

**Sanitary – Septic system**

- 1 General
- .1 Complete all work for new sanitary system.
  - .2 Contractor to site verify all elevations prior to commencing with work.

2 General Septic

1. T-time of 50 assumed for septic design. Design based on fully raised bed system.
2. Imported material to be a T-time of 8 min./cm. Septic installer to provide verification of imported soil.
3. Wells & open water courses to be located 100'+ from proposed septic system.
4. Location of septic is shown on site plan. Ensure any surface water is directed away from sewage system.
5. Trench drain wash water and building sanitary to go into separate systems.
6. Will use conventional "raised bed" design. If installer proposes infiltrator pipe or a treatment unit instead of septic tank – information is to be provided to Engineer & Municipality for approval.
7. With a "raised" system will require 50' mantel in direction of flow.
8. Contractor to fill out septic application and provide license number

3 Sewage System Design Flow:

1. 24 employees x 125 L/day (includes shower) = 3,000 L/day (Conservative). Note: no shower occupancy = 40 persons
2. Review of washing procedures and pressure washing equipment - estimate 20 litres / minute x 45 minutes per wash (900 L/day). 2 trucks per day washed (conservative). Total daily flow from truck wash = 1,800 L/day.
3. Daily sewage flow rate  $Q = 3,000$  L/day.
4. Daily wash water flow rate = 1,800 L/day.

4 Septic Tank / Oil Interceptor / Pump Chamber :

1. Septic tank to conform to *O.B.C. 8.2.2.2. Tanks* and *O.B.C. 8.2.2.3. Septic Tanks*
2. Minimum size (*O.B.C. 8.2.2.3 (1)*): 3 x daily design = 2,000 gal. septic tank.
3. Septic system 600 gal. pump chamber c/w sewage pump -high level alarm & panel (install in Janitor's Room). Sewage pump to have 2" discharge. 2" plastic pressure line to distribution bed
4. Minimum 900 gallon oil interceptor for wash water.
5. Apparatus bay floor drains to go through an oil interceptor prior to leaching bed. Trench drain to have sediment / grit trap.
6. Wash water system 300 gal. pump chamber c/w sewage pump - high level alarm & panel (install in Janitor's Room). Sewage pump to have 1 1/2" discharge. 1 1/2" plastic pressure line to distribution bed

5 Absorption Trench Construction:

1. Based on T-time of 8 min./cm. the following distribution pipe is required:
2. Sewage - Length of Distribution Pipe (*O.B.C. 8.7.3.1*):  $L = \frac{Q \cdot T}{200} = 3,000 \times 8 / 200 = 120\text{m}$  (390ft.). Propose using 8 runs x 50' = 400 ft. with distribution box.
3. Wash Water - Length of Distribution Pipe (*O.B.C. 8.7.3.1*):  $L = \frac{Q \cdot T}{200} = 1,800 \times 8 / 200 = 72\text{m}$  (230ft.). Propose using 5 runs x 50' = 250 ft. with distribution box.
4. Install minimum of 5' of approved sand – trench new tile bed into imported sand – maintain minimum 3' of sand below tile bed to original sub-soil.
5. To be constructed in conformance to *O.B.C. 8.7.3.* and *O.B.C. 8.7.4*

