

May 2, 2018

Ms. Amanda Lessard
Planner
Town of Windham
8 School Road
Windham ME 04062

Re: Letter of Correspondence #2
Site Plan Review
Shared Maintenance Facility
185 Windham Center Road, Windham, Maine

Dear Amanda:

The following narrative addresses comments received from Jonathan Earle, Town Engineer concerning the fueling station siting option and the stream buffer impacts.

For ease of review, the comments have been repeated followed by our response.

Comment - *Provide a revised postdevelopment watershed map that includes the revised location of the fuel station. The grading plan clearly shows the footprint is tributary to the Focal Point device, but it would be good to show this on the watershed map as well.*

Response – A revised post-development watershed map is attached to this letter.

Comment - *Though I'm sure very minor in nature, it would be good summarize any minor impacts to water quality and quantity calculations from moving the fuel station. I don't necessarily need the full HydroCAD calcs, but a summary in the cover letter to the Board seems appropriate.*

Response – The movement of the fueling station results in the following changes to the stormwater analysis for this project.

- **Treatment Percentage Required:** The land use cover types for the post-development condition within the redevelopment area do not change as a result of moving the fueling station, therefore there is no change to the required treatment percentages.
- **Water Quality:** The treatment requirements within the tributary area to the Focal Point Filter change as a result of moving the fuel station. The change results in a 557 square foot increase in impervious area and a 557 square foot decrease in vegetated area. The change in area results in a 28 cubic foot increase in the required treatment volume. The provided storage is adequate for this increase in treatment volume and remains unchanged. The change in tributary area requires an increase in the area of the Focal Point filter of 5 square feet.
- **Water Quantity:** The relocation of the fuel station results in an increase in impervious area of 557 square feet and a decrease in vegetated area of 557 square feet within subcatchment 3. The change has no effect on the peak flows at POI 1.



Comment - *You make a great point that the project is actually resulting in less impervious and disturbed area with the 75' buffer. Would it be helpful to show this on a plan (or two plans?) to give the Board a visual on the reduced buffer impacts. Not something I need to see or review, just a suggestion.*

Response – Plans depicting the buffer change as a result of this project are attached to this letter.

Closure

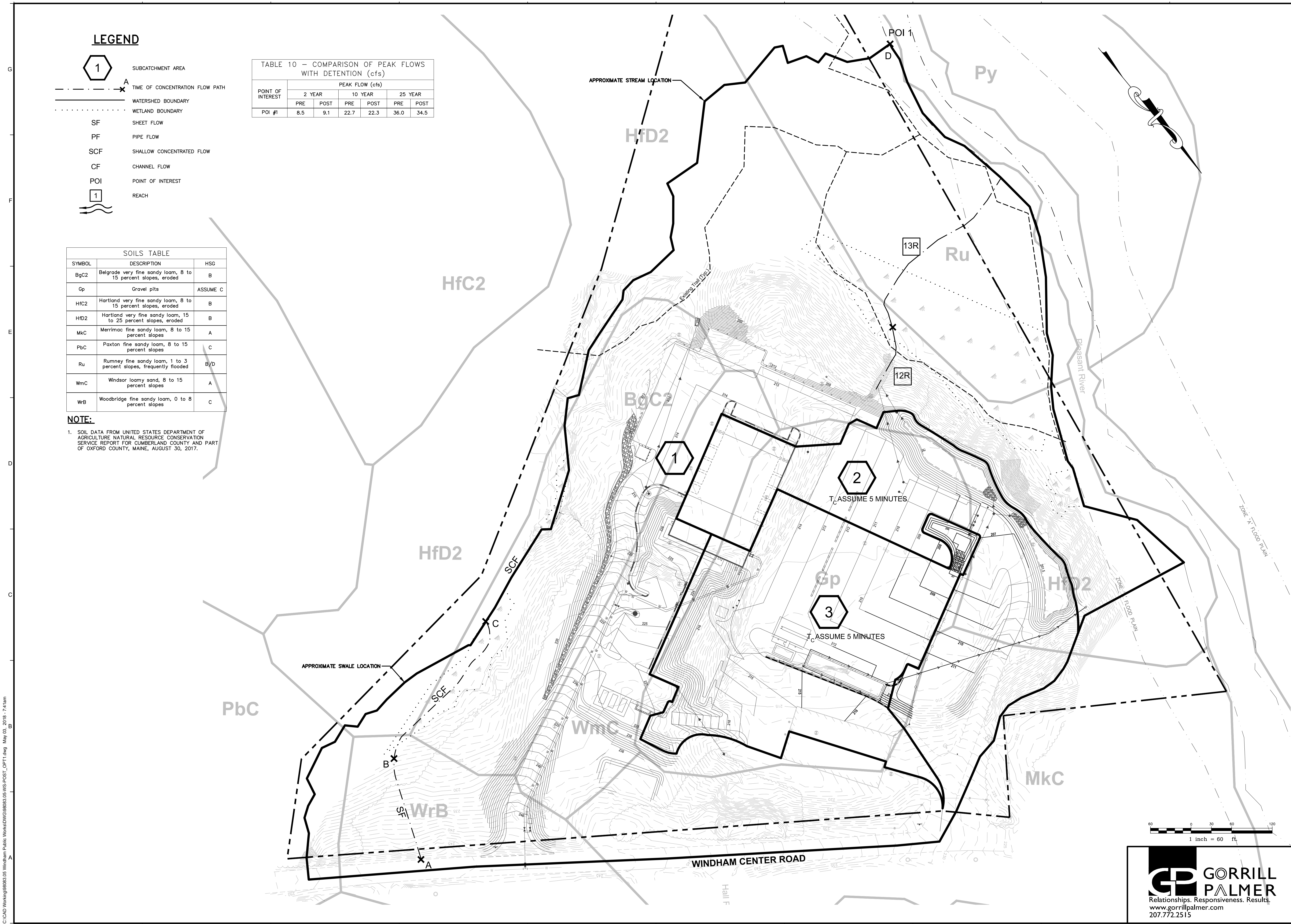
We look forward to reviewing these comments with Planning Staff and the Planning Board. Do not hesitate to contact us with any questions or for additional information.

