



URBAN DESIGN BRIEF

Proposed Place of Worship
2403 Khalsa Gate, Oakville

June 2025

Prepared for:

Halton Sikh Cultural Association

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Project No.
24-098

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PART 1 - BACKGROUND AND EXISTING CONDITIONS

1.0 INTENT OF DOCUMENT

Adesso Design Inc. was retained to prepare the following Urban Design Brief on behalf of the Halton Sikh Cultural Association in support of the proposed Zoning By-law Amendment on the subject property. The purpose of this report is to establish the overall design strategy and principles utilized for the proposed development based on the Oakville Urban Design and Open Space Guidelines.

The following report will provide an illustrated explanation of how the overall design of the proposed redevelopment responds to the physical site and its surroundings. This document also aims to explain how the proposed design addresses the Town's urban design principles, sustainability initiatives, and overall vision.

2.0 DESIGN VISION, GUIDING PRINCIPLES, & OBJECTIVES

The goal in redeveloping the subject property is to extend the existing Gurdwara to accommodate the growing needs of the community. This extension is a response to the increasing number of devotees and the demand for more space for community activities, particularly during weddings, Nagar Kirtans (Sikh Processional Parades), and other Sikh gatherings. The design will honour the rich cultural heritage of Sikhism while blending modern architectural to create a space of peace, unity, and spirituality.

This redevelopment also aims to meet the best practices for both architecture and urban design within Oakville and adhere to the design guidelines set by the Town's strategic development documents. The proposed redevelopment addresses both the Livable Oakville Plan and the Livable By Design Manual (LBDM). The Livable Oakville Plan highlights the Town's plans for development over multiple years while the LBDM provides guidelines regarding Sense of Identity, Compatibility, Connectivity, Sustainability, Legacy, and Creativity. These policies will be addressed in further depth in Section 4.0 Policy Context.



Fig 1. Town of Oakville Aerial View



Figure 2. Existing Site Location and Context

3.0 SITE CONTEXT

The subject site is located in the Town of Oakville with Pine Glen Road to the North-West and Khalsa Gate to the South-West. The property is mainly rectangular in shape with a slight angle to the North-West. The site is currently zoned for Future Development (FD).

The overall lot area is 18,767.98 square metres (4.64 acres) with an existing frontage of 42.9m.

The property is surrounded by:

North-East: The lot directly to the North-East of the subject property is currently vacant with the surrounding properties being low-residential townhouses.

North-West: Directly across Pine Glen Road is St. Joseph's Portuguese Roman Catholic Church. Further North is Greenwich Park and several low density residential properties. Dundas Street W is also located further North-West of the proposed development site.

South-East: Three-Storey residential buildings directly next to the subject site. New development is in progress for additional residential buildings, mainly condos, further along Khalsa Gate.

South-West: Nine-Storey residential buildings with modern architecture at the corner of Khalsa Gate and Pine Glen Road. New development projects continue along Old Bronte Road with the majority being multi-storey condo buildings.

The proposed redevelopment will support the goal of complete communities through providing additional access to religious services for those living in the neighbourhoods immediately surrounding the site as well as those further out.



Figure 3. Existing Site Location and Context - Places of Interest



Sainte-Trinite Secondary School & High Density Residential along Dundas St W



Valleyridge Park & Fourteen Mile Creek



High Density Residential



Medium Density Residential



Greenwich Park & Surrounding Residential



Vacant Lot Behind Site



Palermo Public School



Figure 4. View into site from intersection of Khalsa Gate & Pine Glen Road



Figure 5. View into site from South-East along Khalsa Gate



Figure 6. View into site from North-West along Pine Glen Road

3.1 Existing Features

The site currently features multiple small existing buildings including a stucco temple and storage areas. The majority of the site is dedicated to parking with open lawn space towards Khalsa Gate and gravel parking towards the rear of the property.

In terms of existing natural features, the site has multiple trees primarily along the property lines and frontage. Refer to the Tree Protection Plan prepared by Adesso Design Inc as well as the Tree Inventory and Preservation Plan report by Jackson Arboriculture Inc. for further information regarding existing vegetation

Regarding views in and out of the site, the subject property is adjacent to existing residential on the North-East and South-East property lines. The units to the South-East have wood privacy fencing along the property line providing privacy within the rear yards. There are development lands directly to the North-East and South-West which will likely become low density residential as well. Directly across Pine Glen Road is another religious place of Worship that features parking facing the subject property.

3.2 Existing Connectivity and Transportation Networks

The subject property is located on the corner of Khalsa Gate and Pine Glen Road which is along an Oakville Transit route. Route #34 runs along Pine Glen Road as rush hour/limited service routes including Saturdays and Sundays. Route #34 provides service to Bronte GO Station allowing users to connect to different routes and transportation opportunities within the city.

There are existing sidewalks along Khalsa Gate and Pine Glen Road that provide connection to the surrounding neighbourhoods. A bike lane also runs along Pine Glen Road allowing cyclists to safely travel around the proposed development site.

The Natural Heritage System (NHS) and Open Space Systems are in place to protect the natural environment, and provide recreational needs while contributing to the overall quality of life within Oakville. The Natural Heritage System within the town covers roughly 900 hectares or protected land (approximately 600 hectares east and 300 hectares west of Sixteen Mile Creek).

The proposed redevelopment is located in close proximity to multiple parks and public open spaces including Greenwich Park, Millstone Park, Valleyridge Park and Westoak Trails Park/Soccer Fields. Many of these parks are within walking or cycling distance.



