

Perry Street, LLC

# Battelle South Development Project Type II & III Variance Request

W. 5th Avenue, Columbus, OH 43201

# E.P. Ferris & Associates, Inc.

Attn. Sean W. Gillilan, P.E., LEED AP (614) 299-2999 sgillilan@epferris.com





CONSULTING CIVIL ENGINEERS AND SURVEYORS

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June 30, 2017

City of Columbus John Newsome, P.E. Administrator, DOSD Attn: Greg Fedner, P.E., Private Development Section Manager Stormwater and Regulatory Management Section 910 Dublin Road Columbus, Ohio 43215

# Re: Type II & III Variance Request Battelle South Property

Project Name: Battelle South Development Project Property Address: W. Fifth Avenue, Columbus, Ohio 43201 PID: See Exhibit A (numerous parcels included) Primary Contact: E.P. Ferris & Associates, Inc. Attn: Sean W. Gillilan, P.E., LEED AP (614) 299-2999 Email: sgillilan@epferris.com

Dear Mr. Fedner,

On behalf of Perry Street, LLC, E.P. Ferris and Associates, Inc. is seeking Type II and III variances from the City of Columbus Stormwater Drainage Manual Sections 3.2 and 1.3.3.

The majority of the subject site is located directly adjacent to the Olentangy River. According to Section 3.2, there is an exemption from meeting stormwater quantity control requirements if the site meets the three standards: 1. Within 1,000 feet of the top of bank; 2. The runoff discharges through a private storm water system owned and maintained by the property owner; 3. Only property owned by the property owner of the project site, discharges directly to the private stormwater sewer system. We are seeking a Type II variance that will allow the site, as a master plan, to discharge through consolidated storm outfalls while creating multiple parcels and creating an active public park along the river frontage. There is a portion of the project, fronting on Fifth Ave east of Perry Street that is not included in the Type II variance request. This portion of the site is approximately 1.5 acre and will meet all stormwater manual requirements. It is our intention however to provide storage for this 1.5 acre parcel on the main site.

The project is situated along a stream corridor protection zone of the Olentangy River. According to section 1.3.3, certain facilities/activities within the Stream Corridor Protection Zone (SCPZ) are prohibited. Within the manual's prohibited listing are facilities such as buildings/structures and parking lots and activities including industry/commercial business, filling, and excavation. The intent of Storm Water Manual is to keep the SCPZ in as natural state as possible so that it can perform its inherent function of erosion protection, flood storage, and water quality protection. The Battelle South project is also seeking a Type III variance from the Stream Corridor Protection Zone requirements.

The existing conditions encroach into the SCPZ with buildings and pavement from parking lots and driveways. In the proposed condition, we will have similar encroachments with buildings and pavement within the SCPZ, however will be able to dedicate considerable additional acreage to the overall SCPZ along the bank, in a perpetual easement. Our site plan will attempt to use the existing encroachments as the limits for proposed encroachments.

Please find enclosed our request for the variances briefly mentioned above prepared according to the Guidance Document for Applying for a Variance from the Stormwater Drainage Manual.

Very truly yours, E. P. FERRIS & ASSOCIATES, INC.

Sean W. Gillilan, P.E., LEED AP Associate, Senior Project Manager

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# **Introduction**

The developer, Perry Street LLC, has a vision to create a master planned, mixed use, urban community which is comprised of a hotel, retail spaces, restaurants, an office building, a grocer, multi-family buildings, single family condominiums, a public parking garage, and small surface parking lots. In addition, this urban community will create and preserve more than seven acres of public parkland and recreational space in the form of an expanded green corridor along the Olentangy Recreation Trail. This space is being preserved not only for the community to share, but to contribute to environmental benefits of the Olentangy River. Creating this type of project in an urban area is highly desirable in order to create a community that is balanced between live/work/play ideals.

To make the project economically viable, all uses have to be in balance in terms of programming and density. In addition to the project being balanced as a whole, each individual component must be right-sized to ensure economic viability within their respective space of the overall development. Many of the components are designed in a manner to ensure maximum allowable use for each program component and community amenities, such as the aggressive desire to dedicate parkland to the community.