Sincerely,
Gorrill Palmer

A handwritten signature in black ink that reads 'William C. Haskell'.

William C. Haskell, PE
Principal

C:\CAD Working\98063.05 Windham Public Works\DWG\98063.05-WS-POST_OPT1.dwg May 03, 2018 - 7:41am



LEGEND

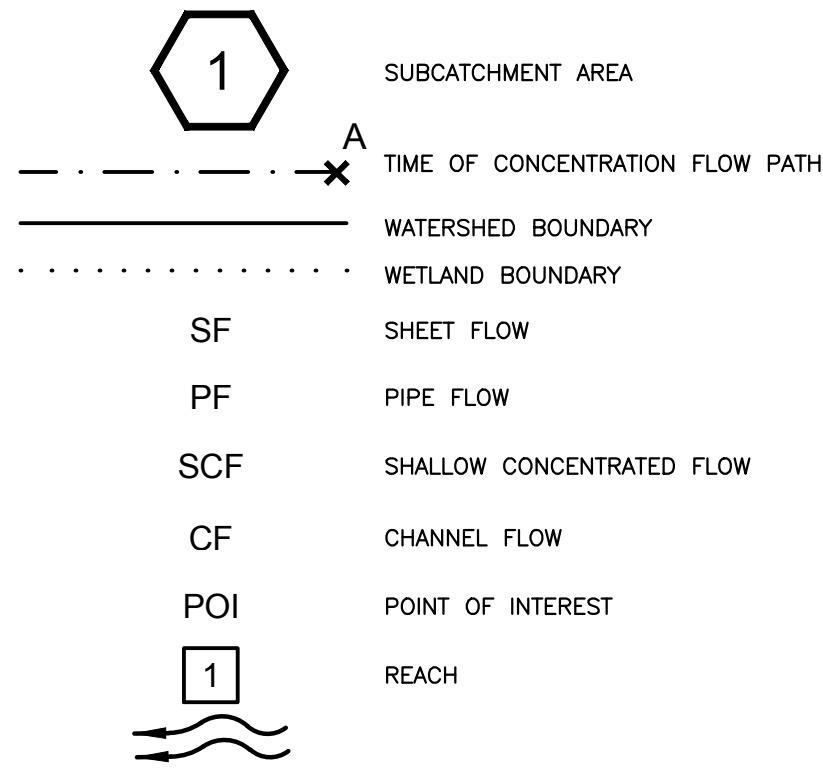


TABLE 10 - COMPARISON OF PEAK FLOWS WITH DETENTION (cfs)						
POINT OF INTEREST	PEAK FLOW (cfs)					
	2 YEAR		10 YEAR		25 YEAR	
	PRE	POST	PRE	POST	PRE	POST
POI #1	8.5	9.1	22.7	22.3	36.0	34.5

SOILS TABLE		
SYMBOL	DESCRIPTION	HSG
BgC2	Belgrade very fine sandy loam, 8 to 15 percent slopes, eroded	B
Gp	Gravel pits	ASSUME C
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	B
HfD2	Hartland very fine sandy loam, 15 to 25 percent slopes, eroded	B
MkC	Merrimac fine sandy loam, 8 to 15 percent slopes	A
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	C
Ru	Rumney fine sandy loam, 1 to 3 percent slopes, frequently flooded	B/D
WmC	Windsor loamy sand, 8 to 15 percent slopes	A
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes	C

NOTE:

1. SOIL DATA FROM UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE REPORT FOR CUMBERLAND COUNTY AND PART OF OXFORD COUNTY, MAINE, AUGUST 30, 2017.

