



APEX ENGINEERING INCORPORATED

27 WEST MARKET STREET
(302) 994-1900

NEWPORT, DE 19804
(302) 994-9099 FAX

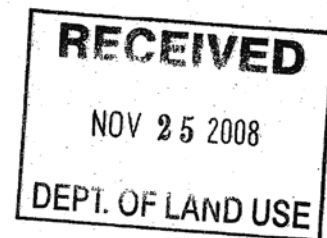
www.apexengineeringinc.com

November 25, 2008

Apex Project #07205.000

Antoni Sekowski
New Castle County
Department of Land Use
87 Reads Way
New Castle, DE 19720

**RE: Barley Mill Plaza – Application #2008-0275-S
Revised Exploratory Plan**



Dear Antoni:

Please find enclosed copies of the revised exploratory sketch plan for the above referenced project. Thank you for taking the time to meet with us to discuss the plan. Comments from your most recent exploratory plan report have been addressed as follows.

Planning

- 1) The residential outdoor area requirement of Section 40.03.318C of the UDC will be met by means of a combination of balconies, outdoor park areas of approximately 27,000 sq. ft. and the paved pedestrian precinct of 40,000 sq. ft. which will provide no more than 40% of the required area. A note has been added to the plan quantifying these elements.
- 2) The exploratory plan has been submitted to the TAC agencies. Included with this submission is a certification of plan distribution.
- 3) Site capacity calculations previously submitted excluded the acreage of the S zoned parcel for purposes of determining maximum gross floor area. The plan has now been revised to eliminate the S zoned parcel.
- 4) At the current time, the plan no longer proposes the cinema; however, consistent with our discussion, if the UDC is revised to permit such use on the property the Applicant may revisit the issue.
- 5) The Department is correct, the Applicant no longer intends to use the density bonus permitted by Section 40.08.130B.6.g. of the UDC.
- 6) The RBA encroachments have been eliminated. The play area associated with the daycare has also been moved outside of the RBA. A note has been added which states that the RBA Boundary in the northern portion of the site along the existing watercourse has been shown in accordance with microfilm number 7040.
- 7) Streams limits are shown on the plan. Due to the topography of the site and wetland delineations, it is admittedly difficult to determine exactly where the banks are located.

Consistent with our discussions at our recent meeting, we have labeled the top of bank as well as the centerline of the stream. We have made the delineation for the centerline of the stream bolder than previously shown and removed it altogether from the wetland ditches to clarify the distinction.

- 8) The plan does not propose wetlands disturbance. The wetland area within the stormwater management facility in the rear of the property behind the Dorjul Apartments is not proposed to be disturbed, rather, the existing parking area in the vicinity of the facility will be removed so as to expand the storage volume available to provide additional detention for flood events. The proposed excavation would all be above the existing wetland area within the basin. We have revised the plan to show the basin outside of the LOD. The swm area boundary still encompasses the existing basin, as it will function to provide stormwater management, but the limit of disturbance no longer includes the existing basin.
- 9) We are working with the Department of Special Services to address their comments. To that end proposed sanitary lines have been added to the plan.
- 10) Concerning the proposed percentage of improvement as required by Table 40.08.130.B and consistent with our conversation, we propose the following:
 - a) Improve the parking lot landscaping due to the lack of shrubs throughout the parking lots on the site.
 - b) Restore the riparian buffer area to the rear of the property by removing pavement and buildings.
 - c) We have proposed improvements for a perimeter sidewalk.
 - d) We have removed the proposed improvement for handicapped parking.
 - e) The project proposes a significant amount of structured parking. Due to the structured parking, the layout currently provides approximately 9.2% or 8.5 acres of additional open space above the 30%, which is required. The additional 8.5 acres of green space corresponds to more than 1,000 parking spaces that are being provided within parking structures in lieu of additional impervious parking on the ground. We believe that this is a significant benefit and, following our discussion, the percentage improvement of 50% is justifiable. We have revised the description of the improvement from "multi-story construction" to "parking structures" to more aptly describe the nature of the proposed improvement.
 - f) A note has been added to the plan indicating that it is being processed in accordance with the redevelopment provisions of the code.
- 11) The purpose note has been clarified per our discussion.
- 12) The parking rationale breakdown has been corrected to replace "total" with "hotel". We have added parking for a restaurant and meeting room within the hotel to the parking rationale. The mixed use reduction table has also been updated to include this information.
- 13) The dead-end parking proposed for the daycare facility has been eliminated. The layout in the vicinity of the daycare building has been revised to provide the required dedicated turnaround. A note has been added to the plan pertaining to the parking garage immediately adjacent to the daycare noting that spaces will be provided within the garage that are physically separated from the rest of the parking in the garage to exclusively serve the daycare. The details of how this arrangement will be established will be provided as we move through the design process. The proposed location of the daycare respects the 500 ft. distance requirement with respect to gasoline pumps, underground gasoline storage tanks or other storage of explosive materials, package stores, bars or taverns. With these modifications the requirements of Section 40.03.309 of the UDC are met.
- 14) We have shown dimensions for the two buildings proposed to be located near single family detached or attached dwellings, at the eastern end of the site. One of these buildings is proposed to be 8 stories in height and the other 7 stories. Assuming 15 ft. floor to floor

