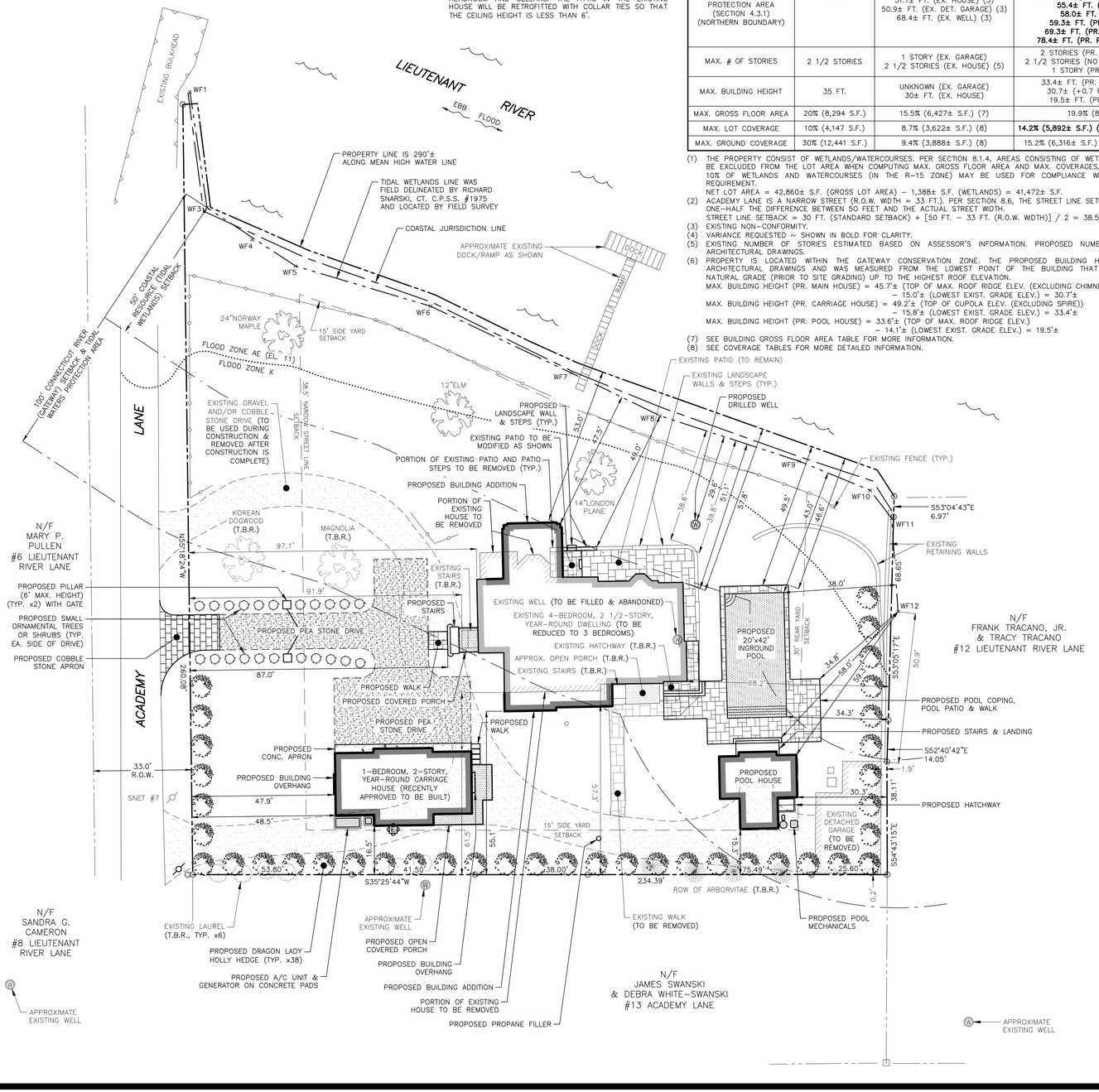
	ITEM	EXSITING	PROPOSED
MAIN HOUSE	ATTIC	975 S.F.	---
	2ND FL.	2,092 S.F.	2,660 S.F.
	1ST FL.	2,422 S.F.	2,596 S.F.
	ENCL. PORCH	117 S.F.	---
	OPEN PORCH	81 S.F.	52 S.F.
	CONSERVATORY	---	369 S.F.
DETACHED GARAGE		740 S.F.	---
CARRIAGE HOUSE	2ND FL.	---	829 S.F.
	1ST FL.	---	1,066 S.F.
	PORCH	---	166 S.F.
POOL HOUSE		---	523 S.F.
TOTAL		6,427± S.F.	8,261± S.F.

*THE EXISTING G.F.A. WAS ESTIMATED PER ASSESSOR'S INFORMATION. THE PROPOSED G.F.A. WAS ESTIMATED BASED ON ARCHITECTURAL DRAWINGS. FLOOR AREA COMPUTATIONS EXCLUDE AREAS WITH LESS THAN 6' OF HEADROOM AND CELLARS. THE ATTIC IN THE EXISTING HOUSE WILL BE RETROFITTED WITH COLLAR TIES SO THAT THE CEILING HEIGHT IS LESS THAN 6'.

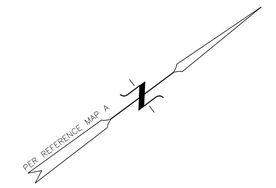
ZONING DATA TABLE ~ OLD LYME 'RESIDENCE R–15' DISTRICT

ITEM	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	15,000 S.F.	42,860± S.F. (GROSS) (1) 41,472± (NET) (1)	42,860± S.F. (NO CHANGE) (GROSS) (1) 41,472± (NO CHANGE) (NET) (1)
NARROW STREET LINE SETBACK (2) (ACADEMY LANE)	38.5 FT. (2)	91.9± FT. (EX. STAIRS) 97.1± FT. (EX. HOUSE)	47.9± FT. (PR. CAR. HOUSE (BAY WINDOW)) 48.5± FT. (PR. CARRIAGE HOUSE) 87.0± FT. (–4.9 FT.) (PR. STAIRS) 97.1± FT. (NO CHANGE) (EX. HOUSE)
OTHER YARD SETBACK (SOUTHERN BOUNDARY)	15 FT.	0.2± FT. (EX. DET. GARAGE) (3) 57.3± FT. (EX. STAIRS) 61.5± FT. (EX. HOUSE)	16.5± FT. (PR. CARRIAGE HOUSE) 15.3± FT. (PR. POOL HOUSE) 55.1± FT. (–6.4 FT.) (PR. ADDITION)
REAR YARD SETBACK (EASTERN BOUNDARY)	30 FT.	1.9± FT. (EX. DET. GARAGE) (3) 68.2± FT. (EX. HOUSE)	30.3± FT. (PR. POOL HOUSE) 34.3± FT. (PR. POOL) 68.2± FT. (NO CHANGE) (EX. HOUSE)
50' COASTAL RESOURCE (TIDAL WETLANDS) SETBACK (SECTION 4.2.12) (NORTHERN BOUNDARY)	50 FT.	38.6± FT. (EX. L.S. WALL) (3) 39.8± FT. (EX. PATIO) (3)	**29.6± FT. (PR. WELL) (4)** **34.8± FT. (PR. PATIO) (4)** **38.0± FT. (PR. POOL) (4)** **47.5± FT. (PR. ADDITION) (4)** **49.0± FT. (PR. L.S. WALL/PATIO STEPS) (4)**
100' CONNECTICUT RIVER (GATEWAY) SETBACK (SECTION 4.10.3) & 100' TIDAL WATERS PROTECTION AREA (SECTION 4.3.1) (NORTHERN BOUNDARY)	100 FT.	38.6± FT. (EX. L.S. WALL) (3) 39.8± FT. (EX. PATIO) (3) 51.1± FT. (EX. HOUSE) (3) 50.9± FT. (EX. DET. GARAGE) (3) 68.4± FT. (EX. WELL) (3)	**29.6± FT. (PR. WELL) (4)** **34.8± FT. (PR. PATIO) (4)** **38.0± FT. (PR. POOL) (4)** **47.5± FT. (–3.6 FT.) (PR. ADDITION) (4)** **49.0± FT. (PR. L.S. WALL/PATIO STEPS) (4)** **53.5± FT. (CONCEPT. WTW SYSTEM) (4)** **55.4± FT. (PR. DRYWELL) (4)** **58.0± FT. (PR. STAIRS) (4)** **59.3± FT. (PR. POOL HOUSE) (4)** **69.3± FT. (PR. SEPTIC SYSTEM) (4)** **78.4± FT. (PR. POOL MECHANICALS) (4)**
MAX. # OF STORIES	2 1/2 STORIES	1 STORY (EX. GARAGE) 2 1/2 STORIES (EX. HOUSE) (5)	2 STORIES (PR. CARRIAGE HOUSE) (5) 2 1/2 STORIES (NO CHANGE) (EX. HOUSE) (5) 1 STORY (PR. POOL HOUSE) (5)
MAX. BUILDING HEIGHT	35 FT.	UNKNOWN (EX. GARAGE) 30± FT. (EX. HOUSE)	33.4± FT. (PR. CARRIAGE HOUSE) (6) 30.7± (+0.7 FT.) (PR. HOUSE) (6) 19.5± FT. (PR. POOL HOUSE) (6)
MAX. GROSS FLOOR AREA	20% (8,294 S.F.)	15.5% (6,427± S.F.) (7)	19.9% (8,261± S.F.) (7)
MAX. LOT COVERAGE	10% (4,147 S.F.)	8.7% (3,622± S.F.) (8)	**14.2% (5,892± S.F.) (+5.5% (+2,270 S.F.)) (4)(8)**
MAX. GROUND COVERAGE	30% (12,441 S.F.)	9.4% (3,888± S.F.) (8)	15.2% (6,316± S.F.) (+5.8% (+2,428 S.F.)) (8)