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Allied Engineering
Structural Mechanical Electrical Commissioning

REVISIONS		DATE		BY		DESCRIPTION	

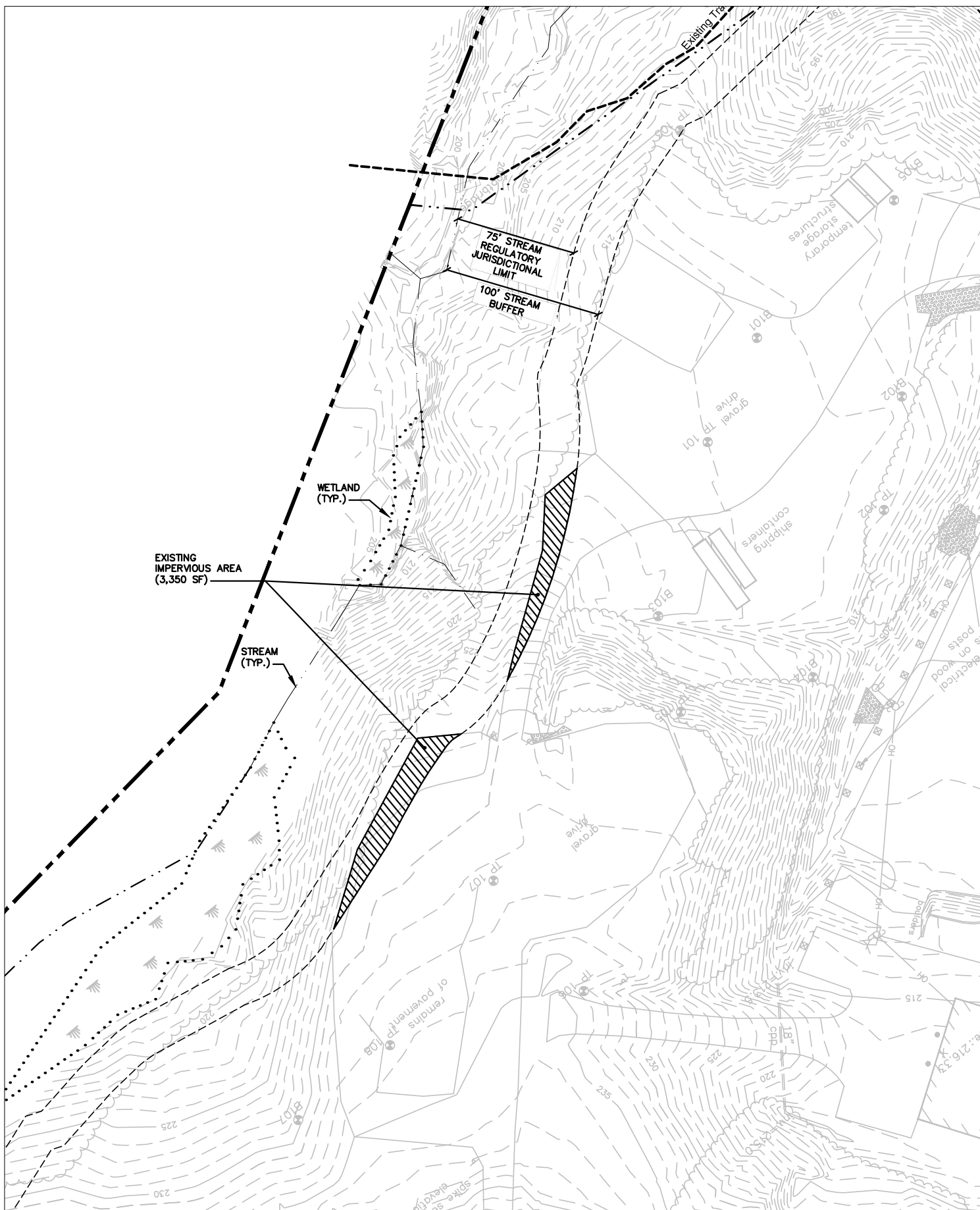
POSTDEVELOPMENT
WATERSHED MAP

SHARED MAINTENANCE FACILITY

WINDHAM, MAINE

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W2



Design: JWA	Date: MAY 2018
Draft: LAN	Job No 98083.05
Checked: WCH	Scale: 1"=80'
File Name: 98083.05_BUFFER FIG	