Figure 7. Town of Oakville Transit System Map (August 2024)

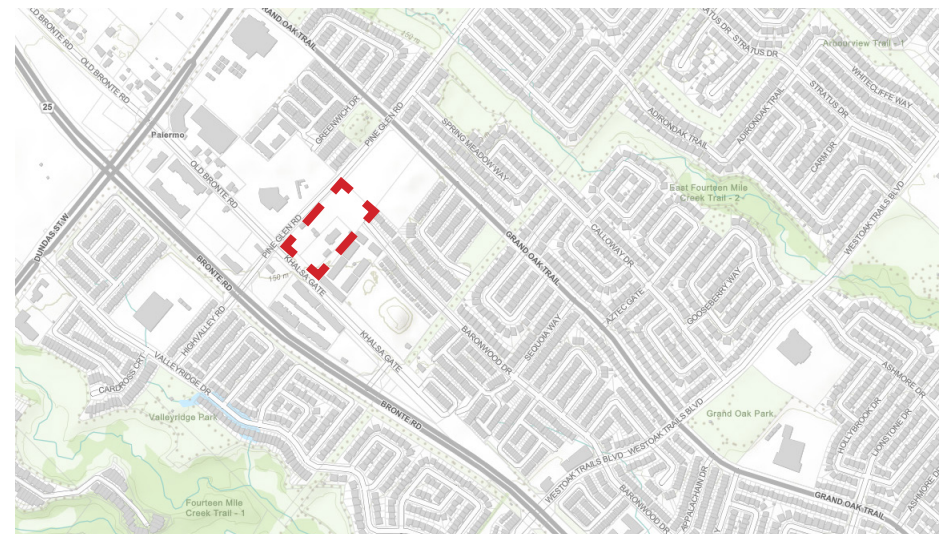


Figure 8. Town of Oakville Open Space Map (August 2024)

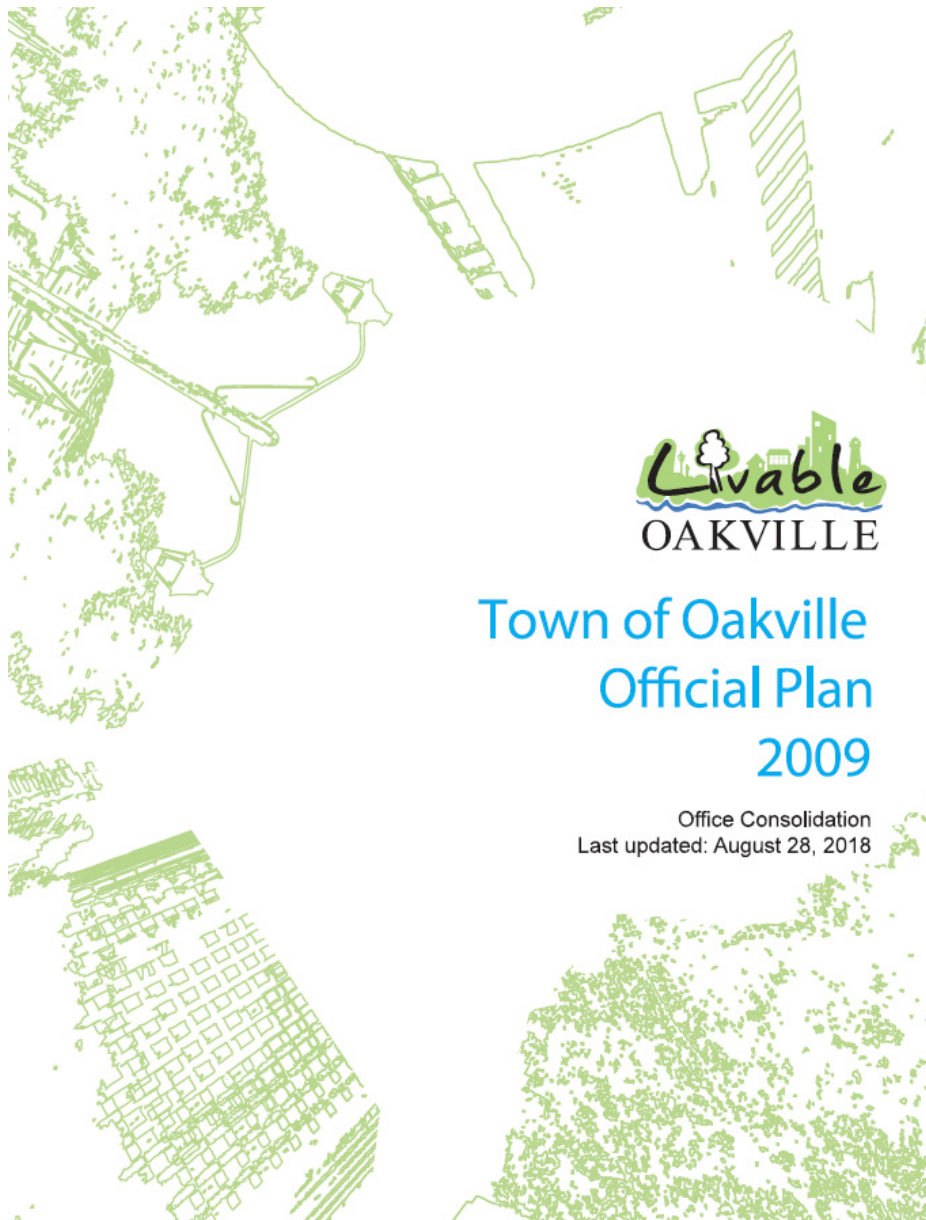


Figure 9. Livable Oakville Plan Cover (2009)

4.0 POLICY CONTEXT

As the subject site is South of Dundas Street and North of highway 407, the *Livable Oakville Plan* (2009) and the *Livable by Design Manual - Urban Design Direction for Oakville* (2014) is applicable to the proposed redevelopment.

4.1 Liveable Oakville Plan

The *Livable Oakville Plan* (2009) sets out how lands shall be used and how growth should occur in Oakville through to 2031. The plan provides the basic structural elements for the Town and applies to all lands except for those located in the North Oakville East and West Secondary Plan areas.

The Liveable Oakville Plan's mission is to enhance Oakville's natural, cultural, social and economic environments. This is done by ensuring that development and growth decisions consider environmental and social well being as well as sustainability, cultural vibrancy, and economic prosperity.

As per the Plan section 22.4.3, the area around the subject site, Palermo Village, has a growth target of 5,200 residents and 3,800 jobs. The proposed development shall support an increased population by providing access to a larger Place of Worship than what is available now.

The proposed redevelopment's increase in size addresses Section 22.7.1 c in which the uses and buildings that legally existed prior to the adoption of this Plan may be permitted to continue, however, they are intended to be redeveloped in conformity with this Plan.

4.2 Livable By Design Manual - Guiding Principles

The LBDM provides design guidelines and direction for development within Oakville to ensure that the developments integrate smoothly with the surrounding area. The manual also aims to ensure projects are able to function while being aesthetically pleasing, supportive of community vitality, and help to improve the overall livability of the Town.

The LBDM outlines six guiding principles for new and infill development projects within the Town of Oakville:

SENSE OF IDENTITY - creating distinct and vibrant communities

The proposed redevelopment adheres to this guiding principle as the building itself has impressive architecture that is memorable and easily identifiable as a Place of Worship. The proposed streetscape and pedestrian circulation allows community members to easily travel between neighbouring areas for live, work, and play.