This application serves as a formal request for Type II and III Storm Water Variances from Sections 3.2 and 1.3.3 of the City of Columbus Stormwater Drainage Manual. These variances are being sought in order to redevelop the project site and to permit its unique development goals while maximizing space for an active public park. The variance requests made are reasonable deviations from the storm water manual that support the highest and best use of the land within a highly urbanized area of the city. The project team believes that these variances are adequately mitigated though a good faith effort to provide balance between the environment and the urban space surrounding the Olentangy River.

The proposed project property is located near the Ohio State University in the Harrison West community (Figure 1). It contains approximately 20 acres of functional, underutilized land bounded by the Olentangy River, West Fifth Avenue, Perry Street, and West Third Avenue. An additional 1.5 acre area of the project's property is directly east of its main section and is bounded by Perry Street, West Fifth Avenue, an alley west of Michigan Avenue, and an alley north of Vermont Place. Parcels of land within the property have been owned by Battelle since the 1980's, whose main campus buildings sit directly north of this site (see existing parcels in Appendix A). Battelle has used the property between West Fifth and West Third to host its Battelle Discovery day care center, 10 acres of parking lots, and a warehouse building.

The 1.5 acre parcel mentioned above is not a part of this variance and the project intends to

provide 100% quantity controls for this parcel. This parcel is part of the master storm water plan for the project. We intend on addressing quantity controls for this project on the larger piece of property due to space constraints for the 1.5 acre piece. The 1.5 acre parcel will drain to combined sanitary sewers. Section 3.3.1.1 of the storm water manual exempts parcels draining into a combined sewer system from providing water quality treatment.

# Section 1 – Reason Variances are Requested

# *Type II – Storm Water Quantity Controls:*

Section 3.2 of the Stormwater Drainage Manual (2012 Edition) includes an exemption from meeting stormwater quantity control requirements if the following criteria is met: A. The site (or portion thereof) is located within 1,000 feet of the top of bank of the Olentangy River (or Scioto); B. Runoff from the site drains through a private storm sewer owned by that property owner; C. Only property owned by the owner of the property on which the developed or redeveloped Site (or Project) is located discharges directly to the private stormwater sewer system. The first two criteria are met by the project for an exemption, however the third criteria point is difficult to achieve for the Battelle South redevelopment project.



Figure 1: Battelle South site location.

As conceptual plans were developed for this site, the Battelle South team found that one of the project's objectives is dividing the total acreage into multiple parcels (Figure 2). This division allows separate types of development to be owned by individual users. However, this method of parcel organization presents an issue that conflicts with Section 3.2 of the City of Columbus Stormwater Drainage Manual and will require a Type II variance. The issue is specifically with Section 3.2's third provision within its exemption for meeting stormwater quantity control requirements. This provision requires that each separate parcel has to drain through a separate

private storm sewer to meet the exemption requirements. Constructing the site in this manner would require that we add multiple discharge points to the river. Each property would essentially have a separate storm sewer system with separate piping to the river to apply for the exemption.

The project team did not find it reasonable, cost effective, or environmentally responsible for each separate property to have a separate discharge outlet into the river. We found that from a site planning standpoint, this would create flag parcels or a number of easements through the proposed park, making it effectively a smaller and less desirable dedication of land area to the community.



Figure 2: Parcel distribution concept (designated park areas shown in green).

Multiple storm sewer networks will create a congested utility layout, create redundant systems costs, and make general utility coordination costly. The alternative to multiple storm sewer systems is providing central detention for the development. Since space is at a premium on the site, adding a storage system to the site is difficult to complete, unless the project utilizes the open space in the park. The development team felt that the better value of land use would be to construct open park space rather than a water storage feature or retention pond on an urban park parcel. An appropriate facility will consume 1-2 acres of parkland to provide the required

detention for the project. This parkland consumption would result in less park area for programming and public amenity as a result of installing a storm water management quantity control system.

