



IBI GROUP
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Columbus OH 43235 USA
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April 5, 2022

Administrator, DOSD
Attn: Greg Fedner, P.E.
Section Manager, Plan Review Section
1250 Fairwood Avenue
Columbus, Ohio 43206

Re: **Type II Variance Request**
CC-19526
Lakeside Village, 4100 Lakeview Crossing, Columbus, Ohio 43125
PID: 010-213774 & 010-243275
Total Site Area: 24.458 Acres
Total Disturbed Area: 17.18 Acres
Existing Property Owner: M-Five, Limited Partnership
Developer: Metro Development, LLC (Note: Metro will be property owner after closing)

Dear Mr. Fedner:

The following Type II Variances are requested from the City of Columbus Stormwater Drainage Manual (SWDM), revised May 2021, for the referenced project:

1. Pursuant to Section 3.1.2 of the SWDM, stormwater control facilities shall not be located within designated Federal Emergency Management Agency (FEMA) 100-year floodplain boundaries.
2. Pursuant to Section 3.1.7 of the SWDM, Storage capacity below the base flood elevation shall not be included in total storage capacity calculations for stormwater control facilities located adjacent to or vertically within the 100-year floodplain boundary,
3. Pursuant to Section 3.4.1(5) of the SWDM, side slopes within and adjacent to dry detention basins and those side slopes above the permanent pools of wet detention basins shall be 4 (H) to 1 (V) or flatter to prevent bank erosion and minimize safety risks.
4. Pursuant to Section 3.4.1(11)6 of the SWDM, it is recommended that detention basins be provided with an emergency drain, where practicable, so that the basin may be emptied if the primary outlet becomes clogged and/or drain the permanent pool to facilitate maintenance.
5. Pursuant to Section 1.4 of the SWDM, the compensation area must have an unrestricted hydraulic connection to the affected stream and provide the same rate of flood storage capture and discharge over the course of the flood event as in pre-project conditions.

Exhibit Descriptions

Three site exhibits have been prepared:

1. Full Compliant Alternative (See “No Impact” Exhibit)
This exhibit shows a site layout fully compliant with the SWDM. This layout is based on using the Franklin County Auditor GIS 100-year floodplain. As seen in this exhibit, there is limited room available on site (outside the 100-year flood plain, outside utility easements, and above the base flood elevation) to construct a stormwater detention facility. The proposed parking and building shown on the exhibit would require filling within the 100-year flood plain. Development is feasible along Lakeview Crossing only due to the presence of existing utilities and public road access. Given the space limitations and grading involved, it appears the construction of only one (1) building is feasible.
2. Minimal Impact Alternative (See “Minimal Impact” Exhibit)
This layout is based on a 100-year floodplain established by using field survey information obtained by IBI Group in November 2021. Compared to the “No Impact” scenario, this layout has more room to locate the stormwater detention facility. Consequently, with the additional pond storage available, there is more potential to develop parking and buildings. In this scenario, it appears the construction of six (6) apartment building are feasible. Filling within the 100-year flood plain would be required.
3. Preferred Alternative (See attached CC-19526 Grading Plan)
The preferred layout requires the Type II variances listed previously. The grading plan associated with CC-19526 is utilized as the exhibit for this scenario. To maximize the sites potential and to make the project economically feasible, the proposed stormwater detention facility is located within the 100-year flood plain, with storage capacity below the base flood elevation. As a result, eleven (11) apartment buildings are proposed. Filling within the 100-year flood plain would be required.

Hardships Description

The requirements to locate the stormwater detention facility outside the 100-year flood plain, and with storage capacity above the base flood elevation, places a hardship on the project. These hardships are described as follows:

- Developable Area
Lakeside Village falls within the Community Reinvestment Area (CRA) boundary (see attached exhibit with Lakeside Village being called out). Currently, most of the 24.458-acre site is located within the floodway and 100-year flood plain; thus, reducing the potential for affordable housing. The proposed development will set aside 20% of the units for affordable housing. The preferred alternative proposes to construct 264 total units, with 54 designated as affordable units. Limiting the developable area to the area shown on the “No Impact” exhibit would reduce the proposed affordable housing units to 5. It would reduce the number of affordable units on the “Minimal Impact” exhibit to 29.

- Fill Height

If the stormwater detention facility is placed outside the 100-year flood plain, with pond storage above the base flood elevation, it will increase the fill height needed under the proposed parking and buildings. This additional fill is needed so that proper vertical cover/slope can be provided for the storm pipes discharging into the stormwater detention facility.

- In the “No Impact” scenario, approximately 5-feet of fill is needed to raise the site from the base flood elevation (746.0) to pad elevation (751.0)
- In the “Minimal Impact” scenario, approximately 6-feet of fill is needed to raise the site from the base flood elevation (746.0) to pad elevation (752.0)
- In the “Preferred Alternative”, approximately 3-feet of fill is needed to raise the site from the base flood elevation (746.0) to pad elevation (749.0)

In the “Preferred Alternative” the stormwater detention facility is located at a lower elevation (proposed normal pool elevation is approximately 7-feet below base flood elevation) which results in less fill height being needed under the proposed parking/buildings.

The existing pavement elevation of Lakeview Crossing and Hamilton Square Boulevard is in the approximate range of 747.0 to 748.5. The fill heights required by the “No Impact” and “Minimal Impact” scenarios create steeper slopes for vehicular and pedestrian access into the site. It also creates a pad elevation multiple foot higher than the existing nearby developments.

- 4:1 Slopes Above Basin Permanent Pool

In the “Preferred Alternative”, a 4:1 maximum slope is provided from the top of basin embankment elevation (742.0) down into the basin. A 15-foot wide access way will be constructed around the basin (at elevation 742.0 and higher). There is an existing wetland located on the back side of units 8 and 9. No filling is permitted in the wetland. Due to limited space between the backside of units 8 and 9 and the existing wetland, it is requested that a 3:1 maximum slope be allowed between the units and the 15-foot access way. Without the ability to use a 3:1 maximum slope, a retaining wall would most likely be needed.

- Pond Drain

A drain for the wet basin is not desired due to cost and maintenance. If the basin needs drained, a pump will be utilized.

- Cost

Due to economies of scale, the cost per building is cheaper when spread out over a greater land area, resulting in a greater number of buildings to be constructed. The cost is also reduced when the amount of compactible fill depth (beneath the buildings and parking pads) is reduced, such as when the “Preferred Alternative” is used.