(1) THE PROPERTY CONSIST OF WETLANDS/WATERCOURSES. PER SECTION 8.1.4, AREAS CONSISTING OF WETLANDS/WATERCOURSES SHALL BE EXCLUDED FROM THE LOT AREA WHEN COMPUTING MAX. GROSS FLOOR AREA AND MAX. COVERAGES. PER SECTION 8.2.1A, UP TO 10% OF WETLANDS AND WATERCOURSES (IN THE R–15 ZONE) MAY BE USED FOR COMPLIANCE WITH THE MINIMUM LOT AREA REQUIREMENT.
NET LOT AREA = 42,860± S.F. (GROSS LOT AREA) – 1,388± S.F. (WETLANDS) = 41,472± S.F.
(2) ACADEMY LANE IS A NARROW STREET (R.O.W. WIDTH = 33 FT.). PER SECTION 8.6, THE STREET LINE SETBACK SHALL BE INCREASE BY ONE–HALF THE DIFFERENCE BETWEEN 50 FEET AND THE ACTUAL STREET WIDTH.
STREET LINE SETBACK = 30 FT. (STANDARD SETBACK) + [50 FT. – 33 FT. (R.O.W. WIDTH)] / 2 = 38.5 FT.
(3) EXISTING NON–CONFORMITY.
(4) VARIANCE REQUESTED ~ SHOWN IN BOLD FOR CLARITY.
(5) EXISTING NUMBER OF STORIES ESTIMATED BASED ON ASSESSOR'S INFORMATION. PROPOSED NUMBER OF STORIES BASED ON ARCHITECTURAL DRAWINGS.
(6) PROPERTY IS LOCATED WITHIN THE GATEWAY CONSERVATION ZONE. THE PROPOSED BUILDING HEIGHT WAS ESTIMATED PER ARCHITECTURAL DRAWINGS AND WAS MEASURED FROM THE LOWEST POINT OF THE BUILDING THAT IS VISIBLE ABOVE EXISTING NATURAL GRADE (PRIOR TO SITE GRADING) UP TO THE HIGHEST ROOF ELEVATION.
MAX. BUILDING HEIGHT (PR. MAIN HOUSE) = 45.7'± (TOP OF MAX. ROOF RIDGE ELEV. (EXCLUDING CHIMNEY)) – 15.0'± (LOWEST EXIST. GRADE ELEV.) = 30.7'±
MAX. BUILDING HEIGHT (PR. CARRIAGE HOUSE) = 49.2'± (TOP OF CUPOLA ELEV. (EXCLUDING SPIRE)) – 15.8'± (LOWEST EXIST. GRADE ELEV.) = 33.4'±
MAX. BUILDING HEIGHT (PR. POOL HOUSE) = 33.6'± (TOP OF MAX. ROOF RIDGE ELEV.) – 14.1'± (LOWEST EXIST. GRADE ELEV.) = 19.5'±
(7) SEE BUILDING GROSS FLOOR AREA TABLE FOR MORE INFORMATION.
(8) SEE COVERAGE TABLES FOR MORE DETAILED INFORMATION.



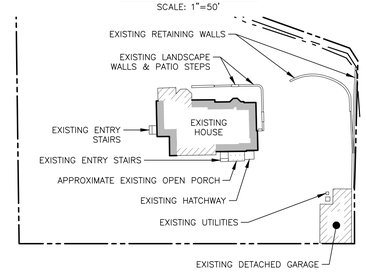
20 10 0 20 40 60
15 5
SCALE IN FEET



LEGEND

- EXISTING PROPERTY/STREET LINE
- BUILDING SETBACK LINE
- COASTAL JURISDICTION LINE
- TIDAL WETLAND BOUNDARY
- 100' CONSERVATION ZONE (GATEWAY) SETBACK
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- PROPOSED BUILDING
- ×WF1 TIDAL WETLAND FLAG
- EXISTING WELL
- PROPOSED WELL
- EXISTING ELECTRIC METER
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING IRON PIPE/ROD
- EXISTING CONCRETE BOUND

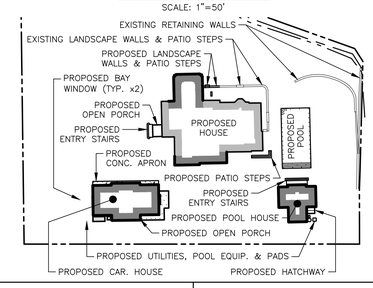
EXISTING COVERAGES
SCALE: 1"=50'



NET LOT AREA:	41,472 S.F.
EX. HOUSE, PORCH & HATCH:	2771 S.F.
EX. DETACHED GARAGE:	740 S.F.
EX. ENTRY STAIRS & PATIO STEPS:	111 S.F.
EX. LOT COVERAGE:	3,622 S.F.
PERCENT EXISTING LOT COVERAGE:	3,622 S.F. / 41,472 S.F. = 8.7%

NET LOT AREA:	41,472 S.F.
EX. HOUSE, PORCH & HATCH:	2,771 S.F.
EX. DETACHED GARAGE:	740 S.F.
EX. ENTRY STAIRS & PATIO STEPS:	111 S.F.
EX. WALLS:	253 S.F.
EX. UTILITIES:	13 S.F.
EX. GROUND COVERAGE:	3,888 S.F.
PERCENT EXISTING GROUND COVERAGE:	3,888 S.F. / 41,472 S.F. = 9.4%

PROPOSED COVERAGES
SCALE: 1"=50'



NET LOT AREA:	41,472 S.F.
EX. HOUSE, PR. ADDIT., PORCH:	3,100 S.F.
PR. CAR. HOUSE, BAY WDW., PORCH:	1,231 S.F.
PR. POOL HOUSE, HATCHWAY:	551 S.F.
PR. POOL:	840 S.F.
EX. ENTRY STAIRS & PATIO STEPS:	170 S.F.
PR. LOT COVERAGE:	5,892 S.F.
PERCENT PROPOSED LOT COVERAGE:	5,892 S.F. / 41,472 S.F. = 14.2%

NET LOT AREA:	41,472 S.F.
EX. HOUSE, PR. ADDIT., PORCH:	3,100 S.F.
PR. CAR. HOUSE, BAY WDW, PORCH:	1,231 S.F.
PR. POOL HOUSE, HATCHWAY:	551 S.F.
PR. POOL:	840 S.F.
EX. ENTRY STAIRS & PATIO STEPS:	170 S.F.
EX. WALLS:	263 S.F.
PR. POOL EQ., UTILITIES & PADS:	57 S.F.
PR. CONCRETE APRON:	104 S.F.
PR. LOT COVERAGE:	6,316 S.F.
PERCENT PROPOSED GROUND COVERAGE:	6,316 S.F. / 41,472 S.F. = 15.2%

PLAN PREPARED BY:
INDIGO LAND DESIGN, LLC
JOSEPH WREN, P.E.
CT REG. NO. 21090
40 ELM STREET, 2ND FLOOR
OLD SAYBROOK, CT 06475
PHONE: (860) 391-3893
FAX: (860) 391-3854

THE EMBOSSED SEAL OF THE ENGINEER MUST BE AFFIXED TO THIS MAP TO BE VALID

#	DATE	DESCRIPTION	BY
1	1/19/2021	PHASE II REVISIONS	RG

COASTAL SITE PLAN

PREPARED FOR SAPIA BUILDERS
15 ACADEMY LANE -- MAP 57 LOT 29
OLD LYME, CONNECTICUT

DATE: NOVEMBER 19, 2020
SCALE: 1"=20'
DRAWN BY: RG
CHECKED BY: JW
DWG. NO.: CSP-1
SHEET NO.: 1 of 4
JOB. NO.: 2020-631

CONSTRUCTION NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATIONS AND INFORMATION PROVIDED BY OTHERS. THEIR ACTUAL LOCATION MAY VARY FROM THOSE INDICATED AND ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 800-922-4455 TO MARK OUT ALL UNDERGROUND UTILITIES A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE TOWN OF OLD LYME STANDARDS AND REGULATIONS.

2. ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF OLD LYME AND THE CUSTODIAL UTILITY COMPANIES. ALL UTILITY TRENCHES SHALL BE NO LESS THAN 5 FEET FROM THE SEPTIC SYSTEMS AND NOT BACKFILLED WITH FREE DRAINING MATERIAL. ALL WATER LINES SHALL BE A MINIMUM OF 10 FEET FROM ANY PART OF THE SEPTIC SYSTEMS.

3. ALL PROPERTY LINES SHALL BE VERIFIED IN THE FIELD. NO PRIVATE PROPERTY SHALL BE DISTURBED UNLESS PROPER RIGHTS ARE OBTAINED PRIOR TO CONSTRUCTION.

4. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM AND ABIDE BY ANY APPLICABLE 'NO HAMMER' TIME PERIODS OF THE COMMUNITY.

5. THE CONTRACTOR SHALL OBTAIN, REVIEW AND ADHERE TO ALL REQUIREMENTS AND ANY CONDITIONS OF APPROVAL OF THE TOWN OF OLD LYME AND/OR THE LEDGE LIGHT HEALTH DISTRICT (LLHD).

6. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES, WETLANDS AND COASTAL RESOURCES FROM ANY EROSION AND/OR SEDIMENTATION. SILT FENCE SHALL BE INSTALLED AS SHOWN AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.

7. THE EXISTING DWELLING (BUILD CA. 1931) HAS A FULL BASEMENT AND IT IS UNKNOWN WHETHER OR NOT IT HAS FOOTING DRAINS. THE PROPOSED BUILDING ADDITIONS ONTO THE EXISTING MAIN HOUSE AND THE PROPOSED POOL HOUSE WILL HAVE FULL BASEMENTS WITH FOOTING DRAINS. THE PROPOSED CARRIAGE HOUSE WILL BE CONSTRUCTED ON SLAB AND WILL NOT HAVE FOOTING DRAINS. THERE ARE NO KNOWN DOWNGRADIENT SEPTIC SYSTEM COMPONENTS WITHIN 25 FEET OF ANY UPGRADIENT GROUNDWATER DRAINS OR ANY UPGRADIENT SEPTIC SYSTEM COMPONENTS WITHIN 50 FEET OF ANY DOWNGRADIENT GROUNDWATER DRAINS.

8. ALL EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED. THE CONTRACTOR SHALL GRADE THE PROPERTY IN SUCH A MANNER TO MAINTAIN EXISTING LOCAL DRAINAGE PATTERNS AND TO PREVENT EXCESS RUNOFF AND/OR PONDING ON ADJACENT PROPERTIES BOTH DURING AND AFTER CONSTRUCTION.

9. THE APPROXIMATE LOCATION OF THE EXISTING SEPTIC SYSTEMS ARE SHOWN HEREON. ALL EXISTING SEPTIC SYSTEM COMPONENTS SHALL BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION. THE EXISTING SEPTIC SYSTEMS SERVING THE MAIN HOUSE AND DETACHED GARAGE SHALL BE PUMPED OUT AS NECESSARY AND REMOVED AND/OR PROPERLY FILLED AND ABANDONED IN ACCORDANCE WITH THE CONNECTICUT PUBLIC HEALTH CODE AND ALL APPLICABLE LOCAL REGULATIONS.

