Sewage Treatment Design Guidance

To ensure that your design is processed quickly and efficiently, please include the following items on all STS design plans:

✓ Site Visit
  o The designer or designee must visit the site of the proposed installation prior to submitting a design plan
  o The soil absorption component area must be staked, flagged, fenced, or painted for identification and protection

✓ System Information
  o Property address and township
  o System Type
    ▪ Household Sewage Treatment System (HSTS) or Small Flow On-Site Sewage Treatment System (SFOSTS)
  o Daily Design Flow in gallons per day
  o Designer name and contact information

✓ Materials and System Components
  o Tank type - size, brand, and distributor
  o Lift station (if applicable) – size, pump size (HP and GPM), brand, and distributor
  o Distribution materials – piping, distribution device, and diversion mechanism

✓ Soil Absorption Type and Material
  o For Leaching Design
    ▪ Leaching trench product
    ▪ Trench description – number of lines, length, width, and maximum depth
  o For Mound Design
    ▪ Absorption area – width, length, aggregate depth, and sand fill depth
    ▪ Slope – side slope ratio, width of upslope/downslope/endslope
    ▪ Drawing of mound top and side view
  o Other Design
    ▪ Include appropriate information

✓ Drainage (if applicable)
  o Perimeter/Gradient drain – depth, gravel size, and gravel depth
  o Interceptor drain – depth, gravel size, and gravel depth
- Engineered drainage – soil type, drain depth, drain spacing, lowered water table depth, gravel size, and gravel depth
- Drainage discharge point description
- Indicate if an inspection port is required
- Any applicable installation notes
- Site Drawing must include the following
  - Scale
  - All STS devices and components
    - Including but not limited to: cleanout(s), piping, piping angles, tank(s), distribution device(s), soil absorption layout, drainage, control panel, alarms(s), inspection ports
  - Location Surface Features
    - Test holes
    - Replacement area
    - Disturbed areas
    - Drainage features
    - Wooded areas
    - Hardscapes existing STS
    - Other features
  - Location of the following items with demonstration that required isolation distances are met
    - 10-foot isolation distance for all components of a STS – utility service line, roadway or road surface, driveway or other hardscape, property line or right-of-way, properly sealed well, any building or other structure, areas with recorded easements, intermittent streams, swales, geothermal horizontal closed loop systems, irrigation lines, GWRS.
    - 50-foot isolation distance for soil absorption component – any surface water impoundment, lake, river, wetland, perennial stream, road cut-banks, or stream, cut-banks.
    - 50-foot isolation distance for all components of a STS – any water supply source and vertical open and closed loop geothermal heating and/or cooling system
  - North directional arrow
  - Ground surface elevations