COMPATIBILITY - fostering compatibility and context-specific design

This guiding principle highlights that new development shall have appropriate massing, height, rhythm, street presence, and materials for the neighbourhood in which it is proposed.

The proposed redevelopment addresses this principle as the addition increases the size of the building making it fit in better with the surrounding existing and proposed multi-storey developments.

CONNECTIVITY - enhancing connectivity and accessibility

This guiding principle enforces the need for improving Oakville's corridors to create 'complete streets' connecting people to local places, buildings, and the surrounding environment. The principle also highlights the importance of connecting private spaces to the public realm and connecting the old with the new.

The proposed redevelopment and streetscape promote easy pedestrian, cyclist, and vehicle access to and from the site. The site features plenty of accessible routes supporting different mobility levels. The sidewalk and street trees create pleasant connections along Pine Glen Road and Khalsa Gate linking the surrounding residential neighbourhoods to the new developments in the area.

SUSTAINABILITY - integrating sustainability and resiliency

Environmental, social, economic, and cultural influences work together to create balanced and productive communities. This guideline aims to ensure that the town can support compact development, greater walkability, transit use, site/building adaptability, intensification, conservation of natural areas, and harmonious building with surrounding areas.

The proposed development allows for use of existing infrastructure such as bus transit routes and pedestrian walkability. It also supports the idea of intensification rather than sprawl by increasing the capacity of people it can serve instead of causing the need for an additional similar Place of Worship elsewhere in the community.

LEGACY - preserving built heritage, cultural, and natural resources

This guiding principle focuses on preserving/enhancing built heritage, cultural features, landscapes, significant public views, and natural heritage features despite the Town's evolution.

The proposed redevelopment supports the preservation of Oakville's cultural features through its incorporation of the existing Place of Worship building. In terms of natural resources, as many trees as possible are to be retained on site as per the Tree Preservation Plan prepared by Adesso Design Inc.

CREATIVITY - inspiring creativity and innovation

Oakville aims to create unique communities through new development and redevelopment projects that prioritize the feel and function of local attributes including values, history, culture, places, landmarks, and buildings.

The proposed redevelopment adheres to this policy as it addresses the community's diverse culture and need for worship/gathering spaces. The landscape design features streetscape elements that blend well with the surrounding neighbourhoods as well as large open spaces for gathering within the site.



Figure 10. Livable By Design Manual Graphic

4.3 Zoning Policy Context

Figure 11 shows the existing zoning in the general area surrounding the subject property. The Mixed-Use zones and the Residential High zone implement the Urban Centre Official Plan land use policies in the current in-force Official Plan.

It has been determined through the preconsultation process for the Official Plan Amendment (OPA) and the Zoning-By-law Amendment (ZBA) that the Community Use zone is the appropriate zone for the subject lands. A Place of Worship is permitted under the Official Plan policies.

A site-specific amendment to the Zoning By-law is required to implement the proposed development of the property. The required changes are provided below:

1. Under the parking provisions of the Section 5 of the Zoning By-law 50% of the required parking must be located within a structure. The proposed Official Plan Amendment would permit all parking to be on the surface. The proposed OPA is consistent with the policy in OPA 34 which has been referred to OLT.
2. The minimum height is set at 1 storey to reflect the existing building on the property.
3. The minimum landscape buffer along Pine Glen Road is reduced from 3.0m to 1.18m to accommodate a required widening of Pine Glen Road as per Transportation Policies in the Official Plan.
4. The minimum landscape buffer between the subject property and the residential use to the South is reduced from 4.5m to 3.2m to reflect the Site Plan.

In conclusion, the amendments proposed to the Zoning By-law are appropriate for development of the property.

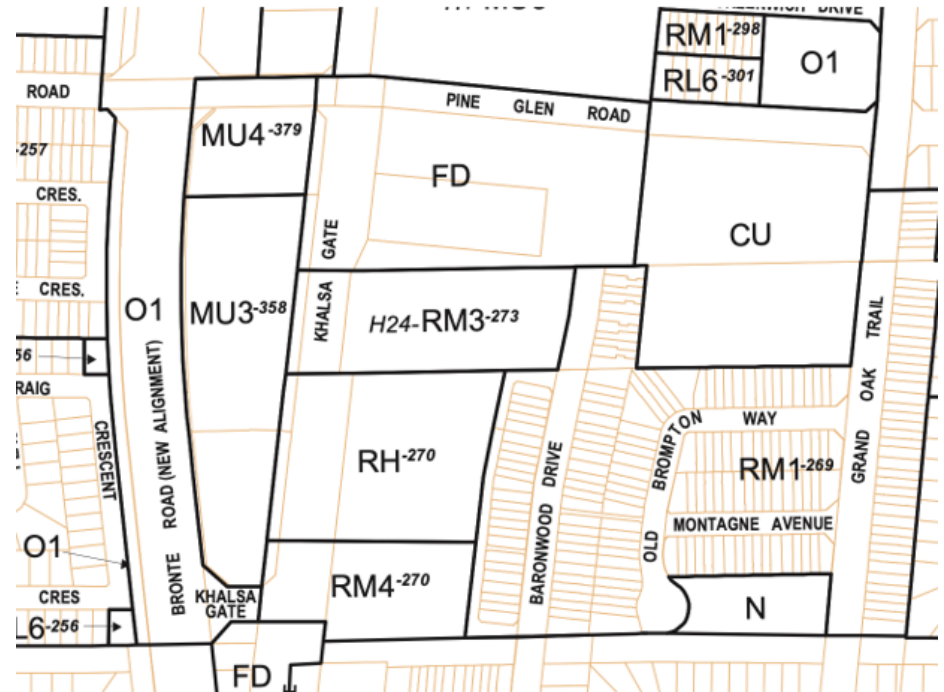


Figure 11. Extract from By-law 2014-014

PART 2 - SITE DESIGN AND ANALYSIS

5.0 DEVELOPMENT PLAN

A Gurdwara, the Sikh place of worship, is more than just a physical structure; it is the spiritual heart of the Sikh community. The word "Gurdwara" translates to "the doorway to Guru," symbolizing a place where people come together to connect with the divine, seek guidance, and engage in community service (seva). The proposed Gurdwara extension will be a sanctuary for reflection, worship, and communal harmony, offering an environment that encourages both personal and collective spiritual growth.

