ASSESSOR'S MAP
SCALE: 1" = 400'

LOCUS MAP
SCALE: 1" = 2000'

BASIS OF SANITARY DESIGN

****

BUILDING USAGE: FAST FOOD RESTAURANT
96 SEATS PROPOSED TOTAL
(Exist. septic system based on 92 seats per town listed maximum occupation)

PROPOSED TITLE 5 SEWAGE FLOW: 96 (seats) x 20 (gal/seat)
= 1,920 GAL/DAY REQUIRED

PROPOSED GREASE TRAP: 2,500 GALLONS
(Required: 1,440 gal.)

EXISTING SEPTIC TANK SIZE: 8000 GALLONS
(Required: 5,760 gal.)

EXIST. PUMP CHAMBER SIZE: 3418 GALLONS ACTUAL (3000 gal nominal size)
USABLE CAPACITY
(Required: 3300 gal. – based on maintaining 1 day flow emergency storage)

GARBAGE DISPOSAL: NOT PERMITTED
CLOTHES WASHING MACHINES: NO

PERCOLATION RATE: 11 MIN/INCH
DESIGN RATE: 15 MIN/INCH CLASS II SOIL

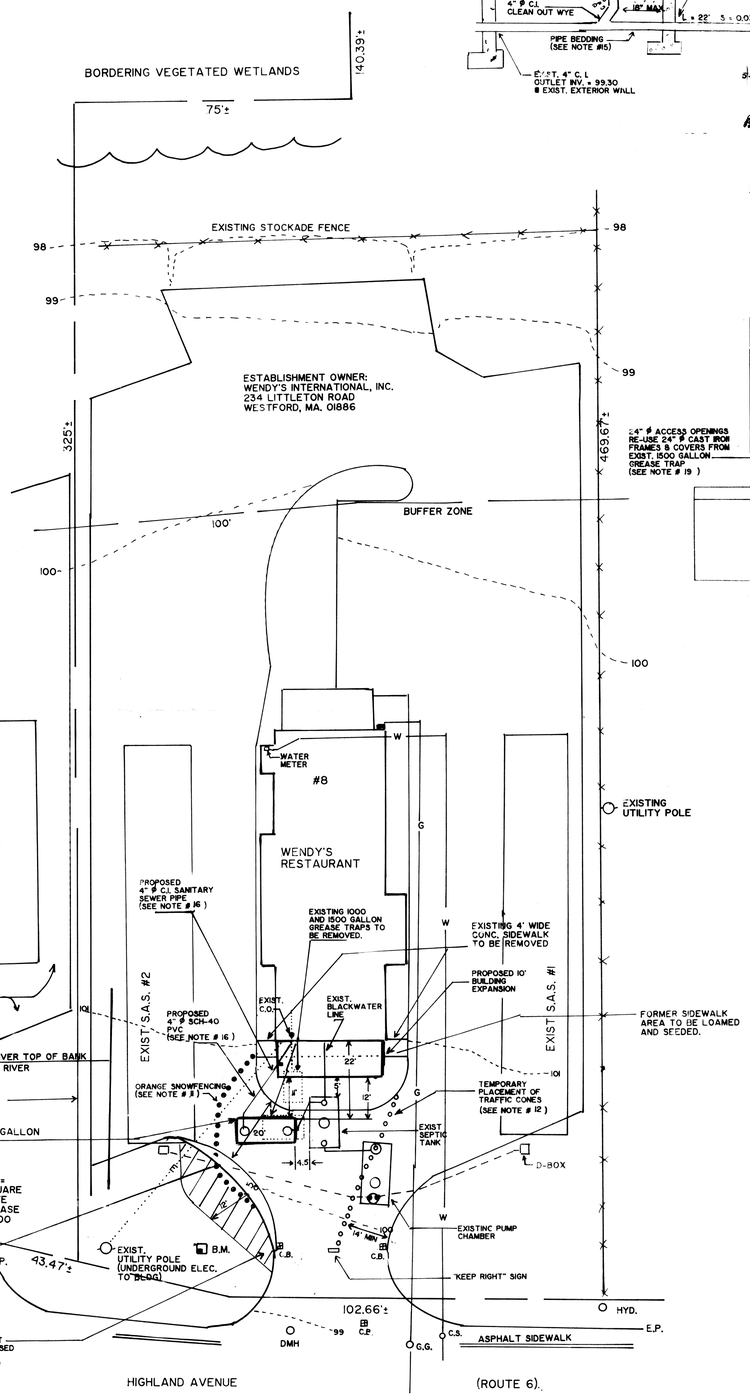
EXISTING S.A.S. CAPACITY:

S.A.S. #1
Bottom Area: 18.3' width X 111.0' length = 2031 S.F.
2031 s.f. X 0.70 gal/sf/day = 1,421 GAL/DAY

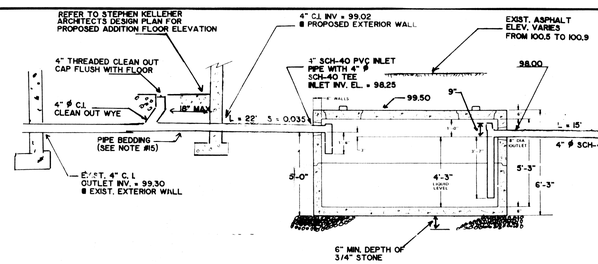
S.A.S. #1
Bottom Area: 18.0' width X 111.5' length = 2007 S.F.
2007 s.f. X 0.70 gal/sf/day = 1,404 GAL/DAY

TOTAL CAPACITY PROVIDED:
1,421 GAL/DAY + 1,404 GAL/DAY = 2826 GALLONS/DAY

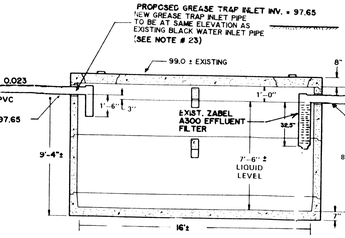
REFER TO SEEKONK BOARD OF HEALTH APPROVED SEPTIC SYSTEM REPLACEMENT PLAN PREPARED FOR WENDY'S RESTAURANT BY CIVIL ENGINEERING CONCEPTS, INC, DATED 7/16/01 AND SEPTIC SYSTEM AS-BUILT SKETCH DATED 1/11/02 FOR SPECIFICS RELATIVE TO EXISTING SEPTIC SYSTEM COMPONENTS.



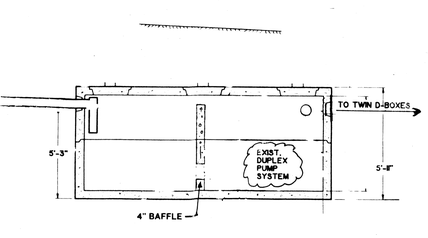
SITE PLAN
1" = 20'



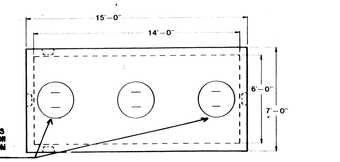
PROPOSED 2500 GALLON GREASE TRAP
NOT TO SCALE



EXIST. 8000 GALLON SEPTIC TANK
NOT TO SCALE



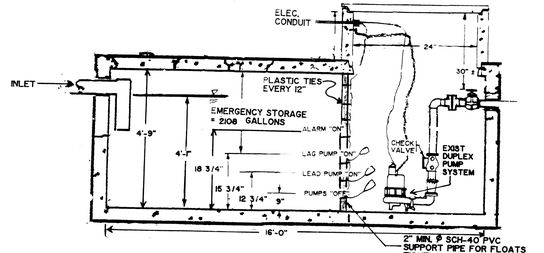
EXISTING 3000 GALLON PUMP CHAMBER
NOT TO SCALE



PLAN VIEW

SPECIFICATIONS
CONCRETE MINIMUM STRENGTH – 5,000 P.S.I. @ 28 DAYS
STEEL REINFORCEMENT – ASTM A-615 GRADE 60, 1" MIN. COVER
DESIGN LOADING – AASHTO HS20-44
EARTH COVER – 0 to 5 FEET
WATER TABLE – 3½ FEET BELOW FINISH GRADE
CONSTRUCTION JOINT – SEALED WITH 1" DIA. BUTYL RUBBER OR EQUIVALENT
TEES – PROVIDED AND INSTALLED BY OTHERS

