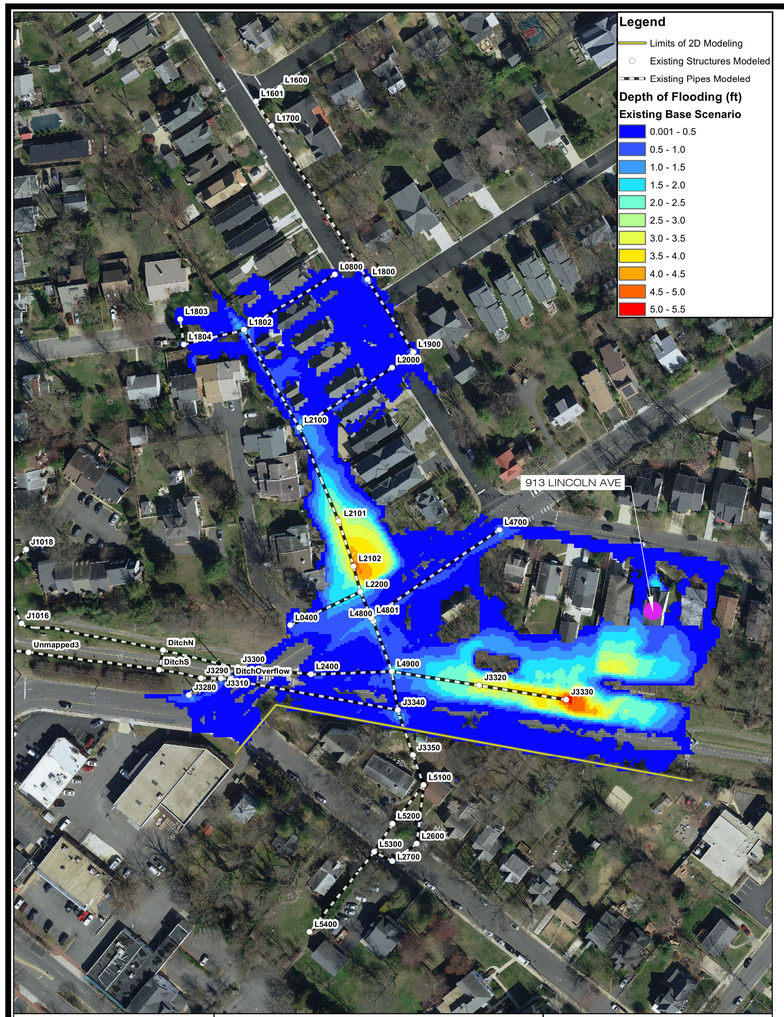


DEPTH OF FLOODING

EXISTING BASE SCENARIO

N

0 50 100 200 Feet

1 inch = 100 feet

2/9 EXISTING BASE SCENARIO FLOOD CONDITIONS - 10-YEAR STORM
SCALE AS NOTED

CONCEPTUAL PLAN LEGEND

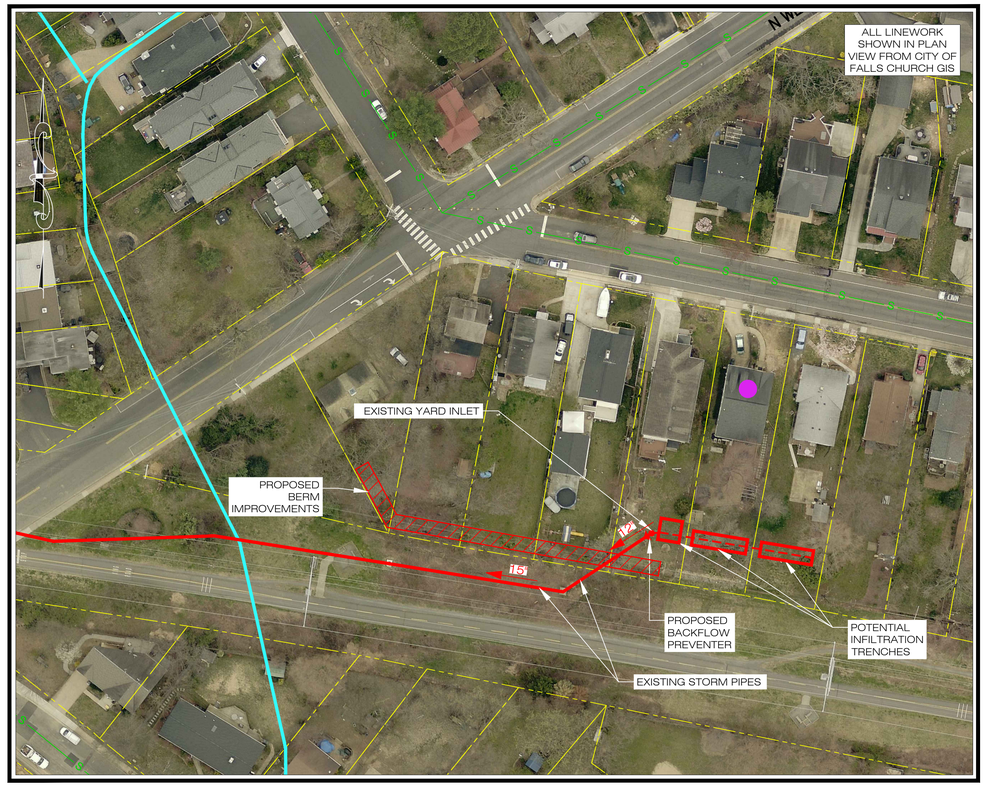
- JURISDICTIONAL BOUNDARY
- PROPERTY LINES
- EXISTING SANITARY SEWER
- STREAM CENTERLINE
- EXISTING STORM SEWER PIPE
- EXISTING STORM STRUCTURE
- PROPOSED STORM SEWER PIPE
- PROPOSED CURB INLET
- PROPOSED CULVERT PIPE
- PROPOSED JUNCTION BOX
- DIRECTIONAL ARROW
- RESOURCE PROTECTION AREA

ALL INFORMATION HEREON, INCLUDING THE PLAN AND COST ESTIMATE, IS IN DRAFT FORM AT A CONCEPTUAL LEVEL OF DESIGN, PRODUCED AS AN INTERIM PRODUCT. INFORMATION WILL CHANGE AS SUBSEQUENT LEVELS OF DESIGN ARE COMPLETED.

LOOKING WEST AT 915 LINCOLN AVENUE FROM REAR YARD OF 913 LINCOLN AVENUE

913 LINCOLN AVENUE
(REAR YARD LOOKING NORTH)

3/9 EXISTING CONDITIONS PHOTOS
NOT TO SCALE



1/9 913 LINCOLN AVENUE PROJECT CONCEPTUAL LAYOUT
