ADVANCED
CIVIL DESIGN
ENGINEERS SURVEYORS

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# City of Columbus SWDM Type II Variance Request

## St. Joseph Cemetery Expansion
## Rowe Road
## COLUMBUS, OHIO

Prepared By:

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Date:
Dec. 19, 2025

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# 1.0 Introduction

This document provides information regarding the requested variance from the City of Columbus Stormwater Drainage Manual for the Saint Jospeh Cemetery.

The Church is expanding the existing cemetery east to add additional burial plots. The expansions will construct paved access drives for patrons to traverse the property while leaving the majority of the site as maintained grass space.

A variance is being requested to waive stormwater detention requirements and to allow stormwater runoff to be directed to the existing quarry ponds adjacent to the cemetery site.

## 1.1 Existing Condition

Ownership: Edward J. Herrman, Bishop of the Diocese of Columbus
Parcels: 495-232630, 495-232655, 495-232656, 495-232658
Site Area: 100.8 Acres

Current land use for the undeveloped property is mainly row cropping, with smaller areas of wooded lands and one area of maintained grass land near the existing cemetery. Existing abandoned quarry ponds lie to the north and east of the property as well as the Big Walnut Creek. These quarries fall within the FEMA 100-year Floodplains. The southern border of the property is Rowe Road, which leads to the Big Walnut Creek using ditch sections.

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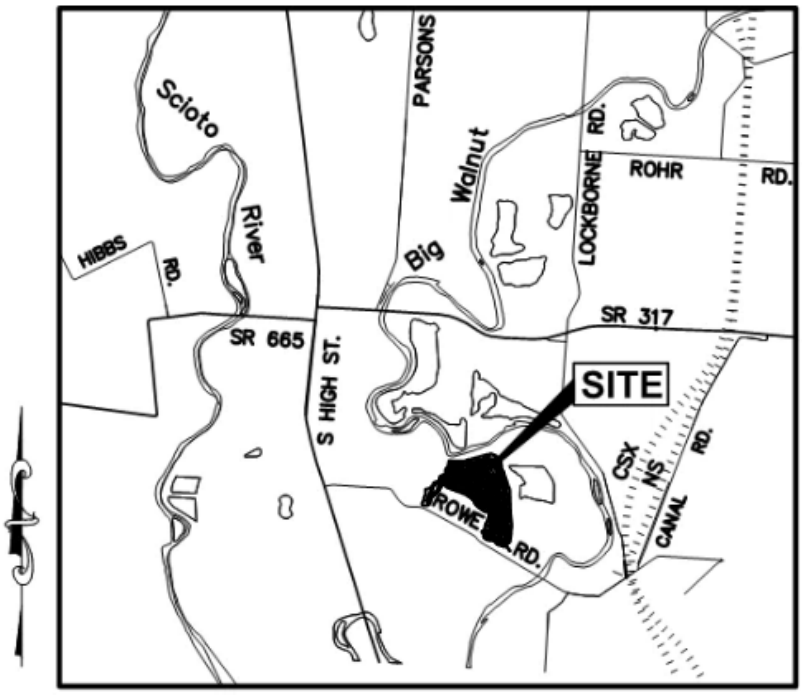


SITE LOCATION MAP
NOT TO SCALE

Figure 1 – Site Location Map


Figure 2 – FEMA Floodplain Panel 39049C0428K

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# 2.0 Type II Variance Request

A variance is being requested to waive stormwater detention requirements and to allow stormwater runoff to be directed to the existing quarry ponds adjacent to the cemetery site. The following describes site alternatives for the cemetery.

## 2.1 Description of Exhibits

Site exhibits are provided at the end of this document to depict three alternative site options. Exhibits describe the calculated curve numbers (CN) for each tributary area. These CNs are calculated using a weighted average of CNs associated with each land area and impervious surfaces.

