



**Planning & Development**  
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**Memo**

Date: February 24, 2022

To: Planning Board

From: Michael G. Livingston, Town Engineer/Planner

Re: M&L Aggregate – Map 41, Lot 13-1  
Stormwater Management Design Review

**Analysis**

**Methodology:**

- HydroCAD model good
- Rainfall intensity rates good
- Water Quality approach good

**Pre-Development:**

- Three analysis points and basins modelled – good
- Subcatchments well modelled: soils and flow paths good

**Post-Development:**

- Developed areas well isolated to convey stormwater to detention and treatment measures
- Consistent analysis point to pre-development model
- Subcatchments well modelled and linked to analysis points
- Subcatchment areas and flow paths good
- Only one area of note on Subc 6 – basin limits should be revised to include back side of the building. Proposed contours depict a swale which would collect stormwater from this area, see highlighted plan portion attached.
- Ponds (25 year Event)
  - Pond 200P, Existing Culv under Willie Hill Road. Pre Peak elevation 163.75 (25 year) which is approximately 1 foot below the road pavement.
  - Pond 200P Post Peak elevation 163.72, Good, lower than Pre
  - Pond 102P, Peak elevation 168.03. Willie Hill Road approximately 168.5 and proposed entrance at 168.15. Culvert cover only 1 foot. It is recommended that this proposed culvert be lowered.
  - Pond 1P good for detention and treatment. Peak 168.75, Emerg spillway bottom 169.0. Berm top 170.0. Good.
  - Pond 103P, Peak elevation 169.04, entrance road at 171.0. Good. Profile on Sht. 3 labels culvert at 168.5 which does not match Sht. 2 or model.
  - Pond 2P, Peak elevation 161.04, Emergency spillway 161.5, Berm 162.5, Good. Per 145-75. F. (6) *The top of a cut or the bottom of a fill section which alters the existing grade by more than two feet shall not be closer than 10 feet*

to an adjoining lot. The pond side slope is at the adjoining property line and the grade change is from 158 to 162.5 within 10 feet. The pond needs to be shifted northwesterly approximately 10 feet.

Results:

Quantity Calculations indicate a reduction in estimated peak flow rates for each storm event, see Table 1 of report. With minor revisions noted above, the results meet Town ordinances.

Operation and Maintenance Plan:

Include with report, Includes maintenance logs. Good.

Erosion and Sedimentation Control Plan:

Erosion control barriers depicted on Sht. 2

Stabilized construction entrance labelled on Sht. 2 and detail on Sht. 4

Notes and details located on Sht. 4

As noted above, the pond needs to be shifted slightly in location to meet 145-75, F. (6)

With the pond location change made, the information provided on the plans meet BMP and Town standards and requirements.