Justifications for Deviation

It is felt that the variance requests and deviations from the SWDM are justified for the following reasons:

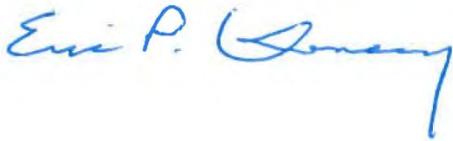
- The increased developable area will provide an opportunity to construct more affordable housing and help fill a housing shortage need.
- A 15-foot wide maintenance access will be provided around the entire wet basin.
- The proposed wet basin will be excavated to provide a 6-foot depth (in the non-wetland area). The proposed normal pool elevation of the wet basin is 739.15 (which is still above the normal elevation of Blacklick Creek). A compensatory volume equal to or greater than the sum of the 100-year storm pond routing volume plus the amount of fill placed within the 100-year floodplain will be provided between the wet basin normal pool elevation and existing grade.
- M-E Companies obtained a conditional letter of map revision for this area in 1997 (see attached PDF from FEMA – Case No. 98-05-026C). In looking at the FEMA document, there is no expiration date. Please refer to the attached CLOMR exhibit. The 83.189 acre parcel described in the FEMA description is highlighted in yellow. The proposed Metro Development multi-family development is shaded in blue. The 100-year floodplain and the floodway are shown for reference. Once the fill is complete, a LOMR will be filed. The existing development located southwest of Lakeside Village utilized this same CLOMR to fill within the 100-year floodplain.
- The need for a reduced fill height will create a building pad that is more compatible in elevation with the existing adjacent developments.
- The existing adjacent developments (east and southwest sides) contain storm water detention systems that were constructed in the 100-year flood plain and were constructed below the base flood elevation.
- The proposed wet basin has enough capacity for water quantity and quality measures for the proposed Lakeside Village development. In fact, the actual release rates are substantially below the allowable release rates.
 - As currently designed, there is a 25-year critical storm, which must be released at a rate equal to or less than the 1-year pre-development flow rate.
 - Allowable release rate (1-year pre-development storm) is 4.85 cfs
 - 25-year post development release rate is 1.54 cfs
 - The 100-year post-development storm must be released at a rate equal to or less than the 10-year pre-development flow rate.
 - Allowable release rate (10-year pre-development storm) is 22.37 cfs.
 - 100-year post-development release rate is 2.30 cfs.
- The compensatory area and 100-year storm pond routing volume (in the wet basin) will drain to an existing City of Columbus storm drain system. To maintain this hydraulic connection, regular inspection of the storm drain system will be provided. If the storm system becomes clogged, water will rise in the wet basin until it reaches the proposed spillway elevation, at which point it will run over the spillway, and flow overland south towards Blacklick Creek.
- The increased developable area will provide for a more enjoyable living experience. The increased area provides more room for a recreational path, green space, and access to the proposed water basin.

- The development's 17.18-acre (0.0268 sq. mile) tributary area is miniscule compared to Blacklick Creek's 57.7 sq. mile tributary area. In addition, the development's approximate 1,000-feet (0.189 mile) Tc flow path is significantly less than Blacklick Creek's 28.4 mile Tc flow path (see StreamStats report on following pages). Given the disparity in tributary area size and time of concentrations to peak, it highly unlikely that both tributary areas will achieve peak flows at the same time.

Should you have any questions about the information presented, or if you need additional information, please do not hesitate to contact me.

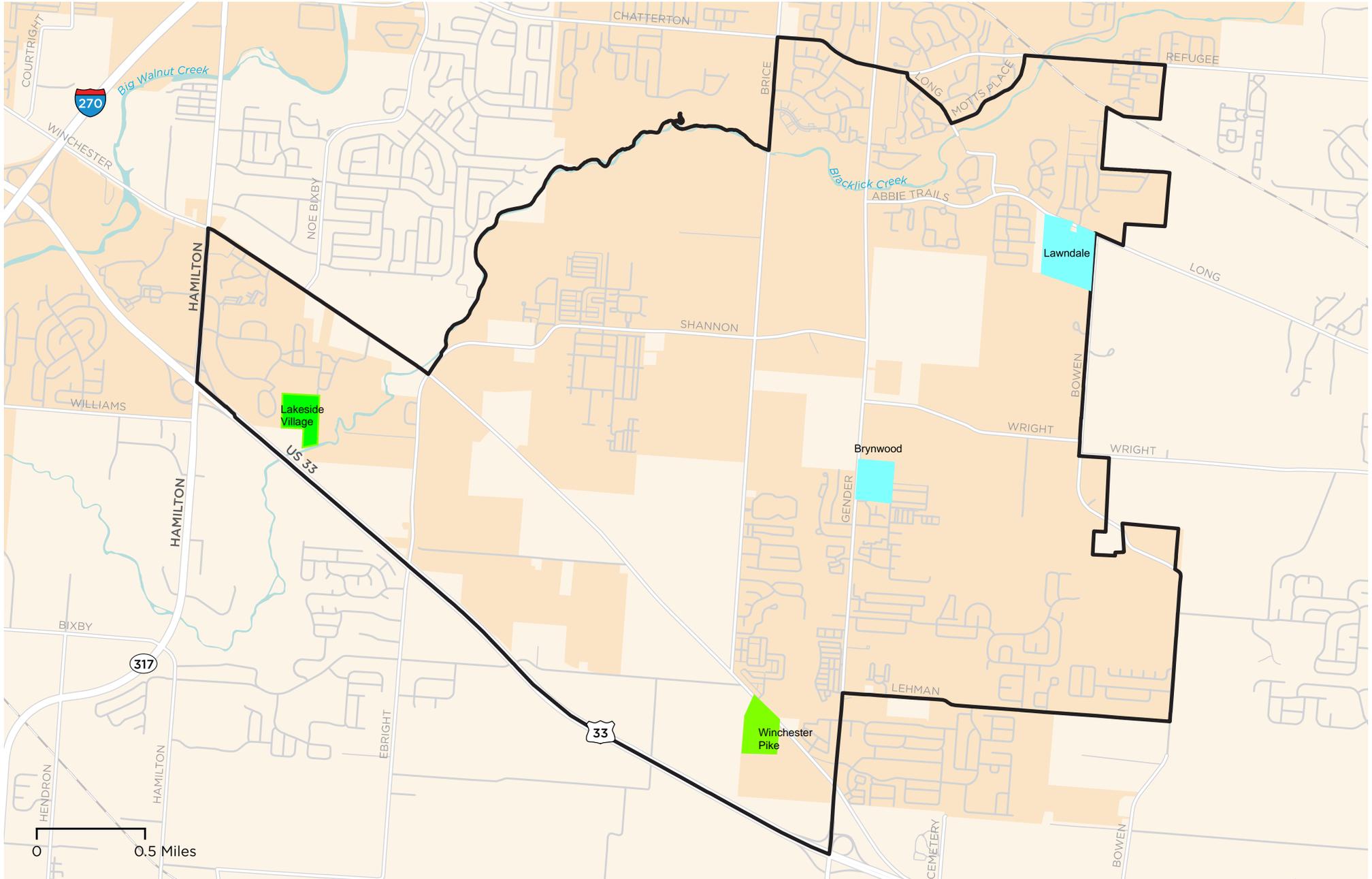
Respectfully Submitted,

IBI Group



Eric P. Chenevey, P.E.
Project Manager
Email: eric.chenevey@ibigroup.com
Phone: (614) 818-4900, x2041

Cc: File





Federal Emergency Management Agency

Washington, D.C. 20472

DEC - 5 1997

The Honorable Lance Westcamp
Mayor of the Village of Groveport
655 Blacklick Street
Groveport, Ohio 43124

IN REPLY REFER TO:
Case No.: 98-05-026C
Community: Village of Groveport,
Franklin County, Ohio
Community No.: 390170
Map Panel Affected: Franklin County,
Ohio and Incorporated Areas
Number: 39049C0290 G and
39049C0270 G
Map Effective Date: August 2, 1995

218-65-CR

Dear Mayor Westcamp:

We reviewed a request dated September 22, 1997, from [REDACTED] Principal of M-E Civil Engineering, Inc., for a Conditional Letter of Map Revision (LOMR). All required information for this request was received on November 18, 1997. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we determined that the property described below would not be located in the Special Flood Hazard Area (SFHA), if fill is placed as indicated on the submitted elevation information, dated September 22, 1997, revised November 18, 1997, and prepared by [REDACTED]. The SFHA is the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This property will be elevated by the placement of fill.

