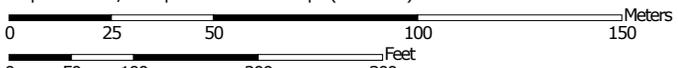


Soil Map—Middlesex County, Massachusetts  
(55 Concord Ave)



Map Scale: 1:1,840 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, Massachusetts  
Survey Area Data: Version 15, Sep 28, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 10, 2014—Aug 25, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Middlesex County, Massachusetts (MA017)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
621B	Scio-Urban land complex, 0 to 8 percent slopes	11.7	69.2%
627C	Newport-Urban land complex, 3 to 15 percent slopes	5.2	30.8%
<b>Totals for Area of Interest</b>		<b>16.9</b>	<b>100.0%</b>

## Middlesex County, Massachusetts

### 621B—Scio-Urban land complex, 0 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* 9953

*Elevation:* 0 to 2,100 feet

*Mean annual precipitation:* 45 to 54 inches

*Mean annual air temperature:* 43 to 54 degrees F

*Frost-free period:* 145 to 240 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Urban land:* 40 percent

*Scio and similar soils:* 40 percent

*Minor components:* 20 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Scio

##### Setting

*Landform:* Depressions, terraces

*Landform position (two-dimensional):* Footslope

*Landform position (three-dimensional):* Side slope, tread

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Loamy and/or silty glaciofluvial deposits

##### Typical profile

*H1 - 0 to 8 inches:* very fine sandy loam

*H2 - 8 to 35 inches:* very fine sandy loam

*H3 - 35 to 65 inches:* silt loam

##### Properties and qualities

*Slope:* 0 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):*

Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* About 18 to 24 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 1 percent

*Available water storage in profile:* High (about 11.4 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* B/D

## Description of Urban Land

### Setting

*Landform position (two-dimensional):* Foothlope  
*Landform position (three-dimensional):* Base slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Excavated and filled land

## Minor Components

### Haven

*Percent of map unit:* 10 percent  
*Landform:* Plains, terraces  
*Landform position (two-dimensional):* Foothlope  
*Landform position (three-dimensional):* Tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex

### Tisbury

*Percent of map unit:* 5 percent  
*Landform:* Terraces, plains  
*Landform position (two-dimensional):* Foothlope  
*Landform position (three-dimensional):* Tread, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave

### Sudbury

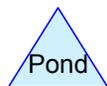
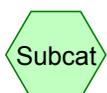
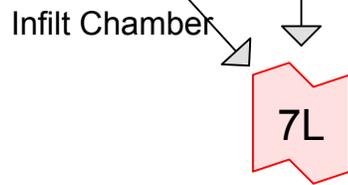
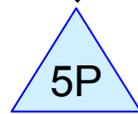
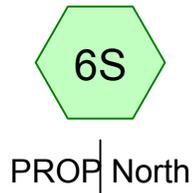
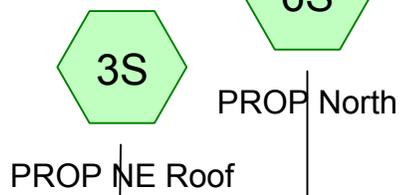
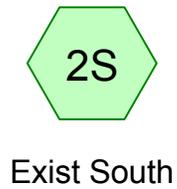
*Percent of map unit:* 4 percent  
*Landform:* Terraces, plains  
*Landform position (two-dimensional):* Foothlope  
*Landform position (three-dimensional):* Tread, dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave

### Unnamed

*Percent of map unit:* 1 percent

## Data Source Information

Soil Survey Area: Middlesex County, Massachusetts  
Survey Area Data: Version 15, Sep 28, 2015



**Summary for Subcatchment 1S: Exist North**

Runoff = 0.11 cfs @ 12.18 hrs, Volume= 0.009 af, Depth> 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.09"

Area (sf)	CN	Description
3,878	74	>75% Grass cover, Good, HSG C
* 578	98	roof
4,456	77	Weighted Average
3,878		87.03% Pervious Area
578		12.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.5	53	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
12.1	68	Total			

**Summary for Subcatchment 2S: Exist South**

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.004 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.09"

Area (sf)	CN	Description
883	74	>75% Grass cover, Good, HSG C
* 566	98	roof + entry
1,449	83	Weighted Average
883		60.94% Pervious Area
566		39.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 3S: PROP NE Roof**

Runoff = 0.04 cfs @ 12.16 hrs, Volume= 0.003 af, Depth> 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.09"

Area (sf)	CN	Description
* 663	98	roof
663		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48	Total			

**Summary for Subcatchment 4S: PROP South**

Runoff = 0.05 cfs @ 12.09 hrs, Volume= 0.004 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.09"

