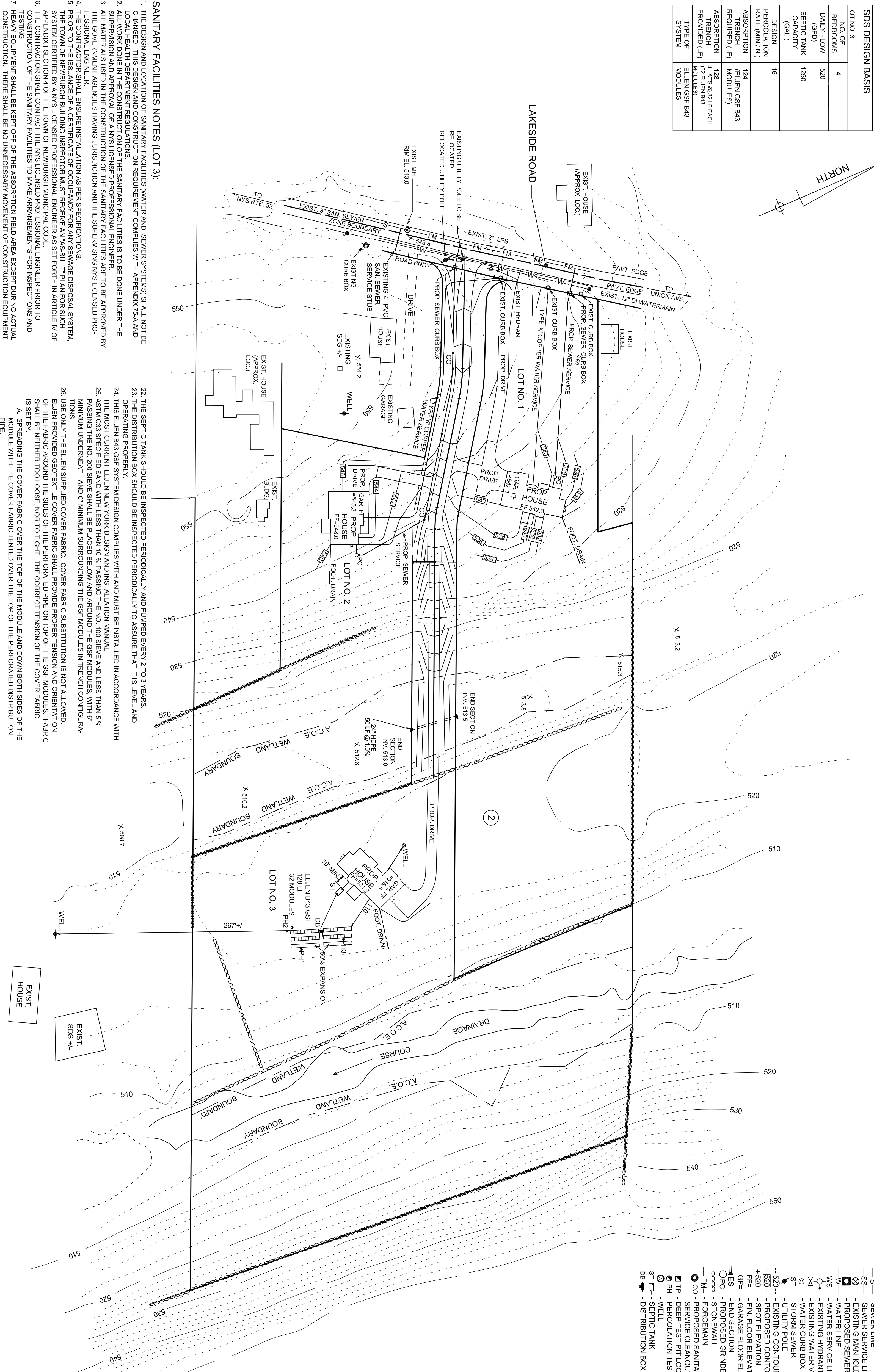


SDS DESIGN BASIS	
LOT NO. 3	
NO. OF BEDROOMS	4
DAILY FLOW (GPD)	520
SEPTIC TANK CAPACITY (GAL.)	1250
DESIGN PERCOLATION RATE (MIN./IN.)	16
ABSORPTION TRENCH (ELEM. GSF B43 MODULES)	124
ABSORPTION TRENCH (ELEM. GSF B43 MODULES)	128
ASSORTION PROVIDED (L/F)	128 @ 30" EACH
TYPE OF SYSTEM	ELEM. GSF B43 MODULES