- Full Compliance (See Exhibit 1)
  The fully compliant option would utilize a storm sewer system to convey stormwater runoff to detention basins which will limit site runoffs based on the critical storm method and reducing the 100-year post developed flow to the 10-year predeveloped flow rate. This will be the most expensive option to consider, from the cost of the storm system itself and due to the lost revenue from selling burial plots to the area required for the stormwater basins.

- Partial Compliance (See Exhibit 2)
  The partial compliant option would direct the majority of the stormwater runoff to existing quarry ponds which exist around the cemetery property. The Church owns the land which the quarries are located on. These quarries are of sufficient size that water levels are minimally impacted by the runoffs from the cemetery, but total runoff volumes are reduced overall due to the change from farmland to cemetery property, shown in Table 1 below.

| Storm Event | Change to Quarry 1 Runoff (Ac Ft) | Quarry 1 Elevation (WE 689.6') (Spillover 708') | Change to Quarry 2 Runoff (Ac Ft) | Quarry 2 Elevation (WE 681.8') (Spillover 693') |
|---|---|---|---|---|
| 1 | 0.007 | 689.60' | -1.541 | 681.79' |
| 2 | 0.010 | 689.60' | -1.836 | 681.79' |
| 5 | 0.012 | 689.60' | -2.187 | 681.79' |
| 10 | 0.013 | 689.60' | -2.425 | 681.78' |
| 25 | 0.015 | 689.60' | -2.696 | 681.78' |
| 50 | 0.017 | 689.60' | -2.877 | 681.78' |
| 100 | 0.018 | 689.60' | -3.031 | 681.78' |

Table 1 – Quarry Elevation Changes

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- Preferred Alternative (See Exhibit 3)
  The client's preferred alternative is to not change the existing site grading and not to install a storm system, but to rely on improving the land use itself to improve existing hydraulic characteristics of the site. The majority of the property is row cropped farmland with poor hydraulic characteristics, the change to maintained grass for the developed cemetery improves the rate of runoff. Table 2 below details the release rates of the pre-developed condition, the allowable release rates per SWDM, and the post-developed condition release rates.

| Storm Event | Pre-developed Release Rates (cfs) | Allowable Release Rates (cfs) | Preferred Alternative Release Rates (cfs) |
|---|---|---|---|
| 1* | 55.94 | 55.94 | 30.80 |
| 2 | 80.75 | 80.75 | 48.56 |
| 5 | 118.97 | 118.97 | 76.76 |
| 10 | 151.85 | 151.85 | 101.75 |
| 25 | 199.50 | 151.85 | 138.71 |
| 50 | 239.92 | 151.85 | 170.58 |
| 100** | 283.03 | 151.85 | 204.96 |

*: Critical Storm (1 year)
**:100 Year post to 10 year predeveloped

Table 2 – Preferred Alternative Release Rates

## 2.2 Hardship Description

The stormwater detention requirements place a hardship on this site. The church relies on income from this site to maintain the cemetery, but cemeteries face a problem in that their land area is a diminishing resource. Once a burial plot is used, that land can't be repurposed later. The detention basins required to meet water quantity requirements will occupy around 5.75 acres of usable cemetery land. Below is an estimate of the possible loss by the church from utilizing basins for stormwater control.

- Average price of an in-ground grave: $2,000+/-
- Number of in-ground graves per acre: 750+/-
- $2000 x 750 = $1,500,000 per acre, just for the grave site itself. There is additional income from selling monuments, and other accoutrements not accounted for in this estimate.
- 5.75 acres x $1,500,000 = **$8,625,000** in lost revenue for the Church

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Additionally, it is estimated that the final build out of the storm system for the entire cemetery will cost between $2 to $2.5+ million dollars.

The earthwork costs related to the partial compliance option is similar to the cost of the stormwater infrastructure of the full compliance option. The excavation and hauling of excess dirt for the ditching proposed in the partial compliance will cost $1.5 to $1.75 million dollars.