10. ALL PROPOSED UTILITIES (I.E., A/C UNIT, GENERATOR AND UNDERGROUND PROPANE TANK) SHALL BE INSTALLED IN STRICT CONFORMANCE WITH ALL APPLICABLE CODES AND SPECIFICATIONS AND REQUIRED SEPARATION DISTANCES.

11. GENERAL LOT GRADING AND THE FINISHED FLOOR ELEVATIONS AND SLAB ELEVATIONS ARE BASED ON AVAILABLE INFORMATION. THESE ELEVATIONS MAY BE ADJUSTED BY THE CONTRACTOR TO CONFORM TO ACTUAL FIELD CONDITIONS UPON REVIEW AND APPROVAL OF THE DESIGN ENGINEER.

12. THE PROPOSED BUILDING AND IMPROVEMENTS SHALL BE STAKED OUT BY A LICENSED LAND SURVEYOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE BUILDINGS AND IMPROVEMENTS IN THE EXACT LOCATION SHOWN AND SHALL BE CONSTRUCTED TO THE EXACT DIMENSIONS SHOWN ON THE LATEST SITE AND ARCHITECTURAL PLANS IN ACCORDANCE WITH VARIANCES GRANTED. ALL DIMENSIONS SHALL ACCOUNT FOR ANY SIDING OR CLADDING.

13. THIS PROPERTY IS SERVED BY A PRIVATE WELL AND SUBSURFACE SEWAGE DISPOSAL SYSTEMS. THERE ARE NO KNOWN WELLS OR ANY OTHER KNOWN DESIGN CONFLICTS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEMS. THE WELL IN THE BASEMENT OF THE EXISTING HOUSE SHALL BE PROPERLY FILLED AND ABANDONED BY A LICENSED WELL DRILLER AND A NEW DRILLED WELL SHALL BE INSTALLED AS SHOWN. THE APPROXIMATE WELL LOCATIONS FOR 13 ACADEMY LANE AND 8 LIEUTENANT RIVER LANE ARE SHOWN HEREON AND THE WELL LOCATION FOR 6 LIEUTENANT RIVER LANE IS UNKNOWN. CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE WELLS ON THESE PROPERTIES AND SHALL VERIFY THAT NONE OF THEM ARE WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEMS ON THE SUBJECT PROPERTY.

14. IT IS ANTICIPATED THAT THERE WILL BE NO LONG TERM TEMPORARY SOIL STOCKPILING. ALL STRIPPED TOPSOIL AND EXCAVATED SOIL WILL BE HAULED OFF SITE. NO STOCKPILES SHALL BE PLACED WITHIN THE 100-FOOT COASTAL RESOURCE AREA.

CONCEPTUAL WATER TREATMENT WASTEWATER (WTW) SYSTEM

WTW SYSTEM INFORMATION:

IT IS UNKNOWN WHETHER THE WELL WATER WILL NEED TO BE TREATED OR NOT. A WTW SYSTEM AREA IS SHOWN FOR CONCEPTUAL PURPOSES ONLY.

USE DISCHARGE VOLUME PER CYCLE: 250 GAL./CYCLE
CYCLE FREQUENCY: 1x PER DAY

WTW DISPERSAL SYSTEM STORAGE VOLUME REQUIRED:
250 GPD x 1.5 = 375 GALLONS = 50.1± C.F.

WTW DISPERSAL SYSTEM INFORMATION:
WTW DISPERSAL SYSTEM – 8'x6'x3' (LxWxD) CRUSHED STONE BED STORAGE VOLUME PROVIDED = 8'x6'x3' x 40% VOIDS = 57.6 C.F.

SEPTIC SYSTEM KEY (PROPOSED MAIN HOUSE)

(A) 29.8± L.F. 4" SCH. 40 ASTM D1785 SOLID PVC BUILDING SEWER PIPE @ ¼" PER FT. MIN. SLOPE WITH 12" MIN. COVER. BUILDING SEWER PIPE SHALL 45° BENDS AS REQUIRED WITH A TEE WYE CLEAN-OUT TO GRADE AS SHOWN.*

(B) 1,000-GALLON H-20 CONCRETE SEPTIC TANK (JOLLEY PRECAST OR EQUIVALENT) (SEE DETAIL).*

(C) 4" SCH. 40 ASTM D1785 SOLID PVC PIPE TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.

(D) 20.0 L.F. (TEN 2-FOOT UNITS) OF GEOMATRIX GST6236 LEACHING SYSTEM (SEE DETAIL).

(E) 4" SCH. 40 ASTM D1785 INSPECTION PORT – GEOMATRIX PART NO.: IPGST15 (SEE DETAIL).*

*SEPTIC TANK SHALL HAVE H-20 RISERS TO WITHIN 12" OF FINISHED GRADE. TEE WYE CLEAN-OUT SHALL BE EXTENDED TO WITHIN 12" OF FINISHED GRADE. INSPECTION PORT SHALL HAVE A GEOMATRIX RISER AND VALVE COVER TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.

REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET ST-1 (3 OF 4) FOR PROPOSED INVERT ELEVATIONS.

SEPTIC SYSTEM KEY (PROPOSED CARRIAGE HOUSE)

(A) 39.0± L.F. 4" SCH. 40 ASTM D1785 SOLID PVC BUILDING SEWER PIPE @ ¼" PER FT. MIN. SLOPE WITH 12" MIN. COVER. BUILDING SEWER PIPE SHALL 45° BENDS AS REQUIRED WITH A TEE WYE CLEAN-OUT TO GRADE AS SHOWN.*

(B) 1,000-GALLON CONCRETE SEPTIC TANK (UNITED CONCRETE OR EQUIVALENT) (SEE DETAIL).*

(C) 4" SCH. 40 ASTM D1785 SOLID PVC PIPE TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.

(D) 16.0 L.F. (EIGHT 2-FOOT UNITS) OF GEOMATRIX GST6236 LEACHING SYSTEM (SEE DETAIL).

(E) 4" SCH. 40 ASTM D1785 INSPECTION PORT – GEOMATRIX PART NO.: IPGST15 (SEE DETAIL).*

*SEPTIC TANK SHALL HAVE RISERS TO WITHIN 12" OF FINISHED GRADE. TEE WYE CLEAN-OUT SHALL BE EXTENDED TO WITHIN 12" OF FINISHED GRADE. INSPECTION PORT SHALL HAVE A GEOMATRIX RISER AND VALVE COVER TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.

REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET ST-1 (3 OF 4) FOR PROPOSED INVERT ELEVATIONS.

SEPTIC SYSTEM KEY (PROPOSED POOL HOUSE)

(A) 25.0± L.F. 4" SCH. 40 ASTM D1785 SOLID PVC BUILDING SEWER PIPE @ ¼" PER FT. MIN. SLOPE WITH 12" MIN. COVER.*

(B) 1,000-GALLON CONCRETE SEPTIC TANK (UNITED CONCRETE OR EQUIVALENT) (SEE DETAIL).*

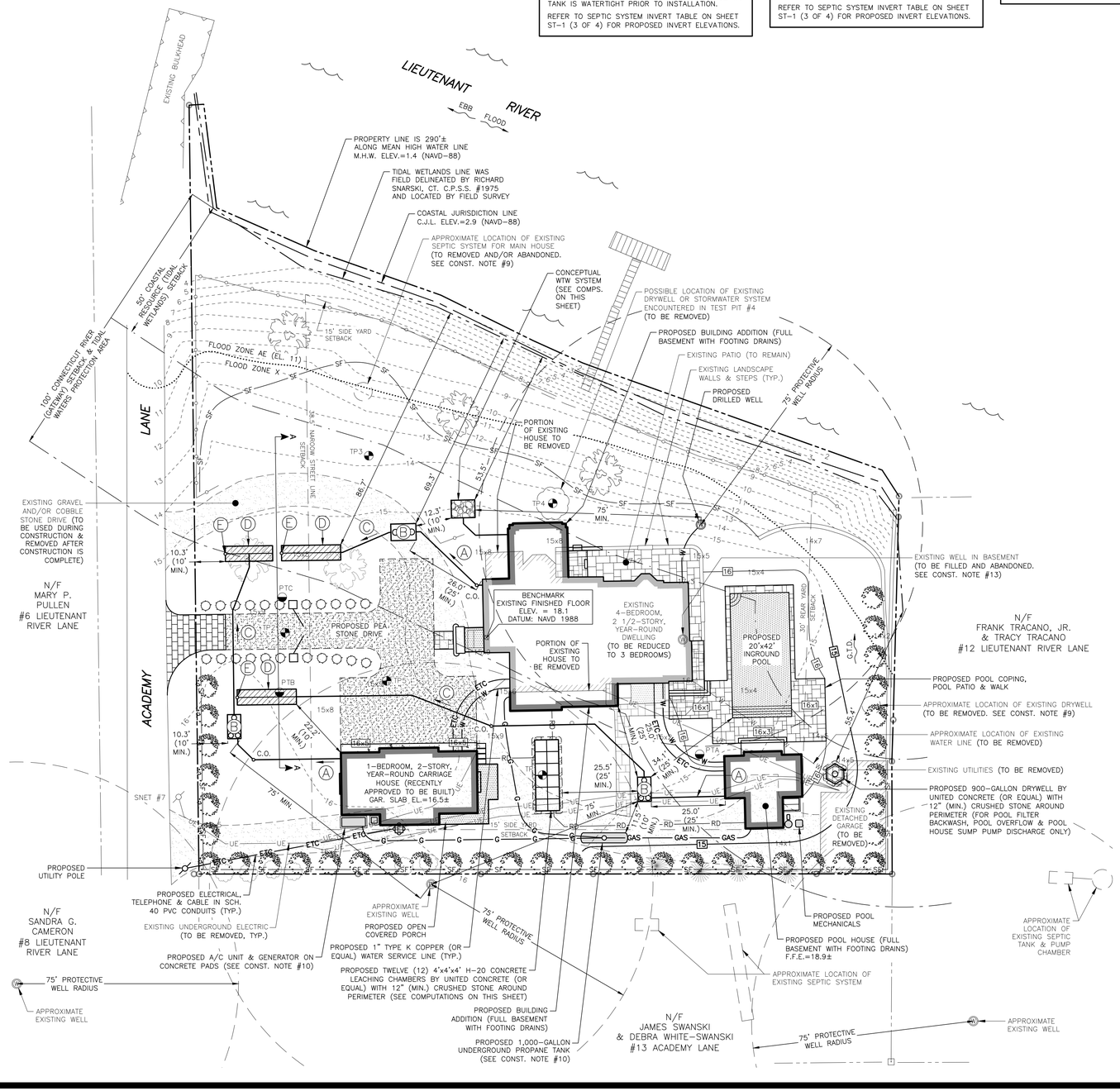
(C) 4" SCH. 40 ASTM D1785 SOLID PVC PIPE TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.

