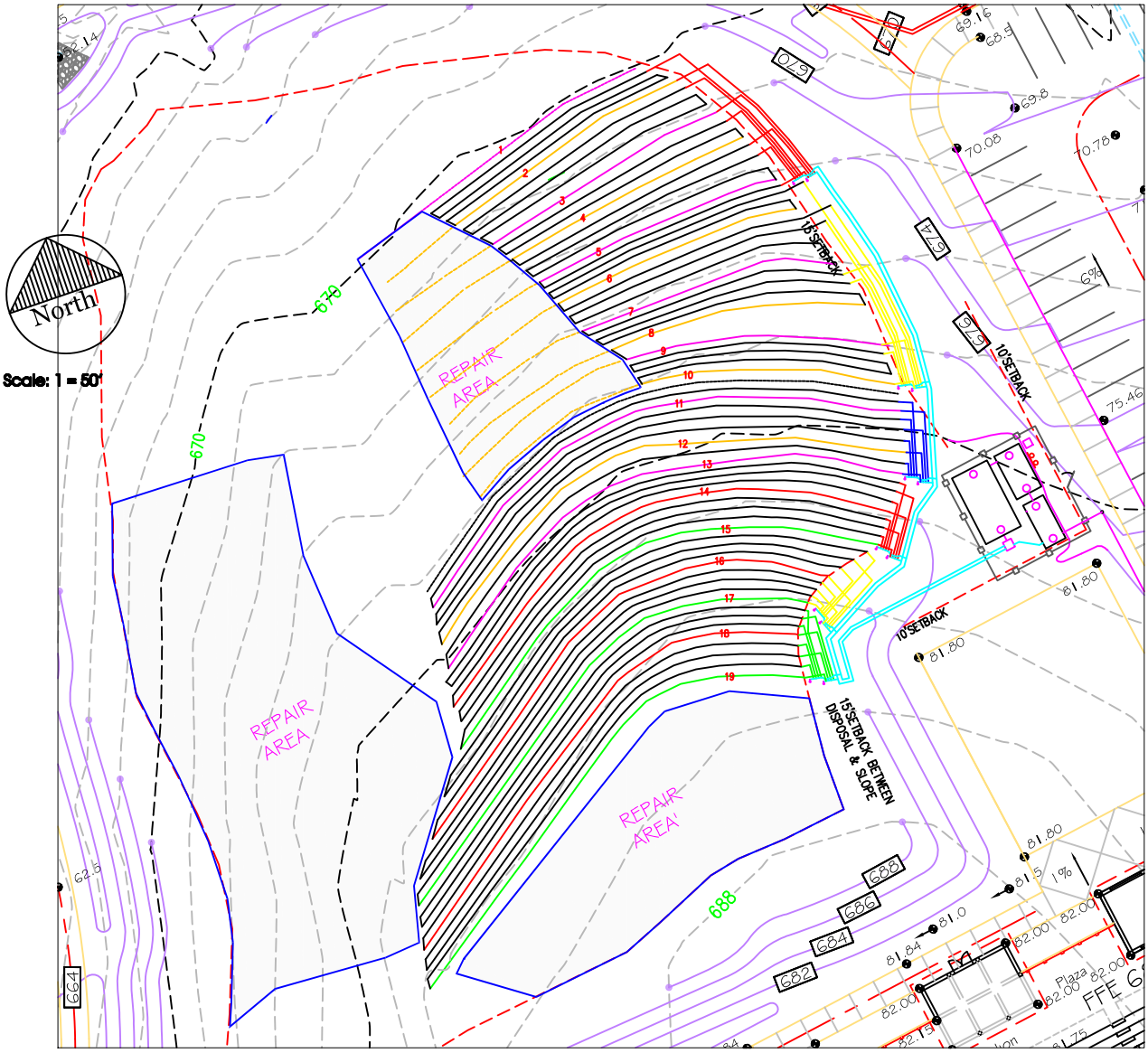
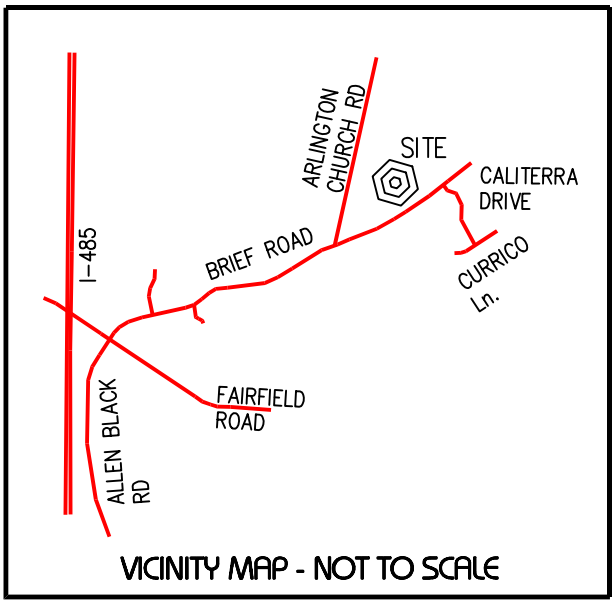




