The following technical review comments are provided for consideration by the DRB. It is recognized that final design details are not yet completed which is not required for development permitting purposes. For the benefit of the DRB review, we must assure ourselves that the project as represented can be constructed as represented and any final design details, when ultimately resolved, are not likely to materially alter the site plan being considered for review. The aspects of the project under our technical review are limited to the items noted below and do not pertain to architectural elements, sufficiency of landscaping and screening and similar.

Subdivision Easement Plan & Development Agreements:

Per the proposed subdivision agreement to achieve access to the garage parcel, the City will be granted a 24’ wide easement which will be structured as a public thoroughfare agreement allowing for public use of the parking garage. Furthermore, the City intends to enter into a lease agreement with the property owner to secure use of a portion the surface parking lots on behalf of the general public. In consideration of this arrangement, DPW staff has reviewed the proposed infrastructure and improvements in the context of an amended site plan for the Capital Plaza hotel project and in relation to the access needs to support the public parking garage. The DPW review therefore consists of functional, operational and maintenance obligations as noted below, with exceptions identified:

- The City will be responsible for routine care and maintenance of public access driveways, including the roadway structure, pavement markings and traffic control devices. The design details included on sheet C2.0 appear to comply with accepted DPW standards. DPW staff will review the written specifications to verify full compliance for these items when available prior to construction.

- The easement plan and agreement will not obligate the City to maintain the landscaping beyond the bounds of the garage parcel.

- Acceptance of maintenance obligations for the 24’ wide access easement will exclude any maintenance or ownership responsibility for the brick pavers in front of the hotel. Our office recommends that the brick pavers shown in the crosswalk be deleted as non-conforming with existing standards and beyond our current maintenance capabilities.
- The City will be responsible for the care and maintenance of the pedestrian route as shown on the easement plan and it will be accepted as a public pedestrian asset.

- The City will not be responsible for the stormwater collection and treatment systems within the bounds of the Capitol Plaza and church properties. A request has been made to remove all references to stormwater on the easement plan and in the conveyance documents. The exception to this request regards the stormwater structure and culvert located in front of the garage entrance, which we will accept as a municipal system. The Capital Plaza will be responsible for all terms and conditions related to their stormwater construction and operational as issued by the State of Vermont.

- All drainage systems on private property will be operated and maintained by the respective parties. A one-year warranty will be extended to the Christ Church for the drainage system being constructed on their property. The easement plan should reflect temporary construction rights to be acquired from the church to construct all improvements in church property as illustrated on the site plan.

- The easement plan must be revised to include the alignment of a new water main from State Street to the service connection for the hotel. This main will be accepted as part of the public water system. City ownership will extend to a gate valve following the mainline tee to serve the parking garage. All piping beyond this valve will be considered private service line for the proposed hotel.

- The easement plan must be revised to indicate the alignment of the district heating system which will be extended into the site to serve the parking garage and, possibly, the hotel. The design has not yet been initiated but we anticipate it will be laid next to the hotel sewer service (min 4’ separation) within the State Street access road.

- Buried utility lines (UE) are depicted on the easement but may not be complete. The engineer has been asked to determine whether temporary and permanent easements may be required to construct the UE shown on Overlook Park property and whether the existing utility pole on this will require a ground anchor. When known, plan revisions will be necessary to identify the required acquisitions.

- If any construction easements (temporary or permanent) are needed on the Overlake Park property or within it’s access ROW, they will need to be shown on the easement plan. (see also misc section)

**Storm Water:**

No changes are being proposed on the previously approved hotel property. Therefore, no additional comments are provided. Furthermore, the original hotel project site plan included a parking garage with a smaller footprint but the stormwater plan remains largely the same including new drainage management on the adjacent church property. A church representative has voiced support for the drainage design and will accept responsibility for care and maintenance upon completion following a one-year warranty period.

