

May 26, 2022

City of Columbus, Division of Sewerage & Drainage  
Attn: Mr. Greg Fedner, P.E.  
Private Development Section Manager  
910 Dublin Road  
Columbus, Ohio 43215

Subject: Winchester Pike Industrial  
Type II Variance from Stormwater Drainage Manual

Dear Mr. Fedner,

On behalf of Becknell Industrial, Advanced Civil Design, Inc. is applying for a Type II variance from the Columbus Stormwater Drainage Manual (SWDM) for the Winchester Pike Industrial project, (CC-19631), located south of Winchester Pike, Columbus, Ohio 43110.

The project site is partially located within the Federal Emergency Management Agency (FEMA) 100-year floodplain boundary of George's Creek. A Type II variance is requested for approval of placement of stormwater management BMPs within the FEMA floodplain boundary (SWDM Section 3.1).

The following information is provided in support of the application:

-Project Name: Winchester Pike Industrial  
-Address, PID, Site Disturbance  
and Total Site Area:  
Address: 6201 Winchester Pike, Columbus, Ohio 43110  
PID: 010-290001, 010-260326, 010-224901  
Site Disturbance: 37.6 acres  
Total Site Area: 42.299 acres  
-Date Property Acquired: N/A  
-Primary (Owner) Contact: Becknell Industrial  
Attn: Ethan Frisch, Senior Project Engineer  
120 East Burlington Ave  
La Grange, IL 60525  
(708) 571-3366; [efrisch@becknellindustrial.com](mailto:efrisch@becknellindustrial.com)

Additional information pertaining to the requested variance is included in the enclosed application document. Please contact me with any questions you may have at (614) 428-7742, or by email at [jwhitacre@advancedcivildesign.com](mailto:jwhitacre@advancedcivildesign.com).

Sincerely,



James Whitacre, P.E.

**WINCHESTER PIKE INDUSTRIAL  
STORM CC-19631  
WINCHESTER PIKE  
COLUMBUS, OHIO**

**STORMWATER DRAINAGE MANUAL  
TYPE II VARIANCE APPLICATION**

Prepared By:



**ADVANCED**  
C I V I L D E S I G N

ENGINEERS & SURVEYORS  
781 SCIENCE BOULEVARD – SUITE 100  
GAHANNA, OHIO 43230  
Ph: 614-428-7750  
Fax: 614-428-7755

Date:

**May 26, 2022**

## **INTRODUCTION**

The following report provides information pertaining to a requested variance from the City of Columbus Stormwater Drainage Manual for the Winchester Pike Industrial development project (CC-19631).

The project is the development of a 42.229 acre site that will construct a new industrial warehouse building with associated loading docks, sidewalks, parking lots and access drives. The site boundary is encroached by a 100-year FEMA Floodway boundary and a 100-year FEMA floodplain boundary from Georges Creek on the northern portion of the site. The entire site drains to the north to Georges Creek.

To facilitate construction of the project, a stormwater BMP must be constructed on the northern end of the project. The current proposal involves constructing an extended wet retention basin on the northern end of the site, with a portion of the basin within the FEMA 100-year floodplain boundary. The buildable site area is encumbered by the floodway and 100-year floodplain boundary, limiting the amount of open area available for a stormwater basin. Mitigation of the floodplain encroachment by the wet basin is addressed by providing excess floodplain compensatory storage which provides more floodplain storage than what currently exists. The project also provides economic development for the City by creating significant new jobs within the City of Columbus. Without this stormwater variance the project is not viable for a cross-docked warehouse building which is in demand in the Columbus market.

As such, the applicant is seeking a Type II variance to Section 3.1(2) of the City of Columbus SWDM and allow a stormwater BMP to be constructed within the 100-year floodplain boundary.

## **TYPE II VARIANCE REQUEST**

### **SITE CONDITIONS**

The site is generally low lying with a large portion of the site in the FEMA floodway and floodplain. In order to develop this site, the majority of the site needs to be raised to provide adequate elevation above the 100-year flood elevation of Georges Creek. There is an existing 150' electric transmission easement that bisects the site and a gas pipeline easement along the southern boundary of the site. These two easements dictate how the building orientation for the site must be laid out. The natural location for the stormwater basin is north of the electric transmission line. The overall site will require dirt to be imported due to the low lying elevations. It is imperative to the site that the stormwater basin be as close to the floodway as possible and to be sized large enough that there is not a large amount of vertical storage in the basin that would cause the site to need to be raised more than is already required. No areas within the Floodway are proposed to be encroached or disturbed except to provide a stormwater outlet and provide compensatory flood storage.