Area (sf)	CN	Description
803	74	>75% Grass cover, Good, HSG C
* 523	98	roof + entry
1,326	83	Weighted Average
803		60.56% Pervious Area
523		39.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 6S: PROP North**

Runoff = 0.09 cfs @ 12.17 hrs, Volume= 0.007 af, Depth> 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.09"

Area (sf)	CN	Description
2,675	74	>75% Grass cover, Good, HSG C
* 663	98	roof
3,338	79	Weighted Average
2,675		80.14% Pervious Area
663		19.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48				Total

**Summary for Pond 5P: Infiltration Chamber**

Inflow Area = 0.015 ac, 100.00% Impervious, Inflow Depth > 2.67" for 2-Year event  
 Inflow = 0.04 cfs @ 12.16 hrs, Volume= 0.003 af  
 Outflow = 0.04 cfs @ 12.17 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.6 min  
 Primary = 0.04 cfs @ 12.17 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 94.01' @ 12.15 hrs Surf.Area= 45 sf Storage= 63 cf

Plug-Flow detention time= 164.2 min calculated for 0.002 af (57% of inflow)  
 Center-of-Mass det. time= 80.7 min ( 824.1 - 743.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	90.46'	34 cf	<b>3.75'W x 12.00'L x 2.54'H Field A</b> 114 cf Overall - 29 cf Embedded = 85 cf x 40.0% Voids
#2A	90.96'	29 cf	<b>Cultec R-150XLHD Inside #1</b> Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 1 rows
		63 cf	Total Available Storage

**55 Concord Ave**

Type III 24-hr 2-Year Rainfall=3.09"

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Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	<b>3.6" x 3.6" Horiz. Orifice/Grate X 12.00</b> C= 0.600 in 22.7" Grate (38% open area) Limited to weir flow at low heads

**Primary OutFlow** Max=0.02 cfs @ 12.17 hrs HW=94.01' (Free Discharge)

↑**1=Orifice/Grate** (Weir Controls 0.02 cfs @ 0.33 fps)

**Summary for Link 7L: PROP North**

Inflow Area = 0.092 ac, 33.14% Impervious, Inflow Depth > 1.21" for 2-Year event  
 Inflow = 0.13 cfs @ 12.17 hrs, Volume= 0.009 af  
 Primary = 0.13 cfs @ 12.17 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Summary for Subcatchment 1S: Exist North**

Runoff = 0.23 cfs @ 12.17 hrs, Volume= 0.018 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.65"

Area (sf)	CN	Description
3,878	74	>75% Grass cover, Good, HSG C
* 578	98	roof
4,456	77	Weighted Average
3,878		87.03% Pervious Area
578		12.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.5	53	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
12.1	68	Total			

**Summary for Subcatchment 2S: Exist South**

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.65"

Area (sf)	CN	Description
883	74	>75% Grass cover, Good, HSG C
* 566	98	roof + entry
1,449	83	Weighted Average
883		60.94% Pervious Area
566		39.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 3S: PROP NE Roof**

Runoff = 0.06 cfs @ 12.16 hrs, Volume= 0.005 af, Depth> 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.65"

Area (sf)	CN	Description
* 663	98	roof
663		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48	Total			

**Summary for Subcatchment 4S: PROP South**

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.65"

Area (sf)	CN	Description
803	74	>75% Grass cover, Good, HSG C
* 523	98	roof + entry
1,326	83	Weighted Average
803		60.56% Pervious Area
523		39.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 6S: PROP North**

Runoff = 0.18 cfs @ 12.17 hrs, Volume= 0.015 af, Depth> 2.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.65"

Area (sf)	CN	Description
2,675	74	>75% Grass cover, Good, HSG C
* 663	98	roof
3,338	79	Weighted Average
2,675		80.14% Pervious Area
663		19.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48				Total

**Summary for Pond 5P: Infiltr Chamber**

Inflow Area = 0.015 ac, 100.00% Impervious, Inflow Depth > 4.10" for 10-Year event  
Inflow = 0.06 cfs @ 12.16 hrs, Volume= 0.005 af  
Outflow = 0.06 cfs @ 12.15 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.06 cfs @ 12.15 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 94.02' @ 12.15 hrs Surf.Area= 45 sf Storage= 63 cf

Plug-Flow detention time= 126.6 min calculated for 0.004 af (72% of inflow)  
Center-of-Mass det. time= 61.1 min ( 801.0 - 739.9 )

Volume	Invert	Avail.Storage	Storage Description
#1A	90.46'	34 cf	<b>3.75'W x 12.00'L x 2.54'H Field A</b> 114 cf Overall - 29 cf Embedded = 85 cf x 40.0% Voids
#2A	90.96'	29 cf	<b>Cultec R-150XLHD Inside #1</b> Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 1 rows
		63 cf	Total Available Storage

**55 Concord Ave**

Type III 24-hr 10-Year Rainfall=4.65"