- heights per story, the buildings will be approximately 120 ft. and 105 ft. tall, respectively. Consistent with the requirements of Section 40.04.110C of the UDC, the setback for each of these buildings is greater than its height.
- 15) We have calculated that the site requires 52 loading bays based on the various uses and sizes of each building. Per our discussion, we have provided 25 - 12'x60' bays for the larger commercial buildings. The configuration and dimension of these bays has been modified as necessary to ensure that there are no overlaps with pedestrian access and that each bay can be sufficiently screened. We are providing 27 12'x40' bays to serve the residential and office uses.
 - 16) The number of handicapped spaces previously shown on the plan met the requirements of the UDC; however, in response to our discussion about providing such spaces in a more proportionally distributed manner, we have shown a significant number of additional spaces. We are now showing 177 handicapped parking spaces versus the 87 required. As we proceed to record plan and finalize the number and location of the handicapped spaces the depressed curb locations will be labeled on the plan.
 - 17) Phasing will be addressed at the Record Plan stage.
 - 18) The Record Plan will not show the topography or existing development on the site.
 - 19) Floor plans of the parking garages will be provided at the Record Plan stage.
 - 20) Trash receptacles and requisite screening will be shown on the Record Plan.
 - 21) Specimen trees have been delineated on the plan. There are only a few trees large enough to meet the requirements of a "specimen tree" that are not part of the mature forest on-site. Those trees exist within the riparian buffer area near the proposed daycare and will remain in place.
 - 22) The floodplain note has been revised to reference the existence of non-delineated floodplain. It will be further revised at the Record Plan stage to reference the non-delineated flood study that we will complete as we move forward.
 - 23) As per the discussion at our meeting, the note remains on the plan.
 - 24) The GFA for the parking garages and residential buildings has been delineated on the Plan.
 - 25) The plan format will be modified as requested at the Record Plan stage.
 - 26) We have provided a sheet which shows the entire plan on one sheet at 1"=100' in three different formats, existing information only, proposed information only and existing overlaid with proposed.

Engineering

- 1) No response necessary
- 2) -
 - a) The site is currently developed with over one million square feet of office floor area, which along with the associated site improvements covers more than 48 acres of ground with impervious surfaces. In the proposed condition, the amount of ground covered by parking lots and drive aisles is reduced due to the large number of parking spaces provided through structured parking. The amount of area covered by buildings increases in the proposed condition due to the proposed increase in floor area. In total, the plan proposes a reduction in paving of approximately 3 acres and an increase in building cover of almost 11 acres for a net increase in impervious surfaces of approximately 8 acres. This increase in impervious area will create an increase in peak rate of runoff as well as an increase in volume of runoff. As we move forward with the design, we will analyze the proposed and existing ground cover to determine the change of land use and the requisite area for which we will need to provide stormwater quality

