

**TOWN OF ACTON**  
472 Main Street  
Acton, Massachusetts, 01720  
Telephone (978) 264-9628  
Fax (978) 264-9630

**Engineering Department**

---

**INTERDEPARTMENTAL COMMUNICATION**

**To: Planning Department**

**Date: February 19, 2008**

**Revised: March 5, 2008**

**From: Engineering Department**

**Subject: Review of Barbara's Way – Definitive Plan 24 & 26 Agawam Road**

---

We have the following comments regarding the above mentioned definitive plan dated January 2008. ***Our revised comments are referenced to the revised plan dated February 25, 2008.***

1. The engineer will need to label the street addresses for the lots on Barbara's Way. The odd street numbers are located on the right side and the even street numbers are located on the left side of the road. There should be street addresses available for the 2 existing homes on Agawam Road, in case they decide to change their house numbers. ***We do not foresee an issue with the new street name "Dakota Drive". We forwarded a request to the Police, Fire & Assessors Departments and these Departments have also confirmed that they do not foresee any issues with the new street name.***
2. The Fire Chief will have to review Barbara's Way to ensure that the proposed turnaround at the end of Barbara's Way is sufficient for a fire truck. Based on our turning templates, a fire truck needs to utilize both driveways for Lots 2 & 3 in order to turnaround at the end of the new road. The turning template shows that a SU-30 vehicle can maneuver the driveway configuration without driving over the grass road shoulder. ***No Comment***
3. The engineer should label the radiuses for the pavement roundings at the intersection with Agawam Road and the driveways for Lots 2 & 3 to ensure a fire truck can maneuver within the site without driving over the grass shoulder. ***Done***
4. The engineer should be required to submit an as-built plan to certify the subdivision has been built in compliance with the approved plan. ***No Comment***

5. We recommend that the as-built plan be accompanied with a letter from the registered engineer that certifies the subdivision has been built in compliance with the approved plan. **No Comment**
6. The applicant did not address the sidewalk requirement for the subdivision. **The applicant is proposing to contribute to the Town's sidewalk fund. If approved, we recommend that the funds not be restricted to a particular location in Town.**
7. The engineer should add a typical cross section for the infiltration basins to specify the requirements for the surface treatment, maximum/minimum allowable side slopes, soil layers, etc... **The engineer needs to include some labels for the soil layers, surface treatment & maximum allowable side slopes to the new infiltration basin detail showing the recharge wick.**
8. The engineer should label the minimum two foot separation between the maximum groundwater elevation and the bottom elevations of the infiltration basins and dry wells. **Done**
9. The engineer has shown the runoff for the proposed street is collected in infiltration basins at the end of the new road within Groundwater Protection District Zone 3. The engineer will need to document how the proposed drainage design complies with the treatment and renovation requirements set forth in the Zoning Bylaw. **We would like to see the applicant modify their existing drain system to be more compliant with the treatment and renovation of runoff for a Zone 3 Groundwater Protection District. It appears that the engineer may be able to utilize the smaller infiltration pond to serve as a clay-lined basin to contain more of the pollutants collected from the shared driveway.**
10. The engineer should show how they intend to infiltrate runoff during the winter season when the infiltration basin is frozen and has no leaching capacity. **Done**
11. We recommend the use of leaching galleys in both infiltration basins to allow the leaching surface to stay below the grass layer as well as the frost line. **No Comment**
12. We would also recommend that the engineer show a catch basin at a low point in Barbara's Way to allow for a direct inlet connection to infiltration basin #2. This would be especially important during the winter months when the snow piled along the side of the road obstructs the overland flow to the basin. **Done**
13. The engineer might want to show a raised driveway apron at the intersection to ensure the runoff in the gutter along Agawam Road does not divert into the site as a result of the new development. **Done. The engineer may need to adjust the height of the driveway apron during construction to ensure the runoff from Agawam Road stays in the gutter line.**

