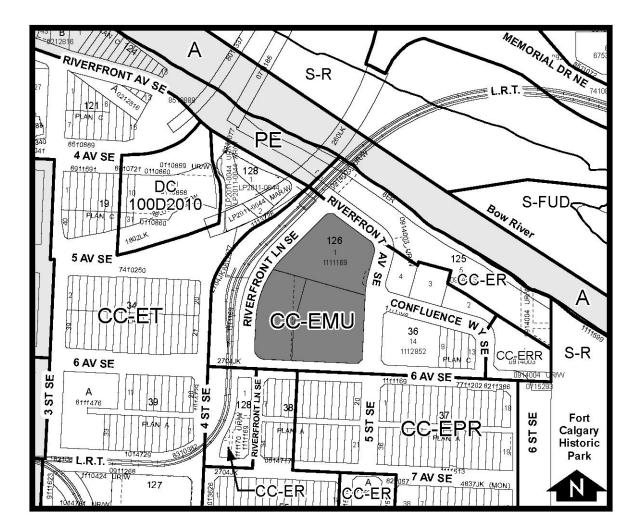
REPORT TO THE CALGARY PLANNING COMMISSION

DEVELOPMENT PERMIT	ITEM NO: 05			
	FILE NO:	DP2011-2993		
	CPC DATE:	2012 March 29		

DOWNTOWN – EAST VILLAGE (Ward 7- Alderman Farrell)



PROPOSAL:

Mixed-Use Residential/Commercial Development (487 units) with Retail at-grade

APPLICANT:	OWNER:
James KM Cheng Architects INC	Calgary Municipal Land Corporation
MUNICIPAL ADDRESS:	LEGAL DESCRIPTION:
553 and 583 Riverfront Avenue SE,	Plan 1111169, Block 126, Lot 1-3
518 - 6 Avenue SE	(Map 15C)

EXISTING LAND USE DISTRICT(S): CC-EMU (Centre City – East Village Mixed Use)

AREA OF SITE: 2.414 ha \pm (5.97 ac \pm)

CURRENT DEVELOPMENT: Vacant

ADJACENT DEVELOPMENT:

NORTH:Bow River and River PathwaySOUTH:Vacant ParcelEAST:Vacant ParcelWEST:LRT R.O.W

DEVELOPMENT SUMMARY					
RULE	BYLAW STANDARD	PROPOSED	RELAXATION		
DENSITY (F.A.R)	6.65 (with Bonusing)	5.39	None		
MID-RISE BUILDING	Provide a minimum 2.0m step-back above the seventh storey	0	2.0 metres		
PARKING	0.75/ unit (residential) 2 stalls/ 100m ² (commercial) 0.1 stalls/Residential unit	Phase 1 (222 Residential) Phase 2 (308 Residential) 20 Commercial 29 Visitor	20 stalls (Commercial) 11 stalls (Visitor)		
LANDSCAPING	25.0 % of all trees required must be coniferous. 106 trees provided, 27 coniferous required.	Plans indicate 15 (- 12) coniferous trees provided.	12 coniferous trees		

EXTERIOR FINISH MATERIALS : Walls: pre-finished metal panels, dark tone brick, fritted glass spandrel panels Roof: Metal panels Windows: Vision glass

SUMMARY OF CIRCULATION REFEREES			
ENVIRONMENTAL MANAGEMENT	Not Applicable		
URBAN DESIGN REVIEW PANEL	Comments in report.		

PLANNING EVALUATION

Introduction

The subject application is for a residential development in East Village. The Calgary Municipal Land Corporation (CMLC), as the landowners, have initiated a comprehensive redevelopment with the purchase of lands and the construction of all underground and at-grade infrastructure. The current proposal is for a 2-phase residential development, with retail uses at-grade. Two residential towers and a mid-rise block comprised of 487 residential units, 17 of which are to be townhouses at-grade. The first phase includes an 8-storey mid-rise residential building and 20 storey residential building, and five townhouse units at-grade along with nine at-grade commercial retail units along the podium. The second phase includes the development of a 33 storey residential tower along with 12 townhouse units and one commercial unit at-grade.

Site Context

The subject development permit application represents the first residential project in this portion of East Village. As such, there is no immediate context regarding existing building forms. The subject lands are situated immediately south of the Bow River and recently redeveloped regional pathway, known as the River Walk through the stretch along the East Village Community.

Land Use District

The subject parcels are designated Centre City-East Village Mixed Use District (CC-EMU). The CC-EMU district is intended to provide a mix of commercial and residential uses. Further, the district is intended to facilitate development that is sensitive to adjacent districts that allow for primarily residential uses. The proposed development is found to meet the purpose and intent of the land use district.

Site Characteristics

The subject site is generally flat with no significant geographic features.

Legislation & Policy

East Village Area Redevelopment Plan

Policies of the East Village Area Redevelopment Plan (ARP) promote uses along Riverfront Lane to provide ground floor commercial uses, with either residential, commercial or institutional uses above. Additionally, an amendment to the ARP provided a bonus density of 1.0 for high-rise tower developments that provide for residential units at-grade, with separate, primary entry from each dwelling unit directly onto the street. Phase 2 of the subject development (along Riverfront Lane) has been lined with townhouse residential units. As the density for the proposed Density has been calculated at 5.39 FAR, the proposed density is found to be within the upper limit of the maximum density allowed to be developed on the site (6.65 FAR).

Relevant objectives for residential development (Section 5.2) in the East Village include:

- 5.2.1 A wide range of residential units will be allowed including Live/Work units, low-rise, mid-rise and high-rise apartments and condominiums;
- 5.2.3 Land use districts shall provide for a mix of unit sizes;
- 5.2.4 Building forms should orient towards the street;
- 5.2.5 Residential buildings should be sensitively designed to create an interface that clearly defines public, semi-private and private spaces;
- 5.2.6 High Rise buildings should be sufficiently separated and oriented to mitigate loss of privacy for residents and provide access to sunlight between tower shadows;
- 5.2.8 In order to provide for smaller blocks in East Village and in support of a variety of residential development types, the development of lanes to accommodate residential, commercial and live/work uses is encouraged; and
- 5.2.12 All development with dwelling units at-grade shall provide separate primary access to the street from each dwelling unit.

Administration finds the application fulfils the objectives of the residential land use policies of East Village.

The relevant objectives of Commercial Land Uses (Section 6.2) of the ARP include:

- 6.2.1.1 Commercial Development east of 4 Street SE should be developed as part of a residential mixed use development and should be located no higher than the second storey;
- 6.2.1.3 Buildings adjacent to the riverfront promenade may be set back to provide space for outdoor cafes, the outdoor extension of retail uses and provision of supplementary pedestrian space;

- 6.2.1.4 Ground floor commercial space shall be directly accessible from grade and shall be designed to provide transparent glazed storefront modules; and
- 6.2.1.7 In order to encourage a variety of uses at-grade, individual commercial uses shall be limited to the width of one typical storefront module.

Administration finds that the proposed development fulfils the objectives for the provision of commercial uses as contained within the East Village ARP.

Site Layout & Building Design

The subject site is situated on the southern half of a block divided by a private lane. All public frontages have been lined uses that are conducive to pedestrian traffic. The podium-tower form of development features two residential towers and one mid-rise residential block of a contemporary expression. The three buildings feature a rectangular form that is glazed in clear glass, where bandings of fritted glass provided between each storey provide relief in the elevations. Further relief in the elevations is provided by the strategic use of the pre-finished aluminum window wall system which break the massing in appropriate areas to the largely glass façades. Typical floor plates are 757 sq.m for the residential towers, and 1017 sq.m for the mid-rise building.

The intent of the applicants is for a development that both pays homage to the past, present and future of the East Village Community. Materials used in the cladding of the buildings reflect a past that is found in its podium clad in brick, and its future expressed in the prefinished metals and glass used to suggest a light and airy building. The podium has been clad with brick, which is intended to pay tribute to the previous buildings found in East Village, and also to the historical Simmons buildings located north-east of the site. The fritted glass functioning as spandrel panels between each storey denote a patterning which symbolizes the continuing evolution of the East Village, through what the applicants refer to as 'DNA banding', suggesting a unique identity amongst the changing landscape of East Village.

The residential lobbies for the two towers are located at the south-west and north-east extents of the site, made legible through the use of distinct pavers, and stepped areas where required to be above flood levels.

At-grade, 15 townhouse units have all been provided with a private amenity space at grade complemented by semi-private landscaping elements in the form of trees.

The public realm along 6 Avenue SE and Riverfront Avenue SE has been furnished with a surfacing material that is common throughout the East Village Community, as constructed by CMLC. In the lane, a variety of patterning is being proposed to provide for enhanced legibility for both pedestrians and vehicles. Further, a combination of Paper Birch, Green Ash and Amur Maples trees are to be planted along both the public and private boulevards.

Urban Design Review Panel

Comment	Applicant's Response
The Panel would like to compliment the Applicant on a well thought out and well documented solution to a complex site.	Acknowledged
The Panel applauds the initiative to reduce the number of sidewalk crossings in order to optimize the quality of the pedestrian realm.	Acknowledged
The Panel requests the Applicant to revisit the detailed design of the at grade vehicular circulation/parking strategy within the footprint of the building. The Panel feels the current design could be simplified to improve pedestrian safety and way finding.	The applicants have revisited the internal vehicular circulation and parking, and are proposing to clearly identify circulation paths for both vehicular and pedestrian traffic with colour coding and painted surfaces.
The Panel requests the Applicant to further study wheelchair accessibility to all commercial units directly off 6 th Avenue SE.	The commercial units off 6 Avenue SE have been revised to allow for wheelchair accessibility.
The Panel encourages the Applicant to further pursue sustainable design initiatives.	LEED Checklist (Appendix II) to indicate potential sustainability initiative that may be achieved upon development of the site.

Phasing

The subject application proposes two phases of development to be undertaken. The first phase is comprised of the 19 storey residential tower and 5 at-grade townhomes, along with an 8 storey residential building where both buildings are connected by a common podium level with 9 commercial units at-grade. The second phase is comprised of a 32 level residential building, with the continuation of the commercial podium level from Phase 1 and 12 townhome units along Riverfront Lane SE.

Each phase of development provides for vehicular ingress/egress into their respective servicing areas and underground parking areas. The subject development has been phased in such a manner that each phase can function independent of the other each serviced by separated vehicular access points from the lane, waste-recycling areas, class-2 bike parking and loading areas.

Landscaping

At-grade, the pedestrian realm along Riverfront Avenue SE and 6 Avenue SE is lined with Green Ash and American Elms installed within trenching grates that are typical of that found in the redeveloped East Village District. These public boulevards have been constructed upon the redevelopment of all public infrastructure by CMLC. Semi-private amenity spaces have been furnished with a combination of Scots Pine, Green Ash, Prairie Dream Paper Birch and Flame Amur Maple trees. The podium level landscaping area features an amenity area located centrally to the development where there direct internal access has been provided for from all relevant dwelling units on the second level. A promenade along the southern extent of this gardened area has been provided, with semi-private seating areas partitioned with 18 inch high stone walls.

Central to the amenity area is a deck garden which features an open area furnished with patterned surfaces that denote various walkways across the site. In addition, a common amenity area has been provided along the north-east extent of the gardened area, made legible through the use of various textured concrete surfacing. All landscaped areas on this level are to be irrigated by an automatic system.

On the roof level of the mid-rise residential building, private amenity spaces are provided with various species of trees and plantings. Green roof areas which are only utilitarian in nature, are proposed along the terraced roof areas along the eastern extent of the site. These areas will contribute to the achievement of LEED should the applicants pursue such designation upon the construction.

Site Access & Traffic

A Transportation Impact Study was not required for the subject application. Vehicular access points have been provided from the lane along the northern extent of the site. Two points of access for servicing and residential/commercial have been provided. Bicycle parking facilities have been provided for each phase of development (82 and 73 stalls respectively) within the first level.

Parking

Required parking has been provided in a 3 level underground parkade. A total of 578 stalls have been provided which accounts for all residential, visitor and commercial stalls, of which 57 are tandem stalls.

Site Servicing for Utilities

Servicing is available for the subject site. A Development Site Servicing Plan (DSSP) will be required prior to the release of the subject application.

Environmental Sustainability

The Applicants have provided a LEED checklist sheet which shows the potential for the proposed development to achieve LEED Silver Accreditation (Appendix II)

Community Association Comments

There is no Community Association for the East Village Community.

Adjacent Neighbour Comments

No comments received.

CONCLUSION:

The proposal is supported for the following reasons:

- 1. The subject application conforms to the purpose and intent of the East Village Area Redevelopment Plan as specified for the CC-EMU Centre City East Village Mixed Use Districts.
- 2. The proposed development is found to establish a form of development that is to be compatible with future land uses in the East Village Community.
- 3. The subject application is found to incorporate a high quality of architecture and urban design which establishes the standard desirable for all future development in the East Village Community.

<u>CORPORATE PLANNING APPLICATIONS GROUP RECOMMENDATION:</u> APPROVAL

Recommend that Calgary Planning Commission **APPROVE** the application with the following conditions:

Planning:

1. Submit a total of 6 complete sets of Amended Plans (file folded and collated) to the Planning Generalist that comprehensively address the Prior To Release conditions of all Departments as specified below.

In order to expedite the review of the Amended Plans, please include the following in your submission:

- a. Six (6) of the plan set(s) shall highlight all of the amendments.
- b. Six (6) detailed written response(s) to the Conditions of Approval document that provides a point by point explanation as to how each of the Prior to Release conditions were addressed and/or resolved.
- In addition to the full sized plans requested above, please submit one (1) 11 x 17 complete set of plans for the purpose of the Development Completion Permit (DCP) process.

Please ensure that <u>all</u> plans affected by the revisions are amended accordingly.

2. The subdivision as described in file SB2012-0051 shall be registered.

Urban Development:

3. Amend the plans to:

Waste and Recycling Services – General

- a. Provide door protection for both Waste and Recycling locations to ensure that there is protection from contact by Waste and Recycling containers. Provide cross-sections complete with metric dimensions.
- b. Indicate how all commercial units will access the commercial waste and recycling room(s). Show this access on the plans.
- 4. Amend the plans to:

<u>Roads</u>

- a. Provide SU-9 vehicle turning templates on all relevant plans. Templating has been provided internal to the site. However Roads would like to see templating from the adjacent roadway into the driveway access point into the site to ensure smooth transitioning from the road into the site.
- b. Indicate the 4.5mX4.5m corner cut (dimensioned, shown, etc.) at the intersection of Riverfront Avenue SE and 6 Avenue SE on all relevant plans (Parkade Level 1, Site Plan, Landscape Plan, etc.).
- c. Clearly identify the property lines all on relevant plans. The latest plans make it difficult to identify where the property lines are. A darker / thicker line will be sufficient.
- d. Provide a 10.0m commercial driveway crossing complete with 3.0m flares on RIVERFRONT AVENUE SE as per Roads Specification **454.1010.005 sheet 118** (curb returns are not permitted).

For further details regarding the Roads conditions above, contact the Roads Design Technologist, 403-268-5062

5. Submit two (2) copies of an Erosion and Sediment Control (ESC) report and drawings to Urban Development, for review and acceptance by Water Resources. If the overall site size is less than 2 hectares (5 acres), only a set of drawings may be required for review. Ensure, in advance, you contact the Erosion Control Coordinator, Water Resources (403-268-2655) to discuss report and drawing requirements for sites less than 2 hectares in overall size.

Documents submitted shall conform to the requirements detailed in the current edition of The City of Calgary *Guidelines for Erosion and Sediment Control* and shall be prepared, signed and stamped by a qualified consultant specializing in erosion and sediment control, and holding current professional accreditation as a Professional Engineer (P. Eng.), Professional Algologist (P. Ag.) or Certified Professional in Erosion and Sediment Control (CPESC). For each stage of work where soil is disturbed or exposed, documents must clearly specify the location, installation, inspection and maintenance details and requirements for all temporary and permanent controls and practices.