SANITARY FACILITIES NOTES (LOT 3):

1. THE DESIGN AND LOCATION OF SANITARY FACILITIES (WATER AND SEWER SYSTEMS) SHALL NOT BE SUBJECT TO THE TOWN OF NEWBURGH REQUIREMENT COMPLEX WITH APPENDIX 75A AND LOCAL HEALTH DEPARTMENT REGULATIONS.
2. ALL WORK DONE IN THE CONSTRUCTION OF THE SANITARY FACILITIES IS TO BE DONE UNDER THE SUPERVISION AND APPROVAL OF A NYS LICENSED PROFESSIONAL ENGINEER.
3. ALL MATERIALS USED IN THE CONSTRUCTION OF THE SANITARY FACILITIES ARE TO BE APPROVED BY THE GOVERNMENT AGENCIES HAVING JURISDICTION AND THE SUPERVISING NYS LICENSED PROFESSIONAL ENGINEER.
4. THE CONTRACTOR SHALL ENSURE INSTALLATION AS PER SPECIFICATIONS.
5. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY SEWAGE DISPOSAL SYSTEM, THE TOWN OF NEWBURGH BUILDING INSPECTOR MUST RECEIVE AN "AS-BUILT" PLAN FOR SUCH SYSTEM CERTIFIED BY A NYS LICENSED PROFESSIONAL ENGINEER AS SET FORTH IN ARTICLE IV OF APPENDIX SECTION 4 OF THE TOWN OF NEWBURGH MUNICIPAL CODE.
6. THE CONTRACTOR SHALL NOTIFY THE TOWN OF NEWBURGH ENGINEER PRIOR TO CONSTRUCTION OF THE SANITARY FACILITIES TO MAKE ARRANGEMENTS FOR INSPECTIONS AND TESTING.
7. HEAVY EQUIPMENT SHALL BE KEPT OFF OF THE ABSORPTION FIELD AREA EXCEPT DURING ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT UNDER CONSTRUCTION THAT COULD BECAUSE OF VIBRATION OR CONSTRUCTION STOPS OF THE SOIL ON WHICH THE DESIGN WAS BASED.
8. ABSORPTION TRENCHES SHALL NOT BE CONSTRUCTED IN FROZEN GROUND OR WET SOIL.
9. NO SWIMMING POOLS, DRIVEWAYS, PARKING AREAS OR STRUCTURES THAT MAY COMPACT THE SOIL SHALL BE LOCATED OVER OR WITHIN TEN FEET OF ANY PORTION OF THE ABSORPTION FIELD OR RESERVE AREA.
10. DO NOT ALLOW CEILING, ROOF OR FOOTING DRAINS TO DISCHARGE OVER THE ABSORPTION FIELD.
11. CELLAR, ROOF AND FOOTING DRAINS SHALL NOT BE CONNECTED TO THE SEWAGE DISPOSAL SYSTEM.
12. SURFACE WATERS TO BE DIVERTED AWAY FROM THE ABSORPTION FIELD.
13. THERE SHALL BE NO REGRADING EXCEPT AS SHOWN ON THE APPROVED PLANS. IN THE AREA OF THE ABSORPTION FIELD, REGRADING SHALL BE LIMITED TO A MAXIMUM OF 1" IN ANY DIRECTION.
14. WATER SAVING PLUMBING FIXTURES SHALL BE USED.
15. THE SYSTEMS ARE NOT DESIGNED TO ACCOMMODATE GARAGE GRINDERS, JACUZZI TYPE SPA TUBS OVER 100 GALLONS OR WATER CONDITIONERS. AS SUCH, THESE ITEMS SHALL NOT BE INSTALLED UNLESS THE SYSTEM IS REDESIGNED TO ACCOMMODATE THEM, AND REAPPROVED BY THE GOVERNMENT AGENCIES HAVING JURISDICTION.
16. ALL SEWER LINES SHALL BE INSTALLED HAVING THE FOLLOWING MINIMUM SIZES: 1/4" RT FROM THE BUILDING TO THE SEPTIC TANK, 1/2" RT FROM THE SEPTIC TANK TO THE POINT OF DISTRIBUTION, AND 1/4" RT TO 1/2" RT FOR LATERALS. Dosed laterals shall be set level.
17. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE BUILDING, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK.
18. THE SEPTIC TANK AND DISTRIBUTION BOX SHALL BE PRE-CAST CONCRETE.
19. 4" ID CAST IRON OR SCHEDULE 80 PVC PIPE SHALL BE USED BETWEEN THE BUILDING AND THE SEPTIC TANK. 4" ID PERFORATED PVC PIPE SHALL BE USED FOR LATERALS WITH THE PERFORATIONS FACING DOWN. LATERALS SHALL BE SOLID WALL PVC FOR A DISTANCE OF TWO FEET FROM THE DISTRIBUTION BOX.
20. IF A WELL IS UPGRAD OR AN ABSORPTION FIELD, THE SEPARATION BETWEEN THE WELL AND THE ABSORPTION FIELD SHALL BE 100 FEET MINIMUM. IF THE WELL IS DOWNGRAD AND IN THE GENERAL DRAINAGE PATH OF AN ABSORPTION FIELD, THE SEPARATION SHALL BE 200 FEET MINIMUM.
21. THE OWNER/APPLICANT SHALL BE PROVIDED WITH A COPY OF THE APPROVED PLANS AND AN ACCURATE "AS-BUILT" DRAWING OF ANY NYS LICENSED SANITARY FACILITIES.

