



“Your Project is Our Priority”

DRAINAGE REPORT

FOR

PLAINFIELD CHRISTIAN CHURCH STUDENT CENTER

LOCATED IN

**TOWN OF PLAINFIELD
HENDRICKS COUNTY, INDIANA**

Prepared for:

Plainfield Christian Church
800 Dan Jones Road
Plainfield, IN 46168
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March 19, 2026

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Drainage Narrative for:
Plainfield Christian Church Student Center

I. INTRODUCTION

The Plainfield Christian Church Student Center development is a 1.7± acre recreational building located on the west side of S CR 800 E (Dan Jones Rd) on the northwest corner of the intersection of E. CR 300 S (Township Line Rd) and Dan Jones Rd. The project is in the southeast corner of Section 23, Township 15N, Range 1E; Hendricks County, Washington Township, Town of Plainfield, Indiana. This report includes the results of a drainage analysis for the project, summarizing the existing and developed conditions of the site.

II. ADJOINING LAND CONDITIONS

North: Residential
 South: Residential
 East: Residential
 West: Residential

III. EXISTING SOIL TYPES

The Existing soils are primarily a combination of Type C and Type B with Type C being the more prevalent of the two. A more extensive list of the exact soil types and their rating can be found in the Appendix.

IV. SITE DRAINAGE ANALYSIS

a. Stormwater Discharge Requirements

The project is subject to the stormwater discharge requirements found in the Town of Plainfield Stormwater Management Ordinance 17-97. See **TABLE 1** below.

TABLE 1
STORMWATER DISCHARGE REQUIREMENTS
TOWN OF PLAINFIELD

$Q_{100p} \leq Q_{10e}$	Where: Q_{10e} = Existing 10-year peak discharge rate Q_{100p} = Developed 100-year peak discharge rate
-------------------------	--

b. Drainage Design

i. Existing Site Conditions

The existing site serves as parking for Plainfield Christian Church. The area was previously designed in April of 2015 and drains to both an existing underground detention system located under parking along the east edge of the Plainfield Christian Church property, and to an existing ravine north of the property. Water sheet drains to existing infrastructure that routes water to the above-mentioned detention facilities/ravines. Land cover consists primarily of asphalt with intermittent parking islands.

ii. Developed Site Conditions

In the developed condition a new proposed student activity center will be constructed where there is currently asphalt parking. Portions of the existing pavement will be removed as well as the temporary student classroom buildings that were placed north of the site. While the addition of the building and areas of the back patio that will be built along with the building create additional impervious area that was outside the original pavement footprint, the removal of the existing temporary classrooms, and additions of grassy parking islands the project will result in a noticeable decrease in the impervious area. **TABLE 2** below shows the square footage of impervious area being added outside the existing pavement footprint, as well as the amount of impervious area being removed and not replaced. An exhibit showing the impervious areas can be found in the appendix.

TABLE 2		
HARD SURFACE AREA REDUCTION		
Impervious Area Removed (sq. ft.)	Additional Impervious Area (sq. ft.)	Net Reduction in Impervious Area (sq. ft.)
11,651	7,627	4,024

Drainage basins for the site are consistent with previous designs. Portions of the parking will continue to drain to an existing underground detention system east of the proposed Student Center. The building will have roof drains routing water north to an existing ravine. Detention for these areas were previously designed and accounted for in two separate projects. The previously approved drainage report for both of these additions can be found attached at the end of this report. Complete calculations can be found in the appendix.

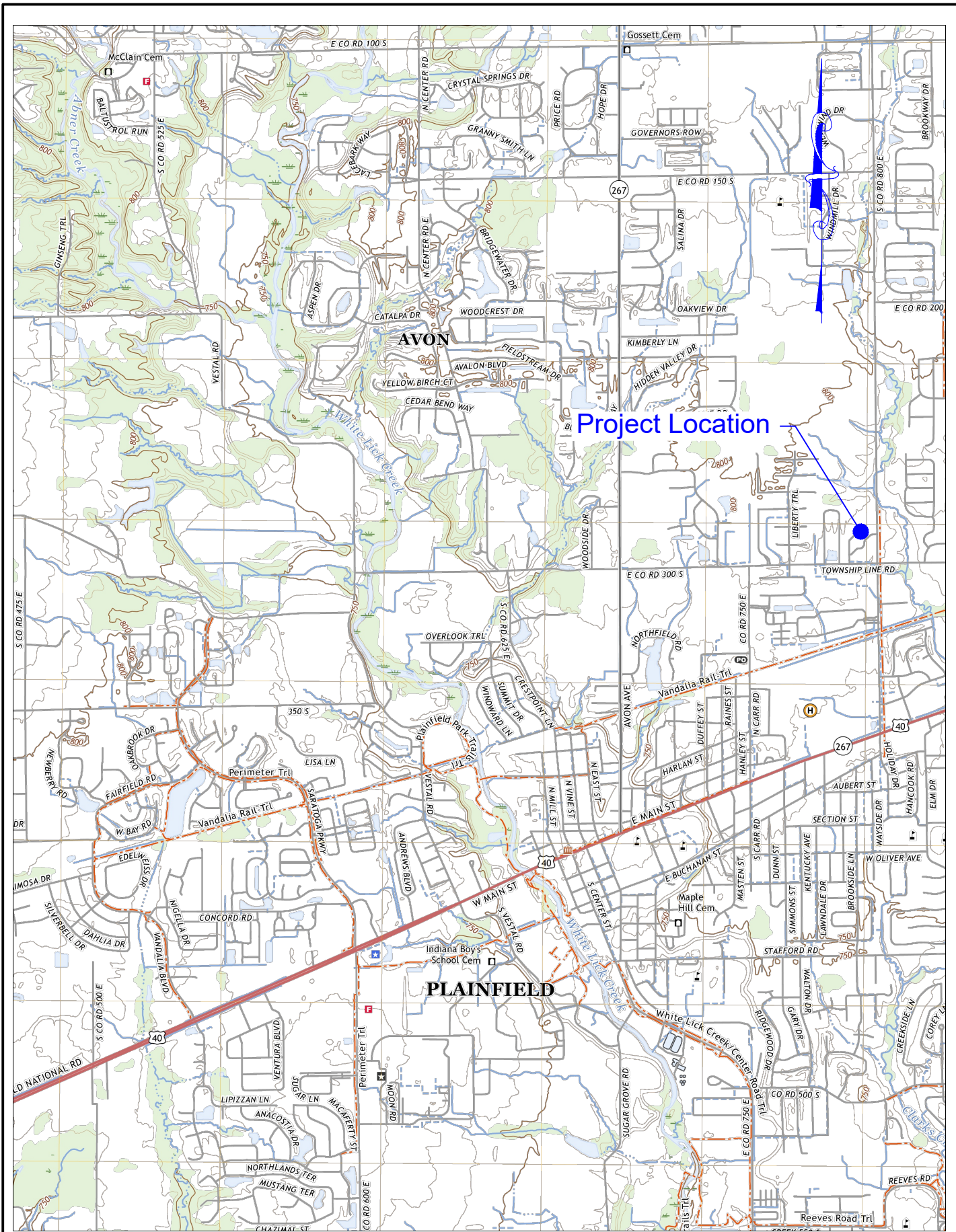
In conclusion, the calculations in this report show that drainage from the project will not cause any adverse impacts to onsite or offsite facilities. We believe the project falls within the requirements of the Town of Plainfield drainage ordinance.

REFERENCES

Design data and methods are based on the following reference materials:

1. NRCS Web Soil Survey (<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>)
2. USGS Mapping
3. FEMA Flood Mapping (<https://www.fema.gov/national-flood-hazard-layer-nfhl>)
4. Town of Plainfield drainage ordinance

A. USGS AREA MAP



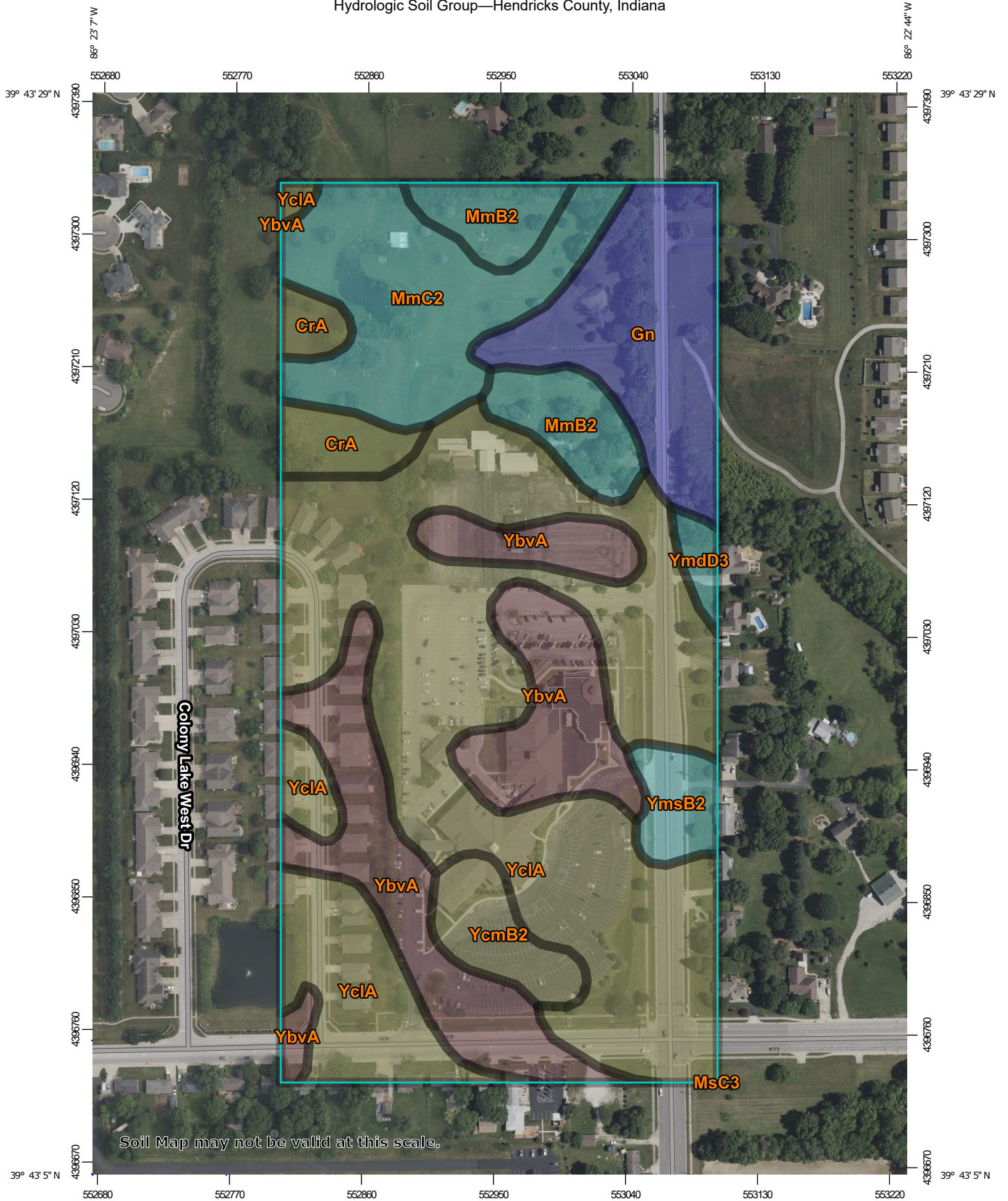
Drawn By: JET
 Date: 03/13/2026
 Project No.: 24062
 Scale: NONE
 Page: 1 of 1

USGS AREA MAP
 PLAINFIELD CHRISTIAN CHURCH
 STUDENT CENTER
 HENDRICKS COUNTY
 PLAINFIELD, INDIANA

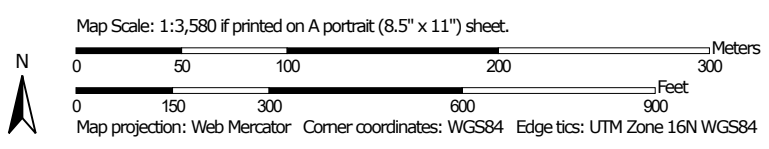

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B. SOILS MAP

Hydrologic Soil Group—Hendricks County, Indiana



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)
 Area of Interest (AOI)

Soils
 Soil Rating Polygons
 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Water Features
 Streams and Canals

Transportation
 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background
 Aerial Photography

Soil Rating Lines
 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points
 A
 A/D
 B
 B/D

C
 C/D
 D
 Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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:
 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: Hendricks County, Indiana
 Survey Area Data: Version 29, Sep 3, 2025

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

Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	C/D	1.4	3.1%
Gn	Genesee silt loam, 0 to 2 percent slopes, frequently flooded, very brief duration	B	4.8	10.6%
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	C	2.6	5.7%
MmC2	Miami silt loam, 6 to 12 percent slopes, eroded	C	5.3	11.8%
MsC3	Miami clay loam, 6 to 12 percent slopes, severely eroded	C	0.0	0.0%
YbvA	Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	B/D	8.4	18.6%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	C/D	19.8	43.9%
YcmB2	Crosby-Urban land-Miami silt loams complex, 2 to 4 percent slopes, eroded	C/D	1.4	3.2%
YmdD3	Miami clay loam-Urban land complex, 12 to 18 percent slopes, severely eroded	C	0.4	0.9%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	C	1.0	2.2%
Totals for Area of Interest			45.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

C. FLOOD MAP

National Flood Hazard Layer FIRMette

86°23'16"W 39°43'34"N



Legend
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, A99
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN *Zone X*
- Area of Minimal Flood Hazard *Zone X*
- Effective LOMRS *Zone D*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

- 20.2
- 17.5
- 8

OTHER FEATURES

- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

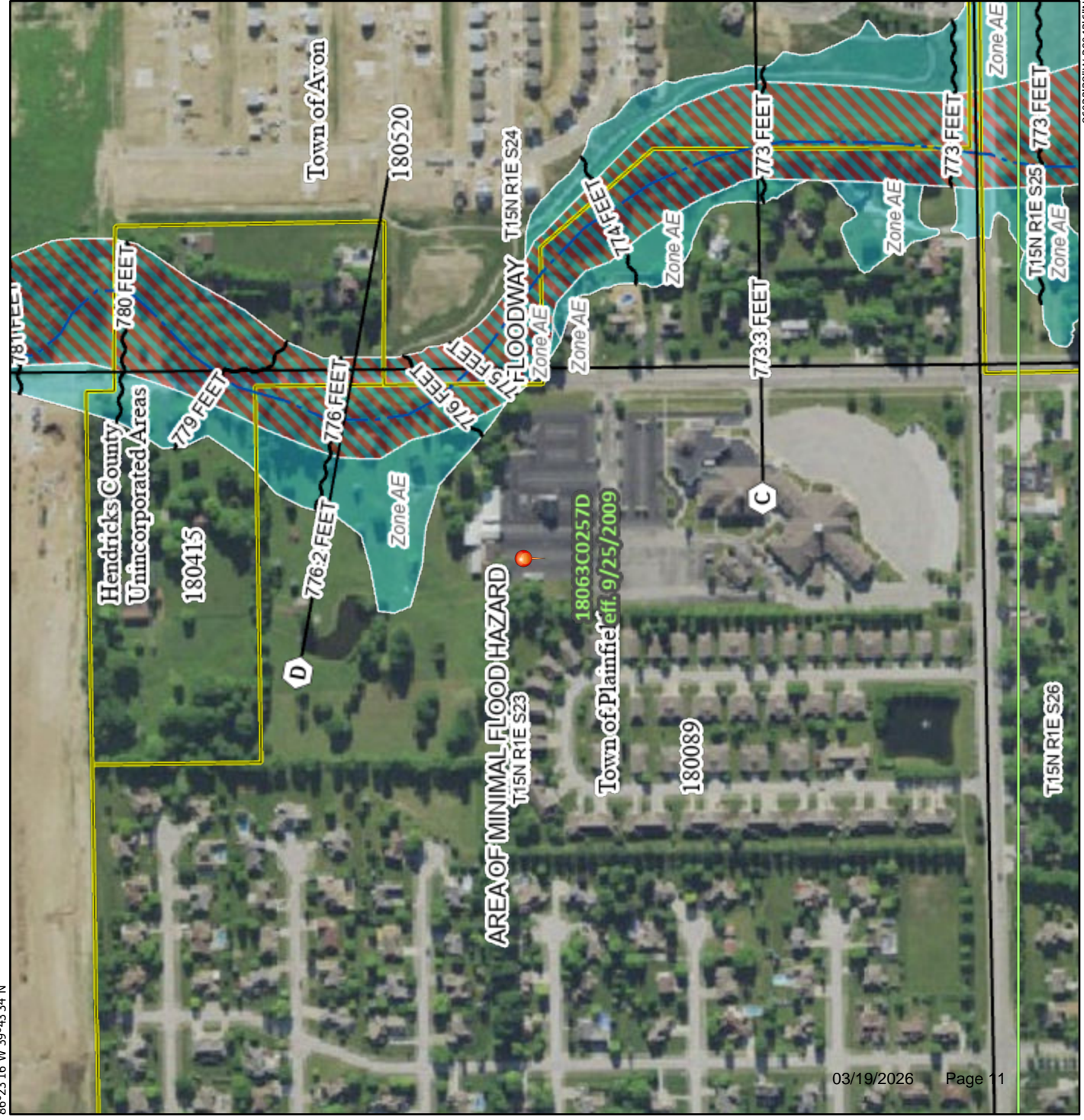
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

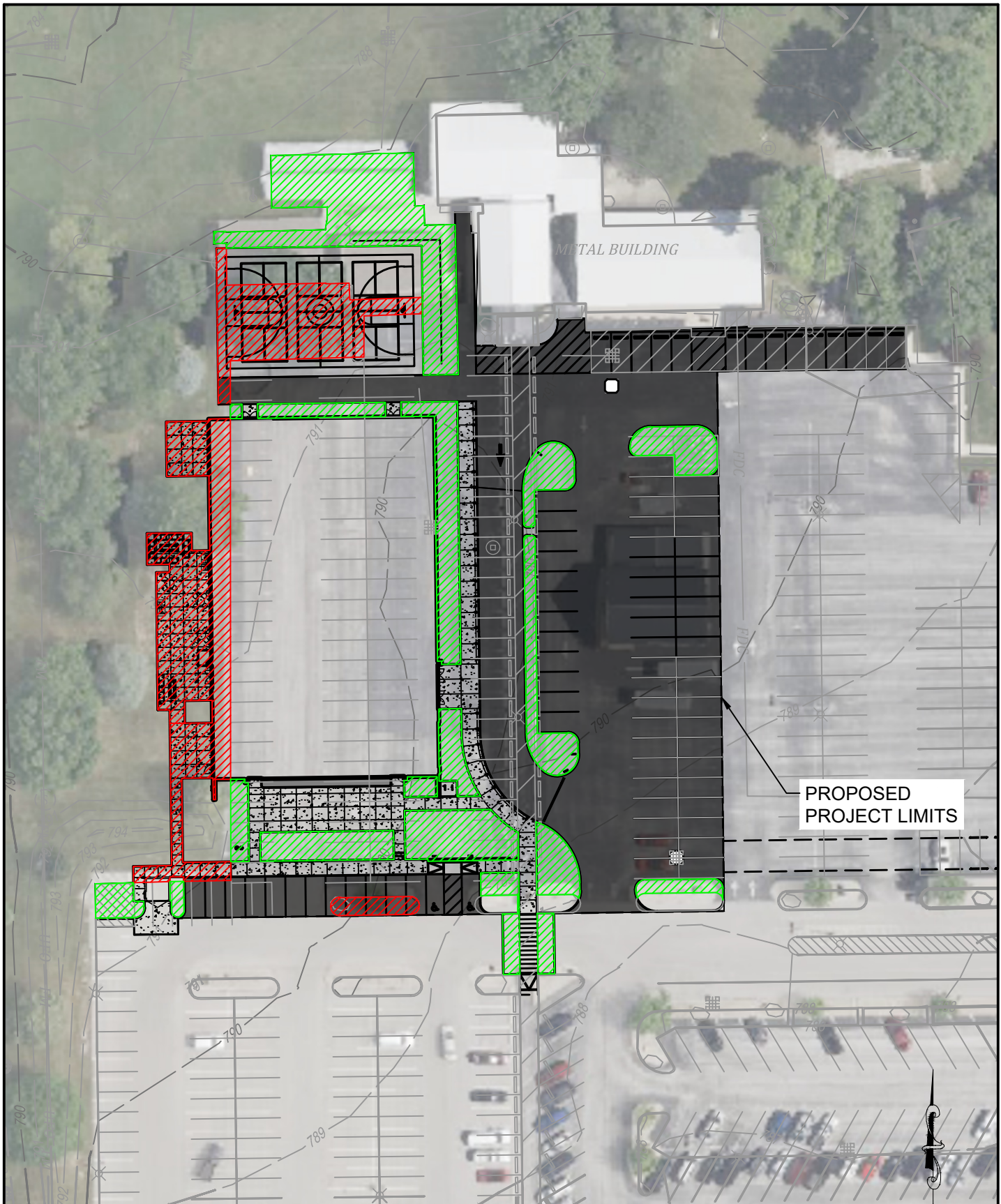
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/13/2026 at 3:26 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

