

VILLAGE OF DOWNERS GROVE
Report for the Village
12/5/2017

SUBJECT:	SUBMITTED BY:
Discussion of Potential Amendments to Stormwater Management Regulations	Nan Newlon Director of Public Works

SYNOPSIS

Staff is requesting Village Council discussion of potential amendments to stormwater management regulations.

STRATEGIC PLAN ALIGNMENT

Consider Amendments to Stormwater Regulations was identified as a Priority Action Item for 2017-2019. As part of this item, the Village Council directed staff to consider more stringent stormwater management regulations to lessen the negative impacts of runoff generated by construction activity.

FISCAL IMPACT

N/A

RECOMMENDATION

Provide direction to staff on the proposed changes to the stormwater regulations.

BACKGROUND

Stormwater runoff generated by new residential construction, additions to homes and construction of accessory structures that comply with current Village regulations sometimes negatively impact adjacent properties. The negative impacts, primarily standing or ponding water and saturated ground conditions are generally caused by:

- New impervious area constructed in established neighborhoods that lack adequate stormwater management systems and infrastructure
- Significant grade differences causing increased stormwater runoff from the construction site to adjacent properties
- Sump pumps that serve large, deep basements discharging substantial amounts of water; and
- Lack of infiltration into the ground due to high clay content in soils and compaction during construction.

At the Village Council meeting on [October 10, 2017](#) Council directed staff to provide additional information for identified potential stormwater management regulation amendments that would address runoff from all development that results in increased runoff.

Staff has identified the following amendments to stormwater regulations to reduce the negative impact of runoff caused by development activities:

- Require on-site runoff storage for all development activities resulting in 100 square feet or more of net new impervious area
- Require additional site runoff storage for development activities resulting in an increase in basement depth
- Require the onsite runoff storage basin to be connected to Village stormwater management system
- Require new sump pumps to be connected to a storage basin and/or Village stormwater management system
- Establish maximum impervious lot coverage regulations in all residential zoning districts
- Increase the minimum side yard setback requirements in single family residential districts by one foot
- Require granting of rear and side yard easements
- Increase the fee in lieu of construction Post Construction Best Management Practices (PCBMP's)

The above amendments and their likely impacts will be presented by staff at the December 5, 2017 Village Council meeting.

Additional information is available in the [October 10, 2017](#) staff report to the Village Council.

ATTACHMENTS

ISSUE: CODE-COMPLIANT DEVELOPMENT ACTIVITY
GENERATES RUN-OFF WHICH
SOMETIMES NEGATIVELY AFFECTS NEIGHBORS

OBJECTIVES: ① REDUCE NEGATIVE IMPACTS OF RUN-OFF
CAUSED BY DEVELOPMENT ACTIVITIES
② PERMITTING PROCESS SHOULD ACCOMMODATE
RESIDENTIAL RENOVATION + REDEVELOPMENT

CHALLENGES:

- LACK OF STORMWATER INFRASTRUCTURE
- DEVELOPMENT PRESSURE IN THESE AREAS
- PROPERTIES SUBDIVIDED PRIOR TO REGULATIONS
- TOPOGRAPHY
- SOIL CONDITIONS
- RESIDENT + NEIGHBOR EXPECTATIONS
- ACHIEVING A BALANCE OF OBJECTIVES 1+2

VC DIRECTION: EXPLORE REGULATIONS RESULTING IN
"ZERO IMPACT" OR "DO NO HARM"

STORMWATER MANAGEMENT

- PUBLIC SYSTEM
 - STORES + CONVEYS RUNOFF VILLAGE-WIDE
 - CONSISTS OF PUBLIC IMPROVEMENTS
 - FUNDED BY SWU FEES
 - CAPITAL PROJECTS + MAINTENANCE ACT.
- ON-SITE DRAINAGE SYSTEM
 - STORES + CONVEYS RUNOFF ON LOT
 - CONSISTS OF PRIVATE IMPROVEMENTS *
 - FUNDED BY PRIVATE PROPERTY OWNERS
 - REGULATIONS
- INTEGRATED SYSTEMS - DESIGN + CONSTRUCTION *
- VODG INTEGRATING SYSTEMS RETRO ACTIVELY
 - SWU
 - DEVELOPMENT REGULATIONS
 - COMPLETE INTEGRATION NOT POSSIBLE
 - SYSTEMS WILL NOT FUNCTION AS WELL AS A MODERN SUBDIVISION
- IMPROVING, NOT SOLVING