22. THE SEPTIC TANK SHOULD BE INSPECTED PERIODICALLY AND PUMPED EVERY 2 TO 3 YEARS.
23. THE DISTRIBUTION BOX SHOULD BE INSPECTED PERIODICALLY TO ASSURE THAT IT IS LEVEL AND OPERATING PROPERLY.
24. THE MOST CURRENT ELEMEN DESIGN COMPARES WITH AND MUST BE INSTALLED IN ACCORDANCE WITH 25. ASTM C63 SPECIFIED SAND WITH LESS THAN 10% PASSING THE NO. 100 SIEVE AND LESS THAN 5% MINIMUM UNDERNEATH AND 6" MINIMUM SURROUNDING THE GSF MODULES IN TRENCH CONFIGURATIONS.
26. USE ONLY THE ELEMEN SUPPLIED COVER FABRIC. COVER FABRIC SUBSTITUTION IS NOT ALLOWED. ELEMEN PROVIDED GEOTECHNICAL COVER FABRIC SHALL PROVIDE PROPER TENSION AND ORIENTATION OF THE FABRIC AROUND THE SIDES OF THE PERFORATED PIPE ON TOP OF THE GSF MODULES. FABRIC IS SET BY EITHER TOO LOOSE, TIGHT OR TOOTH. THE CORRECT TENSION OF THE COVER FABRIC IS A. SPREADING THE COVER FABRIC OVER THE TOP OF THE MODULE AND DOWN BOTH SIDES OF THE MODULE WITH THE COVER FABRIC TIGHT OVER THE TOP OF THE PERFORATED DISTRIBUTION PIPE.
27. PLACE SHOVEL FULLS OF SPECIFIED SAND DIRECTLY OVER THE PIPE AREA ALLOWING THE COVER FABRIC TO FORM A MOSTLY VERTICAL ORIENTATION ALONG THE SIDES OF THE PIPE. REPEAT THIS STEP MOVING DOWN THE PIPE.
28. DO NOT ALLOW SAND TO BE CLEAN WITH NO PROTS OR STONES LARGER THAN 2" IN ANY DIMENSION OF CLEANING.
29. ANY SYSTEM WHICH IS MORE THAN 18" BELOW FINISHED GRADE AS MEASURED FROM THE TOP OF THE MODULE SHALL BE VENTED.