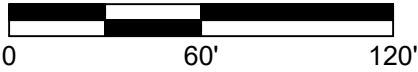
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**D. HARD SURFACE CALCULATION
MAP**



- ADDITIONAL IMPERVIOUS AREA
- REDUCED IMPERVIOUS AREA



Drawn By: JET
 Date: 02/24/2026
 Project No.: 24062
 Scale: AS SHOWN
 Page: 1 of 1

IMPERVIOUS AREA COMPARISON MAP

PCC STUDENT CENTER HENDRICKS COUNTY PLAINFIELD, INDIANA


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**E. PREVIOUSLY APPROVED
PLAINFIELD CHRISTIAN CHURCH
PHASE 1 PARKING ADDITION
DRAINAGE REPORT**



“Your Project is Our Priority”

Drainage Summary

for

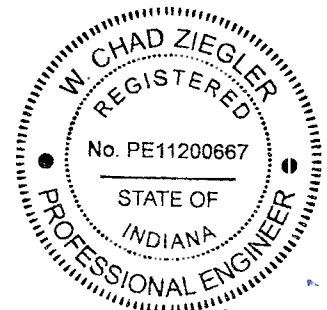
Plainfield Christian Church
Parking Addition, Phase 4

In

Town of Plainfield
Hendricks County, Indiana

Prepared for:

Plainfield Christian Church
800 N. Dan Jones Road
Plainfield, IN 46168
Phone: (317) 506-9005



W. Chad Ziegler
6-9-2015

April 2015
Revised June 2015

Plainfield Christian Church Parking Lot Addition, Phase 4

Existing Characteristics:

The purpose of the project is to expand the parking lot near the northwest corner of the Plainfield Christian Church site. The site is located on the northwest corner of Dan Jones Road and Township Line Road (C.R. 300 S) in Plainfield, IN; in the southeast corner of Section 23; Township 15 North; Range 1 East.

Adjoining Land Conditions:

North: Agricultural
South: Residential, (Township Line Road)
East: Residential, (Dan Jones Road)
West: Residential

Drainage Summary:

Approximately 0.34± acres of asphalt will be added to increase parking by approximately 48 parking spaces. The new parking lot will drain toward the east to existing inlets located in the adjacent parking areas. Approximately 0.26± acres will drain east to an existing inlet (EX. Str. 1) located in the adjacent east parking area. The remaining 0.08± acres will drain to inlets located in the adjacent parking area to the southeast. EX. Str. 1 currently receives drainage from 0.37± acres. Including proposed area 101, the total runoff flow rate to EX. Str. 1 will be approximately 3.7 cfs based on rational method calculations. The existing pipe currently has sufficient capacity to receive the new parking area.

Adding the new parking lot will slightly increase the runoff rate from the project site. There is limited space around the new parking area to provide detention for the additional runoff. However, there is an existing wet bottom pond located behind the Pier 14 youth center that discharges to the same point as the new parking area. The outlet for the existing pond will be modified to reduce the flow rate and detain the volume equivalent to the increase from the new parking area. Based on Interconnected Pond Routing software (ICPR), the new parking area increases the runoff rate by 1 cfs for the 10-year and 100-year storm events, and peaks at 12 hours in the event. A steel restrictor plate will be installed over the control weir of the existing outlet structure. The plate reduces the discharge rate from the pond by 1 cfs during the 10-year and 100-year storm events at 12 hours into the event. See the appendices for calculations.

Methodology:

The Rational Method was used to calculate 10-year flow rates to the existing pipe that receives runoff from the new parking area. Interconnected Pond Routing software (ICPR) was used to calculate the existing and developed discharge from the new parking lot site, and the discharge from the existing pond to analyze the detention (see attached calculations).

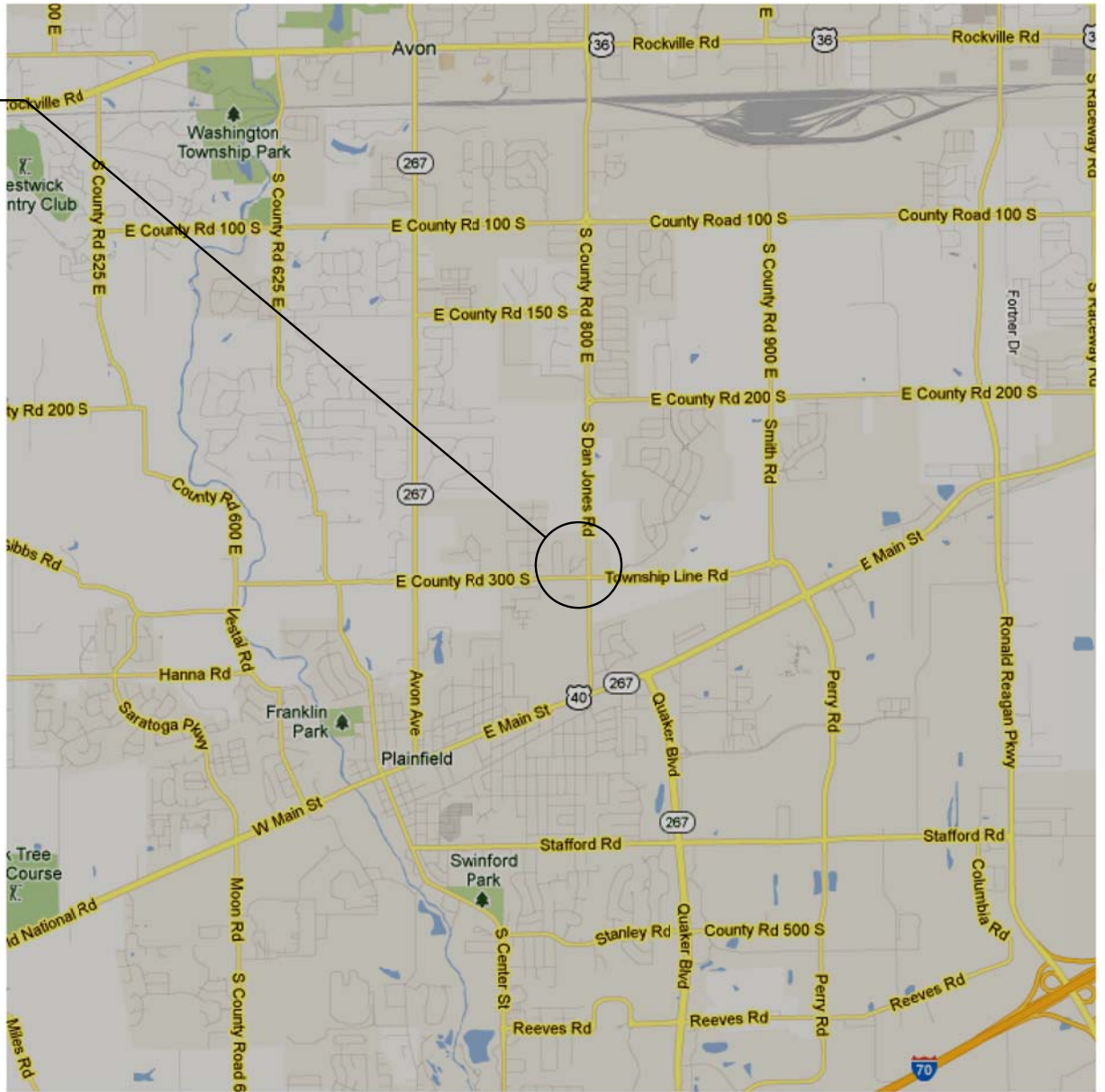
Appendices:

1. Area Map
2. Project Map
3. Site Plan
4. Calculations



AREA MAP

PROJECT
LOCATION



AREA MAP



PROJECT MAP

Williamsburg In The Woods
Subdivision

N 01°00'55" W 572.00'

S 88°35'06" W (M) 374.02'

N 01°02'38" W 195.60'

N 00°00'00" E 1067.56'

Existing
Garage

Colony Lakes
Subdivision

PROPOSED
PARKING

Existing
Pier 14
Youth
Center

Existing
Storage
Building

Existing
Caretaker's
House

Existing
Mission's
House

Clarks Creek Tributary

S 01°02'38" E
50.03'

N 89°14'00" W
17.49'

P.O.B.

S 02°04'22" W 204.32'

N 89°14'00" W
31.02'

S 01°00'55" E
23.85'

S 01°00'55" E 572.00'

S 88°35'06" W
20.00'

N 01°00'55" W 1093.95'

S 00°00'00" W 1091.00'

Dan Jones Road

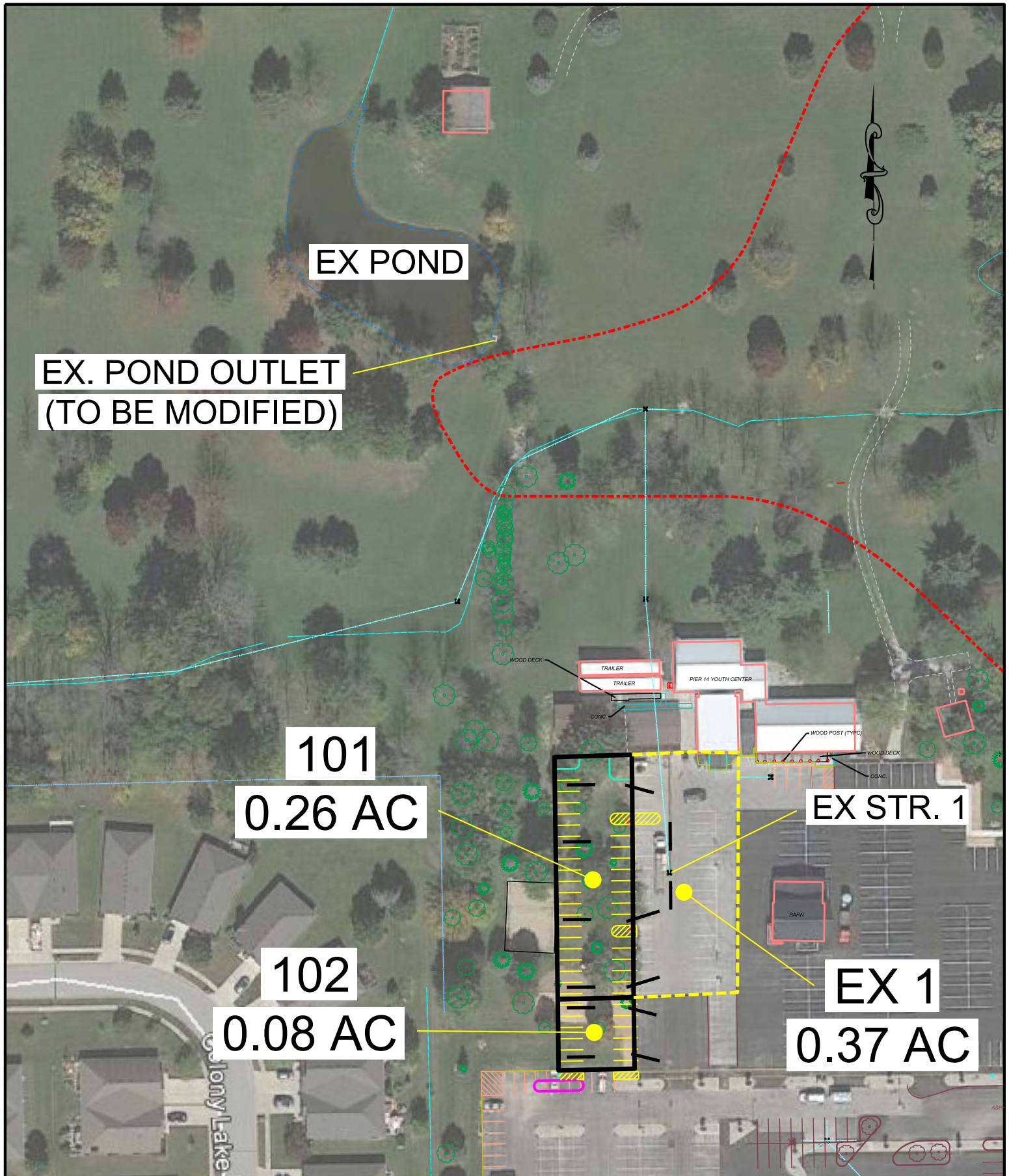


PROJECT MAP

NO SCALE

SEC. COR. SE 1/4
SEC. 23-T16N-R1E
Henricks County
Surveyor's Monument

SITE PLAN



EX POND

EX. POND OUTLET
(TO BE MODIFIED)

101
0.26 AC

102
0.08 AC

EX STR. 1

EX 1
0.37 AC

DRAWN BY: WCZ
DATE: 6/9/15
JOB #: 06048C
SCALE: 1" = 100'
PAGE: 1 of 1

SITE PLAN
PLAINFIELD CHRISTIAN CHURCH
PARKING LOT ADDITION, PHASE 4
PLAINFIELD, INDIANA

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CALCULATIONS

STORM SEWER DESIGN CALCULATIONS
'-RATIONAL METHOD-'

PROJECT: Plainfield Christian Church Parking Addition, Phase 4	STORM: 10 Year
JOB #: 06048C	COMPUTED BY: WCZ
DATE: 4/21/15	SHEET NO.: 1

	BASINS						COMPOSITE BASINS				
	BASIN #	c	A (acres)	c*A	Tc (min)	I (in/hr)	Q (cfs)	SUM (c*A)	Tc (min)	I (in/hr)	Q (cfs)
	101	0.85	0.26	0.22	5	6.98	1.54	0.22	5	6.98	1.54
	102	0.85	0.08	0.07	5	6.98	0.47	0.07	5	6.98	0.47
	EX 1	0.85	0.37	0.31	5	6.98	2.20	0.31	5	6.98	2.20

Culvert Report

Circular Culvert

Invert Elev Dn (ft)	= 783.06
Pipe Length (ft)	= 220.00
Slope (%)	= 1.07
Invert Elev Up (ft)	= 785.41
Rise (in)	= 12.0
Shape	= Circular
Span (in)	= 12.0
No. Barrels	= 1
n-Value	= 0.013
Culvert Type	= Circular Concrete
Culvert Entrance	= Square edge w/headwall (C)
Coeff. K,M,c,Y,k	= 0.0098, 2, 0.0398, 0.67, 0.5

Calculations

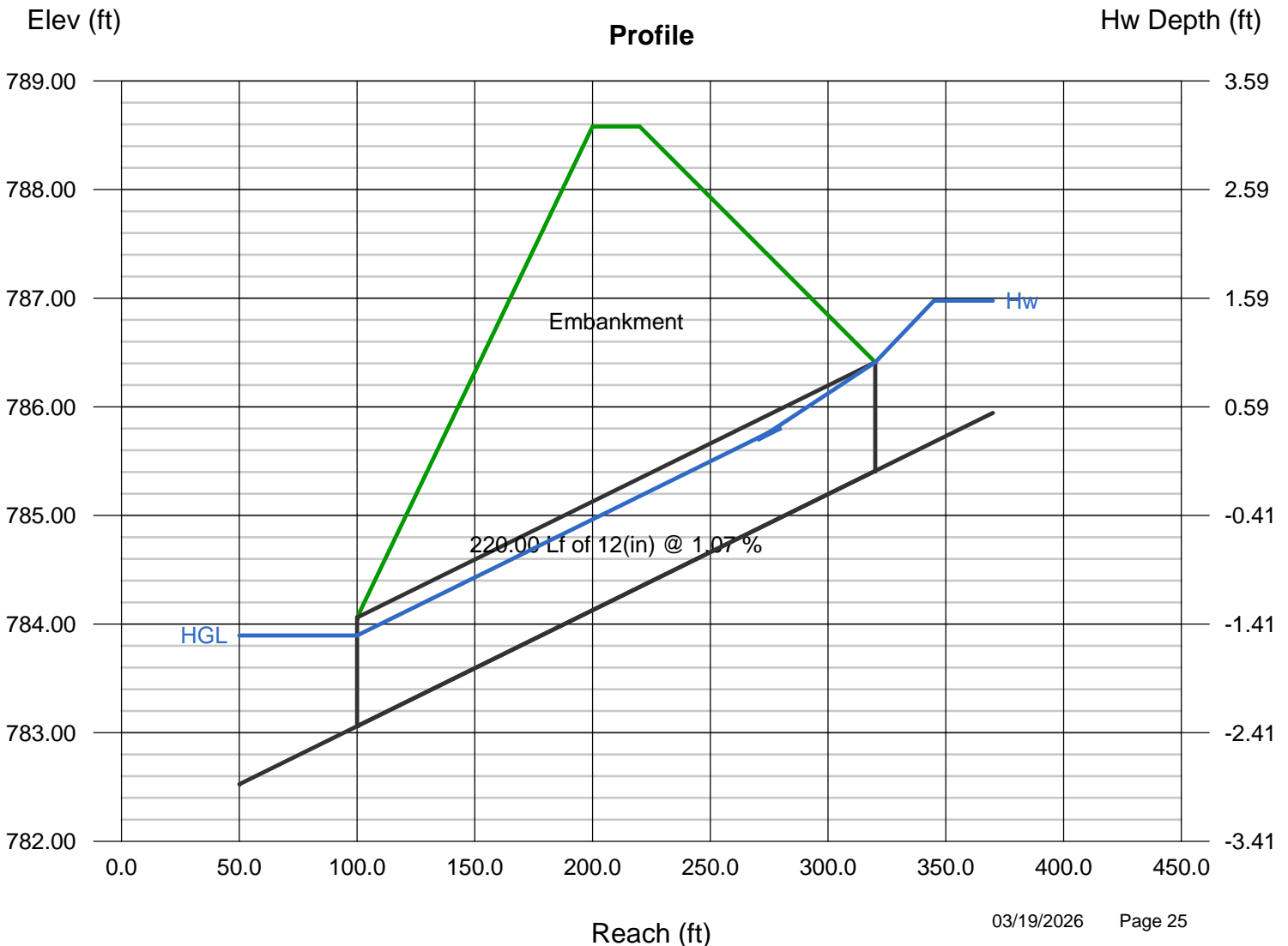
Qmin (cfs)	= 3.74
Qmax (cfs)	= 3.74
Tailwater Elev (ft)	= Normal

Highlighted

Qtotal (cfs)	= 3.74
Qpipe (cfs)	= 3.74
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 5.34
Veloc Up (ft/s)	= 5.41
HGL Dn (ft)	= 783.90
HGL Up (ft)	= 786.23
Hw Elev (ft)	= 786.98
Hw/D (ft)	= 1.57
Flow Regime	= Inlet Control