Property Description:

Portions of South Hamilton Square, Section 2, Part 1, recorded in Plat Book 71, Page 38, File No. 118191, on October 31, 1989, and Portions of Hamilton Square Boulevard, Lakeview Crossing and Easements, recorded in Plat Book 86, Page 72, Instrument No. 199707150047098, on September 15, 1997, both plats filed in the Franklin County Recorder's Office. These portions, a 83.189 acre parcel and a 1.829 acre parcel, are more particularly described below by metes and bounds:

Description of 83.189 acre parcel

Beginning for reference at the northeasterly corner of said Lot 19; thence S08°09'00"W, along the easterly line of same, a distance of 250.97 feet to the True Place of Beginning; thence N52°41'42"E, through said 116.079 acre tract, a distance of 270.85 feet to a point in the westerly line of said 6.998 acre tract; thence through said 6.998 acre tract the following courses: N89°29'49"E, a distance of 83.20 feet to a point; S43°32'31"W, a distance of 93.30 feet to a point; S30°58'24"W, a distance of 394.37 feet to a point; S52°26'31"E, a distance of 110.94 feet to a point; N30°10'59"E, a distance of 168.20 feet to a point; N90°00'00"E, a distance of 111.63 feet to a point; S29°16'38"E, passing the easterly line of said 6.998 acre tract through said 116.079 acre tract, a distance of 352.77 feet to a point; thence S75°18'29"E, through said 116.079 acre tract, a distance of 213.32 feet to a point; thence S15°06'38"E, continuing through said 116.079 acre tract, a distance of 563.31 feet to a point in the easterly line of same; thence S7°52'40"W, along said easterly line, a distance of 938.88 feet to a point; thence S68°21'26"W, back through said 116.079 acre tract, a distance of 915.84 feet to a point; thence S44°57'36"W, continuing through said 116.079 acre tract, a

distance of 416.66 feet to a point in the northerly right-of-way line of U.S. Route 33; thence along said right-of-way the following courses: N45°42'09"W, a distance of 314.78 feet to a point; N45°49'01"W, a distance of 384.78 feet to a point; N37°18'42"W, a distance of 101.17 feet to a point; N45°47'33"W, a distance of 299.91 feet to a point; N47°23'15"W, a distance of 99.90 feet to a point; N52°40'38"W, a distance of 100.71 feet to a point; N22°44'26"W, a distance of 229.30 feet to a point; thence N37°07'38"E, back through said 116.079 acre tract, a distance of 167.03 feet to a point; thence N21°11'37"W, continuing through said 116.079 acre tract and through said Lots 11 and 12, a distance of 935.68 feet to a point; thence N34°01'46"E, continuing through said Lot 11, a distance of 158.21 feet to a point on the northerly line of same; thence S52°48'03"E, continuing through said Lot 11, a distance of 71.46 feet to a point; thence S3°34'40"W, through said Lots 11 and 12, a distance of 216.83 feet to a point; thence S21°02'41"E, continuing through said Lot 12 and into said 116.079 acre tract, a distance of 376.80 feet to a point; thence through said 116.079 acre tract the following courses: S80°18'53"E, a distance of 140.69 feet to a point; S41°38'40"E, a distance of 203.62 feet to a point; N68°22'36"E, passing the centerline of said Hamilton Square Boulevard (60.00 feet in width) at a distance of 88.58 feet, a total distance of 211.05 feet to a point; thence N45°59'55"E, continuing through said 116.079 acre tract and said Lots 20 and 21, a distance of 832.36 feet to a point; thence N23°57'07"E, continuing through said Lot 21 passing the centerline of said Professional Parkway (60.00 feet in width) at a distance of 161.96 feet and through Lot 19, a total distance of 555.88 feet to the True Place of Beginning and containing 83.189 acres of land. Bearings herein are based on a bearing of S81°51'00"E for Professional Parkway.

Description of 1.829 acre parcel

Beginning for reference at the northeasterly corner of said 116.079 acre tract; thence S07°52'40"W, along the easterly line of said 116.079 acre tract a distance of 114.09 feet to the True Place of Beginning; thence S07°52'40"W, along said easterly line, a distance of 441.12 feet to a point; thence through said 116.079 acre tract the following courses: N65°51'45"W, a distance of 144.28 feet to a point; N24°52'09"W, a distance of 155.75 feet to a point; N07°52'40"E, a distance of 150.17 feet to a point; N49°07'59"E, a distance of 145.36 feet to a point; S80°45'14"E, a distance of 127.34 feet to the True Place of Beginning and containing 1.829 acres of land. Bearings herein are based on a bearing of S81°51'00"E for Professional Parkway.

Street Address: Hamilton Square Boulevard and Lakeview Crossing
 Flooding Source: Backlick Creek

This conditional determination is based on the flood data presently available. Our final determination will be made upon receipt of a copy of this letter, a copy of the final plat with recordation data, and certified as-built information showing the elevations of the lowest ground on the property. The enclosed "Certification of Fill Placement" form also must be returned, signed and dated by a registered professional engineer, an accredited soils engineer, or the community's NFIP permit official.

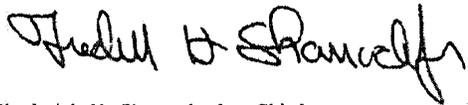
Effective October 1, 1996, the Federal Emergency Management Agency (FEMA) revised the fee schedule for reviewing and processing requests for modifications to published flood information and maps. Under this schedule, FEMA established a flat review and processing fee for each type of request. The fee for the as-built map revision request will be \$300 for a single lot/structure and \$700 for multiple lots/structures and must be received before we can begin processing the request. Payment of this fee shall be made in the form of a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card. The payment must be forwarded to the following address:

Federal Emergency Management Agency
Fee-Collection System Administrator
P.O. Box 3173
Merrifield, VA 22116-3173

This letter does not relieve Federal agencies of the need to comply with Executive Order 11988 on Floodplain Management in carrying out their responsibilities and providing Federally undertaken, financed, or assisted construction and improvements, or in their regulating or licensing activities.

An additional enclosed document provides information about LOMRs. If you have any questions about this letter, please contact [redacted] of our staff in Washington, D.C., either by telephone at (202) 646-3457 or by facsimile at (202) 646-4596.

Sincerely,



Frederick H. Sharrocks Jr., Chief
Hazard Identification Branch
Mitigation Directorate

Enclosures

cc: [redacted]



GRAPHIC SCALE



(IN FEET)
1 inch = 75 ft.