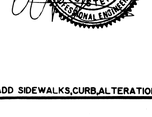
ROTONDO ST 6 x 14-25 H-20 RATED TANK
NOT TO SCALE



EXIST. PUMP CHAMBER
FLOAT ADJUSTMENTS

SEPTIC SYSTEM NOTES: replacement

1. The proposed sanitary sewage disposal system components (and modifications to existing components) shall be CONSTRUCTED (AND PERFORMED) IN COMPLIANCE with all applicable Seekonk Board of Health regulations and 310 CMR 15 (TITLE V) of the State Environmental Code, as most recently amended. Any MODIFICATION TO THIS DESIGN must be approved by the engineer and the local Board of Health.
2. BENCHMARK(S) shall be verified by the Contractor prior to construction of the proposed system.
3. Notify the local Board of Health when the system is ready for INSPECTION, prior to any backfilling. CONFIRMATION OF CONSTRUCTION (as-built) is required by design engineer. 3 day advanced notification is required for scheduling any necessary survey work.
4. DESIGN ENGINEER shall inspect the installed grease trap and related piping prior to any liquid discharge to trap. Design engineer shall inspect the float / bracket modification to the pump chamber prior to reuse of chamber. A full cycle pump test is required to be witnessed by the design engineer prior to effluent flow into the pump chamber and prior to request for certificate of completion.
5. The contractor shall notify the design engineer and local Board of Health if GROUNDWATER or PERCHED WATER is encountered at a higher elevation than indicated on this design plan or if any unusual soil conditions are encountered requiring adjustment / alteration to any proposed components.
6. This system is NOT DESIGNED FOR USE OF A GARBAGE DISPOSAL or other high water usage devices. Water treatment / softening units generating high volumes of liquid by-product to the septic system are not recommended and may significantly reduce septic system life expectancy. Floor / roof drains shall not be connected to any septic system components.
7. ANY EXISTING UNDERGROUND UTILITIES shown are approximate only and are based on prior Dig-Safe and Seekonk Water Dept. markings. Actual locations are to be verified by Contractor prior to excavation through Seekonk D.P.W. and Dig-Safe procedures.
8. All proposed septic system components are specified as HEAVY DUTY and shall conform to all state and local requirements for ASSHTO H-20 loading.
9. ALL TANK SEAMS, riser connections (if any) and all plumbing joints are to be installed 100% watertight, sealed with suitable gasket material, asphalt cement or other cement suitable for that specific component. The life span of the system would be compromised by the intrusion of any surface / groundwater.
10. HEAVY EQUIPMENT shall not be operated over any exposed septic components or the prepared bedding prior to final cover compaction.
11. CONSTRUCTION AREA shall be properly isolated from the customer traffic lanes through the use of snow fencing barriers attached to rebar supports set in drilled holes in the asphalt as shown.
12. TRAFFIC CONES (or snow fencing mounted to poles set in concrete buckets for mobility) and a "KEEP RIGHT" sign, pole mounted in a 5-gallon bucket ½ filled with concrete, shall be used to designate the 14' wide entrance lane.
13. TEMPORARY CUSTOMER VEHICLE EXIT LANE shall be construction in the grass landscaped area on the northwest side of the existing asphalt exit. Curbing, loam, and landscape island fill material shall be removed and stockpiled on site for reuse. Temporary exit lane surface shall be 9" minumum of rolled gravel / processed stone. Temporary exit lane shall be fully operational prior to excavation into the grease trap area. Grass landscaping and curbing shall be reinstalled following system completion.
14. ASPHALT AREAS to be disturbed as part of this project shall be saw cut. Suitable clean granular fill material placed over the tank and any excavated areas shall be compacted in 8" lifts. Asphalt replacement, blended to surrounding grades, shall be underlain with 8" compacted processed gravel. Asphalt thickness shall be minimum of 3" inches.