Georges Creek will have a Stream Corridor Protection Zone. 12.2 square miles of drainage flows to the creek at the site. The SCPZ width calculation provided a SCPZ of 380 feet, however the maximum is 250 feet. The existing floodway width is a minimum of 450 feet through the site so it was determined that the floodway will be the Stream Corridor Protection Zone limits which follows common elevations on each side of the creek.

### **PROPOSED STORMWATER BMP'S**

The developer proposes to construct an extended wet retention basin on the northern end of the site to provide post-construction stormwater quantity and quality control to meet the requirements of the City of Columbus Stormwater Manual. A dry bio-swale is also located along the western portion of the site. This swale's primary purpose is for water quality and any additional quantity that is provided in the bio-swale is

not needed for the site quantity controls so it is permitted in the floodplain. A portion of the northern wet basin is within the 100-year floodplain and requires this variance application. In addition to providing the required quality and quantity controls for the site the basin also provides the needed dirt to raise the site and make it developable. Parking lot ponding is also utilized in the loading docks of the building. Additional details regarding the proposed stormwater basin are provided in CC-19631.

### **IMPACTS TO STORMWATER DETENTION AND WATER QUALITY**

The proposed stormwater management design as proposed, will provide stormwater quantity and quality control benefits for the project in alignment with the requirements of the Stormwater Manual. The stormwater management basin has been designed to be protected from floodwaters of Georges Creek. The basin top of bank will be constructed to separate the stormwater detention area from the adjacent floodplain. The top of bank elevation and high-water elevation will be constructed above the FEMA 100-year flood elevation, minimizing any impact of flood events on the basin installation. The project will provide the required compensatory storage to offset the floodplain fill. 19,691 cubic yards of floodplain fill is proposed for the project and 20,299 cubic yards of floodplain/floodway cut volume is proposed for the project. See Appendix E for floodplain cut/fill exhibit. Additionally, the wet basin provides floodplain storage between the normal pool and the 100-year flood elevation of the creek which is elevation 755.3. There is 27,088 cubic yards of floodplain storage elevation within the wet basin. While this is not permitted to count towards the floodplain fill compensatory storage the volume is provided in the basin regardless and is not used for storm water quantity control so it does allow additional volume for the flood volume to expand into. With the additional compensatory floodplain storage this project increases the flood capacity of Georges Creek in this area. No degradation of water quantity or quality control benefits are expected with this project as designed.

It also should be noted that the property Owner is in conversations with Parks and Recreation about dedicating the Stream Corridor Protection Zone as parkland. Since the City of Columbus owns ground north of Winchester Pike on both sides of Georges Creek, Parks and Recreation staff are excited about potentially expanding the parkland farther south along the Georges Creek waterway.

Alternate stormwater management options were considered however the cost implications do not make any of the alternatives a viable option. Rooftop detention would increase the project cost to the point where the project is not viable. The weight of water on the roof would require significant steel upgrades. Rising steel costs are already making projects such as this one struggle to keep construction costs inline with current rental rates to the point where any additional steel costs make the project uncompetitive. End users also do not want rooftop detention and in some cases their insurance providers will not insure a building with it. There could be tens of millions of dollars' worth of products or materials stored in this building so rooftop detention is not a viable option. Underground detention was also considered but because the storage volume must start at the creek's 100-year elevation and the pavement is on top of the underground storage it would raise the site 3-4 feet in elevation which would result in a 3.5-to-4-million-dollar cost of dirt import. This again makes the site unviable. Infiltration was also considered but soils in this area are not conducive to infiltration and infiltration takes a large surface area. Any type of infiltration would require a larger basin than what is currently proposed.

After careful consideration of all stormwater options it was determined that the current configuration of the stormwater basin is the only option that meets and exceeds City of Columbus stormwater quantity and quality requirements while still keeping the project viable and competitive with other developments nearby that are not in the City of Columbus.