Embankment

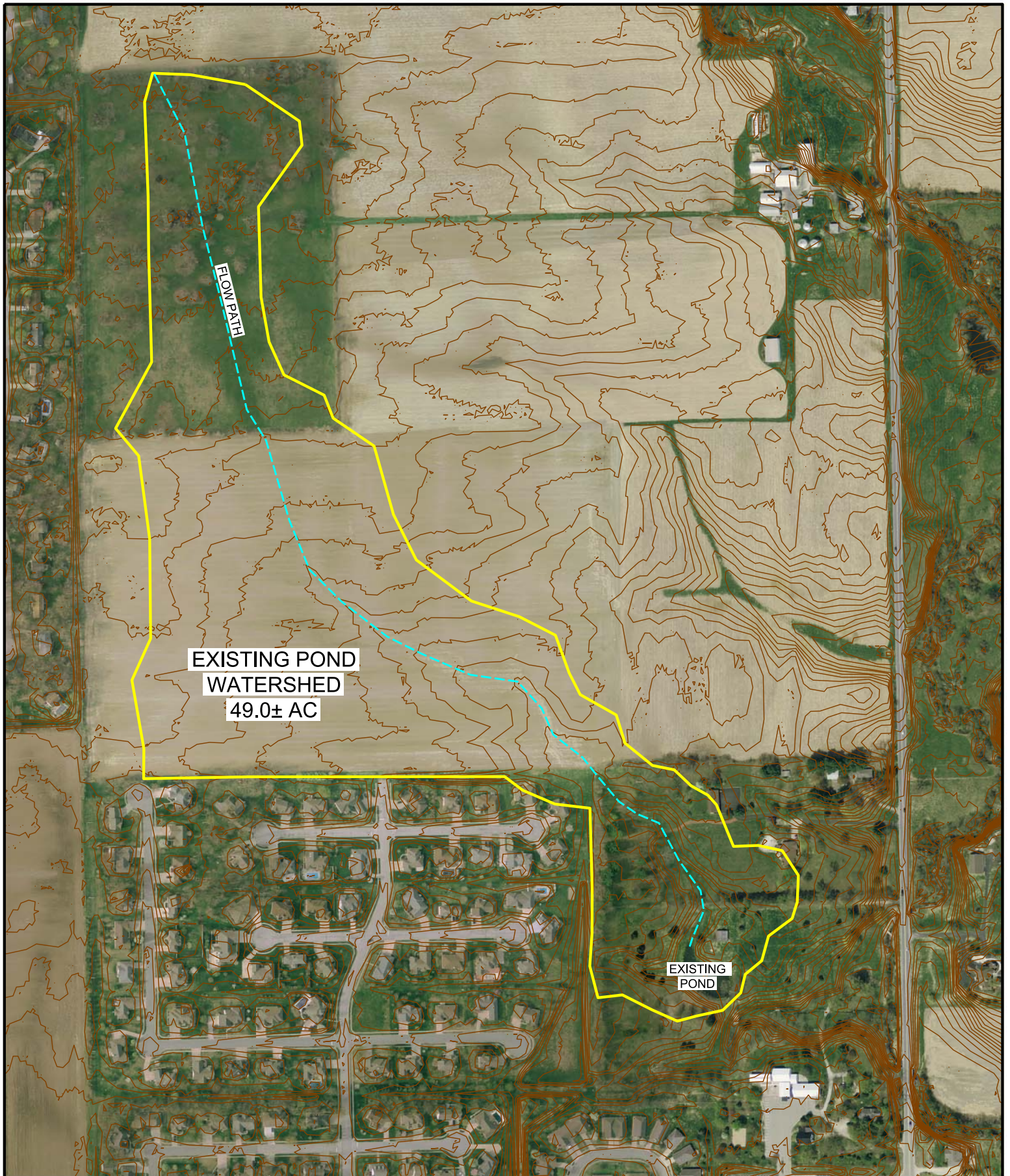
Top Elevation (ft)	= 788.58
Top Width (ft)	= 20.00
Crest Width (ft)	= 50.00



Name	Group	Simulation	Max Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
DEV BNDY	BASE010_scs_type_ii		0.00	783.00	783.05	0.00	0	12.00	1.7	0.00	0.0
DEV BNDY	BASE100_scs_type_ii		0.00	783.00	783.05	0.00	0	12.00	2.3	0.00	0.0
EX BNDY	BASE010_scs_type_ii		0.00	783.00	783.05	0.00	0	12.00	0.7	0.00	0.0
EX BNDY	BASE100_scs_type_ii		0.00	783.00	783.05	0.00	0	12.00	1.3	0.00	0.0

DEV 101 & 102

EX 101 & 102



EXISTING POND
WATERSHED
49.0± AC

EXISTING
POND

DRAWN BY: WCZ
DATE: 6/9/15
JOB #: 06048C
SCALE: 1" = 400'
PAGE: 1 of 1

EXISTING POND WATERSHED
PLAINFIELD CHRISTIAN CHURCH
PARKING LOT ADDITION, PHASE 4
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06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
010_scs_type_ii	EX Wet Pond	BASE	0.00	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	0.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	0.34	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	0.50	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	0.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	0.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	1.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	2.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	3.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	4.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	5.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	6.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	7.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	8.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.0	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.1	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.3	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.5	784.00	787.00	18296	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.6	784.00	787.00	18297	0.0	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	9.8	784.00	787.00	18299	0.1	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.0	784.00	787.00	18303	0.1	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.18	784.01	787.00	18311	0.2	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.35	784.01	787.00	18321	0.2	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.52	784.02	787.00	18336	0.3	0.0	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.68	784.03	787.00	18355	0.4	0.1	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	10.85	784.05	787.00	18380	0.6	0.1	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.02	784.07	787.00	18412	0.8	0.2	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.18	784.09	787.00	18450	1.0	0.3	0.0	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.34	784.12	787.00	18499	1.3	0.4	0.1	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.50	784.15	787.00	18557	1.7	0.6	0.1	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.67	784.20	787.00	18637	2.4	0.8	0.1	0.0
010_scs_type_ii	EX Wet Pond	BASE	11.84	784.26	787.00	18752	3.8	1.3	0.2	0.0
010_scs_type_ii	EX Wet Pond	BASE	12.00	784.39	787.00	18970	7.6	2.3	0.2	0.1
010_scs_type_ii	EX Wet Pond	BASE	12.17	784.62	787.00	19377	14.2	4.7	0.4	0.1
010_scs_type_ii	EX Wet Pond	BASE	12.33	784.98	787.00	20009	23.3	9.4	0.6	0.2
010_scs_type_ii	EX Wet Pond	BASE	12.50	785.42	787.00	20774	32.5	15.1	1.0	0.4
010_scs_type_ii	EX Wet Pond	BASE	12.67	785.97	787.00	21732	38.2	16.6	1.5	0.6
010_scs_type_ii	EX Wet Pond	BASE	12.83	786.56	787.00	22748	39.7	17.9	2.0	0.8
010_scs_type_ii	EX Wet Pond	BASE	13.00	787.08	787.00	23661	37.9	19.0	2.6	1.1
010_scs_type_ii	EX Wet Pond	BASE	13.17	787.49	787.00	24379	34.0	19.8	3.1	1.4
010_scs_type_ii	EX Wet Pond	BASE	13.33	787.77	787.00	24859	28.8	20.3	3.5	1.6
010_scs_type_ii	EX Wet Pond	BASE	13.50	787.91	787.00	25110	24.1	20.6	3.9	1.9
010_scs_type_ii	EX Wet Pond	BASE	13.67	787.95	787.00	25182	20.6	20.7	4.2	2.2
010_scs_type_ii	EX Wet Pond	BASE	13.83	787.92	787.00	25123	17.8	20.6	4.4	2.5
010_scs_type_ii	EX Wet Pond	BASE	14.00	787.82	787.00	24959	15.4	20.4	4.7	2.8
010_scs_type_ii	EX Wet Pond	BASE	14.17	787.68	787.00	24711	13.4	20.1	4.9	3.0
010_scs_type_ii	EX Wet Pond	BASE	14.33	787.50	787.00	24398	11.7	19.8	5.0	3.3
010_scs_type_ii	EX Wet Pond	BASE	14.50	787.29	787.00	24032	10.4	19.3	5.2	3.6

EXISTING 10-YR
 DISCHARGE
 THROUGH POND
 AT 12 HOURS

12.00 784.39 787.00 18970 7.6 2.3

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
010_scs_type_ii	EX Wet Pond	BASE	14.67	787.06	787.00	23625	9.2	18.8	5.3	3.9
010_scs_type_ii	EX Wet Pond	BASE	14.83	786.81	787.00	23187	8.3	18.3	5.4	4.1
010_scs_type_ii	EX Wet Pond	BASE	15.00	786.54	787.00	22726	7.5	17.7	5.6	4.4
010_scs_type_ii	EX Wet Pond	BASE	15.17	786.27	787.00	22247	6.8	17.1	5.7	4.6
010_scs_type_ii	EX Wet Pond	BASE	15.33	785.99	787.00	21762	6.2	16.5	5.7	4.8
010_scs_type_ii	EX Wet Pond	BASE	15.50	785.71	787.00	21271	5.8	16.0	5.8	5.0
010_scs_type_ii	EX Wet Pond	BASE	15.67	785.43	787.00	20786	5.4	14.9	5.9	5.3
010_scs_type_ii	EX Wet Pond	BASE	15.83	785.17	787.00	20336	5.0	12.9	6.0	5.5
010_scs_type_ii	EX Wet Pond	BASE	16.00	784.99	787.00	20013	4.7	9.4	6.0	5.6
010_scs_type_ii	EX Wet Pond	BASE	16.17	784.87	787.00	19806	4.5	7.7	6.1	5.7
010_scs_type_ii	EX Wet Pond	BASE	16.33	784.78	787.00	19659	4.3	6.6	6.2	5.8
010_scs_type_ii	EX Wet Pond	BASE	16.50	784.72	787.00	19551	4.2	5.9	6.2	5.9
010_scs_type_ii	EX Wet Pond	BASE	16.67	784.68	787.00	19471	4.1	5.3	6.3	6.0
010_scs_type_ii	EX Wet Pond	BASE	16.84	784.64	787.00	19411	4.0	4.9	6.3	6.1
010_scs_type_ii	EX Wet Pond	BASE	17.00	784.61	787.00	19367	3.9	4.6	6.4	6.1
010_scs_type_ii	EX Wet Pond	BASE	17.17	784.59	787.00	19330	3.8	4.4	6.4	6.2
010_scs_type_ii	EX Wet Pond	BASE	17.34	784.58	787.00	19300	3.7	4.2	6.5	6.2
010_scs_type_ii	EX Wet Pond	BASE	17.50	784.56	787.00	19274	3.6	4.0	6.5	6.3
010_scs_type_ii	EX Wet Pond	BASE	17.67	784.55	787.00	19251	3.5	3.9	6.6	6.4
010_scs_type_ii	EX Wet Pond	BASE	17.84	784.54	787.00	19231	3.4	3.8	6.6	6.4
010_scs_type_ii	EX Wet Pond	BASE	18.00	784.53	787.00	19213	3.4	3.7	6.7	6.5
010_scs_type_ii	EX Wet Pond	BASE	18.17	784.52	787.00	19197	3.3	3.6	6.7	6.5
010_scs_type_ii	EX Wet Pond	BASE	18.34	784.51	787.00	19182	3.2	3.5	6.8	6.6
010_scs_type_ii	EX Wet Pond	BASE	18.50	784.50	787.00	19167	3.1	3.4	6.8	6.6
010_scs_type_ii	EX Wet Pond	BASE	18.67	784.49	787.00	19151	3.0	3.3	6.9	6.7
010_scs_type_ii	EX Wet Pond	BASE	18.84	784.48	787.00	19136	2.9	3.2	6.9	6.7
010_scs_type_ii	EX Wet Pond	BASE	19.00	784.47	787.00	19120	2.8	3.1	6.9	6.7
010_scs_type_ii	EX Wet Pond	BASE	19.17	784.47	787.00	19106	2.8	3.0	7.0	6.8
010_scs_type_ii	EX Wet Pond	BASE	19.34	784.46	787.00	19092	2.7	3.0	7.0	6.8
010_scs_type_ii	EX Wet Pond	BASE	19.50	784.45	787.00	19080	2.7	2.9	7.1	6.9
010_scs_type_ii	EX Wet Pond	BASE	19.67	784.44	787.00	19069	2.7	2.8	7.1	6.9
010_scs_type_ii	EX Wet Pond	BASE	19.84	784.44	787.00	19061	2.6	2.8	7.1	6.9
010_scs_type_ii	EX Wet Pond	BASE	20.00	784.44	787.00	19053	2.6	2.8	7.2	7.0
010_scs_type_ii	EX Wet Pond	BASE	20.17	784.43	787.00	19046	2.6	2.7	7.2	7.0
010_scs_type_ii	EX Wet Pond	BASE	20.34	784.43	787.00	19039	2.5	2.7	7.2	7.1
010_scs_type_ii	EX Wet Pond	BASE	20.50	784.42	787.00	19031	2.5	2.6	7.3	7.1
010_scs_type_ii	EX Wet Pond	BASE	20.67	784.42	787.00	19020	2.4	2.6	7.3	7.1
010_scs_type_ii	EX Wet Pond	BASE	20.84	784.41	787.00	19008	2.3	2.5	7.3	7.2
010_scs_type_ii	EX Wet Pond	BASE	21.00	784.40	787.00	18995	2.2	2.4	7.4	7.2
010_scs_type_ii	EX Wet Pond	BASE	21.17	784.39	787.00	18982	2.1	2.4	7.4	7.2
010_scs_type_ii	EX Wet Pond	BASE	21.34	784.39	787.00	18970	2.1	2.3	7.4	7.3
010_scs_type_ii	EX Wet Pond	BASE	21.50	784.38	787.00	18959	2.1	2.3	7.5	7.3
010_scs_type_ii	EX Wet Pond	BASE	21.67	784.38	787.00	18949	2.1	2.2	7.5	7.3
010_scs_type_ii	EX Wet Pond	BASE	21.84	784.37	787.00	18942	2.0	2.2	7.5	7.4
010_scs_type_ii	EX Wet Pond	BASE	22.00	784.37	787.00	18935	2.0	2.1	7.5	7.4
010_scs_type_ii	EX Wet Pond	BASE	22.17	784.36	787.00	18929	2.0	2.1	7.6	7.4
010_scs_type_ii	EX Wet Pond	BASE	22.34	784.36	787.00	18924	2.0	2.1	7.6	7.4
010_scs_type_ii	EX Wet Pond	BASE	22.50	784.36	787.00	18920	2.0	2.1	7.6	7.5
010_scs_type_ii	EX Wet Pond	BASE	22.67	784.36	787.00	18917	2.0	2.0	7.7	7.5
010_scs_type_ii	EX Wet Pond	BASE	22.84	784.36	787.00	18914	2.0	2.0	7.7	7.5
010_scs_type_ii	EX Wet Pond	BASE	23.00	784.35	787.00	18912	2.0	2.0	7.7	7.6
010_scs_type_ii	EX Wet Pond	BASE	23.17	784.35	787.00	18910	2.0	2.0	7.7	7.6
010_scs_type_ii	EX Wet Pond	BASE	23.34	784.35	787.00	18909	2.0	2.0	7.8	7.6
010_scs_type_ii	EX Wet Pond	BASE	23.50	784.35	787.00	18909	2.0	2.0	7.8	7.6
010_scs_type_ii	EX Wet Pond	BASE	23.67	784.35	787.00	18908	2.0	2.0	7.8	7.7
010_scs_type_ii	EX Wet Pond	BASE	23.84	784.35	787.00	18908	2.0	2.0	7.8	7.7
010_scs_type_ii	EX Wet Pond	BASE	24.00	784.35	787.00	18908	2.0	2.0	7.9	7.7
010_scs_type_ii	EX Wet Pond	BASE	24.17	784.35	787.00	18906	1.9	2.0	7.9	7.7
010_scs_type_ii	EX Wet Pond	BASE	24.34	784.35	787.00	18901	1.8	2.0	7.9	7.8
010_scs_type_ii	EX Wet Pond	BASE	24.50	784.34	787.00	18891	1.7	1.9	8.0	7.8
010_scs_type_ii	EX Wet Pond	BASE	24.67	784.33	787.00	18874	1.5	1.8	8.0	7.8
010_scs_type_ii	EX Wet Pond	BASE	24.84	784.32	787.00	18848	1.2	1.7	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.00	784.30	787.00	18816	0.9	1.6	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.17	784.28	787.00	18779	0.7	1.4	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.34	784.26	787.00	18740	0.5	1.2	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.50	784.23	787.00	18701	0.4	1.1	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.67	784.21	787.00	18664	0.3	0.9	8.0	7.9
010_scs_type_ii	EX Wet Pond	BASE	25.84	784.19	787.00	18629	0.2	0.8	8.0	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.00	784.17	787.00	18597	0.2	0.7	8.0	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.17	784.16	787.00	18569	0.1	0.6	8.0	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.34	784.14	787.00	18543	0.1	0.5	8.0	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.50	784.13	787.00	18520	0.1	0.4	8.0	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.67	784.12	787.00	18500	0.0	0.4	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	26.84	784.11	787.00	18482	0.0	0.3	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.00	784.10	787.00	18466	0.0	0.3	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.17	784.09	787.00	18451	0.0	0.3	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.34	784.08	787.00	18438	0.0	0.2	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.50	784.08	787.00	18427	0.0	0.2	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.67	784.07	787.00	18416	0.0	0.2	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	27.84	784.06	787.00	18407	0.0	0.2	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.00	784.06	787.00	18399	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.17	784.06	787.00	18391	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.34	784.05	787.00	18385	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.50	784.05	787.00	18379	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.67	784.04	787.00	18373	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	28.84	784.04	787.00	18368	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	29.00	784.04	787.00	18364	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	29.17	784.04	787.00	18360	0.0	0.1	8.1	8.0

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
010_scs_type_ii	EX Wet Pond	BASE	29.34	784.04	787.00	18356	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	29.50	784.03	787.00	18353	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	29.67	784.03	787.00	18350	0.0	0.1	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	29.84	784.03	787.00	18347	0.0	0.0	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	30.00	784.03	787.00	18344	0.0	0.0	8.1	8.0
010_scs_type_ii	EX Wet Pond	BASE	30.01	784.03	787.00	18344	0.0	0.0	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	0.00	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	0.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	0.34	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	0.50	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	0.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	0.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	1.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	2.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	3.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	4.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	5.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	6.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	7.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	8.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	9.85	784.00	787.00	18295	0.1	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.02	784.00	787.00	18295	0.1	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.18	784.01	787.00	18311	0.2	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.35	784.02	787.00	18322	0.2	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.52	784.02	787.00	18338	0.3	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.68	784.04	787.00	18359	0.4	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	10.85	784.05	787.00	18388	0.6	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	11.02	784.07	787.00	18426	0.8	0.0	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	11.18	784.10	787.00	18473	1.0	0.1	0.0	0.0
010_scs_type_ii	New Wet Pond	BASE	11.34	784.14	787.00	18535	1.3	0.1	0.1	0.0
010_scs_type_ii	New Wet Pond	BASE	11.50	784.18	787.00	18613	1.7	0.1	0.1	0.0
010_scs_type_ii	New Wet Pond	BASE	11.67	784.25	787.00	18722	2.4	0.2	0.1	0.0
010_scs_type_ii	New Wet Pond	BASE	11.84	784.33	787.00	18877	3.8	0.5	0.2	0.0
010_scs_type_ii	New Wet Pond	BASE	12.00	784.49	787.00	19145	7.6	1.2	0.2	0.0
010_scs_type_ii	New Wet Pond	BASE	12.17	784.76	787.00	19614	14.2	3.2	0.4	0.1
010_scs_type_ii	New Wet Pond	BASE	12.33	785.17	787.00	20327	23.3	7.3	0.6	0.1
010_scs_type_ii	New Wet Pond	BASE	12.50	785.62	787.00	21114	32.5	15.5	1.0	0.3
010_scs_type_ii	New Wet Pond	BASE	12.67	786.15	787.00	22037	38.2	17.0	1.5	0.5
010_scs_type_ii	New Wet Pond	BASE	12.83	786.71	787.00	23023	39.7	18.3	2.0	0.7
010_scs_type_ii	New Wet Pond	BASE	13.00	787.22	787.00	23912	37.9	19.3	2.6	1.0
010_scs_type_ii	New Wet Pond	BASE	13.17	787.63	787.00	24612	34.0	20.1	3.1	1.3
010_scs_type_ii	New Wet Pond	BASE	13.33	787.89	787.00	25077	28.8	20.6	3.5	1.6