It is our understanding that hydrologically the City created the exemption with the intent to allow runoff from properties directly adjacent to a fourth order stream (Olentangy or Scioto) to release at an earlier timeframe ahead of the fourth order stream reaching flood stage. This allows flows from sites adjacent to the river to carry runoff volume further downriver before river flooding occurs. The intent of this approach is to hydraulically assist the watershed in managing runoff as a larger whole. Installing a detention system directly adjacent to the river would seem to counteract the intent of this policy. By providing detention on the site, the opportunity to get runoff into the river sooner is lost. It is the development team's desire to have a system that does not detain runoff from the site and one that directly releases runoff into the river sooner than the upstream watershed. The intent of the exemption in conjunction with the site constraints and the development goal of providing the maximum amount of active public space possible, a common stormwater control facility is not feasible without detracting from meaningful open space and parkland dedication.

As seen in figure 3, flagged lots would cut through and interrupt park areas while essentially disrupting the project's environmental planning. These flagged parcels through the park would be disruptive to the stream corridor and would break-up the parkland use into segmented pieces. The separation of storm systems would also introduce significantly higher costs than a shared system. The Battelle South team prefers to avoid this hardship and follow a combined outfall pipe system.

Not including the CSO and the 109" storm outfall, there are currently 4 documented private CC outfalls shown discharging into the Olentangy River from the subject site. To meet the exemption, the site would add approximately 5-6 additional private outlets. Our proposed solution would maintain the 4 documented private outfall locations and could potentially consolidate the number of outfalls to reduce the overall quantity of private outfalls.

There is a portion of the redevelopment plan, 1.5 Acre in size, which fronts on Fifth Ave., just east of Perry Street, which is within 1,000 feet of the top of bank of the Olentangy River. This parcel is not part of this variance request for quantity controls. This site is planned for single family condominium units. This 1.5 Ac. portion of the project is not conducive to providing stormwater quantity controls onsite, so we are proposing that we include the required storage volume within a detention system within one of the larger parcels west of Perry Street and south of Fifth Ave. We propose to provide 100% of the required storage for the 1.5 Ac portion of the redevelopment area since it is bisected by the public right of way and cannot be drained by a

private storm sewer system directly to the Olentangy River. We are proposing that the 1.5 Ac. portion drain un-detained into the public storm sewer system, while making up for the undetained storage volume on-site of the larger development.



Figure 3: Flagged parcel splitting under full compliance with stormwater drainage manual.

We would like to further clarify that this variance would apply only to quantity controls. It is the intent of the development team to abide by water quality requirements set forth by the Ohio EPA and the City of Columbus. At this time the appropriate water quality practices have not been selected, but the project is considering green alternative practices. These include bio-retention, pervious/permeable pavements, rain gardens, infiltration swales, sand filters, and vegetative filter strips. The majority of the project is already developed space. Those developed areas will only require 20% treatment of runoff according to the Ohio EPA requirements. Any green areas that are existing will require 100% treatment.

The existing development is approximately 12.3 acres of impervious area in total for the project area. The proposed development is approximately 12.1 acres of impervious area for the entire project, including the 1.5 acre parcel east of Perry. The project is proposing a slight reduction in impervious area to the watershed. This reduction will result in no net volume runoff increase for the 100 year storm from the existing condition. Most urban redevelopment projects result in a

net increase in impervious area, despite providing storm water quantity controls on the property. It should be noted that if a pond is added to the site, it will increase the impervious area on the water surface. Green roofs and bio-retention may note for a reduction in an overall curve number, but green roofs and bio retention usually do not reduce the overall volume of runoff significantly from a site. These practices may result in cleaner runoff at a slower flow rate, but not necessarily a substantial reduction in volume of discharge to the river. The requirement of releasing the 100 year storm at the 10 year pre-developed rate results in storage required for the project if the exemption is not allowed.

In an effort to avoid hardships to the site's environmental and recreational planning and the development team's intent for the site, a Type II variance will allow each individually owned parcel to share a private stormwater system. The entire development will be subject to various private cross access agreements, private sewer easements, private water line easements and private maintenance and landscaping easements which will run with the properties in perpetuity. The private sewer easement will establish rights for all parcels within the redevelopment area to enjoy the benefits of the common storm sewer outlets to the Olentangy River. By providing a common private sewer for the various parcels to share, we are able to design the outlets to the river, utilizing existing pipe alignments and reducing the number of outlets that currently exists. This will preserve the existing river bank, reduce opportunities for bank erosion and assist in preserving the natural integrity of the river bank.