MARCH 30, 2022

83.193 ACRE PARCEL
DESCRIBED IN DECEMBER 5,
1997 CONDITIONAL LETTER
OF MAP REVISION

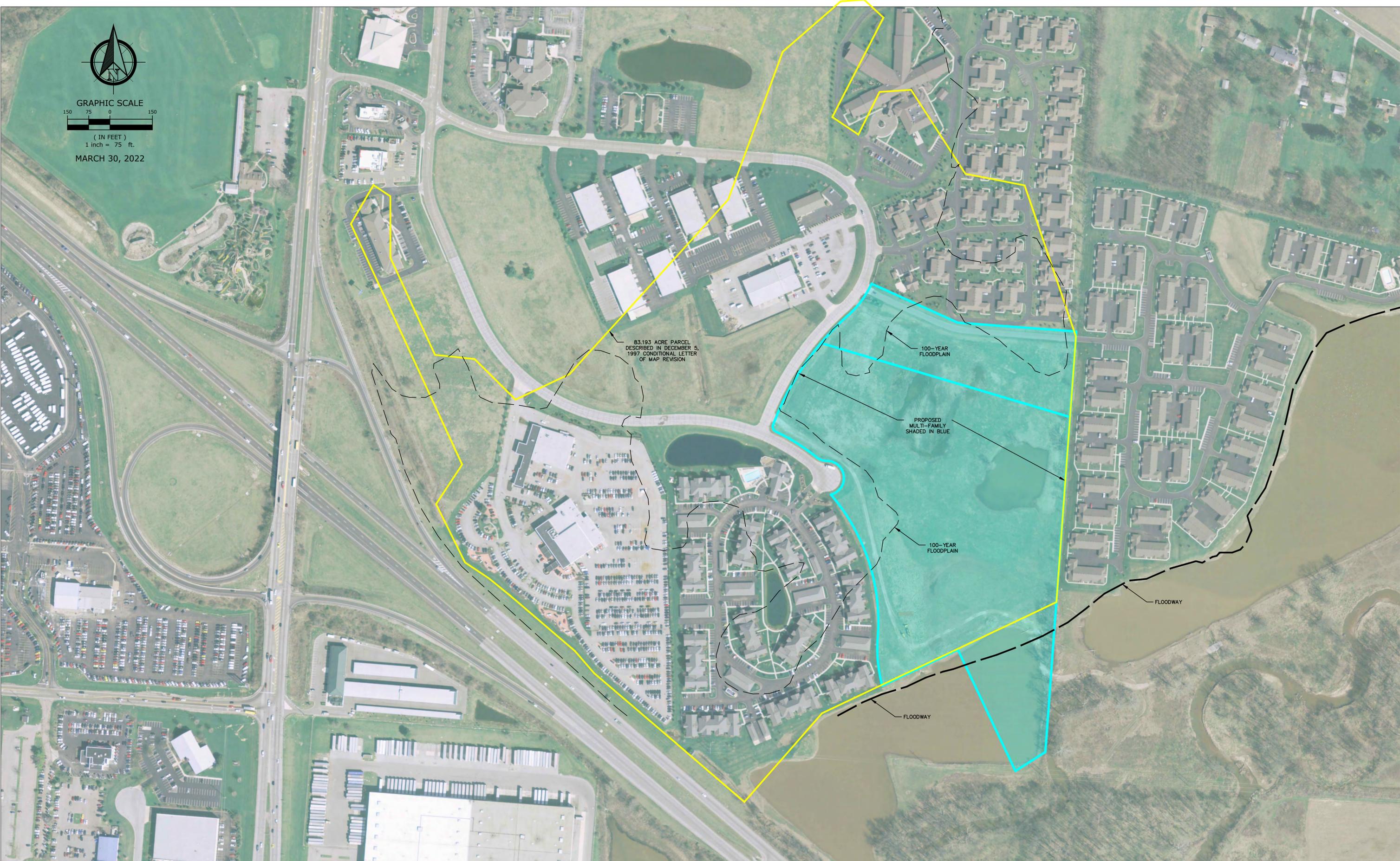
100-YEAR
FLOODPLAIN

PROPOSED
MULTI-FAMILY
SHADED IN BLUE

100-YEAR
FLOODPLAIN

FLOODWAY

FLOODWAY



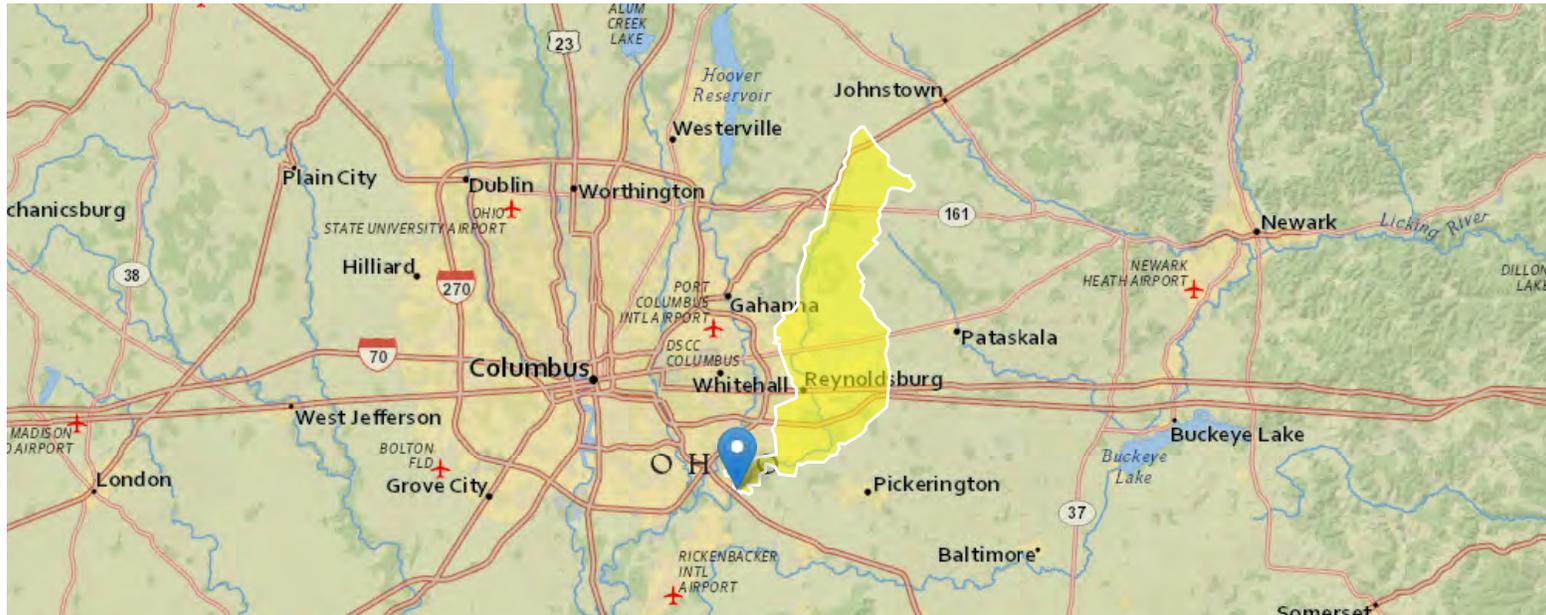
StreamStats Report

Region ID: OH

Workspace ID: OH20220126115415280000

Clicked Point (Latitude, Longitude): 39.88682, -82.87065

Time: 2022-01-26 06:54:36 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	57.7	square miles
LFPLENGTH	Length of longest flow path	28.4	miles
OHREGC	Ohio Region C Indicator	0	dimensionless
OHREGA	Ohio Region A Indicator	1	dimensionless
CSL1085LFP	Change in elevation divided by length between points 10 and 85 percent of distance along the longest flow path to the basin divide, LFP from 2D grid	16	feet per mi
LC92STOR	Percentage of water bodies and wetlands determined from the NLCD	1.25	percent
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	347667.6	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4429169.2	meters
FOREST	Percentage of area covered by forest	24	percent
LAT_CENT	Latitude of Basin Centroid	39.999	decimal degrees
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	50.3	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	16.6	percent
LONG_CENT	Longitude Basin Centroid	-82.7845	decimal degrees
PRECIP	Mean Annual Precipitation	37.4	inches
STREAM_VARG	Streamflow variability index as defined in WRIR 02-4068, computed from regional grid	0.56	dimensionless