(D) 20.0 L.F. (TEN 2-FOOT UNITS) OF GEOMATRIX GST6212 LEACHING SYSTEM (SEE DETAIL).

(E) 4" SCH. 40 ASTM D1785 INSPECTION PORT – GEOMATRIX PART NO.: IPGST15 (SEE DETAIL).*

*SEPTIC TANK SHALL HAVE RISERS TO WITHIN 12" OF FINISHED GRADE. INSPECTION PORT SHALL HAVE A GEOMATRIX RISER AND VALVE COVER TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION.

REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET ST-1 (3 OF 4) FOR PROPOSED INVERT ELEVATIONS.



THE PURPOSE OF THIS PLAN IS GENERALLY FOR SITE GRADING, UTILITIES & SEPTIC. FOR CLARITY, SOME SITE FEATURES MAY NOT BE SHOWN OR CALLED OUT ON THIS PLAN. REFER TO THE SITE PLAN ON SHEET 1 OF 4 FOR MORE INFORMATION.

STORMWATER CALCULATIONS
(FOR BUILDING AND STRUCTURE COVERAGE):

PROPOSED GROUND COVERAGE = 6,316± S.F. (SEE COVERAGE TABLE ON SHEET 1 OF 4)

FIRST INCH OF RAINFALL FROM GROUND COVERAGE:
6,316 S.F. x (1"/12) x (7.48 GAL./C.F.) = 3,937± GALLONS

LEACHING CHAMBER STORAGE CAPACITY (UNITED CONCRETE OR EQUAL):
TWELVE 4'x4'x4' H-20 CONC. LEACH. CHAMBERS = 12 x 330 GAL./CHAMB. = 3,960 GAL.
12" (MIN.) CRUSHED STONE PERIM. (ASSUME 40% VOIDS) = 107± GAL.
TOTAL STORAGE CAPACITY = 4,067± GALLONS

LEACHING CHAMBER RAINFALL CAPACITY:
4,067 GALLONS / 3,937 GALLONS = 1.03"± OF RAINFALL

4,067± GALLONS OF STORAGE VOLUME PROVIDED IS GREATER THAN THE 3,937± GALLONS OF STORMWATER RUNOFF PRODUCED FROM THE FIRST 1" OF RAINFALL FROM PROPOSED GROUND COVER.

20 10 0 20 40 60
15 5
SCALE IN FEET

PER REFERENCE MAP A

LEGEND

- EXISTING PROPERTY/STREET LINE
- BUILDING SETBACK LINE
- COASTAL JURISDICTION LINE
- TIDAL WETLAND BOUNDARY
- 100' CONSERVATION ZONE (GATEWAY) SETBACK
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE REMOVED
- PROPOSED BUILDING
- UE EXISTING UNDERGROUND ELECTRIC
- W EXISTING WATER LINE
- ETC PROPOSED ELECTRIC, TELEPHONE & CABLE LINES IN SCH. 40 PVC CONDUIT
- W PROPOSED WATER LINE
- G PROPOSED GAS LINE
- RD PROPOSED ROOF DRAIN
- -15- EXISTING CONTOUR
- 15 PROPOSED CONTOUR
- SF PROPOSED SILT FENCE
- WF1 TIDAL WETLAND FLAG
- W EXISTING WELL
- W PROPOSED WELL
- EP PROPOSED ELECTRIC METER
- PTA PERCOLATION TEST LOCATION
- TP1 TEST PIT LOCATION
- 15x9 EXISTING SPOT GRADE
- 16x5 PROPOSED SPOT GRADE
- C.O. PROPOSED CLEAN-OUT
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- EXISTING IRON PIPE/ROD
- EXISTING CONCRETE BOUND
- G.T.D. GRADE TO DRAIN

PLAN PREPARED BY:
INDIGO LAND DESIGN, LLC
JOSEPH WREN, P.E.
CT REG. NO. 21090
40 ELM STREET, 2ND FLOOR
OLD SAYBROOK, CT 06475
PHONE: (860) 391-8843
FAX: (860) 391-8854

THE EMBOSSED SEAL OF THE ENGINEER MUST BE AFFIXED TO THIS MAP TO BE VALID

#	DATE	DESCRIPTION	BY
1	1/19/2021	PHASE II REVISIONS	RG

GRADING, UTILITIES & SEPTIC SYSTEM PLAN

PREPARED FOR SAPIA BUILDERS
15 ACADEMY LANE -- MAP 57 LOT 29
OLD LYME, CONNECTICUT

DATE: NOVEMBER 19, 2020
SCALE: 1"=20'
DRAWN BY: RG
CHECKED BY: JW
DWG. NO.: GUS-1
SHEET NO.: 2 of 4
JOB. NO.: 2020-631

GENERAL NOTES (SEPTIC SYSTEM):

1. THE APPLICANT IS PROPOSING TO CONSTRUCT BUILDING ADDITIONS ONTO THE EXISTING 4–BEDROOM, 2 1/2–STORY, YEAR–ROUND DWELLING AS SHOWN AND CONVERT IT FROM 4 TO 3 BEDROOMS, REMOVE THE EXISTING NON–CONFORMING DETACHED GARAGE, CONSTRUCT A NEW 1–BEDROOM, 2–STORY, YEAR–ROUND CARRIAGE HOUSE (RECENTLY APPROVED AND TO BE BUILT), CONSTRUCT A NEW POOL HOUSE AND INGROUND POOL, INSTALL A NEW PEA STONE DRIVEWAY AND OTHER ASSOCIATED IMPROVEMENTS. ALL BUILDINGS AND THE POOL WILL BE LOCATED ENTIRELY OUTSIDE OF FEMA FLOOD ZONE AE (EL. 11).

2. THIS PROPERTY IS SERVED BY A PRIVATE WELL AND SUBSURFACE SEWAGE DISPOSAL SYSTEMS. THERE ARE NO KNOWN WELLS OR ANY OTHER KNOWN DESIGN CONFLICTS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEMS. THE WELL IN THE BASEMENT OF THE EXISTING HOUSE SHALL BE PROPERLY FILLED AND ABANDONED BY A LICENSED WELL DRILLER AND A NEW DRILLED WELL SHALL BE INSTALLED AS SHOWN. THE APPROXIMATE WELL LOCATIONS FOR 13 ACADEMY LANE AND 8 LIEUTENANT RIVER LANE ARE SHOWN HEREON AND THE WELL LOCATION FOR 6 LIEUTENANT RIVER LANE IS UNKNOWN. CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE WELLS ON THESE PROPERTIES AND SHALL VERIFY THAT NONE OF THEM ARE WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEMS ON THE SUBJECT PROPERTY.

3. THE USE OF A GARBAGE DISPOSAL IS NOT RECOMMENDED. IF A GARBAGE DISPOSAL OR A TUB OVER 100 GALLONS IS INSTALLED, THE PROPOSED SEPTIC TANK SIZE SHALL BE INCREASED IN CONFORMANCE WITH THE PUBLIC HEALTH CODE. ANY WATER SOFTENER SHALL NOT DISCHARGE TO THE SEPTIC SYSTEM. FOR THIS PROJECT, THE SEPTIC TANK WAS UPSIZED TO ACCOMMODATE A 100 TO 200 GALLON TUB AND A GARBAGE DISPOSAL.

4. THE EXISTING DWELLING (BUILD CA. 1931) HAS A FULL BASEMENT AND IT IS UNKNOWN WHETHER OR NOT IT HAS FOOTING DRAINS. THE PROPOSED BUILDING ADDITIONS ONTO THE EXISTING MAIN HOUSE AND THE PROPOSED POOL HOUSE WILL HAVE FULL BASEMENTS WITH FOOTING DRAINS. THE PROPOSED CARRIAGE HOUSE WILL BE CONSTRUCTED ON SLAB AND WILL NOT HAVE FOOTING DRAINS. THERE ARE NO KNOWN DOWNGRADIENT SEPTIC SYSTEM COMPONENTS WITHIN 25 FEET OF ANY UPGRADIENT GROUNDWATER DRAINS OR ANY UPGRADIENT SEPTIC SYSTEM COMPONENTS WITHIN 50 FEET OF ANY DOWNGRADIENT GROUNDWATER DRAINS.

5. ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF OLD LYME AND THE CUSTODIAL UTILITY COMPANIES. ALL UTILITY TRENCHES SHALL BE NO LESS THAN 5 FEET FROM THE SEPTIC SYSTEMS AND NOT BACKFILLED WITH FREE DRAINING MATERIAL. ALL WATER LINES SHALL BE A MINIMUM OF 10 FEET FROM ANY PART OF THE SEPTIC SYSTEMS.