5.1 Overall Development Plan

The overall development plan for this site was guided by the site's proposed uses and associated cultural principles, need for community connection, and the Town of Oakville's Urban Design Policies. The site is to be a welcoming and green space within the Town of Oakville.

The proposed development does not intend to alter the current site's uses. The proposed design is complimentary to the characteristics of the surrounding area and will help to meet the needs of the growing population.

Two of the policies that largely guided the design development were the need for adequate parking and reaching canopy cover targets.

This proposed place of worship will support a large number of community members which creates a large demand for parking spaces. This amount of parking required, and related snow storage areas, has guided the design as it limits the amount of area available for other site elements.

The Town of Oakville's canopy coverage target also helped to guide how the site was designed. Deciduous trees were proposed along the property lines to help reach the Town's target canopy goals and reduce the urban heat island affect.

At the initial design stage (seen below in figures 12 and 13), community engagement was a focus and areas such as a kitchen gardens and an orchard were proposed. However, due to the need for parking, canopy coverage, and snow storage areas these areas were removed. In following revisions, these specific features were replaced by two large gathering areas towards Khalsa Gate that will still allow for community engagement.

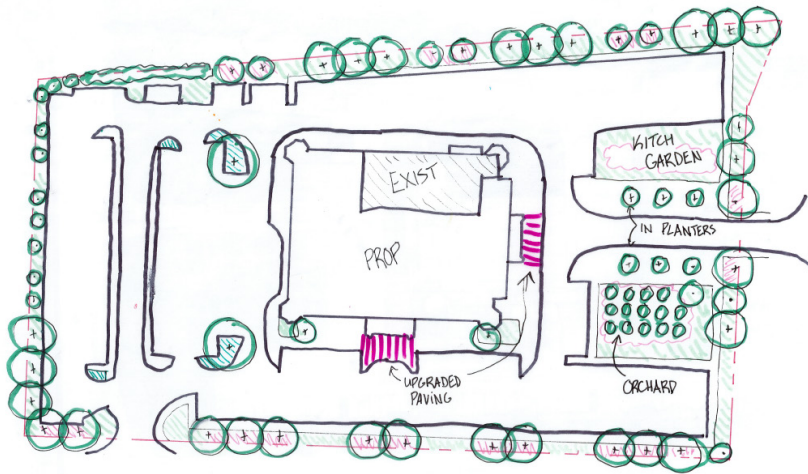


Figure 12. Initial Landscape Concept Sketch

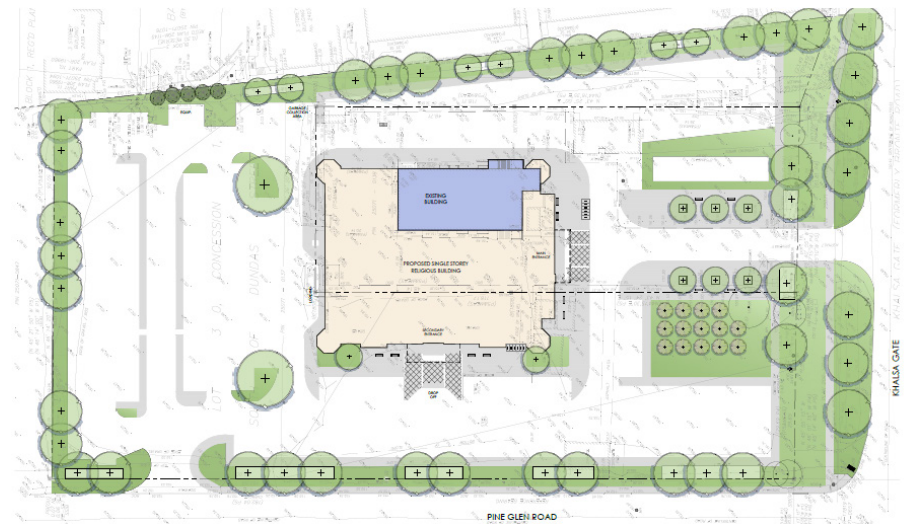


Figure 13. Initial Landscape Concept Linework

5.2 Importance of Building the Gurdwara:

1. **Spiritual Growth and Worship:** The current space is limited and unable to meet the needs of an expanding community. The extension will provide a larger, more accommodating space for prayer and reflection. Devotees will be able to gather comfortably for regular prayers and special services, including Kirtans (devotional music), Hukamnama (spiritual teachings), and community service initiatives.

2. **Cultural Preservation:** This project will allow future generations to connect with their cultural and spiritual heritage. By creating a space that encourages learning, respect, and understanding, the Gurdwara will continue to play an important role in preserving Sikh traditions and values for years to come.

3. **Community and Inclusivity:** Beyond being a place of worship, the Gurdwara will be a center for community events, social service projects, educational programs, and interfaith dialogue. It will foster inclusivity, bringing together people from all walks of life to learn, share, and grow. The expanded space will allow for more events, particularly weddings and communal festivals, to be held within the sacred space, strengthening bonds within the community.

4. **Symbol of Unity:** The Gurdwara will be a symbol of unity, respect, and service to all. By bringing people together for prayer, education, and cultural exchange, it will promote tolerance and understanding within Oakville's diverse population.

6.0 DETAILED DESIGN DIRECTION

The following sections will break down the detailed design elements of the proposed development site including the site design, built form, and sustainability features.

6.1 Site Design

Positioning of Building:

The proposed positioning of the building follows the location of the existing building. The development fronts onto Khalsa Gate with the main driveway centred on the building's primary entrance. The entrance follows the existing entrance of the site with a secondary relocated entrance along Pine Glen Road. The primary entrance's location helps to create a visually appealing welcome to the site. The building runs parallel to the property lines except the one to the North-East. The buildings position does not encroach into any of the site's setbacks limits.

Parking:

As previously mentioned, parking requirements played a large role in the design of the site. 236 car parking spaces have been proposed throughout the site to meet the needs of the growing surrounding area. These spaces are located throughout the property with many towards the rear of the property with 9 barrier free spaces closer to the secondary entrance of the building.

There are also 12 proposed bike racks for short-term bike parking which exceeds the 7 required by the Town. These bike parking spaces are located in close proximity to the building's main entrance which complies with the Town of Oakville's Livable by Design Urban Design Manual (Page 64).