## **STATEMENT OF HARDSHIP**

The total site area is 42.299 acres of that 17.366 (41 percent) acres is encumbered by either floodway or floodplain. Additionally, 4.50 acres is encumbered by the electric transmission easement and 2.03 acres are encumbered by the gas transmission easement. With essentially half of the site encumbered floodplain, floodway and easements this becomes a very challenging site to develop. Bringing the site up above the flood elevations and dealing with wet soils puts additional hardship on the project. With these development challenges it is imperative to the project that the Developer is able to maximize the warehouse building size in order to support the large development costs. A 500,000 square foot building is what end users require in this market and it is essential that the project be able to support that size building to be able to compete with nearby competitors, many of which are not in the City of Columbus. See Appendix D for a financial analyses and explanation from the Developer that provides additional detail on why the preferred option is the only viable option for this site to be developed as warehouse employment center.

## **SITE DEVELOPMENT ALTERNATIVES**

### **FULL COMPLIANCE**

Under full compliance the proposed wet basin would need relocated entirely out of the influence of the 100-year floodplain boundary. Under this option, the northern loading docks and drive isles would all have to shift south to make room for the basin. This would put the basin covering the width of the AEP easement which would not be permitted by AEP. The building would need to shrink by 34% and the building depth (the dimension in the north-south direction) would drop to 310 feet which is not a viable depth for a cross-docked building. Cross dock meaning there is a loading dock on each side. End users in this market require a loading dock on both sides of the building. One side is for incoming product the other side is for outgoing product. The first bay on each dock side (called the speed bay) needs to be 60 feet wide this only leaves 190 feet for product and racking on a 310-foot-deep building. These dimensions do not work for racking requirements and general operations of a warehouse building. With the large reduction in building size and building dimensions that do not work for end users this option makes the project no longer viable. Refer to the non-impact exhibit in Appendix A for reference and also Appendix D for financial analysis from the Developer.

### **MINIMAL IMPACT**

For minimal impact, the proposed wet basin was reconfigured to avoid a portion of the floodplain however a portion is still within the floodplain. Because of the geometry of the site the minimal impact options are limited and like full compliance this option still greatly reduces the building size to the point where the building would no longer be marketable. For the minimal amount of floodplain that is not impacted it has a huge economic impact on the site and for the same reasons listed in the Full Compliance option the project would not be viable with this minimal impact option. Refer to the exhibit in the Appendix B for reference.

