Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

December 19, 2012

RE: PORTAGE COUNTY
BRIMFIELD TWP.
CONSTRUCTION STORM WATER
DISTRIBUTION FACILITY WAREHOUSE

Mike Larson and Ed Gebauer
InSite Real Estate, LLC
1400 16th St., Suite 300
Oak Brook, IL 60523-8854

Richard Warren
Exxcel Construction Management LLC
2 Miranova Place, Suite 250
Columbus, OH 43215

Darren Houfek
NC Contracting Services LLC
5840 Sterling Dr., Suite 410
Howell, MI 48843

Dear Mr. Gebauer, Mr. Larson, Mr Warren and Mr. Houfek:

Ohio EPA is in receipt of the revised storm water pollution prevention plan (SWP3) dated December 13, 2012, for the Distribution Facility Warehouse project located at 212 Progress Blvd in Brimfield Twp. These plans were received via e-mail on December 17, 2012. The revised SWP3 was submitted in response to Ohio EPA comments provided via e-mail on December 12, 2012. In addition, Ohio EPA conducted site inspections on December 10 and 17, 2012, to review implementation of sediment and erosion controls. During the December 17, 2012, inspection, we were accompanied by William Daniel and Richard Warren of Exxcel Project Management, Darren Houfek of NC Contracting and Eric Long of Portage SWCD. Our records indicate that storm water discharges from this construction project are authorized under the Ohio EPA General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities #3GC05848*AG.

After review of the revised SWP3 and site inspection, Ohio EPA offers the following comments:

East and West Basin Lining Plan

- Upon discussion within Ohio EPA, with Insite and their consultants, Ohio EPA has determined that it will be acceptable to place the first lift of the recompacted soil liner directly on the bedrock provided that any large fractures or openings are packed with the liner material prior to placement of the first lift. This opinion supersedes the directive from Jeff Rizzo described to InSite Real Estate in an email from me dated December 12, 2012 and identified as Comment 1 of Ohio EPA DDAGW Interoffice Memo dated December 10, 2012.

- Narrative describing the construction specifications for the basin liner and agreed upon certification test/protocol must be added to the SWP3.

East Basin

- Please review the detail drawing for the skimmer associated with the temporary settling pond outlet on Sheet 5/5 titled *Site Erosion Control Notes & Details and Miscellaneous Details*. The detail drawing indicates the skimmer is to be attached to the orifice at elevation 1130.50. Please note that attaching the skimmer at the 1130.50 elevation will not provide you with the required sediment storage volume. However, if attached to the outlet at elevation 1132.00 as the skimmer appears to be in the field, the basin does provide the required sediment storage volume and dewatering volume to meet NPDES permit requirements. As such, please amend the detail drawing for the East Basin skimmer and temporary pond outlet to reflect attachment of the skimmer at the 1132.00 elevation and amend associated notations as needed.

- Include a note on the detail drawings to indicate the lower orifice at 1130.50 must be temporarily blocked to prevent discharge through this orifice until the contributing drainage area to the East Basin has been restabilized. Our inspection on December 10, 2012, revealed the lower orifice at elevation 1130.50 is leaking and our inspection on December 17, 2012, revealed that this repair has not yet occurred. Exxcel indicated that this repair would be made yet this week.

- The revised post-construction design of the East Basin will meet the minimum requirements of the NPDES permit. However, please be aware that conversion of the outlet structure to the post-construction configuration should not occur until the entire contributing drainage area to the East Basin has been restabilized. To meet this condition, vegetation must reach a 70% or greater growth density, which is not expected to occur until Spring 2013.

- Please delineate the extent of the clay liner to be placed within the East Basin on Sheet 4/5 titled *Site Grading and Storm Water Pollution Prevention Plan* or attach a separate drawing providing such indication to the SWP3.