The primary changes to stormwater management needs regards the parcel to be conveyed to the City whereby it will be necessary to allocate care and maintenance responsibilities to the respective property owners as defined by property boundaries. Additionally, managing stormwater within the Heney parking lot property requires alterations to the existing system. It remains unclear how the
parking lot drainage will be collected and disposed of. This matter must be resolved, and staff will explore the question of whether stormwater from the remaining surface parking lot can be collected for treatment using the system being designed to treat stormwater from the parking garage.

Stormwater management and treatment for the garage structure has been revised and modified. The revision regards the use of a sand filtration system within a pipe gallery (Stormtech), which provides a higher level of treatment than the previously described hydrodynamic separator (centrifuge). The project engineer explains that the 2017 Vermont Storm Water Manual (VSWM) now requires a higher level of treatment for redevelopment projects. The Stormtech system is shown at the SE corner of the garage on sheet C1.2. The three-pronged approach to manage stormwater and other water impurities within a garage environment remain as previously designed, including connection to the City’s wastewater sewer system and a holding tank for the bottom floor drains which is necessary to avoid overwhelming the wastewater system in the event of flood inundation. We support these designs and will be prepared to review final plans and specifications.

The project engineer provided the requested operation and maintenance manual (O&M) for the proposed Stormtech system. Our review of the O&M revealed the need for specialized equipment to clean the system is needed, which will require access with our Vactor truck. As presently situated, the proposed pedestrian walkway and deck will be suspended over the maintenance manhole and inspection ports. If it is determined we will not be able to access the system from the adjacent bike path, an alternative location will be necessary. One possible alternative will be to move it to the NE corner of the garage and install a culvert under the garage to the outfall manhole. A potential benefit could be to connect the Heney parking lot drainage system to the Stormtech as mentioned above. Note that we are also concerned about flood inundation so we are reviewing options with the engineer to prevent contamination of the sand filter.

It is also noted that maintenance access to other storm water structures on the southerly side of the garage will be obstructed by the proposed deck. The final design must include an acceptable means to access these systems.

Final approval of the piping materials for the stormwater system will be determined based on the levels and types of soil contamination as some pipe materials provide resistance to infiltration and degradation.

Wastewater:

The garage will not have restrooms but there will be a need for a service connection to collect floor drains as noted above and a maintenance room which may include a sink. Connection will be made to the existing municipal sewer located in the Heney lot. Staff has determined adequate capacity is available for transmission and treatment and will issue an allocation of reserve capacity for the State permitting needs.

Water Supply:

Staff has now reached some conclusions concerning the new service for the hotel and the garage to meet fire suppression and water for maintenance uses. A design sketch is being prepared by DPW engineering to illustrate the new water main connection from an existing stub connection on State Street which will be 12” diameter to the proposed hydrant and then a smaller diameter (8”) for the remainder of the mainline. The reason for this change is because we have determined that the old 10” water main crossing through the church property can be abandoned at some point in the future. For the time being, we will continue to maintain the 10” and will plan to work around it. The new water main will serve the existing fire hydrant that will be relocated to improve access and as
requested by the church representative. We will also provide commercial service stub for use by the church should they move forward with plans to develop housing on the site as well as service connections to the parking garage and proposed hotel.

We anticipate the need for a wash station within the garage which could be located in the mechanical room. The room will need to be heated to prevent water freeze up. Through discussions with the Fire Chief, the garage sprinkler system will be a dry system that is connected to the municipal water system. An automatic valve and associated equipment will also need to be housed in a heated room at the parking garage.

Water details need to show two tracers wires at the 10 and 2 o’clock positions. DPW engineering staff will assist through final design.

Approved water main materials will need to be determined based on the level and type of soil contamination. Soil borings and testing will need to be conducted as part of final design.

Staff has preliminarily determined that adequate flow exists to meet the water system demands and will issue an allocation of reserve capacity upon receipt of the required flow demand calculations.