# Type III – Stream Corridor Protection Zone:

A Type III variance is being sought in order to establish the project's desired development footprint that incorporates new parking lot sections and a building corner within the SCPZ. According to Section 1.3.3 of the Stormwater Manual, the construction activities required preparing these facilities and the facilities themselves are prohibited. The existing site already includes the same encroachments into the SCPZ. The existing site includes several buildings in addition to surface parking facilities for the existing Battelle facility. A portion of these existing improvements are located within the established SCPZ. It should be noted that these facilities were all constructed prior to the Stream Corridor Protection Zone policy.

The preferred development plan will not exceed these current encroachments, but does propose similar improvements into the SCPZ. The disturbances to construct the proposed improvements will coincide with current encroachments. Redevelopment of these areas will cause no net negative impacts to the stream corridor that do not already exist today nor will it impact an existing trees. With the significant amount of proposed parkland to be dedicated for public use, the site is able to drastically increase the overall acreage to the SCPZ. Some of this parkland

area can be placed into an easement for a greater SCPZ at a 1:1 ratio for on-site mitigation, if necessary.

The Battelle South site is in a unique situation because it currently contains areas already encroaching into the Olentangy River's SCPZ. These existing encroachment areas account for approximately 20,600 square feet of existing encroachment.

Section 1.3.3 of the stormwater drainage manual provides a list of prohibited facilities and activities within the SCPZ. These include buildings/structures, parking lots, and excavation, which are all required aspects of the Battelle South project. In order to reasonably use this property and properly prepare the site to support development, the Battelle South team is requesting this variance to ensure a layout that is market friendly and one that provides maximum parkland dedication benefit to the general public and the project.



Figure 4: Battelle South's current SCPZ encroachments prior to redevelopment.

The primary location of the proposed encroachment lies within the limits of the proposed hotel portion of the project. The ideal location for the hotel to be successful is directly adjacent to an arterial street like Fifth Avenue. Without the encroachment, the hotel would need to reduce the number of parking spaces or would need to be relocated to another portion of the site. This rearrangement would reposition other uses planned along Fifth Avenue. Eventually the continual displacement results in an urban redevelopment project without proper land use balances along the Fifth Avenue frontage. Ultimately these rearrangements will affect meaningful parkland dedication and the balance of the development as a planned community with mixed uses.

### Section 2 – Site Development Alternatives

#### **Type II Non-Stream Protection Variance**

#### No Impact/Degradation Development Alternative Fully Complying with SWDM:

Full compliance with the storm water drainage manual Section 3.2 results in a flagged parcel situation as depicted in Figure 3. This arrangement will accommodate individual parcel storm sewer systems to meet the exemption requirements of the storm water manual. There would be a net increase in the number of outlet locations along the river, negatively impacting the corridor and being difficult to manage. This plan would be significantly more expensive than the project's preferred alternative and introducing these additional outlets into the river would not benefit its ecological condition. Parkland planning along the western side of the site would also be interrupted, resulting in decreased dedicated recreational space.



Alternatively, a common storage system would be required for master detention. This system would be

Figure 5: Existing 109" storm sewer outlet into Olentangy River.

limited due to the layout and density of the project. This would be either an underground vault system that is high in cost or consumption of parkland intended to be dedicated to provide this necessary storage. Typically underground systems are \$15-\$18 per cubic foot of required storage. Traditional open air retention ponds or similar systems are \$3-\$6 per cubic foot of storage, not including land acquisition costs. With the entire project requiring roughly 60,000 cubic feet of storage, proposing detention creates a significant cost burden for the project over direct release to the stream due to the project land area proximity to the Olentangy.

The intent of the exemption is to create a positive hydraulic condition for the stream. Without the exemption the opportunity of releasing runoff from this development earlier than the later flood stages could result in an undesirable impact to the stream from a flood control standpoint. It is our understanding that a detained system adjacent to a fourth order stream is not an ideal situation for the stream hydraulically. It is our recommendation that this site should be treated as one ownership, despite the property division lines of the project.