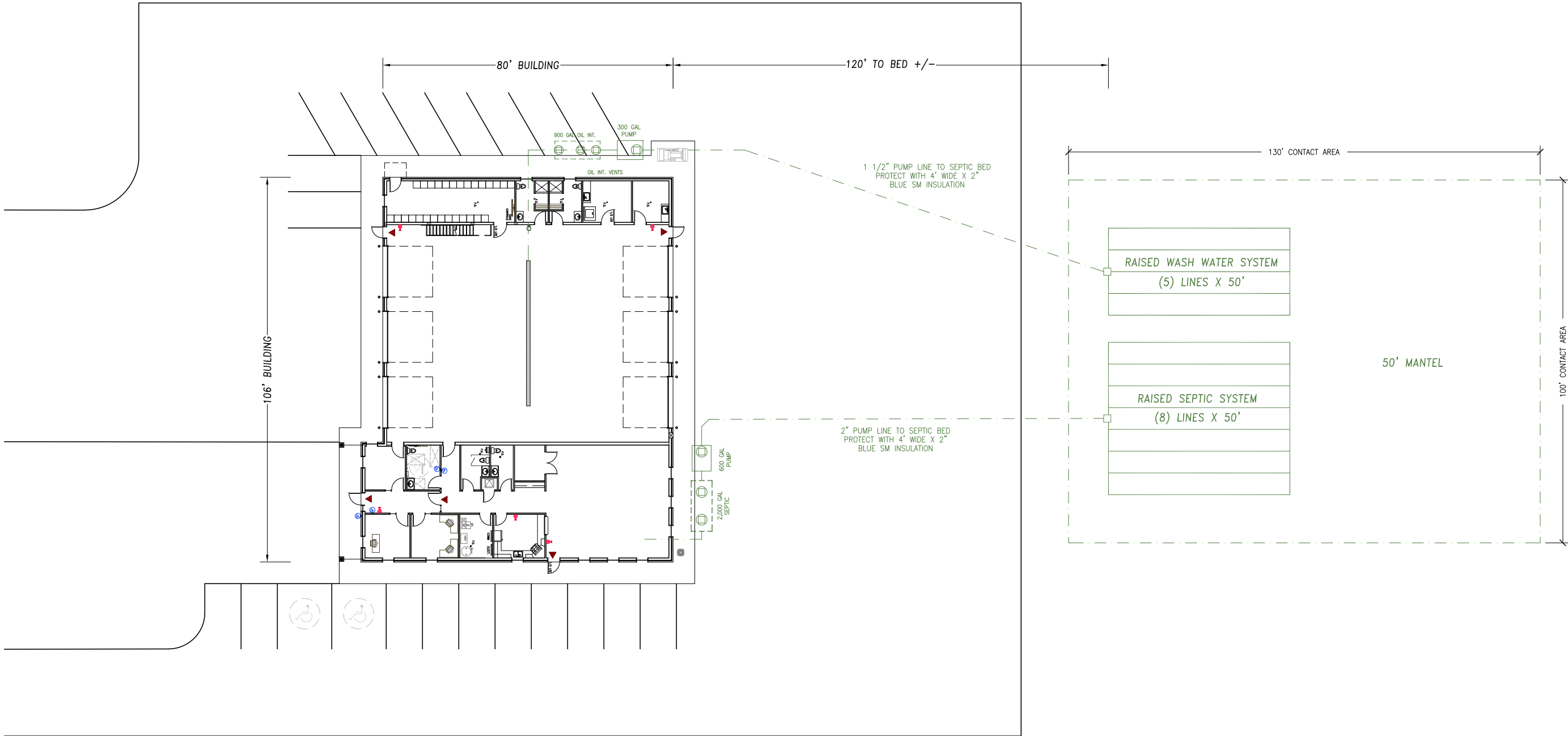
6 General Sewage System Comments:

Septic Contractor to note the following comments when constructing the sanitary septic system and wash water system.

1. Septic Contractor to provide license to Municipality for permit application.
2. After striping and scarifying the sub-grade contact Dawley & Municipality for inspection.
3. After installation of fill and distribution piping contact Dawley & Municipality for inspection prior to covering. At that time contractor to take measurements to verify location of distribution piping for "as-built" drawings.
4. Manhole risers to be installed over all access lids for the oil/sediment interceptor and septic tanks to facilitate inspection and pumping out of any sludge.
5. A 4" diameter capped riser at the end of the tile bed to be installed to allow for periodic testing and monitoring.
6. Tracer wire to be installed along force main and distribution bed.
7. The sides of the leaching bed fill not to be steeper than 4 (horizontal) to 1 (vertical). The imported fill is not to be installed in lifts greater than 10" deep.
8. Ensure all setbacks conform to O.B.C. 8.2.1.6. and 8.7.4.2(11)
9. Operation and maintenance of the sewage system to be in conformance to O.B.C. 8.9
10. Should any questions or concerns arise during construction contact Dawley for inspection & review prior to proceeding.

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**GENERAL ARRANGEMENT SITE PLAN FOR SEPTIC DESIGN**  
**SEPTIC SYSTEM TO BE INCORPORATED IN FINAL SITE LAYOUT**



NOTE: 11 x 17 PRINTS ARE HALF-SCALE,  
24 x 36 PRINTS ARE FULL-SCALE

0	10/20/25	ISSUED FOR APPROVALS	N.R.D.
NO.	DATE	DESCRIPTION	BY
REVISIONS			

ALL CONSTRUCTION TO BE IN ACCORDANCE  
WITH THE ONTARIO BUILDING CODE AND  
LOCAL BY-LAWS.



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**Municipality of  
Magnetawan**  
PROPOSED NEW FIRE HALL  
MAGNETAWAN, ONTARIO

ISSUED FOR APPROVALS		GENERAL SEPTIC PLAN	
SCALE	1" = 15'	DWG.#	SP-1
DATE	OCT. 20, 2025		0