GENERAL CONSTRUCTION NOTES (SEPTIC SYSTEM):

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT CONNECTICUT PUBLIC HEALTH CODE, AS AMENDED.
2. A LICENSED SURVEYOR SHALL FIELD STAKE THE PROPOSED SEPTIC SYSTEM AND SHALL SET A STABLE PROJECT BENCHMARK (NAVD–88 DATUM) ON SITE PRIOR TO CONSTRUCTION.
3. NO WORK SHALL COMMENCE IN THE SYSTEM AREA UNTIL A SEPTIC PERMIT HAS BEEN TAKEN OUT BY THE LICENSED INSTALLER.
4. THE LICENSED INSTALLER SHALL PERFORM SITE PREPARATION AND SHOULD CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TO VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION.
5. THE LICENSED INSTALLER SHALL BE ON SITE DURING SYSTEM CONSTRUCTION. THE SYSTEM SHALL BE INSTALLED IN CONFORMANCE TO THESE PLANS. ANY REQUESTED MODIFICATIONS SHALL BE DISCUSSED WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL MODIFICATIONS MUST BE APPROVED BY THE ENGINEER AND TOWN SANITARIAN PRIOR TO CONSTRUCTION.
6. A MINIMUM OF 24 HOURS NOTICE SHALL BE GIVEN BY THE LICENSED INSTALLER TO THE ENGINEER AND TOWN SANITARIAN BEFORE ANY STRIPPING IS DONE FOR THE SYSTEM. STRIP INSPECTIONS WILL BE PERFORMED BY THE ENGINEER AND SANITARIAN.
7. THE LICENSED INSTALLER SHALL BE RESPONSIBLE FOR PREPARING THE LEACHING AREA IN A WORKMANLIKE MANNER. ALL NECESSARY STEPS SHALL BE TAKEN TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVER COMPACTION AND SILTATION ONCE EXPOSED.
8. THE INSTALLER SHALL NOTIFY THE ENGINEER AND SANITARIAN AT LEAST 24 HOURS IN ADVANCE OF BEING READY FOR A FINAL INSPECTION. THE ENGINEER AND SANITARIAN SHALL CONDUCT THE FINAL INSPECTION TOGETHER WITH THE LICENSED INSTALLER. NO DEVIATION FROM THE PLAN APPROVED BY THE SANITARIAN SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE SANITARIAN. THE SYSTEM SHALL NOT BE BACKFILLED WITHOUT THE APPROVAL OF THE SANITARIAN.
9. A LICENSED ENGINEER OR SURVEYOR SHALL PREPARE A SEPTIC SYSTEM AS–BUILT DRAWING CERTIFYING THE SYSTEM IS CODE–COMPLIANT. THIS PLAN SHALL INCLUDE ALL ESSENTIAL ACCESS POINTS INCLUDING TANK MANHOLES, CLEAN–OUTS AND LEACHING SYSTEM ENDS. THE AS–BUILT PLAN SHALL BE COMPLETED IN A TIMELY MANNER.
10. THE LEACHING SYSTEM SHALL BE PROPERLY COVERED BY THE LICENSED SYSTEM INSTALLER WITHIN TWO (2) WORKING DAYS FOLLOWING THE LOCAL HEALTH DEPARTMENT'S FINAL INSPECTION AND APPROVAL.
11. NO HEAVY EQUIPMENT SHALL BE DRIVEN OVER THE INSTALLED LEACHING SYSTEM AREA.
12. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IF HE WISHES TO CHANGE THE LOCATION OR ELEVATION OF ANY PROPOSED SEPTIC SYSTEM COMPONENT PRIOR TO CONSTRUCTION.
13. THE LICENSED INSTALLER IS RESPONSIBLE TO INSTALL THE SUBSURFACE SEWAGE DISPOSAL SYSTEM IN ACCORDANCE WITH THE APPROVED PLAN.
14. THE SEPTIC TANKS SHALL HAVE RISERS TO WITHIN 12" OF FINISHED GRADE (AND SHALL BE H–20 FOR THE SEPTIC TANK SERVING THE MAIN BUILDING). TEE WYE CLEAN–OUT SHALL BE EXTENDED TO WITHIN 12" OF FINISHED GRADE (IF NECESSARY). INSPECTION PORT SHALL HAVE A GEOMATRIX RISER AND VALVE COVER TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION. REFER TO THE SEPTIC SYSTEM KEYS ON SHEET 2 OF 4.
15. THE PROPOSED LEACHING SYSTEMS, GEOMATRIX GST6212 AND GST6236, SHALL BE INSTALLED IN CONFORMANCE WITH ALL MANUFACTURER'S SPECIFICATIONS. A GEOMATRIX SYSTEMS REPRESENTATIVE WILL DELIVER THE GEOMATRIX GST FORMS TO THE SITE AND WILL BE ON SITE DURING INSTALLATION OF THE SYSTEM TO ENSURE PROPER INSTALLATION. THE INSTALLER SHALL OBTAIN, REVIEW AND STRICTLY ADHERE TO THE ALL INSTALLATION INSTRUCTIONS AND MATERIAL SPECIFICATIONS. MORE INFORMATION CAN BE OBTAINED FROM THE MANUFACTURER, GEOMATRIX SYSTEMS, LLC – 114 MILL ROCK ROAD EAST, OLD SAYBROOK, CT – 860–510–0730 OR AT WWW.GEOMATRIXSYSTEMS.COM.
16. A TWO–PART CONCRETE SEPTIC TANK SHALL BE USED BUT MUST BE MADE 100% WATERTIGHT BY GASKETING AND MORTARING ALL JOINTS. IF A TWO–PART TANK IS USED, IT SHALL BE FILLED WITH WATER ABOVE THE JOINT AND INSPECTED BY THE ENGINEER AND/OR THE TOWN SANITARIAN WITHIN 24 HOURS. THE CONTRACTOR SHALL MONITOR THE WATER LEVEL IN THE TANK DURING THIS PERIOD AND SHALL PERMANENTLY REPAIR ANY LEAKS TO THE SATISFACTION OF THE ENGINEER AND THE TOWN SANITARIAN.
17. THE LICENSED INSTALLER SHALL CONFIRM THAT NO LEDGE IS PRESENT WITHIN 8 FEET BELOW THE BOTTOM OF THE PROPOSED LEACHING SYSTEMS.
18. THE CONTRACTOR SHALL GRADE THE AREA IN THE VICINITY OF THE LEACHING FIELD IN SUCH A MANNER THAT ALL SURFACE RUNOFF IS SUFFICIENTLY DIRECTED AWAY FROM THE LEACHING FIELD AREA AND NOT RESULT IN PONDING ON THE SUBJECT PROPERTY OR ANY ADJACENT PROPERTY OR ROADWAY.
19. THE LICENSED INSTALLER SHALL INCLUDE ALL ADEQUATE PROVISIONS FOR FREEZE PROTECTION FOR ALL PIPING AND JUNCTIONS.
20. LICENSED INSTALLER SHALL PROVIDE SIEVE ANALYSES FOR C–33 SAND AND SELECT FILL (IF NECESSARY) PRIOR TO CONSTRUCTION.
21. THE APPROXIMATE LOCATION OF THE EXISTING SEPTIC SYSTEMS ARE SHOWN HEREON. ALL EXISTING SEPTIC SYSTEM COMPONENTS SHALL BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION. THE EXISTING SEPTIC SYSTEMS SERVING THE MAIN HOUSE AND DETACHED GARAGE SHALL BE PUMPED DRY AS NECESSARY AND REMOVED AND/OR PROPERLY FILLED AND ABANDONED IN ACCORDANCE WITH THE CONNECTICUT PUBLIC HEALTH CODE AND ALL APPLICABLE LOCAL REGULATIONS.

DEEP TEST PIT DATA

DATE: 9/29/2020
WITNESSED BY: JOE WREN, P.E. (INDIGO)
WENDY BROWN–ARNOLD, R.S. (LLHD)
EXCAVATED BY: NICK SAPIA
RECORDED BY: RICH SNARSKI, C.P.S.S.

TP #1

0–11"
TOPSOIL

11"–47"
DARK YELLOW–BROWN FINE SANDY LOAM

47"–67"
YELLOW–BROWN FINE SANDY LOAM

67"–96"
YELLOW–BROWN GRAVELLY MEDIUM–COARSE SAND

NO MOTTLING
NO GROUNDWATER
NO LEDGE
ROOTS TO 69"

TP #2

0–10"
TOPSOIL

10"–25"
DARK YELLOW–BROWN FINE SANDY LOAM

25"–79"
OLIVE GRAVELLY MEDIUM–VERY COARSE SAND

79"–109"
OLIVE MEDIUM SAND

NO MOTTLING
NO GROUNDWATER
NO LEDGE
ROOTS TO 25"

TP #3

0–21"
TOPSOIL & SOME FILL

21"–41"
DARK YELLOW–BROWN GRAVELLY FINE SANDY LOAM

41"–73"
OLIVE–BROWN MEDIUM–VERY COARSE SAND & GRAVEL

73"–93"
OLIVE MEDIUM–COARSE SAND

NO MOTTLING
NO GROUNDWATER
NO LEDGE
ROOTS TO 31"

TP #4

(HIT OLD DRYWELL OR STORMWATER SYSTEM)

0–5"
TOPSOIL

5"–47"
FILL/DISTURBED SOIL

47"–71"
DARK YELLOW–BROWN GRAVELLY MEDIUM–COARSE SAND

71"–95"
OLIVE MEDIUM–COARSE SAND

NO MOTTLING
NO GROUNDWATER
NO LEDGE
ROOTS TO 38"

TP #5

0–11"
TOPSOIL

11"–47"
DARK YELLOW–BROWN FINE SANDY LOAM

47"–79"
OLIVE–BROWN GRAVELLY MEDIUM–COARSE SAND

79"–102"
OLIVE MEDIUM–COARSE SAND

NO MOTTLING
NO GROUNDWATER
NO LEDGE
ROOTS TO 49"

PERCOLATION TEST DATA

CONDUCTED BY: JOHN GORMAN, E.I.T. (INDIGO)

PT A

DATE: 11/16/2020
DEPTH: 30"±

TIME (MINUTE)		DEPTH (INCHES)	DROP (INCHES)	PERC RATE (MIN./IN.)
0	@	17 1/4		
10	@	19	1 1/2	6.7
20	@	20	1	10.0
30	@	21 1/2	1 1/2	6.7
40	@	22 1/2	1	10.0
50	@	23 1/2	1	10.0
60	@	24 3/4	1 1/4	8.0

PERCOLATION RATE: 5.0–10.0 MIN./INCH

PERCOLATION TEST DATA

CONDUCTED BY: JOE WREN, P.E. (INDIGO)

PT B

DATE: 11/16/2020
DEPTH: 31"±

TIME (MINUTE)		DEPTH (INCHES)	DROP (INCHES)	PERC RATE (MIN./IN.)
0	@	17		
1	@	24 1/4	7 1/4	0.1
2	@	27	2 3/4	0.4
3	@	28 1/2	1 1/2	0.7
4	@	30 1/4 (DRY/SILTED)	1 3/4	0.6

PERCOLATION RATE: < 1.0 MIN./INCH

PERCOLATION TEST DATA

CONDUCTED BY: ROSS GLADSTONE, E.I.T. (INDIGO)

PT C

DATE: 11/16/2020
DEPTH: 31"±

TIME (MINUTE)		DEPTH (INCHES)	DROP (INCHES)	PERC RATE (MIN./IN.)
0	@	17 1/2		
1	@	23	5 1/2	0.2
2	@	24 3/4	1 3/4	0.6
3	@	26 1/8	1 3/8	0.7
4	@	27 3/8	1 1/4	0.8
5	@	28 3/8	1	1.0
6	@	29 1/4	7/8	1.1
7	@	30 (DRY/SILTED)	3/4	1.3

PERCOLATION RATE: 1.0–5.0 MIN./INCH

MAIN HOUSE SEPTIC SYSTEM

SANITARY SYSTEM DESIGN CRITERIA

DESIGN PERC RATE	# OF BEDROOMS	REQUIRED LEACHING AREA	LEACHING SYSTEM TYPE	EFF. LEACHING AREA	LEACHING AREA PROVIDED	REQ'D TANK CAPACITY	TANK CAPACITY PROVIDED
LESS THAN 10.1 MINS./INCH	3 BEDROOM (1)	495 S.F. (1)	20.0 L.F. (TEN 2–FOOT UNITS) OF GEOMATRIX GST6236 LEACHING SYSTEM	26.2 S.F./L.F.	524.0 S.F. (26.2 S.F./L.F. x 20.0 L.F.)	1,000 GALLONS	1,000 GALLONS

(1) THE EXISTING HOUSE WILL BE REDUCED FROM 4 BEDROOMS TO 3 BEDROOMS ~ SEPTIC SYSTEM DESIGNED FOR 3–BEDROOMS.