As stated prior, this variance does not apply to the 1.5 acre parcel east of Perry Street. We would still provide quantity controls for the 1.5 acre portion of the project since the flagged parcels would not be inclusive of this parcel. Approximately 8,600 cubic feet of storage would be provided for this parcel within the project limits.

# Minimal Impact/Degradation Development Alternative Plan:

The minimal impact plan for the Battelle South project involves a combination of detention onsite and consolidated storm outfalls to the river. We would propose a small quantity underground stormwater detention will be provided for the entire project adjacent to the common discharge points into the Olentangy River. The total storage required for the project, including the 1.5 acre parcel is roughly 60,000 cubic feet of volume if an exemption was not applicable for the site. The park portion of the development is excluded from this volume due to the ability to sheet drain directly into the river and not through a private system.

We would propose 13,000 cubic feet of total volume storage for the entire project area, including the 1.5 acre parcel. As discussed above, the 1.5 acre parcel accounts for 8,600 cubic feet of storage. We would locate an underground storage facility in available space that is not occupied by a structure. This would likely be located within a portion of the park in order to not affect footprints of proposed buildings and maintain a cost-effective design or within the limits of a surface parking lot. The 7+/- acre park dedication would be reduced slightly for the footprint of an underground chamber-type storage system.

Under the minimal impact alternative plan, dedicated parkland and recreational space can be minimally impacted, which will contribute to greater ecological improvements in this area. As discussed previously, we plan to treat the required runoff pursuant to Ohio EPA and City of Columbus requirements. Common storm system easements would be in place with associated maintenance agreements for the maintenance of the system after completion of construction.

# Preferred Development Plan:

Although all parcels are within 1,000 feet of the river's top of bank, the development team would request a variance from Section 3.2's specific stormwater quantity control exemption requirements in order to avoid individual storm systems and flagged property sections. We would propose consolidated outfalls to the river with no required detention for the property. The only detention provided would be for the 1.5 acre portion east of Perry Street. The remaining site would fall within the exemption for quantity controls.

The preferred development plan will maximize the amount of space prepared for parkland dedication and still treat the required amount of runoff for water quality pursuant to Ohio EPA and City of Columbus requirements. It will also minimize negative impacts accompanying multiple private storm systems and underground storage in the restrictive northeast parcel of the property. This plan will allow the runoff to release into the river without any quantity controls. The intent of the exemption would be met by getting the runoff into the river sooner than the upstream tributary areas. Our team believe that the intent of the exemption is being met by the proposal and that a good faith effort was made during site planning to accommodate the best interests of the stream.

# **Type III Stream Protection Variance**

# No Impact/Degradation Development Alternative Fully Complying with SWDM:

Full compliance with Section 1.3.3 of the stormwater drainage manual would involve not developing western portions of the site that already include paved sections and a building corner within the SCPZ (Figure 6) and returning them to their natural state. These areas covering approximately 20,000 square feet are highlighted in Figure 4 and the Battelle South development team would be denied reasonable use of this land if it were not permitted to remove these features. If the site plan had to be adjusted to return this already paved area to its natural state, the impacts are negative on the highest and best use of the development. It would reduce the hotel improvement or impact other uses scheduled in the program for the project. Likely the shift would result in a less meaningful parkland dedication.



Figure 6: Existing SCPZ Encroachment

Alternatively the redevelopment would not occur for the property and it will remain paved with current encroachments. The project is going to provide a positive net benefit to the SCPZ by default.

#### Minimal Impact/Degradation Development Alternative Plan:

Our proposed minimal impact alternative would involve not increasing the net area encroachment of pavement or buildings in the SCPZ area. Instead we would offer a reduction of the area along with mitigation of 1:1 for any areas that remain in the SCPZ. Further we would establish any vegetation in the mitigation area as well as creating a SCPZ easement for future conservation of the mitigation area. Since the existing encroachment area is essentially replaced, the added vegetation and SCPZ easement would be a net positive benefit to the stream corridor.

This alternative would meet the variance manual requirements for the 1:1 mitigation of disturbed area on-site. This alternative would provide a balance between the intent of the SCPZ regulation and urban redevelopment programming needs for reasonable re-use of the land.