### **PREFERRED DEVELOPMENT ALTERNATIVE**

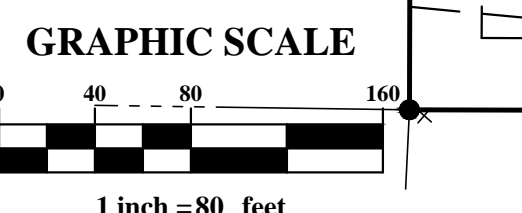
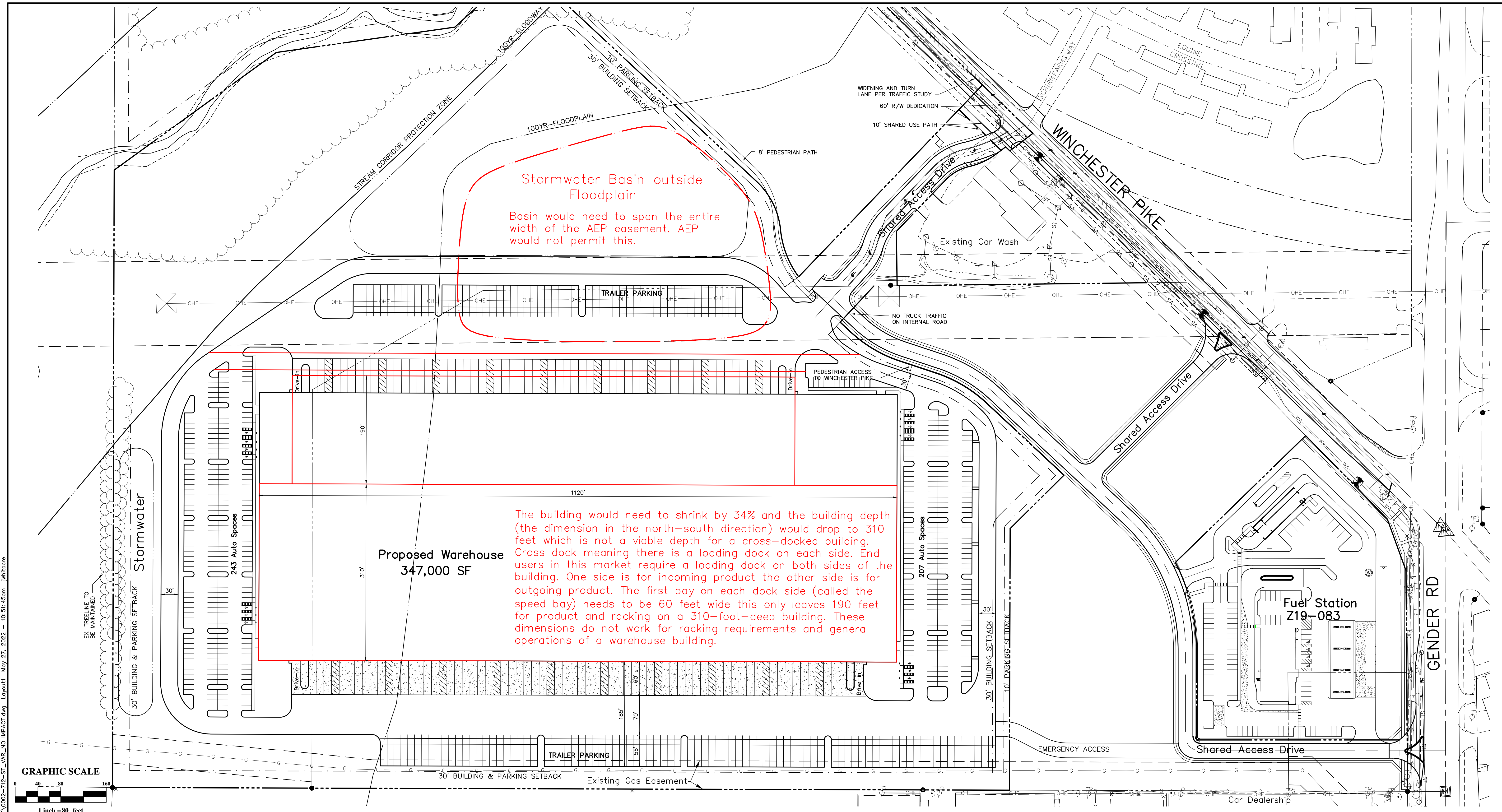
The preferred alternative is to maintain the current proposal as depicted in Appendix C and within the CC-19631 plans that are currently under review. While a portion of the basin is within the 100-year floodplain, majority is not. It should be noted that 39,000 square feet of area within the basin and the FEMA floodplain has existing elevations above the 100-year level and could be removed from the floodplain with a simple Letter of Map Amendment (LOMA). With the additional floodplain volume provided with compensatory storage placing the proposed basin within the floodplain increases the overall flood volume available. Also, between this project and the apartment development to the north there will be a minimum of 450-foot-wide Stream Corridor Protection Zone dedicated providing a much larger zone that would normally be required and as previously mentioned this area most likely will be dedicated parkland for the City of Columbus.

## **CONCLUSIONS**

The Applicant is seeking approval of the Preferred Development Alternative as a Type II variance for the Winchester Pike Industrial project. The variance would allow a portion of the required stormwater BMPs in the FEMA mapped 100-year floodplain of Georges Creek. Three alternatives have been provided to address the matter, as required by the Manual for a Type II variance application. All three options require floodplain fill which is permitted without a variance, the only reason a variance is required is because the stormwater basin is part of the floodplain fill. On a site like this that requires floodplain fill in order to develop, it only makes sense that the basin would be in the floodplain since parts of the site upstream from the basin are being developed and are also in the floodplain and everything needs to flow to the basin. The Preferred Development Alternative will allow the site to be used in the best and most efficient manner. This is an economic development project that will bring new jobs into the City of Columbus. Neighboring municipalities are offering large incentive for projects like this that make it challenging for a Developer to provide a competitive project within the City of Columbus. In order to provide the best and most competitive project on this site, this variance would need to be approved in order for this job creating development to proceed. Under the non-impact and minimal impact scenarios, the project does not provide desirable building dimensions that are marketable to potential end users and is not a viable project. The Applicant considers the Preferred Development Alternative option as the only viable option for this project to move forward, and respectfully requests City approval of this variance request.

