



Received by
City of Grove City
01-30-19

Storm Water Management Memo

To: City of Grove City Engineer’s Office
From: Todd Ford, PE
Date: January 29, 2019
Subject: Proposed Bank of America – 2336 Stringtown Road – Storm Water Management Summary

INTRODUCTION

The former financial institution will be redeveloped as a Bank of America building and parking area.

SITE DESCRIPTION

1. The site which abuts Stringtown Road to the south, a Discount Drug Store to the east and a small strip mall to the west, previously housed a financial institution. The existing parking areas and drives will be demolished and removed and a Bank of America with associated parking area and drive aisle will be constructed. An access drive will be constructed along Stringtown Road. New utility services will be constructed and all storm runoff from the site will run into the regional basin located on the north half of the property. Due to a negative percent increase in one-year runoff volume, a new storm water system will not be necessary. See attached Grading Plan, Utility Plan and Critical Storm Calculations.
2. The site is 1.37 acres and 0.925 acres will be disturbed during construction.

CONCLUSION

The proposed design meets requirements outlined in the City of Grove City Stormwater Design Manual.

Exhibit 1 - CN & Critical Storm Calcs



WOOLPERT, INC.
 4454 Idea Center Boulevard
 Dayton, OH 45430
 Phone: 937.461.5660

Project: Bank of America - Grove City

Date: January 29, 2019

Location: Franklin County, OH

Calc. By: ANM
Project No: 079318

OBJECTIVES:

Determine the critical year storm for proposed improvements using Clermont County criteria.

CURVE NUMBER & RUNOFF FOR PRE-DEVELOPED CONDITIONS

Hydrologic Group	Cover Type	CN	Area
C	Impervious Area (Paved Parking Lot)	98	0.621 AC
D	Open Space (Fair Condition)	80	0.304 AC
TOTAL SITE AREA			0.92 AC
CN·AREA			85.15
$CN_{Weighted} = \frac{\sum_{i=1}^n (A_i \cdot CN_i)}{A_{TOTAL}}$			CN_{Existing} 92.1
1 year runoff volume			S 0.86
			6,084 ft³

CURVE NUMBER & RUNOFF FOR POST DEVELOPED CONDITIONS

Hydrologic Group	Cover Type	CN	Area
D	Impervious Area (Paved Parking Lot)	98	0.606 AC
D	Open Space (Fair Condition)	80	0.319 AC
SUB-TOTAL AREA			0.925 AC
CN·AREA			84.88
$CN_{Weighted} = \frac{\sum_{i=1}^n (A_i \cdot CN_i)}{A_{TOTAL}}$			CN_{Existing} 91.8
1 year runoff volume			S 0.89
			6,036 ft³

CALCULATE PERCENT INCREASE AND CRITICAL STORM

	Pre-Developed 1 year runoff volume	6,084 ft³
	Post-Developed 1 year runoff volume	6,036 ft³
$\%_{INCREASE} = \left(\frac{Q_{PROPOSED} - Q_{EXISTING}}{Q_{EXISTING}} \right) 100\%$	%_{INCREASE}	-1%
	Critical Storm	0 yr

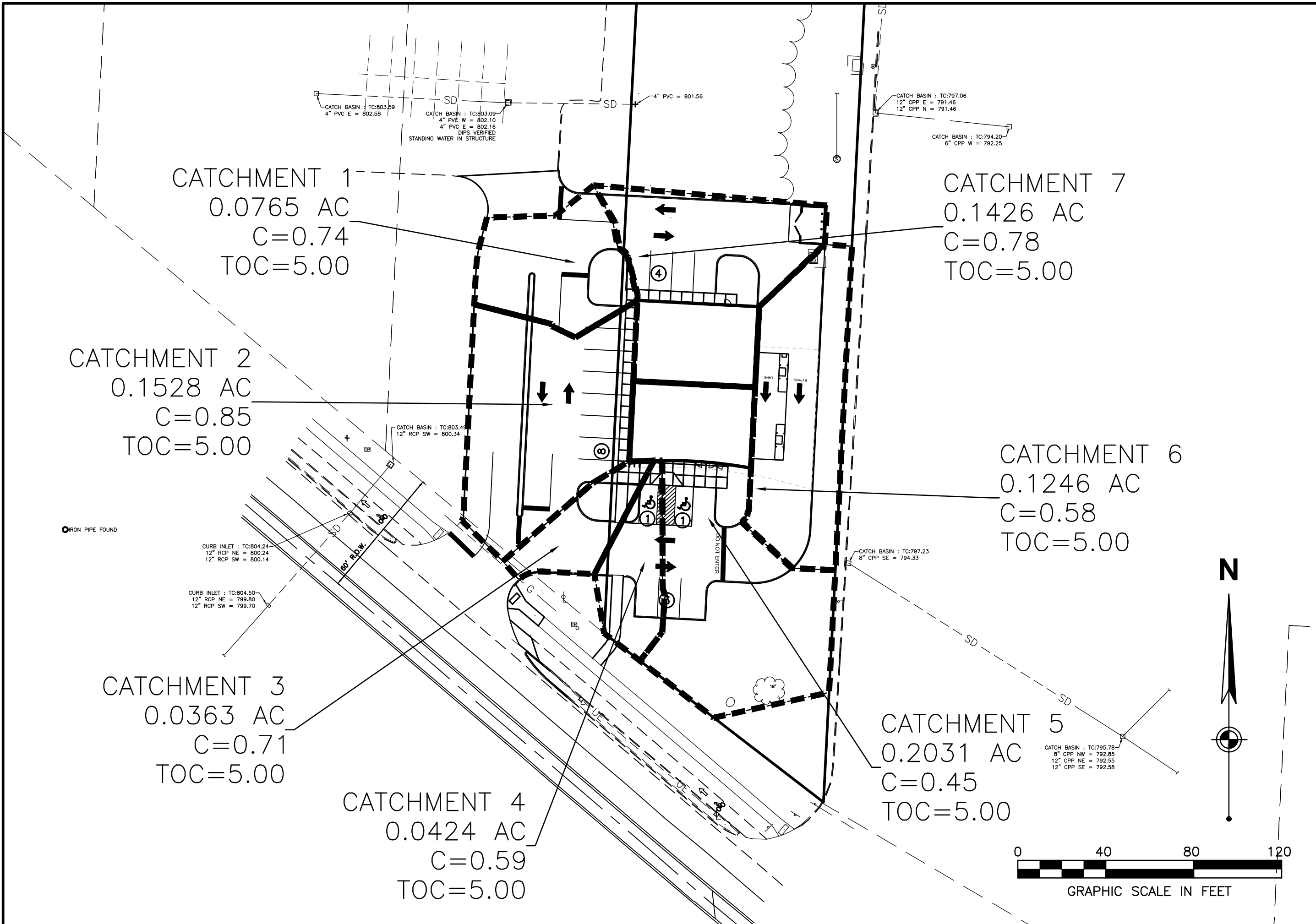
Note: See attached hydrographs for runoff volumes.

Discharge for events less than or equal to the 5 year event shall be limited to the 1 year pre-developed discharge:




Discharge for events with frequencies greater than 5 and up to the 100 Years storm are limited to pre-developed conditions.





PROJECT NO.
079318
DATE 01/29/19
DR. ANM
SHT. # 1 OF 1

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WOOLPERT

**BANK OF AMERICA
GROVE CITY, OH
STORMWATER EXHIBIT
LOCAL DRAINAGE MAP**