DEVELOPED 10-YR
 DISCHARGE
 THROUGH POND AT
 12 HOURS

06048C Plainfield Christian Church Parking Lot Addition Phase 4
Existing Wet Pond
Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
010_scs_type_ii	New Wet Pond	BASE	13.50	788.03	787.00	25317	24.1	20.8	3.9	1.8
010_scs_type_ii	New Wet Pond	BASE	13.67	788.07	787.00	25379	20.6	20.9	4.2	2.1
010_scs_type_ii	New Wet Pond	BASE	13.83	788.03	787.00	25312	17.8	20.8	4.4	2.4
010_scs_type_ii	New Wet Pond	BASE	14.00	787.93	787.00	25142	15.4	20.6	4.7	2.7
010_scs_type_ii	New Wet Pond	BASE	14.17	787.78	787.00	24887	13.4	20.3	4.9	3.0
010_scs_type_ii	New Wet Pond	BASE	14.33	787.60	787.00	24568	11.7	19.9	5.0	3.3
010_scs_type_ii	New Wet Pond	BASE	14.50	787.39	787.00	24197	10.4	19.5	5.2	3.5
010_scs_type_ii	New Wet Pond	BASE	14.67	787.15	787.00	23784	9.2	19.0	5.3	3.8
010_scs_type_ii	New Wet Pond	BASE	14.83	786.90	787.00	23342	8.3	18.5	5.4	4.1
010_scs_type_ii	New Wet Pond	BASE	15.00	786.63	787.00	22876	7.5	17.9	5.6	4.3
010_scs_type_ii	New Wet Pond	BASE	15.17	786.35	787.00	22392	6.8	17.3	5.7	4.5
010_scs_type_ii	New Wet Pond	BASE	15.33	786.07	787.00	21901	6.2	16.6	5.7	4.8
010_scs_type_ii	New Wet Pond	BASE	15.50	785.79	787.00	21406	5.8	15.8	5.8	5.0
010_scs_type_ii	New Wet Pond	BASE	15.67	785.51	787.00	20925	5.4	14.6	5.9	5.2
010_scs_type_ii	New Wet Pond	BASE	15.83	785.30	787.00	20554	5.0	10.2	6.0	5.4
010_scs_type_ii	New Wet Pond	BASE	16.00	785.19	787.00	20365	4.7	7.6	6.0	5.5
010_scs_type_ii	New Wet Pond	BASE	16.17	785.11	787.00	20232	4.5	6.7	6.1	5.6
010_scs_type_ii	New Wet Pond	BASE	16.33	785.05	787.00	20128	4.3	6.1	6.2	5.7
010_scs_type_ii	New Wet Pond	BASE	16.50	785.00	787.00	20044	4.2	5.6	6.2	5.8
010_scs_type_ii	New Wet Pond	BASE	16.67	784.96	787.00	19976	4.1	5.2	6.3	5.9
010_scs_type_ii	New Wet Pond	BASE	16.84	784.93	787.00	19922	4.0	4.9	6.3	5.9
010_scs_type_ii	New Wet Pond	BASE	17.00	784.91	787.00	19879	3.9	4.6	6.4	6.0
010_scs_type_ii	New Wet Pond	BASE	17.17	784.89	787.00	19842	3.8	4.4	6.4	6.0
010_scs_type_ii	New Wet Pond	BASE	17.34	784.87	787.00	19810	3.7	4.3	6.5	6.1
010_scs_type_ii	New Wet Pond	BASE	17.50	784.85	787.00	19781	3.6	4.1	6.5	6.2
010_scs_type_ii	New Wet Pond	BASE	17.67	784.84	787.00	19755	3.5	4.0	6.6	6.2
010_scs_type_ii	New Wet Pond	BASE	17.84	784.82	787.00	19732	3.4	3.8	6.6	6.3
010_scs_type_ii	New Wet Pond	BASE	18.00	784.81	787.00	19711	3.4	3.7	6.7	6.3
010_scs_type_ii	New Wet Pond	BASE	18.17	784.80	787.00	19691	3.3	3.6	6.7	6.4
010_scs_type_ii	New Wet Pond	BASE	18.34	784.79	787.00	19673	3.2	3.5	6.8	6.4
010_scs_type_ii	New Wet Pond	BASE	18.50	784.78	787.00	19655	3.1	3.5	6.8	6.5
010_scs_type_ii	New Wet Pond	BASE	18.67	784.77	787.00	19637	3.0	3.4	6.9	6.5
010_scs_type_ii	New Wet Pond	BASE	18.84	784.76	787.00	19619	2.9	3.3	6.9	6.6
010_scs_type_ii	New Wet Pond	BASE	19.00	784.75	787.00	19601	2.8	3.2	6.9	6.6
010_scs_type_ii	New Wet Pond	BASE	19.17	784.74	787.00	19583	2.8	3.1	7.0	6.7
010_scs_type_ii	New Wet Pond	BASE	19.34	784.73	787.00	19567	2.7	3.0	7.0	6.7
010_scs_type_ii	New Wet Pond	BASE	19.50	784.72	787.00	19552	2.7	2.9	7.1	6.7
010_scs_type_ii	New Wet Pond	BASE	19.67	784.71	787.00	19539	2.7	2.9	7.1	6.8
010_scs_type_ii	New Wet Pond	BASE	19.84	784.71	787.00	19528	2.6	2.8	7.1	6.8
010_scs_type_ii	New Wet Pond	BASE	20.00	784.70	787.00	19519	2.6	2.8	7.2	6.9
010_scs_type_ii	New Wet Pond	BASE	20.17	784.70	787.00	19510	2.6	2.8	7.2	6.9
010_scs_type_ii	New Wet Pond	BASE	20.34	784.69	787.00	19501	2.5	2.7	7.2	6.9
010_scs_type_ii	New Wet Pond	BASE	20.50	784.69	787.00	19491	2.5	2.7	7.3	7.0
010_scs_type_ii	New Wet Pond	BASE	20.67	784.68	787.00	19479	2.4	2.6	7.3	7.0
010_scs_type_ii	New Wet Pond	BASE	20.84	784.67	787.00	19466	2.3	2.5	7.3	7.0
010_scs_type_ii	New Wet Pond	BASE	21.00	784.66	787.00	19451	2.2	2.5	7.4	7.1
010_scs_type_ii	New Wet Pond	BASE	21.17	784.65	787.00	19436	2.1	2.4	7.4	7.1
010_scs_type_ii	New Wet Pond	BASE	21.34	784.65	787.00	19422	2.1	2.4	7.4	7.1
010_scs_type_ii	New Wet Pond	BASE	21.50	784.64	787.00	19409	2.1	2.3	7.5	7.2
010_scs_type_ii	New Wet Pond	BASE	21.67	784.63	787.00	19398	2.1	2.2	7.5	7.2
010_scs_type_ii	New Wet Pond	BASE	21.84	784.63	787.00	19388	2.0	2.2	7.5	7.2
010_scs_type_ii	New Wet Pond	BASE	22.00	784.62	787.00	19379	2.0	2.2	7.5	7.3
010_scs_type_ii	New Wet Pond	BASE	22.17	784.62	787.00	19372	2.0	2.1	7.6	7.3
010_scs_type_ii	New Wet Pond	BASE	22.34	784.61	787.00	19366	2.0	2.1	7.6	7.3
010_scs_type_ii	New Wet Pond	BASE	22.50	784.61	787.00	19360	2.0	2.1	7.6	7.4
010_scs_type_ii	New Wet Pond	BASE	22.67	784.61	787.00	19356	2.0	2.1	7.7	7.4
010_scs_type_ii	New Wet Pond	BASE	22.84	784.61	787.00	19352	2.0	2.0	7.7	7.4
010_scs_type_ii	New Wet Pond	BASE	23.00	784.60	787.00	19349	2.0	2.0	7.7	7.4
010_scs_type_ii	New Wet Pond	BASE	23.17	784.60	787.00	19346	2.0	2.0	7.7	7.5
010_scs_type_ii	New Wet Pond	BASE	23.34	784.60	787.00	19344	2.0	2.0	7.8	7.5
010_scs_type_ii	New Wet Pond	BASE	23.50	784.60	787.00	19343	2.0	2.0	7.8	7.5
010_scs_type_ii	New Wet Pond	BASE	23.67	784.60	787.00	19343	2.0	2.0	7.8	7.6
010_scs_type_ii	New Wet Pond	BASE	23.84	784.60	787.00	19342	2.0	2.0	7.8	7.6
010_scs_type_ii	New Wet Pond	BASE	24.00	784.60	787.00	19341	2.0	2.0	7.9	7.6
010_scs_type_ii	New Wet Pond	BASE	24.17	784.60	787.00	19339	1.9	2.0	7.9	7.6
010_scs_type_ii	New Wet Pond	BASE	24.34	784.60	787.00	19334	1.8	2.0	7.9	7.7
010_scs_type_ii	New Wet Pond	BASE	24.50	784.59	787.00	19323	1.7	1.9	8.0	7.7
010_scs_type_ii	New Wet Pond	BASE	24.67	784.58	787.00	19306	1.5	1.9	8.0	7.7
010_scs_type_ii	New Wet Pond	BASE	24.84	784.56	787.00	19279	1.2	1.8	8.0	7.7
010_scs_type_ii	New Wet Pond	BASE	25.00	784.55	787.00	19245	0.9	1.6	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	25.17	784.52	787.00	19206	0.7	1.5	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	25.34	784.50	787.00	19164	0.5	1.3	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	25.50	784.47	787.00	19121	0.4	1.2	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	25.67	784.45	787.00	19079	0.3	1.0	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	25.84	784.43	787.00	19040	0.2	0.9	8.0	7.8
010_scs_type_ii	New Wet Pond	BASE	26.00	784.41	787.00	19004	0.2	0.8	8.0	7.9
010_scs_type_ii	New Wet Pond	BASE	26.17	784.39	787.00	18970	0.1	0.7	8.0	7.9
010_scs_type_ii	New Wet Pond	BASE	26.34	784.37	787.00	18940	0.1	0.6	8.0	7.9
010_scs_type_ii	New Wet Pond	BASE	26.50	784.35	787.00	18912	0.1	0.5	8.0	7.9
010_scs_type_ii	New Wet Pond	BASE	26.67	784.34	787.00	18887	0.0	0.5	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	26.84	784.33	787.00	18864	0.0	0.4	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.00	784.31	787.00	18843	0.0	0.4	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.17	784.30	787.00	18824	0.0	0.3	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.34	784.29	787.00	18806	0.0	0.3	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.50	784.28	787.00	18791	0.0	0.3	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.67	784.28	787.00	18776	0.0	0.3	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	27.84	784.27	787.00	18762	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	28.00	784.26	787.00	18750	0.0	0.2	8.1	7.9

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
010_scs_type_ii	New Wet Pond	BASE	28.17	784.25	787.00	18738	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	28.34	784.25	787.00	18726	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	28.50	784.24	787.00	18716	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	28.67	784.24	787.00	18705	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	28.84	784.23	787.00	18695	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	29.00	784.22	787.00	18686	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	29.17	784.22	787.00	18676	0.0	0.2	8.1	7.9
010_scs_type_ii	New Wet Pond	BASE	29.34	784.21	787.00	18667	0.0	0.2	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	29.50	784.21	787.00	18659	0.0	0.2	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	29.67	784.20	787.00	18650	0.0	0.1	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	29.84	784.20	787.00	18642	0.0	0.1	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	30.00	784.19	787.00	18634	0.0	0.1	8.1	8.0
010_scs_type_ii	New Wet Pond	BASE	30.01	784.19	787.00	18634	0.0	0.1	8.1	8.0
100_scs_type_ii	EX Wet Pond	BASE	0.00	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	0.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	0.34	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	0.50	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	0.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	0.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	1.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	2.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	3.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	4.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	5.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	6.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	7.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.02	784.00	787.00	18296	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.18	784.00	787.00	18298	0.0	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.35	784.00	787.00	18301	0.1	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.52	784.01	787.00	18306	0.1	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.68	784.01	787.00	18313	0.2	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	8.85	784.02	787.00	18325	0.2	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.02	784.03	787.00	18340	0.3	0.0	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.18	784.04	787.00	18359	0.4	0.1	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.35	784.05	787.00	18382	0.6	0.1	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.52	784	787.00	18407	0.7	0.2	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.68	784	787.00	18438	0.8	0.2	0.0	0.0
100_scs_type_ii	EX Wet Pond	BASE	9.85	784	787.00	18475	1.0	0.3	0.1	0.0
100_scs_type_ii	EX Wet Pond	BASE	10.02	784	787.00	18517	1.1	0.4	0.1	0.0
100_scs_type_ii	EX Wet Pond	BASE	10.18	784	787.00	18563	1.3	0.6	0.1	0.0
100_scs_type_ii	EX Wet Pond	BASE	10.34	784	787.00	18613	1.5	0.7	0.1	0.0
100_scs_type_ii	EX Wet Pond	BASE	10.51	784	787.00	18667	1.7	0.9	0.1	0.0
100_scs_type_ii	EX Wet Pond	BASE	10.67	784.23	787.00	18693	1.9	1.0	0.2	0.1
100_scs_type_ii	EX Wet Pond	BASE	10.83	784.26	787.00	18746	2.3	1.3	0.2	0.1
100_scs_type_ii	EX Wet Pond	BASE	11.00	784.29	787.00	18807	2.7	1.5	0.2	0.1
100_scs_type_ii	EX Wet Pond	BASE	11.18	784.33	787.00	18879	3.2	1.9	0.3	0.1
100_scs_type_ii	EX Wet Pond	BASE	11.34	784.38	787.00	18958	3.8	2.2	0.3	0.1
100_scs_type_ii	EX Wet Pond	BASE	11.51	784.44	787.00	19057	4.7	2.8	0.4	0.2
100_scs_type_ii	EX Wet Pond	BASE	11.67	784.51	787.00	19177	6.0	3.5	0.4	0.2
100_scs_type_ii	EX Wet Pond	BASE	11.84	784.61	787.00	19355	8.6	4.5	0.5	0.3
100_scs_type_ii	EX Wet Pond	BASE	12.00	784.80	787.00	19690	15.1	6.9	0.7	0.4
100_scs_type_ii	EX Wet Pond	BASE	12.17	785.15	787.00	20291	26.6	12.9	1.0	0.5