**APPENDIX A**  
**NON-IMPACT OPTION**

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

PLAN PREPARED BY:



**ADVANCED CIVIL DESIGN**  
 ENGINEERS SURVEYORS

781 Science Boulevard, Suite 100  
 Gahanna, Ohio 43230  
 ph 614.428.7750  
 fax 614.428.7755

# APPENDIX A NON-IMPACT OPTION

PROJECT TITLE: PRIVATE STORM SEWER AND STORMWATER FACILITIES FOR BECKNELL INDUSTRIAL

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT	COMPLETED		
RPD	CKD	CID	CON.DR.
INDEX DETAIL	RECORD FILE		

**CITY OF COLUMBUS, OHIO**  
 DEPARTMENT OF PUBLIC UTILITIES  
 DIVISION OF SEWERAGE AND DRAINAGE

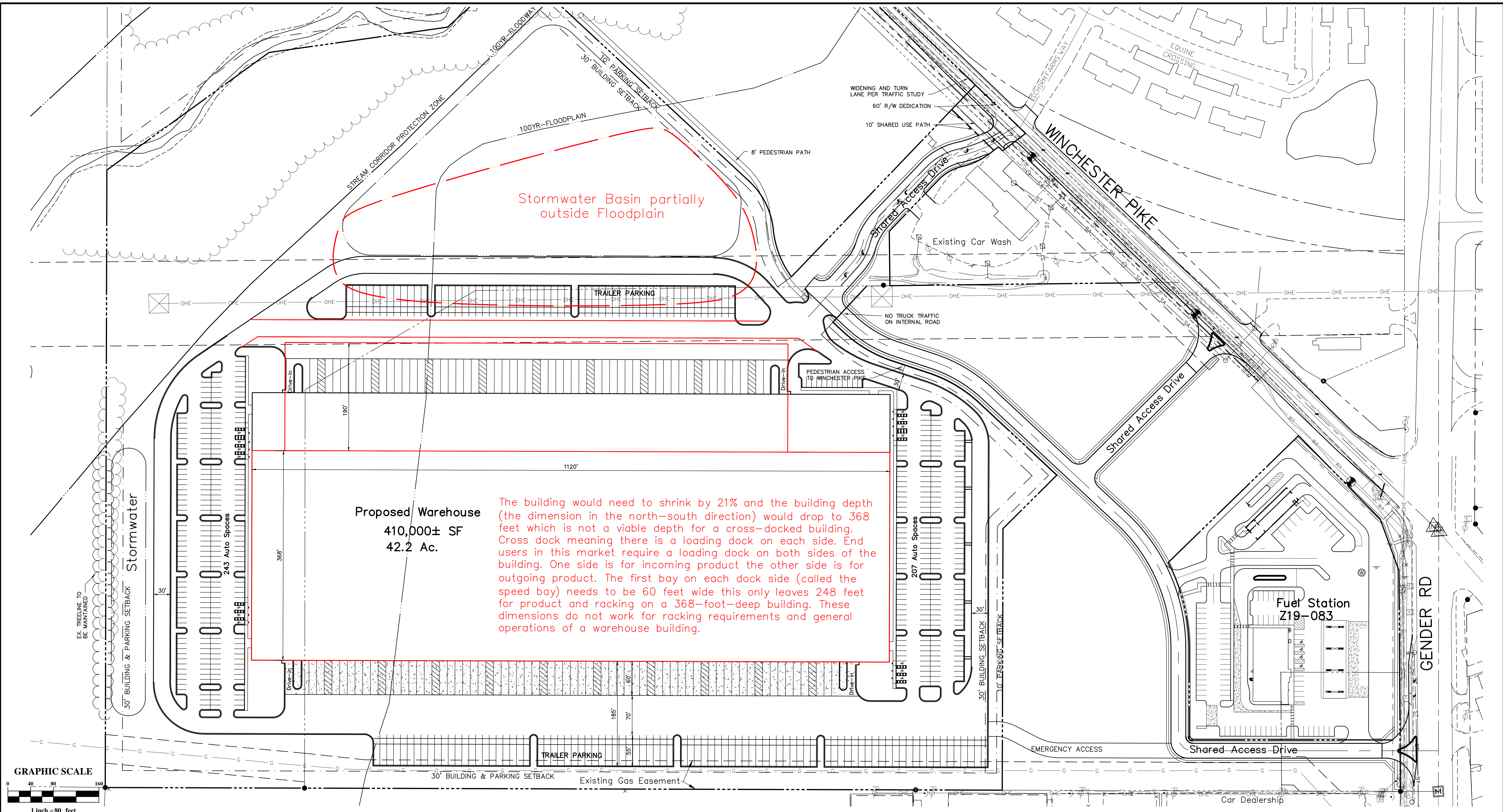
DIVISION USE ONLY

SCALE: 1" = 80'	SHEET 1 / 1
CONTRACT DRAWING NO. CC-19631	RECORD PLAN NO.

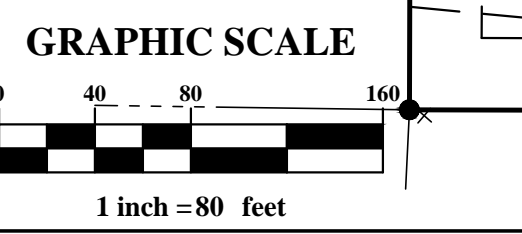


**APPENDIX B**  
**MINIMAL IMPACT OPTION**

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The building would need to shrink by 21% and the building depth (the dimension in the north-south direction) would drop to 368 feet which is not a viable depth for a cross-docked building. Cross dock meaning there is a loading dock on each side. End users in this market require a loading dock on both sides of the building. One side is for incoming product the other side is for outgoing product. The first bay on each dock side (called the speed bay) needs to be 60 feet wide this only leaves 248 feet for product and racking on a 368-foot-deep building. These dimensions do not work for racking requirements and general operations of a warehouse building.



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

PLAN PREPARED BY:

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# APPENDIX B MINIMAL IMPACT OPTION

PROJECT TITLE: PRIVATE STORM SEWER AND STORMWATER FACILITIES FOR BECKNELL INDUSTRIAL