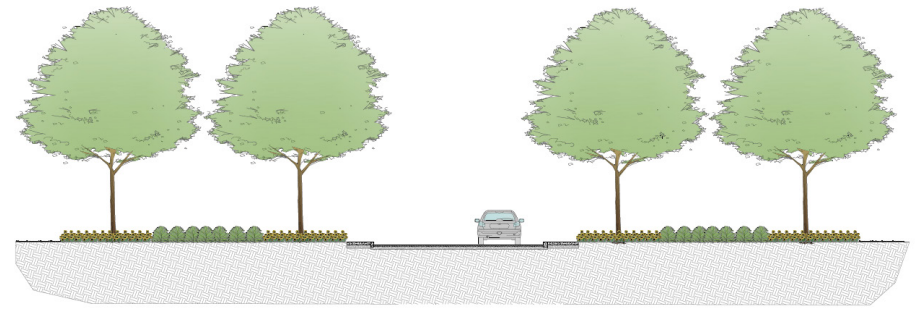


Figure 14. Draft Section of Khalsa Gate Entrance



Figure 15. Prioritizing Accessibility



Figure 16. Bicycle Parking

Streetscape and Landscape Design:

The streetscape of this proposed development runs along Khalsa Gate and features a relocated municipal sidewalk that connects to the existing sidewalk along Pine Glen Road and maintains pedestrian connection. Two 1.5m wide sidewalks have been proposed along the main driveway entrance and secondary driveway entrance allowing for visitors to walk onto the property. On both sides of the relocated sidewalk along Khalsa Gate, sod with large stature deciduous trees are proposed to increase canopy cover in the area and create a green street presence to the site.

As per Town of Oakville guidelines, the Town's overall canopy cover targets are 40%. The proposed canopy cover target for the subject property was identified as 25% of the total site area. The proposed landscape design has achieved 25.5% canopy coverage through trees proposed where possible on site. Refer to the Canopy Cover Plan prepared by Adesso Design Inc for details on species selected, soil volume, and canopy coverage.

The proposed landscape design features planting beds on site along the property lines adjacent to Pine Glen Road and Khalsa Gate as well as deciduous trees where possible due to snow storage and soil volume requirements. Benches, bike racks, and small planters have also been proposed throughout the site. There are two large open lawn spaces towards the main entrance of the property to allow for gathering spaces as well as snow storage.

Accent paving details including unit pavers and banding are proposed near the building entrances to highlight these areas. This meets the design intent in the Livable by Design - Urban Design Manual, Section 40. Concrete walkways exceeding 1.5m widths run throughout the site allowing easy pedestrian access.

Refer to the Landscape Plan prepared by Adesso Design Inc for additional details.

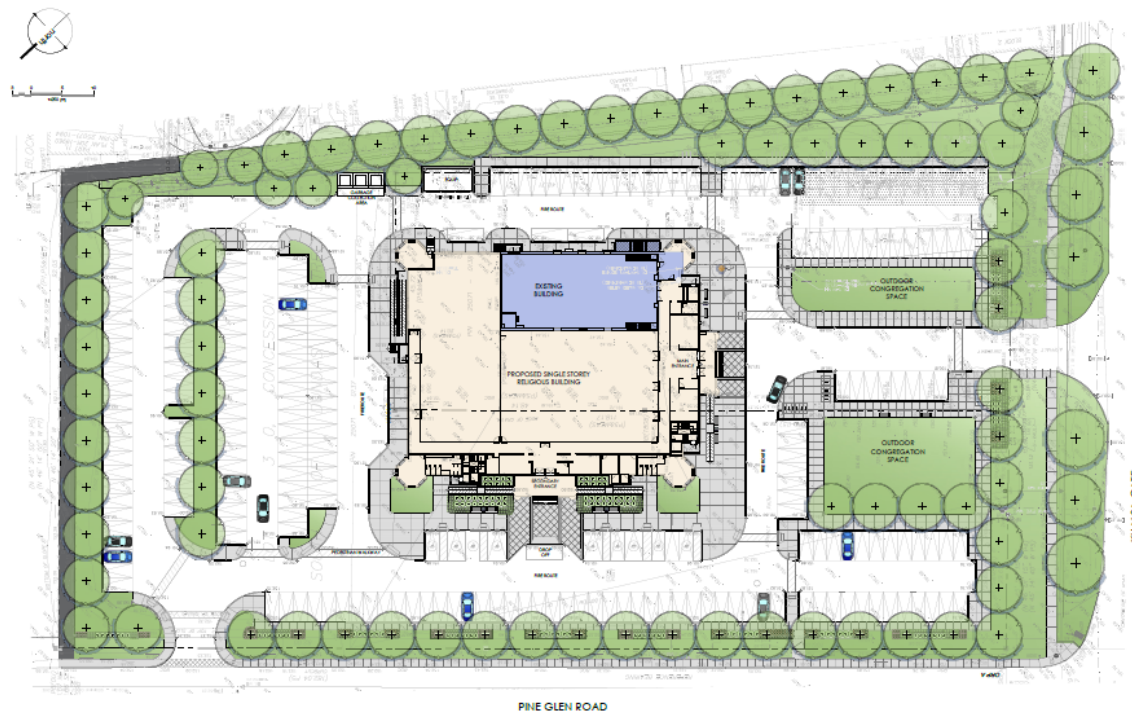


Figure 17. Landscape Plan



Figure 18. Khalsa Gate Planting Scheme

Pedestrian Access and Circulation:

The proposed development features pedestrian connections as per design standards to identify pedestrian networks as different from the vehicular environment. Pedestrian walkways extend past property lines to connect the site to the rest of the surrounding neighbourhood through the existing municipal sidewalks. These walkways also allow for easy access to the many public open spaces and parks nearby. To connect the site to the existing bus stop along Pine Glen Road, a concrete walkway has been proposed. The development also features a 3 metre wide multi-use pathway connecting Pine Glen Road with Baronwood Drive, this strengthens the pedestrian experience not only on the subject site but also throughout the surrounding neighbourhoods.

As per the Livable by Design - Urban Design Direction, “site furnishings are to be incorporated along pedestrian connections to provide amenities at convenient and comfortable locations” (2019). Benches have been proposed along pedestrian connections near the entrances of the building as well as near the gathering spaces proposed towards Khalsa Gate. Raised planters with perennials have been proposed alongside the benches to improve the experience users of these areas have.