6. Remit a performance security deposit (certified cheque, bank draft, letter of credit) for the proposed infrastructure listed below within the public right-of-way to address the requirements of the Business Unit. The amount of the deposit is calculated by Roads and is based on 100 per cent of the estimated cost of construction.

The developer is responsible to arrange for the construction of the infrastructure with their own forces and to enter into an Indemnification Agreement with Roads at the time of construction (the security deposit will be used to secure the work).

<u>Roads</u>

- a. Construction of new driveway crossings on Riverfront Avenue SE
- b. Rehabilitation of existing driveway crossings, sidewalks, curb and gutter, etc., should it be deemed necessary through a site inspection by Roads personnel
- 7. Remit payment (certified cheque, bank draft) for the proposed infrastructure listed below within the public right-of-way to address the requirements of the Business Units. The amount is calculated by the respective Business Unit and is based on 100 per cent of the estimated cost of construction.

The developer is responsible to coordinate the timing of the construction by City forces. The payment is non-refundable.

<u>Roads</u>

- c. Street lighting upgrading adjacent to the development site
- Remit payment (certified cheque) for the infrastructure upgrades for the Centre City communities, in the amount of \$538,070.40, to Urban Development. This levy includes both the Centre City Utility Levy approved under the Centre City Utility Levy Bylaw 38M2009 and an amount approved by Council for community recreation, transportation, parks upgrading, and greenways. The amount identified above is determined by using \$4710.00 per meter of site frontage (on avenues only) for the proposed development (114.24m).

Transportation:

- 9. Execute and register on title a Mutual Access Easement Agreement between Lot 1, Block 126, Plan 1111169 & Lot 2, Block 126, Plan 1111169 & Lot 3, Block 126, Plan 1111169 for the purpose of parking access / vehicular access / pedestrian access / an access route for the waste & recycling collection vehicle(s) to the storage facilities. The agreement and registerable access right of way plan shall be to the satisfaction of the Director, Transportation Planning. A standard template for the agreement and an Instruction Document will be provided by the Transportation CPAG Generalist. Submit an original copy of the executed agreement and the certificate of title(s), indicating the agreement is registered on title, for all affected parcels.
- 10. Label the bus zone and bus amenities (bus shelter, bench) on applicable drawings including the Site Plan.

Permanent Conditions

The following permanent conditions shall apply:

Planning:

- 11. The development shall be completed in its entirety, in accordance with the approved plans and conditions.
- 12. No changes to the approved plans shall take place unless authorized by the Development Authority.
- 13. A Development Completion Permit shall be applied for and approval obtained for each phase, prior to the uses occurring. The Development Completion Permit for the development shall be applied for within three weeks or such a period as agreed in writing with the Development Authority when the road ROW is acquired. Call Development Inspection Services at 403-268-5491 to request site inspections for the Development Completion Permits.

Urban Development:

14. If **during construction** of the development, the developer, the owner of the titled parcel, or any of their agents or contractors becomes aware of any contamination, the person discovering such contamination shall immediately report the contamination to the appropriate regulatory agency including, but not limited to, Alberta Environment, Alberta Health Services and The City of Calgary (311).

If **prior to or during construction** of the development, the developer, the owner of the titled parcel, or any of their agents become aware of contamination on City of Calgary lands or utility corridors, the City's Environmental Assessment & Liabilities division shall be immediately notified (311).

- 15. The subject parcels shall be consolidated onto a single title.
- 16. The developer / project manager, and their site designates, shall ensure a timely and complete implementation, inspection and maintenance of all practices specified in erosion and sediment control report and/or drawing(s) which was submitted to Water Resources for review and acceptance. Any amendments to the ESC documents must be reviewed and approved by Water Resources in advance by contacting the ESC inspector that reviewed the documents or by contacting the Water Resources Erosion Control Coordinator at 403-268-2655.

For other projects where an erosion and sediment control report and/or drawings have not been required at the Prior to Release stage, the developer, or their designates, shall, as a minimum, develop an erosion and sediment control drawing and implement good housekeeping practices to protect onsite and offsite storm drains, and to prevent or mitigate the offsite transport of sediment by the forces of water, wind and construction traffic (mud-tracking) in accordance with the current edition of The City of Calgary Guidelines for Erosion and Sediment Control (<u>www.calgary.ca/waterservices/esc</u>). Some examples of good housekeeping include stabilization of stockpiles, stabilized and designated construction entrances and exits, lot logs and perimeter controls, suitable storm inlet protection and dust control.

For **all soil disturbing projects**, the developer, or their representative, shall designate a person to inspect all erosion and sediment control practices a minimum of every seven (7) days and during, or within 24 hours of, the onset of significant precipitation (> 12 mm of rain in 24 hours, or rain on wet or thawing soils) or snowmelt events. Note that some practices may require daily or more frequent inspection. Erosion and sediment control practices shall be adjusted to meet changing site and winter conditions.

- 17. Contact the Erosion Control Inspector, Water Resources, with at least two business day's notice, to set up a pre-construction meeting prior to commencement of stripping and grading. Locations north of 17 Avenue S should contact 403-268-4913. Sites south of 17 Avenue S should contact 403-268-1847.
- 18. Storm water runoff must be contained and managed in accordance with the "Stormwater Management & Design Manual' all to the satisfaction of the Director of Water Resources.
- 19. The development site lies within the Flood Fringe and as such must conform to Land Use Bylaw 1P2007, Part 3, Division 3 (or 2P80 for areas downtown). The designated flood level elevation is 1042.80m.
- 20. The grades indicated on the approved Development Permit plans must match the grades on the Development Site Servicing Plan for the subject site as per the Lot Grading Bylaw.
- 21. No trees, shrubs, buildings, permanent structures or unauthorized grade changes are permitted within the utility rights-of-way.
- 22. The developer shall be responsible for the cost of public work and any damage during construction in City road right-of-ways, as required by the Manager, Urban Development. All work performed on public property shall be done in accordance with City standards.
- 23. Indemnification Agreements are required for any work to be undertaken adjacent to or within City rights-of-way, bylawed setbacks and corner cut areas for the purposes of crane operation, shoring, tie-backs, piles, surface improvements, lay-bys, utility work, +15 bridges, culverts, etc. All temporary shoring, etc., installed in the City rights-of-way, bylawed setbacks and corner cut areas must be removed to the satisfaction of the Manager of Urban Development, at the applicant's expense, upon completion of the foundation. Prior to permission to construct, contact the Indemnification Agreement Coordinator, Roads at 403-268-3505.
- 24. Canopies and awnings located within the bylaw setback and/or City road right-of-way shall be removed at the owner's expense within 30 days of the City of Calgary giving notice, as per the Streets Bylaw 20M88, Section 59.
- 25. The encroachment(s) (patio components, seats, etc.) located within the City road rightof-way / corner cut area shall be removed at the owner's expense within 30 days of the City of Calgary giving notice.

26. A Perpetual Maintenance Agreement is to be registered on the development site's land title(s) for the applicant requested non-standard surface element(s) located in the road right-of-way concurrently with the execution of the Indemnification Agreement. Contact the Indemnification Agreement Coordinator, Roads at 403-268-3505.

Transportation:

- 27. All tandem stalls must have poured in place concrete wheel stops. These wheel stops cannot be removed.
- 28. Ensure the bus zone is maintained and open during the construction of the project.
- 29. No direct vehicular access is permitted to or from <u>6 Avenue SE</u> or <u>Riverfront Lane SE</u>.
- 30. If the project is built in phases, surplus parking stalls that are not assigned to commercial or residential uses cannot be used for commercial pay parking. Surplus parking stalls must be physically blocked off with walls or knock-out panels to prevent the use of these stalls for parking.

Parks:

31. As per the approved landscaping plans for East Village, public trees located on the boulevard adjacent to the development site shall be retained and protected during all phases of construction by installing a temporary fence around the extent of the branches ("drip line") and ensuring no construction materials are stored inside this fence.

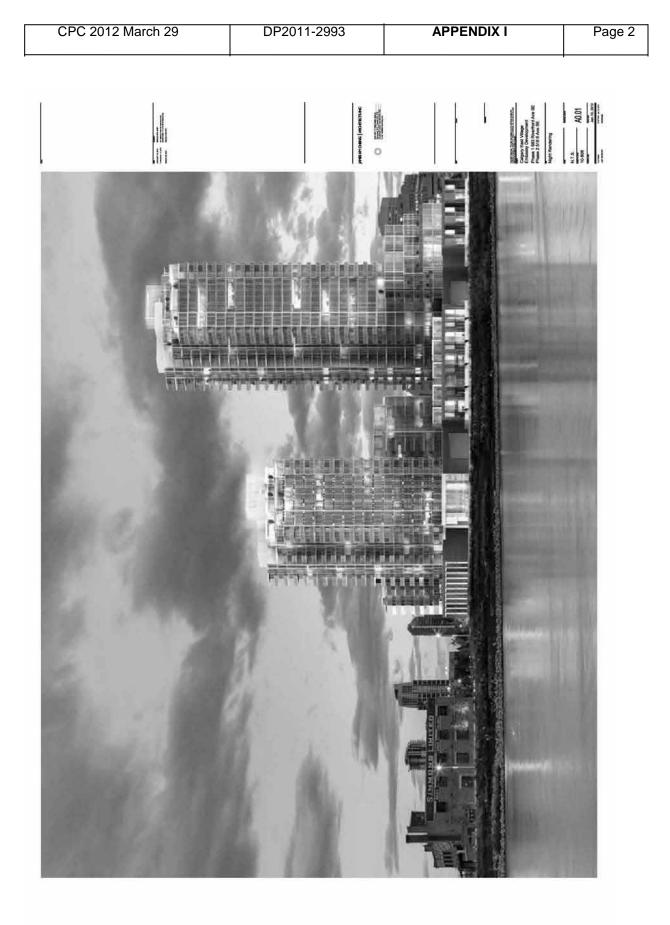
Applicant shall contact Urban Forestry at 311 to arrange for Tree Protection Plan approval.

32. The proposed development may damage or require the removal of some boulevard trees. The applicant will be required to provide compensation to the City of Calgary for any Public Trees that are removed or damaged. As per the City of Calgary Tree Protection By-law, a letter of authorization to remove public trees is required from Parks Urban Forestry. The applicant is to contact Urban Forestry at 311.

The use of an indemnified contractor to remove the boulevard tree and rootball material is required and at the expense of the applicant.

Joseph Yun 2012/March 19

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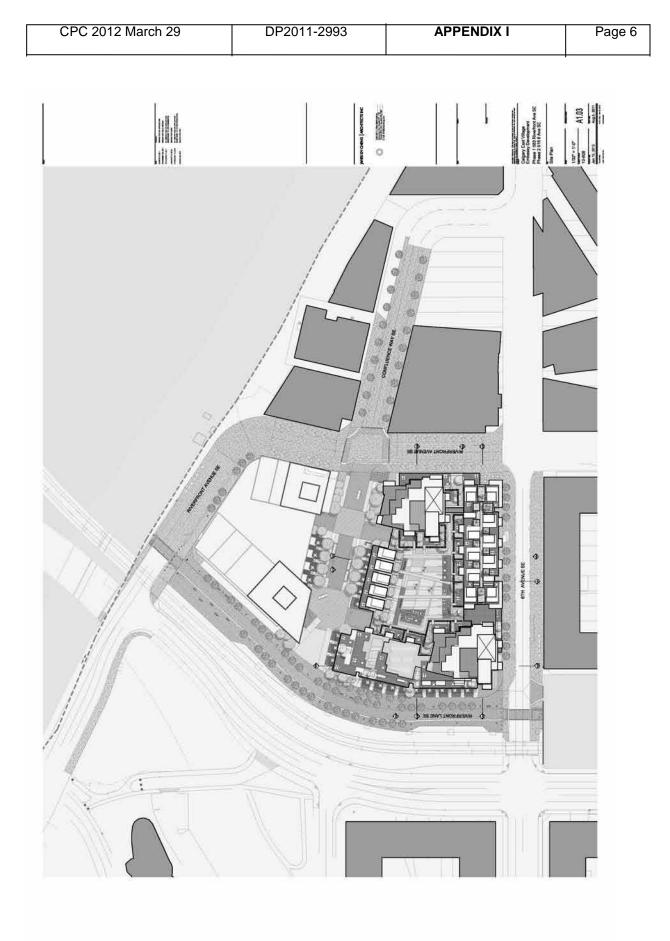
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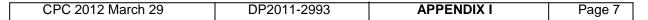
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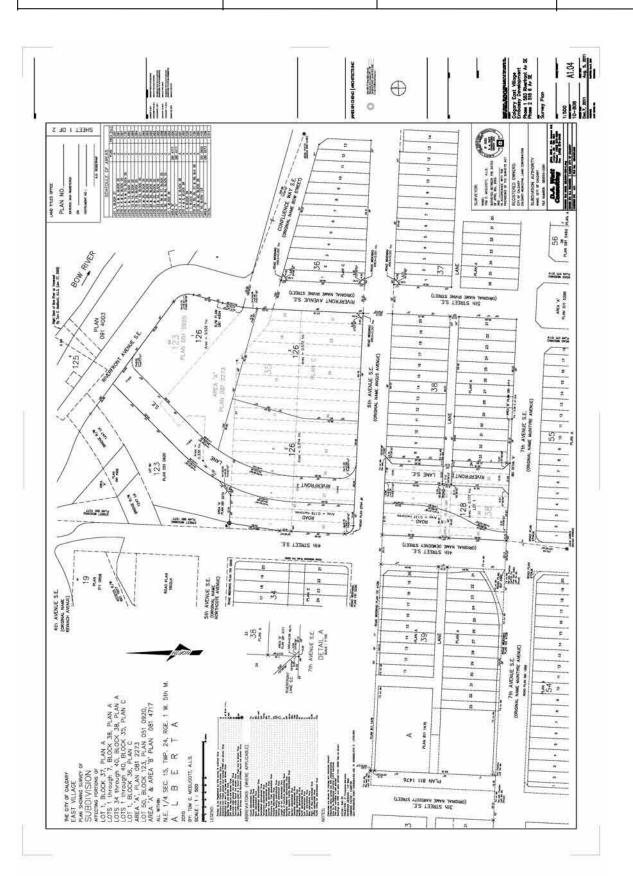
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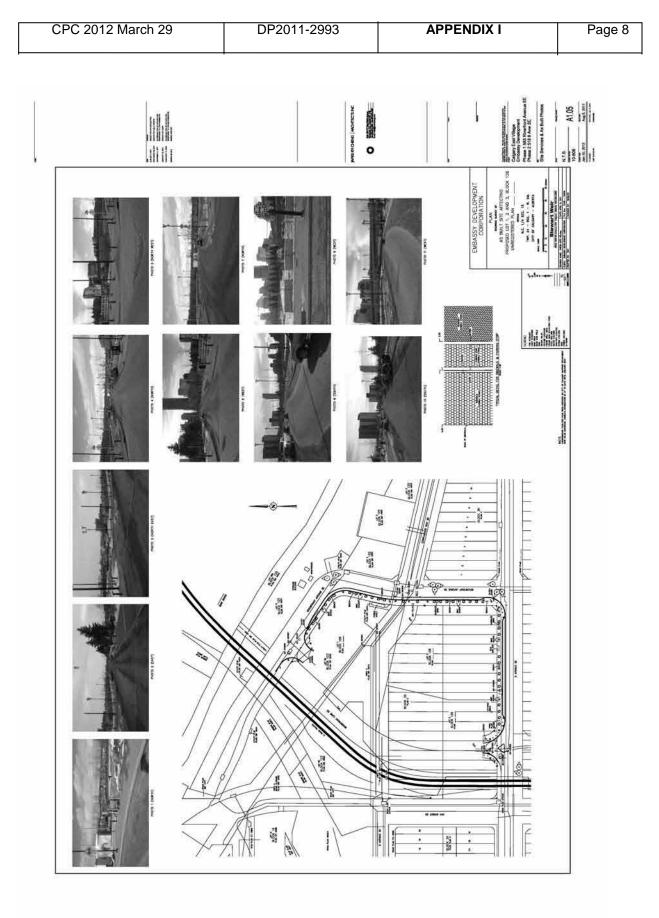


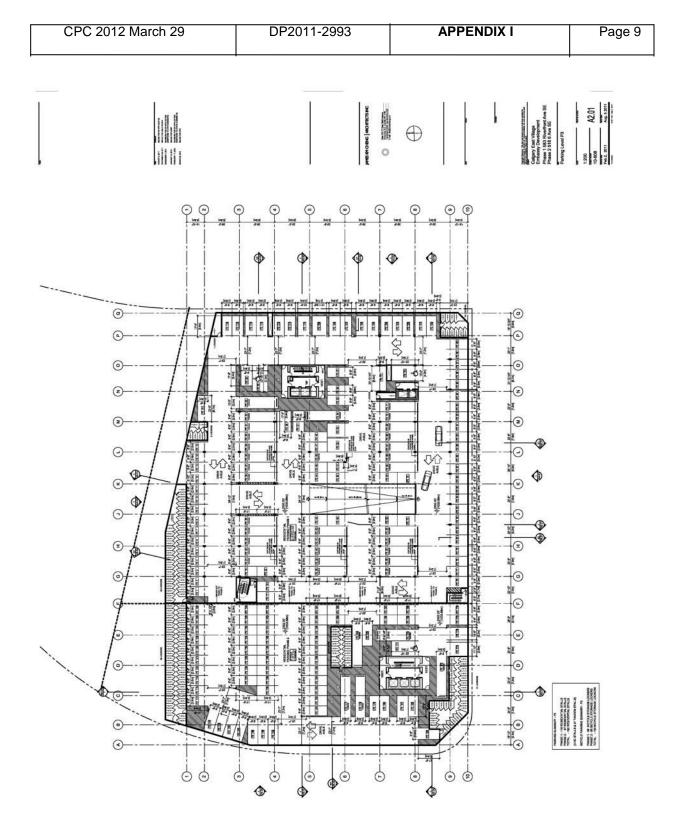


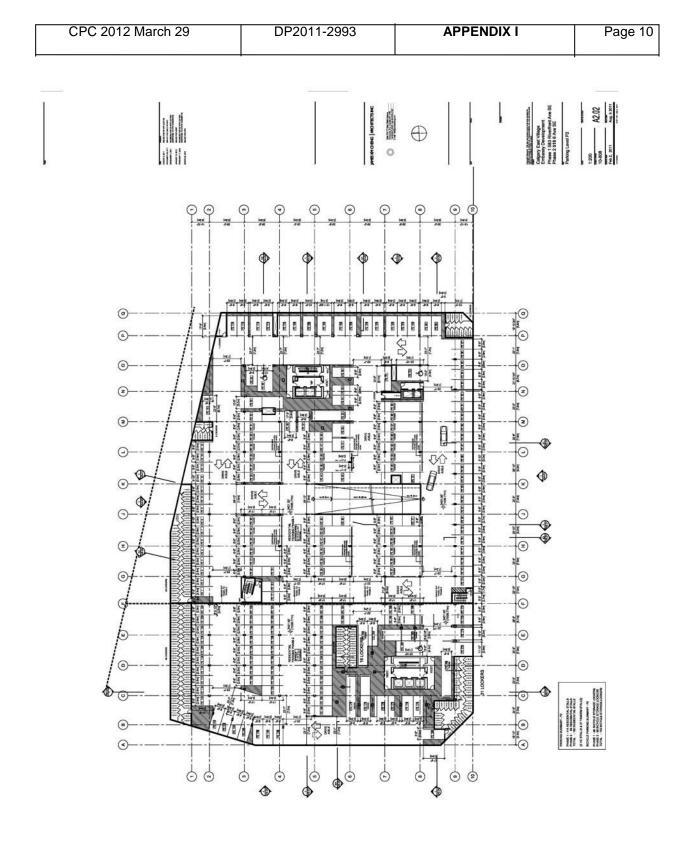


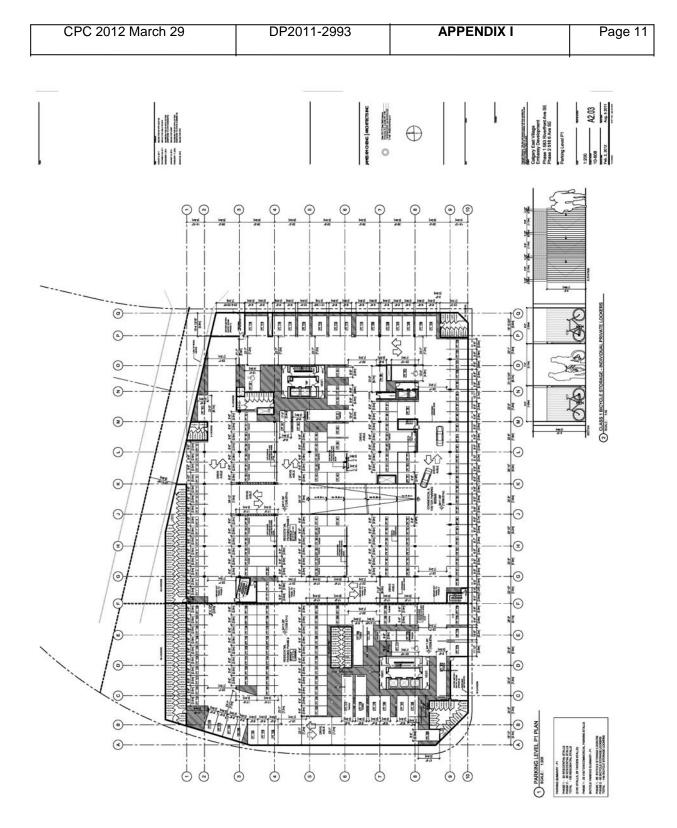


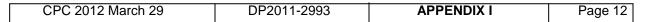


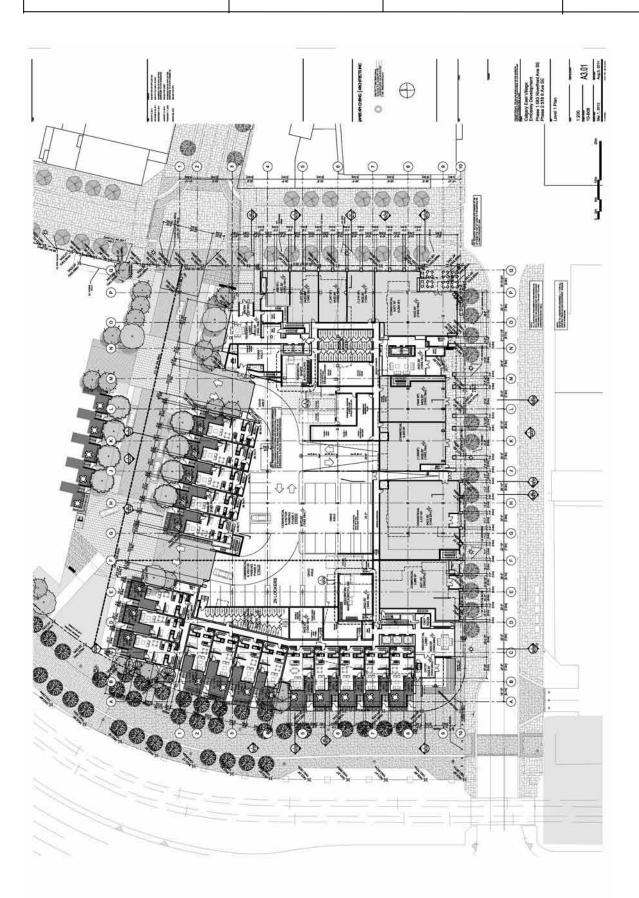


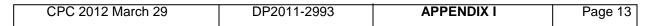


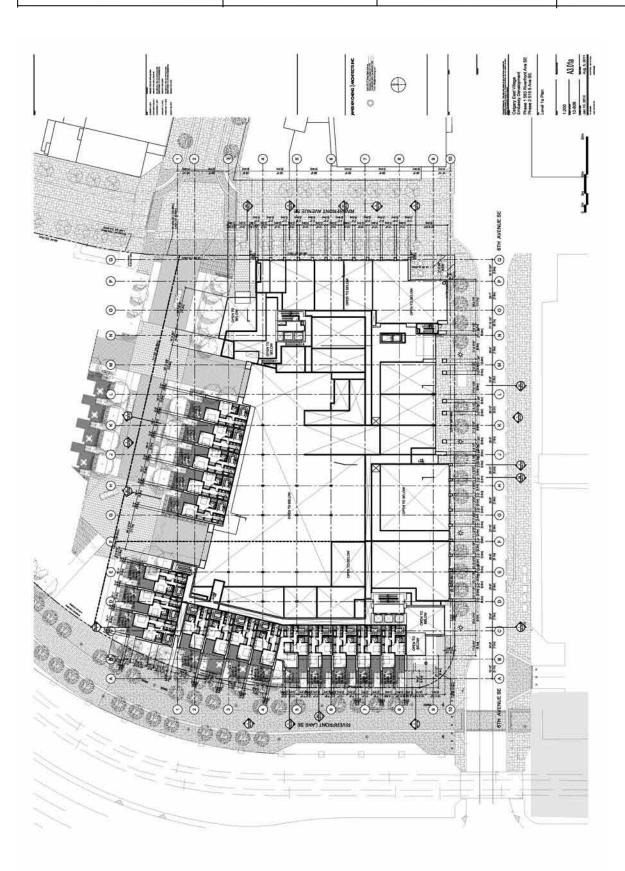


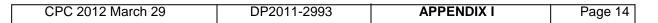




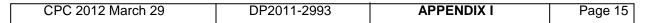




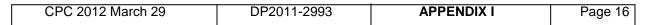




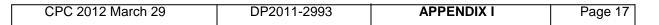




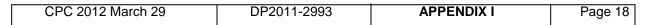


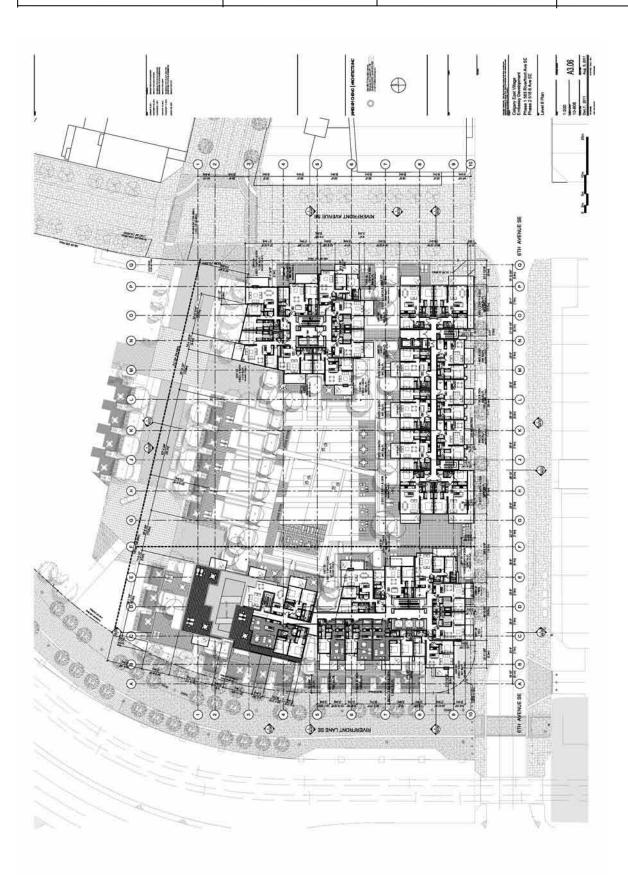


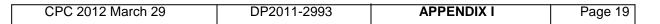




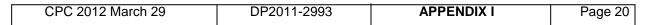




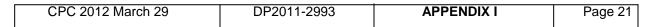


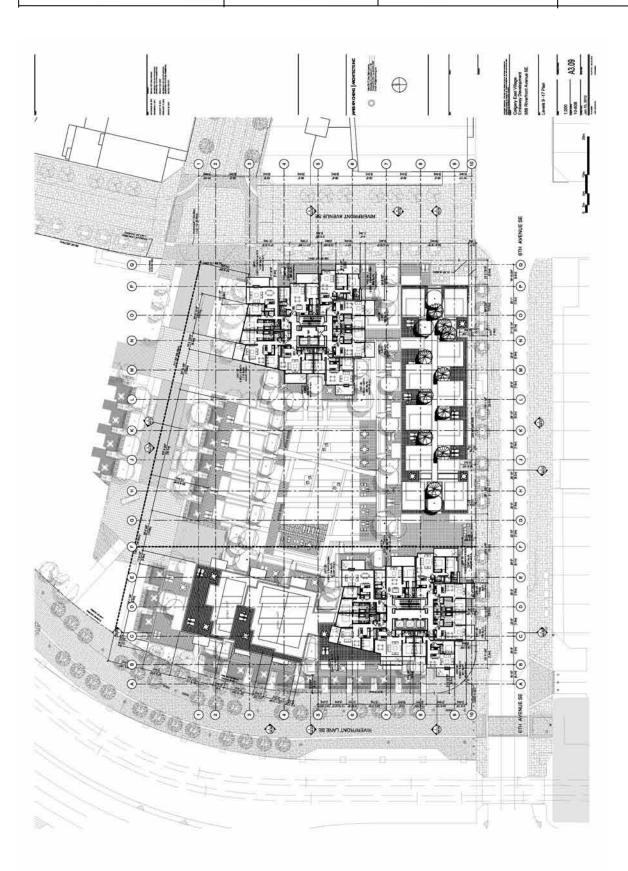


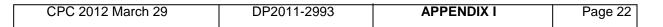


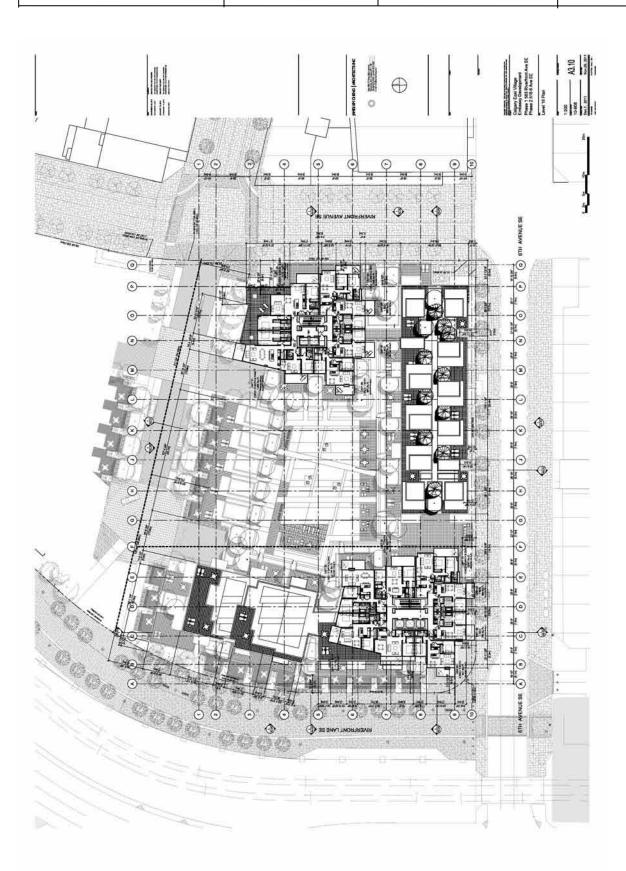


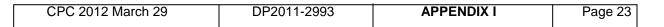


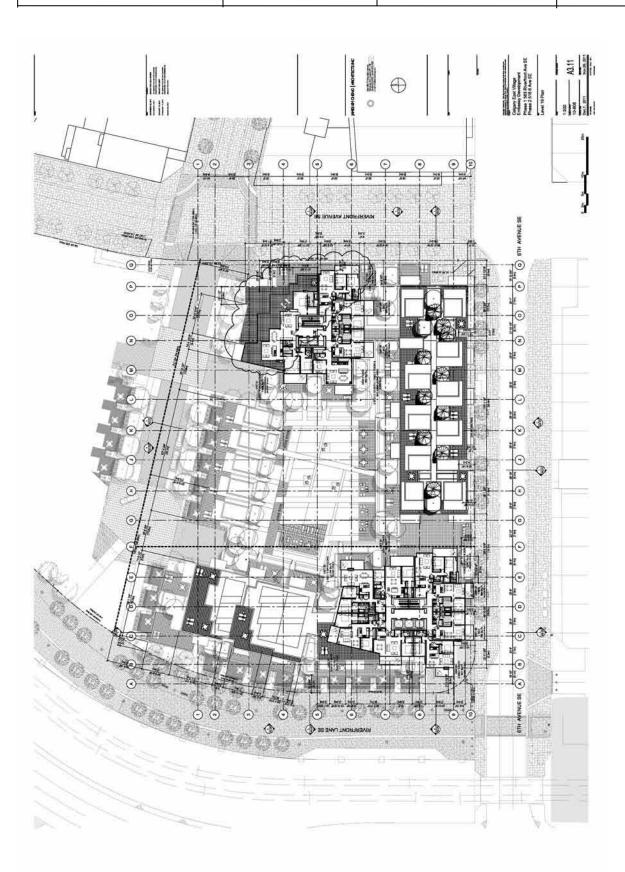


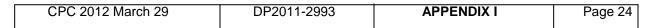


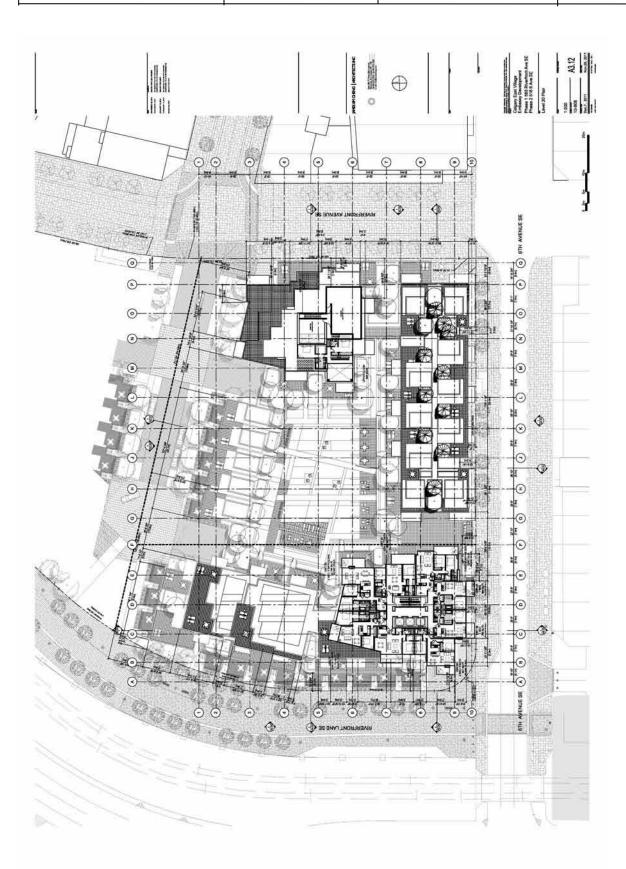


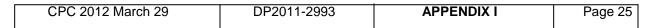




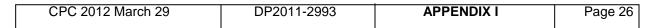




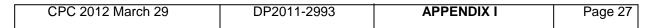




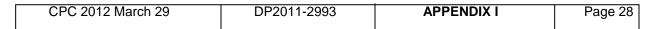




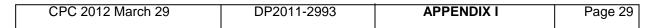




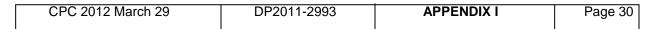








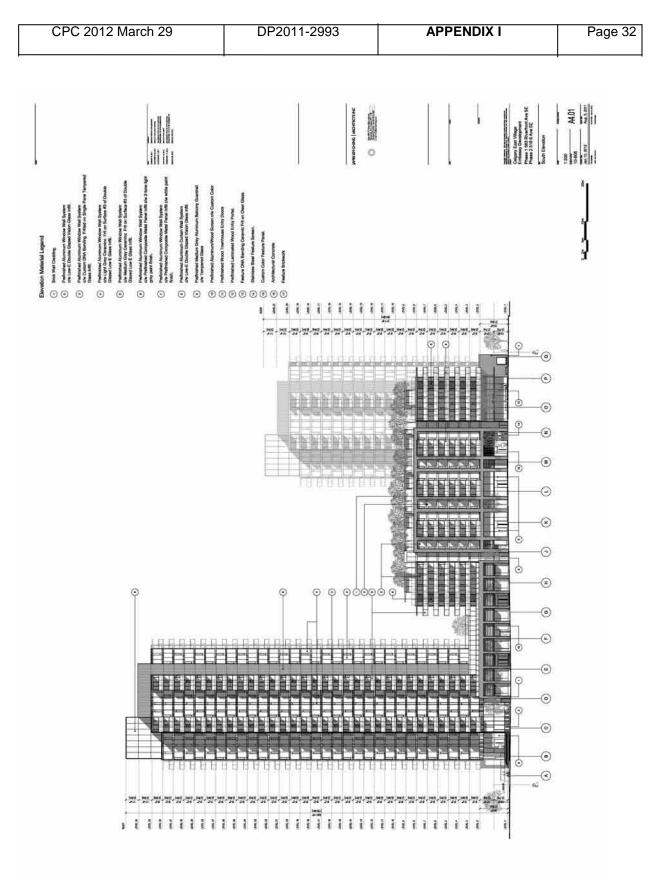


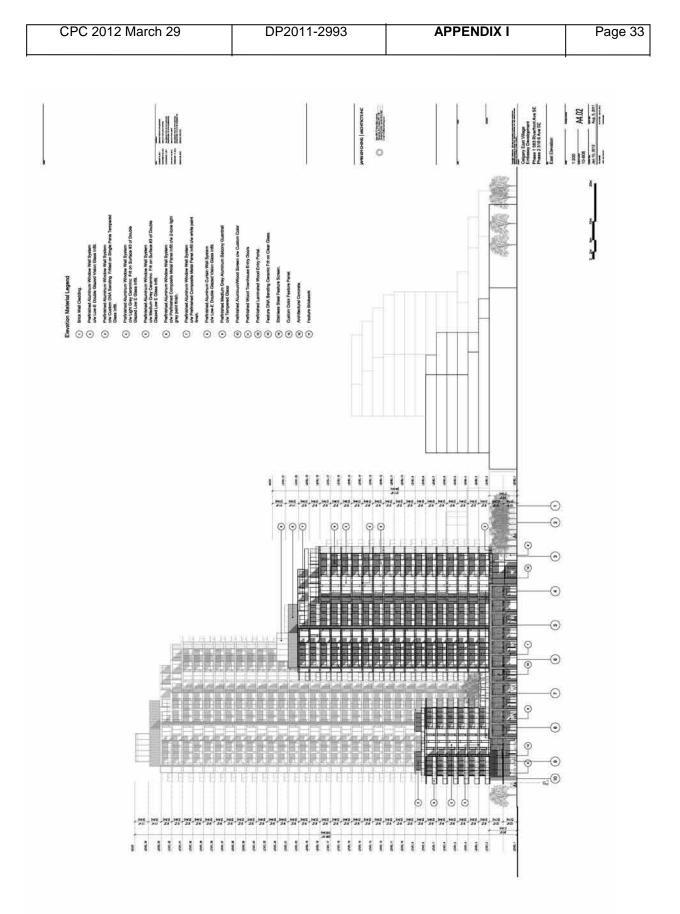


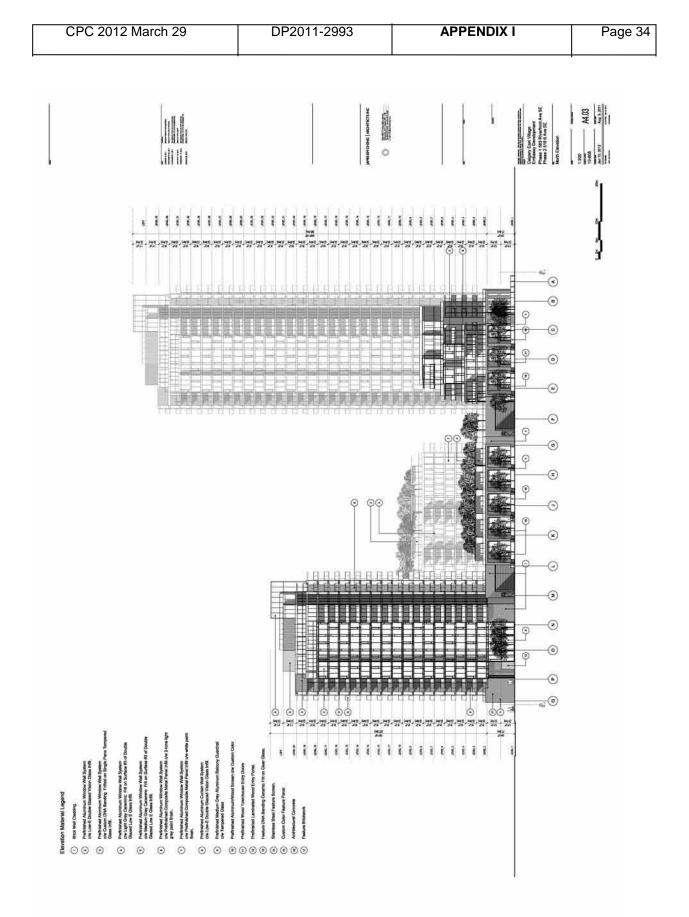


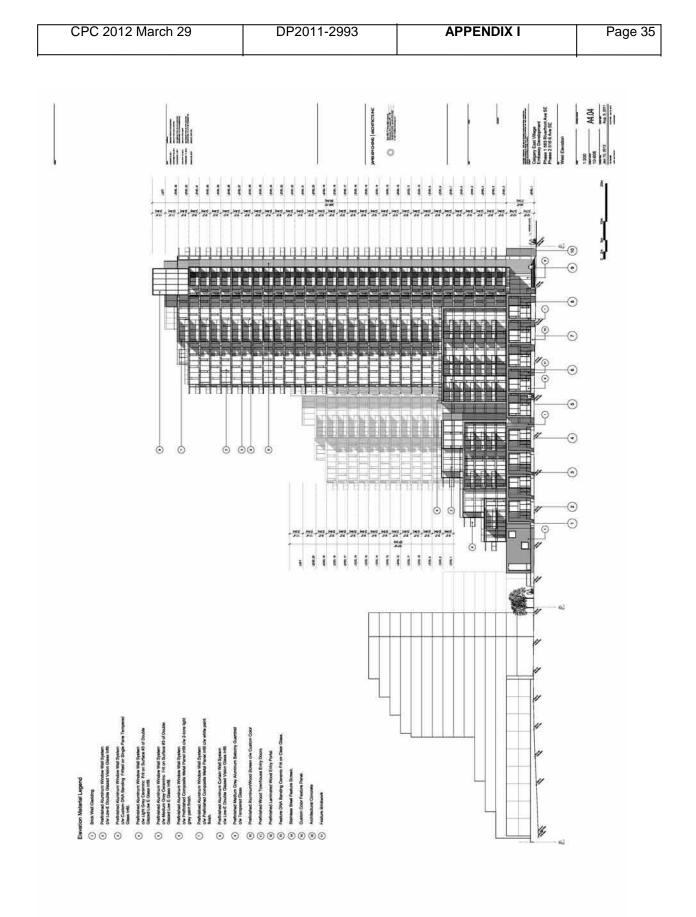
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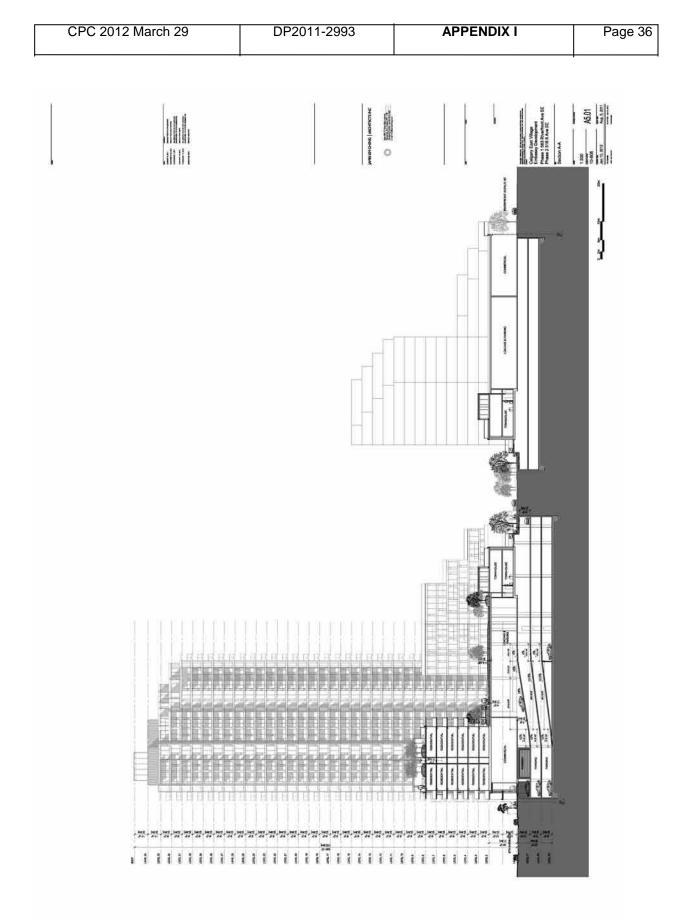


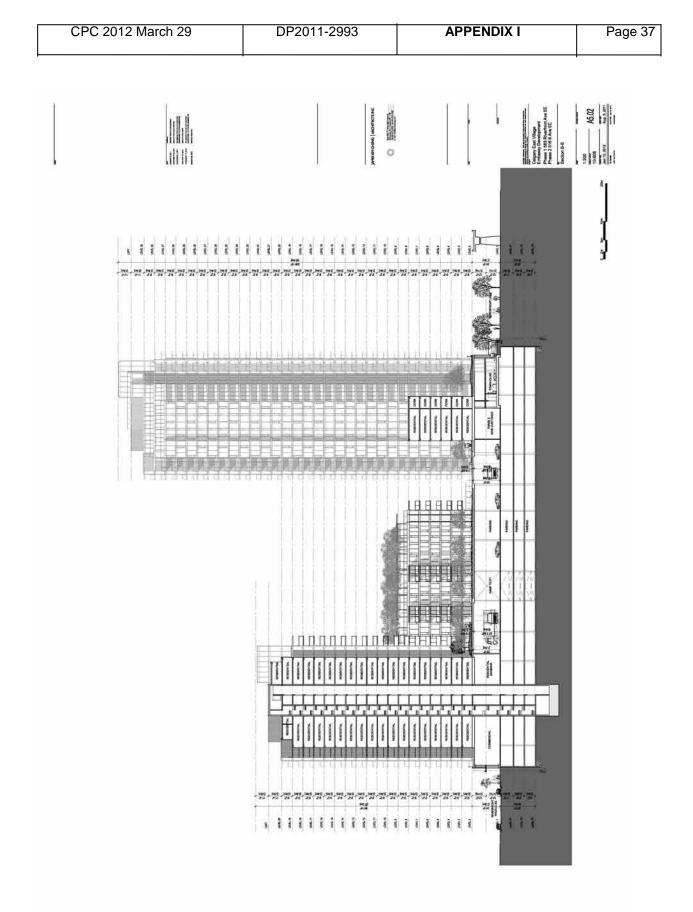


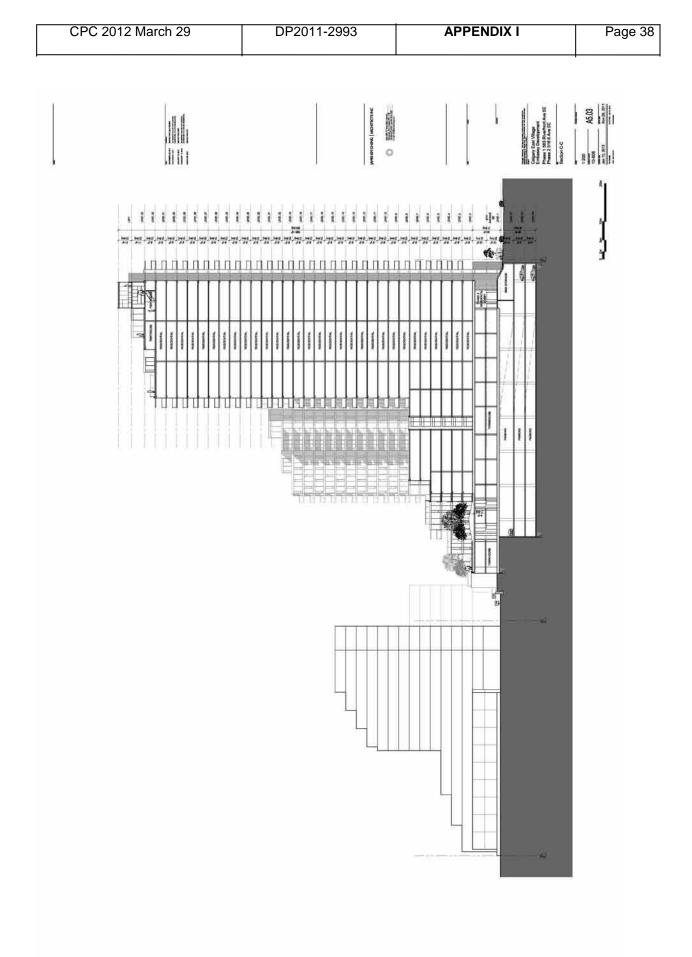


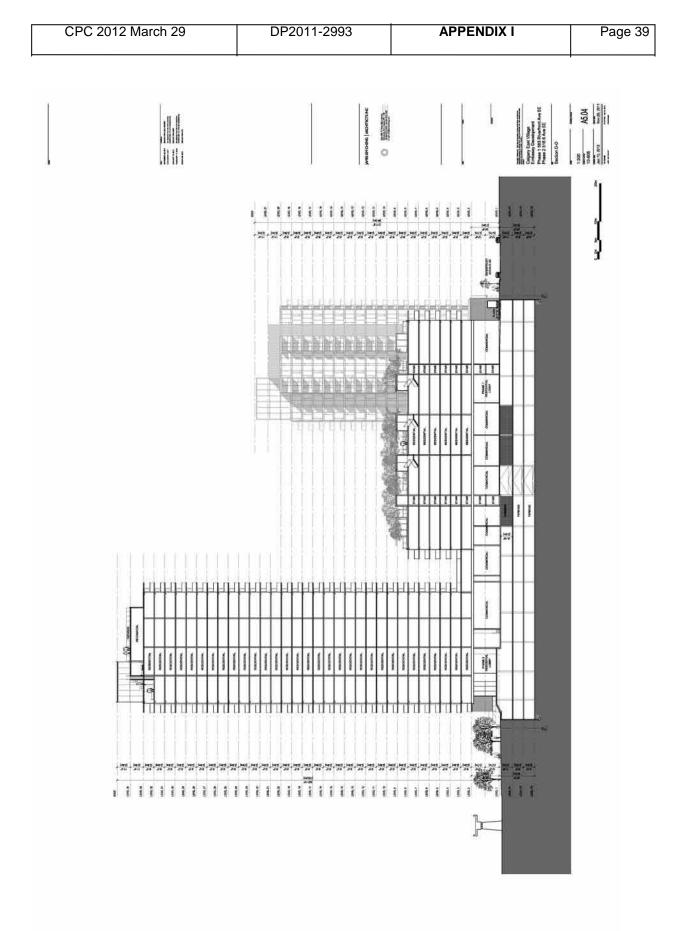


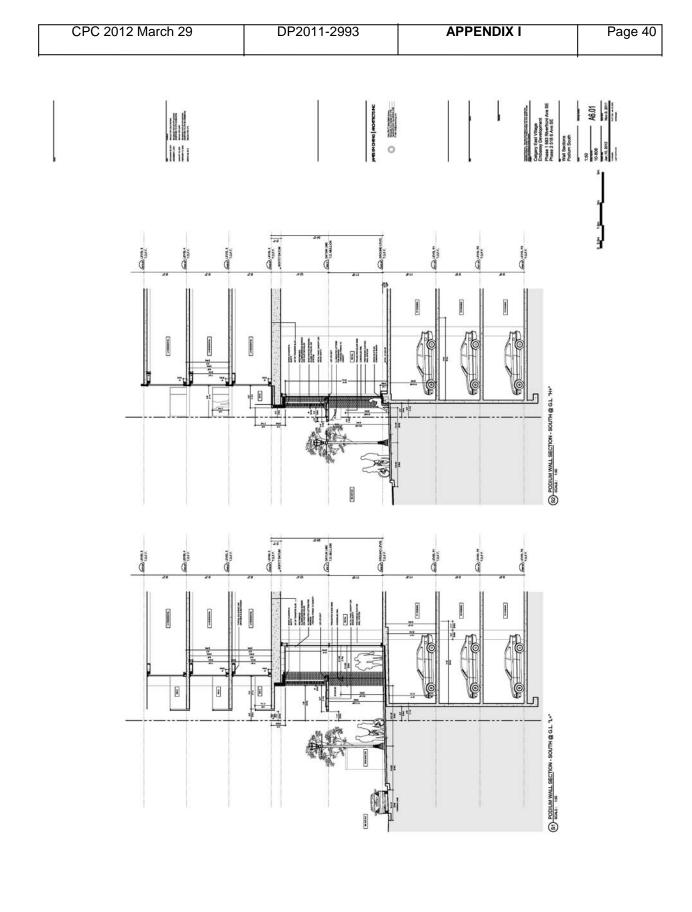


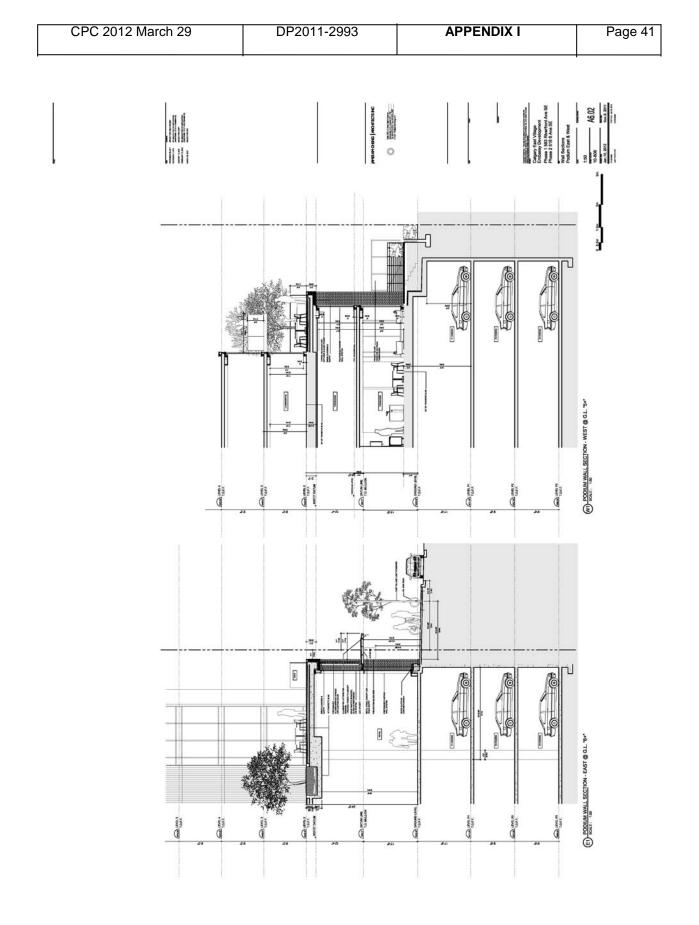


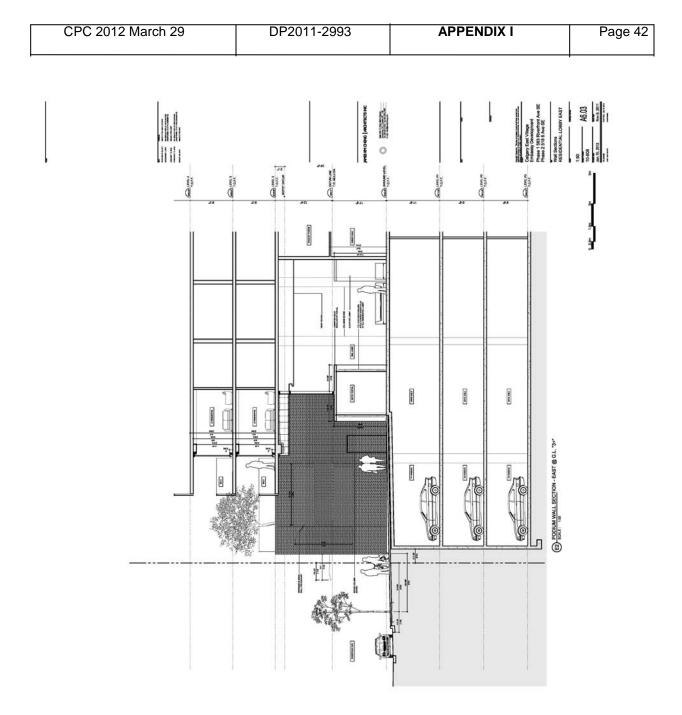


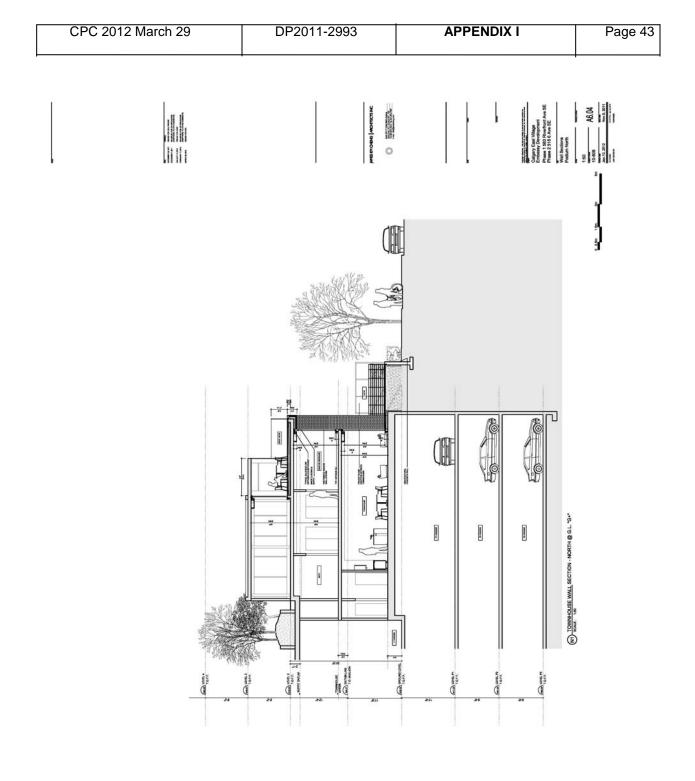


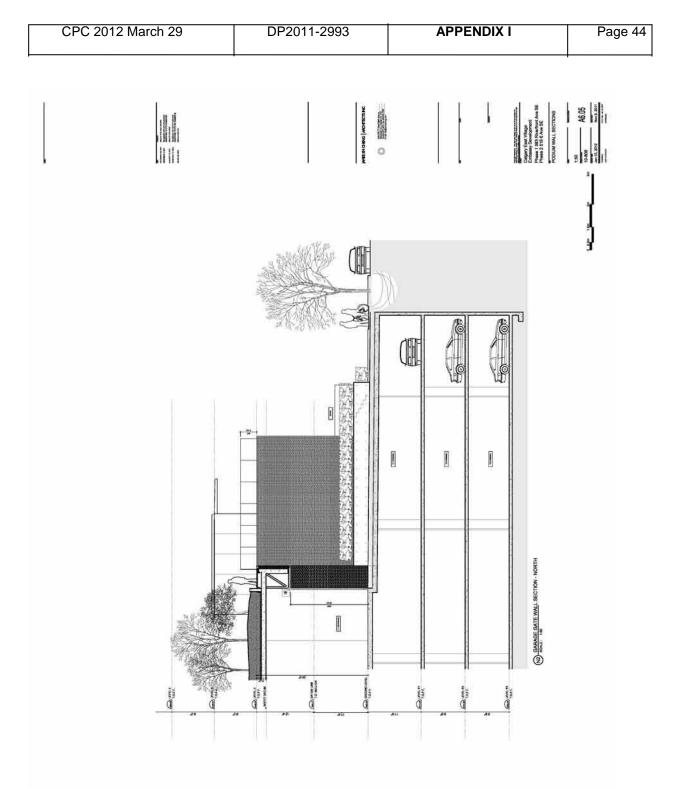


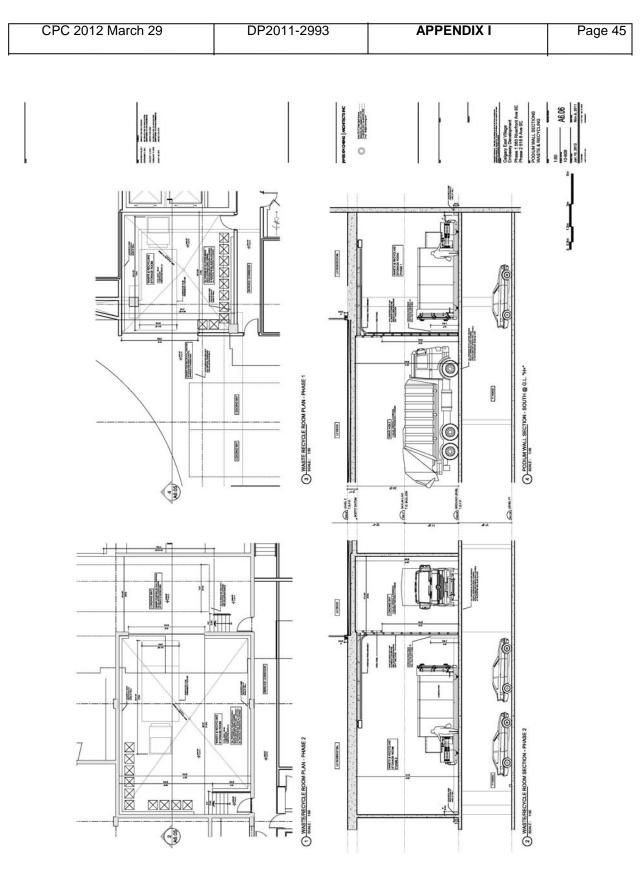


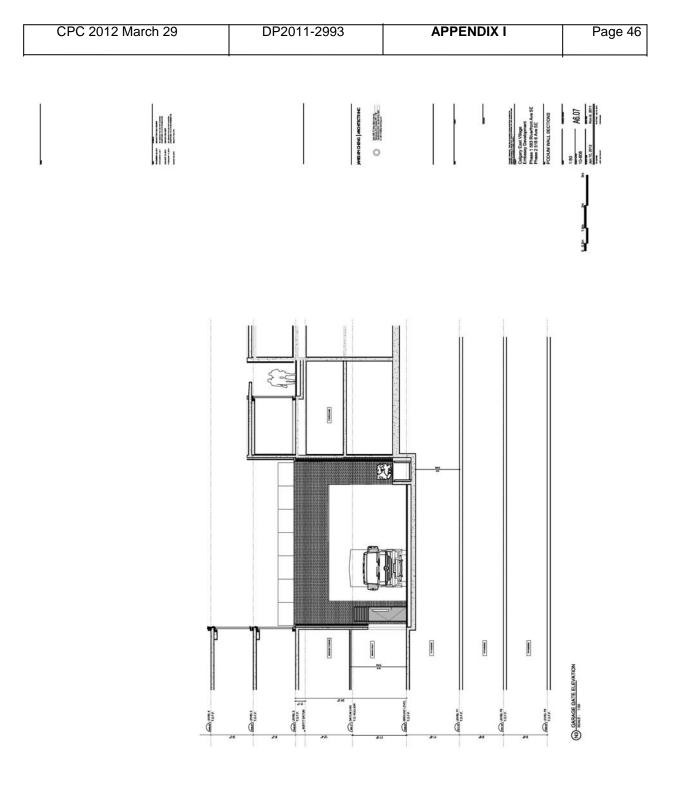


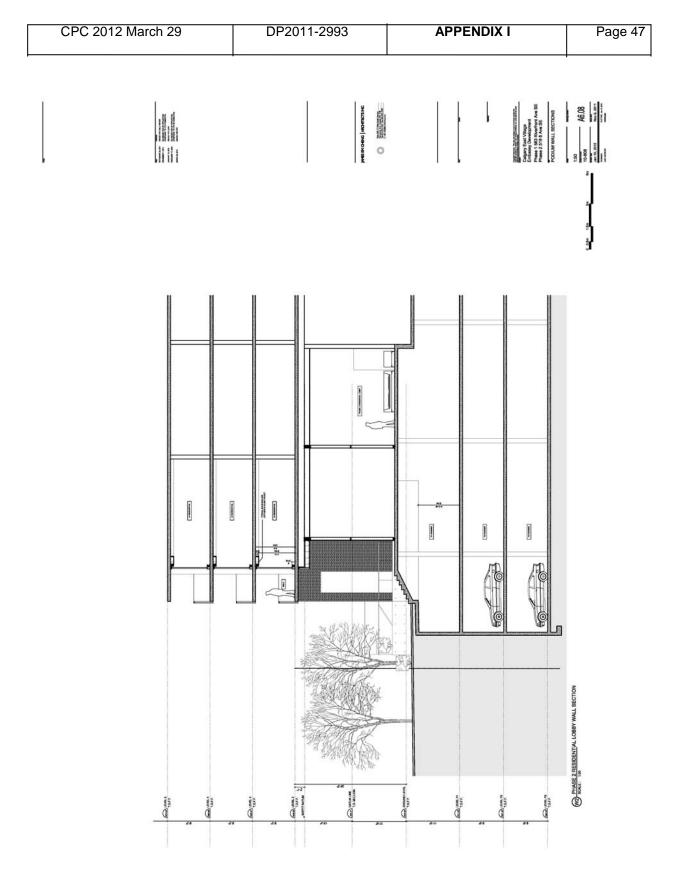


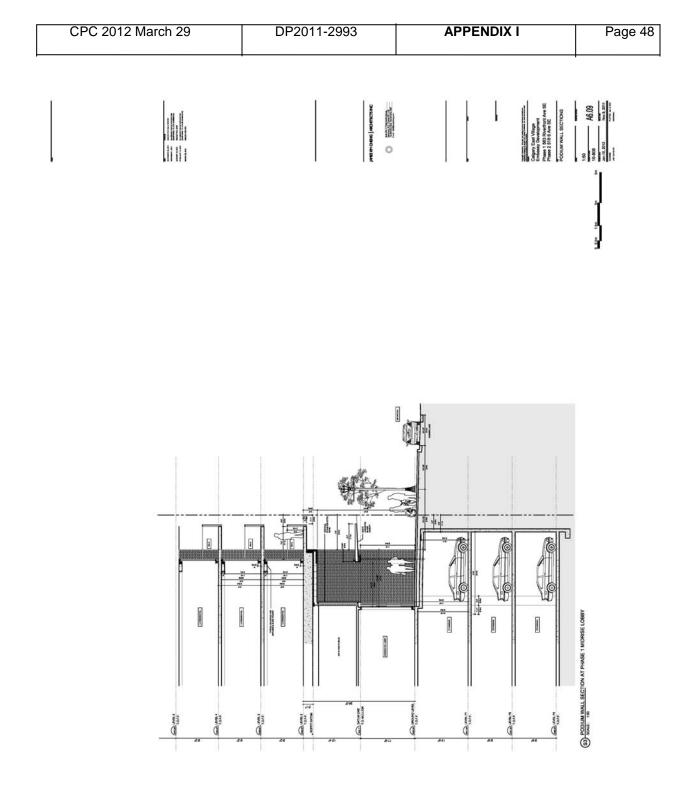


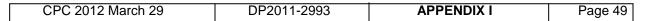


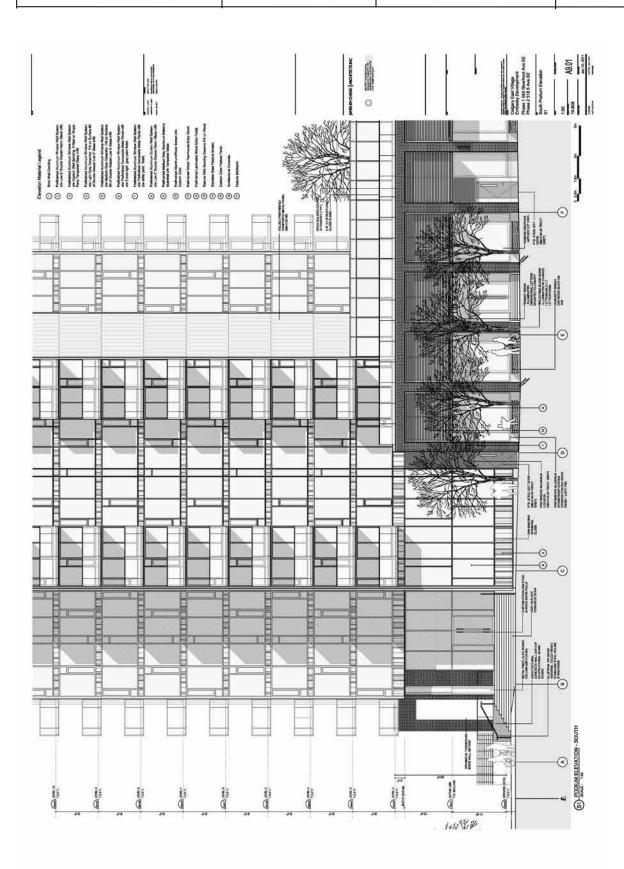


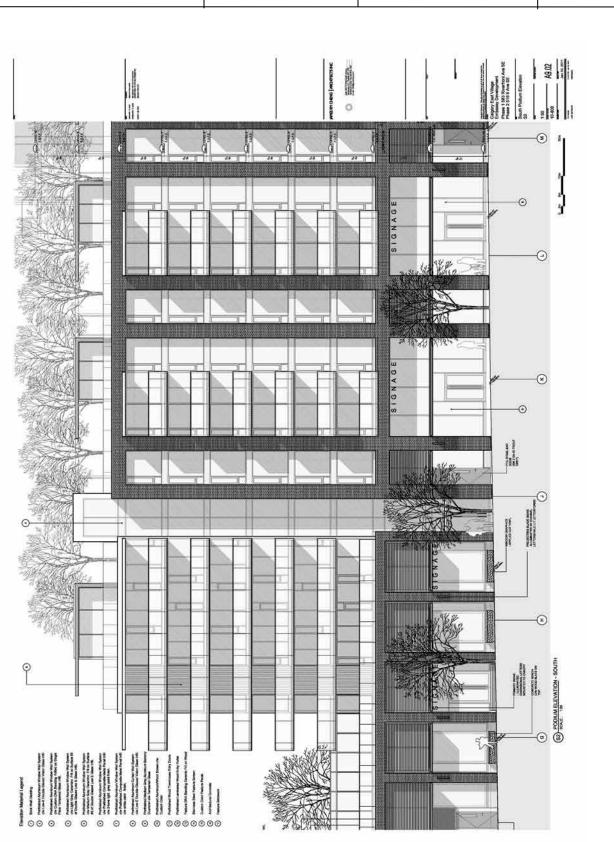




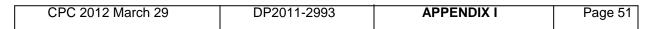


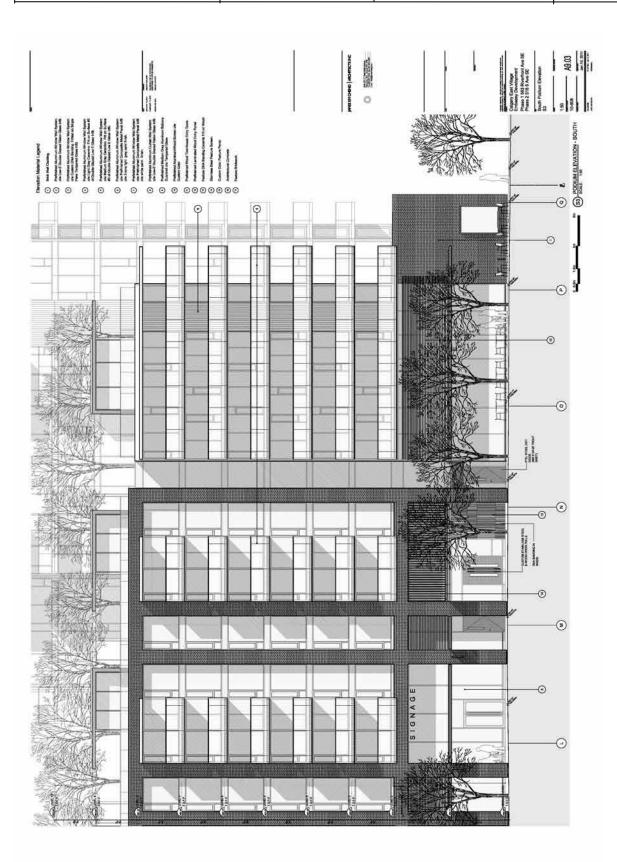


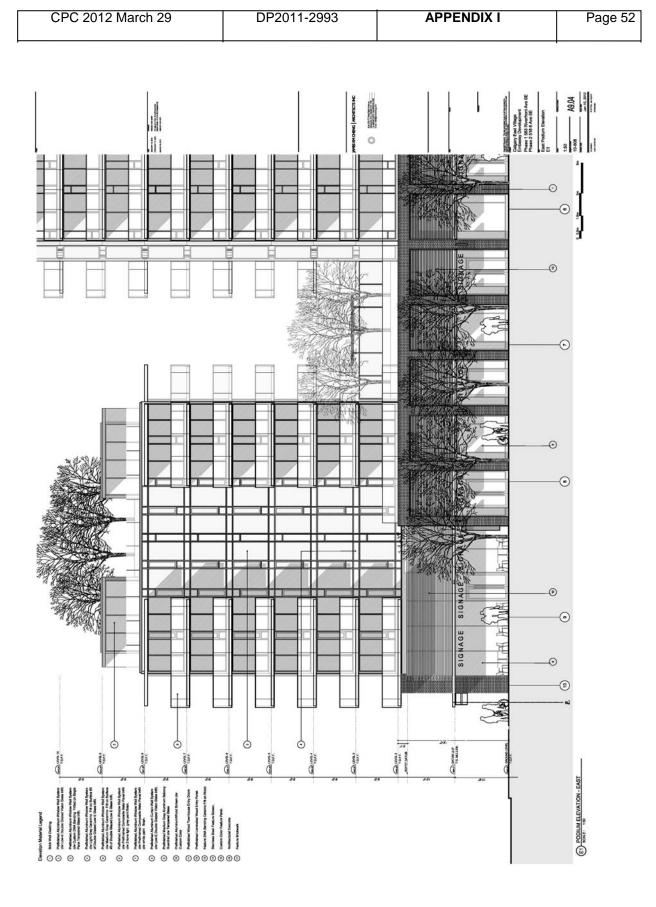


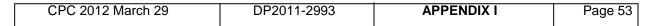


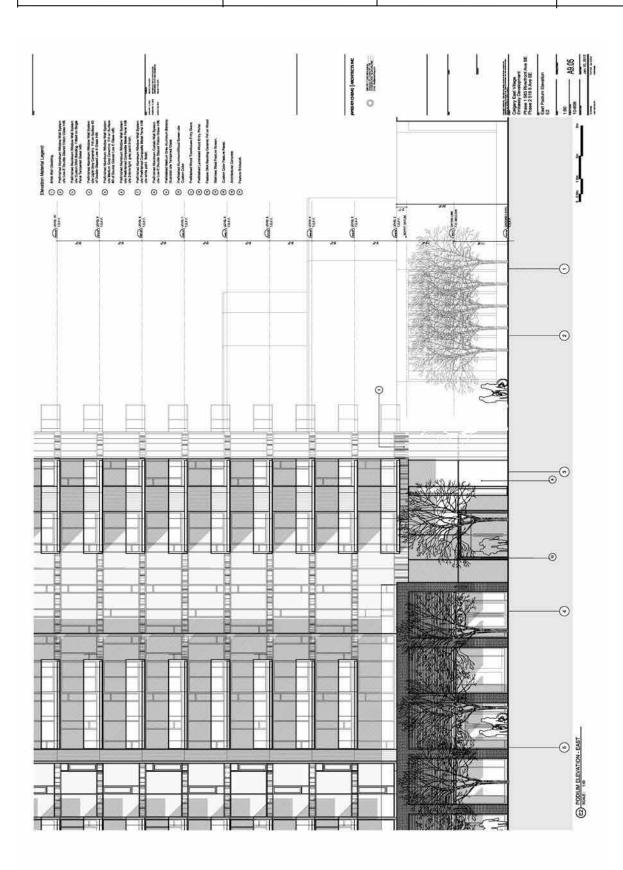
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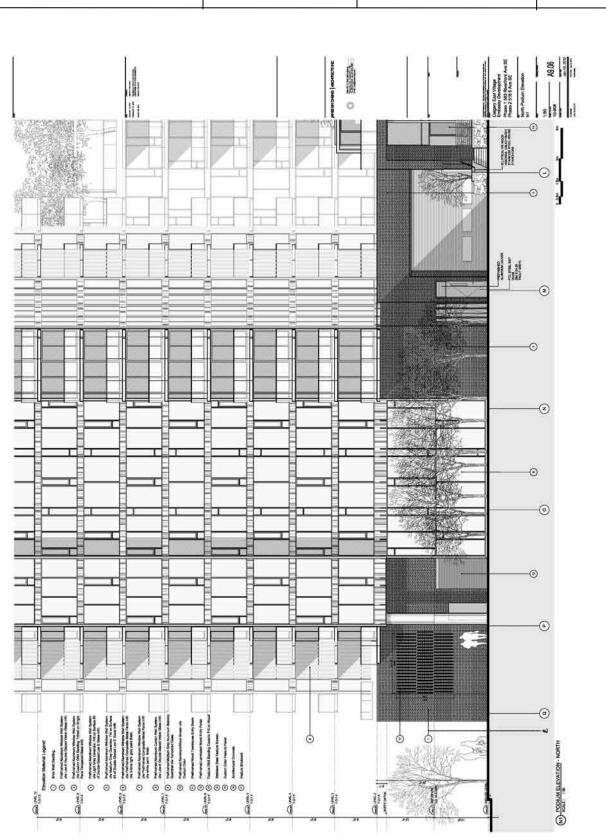


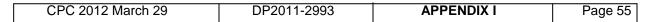


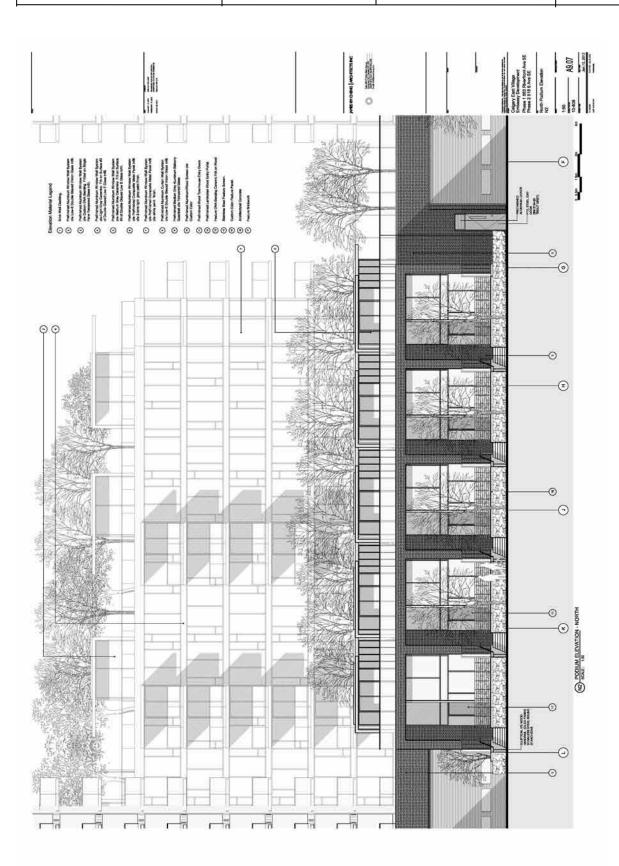


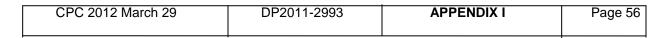


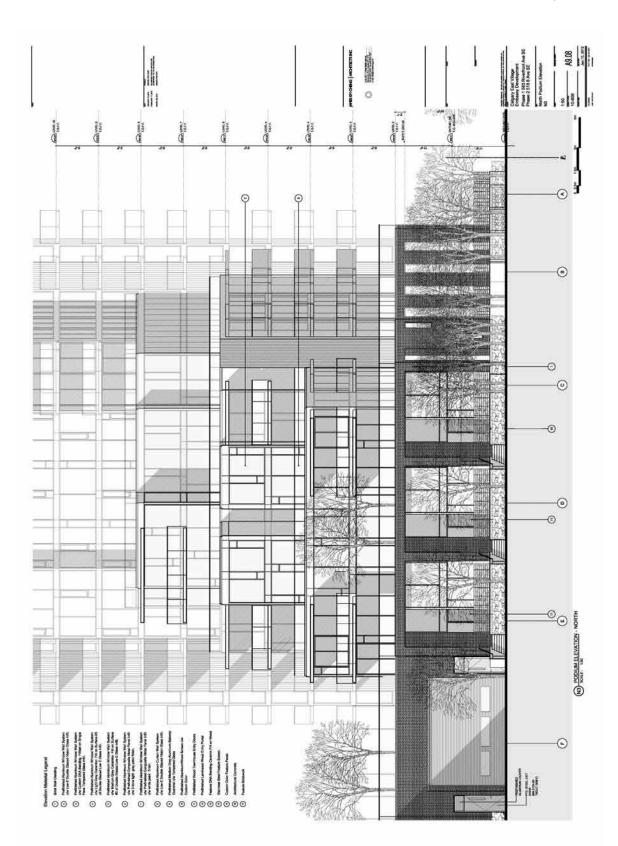


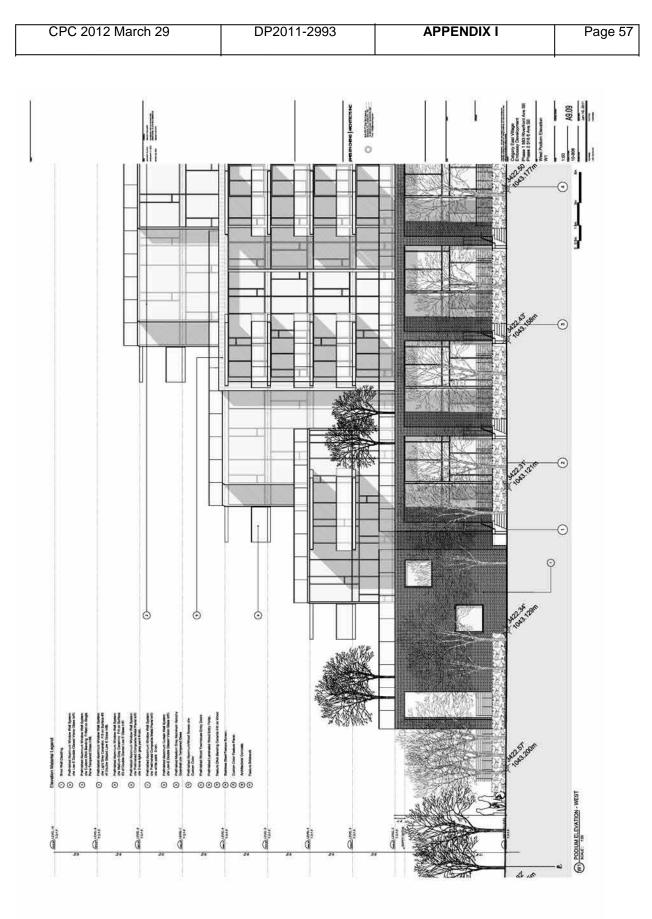


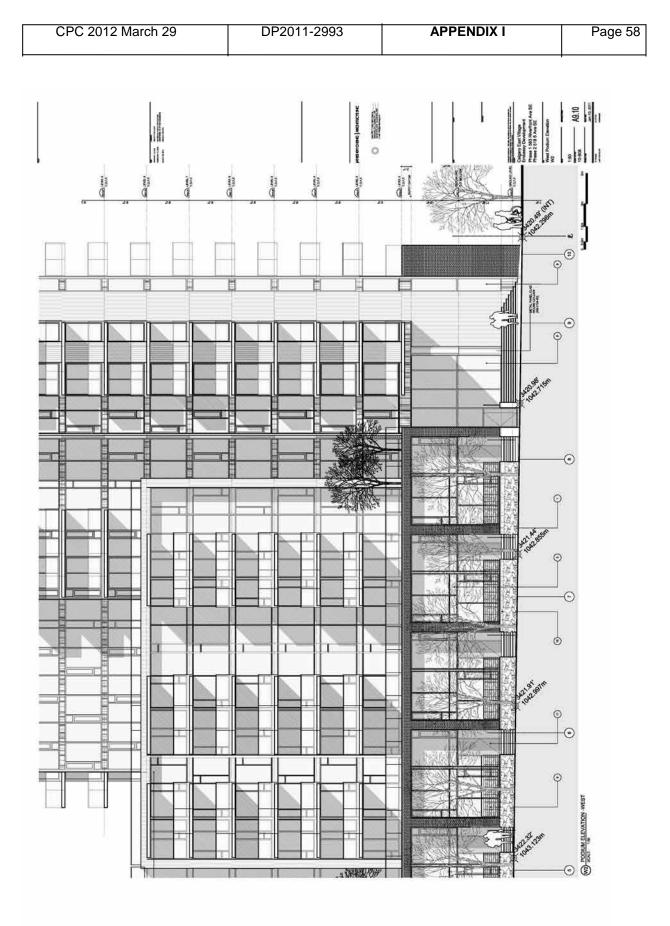




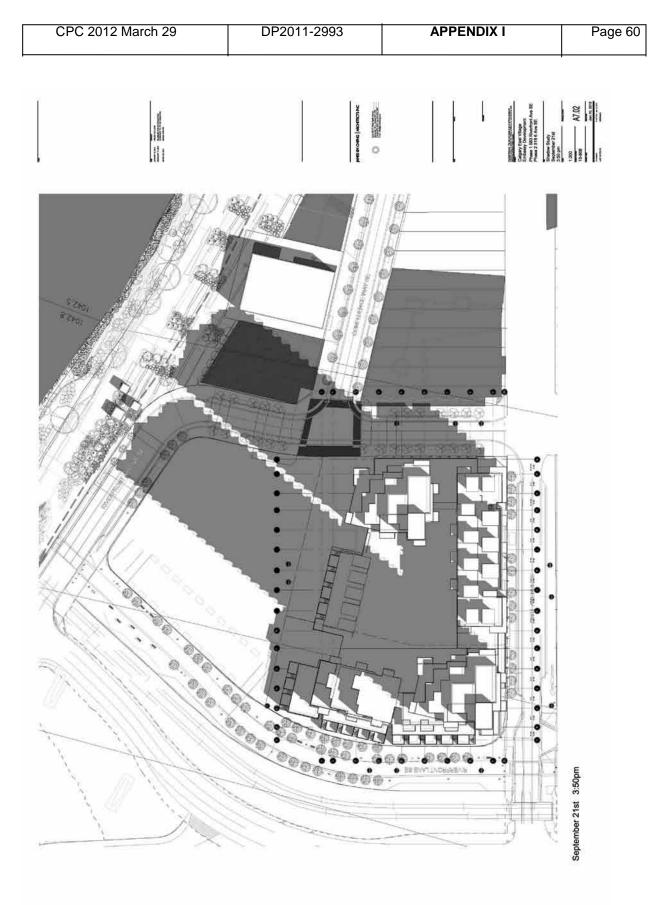






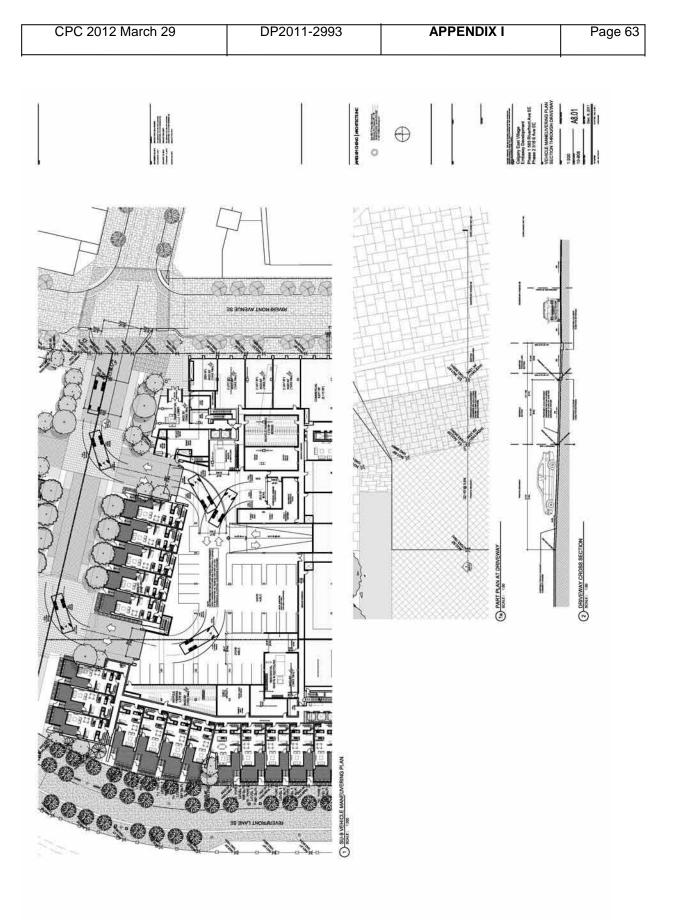


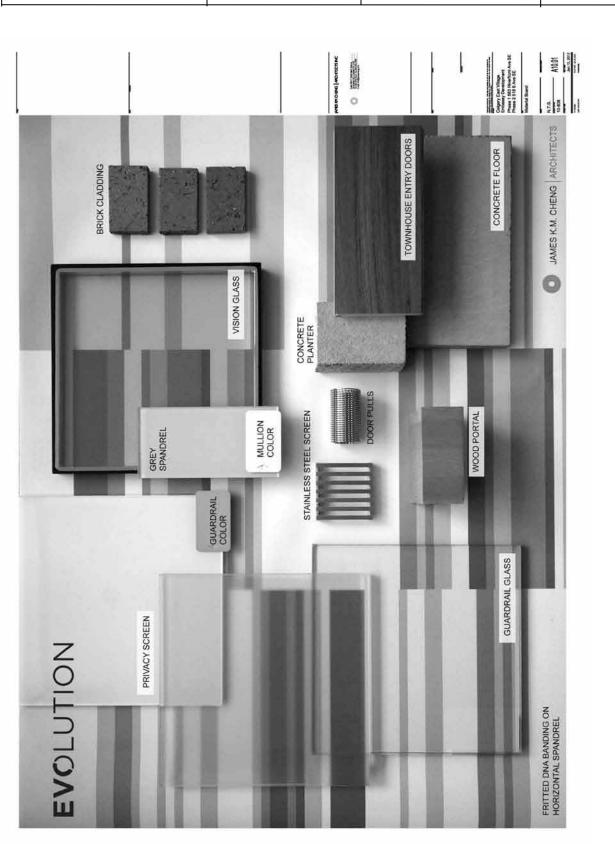
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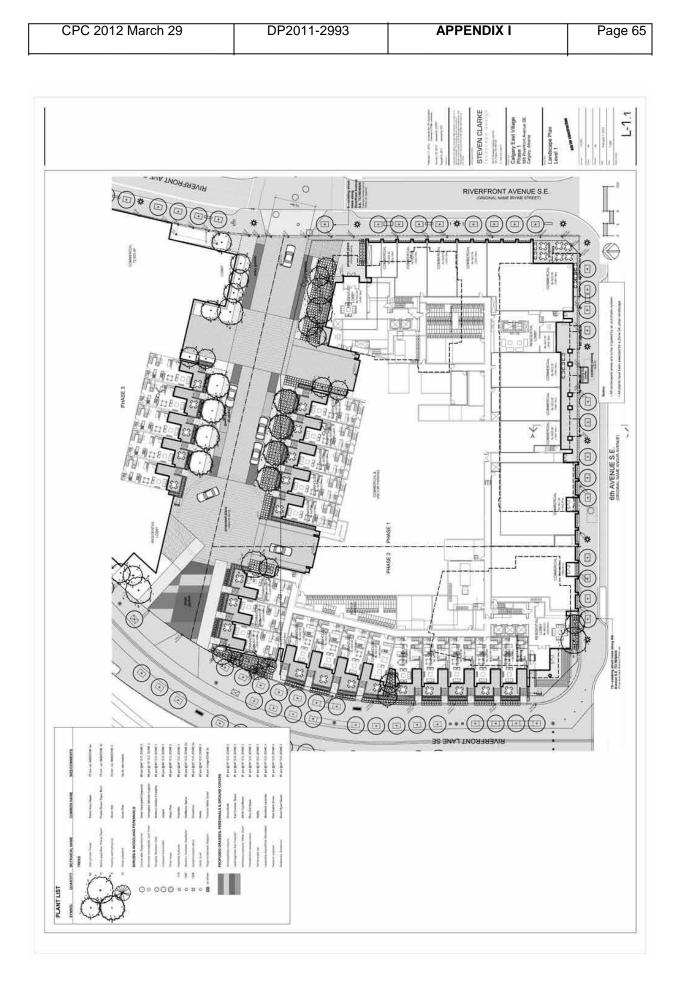






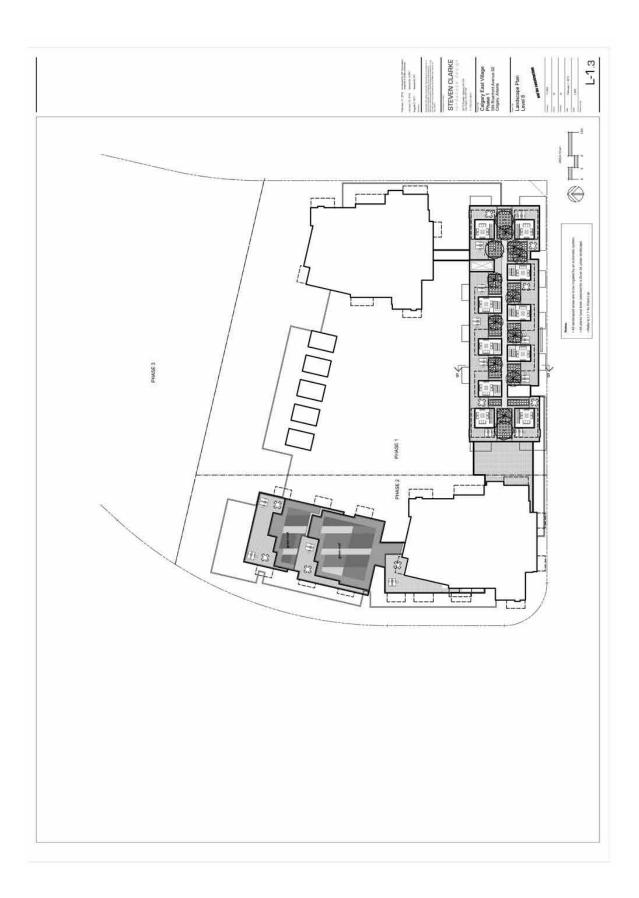








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No

LEED Canada-NC 1.0 Project Checklist

Project Name

City, Province

	Sustai	nable Sites	14 Points
	Prereq 1	Erosion & Sedimentation Control	Required
1	Credit 1	Site Selection	1
1	Credit 2	Development Density	1
1	Credit 3	Redevelopment of Contaminated Site	1
1	Credit 4.1	Alternative Transportation, Public Transportation Access	1
1	Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
	Credit 4.3	Alternative Transportation, Alternative Fuel Vehicles	1
	Credit 4.4	Alternative Transportation, Parking Capacity	1
1	Credit 5.1	Reduced Site Disturbance, Protect or Restore Open Space	1
1	Credit 5.2	Reduced Site Disturbance, Development Footprint	1
	Credit 6.1	Stormwater Management, Rate and Quantity	1
	Credit 6.2	Stormwater Management, Treatment	1
	Credit 7.1	Heat Island Effect, Non-Roof	1
1	Credit 7.2	Heat Island Effect, Roof	1
	Credit 8	Light Pollution Reduction	1

? No

Water Efficiency

5 Points

1	Credit 1.1	Water Efficient Landscaping, Reduce by 50%	1
	Credit 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
	Credit 2	Innovative Wastewater Technologies	1
1	Credit 3.1	Water Use Reduction, 20% Reduction	1
1	Credit 3.2	Water Use Reduction, 30% Reduction	1

? No

Energy & Atmosphere

Prereq 1Fundamental Building Systems CommissioningRequiredPrereq 2Minimum Energy PerformanceRequiredPrereq 3CFC Reduction in HVAC&R EquipmentRequired

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3	Credit 1	Optimize Energy Performance	1 to 10
	Credit 2.1	Renewable Energy, 5%	1
	Credit 2.2	Renewable Energy, 10%	1
	Credit 2.3	Renewable Energy, 20%	1
	Credit 3	Best Practice Commissioning	1
1	Credit 4	Ozone Protection	1
	Credit 5	Measurement & Verification	1
	Credit 6	Green Power	1

Materials & Resources

Points

	Prereg 1	Storage & Collection of Recyclables	Required
	Credit 1.1	Building Reuse: Maintain 75% of Existing Walls, Floors, and Roof	1
	Credit 1.2	Building Reuse: Maintain 95% of Existing Walls, Floors, and Roof	1
	Credit 1.3	Building Reuse: Maintain 50% of Interior Non-Structural Elements	1
1	Credit 2.1	Construction Waste Management: Divert 50% from Landfill	1
	Credit 2.2	Construction Waste Management: Divert 75% from Landfill	1
	Credit 3.1	Resource Reuse: 5%	1
	Credit 3.2	Resource Reuse: 10%	1
	Credit 4.1	Recycled Content: 7.5% (post-consumer + ½ post-industrial)	1
	Credit 4.2	Recycled Content: 15% (post-consumer + ½ post-industrial)	1
	Credit 5.1	Regional Materials: 10% Extracted and Manufactured Regionally	1
	Credit 5.2	Regional Materials: 20% Extracted and Manufactured Regionally	1
	Credit 6	Rapidly Renewable Materials	1
1	Credit 7	Certified Wood	1
	Credit 8	Durable Building	1

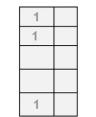
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Indoor Environmental Quality

Minimum IAQ Performance Required Prereq 1 Prereq 2 Environmental Tobacco Smoke (ETS) Control Required Credit 1 Carbon Dioxide (CO₂) Monitoring 1 **Ventilation Effectiveness** 1 Credit 2 Credit Construction IAQ Management Plan: During Construction 1 3.1 Credit Construction IAQ Management Plan: Testing Before Occupancy 1 3.2 Credit Low-Emitting Materials: Adhesives & Sealants 1 4.1



15 Points

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1	Credit 4.2	Low-Emitting Materials: Paints and Coating	1
1	Credit 4.3	Low-Emitting Materials: Carpet	1
1	Credit 4.4	Low-Emitting Materials: Composite Wood and Laminate Adhesives	1
	Credit 5	Indoor Chemical & Pollutant Source Control	1
1	Credit 6.1	Controllability of Systems: Perimeter Spaces	1
1	Credit 6.2	Controllability of Systems: Non-Perimeter Spaces	1
1	Credit 7.1	Thermal Comfort: Compliance	1
1	Credit 7.2	Thermal Comfort: Monitoring	1
1	Credit 8.1	Daylight & Views: Daylight 75% of Spaces	1
	Credit 8.2	Daylight & Views: Views 90% of Spaces	1

? No

1

Innovation & Design Process

Credit Innovation in Design 1 1.1 Credit Innovation in Design 1 1.2 Credit Innovation in Design 1 1.3 Credit Innovation in Design 1 1.4 Credit 2 **LEED® Accredited Professional** 1

5 Points

70

Points

? No

1

30

Project Totals (pre-certification estimates)

Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-70 points

Architectural Design

SUSTAINABLE SITES:

SS Credit 1 Site Selection

The intent of this credit is to not develop an inappropriate site and reduce the environmental impact from the location of the building on the site.

As the project site was previously developed land and is not considered farmland, undeveloped or identified for threatened habitat, located within wetlands, or previously parkland.

SS Credit 2 Development Density

The intent of this credit is to develop within urban areas with existing infrastructure, protect greenfields and preserve habitat and natural resources.

This project is an urban site with pedestrian access to a variety of services. The project has the potential to meet either required development density or community connectivity options.

SS Credit 3 Brownfield Redevelopment

The subject site is considered a brownfield site.

SS Credit 4.1 Alternative Transportation (Public Transportation access)

The intent of this credit is to reduce pollution and land development impacts from automobile use by locate building within 800 meters (0.5 miles) of a commuter rail, light rail or subway station or 400 meters (0.25 miles) of 1 or more public bus lines offering frequent service.

This credit is possible as there are three public bus lines from 6 Avenue at 5th Street SE, which is within 400m of the project site. The bus routes are:

- Route 1, Forest Lawn/Bowness
- Route 31, Downtown Shuttle
- Route 411, Downtown/East Calgary

SS Credit 4.2 Alternative Transportation (Bicycle Storage & Changing Rooms)

Again, the intent of this credit is to reduce pollution and land development impacts from automobile use by providing secure bicycle storage, with convenient changing/shower facilities (183m from building) for 5% or more of regular building occupants.

Individual secure bicycle storage lockers are being provided for all residents.

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INDOOR ENVIRONMENTAL QUALITY:

IEQ Credit 8.1 Daylight & Views: Daylight 75% of spaces

Daylight is provided to 75% of residential spaces because of open floor plan design and extensive vision glass.

INNOVATION & DESIGN PROCESS:

IDP Credit 2 LEED Accredited Professional

LEED accredited professionals are currently working on the project.

Interior Design

MATERIALS & RESOURCES:

Credit 2.1 Construction Waste Management

50% of construction waste can be diverted from the landfill

IEQ Credit 7 Certified Wood

Interior designer to specify use of certified wood.

INDOOR ENVIRONMENTAL QUALITY:

IEQ Credit 4.1 Low Emitting Materials: Adhesives and Sealants

Interior designer to specify adhesives and sealants with low VOCs.

IEQ Credit 4.2 Low Emitting Materials: Paints and Coating

Interior designer to specify paints with low VOCs.

IEQ Credit 4.3 Low Emitting Materials: Carpet

Interior designer to specify carpets with low VOCs.

IEQ Credit 4.4 Low Emitting Materials: Composite Wood and Laminate Adhesives

Interior designer to specify laminate floors and composite wood with low VOCs.

Landscape Design

SUSTAINABLE SITES:

SS Prerequisite 1: Erosion & Sedimentation Control

The purpose of this credit is to control erosion to reduce the negative impacts on water and air quality. This is achievable by designing a sediment and erosion control plan that meets the United States Environmental Protection Agency (EPA) standards. The plan must meet the following objectives:

- Prevent loss of soil during construction by storm water runoff and/or wind erosion, including
 protecting topsoil by stockpiling for reuse
- Prevent sedimentation of storm sewer or receiving streams
- Prevent polluting the air with dust and particulate matter.

The Civil Engineer is responsible for documenting whether the project follows local erosion and sedimentation control standards or the referenced EPA standard. Strategies to achieve this credit include using temporary and permanent seeding, mulching, earth dikes, silt fencing, sediment traps and sediment basins.

SS Credit 5.1: Protect or Restore Open Space

The intent of this credit is to conserve existing natural areas and restore damage areas to provide habitat and promote biodiversity. On previously developed sites, there must be a restoration of native or adapted vegetation for 50% of the site (excluding the building footprint), or 20% of the total site area (including the building footprint). Vegetative roof surface may be included.

This credit is achievable as native and adapted plants will be used in a minimum of 20% of the landscape.

SS Credit 5.2: Maximize Open Space

The intent of this credit is to promote biodiversity by providing a high ratio of open space to development footprint.

Open space is maximized for the project by creating an amenity garden on the second level and by using the roof of the midrise for private patios. This will provide vegetated open space over the minimum 20% of the project site area.

SS Credit 6.1: Storm water Design: Quantity Control

The intent of this credit is to limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from storm water runoff and eliminating contaminants. Current site imperviousness is less than 50%. Therefore, a storm water management plan is to be implemented that prevents the post-development 1.5 year, 24 hour peak

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discharge rate and quantity from exceeding the pre-development 1.5 year, 24 hour peak discharge rate and quantity.

This credit may be achieved as the design will maintain natural storm water flows by promoting infiltration through vegetated roofs.

SS Credit 6.2: Storm water Design: Quality Control

The intent is to limit disruption and pollution of natural water flows by managing storm water runoff. This requires the construction of a site storm water treatment systems designed to remove 80% of the average annual post-development total suspended solids (TSS) and 40% of the average annual post-development total phosphorous (TP) based on the average annual loadings from all storms less than or equal to the 2-year/24hr storm.

This credit is possible as the vegetated roofs serve reduce imperviousness and promote infiltration and thereby reduce pollutant loads.

SS Credit 7.1: Heat Island Effect: Non-Roof

The intent is to reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat. This can be achieved by placing a minimum of 50% of parking spaces under cover, where the cover of parking must have an SRI of at least 29 or be a vegetated roof.

This credit possible as 100% of the parking will be in a parking structure that will be covered with a vegetated roof.

SS Credit 7.2: Roof

The intent is to reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat. A vegetated roof that covers at least 50% of the roof area will satisfy this requirement.

The vegetated roof gardens of the project will serve to reduce the heat island effect.

WATER EFFICIENCY

WE Credit 1.1: Water efficient landscaping: Reduce by 50%:

Limit or eliminate the use of potable water for landscape irrigation. Use high-efficiency irrigation technology. Use captured rain or recycled site water to reduce potable water consumption for irrigation by 50% over conventional means.

This credit will be achievable if the project is designed with plants that will reduce watering requirement and incorporates a high-efficiency irrigation system.

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Additional Credits: Innovation in Design

To provide design teams and projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green Building Rating System.

These credits can be pursued during the design development of the project. Strategies at achieving these credits include substantially exceeding a LEED performance credit such as energy performance or water efficiency and/or applying strategies or measures that are not covered by LEED such as acoustic performance, education of occupants, community development or lifecycle analysis of material choices.

Mechanical Design

WATER EFFICIENCY

WE Credit 3.1 Water Use Reductions

The reduction of water use to the plumbing fixtures, landscape and site services would be targeted to provide water usage savings.

WE Credit 3.2 Water Use Reductions

The reduction of water use to the plumbing fixtures, landscape and site services would be targeted to provide water usage savings.

ENERGY & ATMOSPHERE:

EA Credit 1 Optimize Energy Performance

Heat recovery technology and reduction in mechanical system power usages, together with reduction of lighting power densities and increased building insulation and solar shading would be targeted to provide energy savings following ASHRAE and MNECB requirements.

EA Credit 4 Ozone Protection

Mechanical and Fire Protection systems would be specified to ensure the use of CFC's/halons were prohibited.

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INDOOR ENVIRONMENTAL QUALITY:

IEQ Credit 1 Carbon Dioxide Monitoring

A ventilation system with carbon dioxide monitoring would be designed to the requirements of ASHRAE.

IEQ Credit 2 Ventilation Effectiveness

Ventilation systems would be designed to exceed ASHRAE Standard 62.1 by a minimum of 30%. Heat recovery technology would also be used incorporated to minimize additional energy consumption.

IEQ Credit 6.2 Controllability of Systems Non-Perimeter

HVAC controls could be provided to meet this credit.

IEQ Credit 7.1 Thermal Comfort: Compliance

HVAC systems would be designed to comply with ASHRAE 55-2004 standard.

IEQ Credit 7.2 Thermal Comfort: Monitoring

A monitoring system would be specified to ensure building performance to the desired criteria as determined in IEQ 7.1.

Electrical Design

ENERGY & ATMOSPHERE:

EA Credit 1 Optimize Energy Performance

The reduction of lighting power densities would be targeted to provide energy savings either following ASHRAE or MNECB requirements.

INDOOR ENVIRONMENTAL QUALITY:

EQ Credit 6.1 Controllability of Systems

Perimeter spaces; lighting controls can be provided to meet this credit in conjunction with operable window

EQ Credit 6.2 - Controllability of Systems -Non-Perimeter spaces

Lighting controls can be provided to meet this credit; individual airflow and temperature controls are required.