# **Preferred Development Plan:**



Figure 7: Conceptual drawing of Battelle South's preferred alternative plan.

If the Battelle South project's Type III variance is granted and its preferred alternative is allowed, the development team will be able to design and construct the site as depicted in Figure 7. Parks, recreational spaces, apartments, homes, and commercial properties will be built according the team's ideal plan without restrictions from excavating and building within the SCPZ.

The site will then be prepared according to the project's preferred plan that will include up to 10,500 square feet of net encroachment into the SCPZ; just over half of the existing 21,000 SF violation in the existing condition state. Encroachments will include approximately 1,500 square feet of a building corner and 9,000 square feet of new parking lots (Figure 8).

Under the preferred development plan, up to seven acres of parkland would be provided for the community to share along the western side of the site. This would exceed the 1:1 requirement for mitigation by default of the master plan for the site.

The site violation areas remaining would be a net reduction in the current areas encroaching into the stream corridor protection area. This layout alternative allows the project to move forward with the highest and best use of land areas maintained without impacts to the proposed park area dedication. The difference in this option is that we do not propose any This will allow easements for mitigation. Parks and Recreation or whoever is deemed the future operator of the park the ability to the park without easement program encroachment - i.e. playground equipment, restroom facilities, etc. We recommend leaving the future park the flexibility of adding these improvements should they be deemed necessary in the future.



Figure 8: Proposed SCPZ encroachments.

#### Section 3 – Demonstration of Adequate Mitigation

#### Impact to SCPZ:

As previously discussed, the preferred alternative plan for this project will involve prohibited facilities and activities within the SCPZ. The amount of new encroachment associated with the project's preferred plan will not exceed the existing encroachments within the SCPZ.

Planned encroachments within the Olentangy River's SCPZ will incorporate approximately 1,500 square feet of a proposed building corner and 9,000 square feet of proposed parking lots for a total of up to 10,500 square feet in areas. Remaining area from current encroachments will be developed into greenspace and parkland, which does not present any further violation within the SCPZ. Since an equal amount of encroachment is not proposed and parks would make up the difference from existing areas in violation, SCPZ mitigation on site will exceed the stormwater drainage manual's required 1:1 ratio by default. The site's proposed park areas can be seen in Figure 2, which will ensure that this on site ratio of mitigation is exceeded.

# Section 4 – Executive Summary

The Battelle South project will offer numerous positive impacts to the Harrison West community and its preferred site plan can potentially provide a project that will be an excellent land redevelopment opportunity for the neighborhood and the river corridor. By granting the Type II and III variances requested, the development team will be allowed to create a shared private storm sewer outlet to the river, share in the spirit of the 1000' stormwater exemption, provide the required water quality treatment for the redevelopment, and work within the Olentangy River's SCPZ to decrease current encroachments. These variances will provide an opportunity to reasonably develop this land without facing encumbrances to the project's recreational planning or financial capabilities. They will also allow for the desired development of up to seven acres in parks and 20 acres of mixed use properties that the Battelle South team hopes will enhance all surrounding communities.

The project is being developed by one common development group under a cohesive master plan. The variance would allow an exception to the third criteria of storm sewer ownership requirements. This case being unique in that a common development team with diverse uses are planning on creating a meaningful, cohesive, environmentally friendly project that will benefit the community. The only difference from a single developer building everything is that separate entities will construct, own, and operate various parts of the overall program.

The project is also being very considerate of the stream corridor protection zone by offering a massive public park. Other development schemes may have proposed buildings over the entire property, leaving the SCPZ alone, but not provided meaningful open space for the development and the community. While this scheme still occupies a small portion of the stream corridor protection zone already occupied by existing improvements, the net positive is greater than a 1:1 mitigation required by the storm water manual variance guidance.

Appendix A – Exhibits/Figures





CITY OF COLUMBUS, OHIO BATTELLE SOUTH DEVELOPMENT PROJECT

SITE







Location Map Not To Scale



CITY OF COLUMBUS, OHIO BATTELLE SOUTH DEVELOPMENT PROJECT