West Basin

- Please review the detail drawing for the skimmer associated with the temporary settling pond outlet on Sheet 5/5 titled *Site Erosion Control Notes & Details and Miscellaneous Details*. As was noted for the East Basin, similar changes to the detail drawing for the temporary sediment control skimmer and pond outlet are needed to comply with NPDES permit requirements. This includes installing the temporary skimmer on the orifice at elevation 1133.92 and a note to cap the WQv (lower) orifice until the drainage area to the West Basin has been restabilized (**NOTE:** The lower orifice is currently capped and the cap appears to be functioning as intended).

- The revised post-construction design of the West Basin will meet the minimum requirements of the NPDES permit. However, please be aware that conversion of the outlet structure to the post-construction configuration should not occur until the entire contributing drainage area has been restabilized. To meet this condition, vegetation must reach a 70% or greater growth density, which is not expected to occur until Spring 2013.
- Please delineate the extent of the clay liner to be placed within the West Basin on Sheet 4/5 titled *Site Grading and Storm Water Pollution Prevention Plan* or attach a separate drawing providing such indication to the SWP3.

- During our inspection on December 10, 2012, we noted that the temporary skimmer had become disconnected from the basin outlet structure. We noted during our inspection on December 17, 2012, that it had been reconnected. However, we recommended stone be placed under the skimmer head to prevent it from becoming stuck to the bottom of the basin.

Southwest Basin

- The basin is currently configured to act as a sediment basin and appears to be functioning as intended to meet NPDES requirements. The skimmer should remain in place until the contributing drainage area to the basin has been restabilized. To meet this condition, vegetation must reach a 70% or greater growth density, which is not expected to occur until Spring 2013.

Progress Boulevard Basin

- The revised temporary basin design does not provide the required dewatering volume for sediment basins. The detail drawing for the temporary skimmer outlet indicates that the maximum dewatering volume provided is between elevation 1121.00 and 1123.00. Stage storage data for the Progress Boulevard Basin indicates that the volume of water stored between these elevations is only 3,859 cubic feet. The required dewatering volume is 67 cubic yards per acre of total contributing drainage area. If the total contributing drainage area is 2.19 acres, the required dewatering volume = 2.19 x 67 x 27 = 3,962 cubic feet. The design can be corrected by lowering the elevation at which the skimmer is attached. This will require a temporary modification to the permanent outlet structure. The skimmer can be lowered to elevation 1120.55 and still provide the required sediment storage volume. Attaching the skimmer at elevation 1120.55 would then increase the maximum dewatering volume available to 4,434 cubic feet, which would then allow the basin to meet NPDES requirements for sediment basins. **NOTE:** The skimmer is being attached to the permanent basin outlet structure rather than a temporary riser as shown in the SWP3. The permanent basin outlet structure detail indicates there is a window at elevation 1122.50. This window will need to be partially blocked to provide the required dewatering volume. If the skimmer is attached at elevation 1120.55, the required dewatering volume is stored at elevation 1122.80. Thus, the window would need to be temporarily blocked up to at least that elevation.

- The revised post-construction design of the Progress Boulevard Basin meets the minimum requirements of the NPDES permit. However, please be aware that conversion of the outlet structure to the post-construction configuration should not occur until the entire contributing drainage area has been restabilized. To meet this condition, vegetation must reach a 70% or greater growth density, which is not expected to occur until Spring 2013.

- The Progress Boulevard Basin discharges to Wetland I. Part III.G.2.f of the NPDES permit requires concentrated storm water runoff from best management practices to natural wetlands be converted to diffuse flow before the runoff enters the wetlands. To comply with the NPDES permit, a level spreader should be provided downslope of the basin outlet to diffuse the discharge into Wetland I. Please amend the SWP3 to provide a level spreader or other such practice to diffuse the discharge of the Progress Boulevard Basin before it discharges into Wetland I.

Edge Drive Basin (formerly known as Crystal Parkway Basin)

- The temporary outlet structure of the Edge Drive Basin meets NPDES requirements for sediment basins. The basin provides the minimum sediment storage volume,

dewatering volume and a skimmer is being provided to meet the minimum drain time for the dewatering volume. However, the NPDES permit requires the minimum length-to-width ratio between inlet and outlet to be 2:1 with 4:1 recommended. The proposed configuration **will not meet this requirement**. To achieve compliance with this requirement, you will need to add a baffle to lengthen the flow path between inlet and outlet. Please revise the SWP3 accordingly.