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
AGREEMENT	COMPLETED		
RPD	CKD	CID	CON.DR.
INDEX DETAIL		RECORD FILE	

**CITY OF COLUMBUS, OHIO  
DIVISION OF PUBLIC UTILITIES  
DIVISION OF SEWERAGE AND DRAINAGE**

DIVISION USE ONLY

SCALE: 1" = 80'	SHEET 1 / 1
CONTRACT DRAWING NO. CC-19631	RECORD PLAN NO.

**APPENDIX C**  
**PREFERRED IMPACT OPTION**



**APPENDIX D**  
**DEVELOPER FINANCIAL ANALYSIS AND**  
**HARDSHIP LETTER**

## 6201 WINCHESTER PIKE

### Storm Water Variance Request

Becknell Industrial, LLC is pursuing the opportunity located at 6201 Winchester Pike to meet market demands in the competitive greater Columbus Market. Becknell, having previously developed properties in the Greater Columbus market, is familiar with market fundamentals such as, pricing, rents and Tenant demand. The current schematic plan, which shows a 526,400-sf cross-docked Class A warehouse, affords Becknell the opportunity to make a significant investment in the greater Columbus Market and meet the market demand for logistic client's needs, with competitive rents. In the event Becknell is forced to construct either the plan on Appendix A or B it would both reduce Becknell's potential investment, significantly reduce the projects marketability and significantly hinder the project's economics which could make the project infeasible.

#### Becknell's Potential Investment

Becknell's preferred schematic plan is shown on Appendix C - Preferred Option. This plan shows a 526,400-sf cross-docked warehouse. Referring to only vertical shell costs, Becknell will be investing approximately \$40,412,817.

Appendix A – Non-Impact Option shows a reduced building footprint of 347,200-sf, therefore the investment would shrink to \$28,023,233.