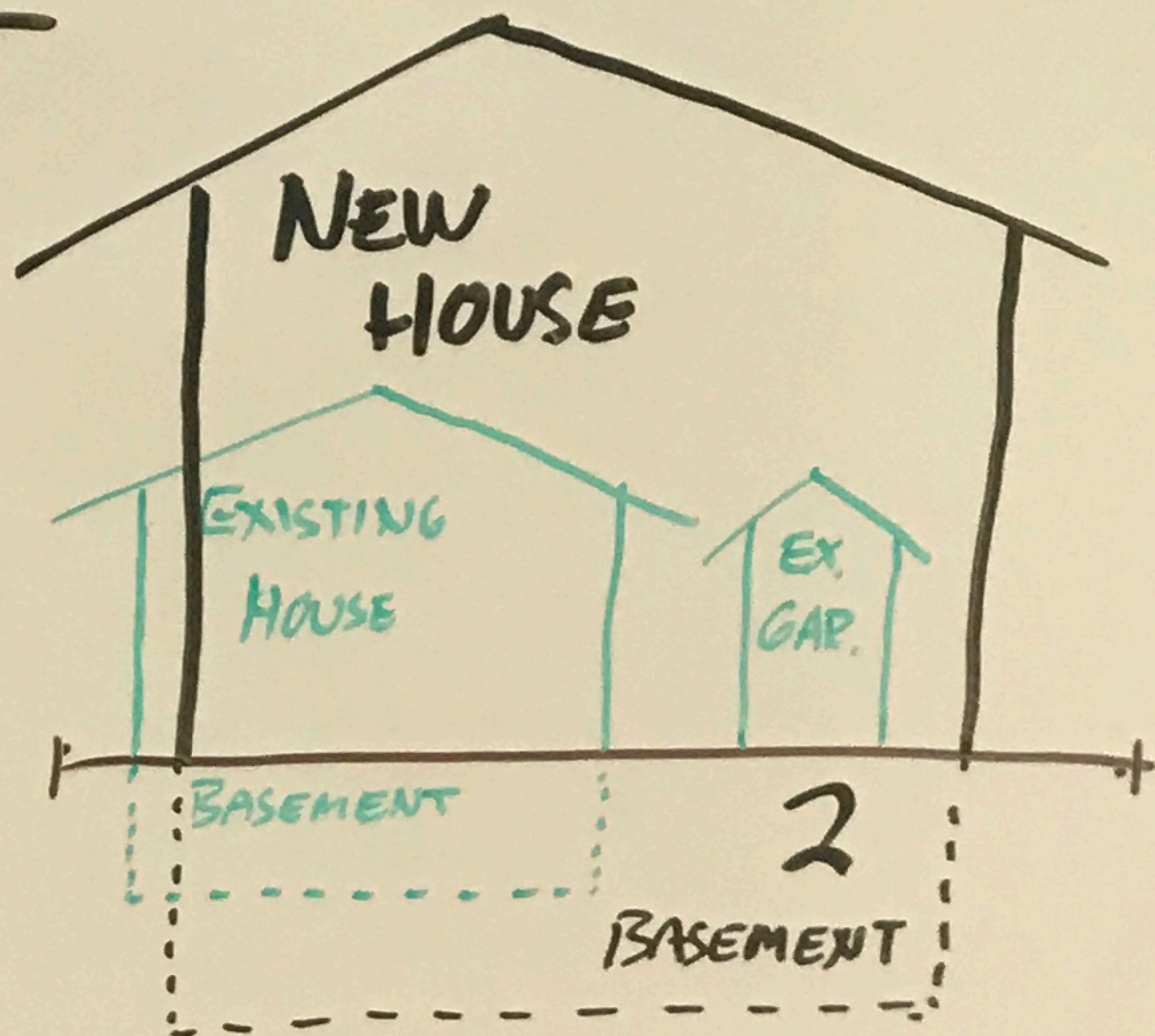
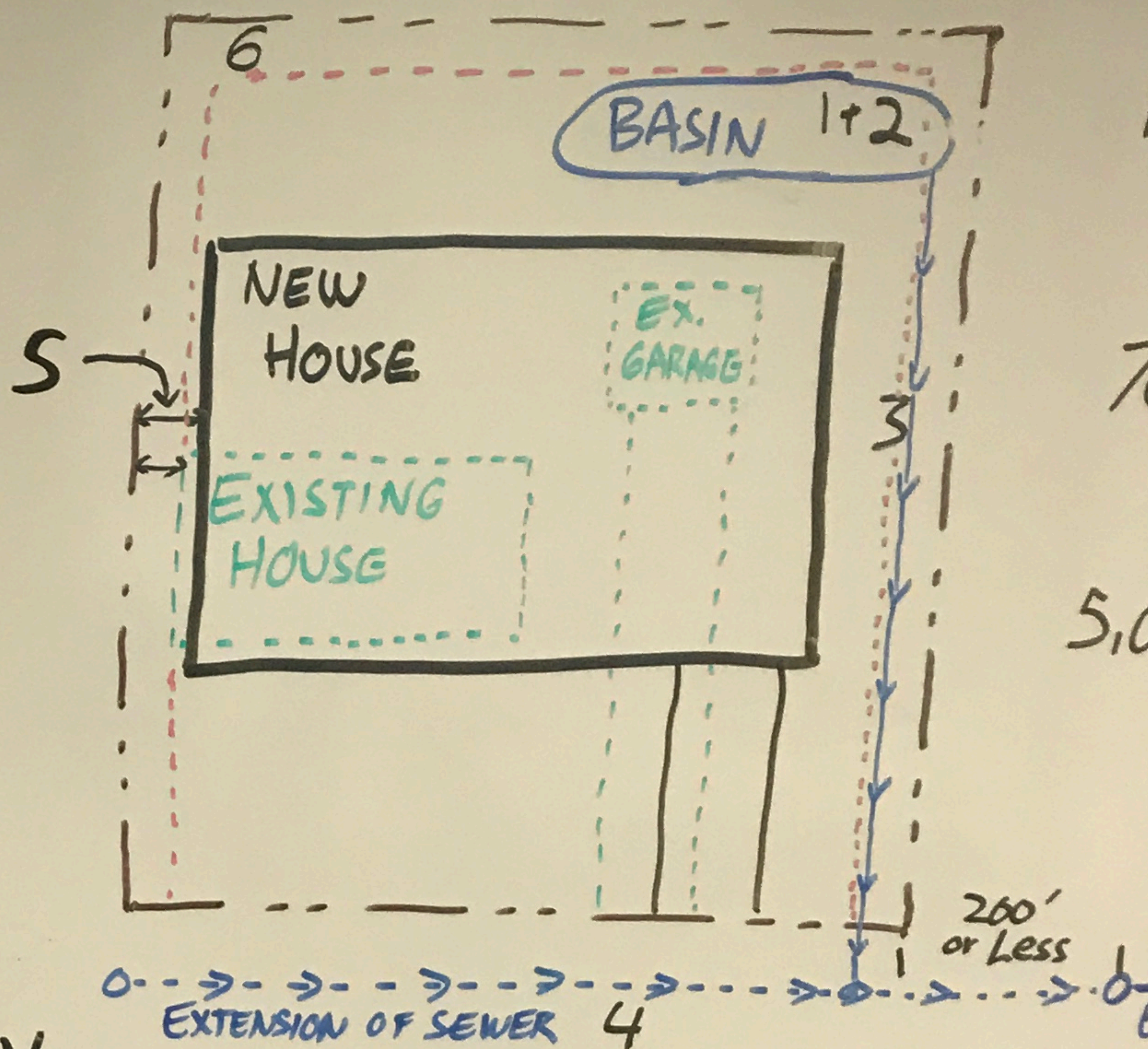
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EXISTING REGULATIONS