1" = 50'

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

CONCEPTUAL PLAN NARRATIVE

THE GOAL OF THIS PROJECT IS TO ANALYZE THE AREAS OF FLOODING OCCURRING IN THE REAR YARD OF 913 LINCOLN AVENUE AND ADJACENT PARCELS IN THE CITY OF FALLS CHURCH. 913 LINCOLN AVENUE IS REPRESENTED IN PLAN VIEW WITH A PURPLE DOT. THE EXISTING STORM SEWER NETWORK IMMEDIATELY DOWNSTREAM OF THE SUBJECT AREA WAS PREVIOUSLY ANALYZED. THE MODEL DATA AND ASSUMPTIONS DEVELOPED FROM THAT PRIOR TASK ORDER WILL BE UTILIZED FOR THE DESIGN OF THIS PROJECT.

THE PREVIOUSLY-MODELED EXISTING CONDITION IS INCLUDED ON THIS SHEET, WITH THE DEPTH OF FLOODING FOR THE 10-YEAR STORM SHOWN. IT IS ANTICIPATED THAT THE MAJORITY OF THE FLOODING ON THESE LOTS IS GENERATED BY THE INUNDATED PIPE SYSTEM, AND THAT ISOLATING THE DOWNSTREAM FLOODING AND INSTALLING INFILTRATION/DETENTION SYSTEMS FOR THE DRAINAGE TO THESE LOTS WILL REDUCE FLOODING. THIS WILL BE CONFIRMED OR REFUTED WITH ADDITIONAL MODELING IN THIS AREA.