treatment. The plan currently shows a number of stormwater management facilities. These facilities include existing traditional practices that may be modified to assist with peak rate control, as well as proposed green technology bmp's and underground infiltration practices. At this stage of the plan process, the facility sizes and locations are schematic. We intend to provide a number of facilities throughout the site to both collect and treat runoff at the source; however, the exact location of those facilities is yet to be determined. Given that the site is currently developed and has been for a long period of time the information provided in the soils manual is most likely no longer representative of conditions on-site. We plan to perform a number of soil tests at locations throughout the site in an attempt to locate the best conditions for maximizing infiltration potential. We will use the information gathered during that testing to determine the appropriate location for the stormwater management facilities.

- b) It is our hope that site conditions are such that we will have the opportunity to utilize true infiltration practices that will both reduce the peak rate and volume of runoff, and recharge groundwater as per Section 40.22.210 of the UDC; however, that determination cannot be made until soil testing is performed. Should the existing soils prove incapable of accepting infiltration, we will need to utilize alternative methods to achieve that reduction. To that end, we have also shown a number of schematic locations for the application of pervious pavement. This practice will mimic infiltration by allowing runoff from smaller storm events, and small storm equivalents in larger events, the opportunity to be removed from the outflow hydrograph due to the extended period of time that it will be detained in the storage capacity provided within the pavement section. In the event of poor soil conditions, we will also look to mimic infiltration by routing small storm events through the planting soil of various bio-retention facilities. This will have the same affect as the porous pavement by removing small storm equivalents from the outflow hydrograph due to extended detention times. In the end, the stormwater management design for the site will be driven by three things; the increase in peak rate and volume of runoff associated with the increase in impervious, the soils testing data, and the amount of area that is required to be treated for quality. We believe that we will be able to provide stormwater management in accordance with the code for quality, quantity and volume control. We look forward to working with you regarding the details of the design as we acquire the soils data needed to develop the design. For your information, I have included a quick sketch of proposed soil testing locations that I have provided to the geotechnical engineer for consideration. These locations may change and to the extent that they do I will provide updated information to you.
- c) An analysis of the downstream conveyance as per Section 12.04.001 of the Drainage Code will be provided for all outfalls to bear out the adequacy of the conveyance. Existing conditions on-site will be incorporated into the conveyance analysis.
- 3) The large stormwater management facilities shown on the plan at the perimeter of the facility currently exist in those locations. We are proposing additional localized gtbmp's and infiltration facilities throughout the site. As previously discussed, once the soils investigation work is complete we will be better able to specifically locate those facilities.
- 4) The entrance layout has been revised to avoid disturbance to the RBA .
- 5) The RBA will be updated upon completion of the non-delineated flood study.

Historic

- 1) The plan now calls for Building 34 to be removed. As per a previous conversation with Christine Quinn of your department the historic preservation section will document the site from a historic perspective.
- 2) An additional copy of the existing condition plan is included with this submission for the historic preservation section.

Transportation

- 1) The traffic operational analysis is not on hold. We are currently working on the analysis per the scope provided by DeIDOT and will forward it to DeIDOT for review upon completion.
- 2) Bike parking and frontage sidewalk is being provided as part of this plan. Our client is open to the possibility of cross-access with the adjacent shopping center and will discuss that possibility as we move forward through the process. We will communicate with DART regarding bus route and locations for on-site bus stops and include that information at the record plan stage.

Thank you for your assistance with this project. If you have any questions or require any further information please give me a call. We look forward to receiving exploratory sketch plan approval.

Regards,



James H. Lober, P.E.
Project Engineer

Enclosures

Keith Stoltz	Stoltz Management
Randy Stoltz	Stoltz Management
Brad Coburn	Stoltz Management
Pam Scott	Saul Ewing Remick & Saul