RECEIVING SOIL DEPTH > 60"
M.L.S.S. NOT REQUIRED

SANITARY SYSTEM PIPE INVERT TABLE

STRUCTURE	PIPE AT BUILDING (A)	SEPTIC TANK (B)	LEACHING SYSTEM (D)
INV. IN (FT.)	---	13.25	12.70
INV. OUT (FT.)	14.0± (1)(5)	13.00	---

(1) PROPOSED 29.8± L.F. OF 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE.
PERCENT SLOPE = (14.0'± – 13.25') x 100% / 29.8'± = 2.52%± > 2.08% (MIN.).
(2) FOR ALL PIPE, A MIN. OF 12" OF COVER SHALL BE PROVIDED.
(3) BOTTOM OF LEACHING SYSTEM SHALL BE SET LEVEL AND AT ELEVATION 9.70'.
(4) SEPTIC SYSTEM LABELS SHOWN FOR CLARITY (REFER TO SEPTIC SYSTEM KEY ON SHEET 1 OF 4).
(5) CONTRACTOR SHALL VERIFY THAT THE INTERIOR PLUMBING CAN BE MODIFIED SO THAT THE BUILDING SEWER PIPE CAN EXIT AT THE PROPOSED LOCATION (SEE SHEET 2 OF 4) AND INVERT ELEVATION (14.0±) SHOWN. CONTRACTOR TO CONTACT DESIGN ENGINEER IF LOCATION AND INVERT CANNOT BE ACHIEVED.

CARRIAGE HOUSE SEPTIC SYSTEM

SANITARY SYSTEM DESIGN CRITERIA

DESIGN PERC RATE	# OF BEDROOMS	REQUIRED LEACHING AREA	LEACHING SYSTEM TYPE	EFF. LEACHING AREA	LEACHING AREA PROVIDED	REQ'D TANK CAPACITY	TANK CAPACITY PROVIDED
LESS THAN 10.1 MINS./INCH	2 BEDROOM (1)	375 S.F. (1)	16.0 L.F. (EIGHT 2–FOOT UNITS) OF GEOMATRIX GST6236 LEACHING SYSTEM	26.2 S.F./L.F.	419.2 S.F. (26.2 S.F./L.F. x 16.0 L.F.)	1,000 GALLONS	1,000 GALLONS

(1) THE PROPOSED CARRIAGE HOUSE WILL HAVE 1 BEDROOM ~ SEPTIC SYSTEM DESIGNED FOR 2–BEDROOMS.

RECEIVING SOIL DEPTH > 60"
M.L.S.S. NOT REQUIRED

SANITARY SYSTEM PIPE INVERT TABLE

STRUCTURE	PIPE AT BUILDING (A)	SEPTIC TANK (B)	LEACHING SYSTEM (D)
INV. IN (FT.)	---	14.10	12.70
INV. OUT (FT.)	15.00 (1)	13.85	---

(1) PROPOSED 39.0± L.F. OF 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE.
PERCENT SLOPE = (15.00' – 14.10') x 100% / 39.0'± = 2.31%± > 2.08% (MIN.).
(2) FOR ALL PIPE, A MIN. OF 12" OF COVER SHALL BE PROVIDED.
(3) BOTTOM OF LEACHING SYSTEM SHALL BE SET LEVEL AND AT ELEVATION 9.70'.
(4) SEPTIC SYSTEM LABELS SHOWN FOR CLARITY (REFER TO SEPTIC SYSTEM KEY ON SHEET 1 OF 4).

POOL HOUSE SEPTIC SYSTEM

SANITARY SYSTEM DESIGN CRITERIA

DESIGN PERC RATE	# OF BEDROOMS	REQUIRED LEACHING AREA	LEACHING SYSTEM TYPE	EFF. LEACHING AREA	LEACHING AREA PROVIDED	REQ'D TANK CAPACITY	TANK CAPACITY PROVIDED
LESS THAN 10.1 MINS./INCH	1 BEDROOM (1)	187.5 S.F. (1)	20.0 L.F. (TEN 2–FOOT UNITS) OF GEOMATRIX GST6212 LEACHING SYSTEM	10.0 S.F./L.F.	200.0 S.F. (10.0 S.F./L.F. x 20.0 L.F.)	1,000 GALLONS	1,000 GALLONS

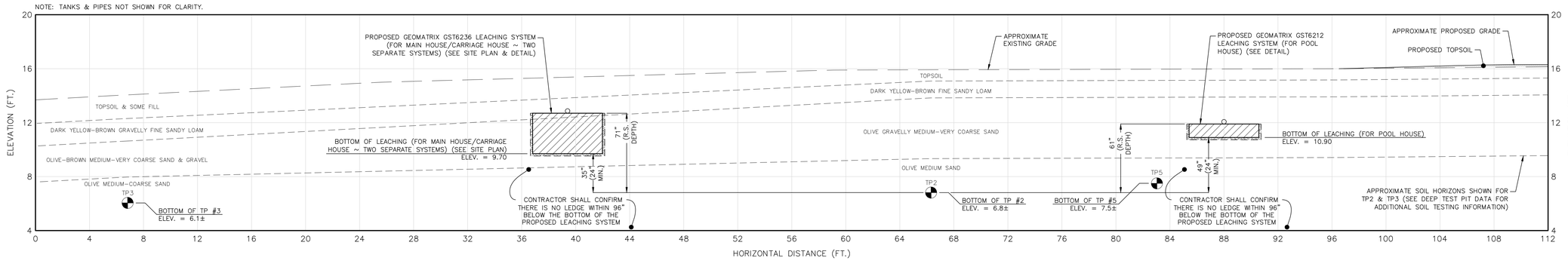
(1) THE POOL HOUSE DOES NOT HAVE ANY BEDROOM AND DOES NOT HAVE ANY ADDITIONAL PLUMBING FIXTURES BEYOND A FULL BATHROOM ~ SEPTIC SYSTEM DESIGNED FOR 1–BEDROOM (MIN.).

RECEIVING SOIL DEPTH > 60"
M.L.S.S. NOT REQUIRED

SANITARY SYSTEM PIPE INVERT TABLE

STRUCTURE	PIPE AT BUILDING (A)	SEPTIC TANK (B)	LEACHING SYSTEM (D)
INV. IN (FT.)	---	13.40	11.90
INV. OUT (FT.)	14.00 (1)	13.15	---

(1) PROPOSED 25.0± L.F. OF 4" SCH. 40 PVC ASTM D1785 BUILDING SEWER PIPE.
PERCENT SLOPE = (14.00' – 13.40') x 100% / 25.0'± = 2.40%± > 2.08% (MIN.).
(2) FOR ALL PIPE, A MIN. OF 12" OF COVER SHALL BE PROVIDED.
(3) BOTTOM OF LEACHING SYSTEM SHALL BE SET LEVEL AND AT ELEVATION 10.90'.
(4) SEPTIC SYSTEM LABELS SHOWN FOR CLARITY (REFER TO SEPTIC SYSTEM KEY ON SHEET 1 OF 4).



PROPOSED LEACHING SYSTEM PROFILE – X–SECTION A–A

HORIZ. SCALE = VERT. SCALE = 1"=4'

PLAN PREPARED BY:
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40 ELM STREET, 2ND FLOOR
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PHONE: (860) 391–4853
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THE EMBOSSED SEAL OF THE ENGINEER MUST BE AFFIXED TO THIS MAP TO BE VALID

#	DATE	DESCRIPTION	BY
1	1/19/2021	PHASE II REVISIONS	RG

SOIL TESTING DATA & SEPTIC DESIGN CRITERIA

PREPARED FOR SAPIA BUILDERS
15 ACADEMY LANE -- MAP 57 LOT 29
OLD LYME, CONNECTICUT

DATE: NOVEMBER 19, 2020
SCALE: AS NOTED
DRAWN BY: RG
CHECKED BY: JW
DWG. NO.: ST-1
SHEET NO.: 3 of 4
JOB. NO.: 2020-631

SOIL EROSION & SEDIMENTATION CONTROL PLAN NARRATIVE

THE SITE CONTRACTOR MUST FOLLOW ALL GUIDELINES SET FORTH IN THE MANUAL ENTITLED "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION. THIS MANUAL IS ALSO KNOWN AS DEP BULLETIN 34.

PROJECT DESCRIPTION

THE APPLICANT IS PROPOSING TO CONSTRUCT BUILDING ADDITIONS ONTO THE EXISTING 4-BEDROOM, 2 1/2-STORY, YEAR-ROUND DWELLING AS SHOWN AND CONVERT IT FROM 4 TO 3 BEDROOMS, REMOVE THE EXISTING NON-CONFORMING DETACHED GARAGE, CONSTRUCT A NEW 1-BEDROOM, 2-STORY, YEAR-ROUND CARRIAGE HOUSE (RECENTLY APPROVED AND TO BE BUILT), CONSTRUCT A NEW POOL HOUSE AND INGROUND POOL, INSTALL A NEW PEA STONE DRIVEWAY AND OTHER ASSOCIATED IMPROVEMENTS. ALL BUILDINGS AND THE POOL WILL BE LOCATED ENTIRELY OUTSIDE OF FEMA FLOOD ZONE AE (EL. 11).

CONSTRUCTION IS ANTICIPATED TO COMMENCE IN LATE WINTER OR EARLY SPRING 2021. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. E & S CONTROLS SHALL BE MAINTAINED AND REPAIRED OR REPLACED AS NEEDED THROUGHOUT THE CONSTRUCTION DURATION. ALL E & S CONTROLS SHALL BE REMOVED AND PROPERLY DISPOSED OF AS SOON AS THE SITE IS COMPLETELY STABILIZED.

