



PLACES OF WORSHIP STUDY CITY OF MARKHAM FUTURE DIRECTIONS REPORT

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Executive Summary

Background

The City of Markham has long recognized the significance of Places of Worship to its residents, and their importance to the creation of a healthy community. To ensure that the City's (then Town) policies met the needs of its citizens and reflected current practices pertaining to these key facilities, Council authorized a Places of Worship Study in May 2001.

Based on this work, amendments to the Official Plan and Zoning By-law were approved. The zoning amendment included a new parking standard and definition of Places of Worship which was added to Zoning By-law 28-97 through Zoning By-law Amendment 2003-301.

Subsequent to the approval of Amendment 2003-301, an issue with respect to non-fixed seating area occupant capacity calculations was identified. The issue was not with the recommendations of the Places of Worship Study, but with the transcription into Amendment 2003-301. The Places of Worship Study recommended occupant capacity for worship areas with non-fixed seating be calculated assuming 0.75 m² are occupied by each individual. However, this was erroneously transcribed to Amendment 2003-301 such that this number is multiplied by the net worship area rather than divided into the net worship area. This error results in lowering the parking supply required by the By-law.

The City of Markham addressed this issue through a housekeeping amendment to the Zoning By-law 28-97. The amendment was appealed to the Ontario Municipal Board (OMB). The City is required to demonstrate to the OMB justification for the proposed amendment.

Recognizing that the original Places of Worship Study is now more than 10 years old, the City of Markham engaged MSH and HDR Corporation (HDR) to undertake a scoped review of the approach to Places of Worship, with a focus on the parking regulations. The intent of this review is to ensure that the City has up to date and current information with respect to the parking standard and the development of Places of Worship.

Scoped Review Process

The scoped review process included the following:

- **General Place of Worship Development Trends**
A review by MSH of trends in the development of Places of Worship as a basis for consideration of the City's general policy approach to Places of Worship and to the review of parking standards.

- **Parking Standards**

A review by HDR of the existing City parking standards for Places of Worship, and the most current approaches used in other municipalities, as a basis for determining whether any changes are required to the City's parking standards and definitions for Places of Worship.

Conclusions

The scoped review of the approach to Places of Worship indicates the following:

Development Trends

There have been no significant changes in the nine trends identified in the 2002/2003 Study with implications for the development of policies with respect to Places of Worship in Markham. Therefore the policy framework developed at that time is still an appropriate framework for future development of Places of Worship. In particular, the policy framework is designed to respond to the following trends:

- Increases in the number and type of Places of Worship will continue in response to the growth of the community and the increasing diversity of its population;
- Larger Places of Worship will continue to be built requiring specific controls on development to address the high intensity nature of the use and potential impacts related to traffic and noise and, in particular parking which is always a significant concern;
- Auxiliary uses can also create significant impacts which must be considered;
- Locations outside residential areas have been sought by many groups to mitigate impacts, however, such locations create their own concerns. In particular, locations in employment areas which create a range of specific issues; and,
- City policy should continue to recognize the needs of all stages of development of Places of Worship, and to recognize the importance of Places of Worship as a key component of the "social safety net".

Policy and Regulatory Framework Implications

The review of the current policy and regulatory framework indicates that conclusions of the original Study with respect to the implications for the development of Places of Worship remain generally appropriate including:

- Restrictions on development of Places of Worship in the Agricultural Area should continue in conformity with Provincial, Regional and City policy which directs such development to urban areas;

- A flexible approach to the location of Places of Worship in most designations in the Urban Area continues to be appropriate, modified to introduce increased restrictions on locations in industrial areas;
- Increases in the number and type of Places of Worship will continue, and existing facilities will expand and move to accommodate increased population and its diversity. Such new Places of Worship and changes to existing Places of Worship will result in many which are larger facilities. Such high intensity land uses continue to require careful evaluation to ensure compatibility with respect to traffic, parking, location and scale of development in accordance with the specific policies and development criteria of the City's existing Official Plan and proposed new Official Plan for Places of Worship.
- In accordance with current policies, specific studies to address issues will continue to be required (e.g. parking, traffic, shadow, design and massing). Approaches to dealing with parking and traffic issues include shared parking with adjacent uses; locations in proximity to public transit and active transportation facilities; and establishment of Transportation Demand Management (TDM) plans will have to be considered as part of application review.
- Continuation of site reservation policy for new secondary plans given that it appears to work fairly well and provides an option for the location of Places of Worship in new Secondary Plan areas, while still allowing for the location of Places of Worship on other sites in the City chosen by faith groups through their own efforts.

Parking Standards Review Conclusions

The analysis of the parking surveys shows that the parking requirements set out in Zoning By-law 2003-301 (when correctly applied) are on average within 5.5% of the peak parking demand observed at the six Places of Worship that were surveyed as part of this scoped review. This generally confirms the validity of the recommendations from the original 2003 Places of Worship Study, specifically with respect to parking requirements.

When applicable, we have correctly applied the Zoning By-law 2003-301 non-fixed seating worship area capacity ratio of 0.75 m² per person, instead of applying this ratio as is required by Zoning By-law 2003-301. We have found that the worship area capacity based on this ratio tends to govern the Zoning By-law requirements instead of net worship floor area calculations.

When calculating the worship area capacity for non-fixed seating, it is important to not underestimate the net worship areas which will be used for prayer as this will determine the parking supply requirements.