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	57.7	square miles	0.04	5989
OHREGC	Ohio Region C Indicator 1 if in C else 0	0	dimensionless	0	1
OHREGA	Ohio Region A Indicator 1 if in A else 0	1	dimensionless	0	1
CSL1085LFP	Stream Slope 10 and 85 Longest Flow Path	16	feet per mi	1.53	516
LC92STOR	Percent Storage from NLCD1992	1.25	percent	0	25.35

Peak-Flow Statistics Flow Report [Peak Flow Full Model Reg A SIR2019 5018]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	ASEp
50-percent AEP flood	2090	ft ³ /s	1110	3940	40.1
20-percent AEP flood	3330	ft ³ /s	1850	6010	37.2
10-percent AEP flood	4280	ft ³ /s	2360	7770	37.6
4-percent AEP flood	5600	ft ³ /s	3070	10200	38.1
2-percent AEP flood	6660	ft ³ /s	3610	12300	37.8
1-percent AEP flood	7780	ft ³ /s	4170	14500	39.6
0.2-percent AEP flood	10600	ft ³ /s	5640	19900	40.3

Peak-Flow Statistics Citations

Koltun, G.F., 2019, Flood-frequency estimates for Ohio streamgages based on data through water year 2015 and techniques for estimating flood-frequency characteristics of rural, unregulated Ohio streams: U.S. Geological Survey Scientific Investigations Report 2019–5018, 25 p. (<https://dx.doi.org/10.3133/sir20195018>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

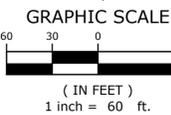
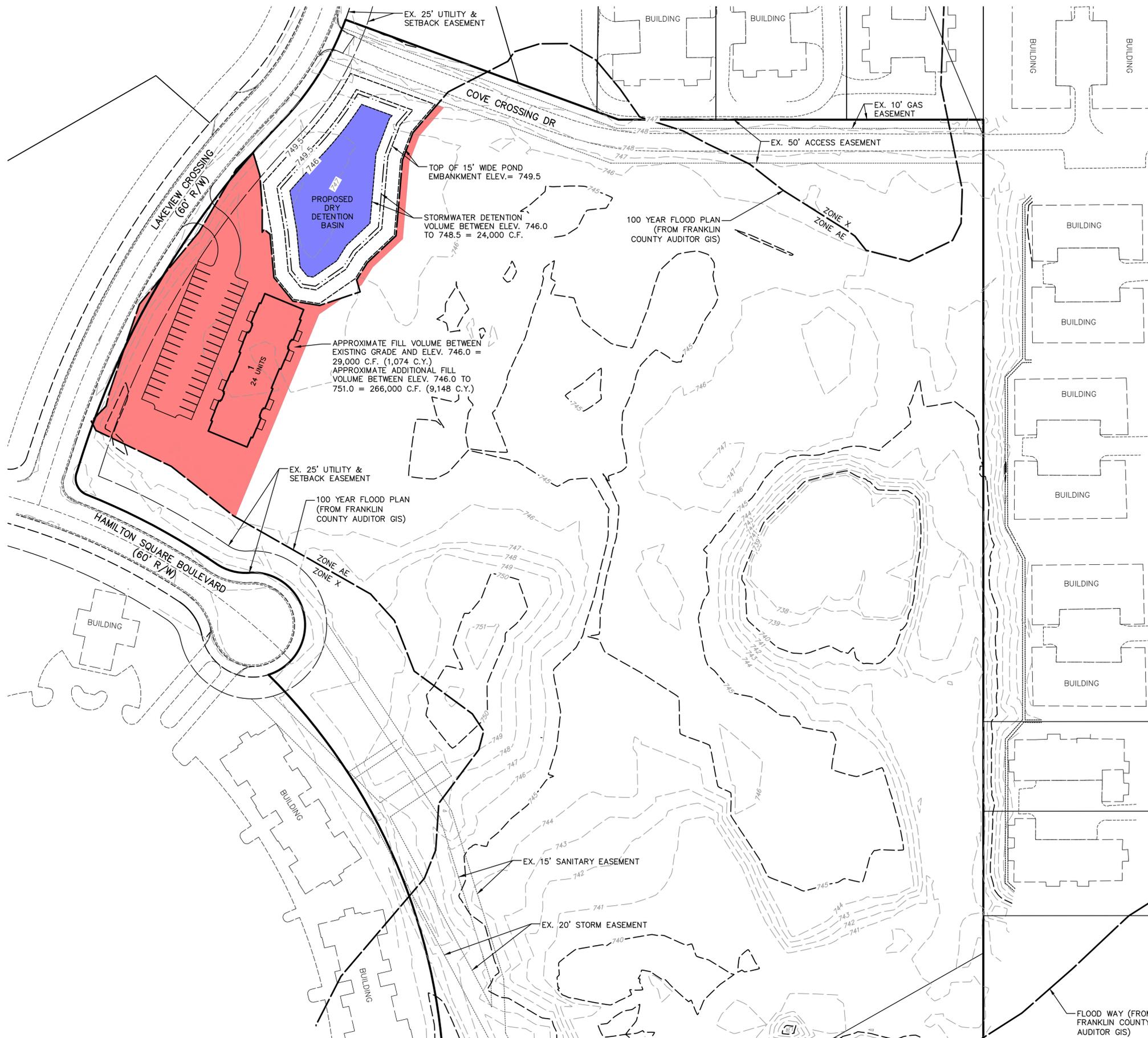
NSS Services Version: 2.1.2

LEGEND

- AREA LOCATED ABOVE BASE FLOOD ELEVATION 746.0 AND USED FOR BMP MEASURES.
- AREA LOCATED BELOW BASE FLOOD ELEVATION 746.0 AND TO BE FILLED. THE EXISTING ELEVATIONS IN THIS AREA ARE BETWEEN 745.0 TO 746.0. THE APPROXIMATE AMOUNT OF FILL NEEDED TO FILL WITHIN THESE PARAMETERS IS 29,000 C.F. (1,074 C.Y.)