Traffic Circulation:

DPW staff agreed that the convergence of the access road with the garage access and church parking lot driveway results in a four way intersection which should be controlled to assign right-of-way to the appropriate vehicular movements. As presented, a north/south free-flowing through movement will be created with priority assigned to traffic going to and from the garage and treating the east/west movements as side streets. Considering the gated exit for the northerly movement from the garage, we must allow this movement to flow freely to avoid interference with the gate. The side street stop control will achieve organized and safer traffic flow. We will monitor following a period of use to determine whether the southerly movement from State Street should also be controlled with a stop sign if the intersection is regularly obstructed by garage entry queue.

Note that a sign is being provided for the church parking lot to eliminate unnecessary cross traffic. Signs directing motorists exiting the garage to Route 2 and Interstate 89 will be installed to discourage unnecessary turning movements at the State Street access and the Taylor/State intersection. A second set of signs is also needed at the Taylor Street access driveway. With a garage situated on the southerly side of State Street, a more direct link is possible to the regional arterial highway network which is expected to reduce traffic impacts on the City’s busier downtown street network.

Pedestrian Circulation:

As presently proposed, ADA compliant pedestrian facilities will be developed around the entire footprint of the garage with logical and convenient connections to nearby State and Taylor Streets, the new shared use path, and also linking the Heney lot to the garage and path. The network of pedestrian routes will multiply alternative routes to choose from to reach the various destinations in proximity to the garage and hotel. With the addition of a pedestrian walkway on the northerly side of the garage, a direct connection to the church property has been provided, allowing the beneficial use of the garage for church visitors, including the availability of additional handicap accessible spaces. To complete the church connection, a short segment of walkway is recommended to connect with the church parking lot.
It is noted that a marked crosswalk will extend across the garage access driveway. As shown, there will be sufficient separation from the building to achieve good sight lines in all directions to accomplish a reasonably safe pedestrian crossing environment within acceptable standards.

Traffic Impacts:

The supplemental traffic study prepared by David Grover of RSG and dated 10/26/18, responds to questions raised by the public and the DRB concerning the access driveway traffic impacts. New counts were obtained using digital video to allow manual counts of the various intersections. The volumes were then adjusted based on permanent count stations in the area maintained by the state.

In his transmittal note, Mr. Grover pointed out two primary areas that have changed from the previous study:

1. *The traffic volumes at the State Street driveway indicate that a left-turn lane is warranted.* As I note in the study, I think that treatment would not be appropriate here due to the urban context and slow speeds. A turn lane is a safety feature in that it removes stopped vehicles from the traffic stream in places where stopped vehicles are not expected (high speed, rural roads). In this case, stopped vehicles are expected so a turn lane is not needed.

We tend to agree with this conclusion, but would add that turn lanes also assist in removing an obstruction to through traffic which can increase congestion. We have concerns that a queue resulting from the obstructed through movement could increase and interfere with the nearby State and Elm intersection. We agree that many of the left turning motorists are most likely to be waved in or can complete the left turn through gaps created by crossing pedestrians and through other breaks in the traffic. Therefore, the obstruction is likely to be of short duration. However, the question is how significant the actual impact is.

Looking at the left turn warrant analysis, it appears the existing conditions would come very close to satisfying the warrant. The current volumes of 486/381 opposing/advancing falls directly on the decision curve compared to 498/395 in the design year which is only slightly above the curve. This tells us the change will be very slight and is not likely to affect existing conditions.

Of particular interest is Mr. Grover’s choice of using trip generation rates of only 50% occupancy for the hotel and the remaining parking spaces have been assigned a different land use with a greater trip generation value. This results in a higher volume and represents a worst-case scenario for analysis purposes. When considering that we focus on the peak hour as being the critical time period typically assessed, and the proposed land use is a hotel with peak hours that do not coincide with the peak times of the adjacent highway facility, we anticipate a relatively low overall impact. Hotels generate lesser peak hour traffic impacts than many other land uses because of the arrival/departure times associated with check-in and check-out times compared to other land uses such as residential, office and manufacturing.