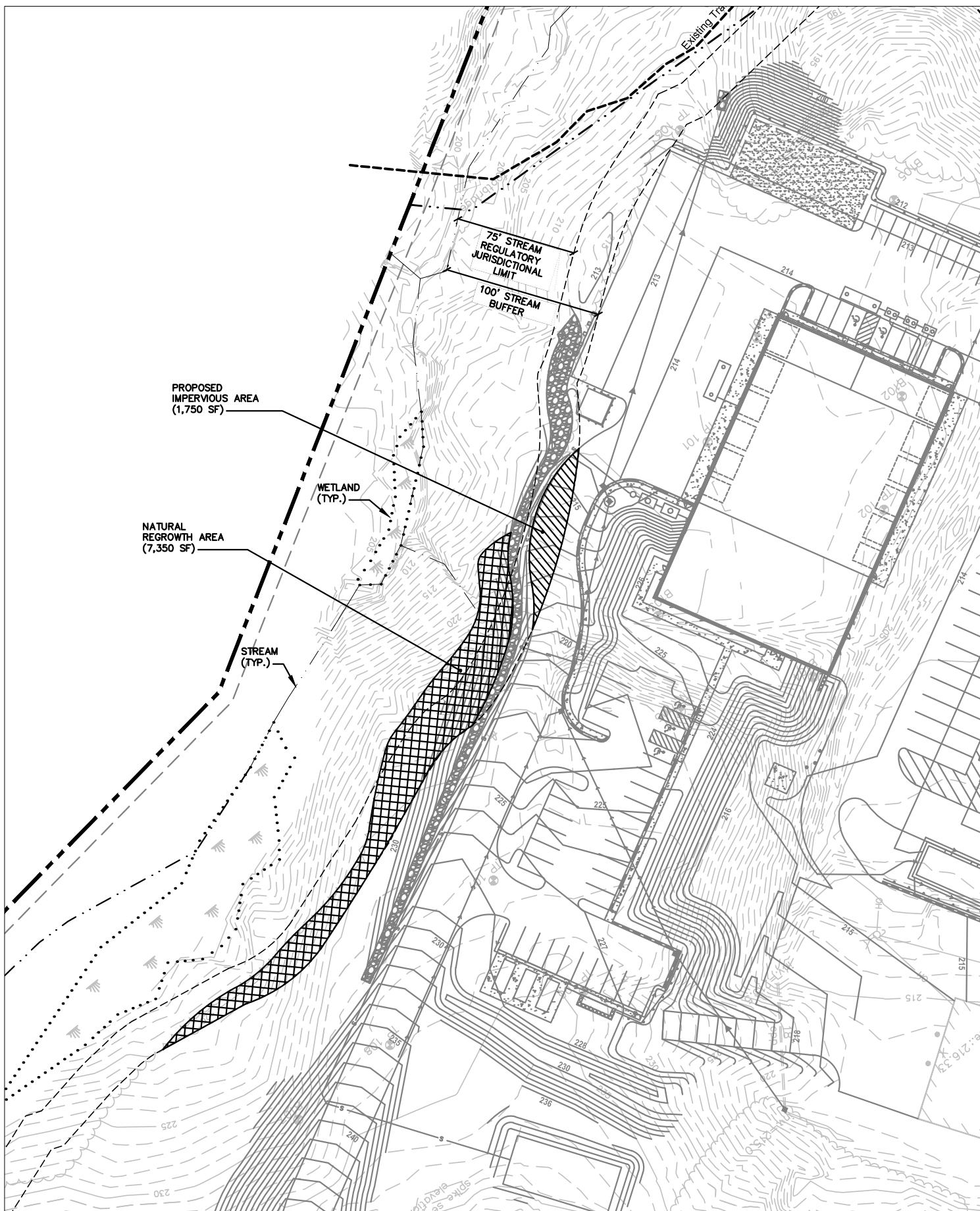
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Drawing Name:
Existing Stream Buffer

Project: Shared Maintenance Facility
Windham, Me

Figure No.
1



Design: JWA	Date: MAY 2018
Draft: LAN	Job No 98083.05
Checked: WCH	Scale: 1"=80'
File Name: 98083.05_BUFFER FIG	



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Drawing Name:

Proposed Stream Buffer

Project: **Shared Maintenance Facility**

Windham, Me

Figure No.

2