EXISTING 100-YR
 DISCHARGE
 THROUGH POND
 AT 12 HOURS

12.00 784.80 787.00 19690 15.1 6.9 0.7 0.4

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100_scs_type_ii	EX Wet Pond	BASE	12.33	785.71	787.00	21274	42.0	16.0	1.5	0.7
100_scs_type_ii	EX Wet Pond	BASE	12.50	786.59	787.00	22812	56.9	18.1	2.1	0.9
100_scs_type_ii	EX Wet Pond	BASE	12.67	787.66	787.00	24665	65.7	20.3	3.0	1.2
100_scs_type_ii	EX Wet Pond	BASE	12.83	788.72	787.00	26512	67.4	22.3	3.9	1.5
100_scs_type_ii	EX Wet Pond	BASE	13.00	789.65	787.00	28139	63.7	23.8	4.8	1.8
100_scs_type_ii	EX Wet Pond	BASE	13.17	790.39	787.00	29437	56.7	25.0	5.6	2.1
100_scs_type_ii	EX Wet Pond	BASE	13.33	790.93	787.00	30371	47.7	26.1	6.3	2.5
100_scs_type_ii	EX Wet Pond	BASE	13.50	791.28	787.00	30972	39.6	26.3	6.9	2.8
100_scs_type_ii	EX Wet Pond	BASE	13.67	791.47	787.00	31314	33.6	26.5	7.5	3.2
100_scs_type_ii	EX Wet Pond	BASE	13.83	791.56	787.00	31467	28.8	26.6	7.9	3.6
100_scs_type_ii	EX Wet Pond	BASE	14.00	791.56	787.00	31471	24.7	26.6	8.3	3.9
100_scs_type_ii	EX Wet Pond	BASE	14.17	791.49	787.00	31354	21.4	26.8	8.6	4.3
100_scs_type_ii	EX Wet Pond	BASE	14.33	791.37	787.00	31140	18.7	26.3	8.8	4.7
100_scs_type_ii	EX Wet Pond	BASE	14.50	791.20	787.00	30848	16.4	26.1	9.1	5.0
100_scs_type_ii	EX Wet Pond	BASE	14.67	791.00	787.00	30492	14.6	25.7	9.3	5.4
100_scs_type_ii	EX Wet Pond	BASE	14.83	790.77	787.00	30087	13.0	25.4	9.5	5.7
100_scs_type_ii	EX Wet Pond	BASE	15.00	790.51	787.00	29637	11.7	25.0	9.7	6.1
100_scs_type_ii	EX Wet Pond	BASE	15.17	790.23	787.00	29152	10.6	24.6	9.8	6.4
100_scs_type_ii	EX Wet Pond	BASE	15.33	789.94	787.00	28641	9.7	24.3	10.0	6.8
100_scs_type_ii	EX Wet Pond	BASE	15.50	789.63	787.00	28107	8.9	23.6	10.1	7.1
100_scs_type_ii	EX Wet Pond	BASE	15.67	789.31	787.00	27556	8.3	23.0	10.2	7.4
100_scs_type_ii	EX Wet Pond	BASE	15.83	788.99	787.00	26989	7.7	22.5	10.3	7.7
100_scs_type_ii	EX Wet Pond	BASE	16.00	788.66	787.00	26415	7.2	21.9	10.4	8.0
100_scs_type_ii	EX Wet Pond	BASE	16.17	788.33	787.00	25832	6.9	21.3	10.5	8.3
100_scs_type_ii	EX Wet Pond	BASE	16.33	787.99	787.00	25247	6.6	20.7	10.6	8.6
100_scs_type_ii	EX Wet Pond	BASE	16.50	787.66	787.00	24669	6.4	20.7	10.7	8.9
100_scs_type_ii	EX Wet Pond	BASE	16.67	787.33	787.00	24094	6.2	19.4	10.8	9.2
100_scs_type_ii	EX Wet Pond	BASE	16.83	787.00	787.00	23527	6.1	19.1	10.9	9.4
100_scs_type_ii	EX Wet Pond	BASE	17.00	786.68	787.00	22971	5.9	18.0	10.9	9.7
100_scs_type_ii	EX Wet Pond	BASE	17.17	786.37	787.00	22427	5.8	17.3	11.0	9.9
100_scs_type_ii	EX Wet Pond	BASE	17.33	786.07	787.00	21894	5.6	16.8	11.1	10.2
100_scs_type_ii	EX Wet Pond	BASE	17.50	785.77	787.00	21375	5.5	15.9	11.2	10.4
100_scs_type_ii	EX Wet Pond	BASE	17.67	785.48	787.00	20877	5.3	15.0	11.3	10.6
100_scs_type_ii	EX Wet Pond	BASE	17.83	785.22	787.00	20414	5.2	13.4	11.3	10.8
100_scs_type_ii	EX Wet Pond	BASE	18.00	785.02	787.00	20071	5.1	10.0	11.4	11.0
100_scs_type_ii	EX Wet Pond	BASE	18.17	784.90	787.00	19864	5.0	8.2	11.5	11.1
100_scs_type_ii	EX Wet Pond	BASE	18.33	784.82	787.00	19722	4.9	7.1	11.5	11.2
100_scs_type_ii	EX Wet Pond	BASE	18.50	784.76	787.00	19620	4.7	6.4	11.6	11.3
100_scs_type_ii	EX Wet Pond	BASE	18.67	784.72	787.00	19544	4.6	5.8	11.7	11.4
100_scs_type_ii	EX Wet Pond	BASE	18.84	784.68	787.00	19485	4.4	5.4	11.7	11.5
100_scs_type_ii	EX Wet Pond	BASE	19.00	784.66	787.00	19439	4.3	5.1	11.8	11.5
100_scs_type_ii	EX Wet Pond	BASE	19.17	784.63	787.00	19401	4.2	4.8	11.8	11.6
100_scs_type_ii	EX Wet Pond	BASE	19.34	784.62	787.00	19370	4.1	4.6	11.9	11.7
100_scs_type_ii	EX Wet Pond	BASE	19.52	784.60	787.00	19343	4.1	4.5	12.0	11.7
100_scs_type_ii	EX Wet Pond	BASE	19.68	784.59	787.00	19324	4.0	4.4	12.0	11.8
100_scs_type_ii	EX Wet Pond	BASE	19.85	784.58	787.00	19308	4.0	4.3	12.1	11.9
100_scs_type_ii	EX Wet Pond	BASE	20.02	784.57	787.00	19296	4.0	4.2	12.1	11.9
100_scs_type_ii	EX Wet Pond	BASE	20.18	784.57	787.00	19285	3.9	4.1	12.2	12.0
100_scs_type_ii	EX Wet Pond	BASE	20.35	784.56	787.00	19274	3.8	4.0	12.2	12.0
100_scs_type_ii	EX Wet Pond	BASE	20.52	784.55	787.00	19261	3.7	4.0	12.3	12.1
100_scs_type_ii	EX Wet Pond	BASE	20.68	784.55	787.00	19246	3.6	3.9	12.3	12.1
100_scs_type_ii	EX Wet Pond	BASE	20.85	784.54	787.00	19229	3.4	3.8	12.4	12.2
100_scs_type_ii	EX Wet Pond	BASE	21.02	784.53	787.00	19211	3.3	3.7	12.4	12.2
100_scs_type_ii	EX Wet Pond	BASE	21.18	784.52	787.00	19193	3.2	3.5	12.5	12.3
100_scs_type_ii	EX Wet Pond	BASE	21.35	784.51	787.00	19176	3.2	3.4	12.5	12.3
100_scs_type_ii	EX Wet Pond	BASE	21.52	784.50	787.00	19161	3.1	3.4	12.6	12.4
100_scs_type_ii	EX Wet Pond	BASE	21.68	784.49	787.00	19149	3.1	3.3	12.6	12.4
100_scs_type_ii	EX Wet Pond	BASE	21.85	784.48	787.00	19139	3.1	3.2	12.7	12.5
100_scs_type_ii	EX Wet Pond	BASE	22.02	784.48	787.00	19131	3.0	3.2	12.7	12.5
100_scs_type_ii	EX Wet Pond	BASE	22.18	784.48	787.00	19124	3.0	3.1	12.7	12.6
100_scs_type_ii	EX Wet Pond	BASE	22.35	784.47	787.00	19118	3.0	3.1	12.8	12.6
100_scs_type_ii	EX Wet Pond	BASE	22.52	784.47	787.00	19113	3.0	3.1	12.8	12.7
100_scs_type_ii	EX Wet Pond	BASE	22.68	784.47	787.00	19108	3.0	3.1	12.9	12.7
100_scs_type_ii	EX Wet Pond	BASE	22.85	784.46	787.00	19105	3.0	3.0	12.9	12.7
100_scs_type_ii	EX Wet Pond	BASE	23.02	784.46	787.00	19103	3.0	3.0	12.9	12.8
100_scs_type_ii	EX Wet Pond	BASE	23.18	784.46	787.00	19101	3.0	3.0	13.0	12.8
100_scs_type_ii	EX Wet Pond	BASE	23.35	784.46	787.00	19100	3.0	3.0	13.0	12.9
100_scs_type_ii	EX Wet Pond	BASE	23.52	784.46	787.00	19100	3.0	3.0	13.1	12.9
100_scs_type_ii	EX Wet Pond	BASE	23.68	784.46	787.00	19099	3.0	3.0	13.1	12.9
100_scs_type_ii	EX Wet Pond	BASE	23.85	784.46	787.00	19099	3.0	3.0	13.2	13.0
100_scs_type_ii	EX Wet Pond	BASE	24.02	784.46	787.00	19098	3.0	3.0	13.2	13.0
100_scs_type_ii	EX Wet Pond	BASE	24.18	784.46	787.00	19095	2.9	3.0	13.2	13.1
100_scs_type_ii	EX Wet Pond	BASE	24.35	784.46	787.00	19088	2.8	2.9	13.3	13.1
100_scs_type_ii	EX Wet Pond	BASE	24.52	784.45	787.00	19073	2.5	2.9	13.3	13.1
100_scs_type_ii	EX Wet Pond	BASE	24.68	784.43	787.00	19047	2.2	2.7	13.3	13.2
100_scs_type_ii	EX Wet Pond	BASE	24.85	784.41	787.00	19010	1.8	2.5	13.4	13.2
100_scs_type_ii	EX Wet Pond	BASE	25.01	784.39	787.00	18966	1.4	2.3	13.4	13.3
100_scs_type_ii	EX Wet Pond	BASE	25.17	784.36	787.00	18916	1.1	2.0	13.4	13.3
100_scs_type_ii	EX Wet Pond	BASE	25.34	784.32	787.00	18860	0.8	1.8	13.4	13.3
100_scs_type_ii	EX Wet Pond	BASE	25.50	784.29	787.00	18808	0.6	1.5	13.4	13.3
100_scs_type_ii	EX Wet Pond	BASE	25.68	784.26	787.00	18756	0.4	1.3	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	25.84	784.24	787.00	18711	0.3	1.1	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.01	784.21	787.00	18667	0.2	0.9	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.17	784.19	787.00	18631	0.2	0.8	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.34	784.17	787.00	18596	0.1	0.7	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.50	784.16	787.00	18567	0.1	0.6	13.4	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.68	784.14	787.00	18539	0.1	0.5	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	26.85	784.13	787.00	18516	0.0	0.4	13.5	13.4

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100_scs_type_ii	EX Wet Pond	BASE	27.01	784.12	787.00	18496	0.0	0.4	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	27.18	784.10	787.00	18478	0.0	0.3	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	27.35	784.10	787.00	18461	0.0	0.3	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	27.51	784.09	787.00	18447	0.0	0.2	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	27.68	784.08	787.00	18434	0.0	0.2	13.5	13.4
100_scs_type_ii	EX Wet Pond	BASE	27.85	784.07	787.00	18423	0.0	0.2	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.01	784.07	787.00	18413	0.0	0.2	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.18	784.06	787.00	18404	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.35	784.06	787.00	18396	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.51	784.05	787.00	18389	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.68	784.05	787.00	18382	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	28.85	784.05	787.00	18377	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.01	784.04	787.00	18371	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.18	784.04	787.00	18367	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.35	784.04	787.00	18362	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.51	784.04	787.00	18359	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.68	784.03	787.00	18355	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	29.85	784.03	787.00	18352	0.0	0.1	13.5	13.5
100_scs_type_ii	EX Wet Pond	BASE	30.00	784.03	787.00	18349	0.0	0.1	13.5	13.5
100_scs_type_ii	New Wet Pond	BASE	0.00	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	0.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	0.34	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	0.50	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	0.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	0.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	1.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	2.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	3.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	4.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	5.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	6.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.02	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.18	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.35	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.52	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.68	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	7.85	784.00	787.00	18295	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.02	784.00	787.00	18296	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.18	784.00	787.00	18298	0.0	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.35	784.00	787.00	18301	0.1	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.52	784.01	787.00	18306	0.1	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.68	784.01	787.00	18314	0.2	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	8.85	784.02	787.00	18326	0.2	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.02	784.03	787.00	18342	0.3	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.18	784.04	787.00	18364	0.4	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.35	784.06	787.00	18391	0.6	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.52	784.07	787.00	18425	0.7	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.68	784.10	787.00	18465	0.8	0.0	0.0	0.0
100_scs_type_ii	New Wet Pond	BASE	9.85	784.12	787.00	18513	1.0	0.1	0.1	0.0
100_scs_type_ii	New Wet Pond	BASE	10.02	784.16	787.00	18567	1.1	0.1	0.1	0.0
100_scs_type_ii	New Wet Pond	BASE	10.18	784.19	787.00	18630	1.3	0.1	0.1	0.0
100_scs_type_ii	New Wet Pond	BASE	10.34	784.23	787.00	18694	1.5	0.2	0.1	0.0
100_scs_type_ii	New Wet Pond	BASE	10.51	784.28	787.00	18775	1.7	0.3	0.1	0.0
100_scs_type_ii	New Wet Pond	BASE	10.67	784.32	787.00	18855	1.9	0.4	0.2	0.0
100_scs_type_ii	New Wet Pond	BASE	10.83	784.37	787.00	18942	2.3	0.6	0.2	0.0
100_scs_type_ii	New Wet Pond	BASE	11.00	784.43	787.00	19039	2.7	0.9	0.2	0.0
100_scs_type_ii	New Wet Pond	BASE	11.18	784.49	787.00	19144	3.2	1.2	0.3	0.0

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100_scs_type_ii	New Wet Pond	BASE	11.34	784.55	787.00	19254	3.8	1.7	0.3	0.1
100_scs_type_ii	New Wet Pond	BASE	11.51	784.63	787.00	19384	4.7	2.2	0.4	0.1
100_scs_type_ii	New Wet Pond	BASE	11.67	784.71	787.00	19533	6.0	2.9	0.4	0.1
100_scs_type_ii	New Wet Pond	BASE	11.84	784.83	787.00	19740	8.6	3.9	0.5	0.2
100_scs_type_ii	New Wet Pond	BASE	12.00	785.04	787.00	20108	15.1	6.0	0.7	0.2
100_scs_type_ii	New Wet Pond	BASE	12.17	785.40	787.00	20731	26.6	13.3	1.0	0.4
100_scs_type_ii	New Wet Pond	BASE	12.33	785.93	787.00	21666	42.0	16.5	1.5	0.6
100_scs_type_ii	New Wet Pond	BASE	12.50	786.79	787.00	23157	56.9	18.5	2.1	0.8
100_scs_type_ii	New Wet Pond	BASE	12.67	787.83	787.00	24969	65.7	20.6	3.0	1.1
100_scs_type_ii	New Wet Pond	BASE	12.83	788.87	787.00	26783	67.4	22.5	3.9	1.4
100_scs_type_ii	New Wet Pond	BASE	13.00	789.79	787.00	28386	63.7	24.1	4.8	1.7
100_scs_type_ii	New Wet Pond	BASE	13.17	790.53	787.00	29665	56.7	25.2	5.6	2.0
100_scs_type_ii	New Wet Pond	BASE	13.33	791.05	787.00	30586	47.7	26.1	6.3	2.4
100_scs_type_ii	New Wet Pond	BASE	13.50	791.39	787.00	31177	39.6	26.4	6.9	2.8
100_scs_type_ii	New Wet Pond	BASE	13.67	791.58	787.00	31511	33.6	26.7	7.5	3.1
100_scs_type_ii	New Wet Pond	BASE	13.83	791.67	787.00	31658	28.8	26.8	7.9	3.5
100_scs_type_ii	New Wet Pond	BASE	14.00	791.67	787.00	31657	24.7	26.8	8.3	3.9
100_scs_type_ii	New Wet Pond	BASE	14.17	791.60	787.00	31535	21.4	26.7	8.6	4.2
100_scs_type_ii	New Wet Pond	BASE	14.33	791.47	787.00	31317	18.7	26.5	8.8	4.6
100_scs_type_ii	New Wet Pond	BASE	14.50	791.30	787.00	31022	16.4	26.2	9.1	5.0
100_scs_type_ii	New Wet Pond	BASE	14.67	791.10	787.00	30663	14.6	25.9	9.3	5.3
100_scs_type_ii	New Wet Pond	BASE				30255	13.0	25.5	9.5	5.7
100_scs_type_ii	New Wet Pond	BASE				29802	11.7	25.1	9.7	6.0
100_scs_type_ii	New Wet Pond	BASE				29315	10.6	24.7	9.8	6.4
100_scs_type_ii	New Wet Pond	BASE				28802	9.7	24.2	10.0	6.7
100_scs_type_ii	New Wet Pond	BASE				28265	8.9	23.7	10.1	7.0
100_scs_type_ii	New Wet Pond	BASE				27712	8.3	23.2	10.2	7.4
100_scs_type_ii	New Wet Pond	BASE				27143	7.7	22.6	10.3	7.7
100_scs_type_ii	New Wet Pond	BASE	16.00	788.75	787.00	26566	7.2	22.0	10.4	8.0
100_scs_type_ii	New Wet Pond	BASE	16.17	788.41	787.00	25981	6.9	21.4	10.5	8.3
100_scs_type_ii	New Wet Pond	BASE	16.33	788.07	787.00	25393	6.6	20.8	10.6	8.6
100_scs_type_ii	New Wet Pond	BASE	16.50	787.74	787.00	24811	6.4	20.2	10.7	8.9
100_scs_type_ii	New Wet Pond	BASE	16.67	787.41	787.00	24234	6.2	19.5	10.8	9.1
100_scs_type_ii	New Wet Pond	BASE	16.83	787.08	787.00	23663	6.1	18.8	10.9	9.4
100_scs_type_ii	New Wet Pond	BASE	17.00	786.76	787.00	23103	5.9	18.2	10.9	9.6
100_scs_type_ii	New Wet Pond	BASE	17.17	786.44	787.00	22555	5.8	17.5	11.0	9.9
100_scs_type_ii	New Wet Pond	BASE	17.33	786.14	787.00	22018	5.6	16.8	11.1	10.1
100_scs_type_ii	New Wet Pond	BASE	17.50	785.84	787.00	21495	5.5	16.0	11.2	10.4
100_scs_type_ii	New Wet Pond	BASE	17.67	785.55	787.00	21000	5.3	14.9	11.3	10.6
100_scs_type_ii	New Wet Pond	BASE	17.83	785.32	787.00	20599	5.2	11.0	11.3	10.7
100_scs_type_ii	New Wet Pond	BASE	18.00	785.21	787.00	20399	5.1	7.8	11.4	10.9
100_scs_type_ii	New Wet Pond	BASE	18.17	785.14	787.00	20277	5.0	7.0	11.5	11.0
100_scs_type_ii	New Wet Pond	BASE	18.33	785.08	787.00	20185	4.9	6.4	11.5	11.1
100_scs_type_ii	New Wet Pond	BASE	18.50	785.04	787.00	20111	4.7	6.0	11.6	11.2
100_scs_type_ii	New Wet Pond	BASE	18.67	785.01	787.00	20052	4.6	5.6	11.7	11.2
100_scs_type_ii	New Wet Pond	BASE	18.84	784.98	787.00	20001	4.4	5.3	11.7	11.3
100_scs_type_ii	New Wet Pond	BASE	19.00	784.95	787.00	19958	4.3	5.1	11.8	11.4
100_scs_type_ii	New Wet Pond	BASE	19.17	784.93	787.00	19920	4.2	4.9	11.8	11.4
100_scs_type_ii	New Wet Pond	BASE	19.34	784.91	787.00	19888	4.1	4.7	11.9	11.5
100_scs_type_ii	New Wet Pond	BASE	19.52	784.90	787.00	19859	4.1	4.5	12.0	11.6
100_scs_type_ii	New Wet Pond	BASE	19.68	784.89	787.00	19837	4.0	4.4	12.0	11.6
100_scs_type_ii	New Wet Pond	BASE	19.85	784.87	787.00	19819	4.0	4.3	12.1	11.7
100_scs_type_ii	New Wet Pond	BASE	20.02	784.87	787.00	19804	4.0	4.2	12.1	11.8
100_scs_type_ii	New Wet Pond	BASE	20.18	784.86	787.00	19791	3.9	4.2	12.2	11.8
100_scs_type_ii	New Wet Pond	BASE	20.35	784.85	787.00	19777	3.8	4.1	12.2	11.9
100_scs_type_ii	New Wet Pond	BASE	20.52	784.84	787.00	19762	3.7	4.0	12.3	11.9
100_scs_type_ii	New Wet Pond	BASE	20.68	784.83	787.00	19745	3.6	3.9	12.3	12.0
100_scs_type_ii	New Wet Pond	BASE	20.85	784.82	787.00	19726	3.4	3.8	12.4	12.0
100_scs_type_ii	New Wet Pond	BASE	21.02	784.81	787.00	19705	3.3	3.7	12.4	12.1
100_scs_type_ii	New Wet Pond	BASE	21.18	784.80	787.00	19685	3.2	3.6	12.5	12.1
100_scs_type_ii	New Wet Pond	BASE	21.35	784.79	787.00	19665	3.2	3.5	12.5	12.2
100_scs_type_ii	New Wet Pond	BASE	21.52	784.78	787.00	19648	3.1	3.4	12.6	12.2
100_scs_type_ii	New Wet Pond	BASE	21.68	784.77	787.00	19633	3.1	3.3	12.6	12.3
100_scs_type_ii	New Wet Pond	BASE	21.85	784.76	787.00	19621	3.1	3.3	12.7	12.3
100_scs_type_ii	New Wet Pond	BASE	22.02	784.75	787.00	19610	3.0	3.2	12.7	12.4
100_scs_type_ii	New Wet Pond	BASE	22.18	784.75	787.00	19601	3.0	3.2	12.7	12.4
100_scs_type_ii	New Wet Pond	BASE	22.35	784.74	787.00	19593	3.0	3.1	12.8	12.5
100_scs_type_ii	New Wet Pond	BASE	22.52	784.74	787.00	19586	3.0	3.1	12.8	12.5
100_scs_type_ii	New Wet Pond	BASE	22.68	784.74	787.00	19581	3.0	3.1	12.9	12.6
100_scs_type_ii	New Wet Pond	BASE	22.85	784.74	787.00	19576	3.0	3.1	12.9	12.6
100_scs_type_ii	New Wet Pond	BASE	23.02	784.73	787.00	19572	3.0	3.0	12.9	12.6
100_scs_type_ii	New Wet Pond	BASE	23.18	784.73	787.00	19570	3.0	3.0	13.0	12.7
100_scs_type_ii	New Wet Pond	BASE	23.35	784.73	787.00	19568	3.0	3.0	13.0	12.7
100_scs_type_ii	New Wet Pond	BASE	23.52	784.73	787.00	19567	3.0	3.0	13.1	12.8
100_scs_type_ii	New Wet Pond	BASE	23.68	784.73	787.00	19566	3.0	3.0	13.1	12.8
100_scs_type_ii	New Wet Pond	BASE	23.85	784.73	787.00	19565	3.0	3.0	13.2	12.8
100_scs_type_ii	New Wet Pond	BASE	24.02	784.73	787.00	19564	3.0	3.0	13.2	12.9
100_scs_type_ii	New Wet Pond	BASE	24.18	784.73	787.00	19561	2.9	3.0	13.2	12.9
100_scs_type_ii	New Wet Pond	BASE	24.35	784.72	787.00	19553	2.8	3.0	13.3	13.0
100_scs_type_ii	New Wet Pond	BASE	24.52	784.71	787.00	19538	2.5	2.9	13.3	13.0
100_scs_type_ii	New Wet Pond	BASE	24.68	784.70	787.00	19511	2.2	2.8	13.3	13.0
100_scs_type_ii	New Wet Pond	BASE	24.85	784.68	787.00	19473	1.8	2.6	13.4	13.1
100_scs_type_ii	New Wet Pond	BASE	25.01	784.65	787.00	19426	1.4	2.4	13.4	13.1
100_scs_type_ii	New Wet Pond	BASE	25.17	784.62	787.00	19373	1.1	2.1	13.4	13.1
100_scs_type_ii	New Wet Pond	BASE	25.34	784.58	787.00	19312	0.8	1.9	13.4	13.2
100_scs_type_ii	New Wet Pond	BASE	25.50	784.55	787.00	19255	0.6	1.7	13.4	13.2
100_scs_type_ii	New Wet Pond	BASE	25.68	784.52	787.00	19196	0.4	1.4	13.4	13.2
100_scs_type_ii	New Wet Pond	BASE	25.84	784.49	787.00	19146	0.3	1.3	13.4	13.2

