

APPENDIX G

Engineer's Report for Approval of a Backflow Prevention Design



**ENGINEER'S REPORT
FOR APPROVAL OF A BACKFLOW PREVENTION DEVICE**

Name of Facility/Project: _____

Address: _____ Town: _____

1. Facility/Project Classification (Check all That Apply):

- | | |
|--|--|
| <input type="checkbox"/> Residential Multi Family; No. of Units _____ | <input type="checkbox"/> Funeral Home |
| <input type="checkbox"/> Single Retail Store | <input type="checkbox"/> School – Public/Private |
| <input type="checkbox"/> Multiple Retail Stores/Plazas | <input type="checkbox"/> Country Club/Golf Course |
| <input type="checkbox"/> Single Business | <input type="checkbox"/> Church |
| <input type="checkbox"/> Multiple Business; Professional/Office Building | <input type="checkbox"/> Nursery/Garden Store |
| <input type="checkbox"/> Food Service/Restaurant | <input type="checkbox"/> Health Club/Community Center |
| <input type="checkbox"/> Laundromats/Dry Cleaners | <input type="checkbox"/> Automotive Sales/Service Center |
| <input type="checkbox"/> Hotel/Motel; No. of Rooms _____ | <input type="checkbox"/> Grocery |
| <input type="checkbox"/> Car Wash | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Medical Center/Nursing Home/Hospital | |

2. How many stories (floors) will the facility have? _____

3. What is the square footage of floor space at the facility? _____

4. What is the maximum domestic flow rate (GPM)? _____ GPM

What is the average daily consumption (Gallons)? _____ GPD

What is the size of the domestic service? _____

5. Will the facility/project receive domestic water supply from a secondary source, such as (Check if Yes):

- Well Cistern Other _____

6. Please indicate method of Sewage Disposal:

- Public Sewer Private Septic Other _____

7. Will the facility require a booster pump station on the domestic Service? Yes No

If YES, what will pressure be in MCWA's main at the point of connection during Maximum Flow: _____ PSI

8. Will the facility have a fire service? Yes No

(If YES, answer Questions A through E below; if no, continue to Question 9)

a. Will the fire service have a fire pump? Yes No If YES, what will pressure be in MCWA's main at the point of connection during Maximum Flow: _____ PSI.

b. Is the facility located within 1700 feet of an alternative source of water (retention pond, lake, river, canal, etc.) from which fire equipment could draw from (draft) in the event of a fire? Yes No

If YES, please describe: _____

c. What is the size of the fire service? _____

d. What is the maximum flow rate of the fire service? _____

e. Check all that apply to the facility's fire system: Wet System Dry System Private Fire Hydrant

Pumper Connections Other _____

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- 9. Will the facility have an underground lawn/landscape irrigation system? Yes No
- 10. Does the facility require a continuous water supply? Yes No **(if YES, dual backflow preventers will be required)**
- 11. Is the facility located within the 100-year flood plain? (a Reduced Pressure Zone (RPZ) backflow prevention device must be installed 12 inches above the 100-year flood plain) Yes No
- 12. Will the area where the backflow preventer is located be adequately heated to prevent freezing? Yes No
- 13. Will the area where the backflow preventer is located be adequately lighted to allow for maintenance and testing of the device? Yes No
- 14. Will the backflow preventer be located in a vault, basement, and/or located below grade where a drain is necessary to accommodate the relief port? (If YES, please answer question A below) Yes No
 - a. Will the RPZ drain to a crock or other holding container, which will require final discharge? (If YES, describe)

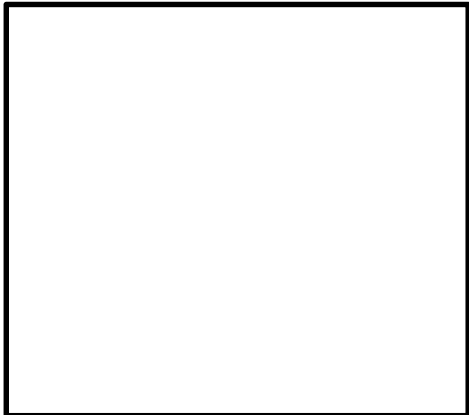
15. Is the drain for the RPZ relief port adequately sized to accommodate a full discharge (dump) from the relief port without flooding the surrounding area? Yes No

16. Please indicate where the RPZ relief port drain line discharges to:
 Sanitary Sewer Lateral Storm Sewer Lateral Outside Grade System Outside Grade
 Private Septic System Other _____

17. What is the water pressure at the facility (upstream and downstream) of the proposed backflow prevention device(s), both domestic and fire, during maximum flow conditions?
Domestic RPZ N/A (Check if domestic service has been determined to be non-hazardous)
_____ PSI Upstream Make & Model No. of Proposed RPZ _____
_____ PSI Downstream Size of Main Backflow Device _____

Fire Service RPDA N/A (Check if there is no Fire Service or if Fire Service has been determined to be non-hazardous)
_____ PSI Upstream Make & Model No. of Proposed RPZ _____
_____ PSI Downstream Size of Main Backflow Device _____
 Size of Detector Backflow Device _____

18. Date of Report Completion: _____



Engineers' Stamp and Signature Box