NOTES

1. THE LIMITING FACTORS IN DEVELOPING THE SITE ARE:
 - PROVIDING A BMP LOCATION OUTSIDE THE 100-YEAR FLOOD PLAIN
 - PROVIDING BMP STORAGE VOLUME ABOVE THE BASE FLOOD ELEVATION
 - FILLING THE AREA (SHADED IN RED) TO AN ELEVATION THAT PROVIDES ADEQUATE ABILITY TO CONSTRUCT A STORM SEWER SYSTEM CAPABLE OF OUTFALLING INTO THE BMP
2. COMPENSATORY CUT TO COUNTER FILLING WITHIN THE 100-YEAR FLOOD PLAIN (THE AREA SHADED IN RED) IS TO BE PROVIDED IN ON-SITE AREA(S) LOCATED BELOW ELEVATION 746.0
3. AREA SHADED IN RED NEEDS RAISED TO AN AVERAGE ELEVATION OF 751.00



IBI GROUP
 8101 North High Street
 Suite 100
 Columbus OH 43235
 tel 614 818 4900
 fax 614 818 4901
 Contact: Eric Chenevey Ext: 2041
 ibigroup.com

REVISION:

SUBMISSION:

- PRELIMINARY ENGINEERING SET
- AGENCY REVIEW SET
- CONSTRUCTION DOCUMENT SET
- AS-BUILT DOCUMENT SET

STAMP:

COLUMBUS, OHIO
LAKESIDE VILLAGE
 LAKEVIEW CROSSING

DESIGN	DRAFT	CHECK
EPC	LMS	EPC

IBI NO.: 136243

DATE: MARCH 31, 2022

SCALE:

SHEET TITLE:
**TYPE II VARIANCE REQUEST
 "NO IMPACT"
 EXHIBIT**

SHEET NO.: **1/1**

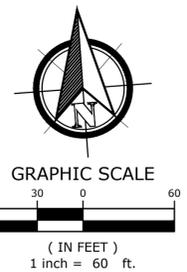
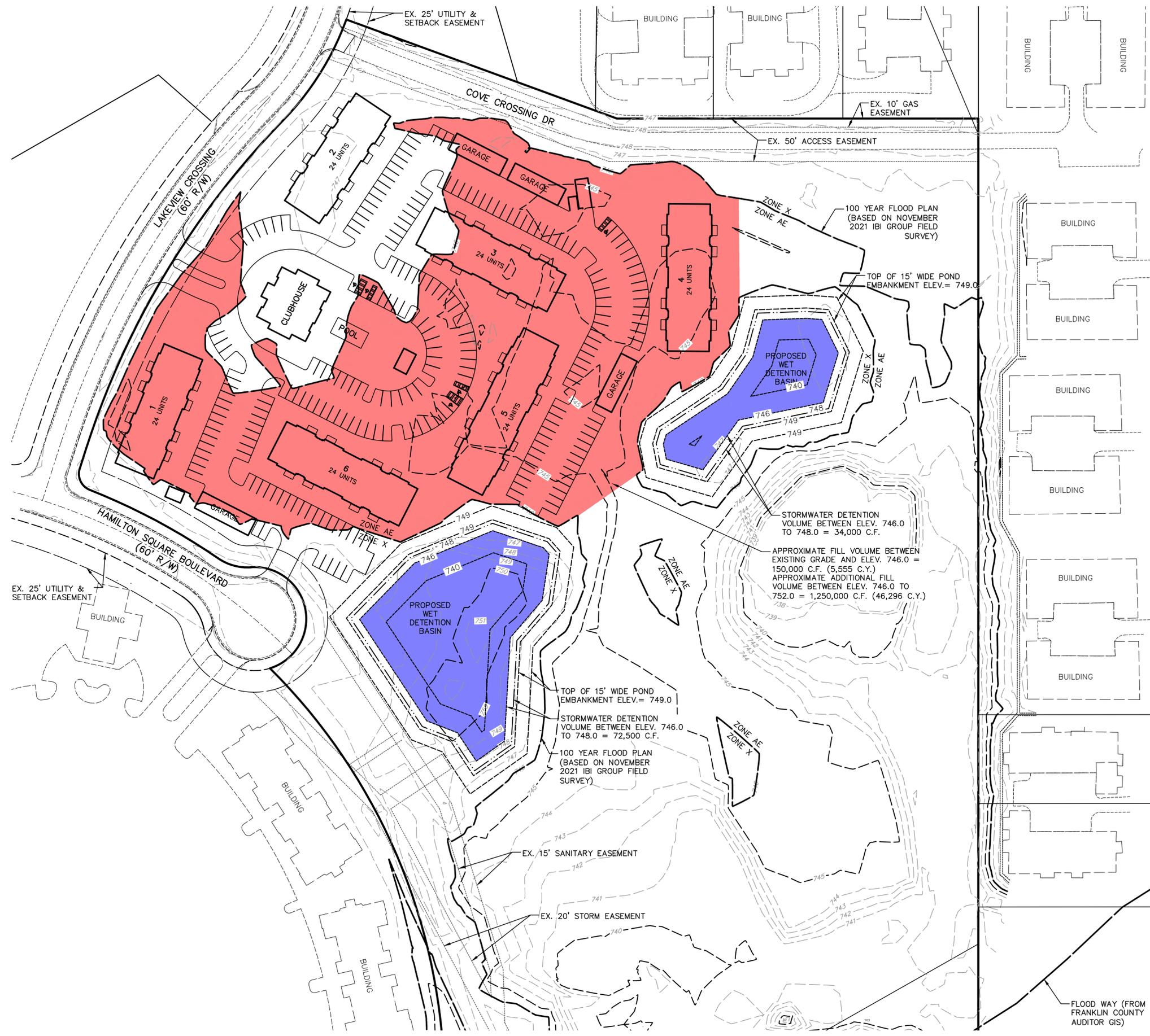
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LEGEND

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- AREA LOCATED BELOW BASE FLOOD ELEVATION 746.0 AND TO BE FILLED. THE EXISTING ELEVATIONS IN THIS AREA ARE BETWEEN 745.0 TO 746.0. THE APPROXIMATE AMOUNT OF FILL NEEDED TO FILL WITHIN THESE PARAMETERS IS 150,000 C.F. (5,555 C.Y.)

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REVISION:

SUBMISSION:

- PRELIMINARY ENGINEERING SET
- AGENCY REVIEW SET
- CONSTRUCTION DOCUMENT SET
- AS-BUILT DOCUMENT SET

STAMP:

COLUMBUS, OHIO
LAKESIDE VILLAGE
 LAKEVIEW CROSSING

DESIGN	DRAFT	CHECK
EPC	LMS	EPC

IBI NO.: 136243

DATE: MARCH 31, 2022

SCALE:

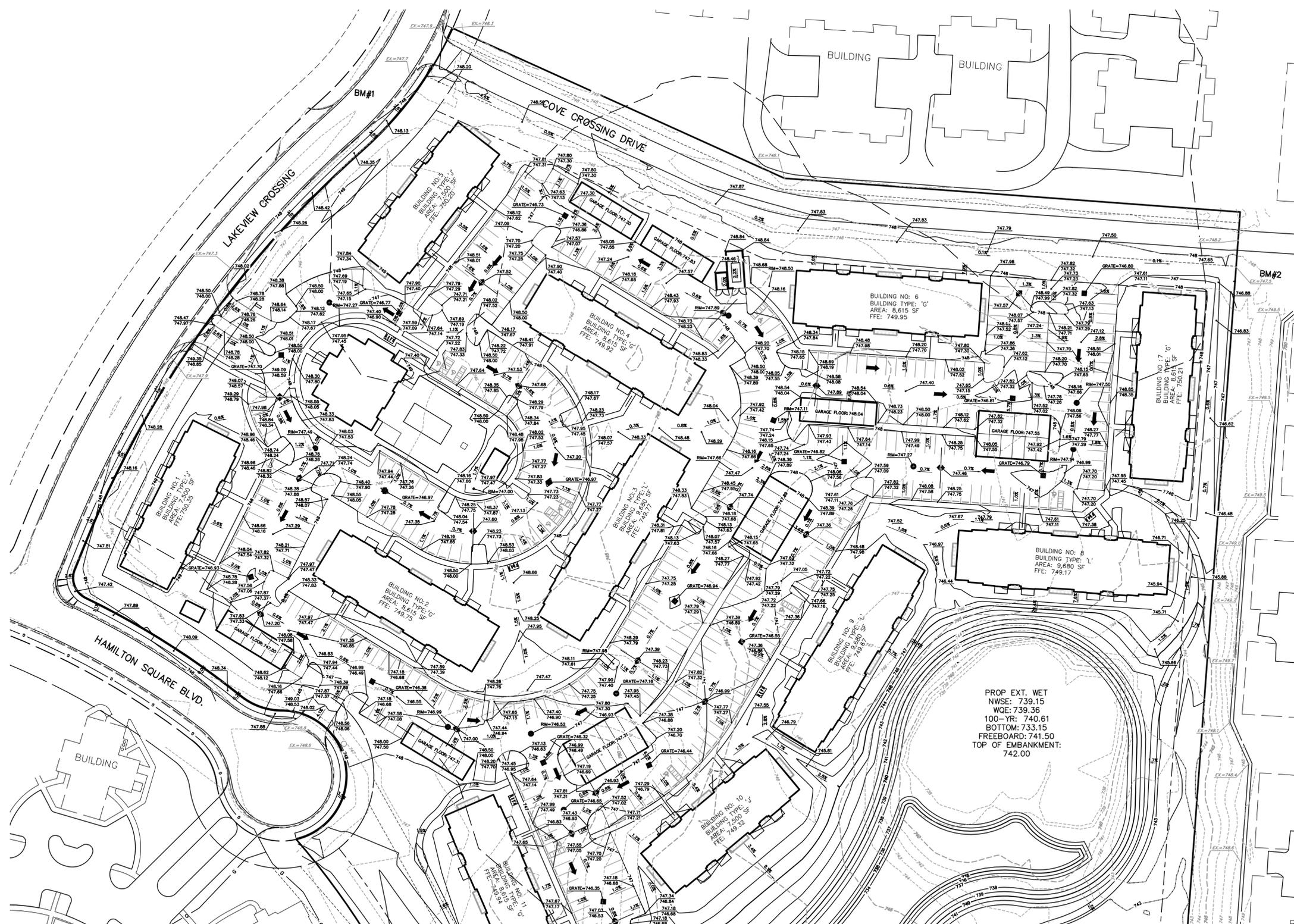
SHEET TITLE:
TYPE II VARIANCE REQUEST
"MINIMAL IMPACT"
EXHIBIT

SHEET NO.: **1/1**

3:\136243_MetroShimRd\7.0_Production\7.03_Design\04_Civil\Sheets\136243_VARIANCE_EXHIBIT_2.dwg Plotted By: Eric Chenevey Date: 04/01/2022 Time: 2:02:56 PM Plotter: DWG To PDF.pc3 PenTable: M-E2006.ctb Scale: 1:1 © IBI Group, Inc.

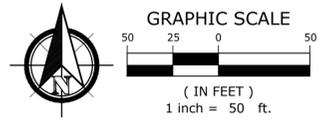
GENERAL GRADING NOTES

1. ALL SPOTS ARE PAVEMENT ELEVATION, UNLESS OTHERWISE NOTED.
2. ADD 0.5' TO PAVEMENT SPOT TO DETERMINE TOP OF CURB ELEVATION.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN ESTABLISHING ALL GRADES AND SLOPES IN PAVEMENT AREAS, RAMPS AND SIDEWALKS IN THE VICINITY OF HANDICAP PARKING. ACCESS AREAS SHALL COMPLY WITH FEDERAL, STATE AND LOCAL CODES. SLOPES NOT TO EXCEED 2% IN ANY DIRECTION.
4. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL AREAS. PAVEMENT SHALL BE TESTED FOR ANY PONDING CONDITIONS FOLLOWING CONSTRUCTION.
5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING AROUND EXISTING UTILITIES. COORDINATE AN RELOCATION WITH RESPECTIVE UTILITY OWNER.
6. PROVIDE JOINT SPACING ON SIDEWALKS PER ITEM 608.
7. SEED AND MULCH NON-PAVEMENT AREAS PER ITEM 659.
8. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
9. ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.



LEGEND

- CENTERLINE
- RIGHT OF WAY LINE
- PROPERTY LINES
- STORM SEWER
- SANITARY SEWER
- WATER LINE
- TELEPHONE LINE
- ELECTRIC LINE
- GAS LINE
- EXISTING CABLE T.V.
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED CONCRETE
- DIRECTION OF SURFACE FLOW
- MAJOR STORM RUNOFF PATH
- EXISTING FENCE LINE
- MAJOR DRAINAGE ARROWS
- TOP OF CURB SPOT ELEVATION
- PAVEMENT SPOT ELEVATION
- EX. SIGN
- EX. LIGHT POLE
- EX. GAS VALVE
- EX. TELE. BOX
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. STORM CATCH BASIN
- EX. SANITARY MANHOLE
- EX. UTILITY POLE
- EX. FLAG POLE
- EX. GROUND MOUNTED LIGHT
- ROOF DRAIN PIPE
- DOWN SPOUT
- IRON PIN FOUND (AS NOTED)



MATCH LINE - SEE SHEET 5

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER	GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE
	VOL.	PAGE			