- Please note that the contractor has already installed the 4-inch diameter Water Quality Outlet per the prior plan. The revised Edge Drive Basin plan calls for the controlling invert of the pipe to be placed at elevation 1111.33. The contractor will need to adjust the pipe to meet the revised design. Further, please note that this outlet should not be functional until the contributing drainage area to the basin has been restabilized. As such, it must be capped to prevent discharge until that time. The drainage area is not considered to be restabilized until vegetation reaches a 70% or greater growth density, which is not expected to occur until Spring 2013.

- A rock-lined channel is recommended to convey runoff from the diversion along the south side of the soil stockpile into the Edge Drive basin. The rock-lined channel is recommended to prevent erosion of the basin embankment.

- Post-construction, with the adjustment of the WQv orifice to 1111.33, the basin will have a permanent wet pool akin to a wet extended detention basin. It will not function as a dry extended detention basin. As such, the post-construction review that follows uses the wet extended detention basin design requirements.

- Reviewing the Edge Drive Basin as a wet extended detention basin, the permanent basin design meets NPDES permit requirements for extended detention of the WQv. However, ***Rainwater and Land Development***, *Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection* (ODNR, 2006) indicates that the minimum length-to-width ratio between inlet and the WQv outlet should be at least 3:1. The proposed basin design **will not meet** this recommendation. Ohio EPA recommends that either the permanent outlet be relocated such that a 3:1 length-to-width ratio is achieved or a permanent baffle be provided to increase the length-to-width ratio.

Other Site Inspection Observations

- We noted that storm drain inlet protection has been rebuilt to the specification in the SWP3 and there have been attempts to repair perimeter silt fence. However, please note that compaction of the backfill around storm drain inlet protection and silt fence was not adequate in some areas. NC Contracting indicated that they would address this issue by better compacting deficient areas.

- Outlet protection under drainage pipes is generally inadequate to control erosion particularly where drainage pipes discharge into storm water management basins. Please review the enclosed specification for outlet protection from ***Rainwater and Land Development*** and ensure consistency with this specification.

- With the exception of Lot 2 and the soil stockpile area, the entire site has been seeded, hydromulched and/or matted. However, as previously noted throughout this letter, vegetation has not established to a growth density of 70% or greater over much of the site. Areas where only seed and/or hydromulch were used should be mulched with straw before the onset of winter weather to ensure cover over the winter season. Lot 2

and any remaining disturbed areas will need to be (a) dormant seeded **or** (b) temporarily stabilized with straw mulch before the onset of winter weather and then permanently stabilized in Spring 2013.

- We noted that runoff is ponding in an unintended area on the west side of the site. This issue was discussed at length with Exxcel and NC Contracting and they indicated an intention to place additional fill and regrade the area to drain toward the West Basin. Please provide concurrence with this plan of action.

To expedite corrective action, the comments in this letter were discussed with InSite Real Estate and their consultants via conference call on December 19, 2012. Please amend the SWP3 as needed to address these concerns and submit the revisions for review. Ohio EPA will provide concurrence that the SWP3 meets the minimum requirements of the NPDES permit once revisions have been made to address our comments. In the meantime, as discussed during our conference call, construction of the basin liners can commence. Ohio EPA has requested that InSite Real Estate provide us with notice when construction of the liner begins so that we may conduct a site inspection during its installation.

If you have any questions, please contact me at (330) 963-1145.

Sincerely,

Dan Bogoevski

Dan Bogoevski
District Engineer
Division of Surface Water

DB/cs

Cc: Jim Hampton, Project Superintendent, Exxcel Project Management
Joseph Mosyjowski, Mosyjowski & Associates
Eric Long, Portage SWCD
Chip Porter, Portage County Health Department
Lloyd Groves, Portage County Health Department
Trustees, Brimfield Twp.

Ecc: Jeff Rizzo, Ohio EPA, DDGW, NEDO
John Hujar, Ohio EPA, DMWM, NEDO
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