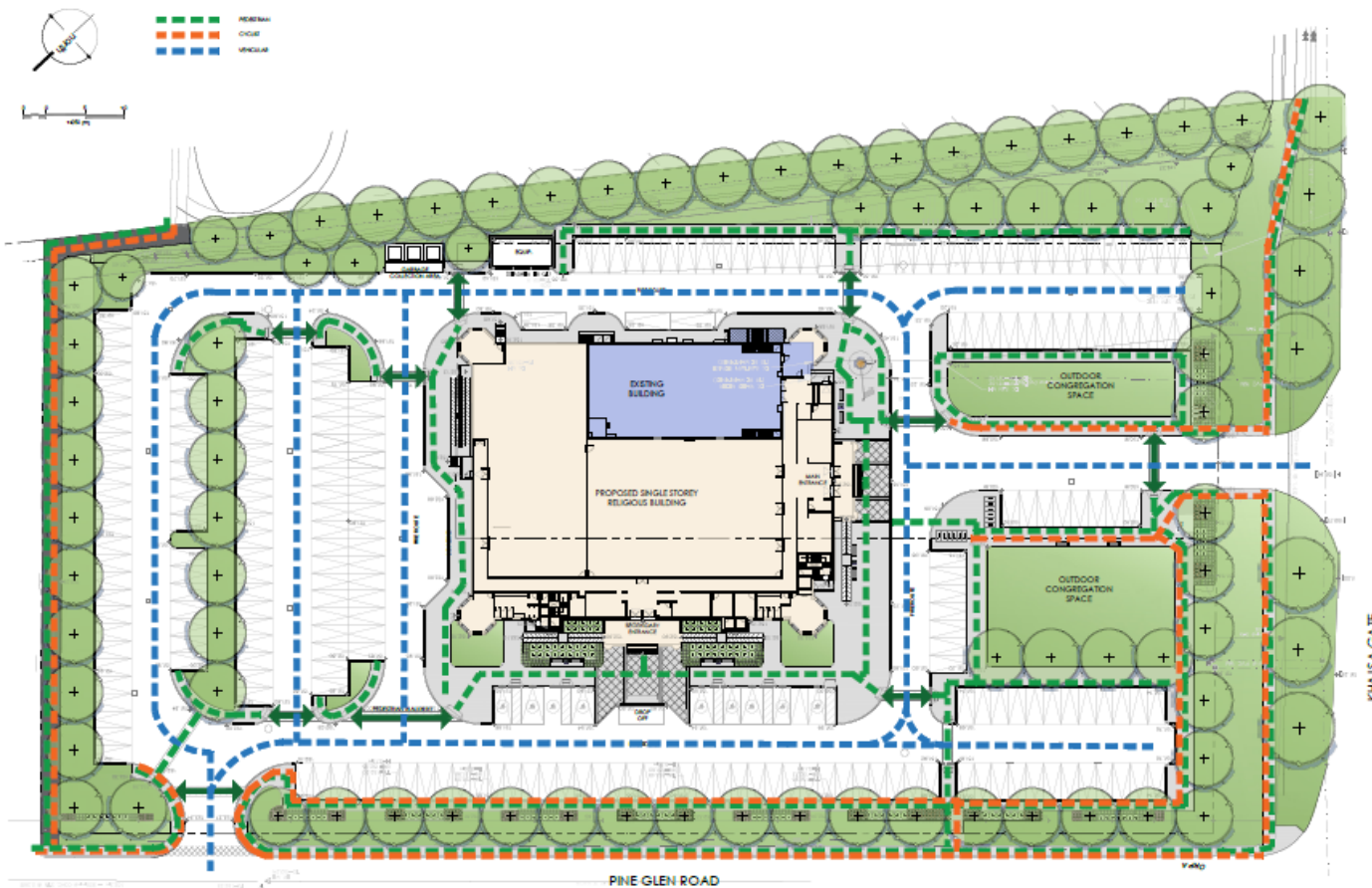


Figure 19. Circulation Plan



Figure 20. Multi-Use Path



Figure 21. Safe Pedestrian Crossing



Figure 22. Oakville Bus Stop Signage

6.2 Built Form

Cultural Significance:

As a vibrant community hub, the Gurdwara will serve as a centre for educational, social, and cultural engagement. Its design must reflect the principles of Sikhism, including equality, humility, and service. In addition to its religious significance, the space will foster an inclusive environment where individuals of all backgrounds are welcomed, making it a beacon of unity in the Oakville area.

Architectural Features:

The design of the Gurdwara extension will embody the core values of Sikhism while incorporating timeless architectural elements that represent the culture and history of the Sikh community.

1. Domes: Central to the Sikh temple's architecture are the domes, which symbolize the oneness of God and the divine. The prominent dome at the heart of the Gurdwara will be designed to serve as both a visual focal point and a symbol of spirituality. Its graceful curves will represent the idea of transcendence and the infinite nature of the Creator.

2. Arches: The use of arches will be integral in the design, paying homage to traditional Sikh architecture. Arches provide both structural stability and visual elegance, and they also signify the opening of hearts and minds. The arches will frame the entranceways, internal spaces, and windows, creating a harmonious flow between the interior and the exterior.

3. Harmony of Space: The expanded Gurdwara will feature spacious prayer halls, with open areas that foster a sense of peace and connection among devotees. The interior will be designed to allow natural light to filter through, symbolizing the divine light that guides individuals on their spiritual journey. The open plan will allow for flexibility during different events, accommodating a variety of communal activities while maintaining a respectful and serene atmosphere.

4. Nagar Kirtan (Sikh Processional Parades) and Wedding Assembly Areas: The extended space will provide ample area for community events such as Nagar Kirtans (Sikh processional parades with singing of devotional hymns) and wedding assemblies. These events are essential to the community, providing both spiritual nourishment and a sense of unity. The open outdoor areas surrounding the Gurdwara will allow for gathering during these events, creating an inclusive environment for the Sikh community and other visitors. The exterior design will feature gathering spaces that encourage fellowship before and after religious ceremonies, offering a welcoming atmosphere for all. These areas will also provide a space for the groom's family to meet and greet during weddings, allowing for important cultural exchanges and celebrations.

5. Sikh Symbols and Calligraphy: The Gurdwara will feature sacred Sikh symbols such as the Khanda (the emblem of Sikhism), along with calligraphy of hymns from the Guru Granth Sahib, the Sikh holy scripture. These symbols and verses will be incorporated throughout the design, providing both visual and spiritual guidance for those visiting the space.



