

36, 42 Erb Street East and 39 Dupont Street East, Waterloo
Comments Response Matrix
City File: # Z-18-19

Author	Comment(s)	Response		
Region of Waterloo				
Matthew Colley Planner (519) 575-4757 x3210	Water Services	1. The report identified the development will be connected to the local watermain on Pepler Street and has provided calculations to satisfy the fireflow requirements for this proposal.	Acknowledged.	
		2. Regional Staff are satisfied with the report and have no further concerns with the proposed application	Acknowledged.	
	Corridor Planning	Regional Road Dedication		
		3. Staff estimate that a 4.2 metre road widening will be required along the Erb Street frontage.	Considerable work was undertaken with Regional Staff to determine a reasonable extent of widening required for Erb Street, including a meeting with Regional Planning Staff (Richard Parent and Adam Betteridge) on April 17, 2018 involving our planners and transportation consultant. As a result of that meeting and through follow up discussions and exchange of survey documents with our surveyor, Richard Parent confirmed that a 3.048 m widening along the frontage of 36 and 42 Erb was appropriate and consistent with similar widenings and dedications taken from properties to the east along Erb Street and would therefore be acceptable to Staff.	
		4. In addition, a 7.62 metre daylighting triangle is required at the intersection of Erb Street and Pepler Drive.	Similar to point 3 above, discussions were held with Richard Parent regarding a reduced dimension for a daylighting triangle given this Downtown urban location with compact sites and building forms. It was agreed that greater flexibility would be entertained and, in that regard, a 3 metre x 3 metre dimension was put forth. In evaluating the functionality of this size of triangle, there are only two possible turning movements associated with this intersection and day-lighting to consider: left turns from Pepler onto east-bound Erb and left turns (travelling east) from east-bound Erb onto Pepler. With the cross walk and Laurel Trail crossing Erb, greater attention needs to be given to left turns from Erb onto Pepler. The building at grade is pulled back 6 metres from the Erb frontage at this location to provide for adequate and clear sight lines. There are limited concerns with left turns from Pepler to Erb as Erb is a one way street only and signalized, which will provide for safe breaks in traffic for merging left turns.	
	5. The property is identified in the Region's Threat Inventory Database as potentially contaminated. As a result a Phase I and Phase II ESA will be required. The land for the road widening's must be dedicated to the Region of Waterloo for road allowance purposes and must be dedicated without cost and free of encumbrance.	Acknowledged. A Phase I and II ESA will be prepared for the Regional road widenings.		

	<p>6. The owner/applicant must engage an Ontario Land Surveyor (OLS) to prepare a draft Reference Plan which illustrates the required road allowance widening. Prior to registering the Reference Plan, the OLS should submit a draft copy of the plan to Staff for review. An electronic copy of the registered plan is to be emailed to the Region of Waterloo. The owner/applicant's solicitor will prepare the land transfer document and submit to the Regional Legal Assistant (Crystal Ladd- 519-575-4709) for registration.</p> <p>This process may be deferred to site plan.</p>	Acknowledged. A Reference Plan for the road allowance widening will be prepared and submitted at the site plan stage. Please see enclosed survey sketch to illustrate intended widenings.
	Access Permit	
	<p>7. A Regional Road Access Permit (\$230 fee) will be required for the proposed access to Erb Street East. This will be deferred to Site Plan.</p>	A Regional Road Access Permit will be provided at Site Plan.
	Stormwater Management	
	<p>8. Staff have reviewed the Functional Servicing and Stormwater Management Report and generally agree with the findings and recommendations. Staff will require detailed reports and plans at the Site Plan stage.</p>	Acknowledged.
Environmental Noise	<p>9. All units are to have air conditioning systems</p>	Acknowledged.
	<p>10. The proposed building has a large outdoor amenity area on the 5th floor that is more than 4 metres in depth and is considered to be an Outdoor Living Area (OLA). Sound level predictions were performed for this amenity area, and the predicted daytime sound level at these locations will be below 55 dBA, without additional mitigation, assuming a minimum 1.07 metre high solid parapet along the perimeter of these areas.</p>	Acknowledged.
	<p>11. Preliminary estimations suggest that the south façade of the building will require windows with an AIF factor of 26. This should be confirmed through a detailed noise study once detailed floor plans and building elevations are available.</p>	Acknowledged. A detailed noise study will be prepared when detailed floor plans and elevations are available at the Site Plan stage.
	<p>12. The owner shall enter into an agreement with the Region of Waterloo and the following clauses shall be included in agreements of offers of purchase and sale, and lease/rental agreements:</p> <p><i>"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasion interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the City and the Ministry of the Environment, Conservation and Parks."</i></p> <p><i>"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Region of Waterloo and the Ministry of the Environment, Conservation and Parks."</i></p>	Acknowledged. These clauses will be included in the agreements of offers of purchase and sales/ lease and rental agreements.
Stationary Noise	<p>13. Comments on this study will be provided on a later date.</p>	Acknowledged.
Hydrogeology and Source Water Protection	General	
	<p>Staff require the following to be included in the Zoning By-law for the subject application:</p> <p>14. The proposed development must be limited to one level of underground parking, which is the maximum extent to which the dewatering model was evaluated.</p>	Acknowledged. The development is limited to one level of underground parking.

	15. Geothermal energy systems, ground-source heat pumps, earth energy systems are prohibited at the subject property.	Acknowledged. None of the identified energy systems are proposed.
	Hydrogeological Assessment	
	16. The most recent groundwater elevation data is from 2011. This will need to be updated with new measurements.	Commentary on the groundwater elevation data is noted in Section 3.2.2 of the Hydrogeological and SWPSS prepared by CVD.
	17. What is the modeled radius of influence for the maximum dewatering rate and long-term dewatering rate? Does it reach the William Street Wells?	A modelled radius of influence is included in the Hydrogeological and Source Water Protection Study prepared by CVD.
	18. Maximum depth of building footings, parking garage floor and elevator shafts.	The maximum depth of the P1 floor will be 318.61.
	19. The dewatering assessment included using the "average" groundwater elevation, rather than the seasonally high groundwater elevation at the site. The seasonally high water table should be used as a conservative estimate.	Commentary on the groundwater elevation data is noted in Section 3.2.2 of the Hydrogeological and SWPSS prepared by CVD.
	20. There was no discussion with regards to the change in aquifer vulnerability as a result of the subsurface construction of the proposed development.	Discussion on aquifer vulnerability is included in section 5.0 of the hydrogeological and SWPPCS.
	21. The hydraulic conductivity of the aquifer was determined from a grain-size sample collected from a depth of 3.0 to 3.66 mbgs. The owner/applicant must confirm that this sample was from the aquifer material, indicate the depth of the sample in masl, and identify which borehole the sample was taken from.	Details related to the hydraulic conductivity, borehole depth and of the qualifier is indicated in Appendix A to the hydrogeological and SWPPCS.
	22. There was no discussion about the potential for contaminant migration as a result of dewatering. This is important, considering the significant concentrations of PCE identified in groundwater at the subject property.	Discussion on contaminant migration as a result of dewatering has been included in Section 5.0 of the Hydrogeological and SPPCS.
	Source Water Protection Study	
	23. Regional Staff identified during the Pre-submission Consultation process that the owner/applicant would be required to submit a Source Protection Potential Contamination Study (SPPCS) acceptable to the Region. The study is to assess past and present potential sources of site contamination which may affect groundwater and if necessary include site groundwater testing.	A SWPPCS prepared by CVD has been included in this submission. The study has been prepared in consultation with the Region.
	24. Relevant information was presented in the form of a Phase One and Phase Two ESA that were appended to the Hydrogeological Investigation report prepared by Atlas Dewatering (2018). The Phase One ESA and Phase Two ESA were both completed by Terraprobe in 2012. Regional Staff conclude that this information is now considered to be out of date.	An update to the Phase 1 and 2 ESA for 36 Erb Street is currently being prepared and will be submitted under a separate cover.
	25. The SPPCS requirement can be satisfied by submitting a new Phase One ESA and Phase Two ESA, with updated information (including updated sampling). The SPPCS should also include a discussion about the potential impacts to municipal water supply aquifers beneath the site. This will be required prior to final approval of the Zoning By-Law Amendment application.	An update to the Phase 1 and 2 ESA for 36 Erb Street is being prepared. The SWPPCS includes discussion on potential impacts to the municipal water supply.
	26. The Atlas Dewatering (2018) report contains a historical Phase One and Phase Two Environmental Site Investigation completed for the property at 36 Erb St. E. The investigations did not include 42 Erb St. E. or 39 Dupont Street. The SPPCS must include both 42 Erb St. E. and 39 Dupont Street and consider both parcels, including 36 Erb. St. E., as part of the Phase One property and the Phase Two property.	The submitted hydrogeological and SPPCS investigates all three properties.

	27. All groundwater within the Region of Waterloo is considered potable, which was identified in the Phase One ESA. This should be reflected in the update Phase One and Two ESA studies.	Acknowledged. This is reflected in the Phase 1 ESA and will be reflected in the Phase 2 ESA upon completion.
	28. A completed Phase One ESA to O.Reg. 153/04 standards is required for entirety of the proposed development area. Regional Staff could accept "preliminary" Phase Two ESA results in lieu of a 'final' version if the owner/applicant is updating the Phase One and Two ESAs to investigate all three subject parcels. The owner/applicant should discuss with Regional Hydrogeology and Source Water Protection Staff.	Acknowledged. An updated Phase 1 and 2 ESA is currently being prepared and will be submitted to the Region under a separate cover. Regional Hydrogeology and Source Water Protection Staff have been contacted regarding the SPPCS, which has been included in this submission.
	Functional Servicing and Storm Water Management	
	29. Regional Staff do not support the infiltration of parking lot runoff.	Acknowledged.
	Salt Management Plan	
	30. Regional Staff will require a Salt Management Plan for the subject development at Site Plan.	Acknowledged. A Salt Management Plan will be prepared at the Site Plan stage.
Record of Site Condition	31. 42 Erb Street East is identified as a Known Contaminated Site and 36 Erb Street East is identified as a High Potential Contaminated Site in the Region's Threats Inventory Database. In accordance with the Region's Implementation Guideline for the Review of Development Applications on or Adjacent to Known or Potentially Contaminated Sites, a Record of Site Condition (RSC) is required. The changes in use (from commercial to residential) for the portions of the subject lands known locally as 36 and 42 Erb Street East would also initiate the requirement of an RSC under Ontario Regulation 153/04.	An updated Phase 1 ESA has been prepared for the 36 Erb Street property and included in this submission. A Phase 2 ESA is currently being prepared. It is intended that an RSC will be prepared following the completion of these studies.
	32. Regional Staff is aware that a residential RSC (#204488) and a Certificate of Property Use exist for 42 Erb Street East. a) However, an RSC will be required for 36 Erb Street under Ontario Regulation 153/04 as a result of the change in use from commercial to residential. It is also required under the Region's Implementation Guideline as there is a density increase on a property adjacent to a site with known contamination (42 Erb Street).	Same as above.
	b) The remaining parcel at 39 Dupont Street is adjacent to a Known and High Contaminated Site, however the property is already residential, and no re-development (e.g. increase in density), or changes in use (staying residential/single-detached dwelling to remain) is proposed, and so no RSC will be required for this parcel.	Acknowledged.
General Comments	33. Staff confirm that the required Regional application review fee for the Zone Change Application has been received.	Acknowledged.
	34. Any future development on the lands subject to the above-noted application will be subject to the provisions of Regional Development Charge By-law 14-046 or any successor thereof. Please provide a copy of your staff report and draft by-laws (for clearance) once they are available.	It is understood that DC By-law 14-046 has been repealed. The site has been transitioned under the previous brownfield incentive programs. The Staff report and Draft By-laws will be forwarded for clearance.

36, 42 Erb Street East and 39 Dupont Street East			
Author	Comment(s)		Response
City of Waterloo			
Natalie Hardacre, Development Planner (519) 514-0225	Planning	Height and Density	
		1. The tower height of 75 metres conforms to the height contemplated in the Official Plan for Area A. An increase in height to 75 metres within Area B is not consistent with the Official Plan which contemplates only medium density and a maximum height of 20 m. A request to increase the height or density of Area B would require an Official Plan Amendment or density bonus through a Section 37 Agreement. This request did not form part of the formal submission of application Z-18-19 and given the conceptual plans provided does not seem warranted for the development as proposed. Additional clarification is required with respect to the requested height for both Area A and Area B. The requested amendment should reflect this requirement.	The Draft ZBA was intended to limit the use of split zoning for the site, and allow for the site to be rezoned as a single zone. However, it is understood that Area B only permits a height of 20 metres, and as such, a revised schedule will be prepared to maintain the existing GR-4 zone and height permissions for Area B. No amendment related to height is requested for Area B.
		2. 36 Erb Street East is zoned Commercial Seven (C7-4) under By-law 1108, which permits a maximum building height of 12 metres. Application Z-18-19 is requesting that 36 Erb Street East be zoned Commercial Six (C6-25). The list of requested amendments on page 40 of the Planning Rationale Report does not include a request for increased height. Please provide additional information in this regard.	The list was intended to highlight only site-specific provisions that deviate from the C6-25 zone, which permits a height of 25 storeys and 75 metres. It was not intended to list all required amendments, but rather highlight those that deviate from the parent zone. We note that the building heights of the revised proposal at approximately 59 metres are consistent with the U1-60 zone under By-law 2018-050, and request for additional height would not be required under the new By-law 2018-050.
		3. Consider reducing the maximum building height proposed to provide appropriate transition with the existing built form on Dupont Street and to promote land use compatibility with surrounding properties.	Building heights have been reduced from 75 metres to approximately 59 metres. Notwithstanding the submission being made and deemed complete prior to the adoption of Zoning By-law 2018-050, we were asked to consider changes to the building to align with the revised height regime under the new By-law. Our client is amenable to adjusting the height, provided the overall desired density can be achieved and this was accomplished through a redeployment of density elsewhere on the site, which may in turn require some further flexibility by the City in interpreting other urban design/performance standards.
		4. The density proposed exceeds the maximum density contemplated in the Official Plan for Area A (874 bedrooms/ha compared with 750 bedrooms/ha). To address this, a transfer in density is proposed from the medium density lands (Area B) to the high density lands (Area A). Density transfer is contemplated in Section 1.4 of the Official Plan, as well as Section 3.S.5 of Zoning By-law 2018-050, provided that the overall residential density of the property does not exceed the sum of the calculated densities permitted under each of the individual designations. Staff have no concern with this request so long as this requirement is maintained. In addition, any existing bedrooms contained within the dwelling to be retained, shall be accounted for in the density calculation.	Acknowledged. A request for the transfer of this density to Area has been made as part of this application. Based on the analysis on Page 53 of the PJR, the proposed development will not exceed the sum of the calculated densities permitted in the OP. 39 Dupont building will not be used for residential uses. A suitable non-residential use will be determined for this building.
		5. It is noted that the development proposes dens, which, if used as bedrooms would result in a density count that exceeds the maximum density contemplated in the Official Plan. Please refer to the definition of 'bedroom' in Zoning By-law 2018-050.	The units will be designed in accordance with the definition of a "bedroom" under By-law 2018-050 to ensure that density does not exceed the amount permitted by the Official Plan.
Podium and Tower			
6. Staff have concerns with the proposed horizontal tower dimension of 43 metres. Zoning By-law 2018-050 has a maximum horizontal tower dimension of 40 metres. It is understood that application Z-18-19 was submitted prior to Council approval of Zoning By-law 2018-050. However, substantial review has taken place by City staff	The revised proposal provides for more pronounced and varied setbacks and stepbacks, which includes more gradual terracing and transition from the base building to the tower portion above the 9 th		

		<p>to establish the new podium and tower provisions, based on good urban design principles. Please refer to comment #24 and the Urban Design Manual for specific design objectives. It is strongly recommended that consideration be given to reducing the horizontal dimension of the proposed tower.</p>	<p>storey amenity terrace up to the 19th storey. The primary horizontal building face of the tower portion measures 38 metres, with set back portions of the building face adding an additional 1.5 metres (west), and 3.58 metres (east) to the horizontal tower dimension.</p> <p>These set back portions provide for visual variety, and allow for a unique built form and architectural element, and also help provide for diversity of unit types and sizes. In this regard, the proposed development meets the intent of the Urban Design Manual and encourages for variation in the built form.</p>
		<p>7. Staff have concerns with the proposed setback of the tower from the interior property line. Zoning By-law 2018-050 requires that towers be setback a minimum of 11.0 metres from an interior lot line. The proposed tower appears to be 8.09 metres from the interior lot. It is understood that application Z-18-19 was submitted prior to Council approval of Zoning By-law 2018-050. However, substantial review has taken place by City staff to establish the new podium and tower provisions, based on good urban design principles. Please refer to comment #24 and the Urban Design Manual for specific design objectives. It is strongly recommended that consideration be given to increasing the tower setback from the interior lot lines. Accordingly, if the tower was reduced in size to meet the 11 metre setback, it may also meet the 40 metre horizontal tower dimension (refer to comment #6).</p>	<p>The revised proposal has an interior side yard setback of 8.8 metres, as noted in the revised Architectural Package. While slightly lower than the proposed Zoning B-law 2018-050 standard of 11 metre, the proposed development does not propose any windows facing the interior side yard, while providing for appropriate separation distances distance to provide for light, sky view and privacy. This assumes a similar building condition to be established on the adjacent site without windows. This provides for an appropriate separation distance between buildings without windows.</p>
		<p>8. Staff have concerns with the lack of stepback from the podium to the tower. Zoning By-law 2018-050 requires a minimum 3.0 metres tower stepback. This stepback provision is required on all frontages and includes balconies as part of the 3.0 metres. It is understood that application Z-18-19 was submitted prior to Council approval of Zoning By-law 2018-050. However, substantial review has taken place by City staff to establish the new podium and tower provisions, based on good urban design principles. Please refer to comment #24 and the Urban Design Manual for specific design objectives. It is strongly recommended that consideration be given to increasing the tower stepback from the podium.</p>	<p>The revised proposal includes a 3.0 metres tower setback on Erb Street, and 1.97 metres on the Peppler Street frontage, with additional and more significant stepbacks being located on the 9th storey. The step back together with the revised building design, podium and high-quality design will all serve to promote an appropriate transition at Erb Street towards a pedestrian focused environment at grade. This includes an appropriately scaled podium, which will provide active uses at grade, along with an appropriate public realm approach to support pedestrian activity.</p>
		<p>Building Setbacks</p>	
		<p>9. A survey is required to confirm the location of the historic centerline on Erb St E, Peppler St and Dupont St E, to ensure that the building setbacks proposed conform to the requirements of the Zoning By-law.</p>	<p>A survey (58R-19715) has been provided by McKechnie Surveying to confirm the historic centreline and included with this submission.</p>
		<p>10. Staff are not supportive of a zero metre building setback from Erb Street East. Further planning rationale is required to justify the need for this request. The C6 Zone requires a minimum front yard setback of 3.0 metres. The requirement in Zoning By-law 2018-050 is 4.0 metres.</p>	<p>The proposed development is set back approximately 3.9 metres from Erb Street at grade, which together with the boulevard provide a generous area for pedestrian movement. The front yard setback is intended to accommodate the podium, which requires a reduced setback to accommodate necessary turn movements and parking dimensions. It also allows the tower to be located closer towards Erb and away from Dupont.</p>
		<p>11. Further planning rationale is required to justify the requested minimum 1.0 metre flankage yard setback. Justification should consider the location of the floodway on the northeast corner of the property.</p>	<p>At grade, 3.0 metre clearway on Peppler Street, with the podium located at floors 2-3 being located 1.0 metres of the lot line. It is proposed that the podium be cantilevered above the pedestrian clearway with the primary intent of accommodating appropriate vehicular circulation in the parking levels above, but also keeping the parking structure above out of the floodway.</p> <p>The OP does not permit new buildings, structures or fill in the Laurel Creek hydraulic floodway, but permits parking structures provided that</p>

			the design of the structures accommodates the passage of the regulatory flood. However, the podium is cantilevered above so that no portions of the building at grade falls within the regulatory floodway.
		12. Confirm the requested flankage yard setback. Plan A226 shows a flankage yard setback of 0.28 metres, A203 and A204 show 1.033 metres and A202 shows 1.019 metres. The request in the Planning Rationale Report is 1.0 metres. The report also notes that the minimum flankage yard setback is 5 metres (page 62), whereas the minimum required in By-law 1108 is 3.0 metres and 4.0 metres in By-law 2018-050.	It is proposed that a reduced flankage yard setback be 1.0 metre flankage yard setback to accommodate the upper levels of the podium. The flankage yard condition is variable from the along this frontage given that the building is not located parallel to this lot line, with setbacks measuring from roughly 1.08 to 1.40 metres. As mentioned, the building is recessed at grade and the reference from page 62 was intended to capture this notion. Notwithstanding, the request for a reduced flankage yard, the proposed development maintains an appropriate setback distance at grade and meets the intent of the By-law.
		13. Staff are not supportive of a 0.5 metre building setback from the interior side lot line (west property line). Further planning rationale is required to justify the need for this request.	Section 8.1.8 of the Zoning By-law 2018-050 notes that lands identified within the U1 Commercial Core zone (Image 1) may have a 0 metre interior side yard setback for 36 Erb Street. The proposed 0.3-0.6 metre setback from the west property is an appropriate, and desirable condition for Uptown Waterloo.
		14. An easement exists along the western limit of 36 Erb Street East. Additional information is required with respect to this easement. The location and purpose of this easement must not be hindered by the building location or site design.	The easement on the 36 Erb property is for a 0.914 m wide right-of-way in favour of 34 Erb Street for the purposes of foot traffic. (See Plan of Survey C0629. The easement was originally was created in 1937 for the original owner of 34 Erb St, The Waterloo Club (See Instrument G-17317), and is no longer relevant or necessary given that the owner of the site has changed. The removal of the easement will be coordinated with the adjacent land owner.
		15. Confirm the requested rear yard setback. It is unclear from the plans submitted how the secured long-term bike parking relates to the main building, whether it is formally attached or separate. It would appear from the drawings that the bike parking 'structure' is located approximately 1.9 metres from the rear yard and drawings A203 and A204 indicate a rear yard setback of 7.45 and 7.47 metres from the main building.	The requested rear yard setback is 7.7 metres measured from the podium to the lot line. The bicycle parking is located in a fenced enclosure that is separate from the building at grade. The revised architectural drawings clarify the relationship of the bicycle structure with the building.
		Shadow Study	
		16. The submitted Shadow Study does not meet the Shadow Study Criteria under the Urban Design Manual. The criteria requires as a principle: at least 50% or more of any property should not be shaded for more than two interval times (a four hour equivalency); or at least 50% of any property should be in full sun for at least two interval times (a four hour equivalency). For the December 21st shadows produced, most of the properties on Dupont Street East exceed the City's requirement as shadows cast on the properties for three interval times. Please consider modifying the building to ensure the shadow criteria is met.	<p>The proposed development has been revised with respect to several key features to help reduce shadows and built form impacts in general to adjacent properties, which include a significantly reduced tower height, a more prominent podium design, all while maintaining appropriate setbacks to the properties on Dupont Street. For March, June and September, the proposed development is in keeping with the City's guidelines, with shadows that are minimal and short in duration.</p> <p>The shadow impacts in December are not a product of the building design, but rather the orientation of the site in relation to the adjacent properties within the block. Notwithstanding these factors, the proposed development appropriately mitigates these impacts in December. Additionally, as new development and intensification continues to occur in the Uptown Commercial Core, it will be increasingly difficult for every building to meet the criteria and still</p>

			achieve the broader planning goals relates to intensification, housing, and transit-oriented development and as such there will have to be some balance or reconsideration of performance criteria related to shadows.
		Common Outdoor Area	
		17. While application Z-18-19 was submitted prior to Council approval of Zoning By-law 2018-050 please consider the new provisions under the Uptown Commercial Core (U1) zone in By-law 2018-050. In particular, the new Zoning By-law establishes a minimum requirement for common outdoor area. For lots with an area of 2,000 square metres or more, 3% of the lot area shall be common outdoor area located at grade. This provision would support an increased amount of common outdoor area than what is currently proposed and could be an opportunity to enhance the landscaping and public realm on the southeast corner of the property (connection to Laurel Creek Trail).	The proposed development provides 138 sq. m of common outdoor area at grade at the corner of Erb St and Peppler St, which is greater than 3% of the total lot area. Connectivity to the Laurel Creek trail is provided. See updated Landscape Plan. The public realm will be significantly enhanced through the design of the plazas, which is intended to aquatic themed in response to the site's relationship to Laurel Creek.
		Surrounding Properties	
		18. On the site plan submitted there are hatch marks indicating there is an easement onto the neighbouring lot. Please elaborate on the purpose of this easement.	It is understood that the easement is subject to rights associated with the "Waterloo Bowling Club" as in Inst. 1448804, though these uses no longer exist on this neighbouring site. The removal of the easement will be coordinated with the adjacent land owner.
		19. The site plan should show all abutting buildings/structures. It is of particular interest to know how close the proposed building is to the existing accessory structure on 41 Dupont St E, and what mitigation measures would take place to minimum adverse impacts on the abutting lowrise properties along Dupont St E.	The site plan has been revised to show all abutting buildings, including the accessory structure on 41 Dupont (located approximately 0.7 m to the lot line). The proposed development is located 7.7 metres to the rear lot line, exceeding the rear yard setback requirements of 4.5 m under Zoning By-law 2018-050 requirements. Additional landscaping buffering will provide additional mitigation measures to abutting low-rise properties.
		Laurel Trail	
		20. Pedestrian access from the building and through the site should be designed to link with the Laurel Trail.	Pedestrian access to the site has been designed to link with Laurel Trail. Please see the revised Landscape Plan.
		21. The design of the southeast corner of the property should be accentuated to connect to the Laurel Trail and enhance the public realm through landscaping treatments.	The landscape plan has been revised to accentuate this trail through public art that commemorates the "aquatic" features of Laurel Creek. Please see revised Landscape Plan.
		Active Frontages	
		22. Active uses are encouraged along the Erb Street and Peppler Street frontages. Look to enhance streetscape character and pedestrian accessibility by locating building entrances and windows along street frontages, particularly at the corner of Peppler Street and Erb Street.	Active commercial uses have been located at grade with entrances along Peppler and Erb Streets. Please see revised Architectural Plan A201.
		Office Use	
		23. There is currently a demand for office space within Uptown Waterloo. Consideration should be given to also include office space within the podium of the proposed building.	It is understood that office space is in demand in Uptown. Due to the presence of the above grade parking in the podium, together with a

			desire to provide active retail uses at grade, above grade office uses cannot be feasibly accommodated in this proposal.
		City of Waterloo Urban Design Manual	
		<p>24. The City's Urban Design Manual has several design guidelines that are relevant to the proposed development. Relevant guidelines are included below, in part. It is strongly recommended that consideration be given to the following.</p> <ul style="list-style-type: none"> a) To provide compatible development, large, bulky building forms that result in greater shadow, wind and visual impacts are discouraged. Design buildings with articulated massing including elements such as façade stepbacks, terracing and tower forms to reduce adverse impacts (Section 2.1.3.15). b) Provide relief to long building facades (vertical or horizontal) through vertical and horizontal elements. Design larger buildings to give the appearance of a collection of smaller structures (Section 2.1.6.3). c) Design corner buildings with expressive massing and architectural features that related to and reinforce the street corner (Section 2.1.6.5). It may be beneficial to evaluate whether the tower and/or podium could be repositioned to accentuate the importance of the prominent location. d) Design high-rise buildings with articulated massing to create an interesting and recognizable skyline. Design high-rise buildings with a stepped or sculpted top section to create a shaped skyline rather than a flat or heavy skyline (Section 3.1.4.4). e) As a general principle, emphasize horizontal articulation particularly along the base and top sections through building stepbacks, terracing, cornices, banding elements, fenestration proportion and detailing, alternative building materials, and to a lesser degree, colour (Section 3.1.4.7). f) It is encouraged to provide a transition in massing adjacent to low-rise buildings. Design taller building massing and height to step down toward adjacent low rise buildings or incorporate measures such as a prominent cornice to create a physical transition between buildings (Section 3.1.4.9). g) Consider opportunities to provide multiple pedestrian or open space linkages, trail linkages and open space connections (Section 2.3.1.3). Consideration should be given through the design of the site, to the Laurel Trail connection at the southeast corner of the property. 	<p>The original and revised proposal have been reviewed against the Urban Design Manual, and in our view, both achieve key urban design directives, which will contribute to an inviting and attractive public realm and built form along Erb Street.</p> <p>Notwithstanding our opinion that the original proposal was generally in keeping with the applicable guidelines, the revised proposal in this submission has been revised to respond to the urban design directions referenced in Staff's comments, but also Staff's concerns related to the height of the building. Key design revisions of the revised proposal include a reduced overall height, increased stepbacks and articulation to improve transition away from King Street and Erb Street towards lower scale built forms, and built form variation to break up building mass.</p> <p>Materials of the base building have also been updated to respond to surrounding context. Linkages to surroundings have been further enhanced, particularly to Laurel Creek. Please refer to the Architectural Plans and Landscape Plans. Overall, the proposed development is in keeping with the intent of the guidelines, and will positively contribute to Uptown Waterloo.</p>
	Heritage	<p>25. The Heritage Impact Assessment (HIA) submitted confirms the architectural, historic and contextual value of 39 Dupont Street East and makes a number of recommendations to mitigate the impact of the proposed development on these values. Staff recommends implementation of these mitigative measures. Please consider the below recommendations supported and emphasized by the Municipal Heritage Committee:</p> <ul style="list-style-type: none"> a) That sufficient green space be incorporated between the tower and the heritage building at 39 Dupont Street East to assist in mitigating, in a minor way, the visual impact of the proposed development on 39 Dupont Street East and the streetscape; b) That the tower be carefully designed to meet the guidelines in the City of Waterloo's Urban Design Manual's section of tall buildings (3.1.4) which outlines design policies for buildings that complement and do not detract from the surround low-density residential neighbourhood. Specifically, the street wall (i.e. the four storey 	<p>The proposed development considers and responds to the heritage context associated with the 39 Dupont Street building and will implement the recommendations of the HIA. The revised proposal is currently being reviewed by ARA, and an HIA update letter by ARA will be submitted under a different cover. In addition, temporary construction fencing, heritage easements, and an adaptive reuse plan will be provided during the detailed design and site plan process.</p>

		<p>podium) should be designed to avoid long monotonous facades and reflect the proportion and materials found in the surrounding neighbourhood.</p> <p>c) That during construction, temporary construction fencing be erected to protect 39 Dupont Street East from damage as a result of the demolition of the adjacent buildings, construction activities, or from construction equipment;</p> <p>d) That the application consider a plan to harvest any salvageable materials from the buildings at 36 and 42 Erb Street East, where possible;</p> <p>e) That an easement and/or municipal designation be considered as a long-term conservation option; and</p> <p>f) That an appropriate and viable use of 39 Dupont Street be identified as part of an Adaptive Reuse Plan.</p>	
		26. Conserving the house in situ is consistent with Official Plan policy 4.7.4(2) that “Built Heritage Resources and their heritage attributes and features shall be conserved.”	Acknowledged.
	Environmental Planning	Floodplain	
		27. The floodplain mapping for the Laurel/Clair Special Policy Area (SPA) is currently being updated. These comments are based on existing floodplain information. Flood flows, elevations and limits may change. Any changes in the floodplain would need to be addressed in subsequent stages of the development process.	Acknowledged.
		28. Based on current mapping, all three properties are within the SPA, with the eastern edge of 42 Erb Street East within the floodway. The Growth Plan states that “to protect public safety and prevent future flood risks, growth should generally be directed away from hazardous areas, including those that have been identified as Special Policy Areas in accordance with the PPS”. It further stipulates through policy 5.2.5(7a) that the minimum intensification and density targets in this Plan do not require or permit: a) in a Special Policy Area that has been approved by the Province in accordance with policy 3.1.4 of the PPS, 2014, development that is beyond what has been permitted”. To ensure development beyond what has been permitted does not occur, consideration must be given to both the building’s height and density.	Acknowledged.
		29. As per Official Plan policy 8.4.2(34), no new buildings, structure or fill shall be permitted in the floodway. Based on Site Plan drawing A100, a portion of the building is within the floodway.	Acknowledged.
		30. As per Official Plan policy 8.4.2(39), all habitable floor space and building services, such as mechanical and electrical services, need to be above the Regulatory Flood Elevation (RFE). Based on Ground Floor Plan drawing A201 and Figure 45 in the Planning Rationale Report, it appears that this is being achieved.	Acknowledged.
		31. Policy 8.4.2(39) also only contemplates uninhabitable space below the RFE where it can be flood proofed to the RFE and where it cannot be converted to habitable space. Foyers, recreation rooms and communal storage areas are identified in the policy as examples of uninhabitable space. A provision should be included in the zoning to prohibit habitable floor space below the RFE. Based on Ground Floor Plan drawing A201, it appears that no habitable space is proposed below the RFE.	The provision will be included in the final Draft Zoning By-laws to prohibit habitable floor space beneath the RFE.
		32. No details are provided in terms of flood proofing, the Functional Servicing and Stormwater Management Report only states “the building will also be flood proofed to the required elevation of 323.30m”. There should be discussions with GRCA regarding flood proofing, as the approximate depth of 1.3 metres and the proximity to the floodway could pose a challenge to meet both technical flood proofing and urban design objectives. The policy does contemplate a lower flood proofing standard where it can be demonstrated a limited potential for damage exists. In addition to the flood proofing details needed for the residential portion of the building, flood proofing details are needed for the commercial portion. In accordance with 8.4.2(43), commercial uses need to	The requirements for the commercial space will be met by setting the minimum FFE of the commercial spaces at 322.34 m, which is 1.0 m below the RFE. Please refer to the Preliminary Grading Plan, Figure GR-1, for further details.

	<p>be flood proofed to the RFE except where it can be demonstrated that the level of flood protection would impair the viability of commercial operations.</p>	
	<p>33. Policy 8.4.2(39) further requires safe access for residential and mixed-use buildings. It also requires, along with 8.2.4(46), that surface parking associated with residential uses conforms to the safe access standards. Staff will defer to the GRCA on the determination of safe access for both the building and the surface parking. Building Code requirements for the number of safe access points should also be confirmed.</p>	<p>The safe access route was prepared in accordance with the GRCA policies and building code as discussed in the FSR.</p>
	<p>34. Official Plan Policy 8.2.4(45) states that surface parking may be permitted in all areas of the SPA in accordance with the Zoning By-law but that where the GRCA determines there will be severe flow velocities, barriers suitable to contain floating vehicles will be required. Confirmation is needed from the GRCA as to whether such barriers are required.</p>	<p>Based on the model of the floodplain provided by the GRCA (Appendix D of the FSR), the flood flow velocity on site is expected to be 0.07 m/s, which is within the acceptable velocity ranges for all flood depths. Therefore, velocities on site are not expected to be severe enough to displace vehicles, and no barriers will be required.</p>
	<p>35. In accordance with Official Plan policy 8.4.2(49), the underground parking structure needs to be flood proofed to the RFE. Based on Figure 45 in the Planning Rationale Report (page 31), it appears that the ramp down to the underground parking rises up to the RFE before descending down to the lower level, however, no details are provided. Details are needed on how the underground parking will be flood proofed. Also in accordance with 8.4.2(49), details demonstrating how the following items will be addressed with respect to the underground parking need to be provided:</p> <ul style="list-style-type: none"> a) Access by elevator to underground structures during flood events shall be prevented; b) Underground structures shall be designed for controlled seepage and filling by flood waters and shall contain facilities for pump out; and c) Electrical and mechanical services are flood proofed to the RFE. 	<p>The underground parking structure will be flood proofed by setting a high-point on the access ramp to an elevation at or above the RFE. A preliminary grading concept showing the high point on the ramp is illustrated on Figure GR-1. Additional structural and mechanical floodproofing measures for the underground parking garage may be required, and will be addressed at the detailed design stage.</p>
	<p>36. Page 58 of the Planning Rationale Report states that certain criteria for the SPA cannot be met for the regulatory flood but that all are met during the 100-year event. This is also discussed on page 90. Through the designation of the SPA, the Province, City and GRCA agreed to relax provincial flood proofing and technical standards and accept a higher level of risk. The policy requirements cannot be further relaxed. To move forward with development the applicant will need to demonstrate that all applicable SPA policies can be addressed.</p>	<p>The proposed development has been designed to address all criteria for the SPA during the 100-year event. An assessment of the policies of the SPA is undertaken in Section 4.2 of the revised FSR.</p>
	<p>37. Page 89 of the Planning Rationale Report and Section 4.0 of the Function Servicing and Stormwater Management Report list three requirements related to the floodplain that must be met. As noted above, all of the applicable SPA policies must be addressed, not just the three listed. Also, the RFE referenced on page 89 of the Planning Rationale Report (323.66 metres) differs from that used in the Functional Servicing and Stormwater Management Report (323.3 metres).</p>	<p>Please see Section 4.1 of the FSR for updated elevations, a review of the development against the requirements of the SPA</p>
	<p>38. Page 90 of the Planning Rationale Report notes that stormwater quantity control will be achieved through, in part, an underground storage chamber. Is the infiltration of groundwater into the storage chamber anticipated to be an issue?</p>	<p>The FSR has updated with respect to stormwater quality control and an Oil Grit Separator in combination with low impact development) will be provided to achieve quality control. Please see Section 3.7 of the FSR.</p>
	<p>39. Consistent with best practice, an Emergency Plan should be developed for the building. The Emergency Plan will need to be prepared by a qualified professional, be coordinated with GRCA and municipal flood emergency procedures, address how residents and occupants will be informed of the safe access protocol, and set out the emergency procedures for evacuation and re-entry.</p>	<p>The grading within the site has been designed such that a safe access route can be provided from Dupont Street East to the emergency exit stairwell of the proposed building. An emergency plan will be prepared and coordinated with the GRCA to set out emergency procedures.</p>
	<p>Source Protection</p>	

		40. City Official Plan policies related to source water protection are under appeal and therefore staff have considered relevant Regional Official Plan policies and the Grand River Source Protection Plan when reviewing this application.	Acknowledged.
		41. The subject properties are within Wellhead Protection Sensitivity Areas (WPSA) designated by the Regional Official Plan. Specifically, 42 Erb Street East is within a WPSA 4, while 36 Erb Street East and 39 Dupont Street East are split between a WPSA 4 and a WPSA 7. As per the Regional Official Plan, the proposed underground parking garage is subject to further study.	Acknowledged.
		42. The subject properties fall within the area covered by the Grand River Source Protection Plan. Specifically, the properties are within a Well Head Protection Area B, where a TCE and a Chloride/Sodium issue have been identified and where the vulnerability is equal to 6. A Section 59 Notice will be required at each stage of the development process. The applicant should go to taps.regionofwaterloo.ca to complete a questionnaire to confirm what source protection related activities are regulated on the property. In addition, Region of Waterloo staff recently took a report to Regional Council indicating the Grand River Source Protection Plan will be amended. Consultation on the proposed amendments is anticipated towards the early 2019, with the Amended Grand River Source Protection Plan being submitted to the Province for approval in the summer of 2019. Depending on what amendments are proposed, the sourced protection related activities regulated on the subject properties may change. Lastly, as per policy RW-NB- 1.24 of the Grand River Source Protection Plan, the City is requested to circulate the Regional all development applications, including site plans, proposing to create a transport pathway. Underground parking garages are considered to be transport pathways.	A section 59 notice was completed for the first submission. A new section 59 notice will be completed for Site Plan Approval.
		Sustainable Design	
		43. The incorporation of sustainable design, construction and operational elements are strongly encouraged (e.g. water conservation system to retain and reuse water, cool or green roofs, onsite renewable energy, enhanced energy performance, etc.).	Acknowledged. Sustainable design features will be considered at the Site Plan approval stage.
	Landscape and Active Transportation	44. It is recommended that the street trees along Erb Street East come complete with underground tree cells ensuring a minimum of 30 cu.m of soil each to ensure their survivability and growth over time. It is also recommended to use a species that will tolerate high amounts of salt such as Gleditsia tricanthos (Shade Master Locust).	Acknowledged. The Landscape Plan has been designed to provide the minimum soil volume for underground tree cells. Specific drought tolerant species will be considered at Site Plan.
		45. Confirm landscape/open space treatment at Erb and Pepler intersection. Ensure proposed plantings are not within the site triangle.	An updated landscape/open space treatment has been provided at the Erb and Pepler Intersection. Please see updated Landscape Plan. The landscaping at this corner is consistent Section 3.D.1 of By-law 2018-050, and does not exceed 0.5 m in height. Additionally, the height of the planters slopes downwards to less than 0.15 m within the daylight triangle and will not obstruct the view of drivers.
		46. Consider enhancing the landscaping and public realm on the east corner of the property. Consider opportunities to provide patios and seating.	Significant enhancements are proposed for the corner of Erb Street and Pepler Street to help emphasized and highlight the significance of this corner. This includes a new public art strategy, and seating to help improve the relationship of the development proposal to Laurel Creek. Overall, these changes help improve the relationship of the site to its surroundings. Please see revised Landscape Plan and Architectural Plans.
		47. Consider incorporating shade structures and a green roof on the 5th floor amenity terrace.	The 9 th floor terrace is intended to be used for amenity areas, and a green roof, including required maintenance facilities eliminate a significant amount of these areas. The Landscape Plan includes a wide range of soft landscaping, including trees that will help provide shade and greenspace on the roof. Additional shade structures outlined in the

			detailed landscape design are provided to further enhance these amenity areas.
		48. Please confirm what the secured long term bike parking storage enclosure is constructed of and its relationship to the main building.	The long-term bike enclosure will be constructed from decorative, secure, non-climbable 5-foot-high metal fencing. Please see Architectural Drawing A201.
		49. It is recommended that exposed, exterior bike parking be positioned as close as possible to building entrances	The residential entrances/exits have been dictated by safe access requirements. Notwithstanding this, the bicycle parking areas are located within a short walking distance to the residential lobby as shown on Architectural Drawing A201.
		50. Acknowledge the bicycle cross-ride at the corner of Erb Street East and Pepler Street on the site plan.	The bicycle cross-ride has been included on all plans.
	Transportation	51. Construction staging for this site will be challenging, as there is no on-street parking on Erb Street East and limited on street parking on Pepler Street and Dupont Street. A conceptual Workspace Management Plan should be provided to show how this will be managed.	A detailed construction management plan will be provided at the Site Plan, which will determine, and confirm appropriate locations for staging and parking. Despite limited on-street parking, we note that parking and off-site temporary construction offices can be set up at a nearby location.
		52. As this area intensifies, Transportation Services forecast increased demand for the limited onstreet parking spaces on the neighbouring streets, and recommend that sufficient parking be provided on-site to meet the regular demands of the residents, visitors and patrons without reliance on municipal on-street parking.	The proposed development provides sufficient parking and exceeds the requirements of the new Zoning By-law 2018-050.
	Engineering	The following items may be addressed through the Zone Change application, or may be deferred to the Site Plan stage, as determined acceptable by the City's Engineering Division.	Acknowledged.
		General Comments	
		53. Services are available as indicated.	Acknowledged.
		54. One water connection is preferred with wyeing off of domestic service within the building.	The water connection has been revised such that the domestic service will wye off within the building.
		55. No road improvements are allowed to be initiated to the public right-of-way, without consent of the Region of Waterloo and City of Waterloo.	Acknowledged.
		56. A construction access permit will be required from the Region of Waterloo.	Acknowledged.
		57. Site demolition plan will need to provide road protection and clean up.	Acknowledged.
		58. Improvements should be within the extents of the development property.	Acknowledged.
		59. Reducing the required yard setbacks should not adversely affect drainage swales that are typically designed within the yard setbacks.	Acknowledged.
		60. Three driveway entrances to the development appear to be excessive and unnecessary. An evaluation to reduce the number of entrances should be completed.	The Pepler and Erb Street entrances are considered to be the primary entrances for vehicular traffic. The entrances are necessary for the purposes of diverting excessive vehicular traffic from Dupont Street. The Dupont Street access is considered to be a secondary access, with an important overall function of satisfying safe access requirements.

	61. A multi-use trail currently fronts the property on Pepler Street. This trail must be incorporated into the detailed design.	The multi-use trail has been incorporated into the design along the Pepler Street frontage. Please see submitted landscape plan.
	62. The reports were not coordinated and it was confusing to identify if the proposal included one level of underground parking or two. The engineering reports and design should be coordinated and updated.	The submission materials have been updated and coordinated for this submission. The proposal now includes one level of underground parking.
	63. The underground parking garage should be offset from the property line a minimum of 5.0 metres to accommodate utilities and infrastructure.	There will be no private utilities or infrastructure located between the parking garage and the property line. Control manholes for both storm and sanitary will be cast-in-place as part of the parking structure, and will be located completely within private property. Therefore, a 5.0 metre setback for utilities between the property line and parking structure will not be required.
	64. Soil material in the area appears to be favourable for infiltration measures. Infiltration should be evaluated as part of the stormwater design.	As noted in the Functional Servicing and Stormwater Management Report, the stormwater management criteria for the site can be met without the use of infiltration measures. However, the use of infiltration may be considered as part of a best practices approach, and will be evaluated at the detailed design stage.
	65. City records do not correspond with the functional servicing report. Our records indicate a 300mm asbestos cement sewer on Erb Street East.	The Functional Servicing Report has been revised to indicate that the storm sewer on Erb St E is a 300 mm asbestos cement pipe.
	66. The City does not have record of the 200mm diameter sanitary sewer on Dupont Street.	According to a plan and profile drawing received from the City of Waterloo, the 200 mm diameter sanitary sewer is part of the Laurel Uptown Sanitary Trunk Relief Sewer, and was installed in 2012. Please refer to the attached plan and profile drawing 15-887.
	67. A municipal storm sewer does not front the property on Pepler Street and an extension from the CBMH L44-1 will be required to make a service connection that complies with Regional standards.	No storm service connection is proposed off of Pepler Street. Storm service connections are proposed on Erb Street East and Dupont Street only.
	68. It appears sanitary will be pumped from the development. It should be noted the sanitary must be pumped to a MH on the property and a gravity connection to the municipal system.	A gravity connection has been provided from the proposed sanitary MH1A on the site to the existing MH on Pepler Street. Please refer to Preliminary Servicing Figure S-1.
	69. It appears two storm sewer connections from the development are proposed. The City standard typically permits one service per property. Additional clarification will be required and must be approved by the Director of Engineering.	The majority of drainage from the existing site is directed to Dupont Street and Erb Street East. Two storm sewer connections have been proposed in order to maintain the existing drainage patterns to Dupont Street and Erb Street East.
	70. A separate connection for the fire supply and domestic supply will not be permitted. Only one water service is permitted. The domestic supply may tee off the fire line outside or inside the building.	A single water service connection has been proposed. The domestic service will tee off within the building.
	71. It is understood that the Region of Waterloo will not permit a connection to the storm sewer. All stormwater proposed to discharge to Erb Street East must be approved by the Region of Waterloo.	The Region of Waterloo has not expressed any objection to the proposed storm connection to Erb Street.
	72. The storm sewers in the area have been identified as having capacity issues and an evaluation should be completed on the receiving capacity at the detail design.	Sewer capacity will be addressed at the detailed design stage.
	73. The hydrogeological report has third party limitations. We will require the consultant to provide a letter to the City with consent to allow the City to rely on the contents of the report to make development approval decisions.	A letter of reliance has been prepared by CVD and has been included in this submission.
	74. A final Dewatering Plan will be required with the technical engineering design and should include the following as a minimum: a) A letter requesting to discharge to the municipal storm sewer system;	Acknowledged. A dewatering plan will be prepared and submitted for site plan approval.

	<ul style="list-style-type: none"> b) A formal dewatering plan; c) A copy of the 'Application for Permit to Take Water' issued by the MOE; d) Method of dewatering; e) Anticipated date the system will be installed and length of time dewatering; f) Confirmation on the intended discharge point; g) Confirmation on the discharge rate and daily total maximum, as well as duration and pumping times; h) Emergency Plan including backup system and contact in the event the pumping must be shut down/reduced; i) Confirmation the storm sewer has the capacity to convey the discharge, A capacity analysis may be required; j) Groundwater sampling and analysis, and confirming compliance with the Regional Municipality of Water Sewer Use By-law 1-90 for water quality; k) On-site water quality unit with monitoring and maintenance plan, if required; l) Measures in place to reduce sediment entering into the storm sewer m) Monitoring plan including measures to ensure contaminants are not conveyed to the storm sewer. 	
	75. The Dewatering Plan must incorporate quality measures prior to discharge to the municipal storm sewer system that meet the Region of Waterloo Sewer Use By-law.	Same as above.
	76. It should be noted that if a tie back shoring system will be proposed to construct the underground parking garage, an encroachment agreement with the City may be required.	Same as above.
	77. The development is within a Well Head Area and specific construction measures as per DGSSMS must be identified at the detail design stage.	Same as above.
	78. It is recommended the applicant contact Waterloo North Hydro (WNH) as soon as possible to coordinate the project. It is understood that WNH was previously investigating burying hydro on Erb Street East.	WNH will be contacted in order to coordinate the project with any proposed hydro works.
	Functional Servicing Report	
	79. The servicing, grading and Stormwater Management report must be submitted to the Region for acceptance. A Regional permit will be required prior to issuance of the building permit.	Acknowledged.
	80. Site Drainage is to be designed such that overland flows do not negatively impact adjacent properties.	Acknowledged.
	81. A Salt Management Plan is required, at the Site Plan stage.	Acknowledged.
	82. Any revisions or upgrades to existing services are at the developer's cost.	The existing hydro lines will be relocated through the proposed redevelopment of the site. The relocation of the hydro lines will be confirmed and coordinated with Waterloo North Hydro at the detailed design stage by the electrical consultant.
	83. It would appear that hydro lines cross the property. Please confirm if hydro lines are intended to be relocated through the proposed redevelopment of the site.	The preliminary location of the electrical transformer is away from public view. The exact location will be confirmed by the electrical consultant at the detailed design stage.
	84. Hydro ducts and transformer access need to be shown away from public view and acceptable to Waterloo North Hydro.	The preliminary location of the electrical transformer is away from public view. The exact location will be confirmed by the electrical consultant at the detailed design stage.
	85. Confirm that gas metres and other similar infrastructure are located away from public views.	The locations of gas meters and other similar infrastructure will be confirmed at the detailed design stage.

	86. New sidewalk and driveway openings and closures will be required as per Regional specifications and are at the developer's cost.	Proposed sidewalk and driveways will be designed as per the Region of Waterloo standards.
	87. Existing servicing disconnects need to be identified and disconnected at the mains.	A note has been added to the Preliminary Servicing Figure S-1 to indicate that all existing service connections will be disconnected at the mains.

36, 42 Erb Street East and 39 Dupont Street East

Author	Comment(s)	Response
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Grand River Conservation Authority

Beth Brown, Supervisor of Resource Planning (519) 621-2763 x2307	General Comments	The floodplain at this location has been designated as a Special Policy Area (SPA) by the Province, City of Waterloo and GRCA. Provincial Policy (3.1.4a), Regional Policy (7.H.8a), City of Waterloo Policy (8.4.2.4) and GRCA Policy (8.1.34) permit development and site alteration in hazardous lands (flooding hazard) where a SPA has been approved. Prior to approval of the zone change application, it must be demonstrated how the development is in conformance with the SPA policies as outlined in the City of Waterloo Official Plan. The documentation submitted to date does not outline how the development is in conformance with the SPA policies; in fact it states that all the safe access requirements cannot be satisfied.	The submission materials have been revised in accordance with the SPA policies of the City of Waterloo Official Plan. In addition, the safe access evaluation has been updated using the flood elevations noted above. For further details, please refer to Section 4.0 in the Functional Servicing and Stormwater Management Report.
	Detailed Comments	1. General Floodplain Policies	
		8.4.2 (34) No new buildings, structures or fill shall be permitted in the hydraulic floodway. i) A portion of the subject lands at 42 Erb Street East is located within the floodway portion of the floodplain. It appears from Plan A100 that the building extends into the floodway. The plans must be revised to clearly demonstrate that no building, structure or fill is proposed within the floodway.	The site plan has been revised so that the proposed building is not within the hydraulic floodway. Please refer to the architectural drawings prepared by RAW Architects.
		2. Residential Policies	
		i) It appears this policy has been satisfied as the first habitable floor space is on the sixth floor. We assume the mechanical penthouse is for the mechanical and electrical services for the building which should be confirmed.	Acknowledged. There will be no mechanical or electrical services proposed below the Regulatory Flood Elevation of 323.34 m.
		ii) Policy 8.4.2 (39) states that notwithstanding policy 8.4.2(25), uninhabitable residential space created below the Regulatory Flood elevation shall be floodproofed to the Regulatory Flood elevation except those areas where it can be demonstrated to the satisfaction of the City and the Grand River Conservation Authority that a limited potential for damage exists. Flood protection for such uninhabitable space may be reduced, <u>but in no case</u> (emphasis added) shall the reduction be more than 1 metre below the Regulatory Flood elevation. This elevation will provide protection to, at minimum, the 100- year flood elevation or higher. We note that safe access requirements are anticipated to affect the lobby floor elevation, which in turn will affect this policy consideration.	The finished floor elevation of the residential lobby has been adjusted so that it is set at 1.0m below the Regulatory Flood elevation of 323.34 m. The proposed finished floor elevation of 322.34 m will provide protection to above the 100-year flood elevation.
		iii) Policy 8.4.2 (26) states that access to new residential buildings and mixed-use buildings containing residential space will be provided to ensure safe access/evacuation at the Regulatory Flood elevation. The determination of safe access shall be made by the Grand River Conservation Authority in an evaluation of the combination of flood depths and flood flow velocities as they affect individual sites. However, in <u>no case</u> (emphasis added) shall residential development be permitted where access/evacuation routes are subject to flood depths in excess of 0.8 metres or flood flow velocities in excess of 1.7 metres per second or where the product of depth and velocity exceeds 0.4 square metres per second under Regulatory Flood conditions.	The safe access/evacuation route analysis has been updated based on the flood elevations provided by the GRCA. Based on this analysis, a safe access route will be provided from Dupont Street to the building's emergency exit stairwell. The finished floor elevation of the emergency exit stairwell has been adjusted to provide access/evacuation at the Regulatory Flood Elevation of 323.34 m. Please refer to the Functional Servicing and Stormwater Management Report for further details.

	<p>Based on the information submitted by the consultants, safe access requirements are not satisfied, meaning the development does not meet the SPA policies.</p> <p>The applicant may choose to re-do the safe access/evacuation route analysis using current Regulatory Flood Elevations which update the elevations provided in 2013 and 2017. Explanation is also required on how a flow velocity of 0.07m/s was chosen for the entire site post-development. A safe access/evacuation route must also be demonstrated.</p>	
	<p>3. Commercial Policies</p> <p>i) Policy 8.4.2 (43) states that commercial uses such as retail, office, service and personal service commercial uses shall be floodproofed to the Regulatory Flood elevation except where it can be demonstrated to the Grand River Conservation Authority and the City that the level of flood protection would impair the viability of commercial operations. In such cases, a reduction in flood protection requirements may be permitted, <u>but in no case</u> (emphasis added) shall the reduction be more than 1 metre below the Regulatory Flood elevation. This elevation will provide protection to, at minimum the 100-year flood elevation or higher.</p> <p>Based on the floor elevations provided in both the Preliminary Grading Plan and Architectural Drawings (which provide different elevations), it appears the ground floor elevations are more than 1 metre below the Regulatory Flood elevation. It has not been demonstrated how this policy has been addressed.</p>	<p>The finished floor elevation of the commercial space has been adjusted to 1.0 m below the Regulatory Flood Elevation of 323.34 m. The proposed finished floor elevation of 322.34 m will provide protection to above the 100-year flood elevation.</p>
	<p>4. Parking Policies</p> <p>i) Policy 8.4.2 (45) states that surface parking may be permitted in all areas of the Special Policy Area in accordance with the Zoning By-Law. Where the Grand River Conservation Authority determines that surface parking sites are subject to severe flow velocities of sufficient magnitude to displace cars or other vehicles, surface parking facilities shall be designed with perimeter walls, berms, railings or other barriers suitable to contain floating vehicles in the parking lot and prevent obstruction of flood water flows.</p> <p>This requirement should be assessed in the engineering report using guidance from the MNRF Technical Guidelines (2002). If it is determined that barriers are required, details can be provided through the site plan approval and GRCA permitting process.</p>	<p>The Functional Servicing and Stormwater Management Report has been updated to assess the flood flow velocities with respect to the displacement of vehicles. The results of the analysis indicates that velocities on site will not be of sufficient magnitude to displace vehicles, and no barriers or other mitigation measures will be required.</p>
	<p>ii) Policy 8.4.2 (46) states that surface parking facilities associated with residential uses shall not be permitted to intrude into the hydraulic floodway. Surface parking associated with residential use shall conform to the same standards of "safe" access that apply to residential buildings as outlined in policy 8.4.2(26).</p> <p>This requirement should be discussed in the engineering report. It is not apparent how all the parking spaces shown have safe access, particularly those near Erb Street East and Pepler Street. As this could affect the overall number of parking spaces (and the requested reduction in spaces), this comment should be addressed at this time.</p>	<p>The Functional Servicing and Stormwater Management Report has been updated to include an analysis of the surface parking facilities with respect to the safe access requirements. The parking lot layout has been revised to ensure that all surface parking spaces associated with residential use will meet the requirements of safe access. Parking spaces that do not meet the safe access requirements will be designated as parking for the retail (short term parking). Please refer to Section 4.0 of the report for further details.</p>
	<p>iii) Policy 8.4.2 (49) states that underground parking facilities may be permitted in all areas of the Special Policy Area in accordance with the Zoning By-Law. Except as provided in Policy 8.4.2(50), all underground parking facilities shall be floodproofed to the Regulatory Flood elevation. All underground parking structures in the Special Policy Area shall be developed subject to the following: (a) access by elevator to underground structures during flood events shall be prevented; (b) underground structures shall be designed for controlled seepage and filling by flood waters and shall contain facilities for pump out; and (c) electrical and mechanical services be floodproofed to the Regulatory Flood elevation.</p>	<p>The Preliminary Grading Plan has been revised to show that the underground parking entrance is flood-proofed to the regulatory flood elevation. The report has also been updated to note that any other required flood-proofing measures for the underground garage will be addressed at the detailed design stage.</p>

		<ul style="list-style-type: none"> - Based on the Preliminary Grading Plan contained with the Functional Servicing and Stormwater Management Report, it does not appear that the entrance to the underground parking is floodproofed to the Regulatory elevation. The plans should be revised to demonstrate that the entrance is floodproofed. - Incorporation of other floodproofing measures should also be discussed in the engineering report. 	
		If it can be demonstrated that the development is in conformance with the SPA policies, the proposed zoning should be revised to recognize the floodplain on the subject lands. We recommend the floodplain symbol prefix "(F)" be added.	Acknowledged. Zoning will be revised with SPA policies have been satisfied.
		Regulatory Comments	
		1. A permit pursuant to Ontario Regulation 150/06 (or as amended) will be required from the GRCA prior to any development on the subject lands. As per GRCA Policy 8.1.34, development within a Special Policy Area may be permitted in accordance with the policies and standards approved by the municipality, Province of Ontario and the GRCA. The materials submitted to address the OP policies will also support a GRCA permit application. Any additional information requirements for the permit will be highlighted through the site plan approval process.	A permit will be submitted prior to the development of the lands.
		Review Fees	
		2. The GRCA applies Plan Review Fees for Planning Act applications located within GRCA areas of interest. This zone change application is categorized as major; therefore the applicable fee is \$2,170. We acknowledge receipt of this fee. We note that upon submission of the site plan application, an additional fee will be required as the site plan fee is higher than the zone change fee.	Acknowledged. The balance of the review fees will be coordinated upon submission of the Site Plan application.
		GRCA Permit Application	
		3. A separate fee will be required for a GRCA permit at the time of submission.	Acknowledged.

36, 42 Erb Street East and 39 Dupont Street East		
Author	Comment(s)	Response
Waterloo Advisory Committee on Active Transportation		
Louise Finlay	General Comments	
	1. The Laurel Trail forms part of the City's High Priority Network. The Laurel trails runs abutting the subject property along Peppler St. and should be labelled as such on the site plan.	The Laurel Trail has been labelled on the site plan.
	2. The Laurel Trail will need to remain open during construction;	Acknowledged. This will be considered and confirmed by a construction management plan at detailed design stage.
	3. The conflict zone for motorists and cyclists at the parking entry/exit along Peppler St. requires to be painted green through the full extent of the conflict area.	The parking entry/exit on Peppler will be painted green in the noted conflict zone. The details will be confirmed at Site Plan approval.
	4. Re-define asphalt multi-use trail at Erb/Peppler, show on site plan how it will be re-built and maintained;	The revised Landscape Plan depicts the proposed improvements to the multi-use trail, which include new concrete paving.
	5. Staff would encourage the developer to create a wider sidewalk along Erb St. to create a public realm for the residents, customers and individuals passing by the building;	The proposed development provides an approximately 3.0 metre clearway plus an additional 3 metres for the lands dedicated for the Erb Street widening. This is an appropriate and desirable public realm approach that will encourage future pedestrian activity on Erb.

		<p>6. The location of the outdoor bike parking appears to separate from the building. Staff would recommend the developer reconsider the location of the bike parking and incorporate it closer to the building.</p>	<p>Due to requirements an internal driveway and parking circulation, it is not feasible to relocate the bicycle parking closer to the building. However, the bike parking is mostly covered by the building, will be secure, and further buffered by landscaping. The location of the bicycle parking is easily accessible to residents of the building, and benefits from easy access to Laurel Trail.</p>
		<p>7. The application appears to be deficient on bike parking; Application should be striving towards the new zoning by-law. The development would require 145 bike parking spaces and only 105 are provided.</p>	<p>The revised proposal provides for 74 Type "A" and 85 Type "B" bicycle spaces in keeping with the new Zoning By-law.</p>
		<p>8. Staff recommend that the developer ensure a positive pedestrian connectivity North/South through the site to Dupont St. E.;</p>	<p>North south connectivity is provided through Peppler Street, with an enhanced public realm and landscaping treatment, as well as active uses at grade. Please see revised Landscape Plan.</p>
		<p>9. City staff are concerned about the wind and how it will affect the pedestrian environment and the trail users below and around the site;</p>	<p>The proposed development increases the number and amount of stepbacks along Erb and Peppler Streets. Additionally, any potential wind impacts can further be addressed through balcony placement, and materials, which can be confirmed at the site plan stage.</p>
		<p>10. The developer should consider improvements to the trail connection on Peppler St. (Laurel Trail crossing Peppler St.);</p>	<p>Significant enhancements are proposed for the corner of Erb Street and Peppler Street to help emphasize the significance of this corner. This includes a new public art strategy, to help improve the relationship of the development proposal to Laurel Creek. Overall, these changes help improve the relationship of the site to its surroundings. Please see revised Landscape Plan and Architectural Plans.</p>