DEVELOPED 100-YR
 DISCHARGE
 THROUGH POND AT
 12 HOURS

06048C Plainfield Christian Church Parking Lot Addition Phase 4
 Existing Wet Pond
 Existing vs Developed Discharge Rates

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
100_scs_type_ii	New Wet Pond	BASE	26.01	784.46	787.00	19095	0.2	1.1	13.4	13.3
100_scs_type_ii	New Wet Pond	BASE	26.17	784.43	787.00	19053	0.2	0.9	13.4	13.3
100_scs_type_ii	New Wet Pond	BASE	26.34	784.41	787.00	19011	0.1	0.8	13.4	13.3
100_scs_type_ii	New Wet Pond	BASE	26.50	784.39	787.00	18977	0.1	0.7	13.4	13.3
100_scs_type_ii	New Wet Pond	BASE	26.68	784.37	787.00	18942	0.1	0.6	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	26.85	784.35	787.00	18913	0.0	0.5	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.01	784.34	787.00	18887	0.0	0.5	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.18	784.33	787.00	18864	0.0	0.4	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.35	784.31	787.00	18842	0.0	0.4	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.51	784.30	787.00	18823	0.0	0.3	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.68	784.29	787.00	18805	0.0	0.3	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	27.85	784.28	787.00	18789	0.0	0.3	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	28.01	784.28	787.00	18774	0.0	0.3	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	28.18	784.27	787.00	18761	0.0	0.2	13.5	13.3
100_scs_type_ii	New Wet Pond	BASE	28.35	784.26	787.00	18748	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	28.51	784.25	787.00	18736	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	28.68	784.25	787.00	18725	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	28.85	784.24	787.00	18714	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.01	784.23	787.00	18704	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.18	784.23	787.00	18694	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.35	784.22	787.00	18685	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.51	784.22	787.00	18675	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.68	784.21	787.00	18666	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	29.85	784.21	787.00	18658	0.0	0.2	13.5	13.4
100_scs_type_ii	New Wet Pond	BASE	30.00	784.20	787.00	18650	0.0	0.1	13.5	13.4

Fully Developed Site

TR-55
 -COMPOSITE CN-VALUES & TIME OF CONCENTRATION-
Existing Pond Watershed

PROJECT: PCC Parking Addition Phase 4
 JOB #: 06048C
 DATE: 6/9/15
 COMPUTED BY: WCZ

BASINS					
BASIN	Composite CN	Area (ft ²)	Area (acres)	Area (miles)	Tc
EX POND	76.00	2134440	49.00	0.08	83.1

Existing Pond Watershed

Basin	Cover Description	Soil Group	Area (Acres)	CN	CN * Acres	number	Basin #	CN	Acres	CN * Acres
EX POND	Good condition; grass cover > 75%	C	9.5	74	703	4				
EX POND	Good condition; grass cover > 75%	B	1.5	61	91.5	3				
EX POND	SR + Crop residue GOOD	C	15.6	82	1279.2	4	EX POND	76	49	3718.9
EX POND	SR + Crop residue GOOD	B	12	75	900	3				
EX POND	Paved parking lots, roofs, driveways	C	0.4	98	39.2	4				
EX POND	Woods - grass combination GOOD	C	9	72	648	4				
EX POND	Woods - grass combination GOOD	B	1	58	58	3				

Fully Developed Site

Time of Concentration Worksheet																		
Based on TR-55																		
PROJECT: PCC Parking Addition Phase 4																		
JOB #: 06048C																		
Existing Pond Watershed																		
2 year, 24 hour rainfall = 2.66 inches																		
minimum T _c = 5 minutes																		
Typical values for Manning's n																		
Overland Flow			Channel Flow															
short grass	0.15	grass	0.03															
dense grass	0.24	concrete	0.02															
pavement	0.011	rip-rap	0.04															
woods light cultivated > 20%	0.4																	
	0.17																	
Basin name	Overland flow			Shallow Concentrated Flow (1)			Shallow Concentrated Flow (2)			Channel Flow			T _c (min)					
	Length (ft)	S %	n	T _t (min)	Length (ft)	S %	Paved/Un P or U	Vel. (ft/s)	T _t (min)	Length (ft)	S %	Paved/Un P or U		Vel. (ft/s)	T _t (min)			
EX POND	100	0.25	0.24	36	1080	0.3	U	0.9	20	2320	0.8	U	1.4	27	0	0	0	83
				0											0	0	0	
				0											0	0	0	

=====
 Basins
 =====

Name: EX POND Node: EX Wet Pond Status: Onsite
 Group: base Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
 Rainfall File: Storm Duration(hrs): 0.00
 Rainfall Amount(in): 0.000 Time of Conc(min): 83.10
 Area(ac): 49.000 Time Shift(hrs): 0.00
 Curve Number: 76.00 Max Allowable Q(cfs): 999999.000
 DCIA(%): 0.00

Name: New Pond Node: New Wet Pond Status: Onsite
 Group: base Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
 Rainfall File: Storm Duration(hrs): 0.00
 Rainfall Amount(in): 0.000 Time of Conc(min): 83.10
 Area(ac): 49.000 Time Shift(hrs): 0.00
 Curve Number: 76.00 Max Allowable Q(cfs): 999999.000
 DCIA(%): 0.00

=====
 Nodes
 =====

Name: EX Outlet Base Flow(cfs): 0.0 Init Stage(ft): 781.50
 Group: base Warn Stage(ft): 785.16
 Type: Stage/Area

Stage(ft) Area(ac)

Name: EX Wet Pond Base Flow(cfs): 0.0 Init Stage(ft): 784.00
 Group: base Warn Stage(ft): 787.00
 Type: Stage/Area

Stage(ft)	Area(ac)
784.00	0.42
785.00	0.46
786.00	0.50
787.00	0.54

Name: EX-BNDY Base Flow(cfs): 0.0 Init Stage(ft): 778.00
 Group: base Warn Stage(ft): 778.50
 Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	778.00
60.00	778.00

Name: New Outlet Base Flow(cfs): 0.0 Init Stage(ft): 781.50
 Group: base Warn Stage(ft): 785.16
 Type: Stage/Area

Stage(ft) Area(ac)

Name: New Wet Pond Base Flow(cfs): 0.0 Init Stage(ft): 784.00
 Group: base Warn Stage(ft): 787.00
 Type: Stage/Area

Stage(ft)	Area(ac)
784.00	0.42
785.00	0.46
786.00	0.50
787.00	0.54

```

-----
Name: NEW-BNDY          Base Flow(cfs): 0.0          Init Stage(ft): 778.00
Group: base            Warn Stage(ft): 778.50
Type: Time/Stage
    
```

Time(hrs)	Stage(ft)
0.00	778.00
60.00	778.00

==== Cross Sections =====

```

-----
Name: EX Outlet Weir          Group: BASE
Encroachment: No
    
```

Station(ft)	Elevation(ft)	Manning's N
0.000	785.000	0.013000
0.500	785.000	0.013000
0.500	784.000	0.013000
3.500	784.000	0.013000
3.500	785.000	0.013000
4.000	785.000	0.013000

```

-----
Name: New Outlet Weir        Group: BASE
Encroachment: No
    
```

Station(ft)	Elevation(ft)	Manning's N
0.000	785.200	0.013000
0.800	785.200	0.013000
0.800	784.250	0.013000
1.750	784.250	0.013000
1.750	784.000	0.013000
2.250	784.000	0.013000
2.250	784.250	0.013000
3.200	784.250	0.013000
3.200	785.200	0.013000
4.000	785.200	0.013000

==== Pipes =====

```

-----
Name: New Pond Out          From Node: New Outlet          Length(ft): 50.00
Group: base                 To Node: NEW-BNDY             Count: 1
                               Friction Equation: Average Conveyance
                               Solution Algorithm: Most Restrictive
                               Flow: Both
Geometry: Circular          DOWNSTREAM                      Entrance Loss Coef: 0.50
Span(in): 18.00             Circular                          Exit Loss Coef: 1.00
Rise(in): 18.00             18.00                             Bend Loss Coef: 0.00
Invert(ft): 781.500         778.000                           Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.012000       0.012000                         Inlet Ctrl Spec: Use dn
Top Clip(in): 0.000         0.000                             Stabilizer Option: None
Bot Clip(in): 0.000         0.000
    
```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```

-----
Name: Pond Outlet          From Node: EX Outlet          Length(ft): 50.00
Group: base                 To Node: EX-BNDY             Count: 1
                               Friction Equation: Average Conveyance
                               Solution Algorithm: Most Restrictive
                               Flow: Both
Geometry: Circular          DOWNSTREAM                      Entrance Loss Coef: 0.50
Span(in): 18.00             Circular                          Exit Loss Coef: 1.00
Rise(in): 18.00             18.00                             Bend Loss Coef: 0.00
Invert(ft): 781.500         778.000                           Outlet Ctrl Spec: Use dc or tw
Manning's N: 0.012000       0.012000                         Inlet Ctrl Spec: Use dn
Top Clip(in): 0.000         0.000                             Stabilizer Option: None
Bot Clip(in): 0.000         0.000
    
