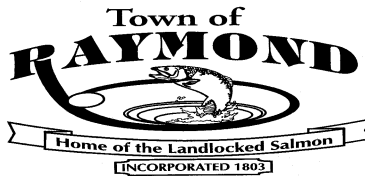


**Bruce Tupper**  
*Chief*



**Cathy Gosselin**  
*Deputy Chief*

## **FIRE/RESCUE**

*1443Roosevelt Trail*  
Raymond, Maine 04071

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*Emergency 9-1-1*

*Chief's Office 655-1187*

*Dispatch 655-7851*

### **PLAN REVIEW MEMORANDUM**

August 9, 2021

To: Alex Sirois - Code Enforcement Officer  
CC: Sandy Fredricks - Administrative Assistant, James Seymour - Town Planner, Bruce Tupper - Fire Chief, Kirk Ball - Acheron Engineering Services, Raymond Planning Board  
From: Wayne C. Jones - Raymond Fire Inspector; Brent Libby - Windham Fire Chief  
RE: Sebago Solar Land Development Application - Emergency Vehicle Access to the site.

The Raymond & Windham Fire Rescue Departments requests, as a condition of approval, that Emergency Vehicle Access from Pipeline Road to the Sebago Solar Project should incorporate the following:

1. The application should address Fire Rescue Department access in accordance with NFPA 1, Chapter 18.
  - a. The current conditions found with the pavement and subbase on Pipeline Road should be corrected and brought up to standards. There are numerous and significant potholes found on this private road along its entire length from Windham/Raymond Town Line to Elizabeth Avenue (see photos pages 4-9). Pipeline Road would provide for emergency vehicle access to the site and access to area fire hydrants (see attached photos). The intersection of Pipeline Road and Viola/Boulder Bend is noted for puddling of run-off water which freezes in the winter. This frozen water has caused emergency vehicles to become stuck in this intersection.
  - b. The current pit access road, running from Pipeline Road to the Sebago Solar entrance should be upgraded to a 20-foot paved travel lane. This upgrade would meet the emergency vehicle access standards of NFPA 1 and should mirror the "Minor Street" conditions proposed for the Boulder Bend 9-Lot, subdivision (Phase 1) currently under review by the Raymond Planning Board. This emergency vehicle access road should cross the 50-foot Right of Way designed for the Boulder Bend subdivision (Phase II).
  - c. At the Intersection of Boulder Bend and the Sebago Solar entrance road, a 180-degree turn around shall be incorporated in the street design. This turn-around shall provide an area to permit emergency vehicles to turn-around prior to entering the Sebago Solar site. This turn around shall be designed in accordance with the requirements of Town of Raymond and Town of Windham standards and ordinances.
  - d. The 180 degree "hammer-head" turn-around shall be designated as "Fire Lanes". These Fire Lanes shall be noted on the approved plans and/or addressed in the approved plan Notes.

- e. The designated "Fire Lane" areas shall be marked with approved "Fire Lane" signs that read; "Fire Lane", "No Parking", "Vehicles Towed at the Owners Expense" (see example of the sign below). The location of the signs shall be approved by the Raymond Fire Rescue Department (RFRD). These Fire Lane signs shall be designated on the approved plans and/or addressed in the approved plan Notes. The Fire Lane signs should also be included in the approved plan Details page.



- f. The street shall be designed and maintained with an all-weather driving surface capable of supporting fire department apparatus with a Gross Vehicle Weight Rating (GVWR) of 75,000 lbs.
- g. The street shall be designed with an unobstructed vertical clearance of 13' 6".
- h. The street grades shall be designed according to the limitations of fire department apparatus regarding approach/departure/break-over angles as follows:
- An angle of approach no greater than 8 degrees.
  - Departure angles no greater than 9 degrees.
  - Break-over angles no greater than 13 degrees.
  - Street Grade shall not exceed 10 degrees along its entire length.
  - Maximum Street Grade within 75-feet of intersections shall be 2%.
2. Provide an Auto-Turn (or equivalent) template for a 40-foot fire apparatus with a commercial cab, a tandem rear axle, and a 214-inch wheelbase. This design shall demonstrate that the above noted fire apparatus can maneuver onto and back out of the new proposed "hammer head" turn-around, and all intersection radii. All proposed designs shall be approved by the Raymond Fire Rescue Department (RFRD).
3. The E911 Street address, as assigned by the Town of Raymond E911 Coordinator, should be noted on the approved plans. The street address sign shall be installed to be visible from both approach directions on the proposed street and located to be clearly visible on approach from within the fire apparatus cab. The street address lettering shall be no less than 4" in height, shall be of a contrasting color to the sign background, shall be of a block letter type, and preferably the numbers should be reflective for night or reduced light conditions. The placement of street address signs shall be approved by the Raymond and Windham Fire Rescue Departments.
4. The Sebago Solar entrance gate shall install Knox Box's (one from WFRD, and one from RFRD) at the entrance gate location. These Knox Box's and gate locking devices shall be enclosed within tamper-proof housings. The Knox Box's shall contain all keys or key cards, to provide the WFRD & RFRD access to the entire site, all enclosures, and any emergency shut-down equipment. A weather-proof site map shall also be provided at this location showing all AC & DC emergency shut-down equipment locations. Emergency contact personnel information on laminated cards shall be kept in the Knox Box's.
5. Gated emergency vehicle access shall be provided at the Boulder Bend (Phase 1) street terminus (at the 180-degree "hammerhead"). This emergency vehicle access gate shall provide for a minimum

clear opening of 24-feet. This emergency vehicle access gate shall incorporate a RFRD Knox Box and locking devices enclosed within tamper-proof housings. The Knox Box shall contain keys to permit opening of this access gate by emergency response personnel.

6. A street and winter maintenance agreement shall be provided with the application and shall be included in the approved plans. This street and winter maintenance agreement will cover the length of Pipeline Road from the Windham/Raymond Town line to Elizabeth Avenue in Raymond. It shall also cover the entire length of Boulder Bend Road from the Pipeline Road intersection up to and including the Sebago Solar emergency vehicle access road(s).
7. All proposed designs to address Fire Rescue Department access shall be approved by the Raymond and Windham Fire Rescue Departments.
8. All Fire Rescue Department access items, and fire & life safety items noted in this memorandum shall be included on the approved plans, and/or addressed in the approved plan "Notes".

Please feel free to contact us with any questions.

Yours in Fire Safety,

Wayne C. Jones  
Fire Inspector  
Raymond Fire Rescue Department  
(207) 892-4046

Brent Libby  
Fire Chief  
Windham Fire Rescue Department  
207-892-1911

Cc: Kirk Ball - Acheron Engineering Services  
Cc: Windham Fire Rescue Department  
Cc: File



Fig. 1. Viola looking towards Boulder Bend



Fig. 2. Viola looking towards Boulder Bend



Fig. 3. Pipeline @ Town Line looking towards intersection



Fig 4. Pipeline @ Town Line looking towards intersection



Fig. 5. Pipeline from Elizabeth Ave.side looking towards intersection & Boulder Bend



Fig. 6. Pipeline @ intersection looking towards Boulder Bend



Fig. 7. Pipeline @ intersection looking towards Boulder Bend



Fig. 8. Pipeline @ intersection looking towards Elizabeth Ave.



Fig. 9. Pipeline @ Elizabeth Ave. looking towards intersection & Town Line



Fig. 10. Pipeline @ intersection looking towards Boulder Bend





Fig. 6. Boulder Bend looking towards intersection & Viola Ave.