Finally, the basins need to take up developable land to be constructed. While there is Church owned acreage outside of the delineated area on each site plan, these areas are not suitable for detention basin placement due to steep slopes and/or being located in the FEMA Floodplain.

All of these hardships impact the ability of the church to generate funds to maintain the church property for decades to come.

## 2.3 Justification for Variance

We believe the request for a variance from the Stormwater Drainage Manual is warranted for the following reasons:

- The change from row cropped land to grass/meadow land reduces runoffs from the property. The release rates shown in Table 2 show that only the 50 and 100 year storm events don't meet stormwater requirements, and even then, the runoff rate is lower than the existing condition.

- There is a substantial cost involved to fully meet stormwater requirements, from the cost of a fully designed storm system and the loss in available burial plot space, or the cost of partial compliance for the earthwork and removal of excess dirt.

We ask that you consider these items when reviewing this variance request. Thank you for your consideration.

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# Exhibit 1 – Full Compliance Alternative

BIG WALNUT CREEK

EX QUARRY POND 1
WE 689.6
78.1 AC AREA

EX QUARRY POND 2
WE 687.0
154.0 AC AREA

FLOODWAY & SCPZ

100-YR FLOODPLAIN

SCPZ

Edward J. Herrmann,
Bishop of the Diocese of Columbus
6440 S High St
190.68 Ac.
PID 495-232658
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
15.05 Ac.
PID 495-232656
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
41.41 Ac.
PID 495-232655
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
141.55 Ac.
PID 495-232657
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
129.40 Ac.
PID 495-232630
Zoned Rural

EX QUARRY POND 2
WE 678.2

EX QUARRY POND 2
WE 681.8
154.0 AC AREA

| | |
|---|---|
| PRE CN | 76 |
| PER 1YR RUNOFF | 0.967 AC FT |
| POST CN | 77 |
| POST 1YR RUNOFF | 1.040 AC FT |
| DELTA RUNOFF | 0.073 AC FT |

22.3 AC

| | |
|---|---|
| PRE CN | 83 |
| PER 1YR RUNOFF | 4.944 AC FT |
| POST CN | 77 |
| POST 1YR RUNOFF | 3.246 AC FT |
| DELTA RUNOFF | -1.698 AC FT |

69.6 AC

| | |
|---|---|
| PRE CN | 76 |
| PER 1YR RUNOFF | 0.386 AC FT |
| POST CN | 77 |
| POST 1YR RUNOFF | 0.415 AC FT |
| DELTA RUNOFF | 0.029 AC FT |

8.9 AC

STORMWATER BASIN (1.25AC)

STORMWATER BASIN (0.75AC)

STORMWATER BASIN (3.75AC)

Harrison P etal Trustees
460 Rowe Rd
7.89 Ac.
PID 150-000050
Zoned Rural

Fernwood Cemetery Assn
Rowe Rd
3.36 Ac.
PID 150-000190
Zoned Rural

The Fernwood Cemetery Assn
Rowe St
4.4 Ac.
PID 150-000199
Zoned Rural

ROWE ROAD

## LEGEND

CB MH PROPOSED STORM SYSTEM

MAJOR FLOOD ROUTING

## SITE INFORMATION

| | |
|---|---|
| ADDRESS | ROWE ROAD REAR |
| PARCEL # | 495-232630, 495-232655, 495-232656, 495-232658 |
| ACREAGE | 98.5 AC |
| ZONING | RURAL (CV95-017) - ANNEX4338 (5/31/1995) |
| EXISTING CONDITIONS | MIX OF GRASS AND WOODLAND AS WELL AT LARGE AREAS OF ROW CROPS |
| PROPOSED CONDITIONS | MAINTAINED GRASS WITH PAVED DRIVES |
| CRITICAL STORM | 1-YEAR |

## DESCRIPTION

FULL COMPLIANCE TO MANUAL USING STORM SEWERS AND BASINS TO CONTROL SITE RUNOFF.

