

STORMWATER ORDINANCE PRESENTATION

APRIL 20, 2022

ORDINANCE PURPOSE

Comply	Comply with Newton's MS4 Permit
Establish	Establish Stormwater Management Rules and Regulations
Support	Support phosphorus load reduction target
Protect	Protect, maintain and enhance public safety, and environmental health, by reducing the volume of stormwater runoff
Codify	Codify existing stormwater management policy requirements
Ensure	Ensure that new development and redevelopment control and treat runoff before it leaves private property

OBJECTIVES

1

Minimize the discharge of pollutants in stormwater runoff from new and redeveloped sites through infiltration, retention and/or treatment using Best Management Practices per the MS4 Permit.

2

Minimize or eliminate soil erosion & maintain sediment on site so that it is not transported via stormwater runoff into our drainage system, streams or the Charles River.

3

Reduce / mitigate the volume of stormwater runoff associated with new impervious surfaces (i.e., buildings, parking lots, driveways, etc.)

4

Implement Low Impact Development strategies.

PROJECTS REQUIRING STORMWATER MANAGEMENT

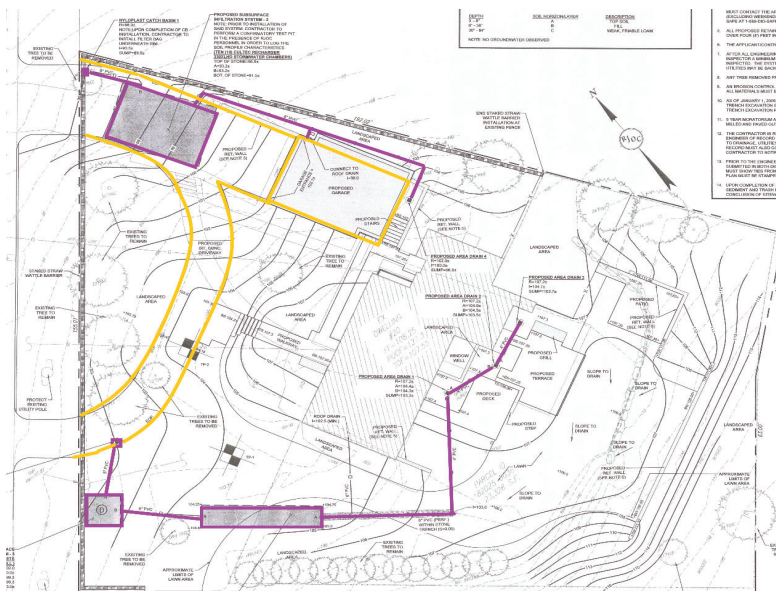
- **Land Disturbance Only**
 - Provide a Site Plan showing existing and proposed topography, trees to be cut / planted, all land features
 - show proposed erosion control measures
- **Minor Stormwater Project**
 - Existing and proposed site plans
 - Erosion & Sediment Control Plan
 - Stormwater Management Report
 - Document existing & proposed impervious surfaces
 - Calculations to demonstrate - 2" stormwater runoff from net increase is managed on-site
 - Incorporate Low Impact Development, unless proven infeasible
 - Develop an Operations & Maintenance Plan and record it at the Registry of Deeds

PROJECTS REQUIRING STORMWATER MANAGEMENT (CONTINUED)

- Major Stormwater Project
 - Existing and proposed site plans
 - Erosion & Sediment Control Plan
 - Stormwater Management Report
 - Document existing & proposed impervious surfaces
 - Retain / infiltrate 2" stormwater runoff from **all impervious areas**
 - Remove Phosphorus: 50 to 60%
 - Capture sediment (TSS): 80 to 90%
 - Demonstrate compliance with the MA Stormwater Handbook
 - Incorporate Low Impact Development, unless proven infeasible
 - Attempt to reproduce natural hydrologic conditions
 - Develop and Record at the Registry an Operations & Maintenance Plan

Minor Stormwater Permit Example

New garage, reconfigure driveway & landscaping: 620 SF of new impervious area proposed. Stormwater Management includes: two catch basins, two area drains and stormwater infiltration.