CONSTRUCTION SEQUENCE

1. CONTACT "CALL BEFORE YOU DIG" TO MARK OUT ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. ENSURE ALL LAND USE PERMITS HAVE BEEN SECURED. OBTAIN ALL NECESSARY PERMITS.
3. INSTALL ALL EROSION AND SEDIMENT CONTROLS.
4. DEMOLISH EXISTING GARAGE AND REMOVE EXISTING UNDERGROUND UTILITIES AS SHOWN.
5. LAND SURVEYOR TO STAKE OUT PROPOSED IMPROVEMENTS AND SET A STABLE PROJECT BENCHMARK.
6. ROUGH GRADE DRIVEWAY.
7. STRIP AND STOCKPILE TOPSOIL AND OTHER EXCAVATED SOILS IN AREA(S) SHOWN ON PLAN. APPLY TEMPORARY SEED MIXTURE TO PILES IF THEY WILL NOT BE DISTURBED FOR MORE THAN 30 DAYS.
8. CONSTRUCT THE FOUNDATION FOR THE PROPOSED ADDITIONS, POOL HOUSE AND INGROUND POOL.
9. FRAME AND CONSTRUCT THE PROPOSED BUILDING ADDITIONS AND BUILDINGS.
10. INSTALL PROPOSED UNDERGROUND UTILITIES, UNDERGROUND PROPANE TANK AND SEPTIC SYSTEMS.
11. CONNECT ALL UTILITIES FROM WITHIN THE BUILDINGS.
12. FINISH GRADE DRIVEWAY AND INSTALL PEA STONE DRIVE AND COBBLE STONE APRON PER PLAN.
13. FINISH GRADE, SEED AND MULCH ALL DISTURBED AREAS AS REQUIRED.
14. REMOVE ALL EROSION AND SEDIMENT CONTROLS ONCE SITE IS COMPLETELY STABILIZED. DISPOSE OF PROPERLY.

LAND DISTURBANCE

1. ALL EXISTING VEGETATION OUTSIDE OF THE CLEARING LIMITS SHALL BE PROTECTED. EXISTING VEGETATION SHALL BE REMOVED ONLY IN AREAS NECESSARY FOR SITE CONSTRUCTION ACTIVITIES. ANY ADDITIONAL CLEARING OUTSIDE OF THE PROPOSED CLEARING LIMITS SHALL BE APPROVED BY TOWN STAFF PRIOR TO CLEARING.
2. ALL AREAS SHALL REMAIN UNDISTURBED UNTIL IMMEDIATELY PRIOR TO SITE DEVELOPMENT.
3. ALL CONSTRUCTION EQUIPMENT, MATERIALS AND STOCKPILES SHALL NOT BE PLACED OUTSIDE OF THE DISTURBED AREAS.
4. ALL TREES, BRUSH, STUMPS, WOOD CHIPS OR OTHER ORGANIC MATTER SHALL BE DISPOSED OF PROPERLY OFF-SITE. WOOD CHIPS MAY BE USED AS A SILTATION BARRIER DURING CONSTRUCTION AND SPREAD AFTER SITE IS STABILIZED. NO ORGANIC MATTER INCLUDING TREES, BRUSH AND STUMPS SHALL BE BURIED ON-SITE.

STRIPPING AND STOCKPILING

ALL STOCKPILES THAT CONSIST OF ERODIBLE MATERIALS SHALL BE LOCATED WITHIN AREAS AS SHOWN ON THE SITE PLAN AND SURROUNDED BY A SILTATION BARRIER. ANY STOCKPILE THAT WILL REMAIN UNDISTURBED FOR A PERIOD LONGER THAN 30 DAYS SHALL BE SEEDED WITH A TEMPORARY GRASS SEED MIXTURE TO PREVENT EXCESSIVE EROSION AND SEDIMENTATION.

TRENCH EXCAVATION AND BACKFILL

THE CONTRACTOR SHALL PROPERLY MAINTAIN ALL BACKFILLED EXCAVATIONS. ANY DEPRESSIONS DUE TO SETTLING IN THESE AREAS SHALL BE FILLED AND RESEEDED AS NECESSARY.

THE WIDTH OF ALL EXCAVATED TRENCHES SHALL BE KEPT AS NARROW AS PRACTICABLE TO ACCOMMODATE THE WORK. ALL MATERIALS EXCAVATED FROM TRENCHES SHALL BE STOCKPILED AND USED AS TRENCH BACKFILL MATERIAL UNLESS IT IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER. EXCESS MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.

SOIL EROSION AND SEDIMENT CONTROLS

ALL ADJACENT PROPERTIES AND RECEIVING WATERCOURSES AND / OR WETLAND AREAS SHALL BE ADEQUATELY PROTECTED FROM SOIL EROSION AND SEDIMENTATION BOTH DURING AND AFTER CONSTRUCTION.

ADDITIONAL EROSION AND SEDIMENT CONTROLS MAY BE REQUIRED BY THE TOWN AND SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS BEFORE, DURING AND AFTER CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ALL EROSION AND SEDIMENT CONTROLS ONCE THE SITE IS COMPLETELY STABILIZED.

ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER ALL RAINFALL EVENTS. E & S CONTROLS SHALL BE REPAIRED OR REPLACED AS NECESSARY WITHIN 24 HOURS THROUGHOUT THE CONSTRUCTION DURATION.

IF NECESSARY, A TEMPORARY FILTER FABRIC SILT BARRIER SHALL BE PLACED BENEATH THE GRATE OF THE PROPOSED CATCH BASIN TO PREVENT ANY SILTATION OF THE DRAINAGE SYSTEM. THE FILTER FABRIC SHALL BE REMOVED IMMEDIATELY AFTER THE SURROUNDING AREAS ARE ADEQUATELY STABILIZED.

ALL ACCUMULATED SEDIMENTS AT ALL EROSION AND SEDIMENT CONTROLS SHALL BE PERIODICALLY REMOVED AND SPREAD IN AREAS THAT ARE NOT SUBJECT TO EROSION.

THE CONTRACTOR SHALL EMPLOY BEST MANAGEMENT PRACTICES TO CONTROL STORMWATER DISCHARGES AND TO PREVENT EROSION AND SEDIMENTATION AND TO OTHERWISE PREVENT POLLUTION OF WETLANDS OR WATERCOURSES OR PRIVATE PROPERTY. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE TOWN OF ANY PROBLEMS INVOLVING EROSION AND/OR SEDIMENTATION THAT HAVE DEVELOPED IN THE COURSE OF, OR THAT ARE CAUSED BY, THE AUTHORIZED WORK.

THE RESPONSIBLE CONTACT PERSON FOR THE INSTALLATION AND MAINTENANCE OR EROSION AND SEDIMENTATION CONTROLS ON THIS PROJECT WILL BE THE GENERAL CONTRACTOR, NICK SAPIA OF SAPIA BUILDERS, LLC. MR. SAPIA CAN BE REACHED AT (860) 304-8383.

VEGETATIVE TURF ESTABLISHMENT PROCEDURE

SCARIFY ALL AREAS TO BE TOPSOILED AND SEEDED. APPLY A MINIMUM OF 4 INCHES OF TOPSOIL ON ALL AREAS TO BE SEEDED. APPLY GRASS SEED, LIME, FERTILIZER AND MULCH ACCORDING TO THE FOLLOWING SCHEDULE:

PERMANENT SEED MIXTURE:

CREEPING RED FESCUE	0.45 LBS. PER 1,000 SQ. FT.
REDTOP	0.05
TALL FESCUE	0.45
TOTAL	0.95

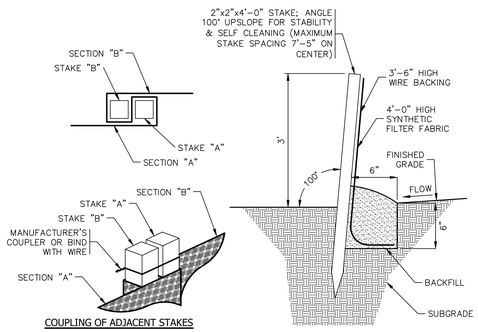
FERTILIZER:
10-10-10 APPLY AT 7.5 LBS. PER 1,000 SQ. FT.

LIMESTONE:
APPLY AT 150 LBS. PER 1,000 SQ. FT.

MULCHING:
SPREAD HAY OR STRAW OVER ALL AREAS AFTER SEEDING. USE 1 1/2 TO 2 BALES PER 1,000 SQ. FT. TARGET FOR 100% COVERAGE. ANCHOR BY USING NETTING OR TRACKING AS NECESSARY.

TEMPORARY EROSION CONTROL BLANKETS:
USE TEMPORARY EROSION CONTROL BLANKETS ON ALL SEEDED SLOPES STEEPER THAN 3 (H) TO 1 (V) AND/OR AS DIRECTED BY THE DESIGN ENGINEER.

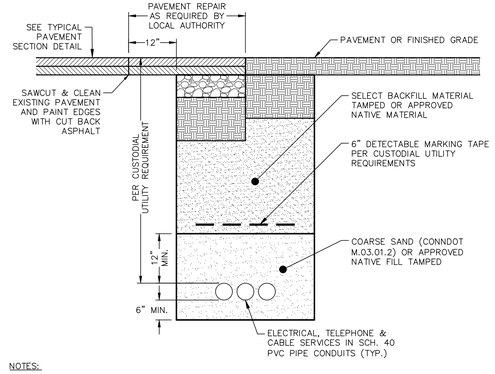
SEEDING DATES:
SEEDING DATES IN CONNECTICUT ARE NORMALLY APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1. SEED GERMINATION NORMALLY CANNOT BE EXPECTED FROM NOVEMBER THROUGH FEBRUARY. IF ADEQUATE SEED GERMINATION IS NOT POSSIBLE DUE TO TIME OF YEAR CONSTRAINTS, MULCHING SHALL BE ADEQUATELY PROVIDED TO PROTECT THE SEED FROM WIND AND SURFACE EROSION UNTIL THE WEATHER IMPROVES AND THE SEEDING BECOMES WELL ESTABLISHED.