## RUNOFF CHANGES

(BASED ON CHANGES IN THE 1-YR STORM EVENT RUNOFF)

| | | |
|---|---|---|
| BIG WALNUT CREEK | -1.243 | AC FT |
| QUARRY POND 1 | 0.000 | AC FT |
| QUARRY POND 2 | -0.353 | AC FT |

GRAPHIC SCALE

0 100 200 400

1 inch = 200 feet

CITY OF COLUMBUS, OHIO
FULL COMPLIANCE VARIANCE EXHIBIT
FOR
CATHOLIC DIOCESE OF COLUMBUS


PLAN PREPARED BY:

ADVANCED CIVIL DESIGN
ENGINEERS SURVEYORS

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SCALE: 1" = 200'
DATE: 12/19/25

SHEET 1 / 1

Z:\25-0003-1483\DWG\PRODUCTION DRAWINGS\VARIANCE\Variance - Full Compliance.dwg Full Storm System Jan 02, 2026 - 1:45:32pm chuber

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# Exhibit 2 – Partial Compliance Alternative

BIG WALNUT CREEK

BIG WALNUT CREEK

LOW POINT
708'±

| | | |
|---|---|---|
| EX QUARRY POND 1 | PRE CN | 76 |
| WE 689.6 | PER 1YR RUNOFF | 0.100 AC FT |
| 78.1 AC AREA | POST CN | 77 |
| | POST 1YR RUNOFF | 0.107 AC FT |
| | DELTA RUNOFF | 0.007 AC FT |

| | | |
|---|---|---|
| | PRE CN | 76 |
| | PER 1YR RUNOFF | 0.130 AC FT |
| | POST CN | 77 |
| | POST 1YR RUNOFF | 0.140 AC FT |
| | DELTA RUNOFF | 0.010 AC FT |

EX QUARRY POND 2
WE 687.0
154.0 AC AREA

FLOODWAY & SCPZ

100-YR FLOODPLAIN

SCPZ

FLOODWAY

2.3 AC

3 AC

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
15.05 Ac.
PID 495-232656
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
6440 S High St
190.68 Ac.
PID 495-232658
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
6440 S High St
190.68 Ac.
PID 495-232658
Zoned Rural

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
41.41 Ac.
PID 495-232655
Zoned Rural

LIMITS OF GRADING

14.8 AC

72.3 AC

| | | |
|---|---|---|
| | PRE CN | 76 |
| | PER 1YR RUNOFF | 0.642 AC FT |
| | POST CN | 77 |
| | POST 1YR RUNOFF | 0.690 AC FT |
| | DELTA RUNOFF | 0.048 AC FT |

Harrison P etal Trustees
460 Rowe Rd
7.89 Ac.
PID 150-000050
Zoned Rural

Fernwood Cemetery Assn
Rowe Rd
3.36 Ac.
PID 150-000190
Zoned Rural

The Fernwood Cemetery Assn
Rowe St
1.42 Ac.
PID 150-000199
Zoned Rural

| | | |
|---|---|---|
| | PRE CN | 83 |
| | PER 1YR RUNOFF | 4.913 AC FT |
| | POST CN | 77 |
| | POST 1YR RUNOFF | 3.372 AC FT |
| | DELTA RUNOFF | -1.541 AC FT |

Edward J. Herrmann,
Bishop of the Diocese of Columbus
6440 S High St
190.68 Ac.
PID 495-232659
Zoned Rural

ROWE ROAD

| | | |
|---|---|---|
| | PRE CN | 85 |
| | PER 1YR RUNOFF | 0.661 AC FT |
| | POST CN | 77 |
| | POST 1YR RUNOFF | 0.392 AC FT |
| | DELTA RUNOFF | -0.269 AC FT |

8.4 AC

100-YR FLOODPLAIN

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
141.55 Ac.
PID 495-232657
Zoned Rural