Figure 23. Main Entrance Architecture

6. Material Selection: The choice of materials will reflect the Gurdwara's spiritual and cultural significance. Local stone, traditional wood, and marble will be used to create a sense of timeless beauty and durability. These materials will evoke a connection to the land and history, while also offering a modern aesthetic. The interior will feature hand-carved wooden panels and intricate detailing, symbolizing the craftsmanship and devotion of the Sikh community. More specifically, the proposed materials for the facade of the building are smooth stone 4'0" up the wall and stucco above. These materials offer a permanent finish with minimal maintenance needs. The combination of stucco and stone create a pleasing visual appearance from close to the building and farther away. This facade aims to be sustainable as well as environmentally friendly.

Lighting:

As per Section 4.4 of the Livable by Design - Urban Design Manual, exterior light standards will be proposed in areas to increase safety and comfort. The light standards will match the scale and character of the proposed architecture. The minimum target of exterior lighting has been met and lighting control have been proposed to reduce light spillage from the buildings by 50% from 11pm to 5am. Different lighting products such as wall-mounted fixtures, pole-mounted fixtures, and surface-mounted fixtures have been proposed to meet the needs of the proposed redevelopment. These fixtures highlight the entrances to the building as well as other pedestrian areas to ensure the safety throughout the site during different times of day.



Figure 24. Architectural Domes, Arches, and Detailing



Figure 25. Lanterra 9002 Wall Mounted Cylinder

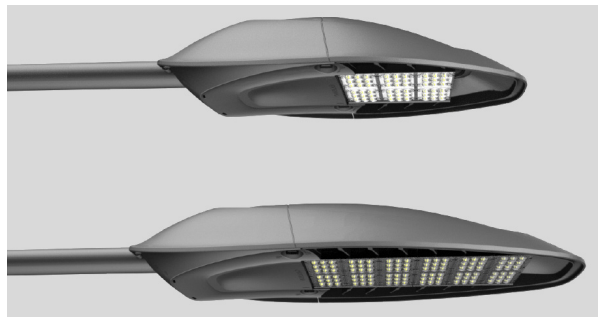


Figure 26. OVAALI OL30 & OL35 Overhead Lighting



Figure 27. Ceiling Surface Mounted Downlight



Figure 28. McGraw-Edison Impact Elite LED Trapezoid Wall Mount - Downward Throw

6.3 Sustainable Features

As per the Town's Official Plan, the Town of Oakville is committed to sustainable development in order to achieve environmental sustainability.

The following list includes building and site design features that the proposed development aims to incorporate:

Fixtures - Within the building , eco-friendly and resource sustaining faucets are proposed to help with reducing wasted water.

Lighting - Energy efficient luminaires, off-grid power fixtures, and greener power sources have been recommended to help achieve lower energy consumption. Where appropriate and practical, automated controls (timers, photocells, and sensors) are proposed to shut off or dim the illumination levels of exterior lighting fixtures when the building and or portions of the site are not in use.

Permeable Paving - The proposed development features permeable pavers throughout the parking stalls to increase the ability for water to stay on the subject site. This is in line with the suggestions made in section 4.1 of the Livable By Design Manual regarding hardscaped areas. Curbing has also been proposed to delineate the permeable paving areas from the landscape areas adjacent to the parking lot.

Hardscape - 50% of the proposed new hardscape (walkways and parking areas) is to be constructed using light coloured materials. 25% of recycled/reclaimed materials shall be used for new infrastructure including parking lots and sidewalks.

Roof Design - The roof of the building is proposed to be painted in a bright and reflective colour (such as white) which will reflect the heat from the sun therefore reducing cooling costs and lowering energy usage in the warmer months.

Stormwater Management and Surface Run-off - The grading design for the proposed redevelopment aims to manage the flow of water away from the building to prevent water damage, erosion, and potential flooding. The use of sustainable design techniques such as permeable paving has been proposed to improve water quality and reduce the impact of urbanization on the natural water cycle. Water run-off, including rainwater and stormwater, throughout the site is managed through the design and implementation strategies proposed. Although the site itself is not large enough for complete infiltration, purposefully designed landscape strips aim to help with reducing surface water run-off. The combination of permeable surfaces as well as landscape areas work together to capture and filter water where possible.

Transportation Connection - Active transportation such as walking and biking is important to making communities livable and sustainable. The benefits of active transportation include congestion reduction, improved safety, physical and mental health improvement as well as the reduction of energy, pollution/greenhouse gas emissions, and costs. The proposed redevelopment includes 12 bicycle racks on site as well as many pedestrian sidewalks connecting to the main roads.

Native Planting Species - Species such as *Acer rubrum*, *Ostrya virginiana*, and *Viburnum cassinoides* are proposed to promote native species diversity. A preference for drought and salt tolerant species has been addressed as many of the planting areas are located in close proximity to hardscape as per Town of Oakville's Livable by Design Urban Design Manual. Conservation Halton's Landscaping and Tree Presentation Guidelines have been referred to while choosing native species for the site.

6.4 Canopy Cover

The required canopy coverage for the site based on land-use is 25% (4692.95 sq m) of the overall site area.

The proposed landscape design for the site achieves 25.5% (4795.10 sq m) through the proposal of new deciduous trees.

Trees are proposed to help meet the Town's canopy coverage requirements. 58 of the proposed trees are within 5m of the parking area. Many of these tree's canopies overhang the proposed hardscape elements which helps to reduce urban heat island effect.

Tree spacing and layout has been determined following the Terms of Reference in the Town of Oakville's Development Application Guidelines - 2057 Canopy Cover Plan & Canopy Calculation Chart (Feb 2025). Large stature tree species proposed include *Acer rubrum*, *Ulmus x 'Homestead'*, *Tilia americana 'Redmond'*, and *Ginkgo biloba*.

Ostrya virginiana is also proposed a medium stature tree.