PROJECT:

WASTEWATER FACILITY for:
MINT HILL ATHLETIC PARK

Location:
9801 Brief Road
Charlotte, NC 28227
Mecklenburg County

DESCRIPTION:

Wastewater Treatment & Disposal Plans

Submittal for Permit
Date: 5-26-17

LASH ENGINEERING
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EMAIL from:
Angoli, Trish <trish.angoli@dhhs.nc.gov>
Tue 5/23/2017 4:16 PM

To:
Presley, Jacob <Jacob.Presley@mecklenburgcountync.gov>;
Michael Lash

Jacob and Mike,

I have reviewed the plans for the **Mint Hill Athletic Park** and have the following comments:
(Our Responses are in RED)

1. Please confirm that the tank used with the Bio-Microbics unit will be traffic rated. If not, please show that the tank will have additional reinforcement to support the weight of the unit in addition to the weight of the soil, etc. A note is on the plans for the precast tank used for the Bio-Microbics unit will need to be pre-approved by BioMicrobics prior to Philip Shoaf constructing the tank. Philip Shoaf is also aware of this requirement. All of the units will H20 load rated.
2. The flow equalization pump tank will need to be greater than 4,000 gallons. The volume of the equalization tank is based on the peak daily flow rate (2,880 gpd) + pump submergence (at least 21 inches) + dose volume (100 gallons) + greatest volume remaining in the pump tank over the week (1,804 gallons). These calculations were added to Sheet WW-3 and adjusted to match the Pump Tank dimensions. The larger Pump Tank required a different layout of tanks and the profile to be revised. In detail, these are shown on Sheet WW-3.

I have calculated the flow equalization over the week as follows:

Day	Inflow	Outflow	Remainder
Friday	2,304 gallons	2,141 gallons	163 gallons
Saturday	2,880 gallons	2,141 gallons	902 gallons
Sunday	2,880 gallons	2,141 gallons	1,641 gallons
Monday	2,304 gallons	2,141 gallons	1,804 gallons
Tuesday	1,298 gallons	2,141 gallons	961 gallons
Wednesday	1,475 gallons	2,141 gallons	295 gallons
Thursday	1,843 gallons	2,141 gallons	0 gallons

If I figure that this tank will probably be traffic rated (and have inside dimensions of 10 ft x 20 ft) (excellent guess), the gallons per inch is 125 gallons/inch (you were very close). That means that pump submergence will be at least 2,625 gallons.

2,880 gallons + 2,625 gallons + 100 gallons + 1,804 gallons = 7,409 (actually came to 7,337) gallons
So, the pump tank will probably need to be at least 7,500 gallons in size – it is and the Cut Sheet is included for the 7,500 gallon Pump Tank.

Please let me know if you have any questions.
Thanks
Trish

Patricia M. Angoli, PE
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