THIS CONCEPTUAL PLAN CONSIDERS A RAISED BERM ADJACENT TO THE W&OD TRAIL, A BACKFLOW PREVENTER ON THE EXISTING STORM PIPE, AND ONSITE INFILTRATION TRENCH FACILITIES.

CONCEPTUAL PLAN CONSTRAINTS

No.	Constraint	Cost	Schedule	Constructability	Comments
1	Overhead utility lines are present along the rear yards		●	●	Easement language will need to be examined to determine if necessary permissions would need to be obtained from easement-holders. Berm improvements may be restricted.
2	Existing vegetation and large tree(s) existing on-site	●		●	Pending survey, any proposed improvements would need to be designed to minimize or eliminate impact on existing vegetation, or vegetation may require relocation/replacement.
3	In-situ infiltration rates are unknown	●		●	Pending infiltration tests, infiltration trenches may not be feasible on these sites. Additional sites could be explored, or alternative facility types may be more appropriate.
4	Multiple sources of flooding	●	●	●	Pending final model, source of flooding will impact proposed solutions. If downstream pipes are inundated and causing the flooding on-site, primary concern will be eliminating backflow and overtopping of berm. If upstream contributing drainage area is causing flooding, conveyance and/or storage will be the primary concern.
5	Improvements may be required for the storm sewer network and site grading on private property.	●	●	●	Permissions will need to be obtained.
6	Once a full hydrologic and hydraulic analysis of the existing conditions has been completed, the results will determine feasibility of the project and the proposed design shown may be altered.				To be determined.

Legend

●	Minimal Impact
●	Moderate Impact
●	Significant Impact

Project: City of Falls Curch Watershed Master Plan: 913 Lincoln Avenue Project
Design Assumptions: Backflow Preventer, Berm Improvements, and Infiltration Trenches
Estimate Type: Conceptual Construction Cost Estimate
Prepared by: GKY & Associates, Inc.
Date: February 18, 2020

#	ITEM	QUANTITY	UNIT	UNIT COST	COST
1	**EROSION & SEDIMENT CONTROL**				
2	Erosion and Sediment Controls	1	LS	$30,000 / LS	$30,000
3	**EROSION & SEDIMENT CONTROL SUB TOTAL:**				**$30,000**
4	**PROPOSED IMPROVEMENTS**				
5	12" Backflow Preventer	1	EA	$25,000 / EA	$25,000
6	Infiltration Trench	3	EA	$60,000 / EA	$180,000
7	Grading Improvements	1	LS	$90,000 / LS	$90,000
8	**PROPOSED IMPROVEMENTS SUB TOTAL:**				**$295,000**
9	**MISCELLANEOUS**				
10	Mobilization	1	EA	$35,000 / EA	$35,000
11	Maintenance of Traffic	1	LS	$10,000 / LS	$10,000
12	Utility Coordination and/or Relocation	1	LS	$75,000 / LS	$75,000
13	Construction Design, Survey, and Stakeout	1	LS	$50,000 / LS	$50,000
14	**MISCELLANEOUS SUB TOTAL:**				**$170,000**
15					
16	**PROJECT SUB TOTAL:**				**$495,000**
17	**CONTINGENCY (45% of PROJECT SUB TOTAL):**				**$222,750**
18	**PROJECT TOTAL:**				**$717,750**

4/9 913 LINCOLN AVENUE PROJECT CONCEPTUAL COST ESTIMATE

GKY & Associates, Inc.
GKY & ASSOCIATES, INC.
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CHANTILLY, VIRGINIA 20151
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913 LINCOLN AVENUE
PROJECT CONCEPTUAL PLAN

WATERSHED MANAGEMENT PLAN PROJECTS
CITY OF FALLS CHURCH, VIRGINIA

NOT FOR CONSTRUCTION

DATE	DESCRIPTION
	-

H SCALE: 1" = 50'
H DATUM: NAD83
V SCALE: N/A
V DATUM: NGVD29

DESIGNED: SM/CA
DRAFTED: SM/AJ
CHECKED: BK

PROJECT#: 2016-006
CONTRACT#: TO#30

SHEET: 9 OF 9