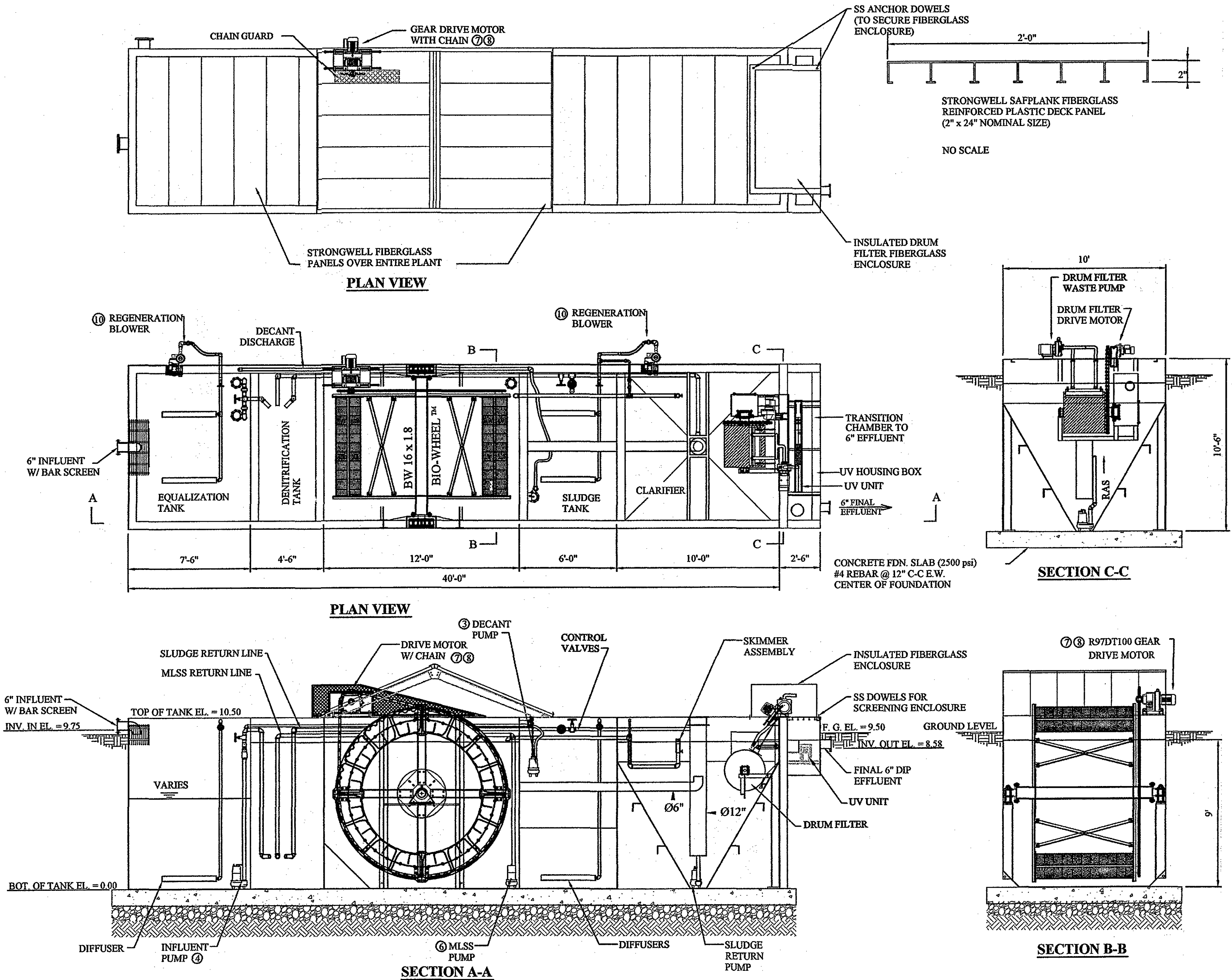
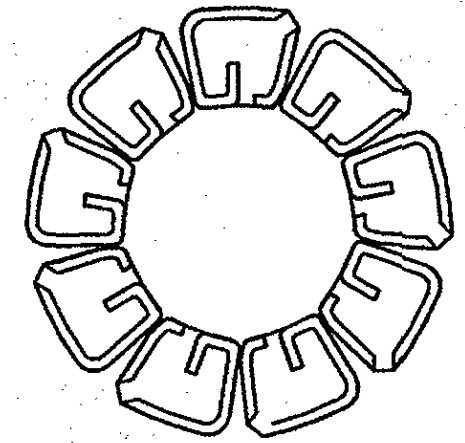


WWTP GENERAL NOTES:

1. See Sheet C1.12 for WWTP Facility Site Plan.
2. All WWTP control panels shall be located in the WWTP laboratory building. Install PVC electrical conduit between WWTP and lab building and route power and control circuitry as required.
3. A licensed electrician shall be required to install all electrical conduit, wiring, control circuitry, and control panels. The electrical contractor shall provide shop drawings showing proposed conduit and control wiring installation prior to start of work.
4. Refer to all WWTP shop drawings provided by the manufacturer.
5. Provide sacrificial anodes for corrosion protection. Install anodes in accordance with manufacturer's recommendations.
6. The WWTP manufacturer shall provide detailed instructions for installation and start-up of the treatment plant.
7. Back fill around WWTP and provide a minimum of 4-inches of reveal around the perimeter of the treatment plant. Grade site to ensure positive drainage away from the treatment plant. Use VDOT #57 stone backfill. Do not compact around steel tank structure.
8. Refer to project manual for detailed material and equipment specifications.
9. Install soda ash feed system so that soda ash solution is administered at in influent of the primary equalization tank. Install soda ash feed system in accordance with manufacturer's instructions.
10. A licensed Class III Wastewater Operator shall provide daily operations and maintenance for this WWTP facility after start-up. Wastewater licensee shall comply with the latest DPOR regulations as set forth by the Commonwealth of Virginia. Testing and monitoring guidelines shall be set forth by the Virginia Department of Health.
11. The Operations and Maintenance manual for the WWTP facility shall be provided prior to start-up. The wastewater operator in conjunction with the WWTP manufacturer shall provide this O&M manual to the owner, the consulting engineer, and Virginia Department of Health. The manual shall reflect all necessary operating procedures that are particular and specific to this treatment system.
12. The WWTP facility shall have a Class I reliability rating as set forth by the Virginia Department of Health. An emergency back-up electrical generator shall be provided with automatic transfer switch capability. The generator shall be sized to accommodate the ultimate WWTP facility. DO NOT provide mechanical compaction around WWTP installation.
13. All electric motors shall be rated as single phase devices. Three-phase power is unavailable to the project area.



BIO-WHEEL™



BW 16 x 1.8  
20,000 GPD  
WASTEWATER  
TREATMENT PLANT

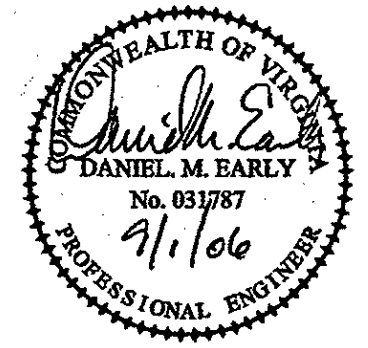
SCALE: 1/4"=1'  
WASTEWATER TECHNOLOGY INC.  
P.O. BOX 737  
MONTEREY, VIRGINIA 24465  
PH. 1 (800)-741-8941  
FAX (540)-468-3129

TANK VOLUME SCHEDULE

TANK CLASSIFICATION	MEASUREMENTS	VOLUME (CU. FT.)	VOLUME (GALLONS)
EQUALIZATION TANK 1	7'-6" L x 9' H x 10' W	675	5,049
DENITRIFICATION TANK	4'-6" L x 9' H x 10' W	405	3,029
BIO-WHEEL TANK	12' L x 9' H x 10' W	1,080	8,078
SLUDGE TANK	6' L x 9' H x 10' W	540	4,039
CLARIFIER	10' L x 10' W	100 SQ. FT.	—

EQUIPMENT SCHEDULE

ITEM	MAKE	MODEL	CAPACITY	QUANTITY
1	BARNES DUPLEX CONTROL PANEL IN NEMA 3R STEEL ENCLOSURE W/ ALARM LIGHT AND HORN	#065601	N/A	-
2	GOULDS MERCURY LEVEL FLOAT CONTROLS	#073612	N/A	-
3	GOULDS SUBMERSIBLE INFLUENT PUMP	3866 WS0512B	1/3 HP 120V 1 PH 1750 RPM 2" DISCHARGE	-
4	GOULDS SUBMERSIBLE RAS PUMP	3866 WS1012B	0.5 HP 200-230V 1 PH 1750 RPM 2" DISCHARGE	-
5	GOULDS SUBMERSIBLE MLSS PUMP	3866 WS1012B	1 HP 200-230V 1 PH 1750 RPM	-
6	GOULDS DECANT PUMP	PE31AV PUMP	0.33 HP 115V 1 PH 3000 RPM	-
7	SEW EURODRIVE GEAR MOTOR R-SERIES	R107DT100LS4-BMHR-KS	7.5 RPM RATIO 223:1 TORQUE RATED 38,400 IN.LB. SERVICE FACTOR 1.9, 1/60/230 CLASS F INSULATION, SEVERE DUTY, INVERTOR DUTY, MTG POS. B3 US INSTALLATION	-
8	SEW INVERTER W/ KEYPAD	9A2305.0, ATV18U72M2	5 HP 1 PH 60 HERTZ 230 VOLTS	-
9	SIEMENS REGENERATIVE BLOWER	2BH73200AK52	2.35 HP 1 PH 60 HERTZ 208-230 VOLTS	2
10	EDI FLEXAIR TUBE DIFFUSERS	"T" SERIES	-	5
11	AQUA AZUL UV DISINF.	AZ-4800	120V, 60HZ	1



ACS  
DESIGN

ENGINEERING • SURVEYING  
LANDSCAPE ARCHITECTURE  
CONSTRUCTION MANAGEMENT

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INFO@ACSDESIGNLLC.COM  
WWW.ACSDESIGNLLC.COM

The Coves at Smith Mountain Lake  
Optima Properties-Smith Mountain Lake, LLC  
Franklin County, Virginia

DRAWN BY: AH  
DESIGNED BY: DME  
CHECKED BY: DME  
DATE: 01 MAY 2006  
JOB NUMBER: 05271

REVISIONS:  
No. 1 8/23/06  
No. 2 6/11/07  
No. 3 Final For Construction  
No. 4

SHEET NO.:  
C6.5

WWTP  
EQUIPMENT  
PLAN