INDIVIDUAL PUMP STATION NOTE:

THE RESPONSIBILITY FOR MAINTENANCE OF THE INDIVIDUAL PRIVATE PUMP STATIONS WILL BE THAT OF THE INDIVIDUAL PROPERTY OWNERS. PROPERTY OWNERS SHALL CONTACT FOR THE MAINTENANCE OF THE INDIVIDUAL PUMP STATIONS. THE TOWN OF NEWBURGH RESERVES THE RIGHT TO CAUSE CORRECTION OF EACH INSTALLATION, SHOULD FAILURE OCCUR, AND SUCH CORRECTION RESULTS IN A POTENTIAL HAZARD TO THE PUBLIC HEALTH IN THE OPINION OF THE TOWN OF NEWBURGH OFFICIALS OR THE ORANGE COUNTY DEPARTMENT OF HEALTH. THE TOWN OF NEWBURGH RESERVES THE RIGHT TO ENTER ON THE PROPERTY AND CAUSE THE REPAIR OF THE PUMP STATION. THE TOWN OF NEWBURGH IN SUCH CASE WILL BILL THE PROPERTY OWNER FOR ALL DIRECT AND INDIRECT COSTS OF REPAIR, AND SUCH PROPERTY OWNER HEREBY AGREES TO WAIVE ANY CLAIMS OR DAMAGES THAT HE OR SHE MAY HAVE AGAINST THE TOWN OF NEWBURGH. THIS AGREEMENT SHALL BE REFLECTED AS A RESTRICTIVE COVENANT ON THE DEEDS FOR THE INDIVIDUAL LOTS INVOLVED.

UNAUTHORIZED ALTERATION OR ADDITION TO A MAP BEARING A LICENSED PROFESSIONAL'S SEAL IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

- LEGEND:**
- S- - SEWER LINE
 - SS- - SEWER SERVICE LINE
 - ⊗ - EXISTING MANHOLE
 - ⊗ - PROPOSED SEWER CURB BOX
 - W- - WATER LINE
 - WS- - WATER SERVICE LINE
 - ⊗ - EXISTING HYDRANT
 - ⊗ - EXISTING WATER VALVE
 - ⊗ - WATER CURB BOX
 - ST- - STORM SEWER
 - ⊗ - UTILITY POLE
 - E- - EXISTING CONTOUR LINE
 - P- - PROPOSED CONTOUR LINE
 - +E20 - SPOT ELEVATION
 - ⊗ - CONTACT OR ELEVATION
 - ⊗ - GROUND ELEVATION
 - ⊗ - BAND SECTION
 - ⊗ - FOREMAN WALL
 - ⊗ - PROPOSED SANITARY SEWER SERVICE CLEANOUT
 - ⊗ - DEEP TEST PIT LOCATION
 - ⊗ - PERCOLATION TEST HOLE LOCATION
 - ⊗ - SEPTIC TANK
 - ⊗ - DISTRIBUTION BOX

- GENERAL NOTES:**
1. THE CONTRACTOR MUST NOTIFY THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION (1-800-962-7962) TO HAVE ANY EXISTING UTILITIES LOCATED AND MARKED AT LEAST TWO FULL WORKING DAYS PRIOR TO ANY EXCAVATION, DRILLING OR BLASTING. NON-MEMBER UTILITIES MUST BE CONTACTED SEPARATELY.
 2. THE LOCATIONS (HORIZONTAL AND VERTICAL) AND SIZES OF UNDERGROUND UTILITIES SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE SIZE OF ANY EXISTING UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS TO LOCATE EXISTING UNDERGROUND FACILITIES SUPERIORLY IN HEAD OF CONSTRUCTION TO PERMIT MAKING REVISIONS AS NEEDED.
 3. ANY EXISTING STRUCTURE, CURB, PAVED AREA, LANDSCAPED AREA, ETC., DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION.
 4. IT IS THE DEVELOPERS OR CONTRACTORS RESPONSIBILITY TO OBTAIN ANY NECESSARY PERMITS REQUIRED FROM FEDERAL, STATE OR LOCAL AUTHORITIES. PVC SLEEVES SHALL BE PROVIDED UNDER THE PROPOSED CULVERT FOR THE WATER AND SEWER SERVICE LINES TO LOT 3 TO ALLOW FOR MAINTENANCE AND REPAIR OF SAID LINES WITHOUT DISTURBANCE TO THE CULVERT.
- STORM SEWER NOTES:**
1. STORM SEWER SHALL BE ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR) DESIGNED FOR H-20 LOADS BY ADVANCED DRAINAGE SYSTEMS OR EQUAL.
 2. STORM SEWER LINES ARE TO BE INSTALLED USING INVERT ELEVATIONS. PIPE SLOPES ARE APPROXIMATE AND FOR REFERENCE ONLY.