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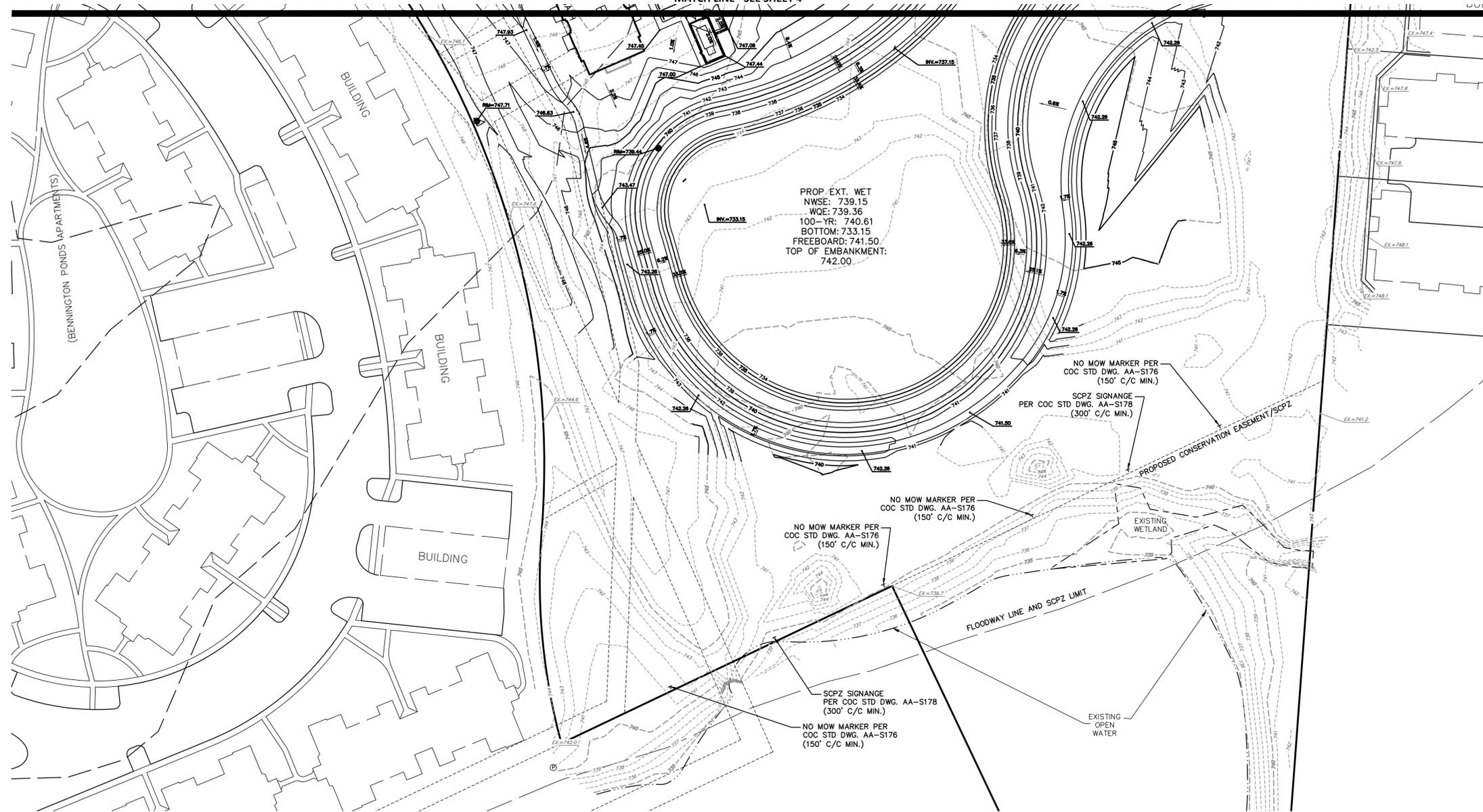
PROJECT TITLE:		PRIVATE STORM SEWER AND STORMWATER FACILITIES FOR LAKESIDE VILLAGE 4100 LAKEVIEW CROSSING COLUMBUS, OH 43125 SITE GRADING PLAN	
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT	COMPLETED		
INDEX	RECORD		
DETAIL	FILE		

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: HORIZ: VERT:	SHEET: 4/24
CONTRACT DRAWING NO. CC-19526	RECORD PLAN NO.

MATCH LINE - SEE SHEET 4

GENERAL GRADING NOTES

1. ALL SPOTS ARE PAVEMENT ELEVATION, UNLESS OTHERWISE NOTED.
2. ADD 0.5' TO PAVEMENT SPOT TO DETERMINE TOP OF CURB ELEVATION.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN ESTABLISHING ALL GRADES AND SLOPES IN PAVEMENT AREAS, RAMPS AND SIDEWALKS IN THE VICINITY OF HANDICAP PARKING. ACCESS AREAS SHALL COMPLY WITH FEDERAL, STATE AND LOCAL CODES. SLOPES NOT TO EXCEED 2% IN ANY DIRECTION.
4. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL AREAS. PAVEMENT SHALL BE TESTED FOR ANY PONDING CONDITIONS FOLLOWING CONSTRUCTION.
5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING AROUND EXISTING UTILITIES. COORDINATE AN RELOCATION WITH RESPECTIVE UTILITY OWNER.
6. PROVIDE JOINT SPACING ON SIDEWALKS PER ITEM 608.
7. SEED AND MULCH NON-PAVEMENT AREAS PER ITEM 659.
8. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
9. ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.



PROP. EXT. WET
 NWSE: 739.15
 WQE: 739.36
 100-YR: 740.61
 BOTTOM: 733.15
 FREEBOARD: 741.50
 TOP OF EMBANKMENT:
 742.00

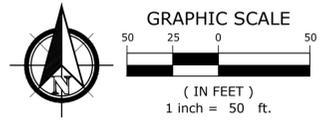
LEGEND

- C — CENTERLINE
- R/W — RIGHT OF WAY LINE
- P — PROPERTY LINES
- STM — STORM SEWER
- S — SANITARY SEWER
- W — WATER LINE
- T — TELEPHONE LINE
- E — ELECTRIC LINE
- G — GAS LINE
- CTV — EXISTING CABLE T.V.
- 903 — EXISTING CONTOUR
- × 27.18 — PROPOSED SPOT ELEVATION
- × 27.18 — EXISTING SPOT ELEVATION
- 903 — PROPOSED CONTOUR
- [] — PROPOSED CONCRETE
- [] — DIRECTION OF SURFACE FLOW
- [] — MAJOR STORM RUNOFF PATH
- X — X — X — EXISTING FENCE LINE
- [] — MAJOR DRAINAGE ARROWS
- × 27.18 / 27.18 — TOP OF CURB SPOT ELEVATION
- × 27.18 / 27.18 — PAVEMENT SPOT ELEVATION
- [] — EX. SIGN
- [] — EX. LIGHT POLE
- [] — EX. GAS VALVE
- [] — EX. TELE. BOX
- [] — EX. WATER VALVE
- [] — EX. FIRE HYDRANT
- [] — EX. STORM CATCH BASIN
- [] — EX. SANITARY MANHOLE
- [] — EX. UTILITY POLE
- [] — EX. FLAG POLE
- [] — EX. GROUND MOUNTED LIGHT
- R.D. — ROOF DRAIN PIPE
- D.S. — DOWN SPOUT
- [] — IRON PIN FOUND (AS NOTED)

SUMMARY OF EARTHWORK WITHIN 100-YEAR FLOODPLAIN

THE BASE FLOOD ELEVATION (BFE) VARIES FROM 745.5 TO 746.3 ACROSS THE SITE (IN AN WEST-EAST DIRECTION). FOR PURPOSES OF THIS ANALYSIS, A BFE = 746.3 IS USED.

VOLUME OF CUT BELOW BFE 746.3	=	66,660 C.Y.
	-	7,460 C.Y. (100-YR STORM POND VOLUME)
SUB-TOTAL		59,200 C.Y.
	-	32,315 C.Y. (VOLUME OF FILL BELOW BFE)
SUB-TOTAL		26,885 C.Y.
	-	19,740 C.Y. (WATER IN POND BETWEEN ELEVATION 733.15 TO 739.15)
TOTAL		7,145 C.Y. EXCESS CUT PROVIDED FOR ADDITIONAL COMPENSATION



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DIVISION USE ONLY	OWNER
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	INSPECTOR
	AGREEMENT COMPLETED
	INDEX RECORD
	DETAIL FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY	
SCALE: HORIZ: VERT:	SHEET: 5/24
CONTRACT DRAWING NO. CC-19526	RECORD PLAN NO.