Acer rubrum



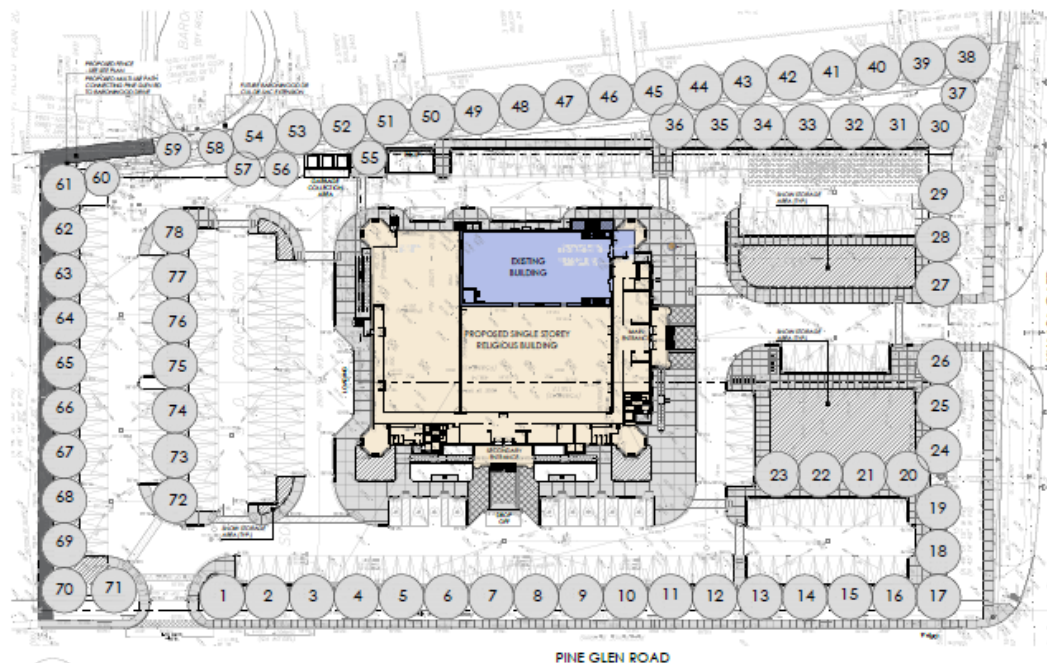
Ulmus x 'Homestead'



Tilia americana 'Redmond'



Ginkgo biloba



CANOPY CALCULATION CHART

Tree #	Tree Species	# of Trees	Soil Volume per Tree (m ³)	Crown Area per Tree (m ²)	Canopy Area Subtotal (m ²)	Overlap (m ²)
PROPOSED LARGE STATURE TREES (15m+ SPREAD)						
1 to 2	<i>Acer rubrum</i>	2	35.00	44.00	138.00	
3 to 4	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
5 to 6	<i>Acer rubrum</i>	2	35.00	44.00	138.00	
7 to 8	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
9 to 10	<i>Acer rubrum</i>	2	35.00	44.00	138.00	
11 to 12	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
13 to 14	<i>Acer rubrum</i>	2	35.00	44.00	138.00	
15 to 16	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
17 to 18	<i>Acer rubrum</i>	2	35.00	44.00	138.00	
19 to 20	<i>Ginkgo biloba</i>	4	45.00	44.00	254.00	5.54
21 to 22	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
23 to 24	<i>Tilia americana 'Redmond'</i>	2	45.00	44.00	192.00	
25 to 26	<i>Tilia americana 'Redmond'</i>	2	45.00	44.00	192.00	
27 to 28	<i>Acer rubrum</i>	2	45.00	44.00	138.00	
29 to 30	<i>Ulmus x 'Homestead'</i>	2	45.00	44.00	192.00	
31 to 32	<i>Acer rubrum</i>	2	45.00	44.00	138.00	1.12
33 to 34	<i>Acer rubrum</i>	4	45.00	44.00	254.00	
35 to 36	<i>Ginkgo biloba</i>	4	45.00	44.00	254.00	4.75
37 to 38	<i>Acer rubrum</i>	4	45.00	44.00	254.00	
39 to 40	<i>Ginkgo biloba</i>	5	45.00	44.00	350.00	
41 to 42	<i>Ulmus x 'Homestead'</i>	4	45.00	44.00	254.00	
43 to 44	<i>Acer rubrum</i>	4	45.00	44.00	254.00	
45 to 46	<i>Ulmus x 'Homestead'</i>	2	40.00	44.00	192.00	
47 to 48	<i>Tilia americana 'Redmond'</i>	2	35.00	44.00	138.00	
49 to 50	<i>Ulmus x 'Homestead'</i>	2	35.00	44.00	138.00	
51 to 52	<i>Tilia americana 'Redmond'</i>	2	40.00	44.00	192.00	
53 to 54	<i>Tilia americana 'Redmond'</i>	2	40.00	44.00	192.00	
Subtotal for Large Canopy Trees (m ²)					4544.00	11.48
Subtotal for Large Canopy Trees (minus overlap)					4532.52	
PROPOSED MEDIUM STATURE TREES (10-15m SPREAD)						
55	<i>Ostrya virginiana</i>	1	30	36.00	36.00	3.4
56 to 57	<i>Ostrya virginiana</i>	2	30.00	36.00	36.00	
58 to 59	<i>Ostrya virginiana</i>	2	30.00	36.00	74.00	3.00
60 to 61	<i>Ostrya virginiana</i>	2	30.00	36.00	74.00	
62 to 63	<i>Ostrya virginiana</i>	1	30.00	36.00	36.00	5.47
Subtotal for Medium Canopy Trees (m ²)					244.00	9.47
Subtotal for Medium Canopy Trees (minus overlap)					244.00	
Canopy Summary						
Site Area (m ²)					18771.78	100%
Site Canopy Cover (m ²)					4795.10	25.5%
Land use Canopy Cover Target					4692.95	25%
Parking Area Summary						
Total Parking Spaces Provided					234	
Total Number of Proposed Trees within 5m of Parking Area					58	

CONCLUSION

The extension of the Gurdwara at Khalsa Drive is not just an architectural project; it is an investment in the spiritual, cultural, and communal life of Oakville's Sikh community and beyond. The design honors the sacred traditions of Sikhism while meeting the growing needs of the community. The proposed features – domes, arches, open gathering spaces, and sacred symbols – will create an environment of beauty, peace, and unity. This project will ensure that the Gurdwara remains a place of worship, a center of learning, and a hub for communal engagement for generations to come.

The proposed redevelopment also aligns with the Town of Oakville's vision for development projects. The Town's policies including the Livable Oakville Plan, Livable By Design Manual, and Zoning Plan have guided the design for the proposed redevelopment. The goal of enhancing quality of life and well-being as well as sustainability within the subject sites neighbourhood has been addressed through the design decisions proposed for the extension of the Gurdwara.

This report has demonstrated the proposed development's Design Vision, Site Context, Policy Context, Development Plan, and Detailed Design Direction. The proposed redevelopment will benefit the surrounding communities and the overall environment throughout the Town of Oakville.

We invite the community to support this important development, which will undoubtedly enhance the spiritual and cultural landscape of Oakville.