- SEWER SYSTEM NOTES (LOT 1 AND LOT 2):**
1. CONSTRUCTION OF SANITARY SEWER FACILITIES AND CONNECTION TO THE TOWN OF NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.
 2. ALL SEWER PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED BY THE TOWN OF NEWBURGH SEWER DEPARTMENT.
 3. ALL GRAVITY SANITARY SEWER LINES SHALL BE FOUR (4) INCHES IN DIAMETER OR LARGER AND SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-88. JOINTS SHALL BE PUSH-ON WITH ELASTOMERIC RING GASKET CONFORMING TO ASTM D-3212. FITTINGS SHALL BE AS MANUFACTURED BY THE PIPE SUPPLIER, OR EQUAL, AND SHALL HAVE A BELL AND SPIGOT CONFIGURATION COMPATIBLE WITH THE PIPE.
 4. THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
 5. ALL PRESSURE SEWER LINES SHALL BE FOREMAN CLASS 200 SPR-21 CONFORMING TO ASTM D-3034-88. JOINTS TO BE BELL AND SPIGOT PUSH-ON TYPE WITH ELASTOMERIC RING GASKET CONFORMING TO ASTM D-3212.
 6. ALL REFERENCES TO STANDARDS, SPECIFICATIONS, REGULATIONS, ETC. ARE MEANT TO BE THEIR LATEST REVISIONS.
 7. THE TOWN OF NEWBURGH SHALL HAVE RIGHTS TO ENTER AND INSPECT THE PUMP STATIONS, AND IN THE EVENT OF AN EMERGENCY TO REPAIR SAID PUMP STATIONS. ALL DIRECT AND INDIRECT COSTS OF THE REPAIR WILL BE BILLED TO THE RESPECTIVE PROPERTY OWNER (SEE INDIVIDUAL PUMP STATION NOTE SHOW HEREIN).
 8. PUMP CHAMBERS SHOULD BE INSPECTED PERIODICALLY BY A PROPERLY TRAINED PERSON FOR PROPER OPERATION, INCLUDING HIGH WATER ALARMS, VENTING AND PHYSICAL DAMAGE.
 9. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEWAGE PUMP CHAMBER TO THE HOUSE, ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.

WATER SYSTEM NOTES (LOT 1 AND LOT 2):

1. CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH. ALL REFERENCES TO STANDARDS, SPECIFICATIONS, REGULATIONS, ETC. ARE MEANT TO BE THEIR LATEST REVISIONS. NO CONSTRUCTION SHALL BE ALLOWED WITHOUT A MINIMUM OF 48 HOURS NOTICE TO THE TOWN OF NEWBURGH WATER DEPARTMENT.
2. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED BY THE TOWN OF NEWBURGH WATER DEPARTMENT.
3. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE 1/2" K CONCRETE BELL AND SPIGOT TYPE WITH 1/2" SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-88 FOR CURB VALVES SHALL BE MALLEIER-H-091-2 FOR 3/4" AND 1" INCH AND MALLEIER-H-2504 FOR 1 1/2" AND 2 INCH SIZES. CURB BOXES SHALL BE MALLEIER-H-0912 FOR 3/4" AND 1" INCH AND MALLEIER-H-10310 FOR 1 1/2" AND 2 INCH SIZES.
4. THE WATERLINE SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTING AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATERLINE IN SERVICE, SATISFACTORY SANITARY RESULTS FROM A NYSDEC APPROVED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLE MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE TOWN OF NEWBURGH WATER DEPARTMENT.

UTILITY AND GRADING PLAN

FOR
ORCHARD PROPERTIES, INC.
LAKESIDE ROAD, TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

DATE: JANUARY 26, 2012 SCALE: 1" IN. = 60 FT.

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