COUPLING OF ADJACENT STAKES

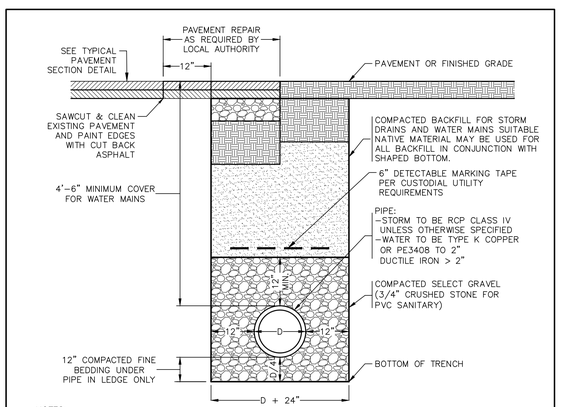
NOTES:
1. ALL SILT FENCE SHALL BE INSPECTED PERIODICALLY AND AFTER ALL RAINFALL EVENTS. REPAIRS SHALL BE MADE IMMEDIATELY TO KEEP THE SILTATION CONTROL BARRIER EFFECTIVE.

SILT FENCE BARRIER DETAIL
NOT TO SCALE



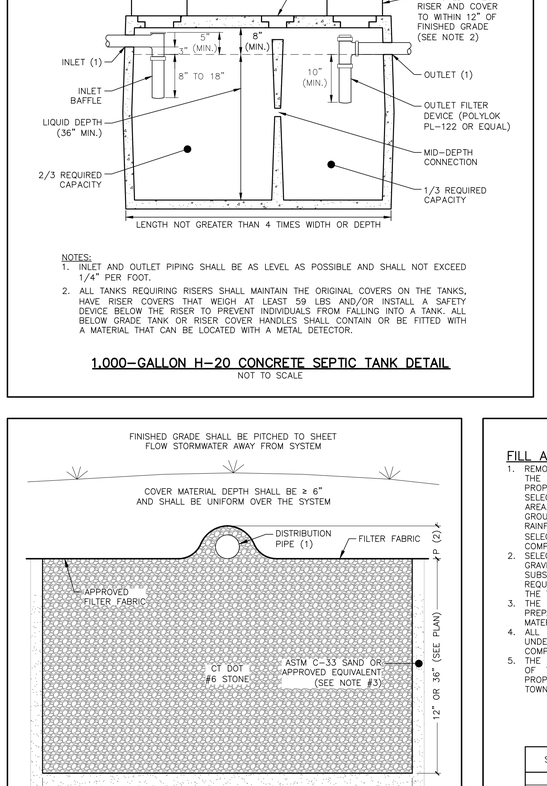
NOTES:
1. SELECT BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL GRADATION C, FORM 818, 2020, OR PROCESSED AGGREGATE CAN BE USED IN LIEU OF BANK-RUN GRAVEL OR APPROVED NATIVE MATERIAL.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO CONNECTICUT DOT STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, 2020 OR AS AMENDED.
3. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL TOWN AND CUSTODIAL UTILITY COMPANY SPECIFICATIONS.
4. ALL PROPOSED MATERIALS SHALL BE INSTALLED AS SHOWN OR AS APPROVED BY THE TOWN AND/OR CUSTODIAL UTILITY COMPANY.

TYPICAL UNDERGROUND UTILITY TRENCH CROSS SECTION
NOT TO SCALE



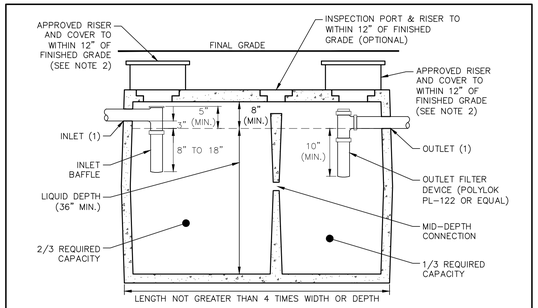
NOTES:
1. SELECT BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL GRADATION C, FORM 818, 2020, OR PROCESSED AGGREGATE CAN BE USED IN LIEU OF BANK-RUN GRAVEL OR APPROVED NATIVE MATERIAL.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO CONNECTICUT DOT STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 818, 2020 OR AS AMENDED.
3. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL TOWN AND CUSTODIAL UTILITY COMPANY SPECIFICATIONS.
4. ALL PROPOSED MATERIALS SHALL BE INSTALLED AS SHOWN OR AS APPROVED BY THE TOWN AND/OR CUSTODIAL UTILITY COMPANY.

TYPICAL TRENCH DETAIL
NOT TO SCALE



NOTES:
1. INLET AND OUTLET PIPING SHALL BE AS LEVEL AS POSSIBLE AND SHALL NOT EXCEED 1/4" PER FOOT.
2. ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS, HAVE RISER COVERS THAT WEIGH AT LEAST 59 LBS AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO A TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.

1,000-GALLON H-20 CONCRETE SEPTIC TANK DETAIL
NOT TO SCALE



NOTES:
1. INLET AND OUTLET PIPING SHALL BE AS LEVEL AS POSSIBLE AND SHALL NOT EXCEED 1/4" PER FOOT.
2. ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS, HAVE RISER COVERS THAT WEIGH AT LEAST 59 LBS AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO A TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.

1,000-GALLON CONCRETE SEPTIC TANK DETAIL
NOT TO SCALE

NOTES:
1. 3" (MIN.) SCH. 40 ASTM D-1785 PVC PIPE FOR GRAVITY APPLICATIONS. 0.75" (MIN. I.D.) SCH. 40 ASTM D-1785 PVC PIPE FOR PRESSURE APPLICATIONS.
2. P = 2" - 5.5"
3. 2" MINIMUM ASTM C-33 SAND OR APPROVED EQUIVALENT ON PERIMETER, BOTTOM AND SIDES OF SYSTEM.

GEOMATRIX GST6212 & GST6236 LEACHING SYSTEM - X-SECTION B-B
NOT TO SCALE

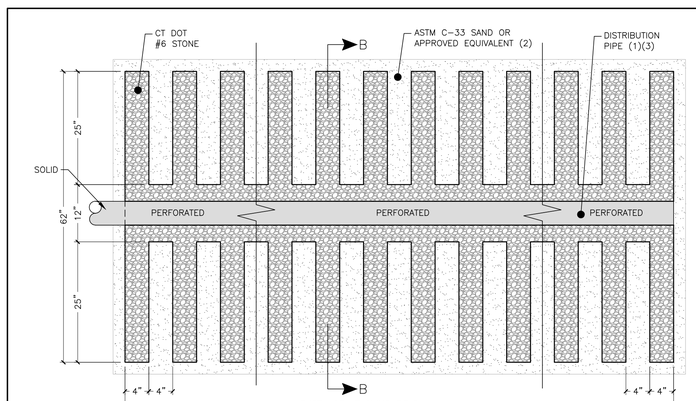
FILL AND GRADING NOTES (SEPTIC SYSTEM):

1. REMOVE ALL TOPSOIL, FILL AND/OR UNSUITABLE SOIL WITHIN THE SYSTEM AREA AND SCARIFY THE SURFACE IN THE PROPOSED LEACHING SYSTEM AREA PRIOR TO PLACING ANY SELECT FILL MATERIAL. AVOID COMPACTING THE SCARIFIED AREA. FILL SHALL NOT BE PLACED OVER SNOW OR FROZEN GROUND. DISCONTINUE FILL PLACEMENT DURING HEAVY RAINFALL AND A MINIMUM OF 24 HOURS THEREAFTER. THE SELECT FILL MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% DENSITY.
2. SELECT FILL MATERIAL SHALL CONSIST OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE PUBLIC HEALTH CODE PROVIDED IN THE TABLE ON THIS SHEET.
3. THE LICENSED INSTALLER SHALL BE RESPONSIBLE FOR PREPARING THE LEACHING AREA UTILIZING THE SELECT FILL MATERIAL.
4. ALL NECESSARY STEPS SHALL BE TAKEN TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVER COMPACTION AND SILTATION ONCE EXPOSED.
5. THE CONTRACTOR SHALL PROVIDE GRADATION SPECIFICATIONS OF THE SELECT FILL MATERIAL TO BE USED FOR THE PROPOSED SEPTIC SYSTEM TO THE DESIGN ENGINEER AND TOWN SANITARIAN PRIOR TO ORDERING AND INSTALLATION.

SELECT FILL GRADATION TABLE

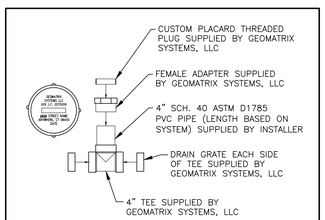
SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50*	10-75
#100	0-20	0-5
#200	0-5	0-2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
** A SIEVE ANALYSIS FOR THE SELECT FILL MATERIAL SHALL BE PROVIDED TO THE DESIGN ENGINEER. ONLY THE DESIGN ENGINEER MAY APPROVE SELECT FILL MATERIAL NOT IN COMPLIANCE WITH THE GRADATION TABLE IF THE MATERIAL PASSING THE #200 SIEVE DOES NOT EXCEED 6% BASED ON WET SIEVE.



NOTES:
1. 3" (MIN.) SCH. 40 ASTM D-1785 PVC PIPE FOR GRAVITY APPLICATIONS. 0.75" (MIN. I.D.) SCH. 40 ASTM D-1785 PVC PIPE FOR PRESSURE APPLICATIONS.
2. 2" MINIMUM ASTM C-33 SAND OR APPROVED EQUIVALENT ON PERIMETER, BOTTOM AND SIDES OF SYSTEM.
3. DISTRIBUTION PIPES SHALL EXTEND TO THE ENDS OF ROWS AND SHALL BE PROPERLY CAPPED.

GEOMATRIX GST6212 & GST6236 LEACHING SYSTEM - PLAN VIEW
NOT TO SCALE



GEOMATRIX GST LEACHING SYSTEM INSPECTION PORT DETAIL
NOT TO SCALE

PLAN PREPARED BY:
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CT REG. NO. 21090
40 ELM STREET, 2ND FLOOR
OLD SAYBROOK, CT 06475
PHONE: (860) 391-3853
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THE EMBOSSED SEAL OF THE ENGINEER MUST BE AFFIXED TO THIS MAP TO BE VALID

#	DATE	DESCRIPTION	BY
1	1/19/2021	PHASE II REVISIONS	RG

E&S NARRATIVE, CONST. & SEPTIC DETAILS

PREPARED FOR SAPIA BUILDERS
15 ACADEMY LANE -- MAP 57 LOT 29
OLD LYME, CONNECTICUT

DATE: NOVEMBER 19, 2020
SCALE: NOT TO SCALE
DRAWN BY: RG
CHECKED BY: JW
DWG. NO.: ES-1
SHEET NO.: 4 of 4
JOB. NO.: 2020-631