14. If possible, the engineer should consider removing the proposed pavement beyond the 2 new driveways for Lots 2 & 3 at about station 2+30). This area beyond station 2+30 could be preserved as a snow storage area and might prevent this snow from being plowed into infiltration basin #2. **Done**
15. The drainage report indicates that the driveways for Lots 2 & 3 will drain to infiltration basin #2; not overland to the rear of the site. The engineer might need to add a label on the construction plans to ensure the contractor constructs the driveways as specified in the drainage calculations. **Done**
16. The engineer might need to run a check on infiltration basin #2 to see how it would handle a large storm event during the winter months when the side of the road is obstructed by snow plowed along the shoulder. We are concerned that the snow along the road shoulder will prevent the runoff from entering infiltration basin #1. **Our concern about the larger infiltration basin (Pond #2) is that the smaller infiltration basin (Pond #1) & the connector pipe are proposed at or slightly above the top of the berm for Pond #2. We want to be sure that Pond #2 can handle all the drainage from the road if Pond #1 is off-line due to snow banks, etc...**
17. The maintenance agreement for the private way should incorporate the standard language for private ways so the future residents clearly understand the Town will not be responsible for snow plowing or any other related maintenance and that the private way will not become a public way. **No Comment**
18. The maintenance agreement for this private way should incorporate the Operation and Maintenance Plan for the proposed drainage system. The engineer should add some language to the inspection process so that homeowners can visually detect a problem such as standing water in the basin due to fine materials diminishing the infiltration capability. Our concern is that if these infiltration basins fail, we want the homeowners to recognize the problem in the earliest possible stage and be able to take corrective measures to rectify the situation. **No Comment**
19. There is no proposed monumentation such as stone bounds shown on the plans for the new private way. The engineer should either monument the layout of the private way or propose some alternative locations such as at the property corners. **Done**
20. The existing and proposed survey monumentation should be shown on all the plan sheets. We want to make sure that these locations are protected during construction. There should be some notes added to the plans to require the existing survey monuments to be marked in the field prior to construction. **Done**
21. If proposed survey monumentation is required, the engineer should add the following notes:

- The bounds shall be a six (6) inch square by four (4) feet long piece of granite set flush with the finished grade. **Done**
- No permanent monuments shall be installed until all construction that would destroy or disturb the monuments is completed. **Need to add a note to the plan**
- The Applicant will be required to submit a certificate (Form CB) by a registered land surveyor at the subdivider's expense, indicating that these permanent monuments are in place and are accurately located, including evidence that the bound traverse had a ratio "error of closure" of 1:15,000 or better. **No Comment**

22. The Engineer should add the following notes about the proposed street name sign on the plan:

- The street name sign shall be set in concrete and be of the same type that exists in the Town. **Done**
- The sign shall be erected prior to construction of the first house on the street. **Done**
- The signpost shall have affixed thereto a sign designating the street as a private way. **Done**

23. The engineer should add a note on the plan which states that the proposed dwelling locations and tree lines are only representational and dwellings may be built in another location within the allowable building envelope and additional trees may be removed. **Done**

24. The engineer needs to show 2 temporary benchmarks on the plan along with a note describing the elevation and location of the starting benchmark that references the National Geodetic Vertical Datum of 1929. **Done**

25. The contractor will be required to apply for Permits to Construct within a Public Way for any work within the layout of Agawam Road (i.e. underground utility connections, driveway apron, etc...). **Done**

26. The engineer should add a note on the plans stating that the contractor is responsible to clean up any sand, dirt or debris which erodes from the site onto Agawam Road or private property and to remove silt or debris that enters any existing drainage system including catch basin sumps, pipe lines, manholes and ditches. **Done**

27. The engineer should label the existing utility poles along Agawam Road on the plans.  
**Done**

28. Although not required, the Engineering Department would like to work with the engineer in order to have this subdivision based on Massachusetts State Plane coordinates. Our office can assist the project engineer with the Town's GPS equipment. As the Town advances towards a geographic information system (GIS), we would like to initiate having approved projects based on the State Plane Coordinate System so that the information could be easily incorporated into the new GIS mapping system. **The engineer has agreed to work with our office to establish State Plane Coordinates to this subdivision with the Town's new GPS survey equipment.**