We recommend that a follow-up traffic study be performed for verification purposes. If in fact a left turn lane is deemed necessary, there is sufficient space on State Street to provide the lane, although some on-street parking spaces will need to be removed on the southerly side of the street. The City should be asked to commit to this review and possible need for mitigation as a permit condition.
2. The southbound approach at State/Taylor (Gov. Davis Ave) goes from LOS D to LOS E in the PM with the addition of project trips. With the 2013 volumes, it was LOS C both before and after the project. I am not worried about this approach (high D to low E, only 4 seconds of delay added). In my opinion, LOS E is acceptable for a low volume side street, but of course it’s ultimately up to you. DuBois and King’s 2015 study also found this approach to be LOS E, and they were not concerned.

We have asked Mr. Grover about the actual time periods being used to represent peak hours. Within the PM peak hour, we seem to have a condensed peak ½ hour from about 4:40–5:10 +/- and much of our congestion in Montpelier actually peaks for about 15–20 minutes. This could possibly be attributed to the high number of office uses in town with similar closing times. The actual peak congestion time is of short duration. Comparing conditions to a follow-up study conducted in 1995 related to the development of the nearby bank (now People United) and State office building, we can see that delays have increased from a LOS of D for Taylor Street northbound to an LOS F under existing conditions (background). The projects will further increase this delay but only slightly. For these reasons, the City should commit to the continual monitoring of the Taylor/Governor Davis/State intersection to determine if altering the traffic control is warranted, regardless of whether the garage and hotel projects are developed.

Winter operations (snow removal & storage):

As previously described, snow and ice accumulation on the top deck of the parking garage will need to be managed in a way that does not require pushing snow over the sides because of the absence of a safe and sufficiently sized area. Therefore, the proposal contemplates using the City’s district heat system to melt the snow, whether throughout the exposed deck or in a designated area on the deck where snow will be piled for melting. The design work has not yet begun pending the outcome of permits and voter approval of funding. Final design of the heat system should not materially alter the site plan as presented.

A snow management plan and storage site have not yet been presented for the Heney parking lot. The garage will obstruct the current snow storage area at the southern end of the lot. We expect the snow will have to be stored in the parking spaces at the southerly end of the lot and removed more frequently to restore full use of the parking area.

All landscaping should be designed with snow removal needs in mind and should be tolerant to commonly used de-icing agents.

Given the width and alignment of the walkways, it is conceivable that plowing service could be provided by DPW using existing sidewalk plow equipment.

Site / Area Lighting:

Given that the site and area lighting for the surface parking and pedestrian areas will not be City-owned or maintained by the City, we will not request review and approval authority for the fixture design and specifications or the electrical supply system. Area lighting is not within our area of expertise but we encourage adequate light levels be achieved for pedestrian safety and convenience. This should include pedestrian scale fixtures for each of the walkways around the perimeter of the garage and throughout the developed property.

Miscellaneous:

a) We understand that the DRB has requested that fencing be installed between the walkway and railroad tracks. We encourage that the fence on the hotel and parking garage side of the tracks be similar to what is being on the transit center side. The focus should be to
encourage people to utilize the designated railroad crossing for the shared-use path but not be so extensive and enclosing that a person trespassing on the railroad property would be trapped and have difficulty escaping should a train approach. The railroad operator should be consulted to confirm suitability of the design.

b) The applicant (City) shall coordinate construction of the parking garage with other nearby projects and uses, such that impacts on nearby uses are minimized as much as practicable, while ensuring that construction access is achieved for all relevant projects.

c) The boardwalk connection to the planned shared use path is confusing as illustrated on the architectural rendering prepared by Rabideau & Associates. The shared use path will be supported by a retaining wall on both sides between the rail crossing and the bridge not by posts and piers as shown although its difficult to differentiate. The design of the boardwalk / patio must consist of an appropriate connection mechanism to join with the retaining wall supporting the path complete with an expansion method to account for differential settling and temperature related movement. The shared use path project is underway and the wall design is complete and ready for construction. Any modifications to accommodate the boardwalk / patio connection must be identified without delay to avoid unnecessary conflicts.

d) All existing pipes underneath the garage should be removed, if possible, rather than filled to prevent future problems.

e) We have reviewed the bike lane stencils and lane markings shown within the Heney lot and conclude that this design does not comply with bike design best practices. The project includes two walkway connections to the shared use path. To our knowledge, neither of the connecting links are intended to comply with bike path design standards and the applicant (city) has not been requested to develop bike path spurs. As such, it is misleading to indicate bike lanes but wayfinding signs would be a better if deemed appropriate.

f) The unlabeled rectangular boxes located near the shared use path need to be identified.

g) It was recently learned that the church has a waste water pump station positioned behind the building identified by an unlabeled circle shown on the site plan. The approximate location of the discharge line has been provided to the project engineer and it is likely relocation work will be needed.
Hi Meredith,

I spoke with Mike and Tom M regarding the “boardwalk” in the latest sketch. There should be either a retaining wall or black chain-link fencing (Mike’s suggestion) to completely prevent folks from camping out underneath the elevated structure.

Thanks,
Tony

Chief Tony Facos

Hi, Tony,

During a Design Review Hearing last night on the parking garage, some of the public raised concerns about whether the raised boardwalk in the rear of the garage will be too attractive to the homeless or criminal elements (see pdf page 10 in the attached for a decent view – though it doesn’t include the trees that will be planted in the gaps).

My thought is that the ground lighting in that area will provide some level of deterrence. Could you please confirm your thinking on this for me, including whether you think fencing off the area would be a good or bad idea? I’d like to have something to point to should the public raise this issue again on Monday with the Development Review Board.

Thank you very much. I’m sure you have a lot on your plate.

Best,
Meredith
Hello Meredith,

I was unable to make the St. Albans trip, but I will be meeting with Chief Gary Taylor at some point. It is hard for me to look at site plans and add input with any certainty that the proposed lighting will be sufficient. That said, it appears that the lamp posts and lighting plan should sufficiently illuminate the backside area of concern.

Tony

Chief Tony Facos

From: Meredith Crandall
Sent: Monday, October 22, 2018 4:13 PM
To: Tom McArdle <TMcArdle@montpelier-vt.org>; Anthony Facos <AFacos@montpelier-vt.org>; Geoffrey Beyer - GMail <geoffbeyer@gmail.com>; ROBERT GOWANS <RGowans@montpelier-vt.org>; Corey B. Line <CLine@montpelier-vt.org>
Cc: Kurt Motyka <KMotyka@montpelier-vt.org>; Audra Brown <ABrown@montpelier-vt.org>; Michael Miller <MMiller@montpelier-vt.org>
Subject: Supplements to Parking Garage Related Development Applications

All,

Attached for your review, please find the supplemental information received by the Planning Department for the Hampton Inn Hotel Site Plan Amendment, and the Subdivision and Site Plan Applications related to the City Parking Garage.

These are for a 10/30 Design Review Committee Special Hearing and an 11/5 Development Review Board Hearing. If possible, please provide any comments by Tuesday, October 30th, so I can pass anything applicable on to DRC and have time to incorporate them into my Staff Reports for the DRB.

I think that Tom will have the most input, and I welcome comments from any of you. However, I do need a couple of you to provide the following specifics, in writing:

1. **Tony** – Please confirm whether or not you are satisfied with the lighting proposed for the garage, particularly between the garage and river, for security purposes. The Board questioned this at the 10/15 meeting, and I think would be more comfortable having something from you in writing – including any insight you may have from your visit to St. Albans.

2. **Geoff** – Please confirm whether or not the tree choices made are acceptable to you. There were some questions during the 10/15 hearings about whether river birch was a good choice here. The landscaper had some good points (low maintenance, self-sustaining, similar to other growth along the river – so a more natural look), but I think your input would be useful.

Thanks much.

Best,

Meredith

Meredith Strobridge Crandall
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