```

Upstream FHWA Inlet Edge Description:

Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

==== Weirs =====

Name: EX-Horz Weir From Node: EX Wet Pond
Group: base To Node: EX Outlet
Flow: Both Count: 1
Type: Horizontal Geometry: Rectangular

Span(in): 36.00
Rise(in): 36.00
Invert(ft): 785.000
Control Elevation(ft): 785.000

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: EX-Vert Weir From Node: EX Wet Pond
Group: base To Node: EX Outlet
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Irregular

XSec: EX Outlet Weir
Invert(ft): 784.000
Control Elevation(ft): 784.000
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000
Top Clip(ft): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: New-Horz Weir From Node: New Wet Pond
Group: base To Node: New Outlet
Flow: Both Count: 1
Type: Horizontal Geometry: Rectangular

Span(in): 36.00
Rise(in): 36.00
Invert(ft): 785.200
Control Elevation(ft): 785.200

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

Name: New-Vert Weir From Node: New Wet Pond
Group: base To Node: New Outlet
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Irregular

XSec: New Outlet Weir
Invert(ft): 784.000
Control Elevation(ft): 784.000
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000
Top Clip(ft): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Hydrology Simulations =====

Name: 010_scs_type_ii
Filename: S:\Projects\06048\Phase 4\ICPR\Ex Wet Pond\010_scs_type_ii.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24

Rainfall Amount(in): 4.30

Time(hrs)	Print Inc(min)
30.000	10.00

Name: 100_scs_type_ii
Filename: S:\Projects\06048\Phase 4\ICPR\Ex Wet Pond\100_scs_type_ii.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Scsii-24
Rainfall Amount(in): 5.90

Time(hrs)	Print Inc(min)
30.000	10.00

==== Routing Simulations =====

Name: 010_scs_type_ii Hydrology Sim: 010_scs_type_ii
Filename: S:\Projects\06048\Phase 4\ICPR\Ex Wet Pond\010_scs_type_ii.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
60.000	10.000

Group	Run
BASE	Yes

Name: 100_scs_type_ii Hydrology Sim: 100_scs_type_ii
Filename: S:\Projects\06048\Phase 4\ICPR\Ex Wet Pond\100_scs_type_ii.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
60.000	10.000

Group	Run
BASE	Yes

==== Boundary Conditions =====

Name: Node: Type: Flow

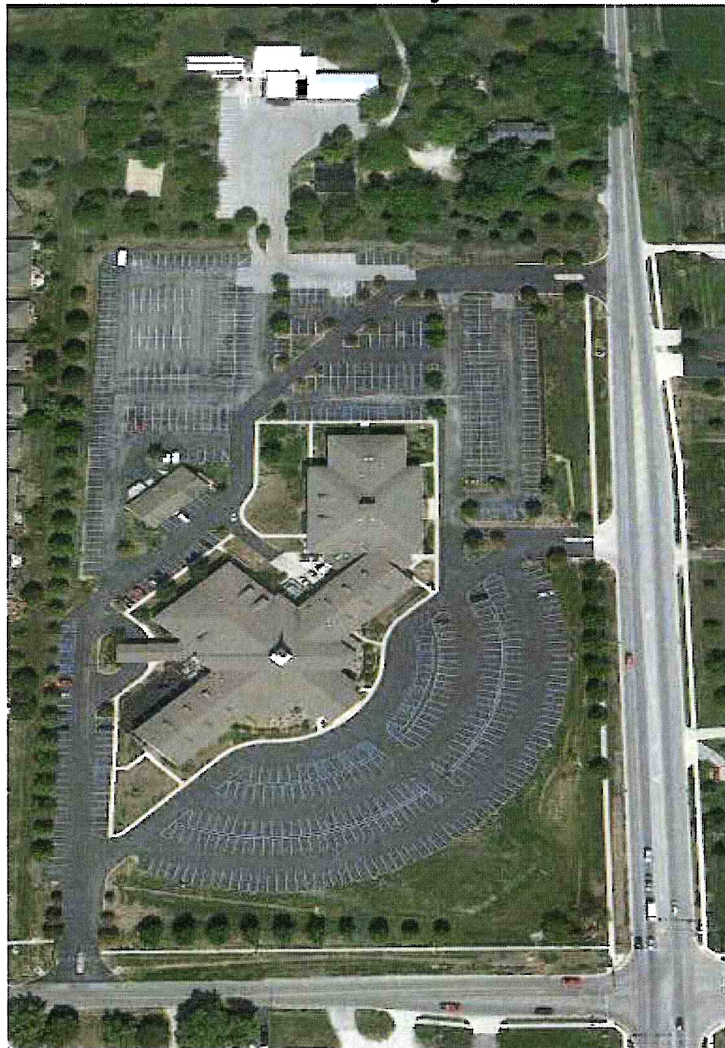
Time(hrs)	Flow(cfs)
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**F. PREVIOUSLY APPROVED
PLAINFIELD CHRISTIAN CHURCH
PARKING ADDITION, PHASE 4
DRAINAGE REPORT**



“Your Project is Our Priority”

Hydrologic and Hydraulic Analysis
for
Plainfield Christian Church
Phase 1 Parking Addition
in
The Town of Plainfield
Hendricks County, Indiana



Prepared for:
Plainfield Christian Church
April 2013

Hydrologic and Hydraulic Analysis for PCC Phase 1 Parking Addition

Study Area:

Plainfield Christian Church has retained Banning Engineering to design the first phase of a multi-phase project which ultimately will include a children ministry addition to the current church structure. Phase 1 will consist of a parking lot addition in the open area northwest of the church campus. The site is located on the northwest corner of Township Line and Dan Jones in Plainfield, Section 23, T15N, R1E, Guilford Township in Hendricks County, Indiana. The street address is 800 Dan Jones Road .

Existing Conditions:

The existing drainage basin is 1.65 acres consisting of mostly grass areas with sparse trees gently sloping east to an existing catch basin in the Dan Jones right-of-way. The predominant soil types are Brookston and Crosby, poorly drained gently sloping soils on uplands. The site is not within a floodplain.

Proposed Conditions:

The proposed parking lot will increase the drainage basin to 2.15 acres of which will mostly be impervious surface. The drainage design will utilize underground storage chambers to retain the 100 year run-off and release at the 10 year rate. The Rational Method was used to calculate the required storage. The storage chambers utilized are StormTech SC-740 with a storage volume of 75 cft per unit. Based on the calculated storage volume, 114 SC-740 units will be required. Supporting calculations can be found in the attached Appendix. A summary of the release rates are as follows:

Pre-developed 10 year release rate = 2.55 cfs

Post developed 100 year release rate = 2.55 cfs (storage required, see calculations)

Stormwater Quality:

The water quality design for the project consists of holding the water quality volume within the underground chamber system and allowing the volume to filter through the granular fill to a sub-drain finger system at the bottom of the chamber system. This is accomplished by a concrete weir in the outlet structure for the system. The weir will also contain a 4" diameter orifice to allow the system to completely drain in 2.3 hours. An orifice size any smaller would be susceptible to possible debris blockage. To offset the possibility of blockage at the outlet, a Snout will be installed in the first up-stream structure coming into the detention system. An Operation & Maintenance manual for the complete system is included with this report.

References:

- 1) Hendricks County Soils Map
- 2) Town of Plainfield Stormwater Management Ordinance
- 3) Hendricks County, Indiana Stormwater Technical Standards Manual
- 4) USGS Mapping
- 5) Technical Report 55, Small Watershed Hydrology, NRCS

Appendices

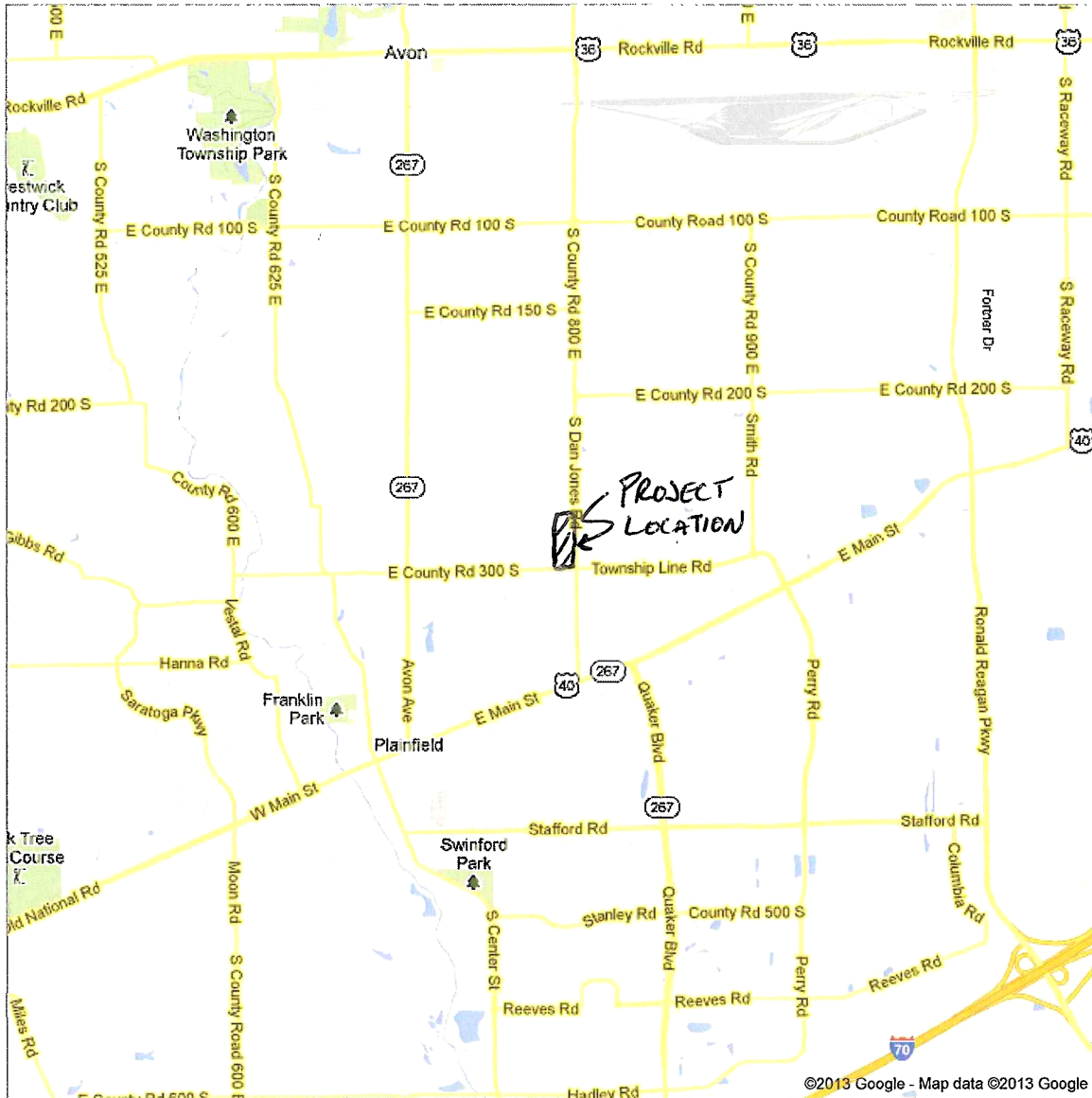
1. Location Map
2. Soils Mapping
3. Floodplain Mapping
4. Existing Basin Map
5. Proposed Basin Map
6. Rational Method Calculations
7. Storm Sewer Calculations
8. Water Quality Calculations
9. Operation & Maintenance Manual

Location Maps



Get Google Maps on your phone

Text the word "GMAPS" to 466453



Soils Mapping

Soil Map—Hendricks County, Indiana



Map Scale: 1:1,160 If printed on A size (8.5" x 11") sheet.



MAP LEGEND

- Area of Interest (AOI)
- Soils
- Soil Map Units
- 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
- Special Line Features**
 - Gully
 - Short Steep Slope
 - Other
- Political Features**
 - Cities
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Very Stony Spot
- Wet Spot
- Other

MAP INFORMATION

Map Scale: 1:1,160 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

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 accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 16N NAD83

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

Soil Survey Area: Hendricks County, Indiana
 Survey Area Data: Version 16, Sep 25, 2012

Date(s) aerial images were photographed: 7/14/2003

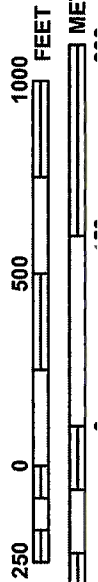
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident

Map Unit Legend

Hendricks County, Indiana (IN063)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bs	Brookston silty clay loam	1.5	27.6%
CrA	Crosby silt loam, 0 to 3 percent slopes	3.0	55.2%
Gn	Genesee silt loam	0.3	6.0%
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	0.5	9.5%
MsD3	Miami clay loam, 12 to 18 percent slopes, severely eroded	0.1	1.8%
Totals for Area of Interest		5.4	100.0%

Floodplain Mapping

MAP SCALE 1" = 500'



NFP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0257D

FIRM
FLOOD INSURANCE RATE MAP
HENDRICKS COUNTY,
INDIANA
AND INCORPORATED AREAS

PANEL 257 OF 375

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AVON, TOWN OF	180520	0257	D
HENDRICKS COUNTY	180415	0257	D
PLAINFIELD, TOWN OF	180088	0257	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

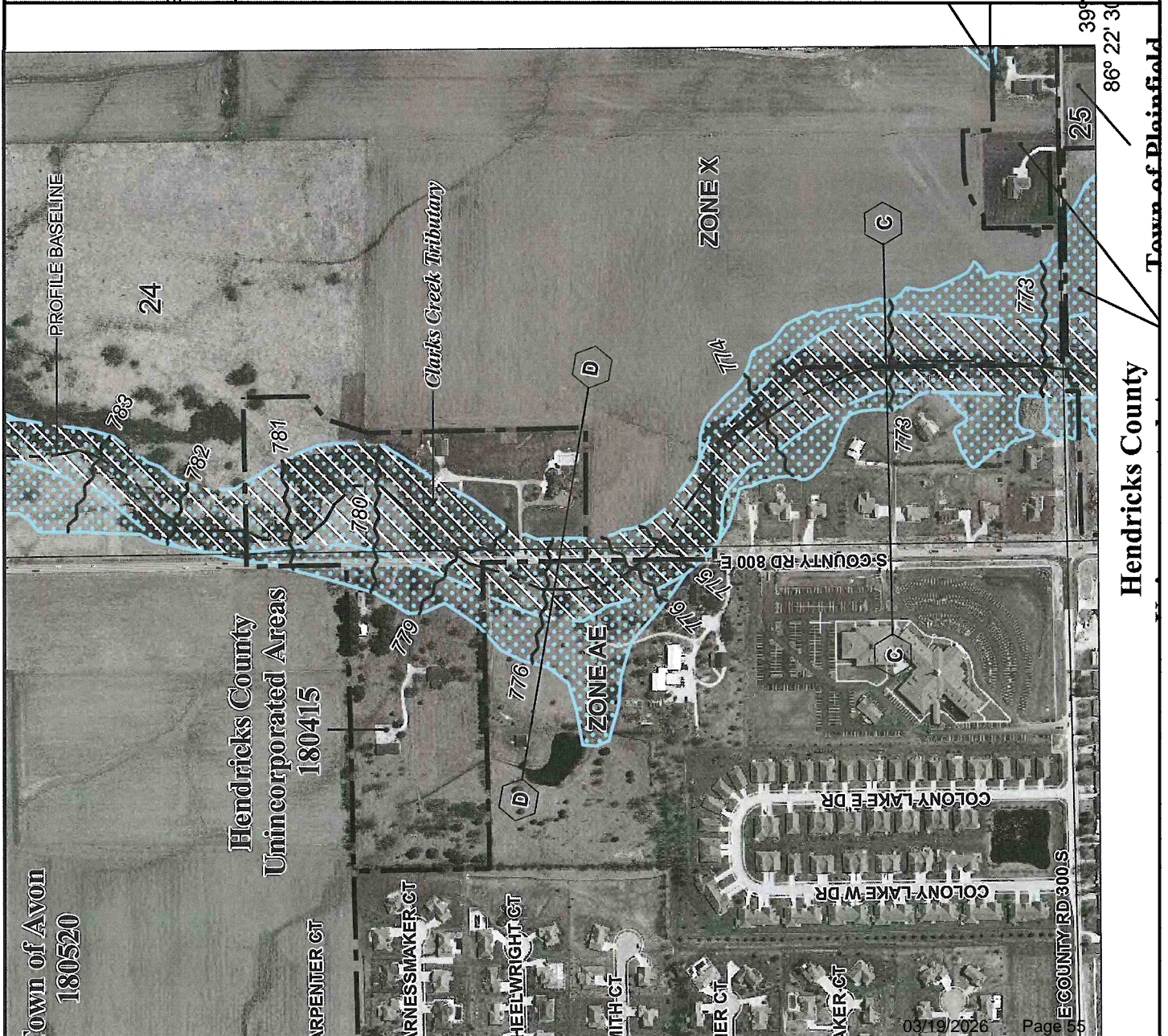


MAP NUMBER
18063C0257D

EFFECTIVE DATE
SEPTEMBER 25, 2009

Federal Emergency Management Agency

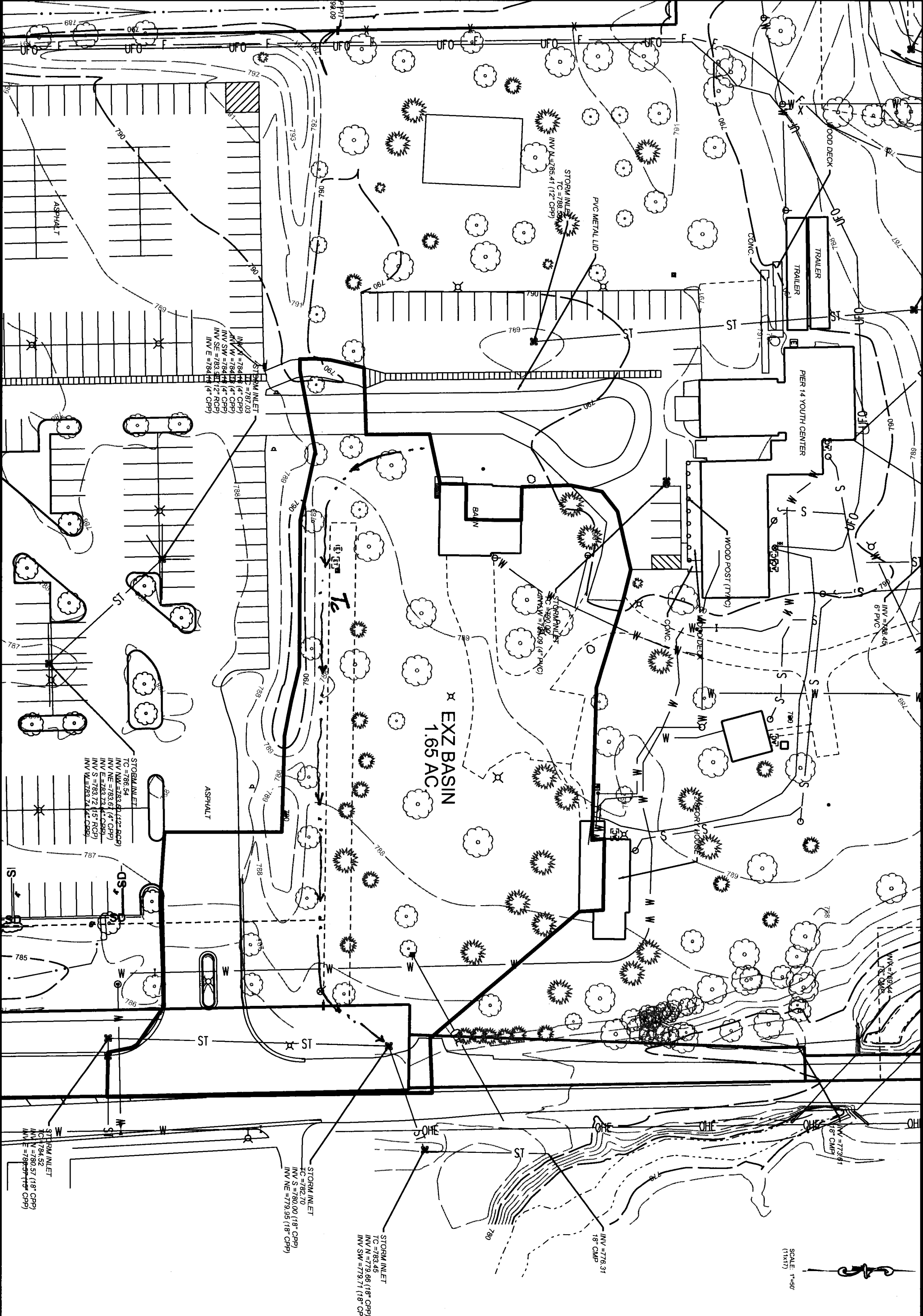
This is an official copy of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Hendricks County

Town of Plainfield

Existing Basin Map



BANNING
 ENGINEERING
 853 COLUMBIA ROAD, SUITE #101
 PLAINFIELD, IN 46168
 BUS: (317) 707-3700, FAX: (317) 707-3800
 E-MAIL: Banning@BanningEngineering.com
 WEB: www.BanningEngineering.com

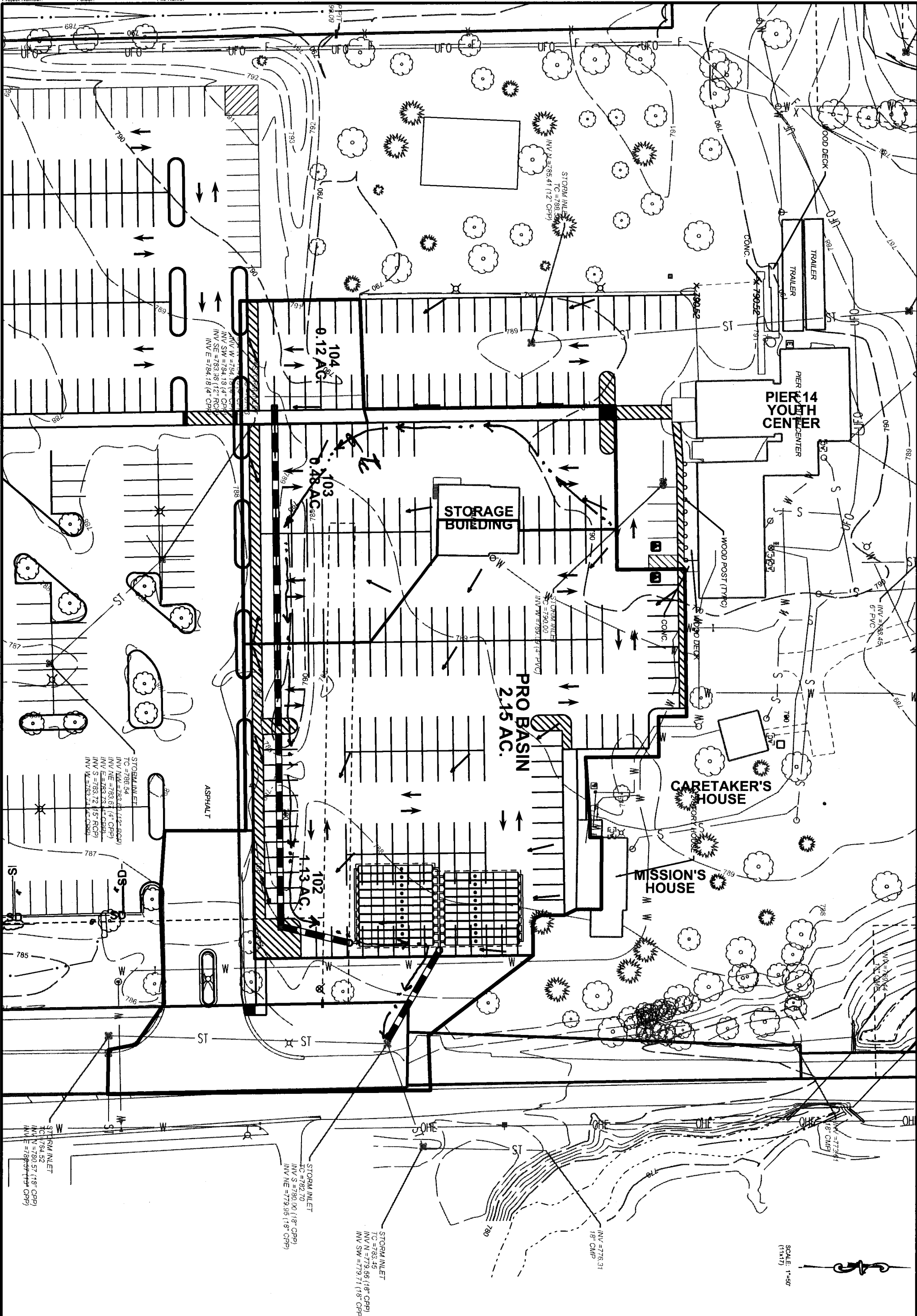
Project No: 080282
 Sheet No: 1 of 1

NOT FOR CONSTRUCTION

EXISTING DRAINAGE BASIN MAP
 PHASE 1 PARKING EXPANSION
 PLAINFIELD CHRISTIAN CHURCH
 PLAINFIELD, IN

Designed:	Sym:	Revisions:	Date:
RRJ			
Drawn:	RRJ		
Checked:			
Scale:	1"=50'	08/19/2026	Page 57
Date:	4-2-13		

Proposed Basin Map



SCALE: 1"=50'
 (11x17)

BANNING
 ENGINEERING
 853 COLUMBIA ROAD, SUITE #101
 PLAINFIELD, IN 46168
 BUS: (317) 707-3700, FAX: (317) 707-3800
 E-MAIL: Banning@BanningEngineering.com
 WEB: www.BanningEngineering.com

Project No: 060486
 Sheet No: 1 of 1

NOT FOR CONSTRUCTION

PROPOSED DRAINAGE BASIN MAP
 PHASE 1 PARKING EXPANSION
 PLAINFIELD CHRISTIAN CHURCH
 PLAINFIELD, IN

Designed:	Sym:	Revisions	Date
RRL			
Drawn:	RRL		
Checked:			
Scale:	1"=50'	03/19/2026	Page 59
Date:	4-2-13		

Rational Method Calculations

Pre-Developed Condition

$$\text{Weighted "C"} = [0.85(0.04\text{ac}) + 0.82(0.4\text{ac}) + 0.16(1.21\text{ac})] / 1.65\text{ac} = 0.34$$

$$I_{10} = (\text{Tc of 15 min.}) = 4.55\text{in/hr}$$

$$A = 1.65\text{ac}$$

$$Q_{10} = CIA$$

$$= 0.34(4.55\text{in/hr})(1.65\text{ac})$$

$$= 2.55\text{ cfs}$$

Post-Developed Condition

$$\text{Weighted "C"} = [0.85(0.06\text{ac}) + 0.82(1.85\text{ac}) + 0.16(0.24\text{ac})] / 2.15\text{ac} = 0.75$$

$$I_{100} = (\text{Tc of 10 min.}) = 7.77\text{in/hr}$$

$$A = 2.15\text{ac}$$

$$Q_{100} = CIA$$

$$= 0.75(7.77\text{in/hr})(2.15\text{ac})$$

$$= 12.53\text{ cfs}$$

For required storage volume, refer to Detention Storage Calculations spreadsheet next page

Detention volume required = 8542 cft

Use StormTech chambers SC-740, 75 cft of storage per unit

8542 cft/75 cft = 113.89, **Use 114 units**

Computation Sheet for Detention Storage Calculations Using the Rational Method
 (Ref. HERPICC, Figure 6.2.2)

Project PCC Phase1 Parking Design Return Period, years 100
 Indy DDF Table
 Designer RRL Release Rate Return, years 10 predev.

Watershed Area, acres= existing proposed

Time-of-Concentration, minutes= existing proposed

Undeveloped Conditions:

Developed Conditions:

Rainfall Intensity, in/hr= 4.55 [iu] Runoff Coefficient, =
 Runoff Coefficient, = 0.34 [Cu]
 Peak Discharges, cfs= 2.55 [O=CuiuAu]

Storm Duration hrs	Rainfall Intensity		Inflow cfs	Outflow cfs	Storage Rate cfs	Required Storage	
	in/hr	CA				acre-ft	cu-ft
0.08	9.69	1.61	15.63	2.55	13.08	0.09	3797
0.17	7.77	1.61	12.53	2.55	9.98	0.14	6158
0.25	6.53	1.61	10.53	2.55	7.98	0.17	7242
0.5	4.50	1.61	7.26	2.55	4.71	0.20	8542**
1	2.88	1.61	4.64	2.55	2.09	0.17	7601
2	1.75	1.61	2.82	2.55	0.27	0.05	1974
3	1.29	1.61	2.08	2.55	-0.47	-0.12	-5117
6	0.75	1.61	1.21	2.55	-1.34	-0.67	-29199
12	0.43	1.61	0.69	2.55	-1.86	-1.86	-80875
24	0.25	1.61	0.40	2.55	-2.15	-4.29	-187036

Storm Sewer Calculations

**STORM SEWER DESIGN CALCULATIONS
-PIPE DESIGN-**

PROJECT: PCC	STORM: 10 Year
JOB #: 06048C	COMPUTED BY: RRI
DATE: 4/1/13	SHEET NO.:

Pipe Type HDPE Smooth Wall
n-value Used: 0.011

STRUCTURE FROM TO	DESIGN Q (cfs)	L (ft)	DIA. (in)	SLOPE %	CAP. Q (cfs)	VEL. (ft/s)	RIM ELEV.		INVERT ELEV.		COVER (ft)
							UP	DOWN	UP	DOWN	
104 103	0.60	74	12	0.55	3.13	3.98	788.35	787.85	784.72	784.31	2.46
103 102	2.97	230	12	0.55	3.13	3.98	787.85	786.00	784.31	783.04	2.37
102 101	8.21	41	15	1.20	8.38	6.83	786.00	786.65	782.79	782.30	1.79
100 EX1	2.55	61	12	0.37	2.57	3.27	787.04	782.70	780.23	780.00	5.64

Water Quality Calculations

Water Quality Volume (WQv) - Calculation Spreadsheet