15. A NEW CAST IRON WYE for a clean-out shall be installed inside the proposed new exterior building wall. Clean-out shall be fitted with a 4" dia. threaded brass/bronze male plug set flush with the floor. Cast iron piping shall be bedded on 12" thick layer of compacted gravel with 8" of gravel on sides and 4" of gravel above.
16. CAST IRON PIPE, 4" dia., shall be used from the connection to the existing cast iron grease line to a point 10' outside the proposed foundation wall, transitioning at that point to 4" dia. SCH-40 PVC.
17. EXISTING 150-gallon GREASE TRAP shall be physically removed to facilitate the installation of the new 2500 gallon grease trap. The removed trap shall be disposed of off-site at a proper receiving facility and in a manner acceptable to the design engineer and the Seekonk Board of Health.
18. The EXISTING 1000-gallon GREASE TRAP shall be pumped empty and maintained as a grease-holding tight tank until the new 2500-gallon trap is installed and connected to septic tank. EXISTING 1000 gallon TRAP shall not be temporarily connected to septic tank during 2500-gallon trap installation. EXISTING 1000-gallon TRAP shall be physically removed once the new 2500-gallon trap is on-line. The grave remaining from the 1000-gallon trap shall be filled with clean granular soil and compacted.
19. EXISTING 150-gallon GREASE TRAP CAST IRON FRAMES AND COVERS may be reused on new grease trap provided there are no cracks or other observed defects that may compromise the structural integrity. In the event the exist. frames/covers are not salvageable, NEENAH R-1706 solid lid heavy duty, 24" opening manhole frames & covers (or approved equal) shall be used. Frames to be set in suitable mortar mix on properly mortared brick riser.
20. PROPOSED 2500-gallon GREASE TRAP shall be a Rotondo ST 6 x 14 – 25, H-20 rated unit, or approved equal. Any riser assemblies required to build up the inlet / outlet access cover to grade shall conform to H-20 loading requirements.
21. PROPOSED 2500-gallon TRAP shall be placed on 6" min. layer of compacted ¾ - 1" stone extending 1' beyond the horizontal dimensions of tank.
22. ALL EXTERIOR SCH-40 PVC PIPING shall be bedded on 8" min. thickness compacted sand/gravel with 8" on sides and 4" above.
23. The EXISTING 8000-GALLON SEPTIC TANK shall be equipped with a new 4" dia. SCH-40 grease trap inlet line and inlet tee. New inlet invert shall be at the same elevation as existing black/gray water inlet invert. Existing septic tank black/gray water inlet line and tee shall remain intact.
24. The EXISTING 8000-GALLON SEPTIC TANK shall be pumped empty to facilitate both installation / mortaring of the new grease trap line and allow modification work in the pump chamber without effluent transfer.
25. EXISTING PUMP CHAMBER shall be pumped empty to allow replacement of the float support assembly. A new 2" dia. SCH-40 PVC support pipe shall be installed and properly wedged tight between the floor and the roof of the chamber, within reach of the access cover without requiring entry into the chamber.
26. PUMP CHAMBER FLOAT SYSTEM ALTERATIONS shall be performed either during restaurant closed hours while grease trap installation is occurring or shall be performed before or after grease trap installation so as to not impede traffic flow into and out of the restaurant. Activities in pump chamber outlet access cover shall not occur during restaurant 'open' hours while entrance is disrupted by grease trap installation process.
27. NEW FLOAT LOCATIONS shall be at elevations specified on pump chamber detail. Floats shall be connected to 2" dia. SCH-40 PVC support pipe with double plastic locking wire ties. Floats shall be positioned with 6" of cable between the float and the tie. Distance above floor shall be measured from floor to centerline of float when lifted to horizontal position. Test operation of floats /pumps shall be performed prior to effluent discharge to chamber.



REV. 4/17/03 ADD SIDEWALKS,CURB,ALTERATIONS,NOTES.

Received
APR 2 9 2003
Con. Comm.

SITE PLAN

WENDY'S RESTAURANT
8 HIGHLAND AVENUE
ASSESSOR MAP 8, LOT 111
SEEKONK, MA.

CIVIL ENGINEERING CONCEPTS, INC
1723 STAFFORD ROAD, TIVERTON, RI., 02878
(401) 624-7611
fax: (401) 624-7551
P.O. BOX 943, NEW BEDFORD, MA., 02741
(508) 990-4900

scale: 1"= 20'
sheet: 1 of 1
date: 3/18/03
file: 02-205