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Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	<b>3.6" x 3.6" Horiz. Orifice/Grate X 12.00</b> C= 0.600 in 22.7" Grate (38% open area) Limited to weir flow at low heads

**Primary OutFlow** Max=0.04 cfs @ 12.15 hrs HW=94.02' (Free Discharge)

↑**1=Orifice/Grate** (Weir Controls 0.04 cfs @ 0.41 fps)

**Summary for Link 7L: PROP North**

Inflow Area = 0.092 ac, 33.14% Impervious, Inflow Depth > 2.43" for 10-Year event  
 Inflow = 0.24 cfs @ 12.16 hrs, Volume= 0.019 af  
 Primary = 0.24 cfs @ 12.16 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

**Summary for Subcatchment 1S: Exist North**

Runoff = 0.54 cfs @ 12.17 hrs, Volume= 0.045 af, Depth> 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=8.36"

Area (sf)	CN	Description
3,878	74	>75% Grass cover, Good, HSG C
* 578	98	roof
4,456	77	Weighted Average
3,878		87.03% Pervious Area
578		12.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.5	53	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
12.1	68	Total			

**Summary for Subcatchment 2S: Exist South**

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.017 af, Depth> 5.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=8.36"

Area (sf)	CN	Description
883	74	>75% Grass cover, Good, HSG C
* 566	98	roof + entry
1,449	83	Weighted Average
883		60.94% Pervious Area
566		39.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 3S: PROP NE Roof**

Runoff = 0.10 cfs @ 12.16 hrs, Volume= 0.009 af, Depth> 7.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=8.36"

Area (sf)	CN	Description
* 663	98	roof
663		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48	Total			

**Summary for Subcatchment 4S: PROP South**

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 5.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=8.36"

Area (sf)	CN	Description
803	74	>75% Grass cover, Good, HSG C
* 523	98	roof + entry
1,326	83	Weighted Average
803		60.56% Pervious Area
523		39.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					<b>Direct Entry, min</b>

**Summary for Subcatchment 6S: PROP North**

Runoff = 0.42 cfs @ 12.16 hrs, Volume= 0.035 af, Depth> 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=8.36"

Area (sf)	CN	Description
2,675	74	>75% Grass cover, Good, HSG C
* 663	98	roof
3,338	79	Weighted Average
2,675		80.14% Pervious Area
663		19.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	15	0.0700	0.02		<b>Sheet Flow, grass</b> Grass: Short n= 0.150 P2= 0.04"
0.3	33	0.0700	1.85		<b>Shallow Concentrated Flow, grass</b> Short Grass Pasture Kv= 7.0 fps
11.9	48				Total

**Summary for Pond 5P: Infiltration Chamber**

Inflow Area = 0.015 ac, 100.00% Impervious, Inflow Depth > 7.47" for 100-Year event  
Inflow = 0.10 cfs @ 12.16 hrs, Volume= 0.009 af  
Outflow = 0.10 cfs @ 12.16 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min  
Primary = 0.10 cfs @ 12.16 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 94.03' @ 12.16 hrs Surf.Area= 45 sf Storage= 63 cf

Plug-Flow detention time= 88.6 min calculated for 0.008 af (84% of inflow)  
Center-of-Mass det. time= 43.2 min ( 780.4 - 737.2 )

Volume	Invert	Avail.Storage	Storage Description
#1A	90.46'	34 cf	<b>3.75'W x 12.00'L x 2.54'H Field A</b> 114 cf Overall - 29 cf Embedded = 85 cf x 40.0% Voids
#2A	90.96'	29 cf	<b>Cultec R-150XLHD Inside #1</b> Effective Size= 29.8"W x 18.0"H => 2.65 sf x 10.25'L = 27.2 cf Overall Size= 33.0"W x 18.5"H x 11.00'L with 0.75' Overlap Row Length Adjustment= +0.75' x 2.65 sf x 1 rows
		63 cf	Total Available Storage

**55 Concord Ave**

Type III 24-hr 100-Year Rainfall=8.36"

Prepared by WESTCOTT SITE SERVICES

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Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	<b>3.6" x 3.6" Horiz. Orifice/Grate X 12.00</b> C= 0.600 in 22.7" Grate (38% open area) Limited to weir flow at low heads

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**Primary OutFlow** Max=0.09 cfs @ 12.16 hrs HW=94.03' (Free Discharge)

↑**1=Orifice/Grate** (Weir Controls 0.09 cfs @ 0.55 fps)

**Summary for Link 7L: PROP North**

Inflow Area = 0.092 ac, 33.14% Impervious, Inflow Depth > 5.63" for 100-Year event  
Inflow = 0.53 cfs @ 12.16 hrs, Volume= 0.043 af  
Primary = 0.53 cfs @ 12.16 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs