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Mr. Paul Stewart MCIP RPP
Planning and Building Department
City of Mississauga
300 City Centre Drive
Mississauga, ON.L5B 3C1

Dear : Mr. Paul Stewart

LOW IMPACT DESIGN FEATURES OF MIXED USE REDEVELOPMENT OF 1000 AND 1024 DUNDAS STREET EAST, MISSISSAUGA

Low impact design features for the proposed mixed use redevelopment at 1000-1024 Dundas Street East are listed below. Additional details can be provided as the design is further developed.

SITE

SITE SELECTION

- Ahmed Developments Inc. acquired the property at 1024 Dundas Street East based upon the Dundas Connects Master Plan recommendation that residential uses be permitted adjacent to the Tomken Road Bus Rapid Transit Station and the existing City of Mississauga Official Plan policies which identify Major Transit Station Areas as the preferred location for tall buildings.

DEVELOPMENT DENSITY

- The proposed development density of FSI 4.7 is desirable for a site adjacent to the Tomken Road Bus Rapid Transit Station with building heights that conform with a 45 degree plane measured from the north limit of the ultimate width of the Dundas Street East road allowance.

PUBLIC TRANSPORTATION ACCESS

- MiWAY Transit currently provides frequent public transit to the subject site except on Sundays. MiWAY Transit also provides bus service from Monday to Saturday on Route 51 Tomken Road between Cardiff Boulevard and Middlegate Road. During the morning and evening peak service is provided to each bus stop every 10 minutes whereas during the day the frequency of service to each stop decreases to every 15 minutes.
- MiWAY Transit provides bus service from Monday to Sunday on Route 1 Dundas/1C Dundas-Collegeway between the South Common Centre Bus Terminal and Islington Station Bus Terminal. Weekday bus service is provided to each stop every 24 minutes, on Saturdays it is provided every 31 minutes and on Sundays it is provided every 41 minutes.

WALKABILITY

- The completed Region of Peel Healthy Development Assessment scorecard identifies the broad range of retail stores, commercial services, elementary schools and public recreation facilities which are located within walking distance of the subject site.

STORMWATER RETENTION

RAINWATER HARVESTING

- Adhering with City of Mississauga the volume from a 5mm storm event will be retained and disposed onsite. A retention tank is being proposed and the primary strategy for reuse will be via irrigation for the site landscape.

STORM WATER QUALITY CONTROL

- Quality treatment for the site will be primarily addressed by an oil/grit separator device. Inherent measures (green roofs and soft landscape) will also contribute to treatment. Based on calculations, the site is anticipated to achieve a cumulative total suspended solid (TSS) rate of approximately 92%.

WATER BALANCE CONTROL

- Given the building footprint encompasses the entire site area, water balance and/or groundwater recharge via infiltration is considered unfeasible, with the exception of the rainwater harvesting discussed above, which will mitigate water balance deficits.

SOFT LANDSCAPE MATERIAL

NEW TREES

- The design proposes 25 new trees at the ground level and a large composition of ornamental small trees and large shrubs at ground level and the amenity space. The planting strategy provides a planting selection carefully curated for 3 main spaces: Streetscape, Courtyard and Amenity Podium.

NATIVE VEGETATION + SHADE

- The site is envisioned as an urban forest with a series of rich planting that is supported with pollinator species to improve urban ecologies from bees, butterflies, birds and more. This will provide an opportunity for biodiversity and a healthy planting community consisting of a wide diversity of species, to provide: carbon sequestration, a sound buffer from street noise pollution, to improve microclimate and reduce heat island effect and to provide green landscape scenery for the community. Shade trees, in conjunction with understory species, are selected to best support wildlife and pollinators.
- A target of 50% of all proposed planting will be native, where feasible.
- New Shade trees will be provided along all street frontages and public walkways in areas with sufficient soil quality and volume.
- Tree species will support the site character and function as street and amenity trees, shade trees, buffers, privacy screens, and habitat trees.

- Planting beds consist of a composition of perennials, shrubs and grasses that provide ecological value as pollinators and that are selected where needed for shade and to screen areas for privacy and intimacy.
- The proposed streetscape and landscape design will improve the overall tree canopy of the area. Canopy cover targets for the proposed site is above 20%, and soil volumes are calculated with 30m³ soil per shade tree or 20m³ soil volume per shade tree in a continuous trench. Small ornamental trees and large shrubs will be provided with adequate soil volume.
- In accordance to the drainage strategy for the site, the design of hard and soft landscaping must limit amount of storm water run-off entering storm sewers. Runoff will be collected and used to meet irrigation demands accordingly.

PEDESTRIAN AND CYCLING COMFORT

PEDESTRIAN WALKWAYS

- Shade trees will be provided along pedestrian pathway and in amenity spaces to support pedestrian comfort in summer and shoulder seasons months.
- A double row of trees provides shade at the streetscape level. The trees are selected to City standards to provide a buffer from the high traffic volume of Dundas Street and to create a comfortable corridor for cyclist, pedestrians and for outdoor retail opportunities. The trees are spaced at 8m with seating and bike racks arranged in between trees.
- A combination of such components as dark sky compliant pole fixtures, directional ground lighting and illuminated bollards are considered to enable proper illumination of private and streetscape pathways, while supporting a welcoming ambiance.

PEDESTRIAN COMFORT

- As the amenity podium is highly exposed to wind, a glazing barrier that varies from 1.8m to 2.22m will be provided to the perimeter of the programmed spaces. A selection of trees suited for podium planting will be placed in strategic locations, planters are raised and include beds of shrubs, perennials and grasses, and shade structures are adhered to programmed spaces. The combination of the above elements is provided to improve micro-climate and sun/shade conditions.
- Tree selection features crown canopies that allow for dappled light filtered to the ground level to provide a pleasant condition in the gathering areas.

BICYCLE PARKING

- The public streetscape is to meet the City Standards for the Dundas Corridor vision, including the surfacing treatment for the bike lane, and the inclusion of unit paving, concrete surfacing, benches, receptacles and bike racks along the furnishing zone.
- Benches in the streetscape will provide resting stops and moments of respite for cyclists that must stop in the vicinity of the site.
- Conveniently located bicycle parking spaces for residents and visitors have been proposed to encourage bicycle use as an alternative form of transportation.
- As noted above, a double row of trees is proposed to provide shade at the streetscape level to comply with the typical streetscape section of the Dundas Street Master Plan; the tree corridor will create a comfortable condition for cyclist.

EXTERIOR BUILDING DESIGN

BIRD FRIENDLY GLAZING

- Bird-friendly glazing types will be examined in the subsequent design phases.

CONSERVATION STRATEGIES

CONSTRUCTION WASTE DIVERSION

- A construction waste management plan will be implemented in the construction process to divert recyclable material from landfill sites.

EROSION AND SEDIMENT CONTROL

- The erosion and sediment control plan for the site during construction will be noted to conformance with the City of Mississauga and Credit Valley Conservation Authority guidelines. Construction management will be taking erosion and sediment control measures as well as following the requirements of the grading plan to prevent loss of topsoil and to contain dust within the site.

HEAT ISLAND EFFECT (NON-ROOF AND ROOF)

- Of the vehicular parking provided, all will be contained within underground parking levels. This will reduce the heat island effect which results from exposed surface parking lots.

INDOOR WATER USE REDUCTION

- High-efficiency toilets and plumbing fixtures will be used to reduce water consumption.

TRI-SORTER RECYCLING

- A tri-sorter system will be used to allow residents to separate waste, organics, and recyclables.

REGIONAL MATERIALS

- Where possible, construction materials will be chosen for their low carbon footprint and sourced responsibly to reduce carbon footprint of the shipment of materials.

Yours truly,

PLAN LOGIC CONSULTING INC.



John Lohmus RPP, MCIP

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