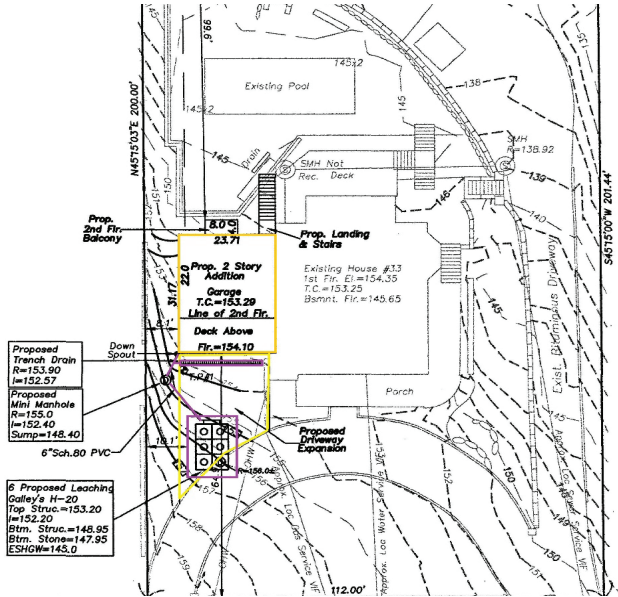
Existing Review Process	
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage Design & SWM Report
•	Proposed Site Plan
•	As-built Plan
Survey & Design = \$10,000	
Construction = \$ 9,000 - \$12,000	
Total Estimate = \$19,000 - \$22,000	

Proposed Permit Process	
•	Permit Application Fee \$100
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage Design & SWM Report
•	Proposed Site Plan
•	As-built plan
•	O&M Plan \$500 - \$800
•	Record O&M Plan \$200 - \$300
Survey & Design = \$10,800 - \$11,200	
Construction = \$ 9,000 - \$12,000	
Total Estimate = \$19,800 - \$23,200	
Net increase = \$ 800 - \$ 1,200 (5 - 6%)	

Major Stormwater Permit Example

Two-story addition and driveway expansion resulting in 1,334 SF new impervious area

Stormwater Management includes: a trench drain, 1 mini-manhole and 6 infiltration galleys.



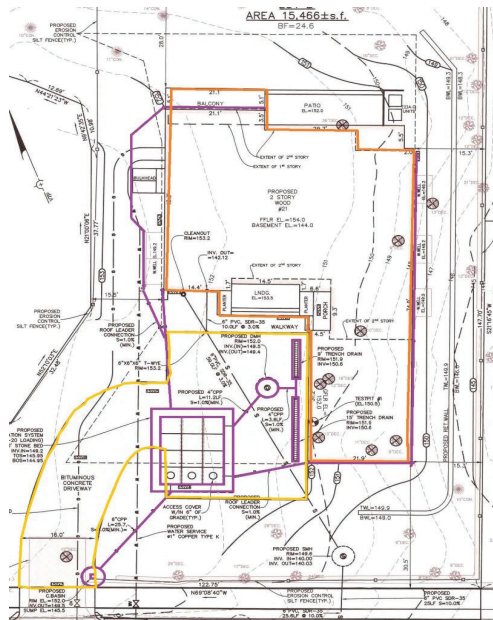
Existing Review Process	
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage Design & SWM Report
•	Proposed Site Plan
•	As-built Plan
Survey & Design = \$ 7,000 - \$9,000	
Construction = \$ 12,000 - \$15,000	
Total Estimate = \$ 19,000 – \$24,000	

Proposed Permit Process	
•	Permit Application Fee \$300
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage & SWM Report Add \$1200
•	Proposed Site Plan
•	As-built plan
•	O&M Plan \$500 - \$800
•	Record O&M Plan \$200 - \$300
Survey & Design = \$ 9,200 - \$11,600	
Construction = \$ 12,000 - \$15,000	
Total Estimated = \$ 21,200 - \$26,600	
Net increase = \$ 2,200 - \$2,600 or 10 - 12%	

Major Stormwater Permit Example

New single-family house on an unimproved lot. Total Impervious Area = 5,776 SF

Stormwater Management includes: one catch basin, one manhole, trench drains and 12 infiltration galleys.



Existing Review Process	
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage Design & SWM Report
•	Proposed Site Plan
•	As-built Plan
Survey & Design = \$ 7,000 - \$ 9,000	
Construction = \$ 24,000 - \$30,000	
Total Estimate = \$ 31,000 - \$39,000	

Proposed Permit Process	
•	Permit Application Fee \$300
•	Survey & Existing Conditions Plan
•	Soil Test(s)
•	Drainage Design & SWM Report* Add \$1500
•	Proposed Site Plan
•	As-built plan
•	O&M Plan \$500 - \$800
•	Record O&M Plan \$200 - \$400
Survey & Design = \$9,500 - \$12,000	
Construction = \$ 24,000 - \$30,000	
Total Estimate = \$ 33,500 - \$42,000	
Net increase = \$ 2,500 - \$3,000 or 8%	

PERMITTING BENEFITS

- Track projects for compliance, MS4 Annual reports & workflow using NewGov Permit Software
- Formalize standards for plan reviews, construction period inspections and project close-out requirements
- Establish a fee for review of stormwater projects
 - Land Disturbance Permit Fee = \$50
 - Minor Stormwater Permit Fee = \$100
 - Major Stormwater Permit Fee = \$300 (1-4 family property); \$1,000 for all others
- Establish enforcement procedures



QUESTIONS AND ANSWERS