Appendix B – Minimal-Impact Option, shows a reduced building footprint of 410,000-sf, therefore the investment would shrink to \$32,111,650.

	Appendix C - Preferred Option	Appendix A - Non-Impact Option	Appendix B - Minimal-Impact Option
SF	526,400	347,200	410,000
Total Investment*	\$40,412,817	\$28,023,233	\$32,111,650
Delta from Pre		\$12,389,584	\$8,301,167

\*Note total investment shows only estimated Vertical Shell costs and excludes all soft costs, financing costs, commissions and land purchase price.

#### Marketability

Appendix C – Preferred Option is designed and sized to meet mid-size logistic company's requirements and can be leased in its entirety or demised for a two-tenant occupancy. The building will have cross-dock capabilities which is a must for prospective tenants. Being a cross docked facility, the building depth is critical to the overall design of the facility for product flow internally to the facility. Appendix C – Preferred Option shows the building depth to be 470 feet deep (dimension in the north/south orientation of the site) which is optimal for a cross dock facility. Appendix A - Non-Impact Option shows the building depth to be 310 feet deep and Appendix B – Minimal-Impact Option shows the building depth to be 369 feet deep. Both Appendix A and B do not meet Tenant Demand and would sonically hinder any Tenant from leasing the development and will likely mean the facility could not be cross-dock.

Therefore, in analyzing this site for meeting market demands, it was clear that we had to design a facility that was of maximum depth to allow for cross-docked facilities. Other design components for the site and the facility are the fact that the logistic industry and most likely user of this facility will require adequate trailer staging facilities and

car parking for employees. All these factors resulted in the optimizing the overall facility design and doing so in a manner that will provide for competitive rents in the market.

**Economics**

As a result of the increased demand for industrial space in the Greater Columbus Market, land prices have climbed to historic highs in 2022. When buildable square footage decreases on a fixed amount of acreage, the economics of a project are significantly altered. See below which shows how the Land Price psf is increased as the building footprint is lowered.

	Appendix C - Preferred Option	Appendix A - Non-Impact Option	Appendix B - Minimal-Impact Option
SF	526,400	347,200	410,000
Land Purchase Price	\$6,098,700	\$6,098,700	\$6,098,700
Land Purchase Price PSF	\$11.59	\$17.57	\$14.87

In addition, when going to a smaller building footprint, there is still a fixed amount of sitework, permitting and financing costs. The same concept as the above will increase costs on a pas basis, and the project would be disadvantaged to the market from an overall economic standpoint.

It is therefore imperative a property and facility of this nature maximize the potential for meeting market rents and one component of accomplishing that is to utilize the real estate as best possible. With this site, there is a fair amount of “unusable” land that will not allow for development, therefore the balance of real estate that this usable, must be maximized to meet market rents and make up for the lands lost as usable.

Considering smaller buildings on this property would have created the following issues for meeting market demands:

1. Smaller building (depth wise) would not allow for cross-docked facility and provide the desired lease space for tenants that will pay the market rents.
2. Smaller building would not have maximized the Unusable area on the site and would have caused additional burden of the un-developed real estate to further burden meeting the market rent demands. More unused developable real estate on a property must be allocated toward the rents, so maximum use of the developable real estate is imperative.
3. User anticipated for a facility of this nature often require the most docks per square foot, which is best accomplished with maximizing the docks access points to the building. Moving product in and out of these facilities is critical to that user bottom line, so the length (east/west dimension of the building on the site) is crucial as well to maximize the number of docks available to the tenants.

Considering the above noted factors, it was imperative that this site had to meet certain Per Square Foot values. Combining the land purchase price, site improvements, using just the developable envelope of the site, combined with the other construction costs necessitated the building as currently sized. Again, smaller facilities on this site would not have resulted in a product type that would have meet market demands for this growing market and would have also stressed the rents for the facility to the point that lease up of the facility would have been difficult if not impossible.

The project and facility size, as submitted, has been financially modeled and tested in capital markets as a viable product type that will provide the necessary rents and returns in order for this facility to be leased in a timely manner and at competitive rates. Any other option, we would need to reconsider the viability.

**APPENDIX E**  
**FLOODPLAIN FILL AND COMPENSATORY**  
**STORAGE EXHIBIT**