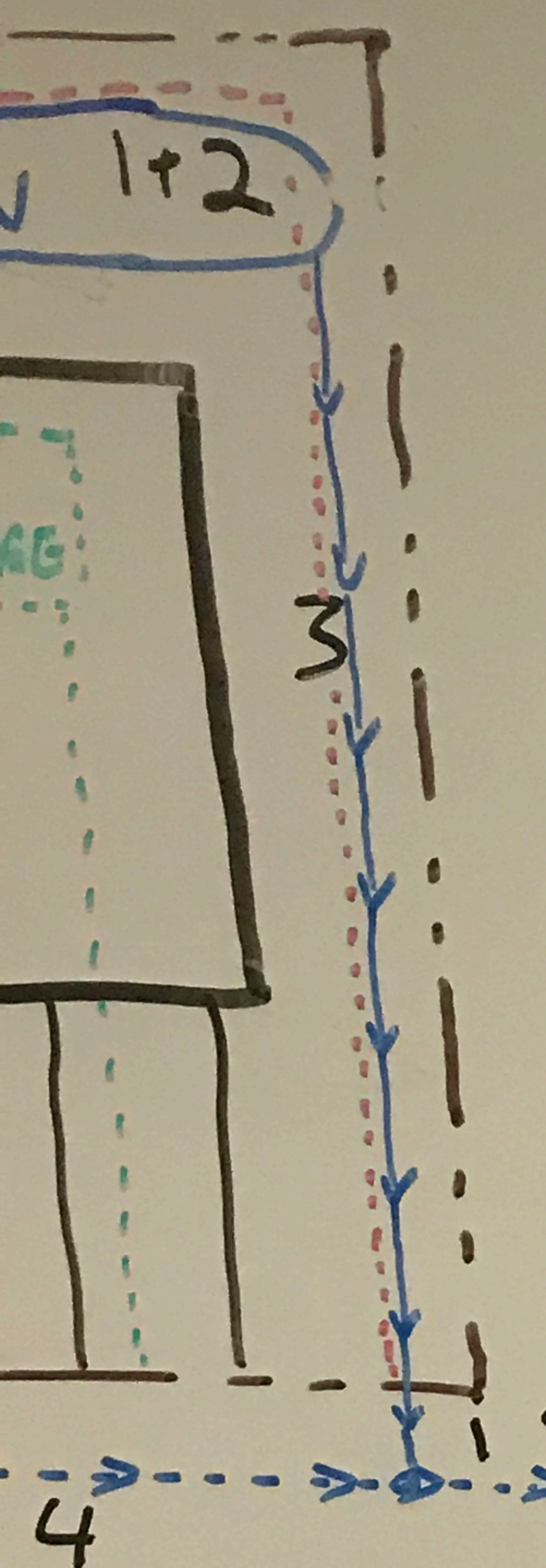
- PCBMP's AT 700¢ NNI
- DETENTION AT 25,000¢ NNI
- MAX. BUILDING COVERAGE 32%
- 5' SIDERYARD SETBACKS
- 20' SUMP PUMP DISCHARGE SETBACK