LOW POINT
693'±

FLOODWAY & SCPZ

EX QUARRY POND
WE 678.2

Edward J. Herrmann,
Bishop of the Diocese of Columbus
Rowe Rd Rear
129.40 Ac.
PID 495-232630
Zoned Rural

EX QUARRY POND 2
WE 681.8
154.0 AC AREA

100-YR FLOODPLAIN

FLOODWAY & SCPZ

FLOODWAY

BIG WALNUT CREEK

**SITE INFORMATION**

| | |
|---|---|
| ADDRESS | ROWE ROAD REAR |
| PARCEL # | 495-232630, 495-232655, 495-232656, 495-232658 |
| ACREAGE | 98.5 AC |
| ZONING | RURAL (CV95-017) – ANNEX4338 (5/31/1995) |
| EXISTING CONDITIONS | MIX OF GRASS AND WOODLAND AS WELL AT LARGE AREAS OF ROW CROPS |
| PROPOSED CONDITIONS | MAINTAINED GRASS WITH PAVED DRIVES |
| CRITICAL STORM | 1-YEAR |

**DESCRIPTION**

PARTIAL COMPLIANCE TO MANUAL USING SITE GRADING TO DIRECT RUNOFF TO EXISTING ABANDONED QUARRIES WHICH ACT AS RETENTION BASINS. DUE TO THE CHANGE IN LAND USE, THE OVERALL DRAINAGE TO THE QUARRIES IS EITHER NEGLIGIBLE TO WATER LEVELS OR REDUCES THE CURRENT IMPACT.

**RUNOFF CHANGES**

(BASED ON CHANGES IN THE 1-YR STORM EVENT RUNOFF)

| | | |
|---|---|---|
| BIG WALNUT CREEK | -0.211 | AC FT |
| QUARRY POND 1 | 0.007 | AC FT |
| QUARRY POND 2 | -1.541 | AC FT |

GRAPHIC SCALE

0 ### ### ###

1 inch = ### feet

CITY OF COLUMBUS, OHIO
PARTIAL COMPLIANCE VARIANCE EXHIBIT
FOR
**CATHOLIC DIOCESE OF COLUMBUS**


PLAN PREPARED BY:

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SCALE: 1" = 200'
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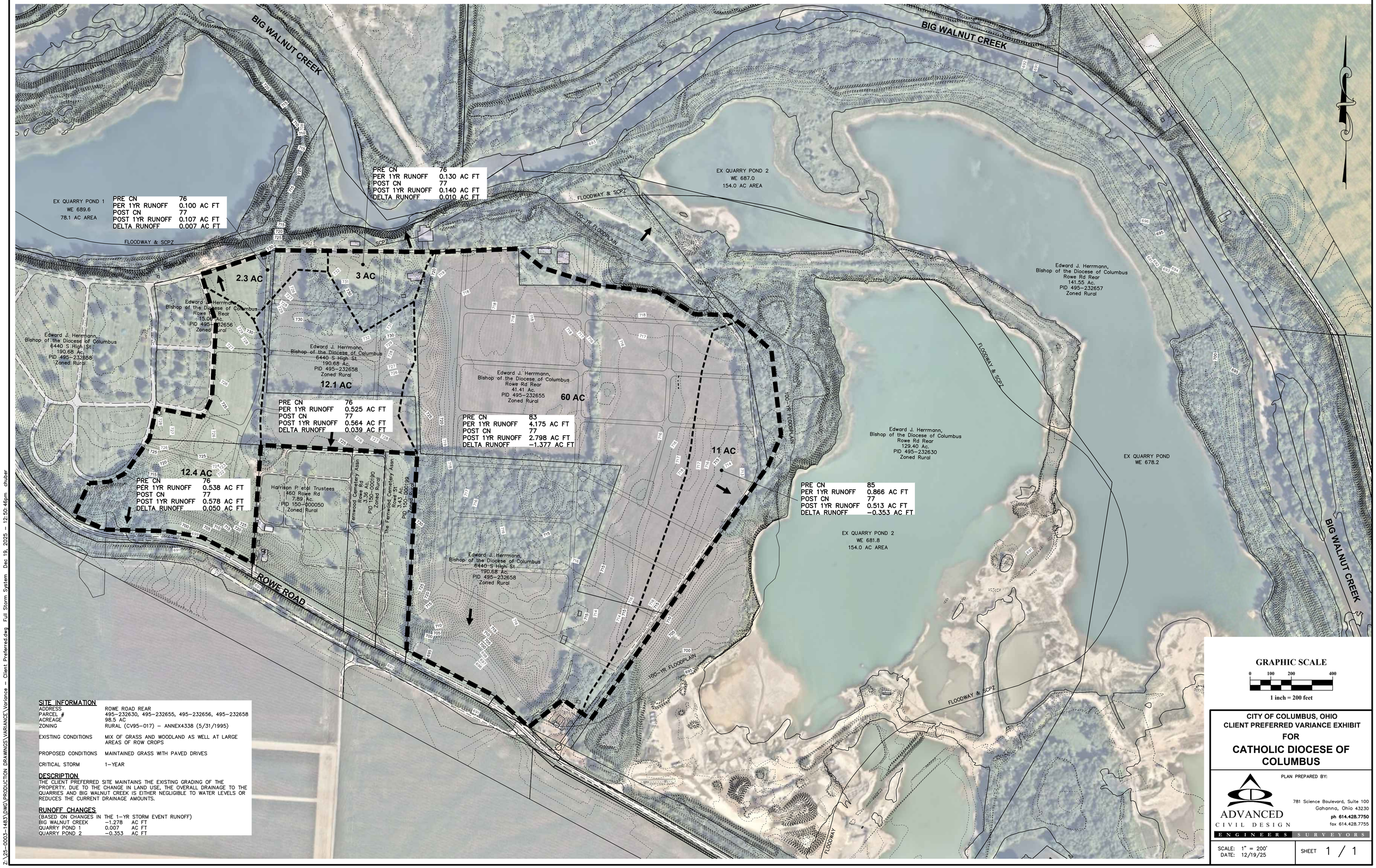
# Exhibit 3 – Client's Preferred Alternative




## SITE INFORMATION

| | |
|---|---|
| ADDRESS | ROWE ROAD REAR |
| PARCEL # | 495-232630, 495-232655, 495-232656, 495-232658 |
| ACREAGE | 98.5 AC |
| ZONING | RURAL (CV95-017) - ANNEX4338 (5/31/1995) |
| EXISTING CONDITIONS | MIX OF GRASS AND WOODLAND AS WELL AT LARGE AREAS OF ROW CROPS |
| PROPOSED CONDITIONS | MAINTAINED GRASS WITH PAVED DRIVES |
| CRITICAL STORM | 1-YEAR |

## DESCRIPTION

THE CLIENT PREFERRED SITE MAINTAINS THE EXISTING GRADING OF THE PROPERTY. DUE TO THE CHANGE IN LAND USE, THE OVERALL DRAINAGE TO THE QUARRIES AND BIG WALNUT CREEK IS EITHER NEGLIGIBLE TO WATER LEVELS OR REDUCES THE CURRENT DRAINAGE AMOUNTS.

## RUNOFF CHANGES

(BASED ON CHANGES IN THE 1-YR STORM EVENT RUNOFF)

| | | |
|---|---|---|
| BIG WALNUT CREEK | -1.278 | AC FT |
| QUARRY POND 1 | 0.007 | AC FT |
| QUARRY POND 2 | -0.353 | AC FT |

GRAPHIC SCALE

0 100 200 400

1 inch = 200 feet

CITY OF COLUMBUS, OHIO
CLIENT PREFERRED VARIANCE EXHIBIT
FOR
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SCALE: 1" = 200'
DATE: 12/19/25

SHEET 1 / 1

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