Project Name: PCC Phase 1 Parking Addition
 Project Number: 06048C
 Designation: Detention System

Designed By: RRL
 Date: 4/3/2013

WQv = wate quality volume (in acre feet)
 P = 1 inch of rainfall
 Rv = 0.05 + 0.009(I) where "I" is percent impervious cover
 A = area in acres

$$WQv = \frac{(P) (Rv) (A)}{12}$$

Required WQv(cf)	WQv(af)	P	Rv	I	A
6642	0.1525	1	0.851	89	2.15

Bottom of detention stone base **781.6**
 Number of storage units **114**
 Incremental storage volume/unit **see attached chart**
 Storage/unit @ 29" of depth **58 cft**
 58 cft * 114 units = **6612 cft (within tolerance)**
 781.6 + 29" = **784.0 (set weir at this elevation)**

Design oriface to drain down system
 Use 4" min. diameter (to avoid clogging)
 $Q = CA \cdot \sqrt{2gh}$
 $Q = (0.6)(0.086) \cdot \sqrt{2(32.2)(3.77')}$
 Q = 0.8 cfs

Convert to time to determine draw down
 $6612\text{cft}/1 \cdot 1 \text{ sec}/0.8\text{cft} \cdot 1 \text{ min}/60 \text{ sec} \cdot 1 \text{ hr}/60 \text{ min} = 2.3 \text{ hr}$
 Therefore, system will be empty in 2.3 hours

8.0 Incremental Storage Volumes

Table 5 and **Table 6** provide incremental storage volumes for SC-310 and SC-740 chamber systems. This information may be used to calculate a detention/retention system's stage storage volume.

Product Specifications: 1.1, 2.2, 2.3, 2.4 and 2.6

TABLE 5 – SC-310 Incremental Storage Volumes Per Chamber
Assumes 40% Stone Porosity. Calculations are Based Upon a 6-inch Stone Base Under the Chambers.

Depth of Water in System (in)	Cumulative Chamber Storage (ft ³)	Total System Cumulative Storage (ft ³)
28	↑ 14.70	31.00
27	↑ 14.70	30.21
26	Stone 14.70	29.42
25	Cover 14.70	28.63
24	↓ 14.70	27.84
23	↓ 14.70	27.05
22	14.70	26.26
21	14.64	25.43
20	14.49	24.54
19	14.22	23.58
18	13.68	22.47
17	12.99	21.25
16	12.17	19.97
15	11.25	18.62
14	10.23	17.22
13	9.15	15.78
12	7.99	14.29
11	6.78	12.77
10	5.51	11.22
9	4.19	9.64
8	2.83	8.03
7	1.43	6.40
6	↑ 0	4.74
5	↑ 0	3.95
4	Stone 0	3.16
3	Foundation 0	2.37
2	↓ 0	1.58
1	↓ 0	0.79

Note: Add 0.79 cu. ft. of storage for each additional inch of stone foundation.

TABLE 6 – SC-740 Incremental Storage Volumes Per Chamber
Assumes 40% Stone Porosity. Calculations are Based Upon a 6-inch Stone Base Under the Chambers.

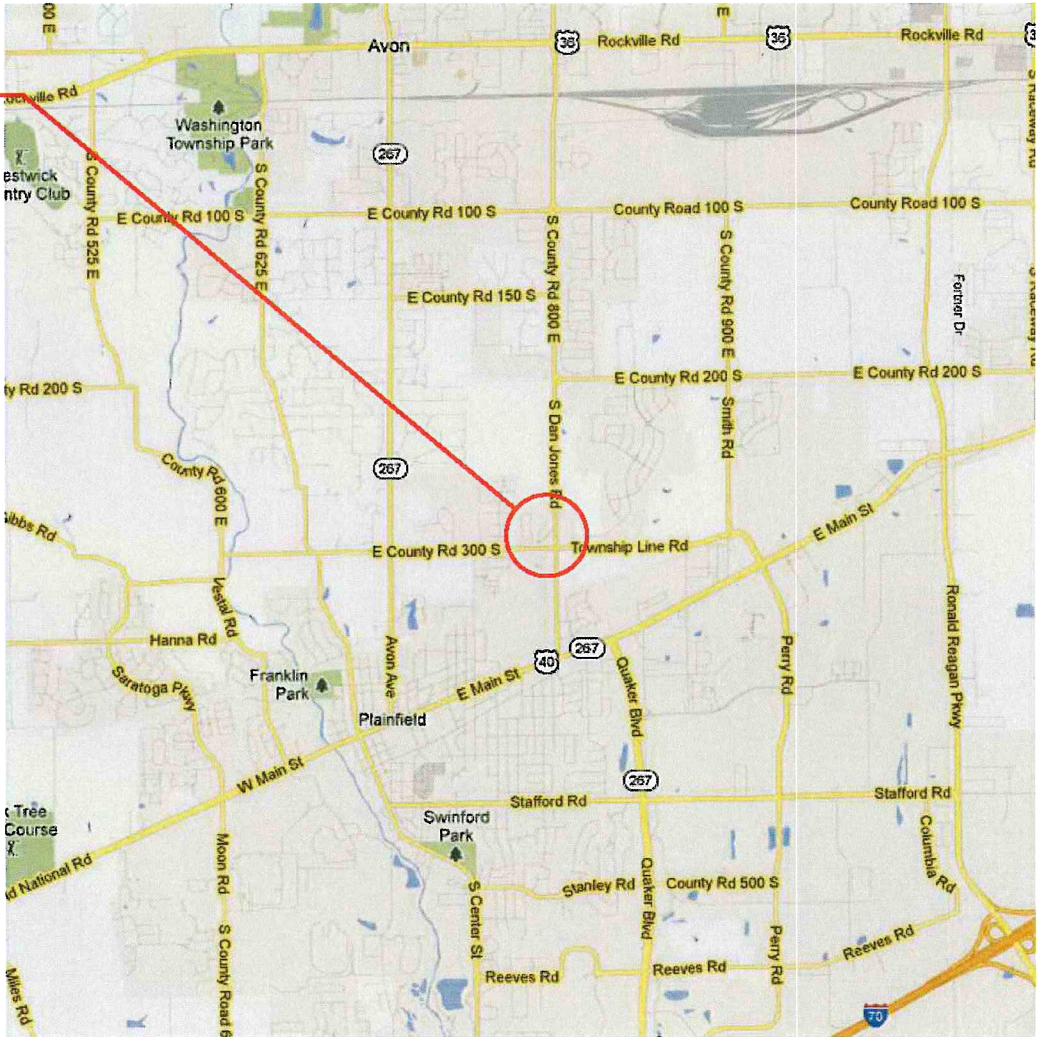
Depth of Water in System (in)	Cumulative Chamber Storage (ft ³)	Total System Cumulative Storage (ft ³)
42	45.90	74.90
41	↑ 45.90	73.77
40	Stone 45.90	72.64
39	Cover 45.90	71.52
38	↓ 45.90	70.39
37	↓ 45.90	69.26
36	45.90	68.14
35	45.85	66.98
34	45.69	65.75
33	45.41	64.46
32	44.81	62.97
31	44.01	61.36
30	43.06	59.66
29	41.98	57.89
28	40.80	56.05
27	39.54	54.17
26	38.18	52.23
25	36.74	50.23
24	35.22	48.19
23	33.64	46.11
22	31.99	44.00
21	30.29	41.85
20	28.54	39.67
19	26.74	37.47
18	24.89	35.23
17	23.00	32.96
16	21.06	30.68
15	19.09	28.36
14	17.08	26.03
13	15.04	23.68
12	12.97	21.31
11	10.87	18.92
10	8.74	16.51
9	6.58	14.09
8	4.41	11.66
7	2.21	9.21
6	↑ 0	6.76
5	↑ 0	5.63
4	Stone 0	4.51
3	Foundation 0	3.38
2	↓ 0	2.25
1	↓ 0	1.13

Note: Add 1.13 cu. ft. of storage for each additional inch of stone foundation.

Operation & Maintenance Manual

BMP Operations and Maintenance Manual for Plainfield Christian Church – Phase 1

PROJECT LOCATION



LOCATION MAP
NO SCALE



Table of Contents

- 1. Administrative Information**
 - a. BMP Owner Information**
 - b. Cost Responsibility**
 - c. Right-of-Entry**
- 2. BMP Locations**
 - a. Driving Directions**
 - b. BMP Location Map**
- 3. Underground Storage Chambers with Filtration**
 - a. Description**
 - b. Maintenance Considerations**
 - c. Figure 1**
 - d. Maintenance Schedule**
- 4. SNOUT**
 - a. Background**
 - b. Maintenance Recommendations**
 - c. Figure 1**
 - d. Maintenance Schedule**
- 5. References**

1. Administrative Information:

BMP Owner Information

Name: Plainfield Christian Church
Primary Contact: Tom Richardson
Street Address: 800 N. Dan Jones Road
City/State/Zip Code: Plainfield, IN 46168
Business Phone Number: 317-839-2384

Cost Responsibility

As a condition of the Plainfield, Indiana Stormwater Management Ordinance (#33-2006), it must be stated that any cost incurred during the maintenance of any of the following described Best Management Practices, BMPs, shall be incurred by the owner listed above. If at the time of this submittal no owner is listed, one shall be provided once construction of the BMP is completed. In the event that ownership changes, responsibility for maintaining the BMPs shall change accordingly. It is the responsibility of the preceding owner to pass the information contained within this document to the new owner.

Right-of-Entry

As a condition of the Plainfield, Indiana Stormwater Management Ordinance (#33-2006), it must be stated that the owner declared above shall allow entry by Town of Plainfield personnel to inspect the BMPs described within this manual. Town personnel shall be granted access when, and only when they are inspecting the BMPs.

2. BMP Locations:

The project is located at 800 N. Dan Jones Road Plainfield, Indiana.

Driving Directions

From the intersection of U.S. 40 and Dan Jones Road in Plainfield, Indiana travel north along Dan Jones Road approximately 7/8 mile. Underground detention system is on west side of Dan Jones Road in parking lot approximately 50' from edge of pavement of Dan Jones Road. Snout is located in the same area, refer to attached BMP Location Map.

3 Underground Storage Chambers with Filtration:

Description

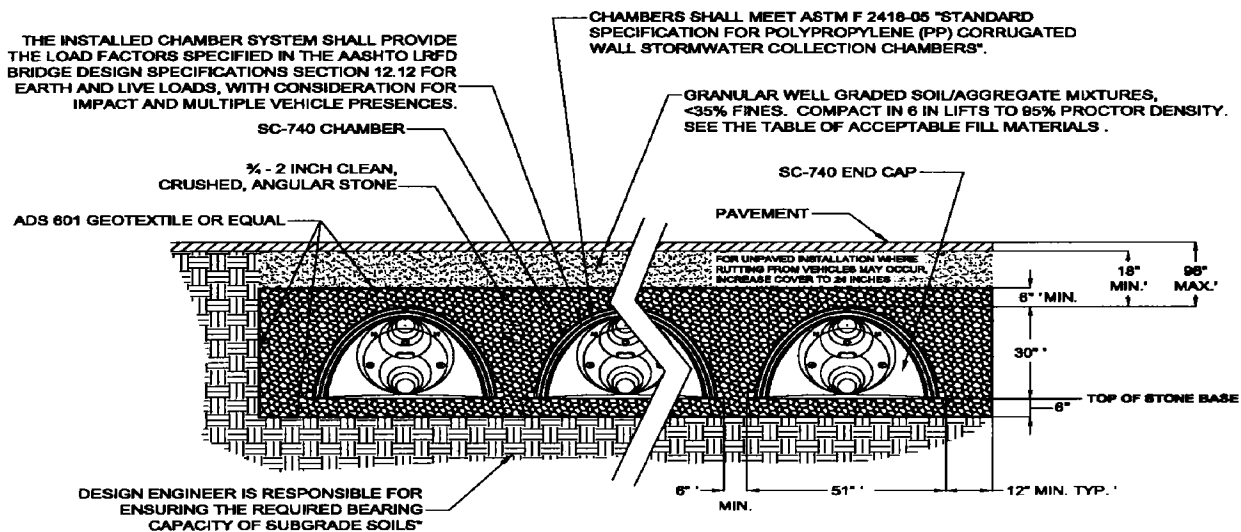
Underground storage chambers control water by means of hydraulic control structures to restrict outlet discharge. The objectives of the system are to remove particulate pollutants and to reduce runoff values associated with the development. The system also includes filtration through granular medium and geotextile perimeter to address the water quality volume. The filtered water quality volume is then collected via sub-surface drain and routed to the outlet.

Maintenance Considerations

Regular maintenance and inspection practices are needed. The table below outlines these practices.

Activity	Schedule
<ul style="list-style-type: none">• Visual inspection of system.• Visual inspection of outlet structure	Monthly Maintenance
<ul style="list-style-type: none">• Monitor for sediment accumulation in the system.• Examine to ensure that inlet and outlet devices are free of debris and operational.	Annual inspection
<ul style="list-style-type: none">• Clean and remove debris from inlet and outlet structures.	As-needed maintenance
<ul style="list-style-type: none">• Remove sediment from chambers.	5- to 7-year maintenance

Figure 1:



THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS

* NOTE: CHAMBER SYSTEM DESIGN MUST BE IN ACCORDANCE WITH STORMTECH DESIGN MANUAL

STORMTECH SC-740 CROSS SECTION 4
C111

NO SCALE

Maintenance Schedule

Date Installed:

Month After Installation	1	2	3	4	5	6	7	8	9	10	11	12
Clean and remove debris from inlet and outlet structures	X	X	X	X	X	X	X	X	X	X	X	X
Monitor for sediment accumulation in system												X
Examine to ensure that inlet and outlet devices are free of debris and operational												X

4 SNOUT ® :

Background:

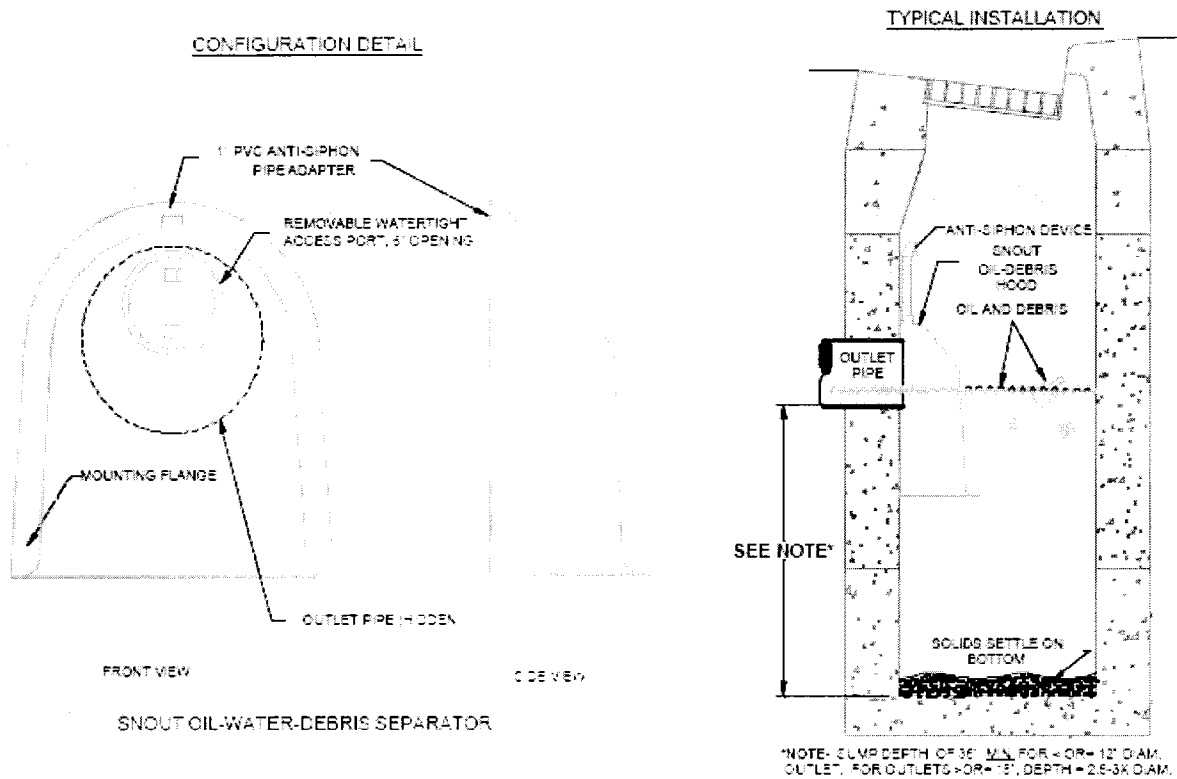
The SNOUT ® system from Best Management Products, Inc. (BMP, Inc.) is based on a vented hood that can reduce floatable trash and debris, free oils, and other solids from stormwater discharges. In its most basic application, a SNOUT ® hood is installed over the outlet pipe of a catch basin or other stormwater quality structure which incorporates a deep sump (see Figure 1). The SNOUT ® forms a baffle in the structure which collects floatables and free oils on the surface of the captured stormwater, while permitting heavier solids to sink to the bottom of the sump. The clarified intermediate layer is forced out of the structure through the open bottom of the SNOUT ® by displacement from incoming flow. The resultant discharge contains considerably less unsightly trash and other gross pollutants, and can also offer modest reductions of free-oils and finer solids.

As with any structural stormwater quality BMP (Best Management Practice), design and maintenance considerations will have a dramatic impact on SNOUT ® system performance over the life of the facility. The most important factor to consider when designing structures which will incorporate a SNOUT ® is the depth of the sump (the sump is defined as the depth from beneath the invert of the outlet pipe to the bottom of the structure) . Simply put, the deeper the sump, the more effective the unit will be both in terms of pollutant removals and reducing frequency of maintenance. More volume in a structure means more quiescence, thus allowing the pollutant constituents a better chance to separate out. Secondly, more volume means fewer cycles between maintenance operations, because the structure has a greater capacity.

Maintenance Recommendations:

- 1-Monthly monitoring for the first year of a new installation after the site has been stabilized.
- 2-Measurements should be taken after each rain event of .5 inches or more, or monthly, as determined by local weather conditions.
- 3-Checking sediment depth and noting the surface pollutants in the structure will be helpful in planning maintenance. The pollutants collected in SNOUT ® equipped structures will consist of floatable debris and oils on the surface of the captured water, and grit and sediment on the bottom of the structure.
- 4-It is best to schedule maintenance based on the solids collected in the sump. Optimally, the structure should be cleaned when the sump is half full (e.g. when 2 feet of material collects in a 4 foot sump, clean it out).
- 5-Structures should also be cleaned if a spill or other incident causes a larger than normal accumulation of pollutants in a structure.
- 6-Maintenance is best done with a vacuum truck.
- 7-If oil absorbent hydrophobic booms are being used in the structure to enhance hydrocarbon capture and removals, they should be checked on a monthly basis, and serviced or replaced when more than 2/3 of the boom is submerged, indicating a nearly saturated state.
- 8-All collected wastes must be handled and disposed of according to local environmental requirements.
- 9-To maintain the SNOUT ® hoods themselves, an annual inspection of the antisiphon vent and access hatch are recommended. A simple flushing of the vent, or gentle rodding with a flexible wire are all that's typically needed to maintain the anti-siphon properties. Opening and closing the access hatch once a year ensures a lifetime of trouble-free service.

Figure 1:



Further maintenance recommendations and site inspection field report sheets are available from BMP, Inc.

**SNOUT® is a registered trademark of
 Best Management Products, Inc.
 53 Mt. Archer Rd.
 Lyme, CT 06371**

Website: www.bmpinc.com

The SNOUT® is protected by US PATENT # 6126817 and CANADIAN PATENT# 2285146

Maintenance Schedule Snout ®

Date Installed:

Month After Installation	1	2	3	4	5	6	7	8	9	10	11	12
Visual Inspection	X	X	X	X	X	X	X	X	X	X	X	X
Sediment Depth Measurement	X	X	X	X	X	X	X	X	X	X	X	X
Inspect Antisiphon Vent and Hatch												X

5. References:

- 1) Plainfield, Indiana Stormwater Management Ordinance (#33-2006)
- 2) National Menu of Best Management Practices for Stormwater Phase II, July 2005, United States Environmental Protection Agency
- 3) Hendricks County Stormwater Management Handbook, February 2005 Edition