POTENTIAL REGULATIONS MAXIMIZING OBJECTIVE 1 + VC DIRECTION

1. VOLUME STORAGE AT 100¢ NNI
2. ADDITIONAL STORAGE FOR DEEPER BASEMENT
3. CONNECTION TO PUBLIC SYSTEM
- * 4. EXTENSION OF PUBLIC SYSTEM, IF NECESSARY
5. INCREASED SIDERYARD SETBACK
6. GRANT OF EASEMENTS (NEW CONST.)
7. MAXIMUM IMPERVIOUS COVERAGE
8. INCREASE FEE IN LIEU OF PCBMP'S



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- IMPACT



EXISTING

POTENTIAL

100 ϕ NNI
STORAGE
COST

NA
NA

57 ft^3
\$500 - \$2,500 + (4)

700 ϕ NNI
STORAGE
COST

73 ft^3
\$500 - \$2,500

400 ft^3
\$3,000 - \$10,000 + (4)

5,000 ϕ NNI
STORAGE
COST

520 ft^3
\$3,000 - \$10,000


2,850 ft^3
\$7,000 - \$15,000 + (4)

200'
or Less

EXISTING SEWER

IMPACTS

• OBJECTIVE # 1  • RUNOFF REDUCED

• OBJECTIVE # 2 

• PERMIT SUBMITTAL REQUIREMENTS \uparrow

• PERMIT REVIEW TIMES + COST \uparrow

• COST OF CONSTRUCTION \uparrow

• MEETING APPLICANT EXPECTATIONS \downarrow

• PROJECTS UNDERTAKEN W/O PERMIT \uparrow

• VODG STAFFING RESOURCES \uparrow

• RESIDENT/NEIGHBOR EXPECTATIONS \downarrow

• HEAVY BURDEN ON SMALL PROJECTS

• DIFFICULTY DESIGNING/CONSTRUCTING EXTENSION

• Δ IN TEAR DOWN MARKET, DEMAND FOR IMPERVIOUS

• IMPACT ON CONSTRUCTION ACTIVITY = ?