1. Introduction

1.1 Background

The City of Markham has long recognized the significance of Places of Worship to its residents, and their importance to the creation of a healthy community. To ensure that the City's (then Town) policies met the needs of its citizens and reflected current practices pertaining to these key facilities, Council authorized a Places of Worship Study in May 2001.

Macaulay Shiomi Howson Ltd. (MSH) in association with iTrans Consulting Inc. (now HDR Corporation) and C.N. Watson and Associates Ltd. (now Watson & Associates Economists Ltd.) were retained to carry out the study. The results were provided in two reports:

- Background Issues & Options Report, June 2002; and,
- Future Policy Directions Report, June 2003.

Based on this work, amendments to the Official Plan and Zoning By-law were approved. The zoning amendment included a new parking standard and definition of Places of Worship which was added to Zoning By-law 28-97 through Zoning By-law Amendment 2003-301.

Subsequent to the approval of Amendment 2003-301, an issue with respect to non-fixed seating area occupant capacity calculations was identified. The issue was not with the recommendations of the Places of Worship Study, but with the transcription into Amendment 2003-301. The Places of Worship Study recommended occupant capacity for worship areas with non-fixed seating be calculated assuming 0.75 m² are occupied by each individual. However, this was erroneously transcribed to Amendment 2003-301 such that this number is multiplied by the net worship area rather than divided into the net worship area. This error results in lowering the parking supply required by the By-law.

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Recognizing that the original Places of Worship Study is now more than 10 years old, the City of Markham engaged MSH and HDR Corporation (HDR) to undertake a scoped review of the approach to Places of Worship with a focus on the parking regulations. The intent of this review is to ensure that the City has up to date and current information with respect to the parking standard and the development of Places of Worship.

1.2 Scoped Review Process

The scoped review process included the following:

- **General Place of Worship Development Trends**
A review by MSH of trends in the development of Places of Worship as a basis for consideration of the City's general policy approach to Places of Worship and to the review of parking standards.
- **Parking Standards**
A review by HDR of the existing City parking standards for Places of Worship, and the most current approaches used in other municipalities, as a basis for determining whether any changes are required to the City's parking standards and definitions for Places of Worship.

1.3 Report Framework

The results of the review and its implications are summarized in the following sections:

- Section 2 Development Trends
- Section 3 Parking Standards Review
- Section 4 Conclusions

2. Development Trends

2.1 Context

Markham's 2002/2003 Places of Worship Study (2002/2003 Study) identified a number of development trends which had implications with respect to Places of Worship. It also reviewed the policy and regulatory context at that time, as well as transportation and financial considerations. This scoped review compares the trends identified in the 2002/2003 Study with information derived from a review of the literature to establish whether they continue to be applicable. It also discusses the changes in the policy framework, particularly at the Provincial level, and the implications for planning for Places of Worship. Section 3 discusses the results of the review of parking standards. An update of the financial analysis was not deemed necessary.

2.2 Trends

The original review identified nine trends with implications for the development of policies with respect to Places of Worship in Markham. These are outlined below together with a discussion of their current applicability.

2.2.1 Trend: Increasing Numbers and Diversity of Places of Worship

2002/2003 Study

The 2002 Background Issues & Options Report notes that the population of the municipality "is growing and becoming ethnically diverse. Development of Places of Worship is directly related to the needs of this growing population. In addition, the trends toward ethnic diversity suggest a wider representation of faiths, as well as worship groups which serve specific language groups."

The Report indicates that increases in the number and type of Places of Worship would continue, and that not only would new Places of Worship be built, but that existing facilities would expand or move.

2013

The City has continued to grow significantly since 2002 and growth is projected to continue. Between 1971 when it was incorporated as a Town to its achievement of City status on July 1, 2012, Markham's population increased tenfold to 310,000. It also accommodated 160,000 employees. The Region of York Official Plan has established a population forecast of 421,600 by 2031 with 240,400 employees.

Markham also continues to be very ethnically diverse. In 2001, Markham was the most diverse among Ontario cities with 55.5% of its population part of visible minority groups¹. By 2006, Markham had the highest proportion of visible minority residents in all of Canada at 65.4%.² The results of the 2011 Census indicate that this trend continues with Markham having the highest proportion of visible minorities in the Toronto Census Metropolitan Area with 72.3% of its population part of visible minority groups.³

The trends in 2013 continue to support the conclusions of the 2002 Report that increases in the number and type of Places of Worship will continue, and that not only would new Places of Worship be built, but that existing facilities would expand or move to accommodate both the significant increase in population and employment which is forecast, as well as the continued increase in the ethnic diversity of that population.

2.2.2 Trend: Very few neighbourhood-based worship groups which serve a very localized community still exist. However, the regionality of a congregation does not relate to any one factor such as the size of its facility.

2002/2003 Study

The survey conducted as part of the original study indicated that only 30% of the worship groups drew 80% or more of their congregants from within Markham. However, the “regionality” of a congregation’s population, that is the extent to which the congregation lives locally or in other areas, was not a factor of the congregation’s size, or the size of its facility. There are large worship groups that serve a more local population, just as there are small worship groups that serve a widely dispersed population.

2013

The recent Town of Oakville Places of Worship Land Use Study⁴, confirms the general direction of the original Markham study. However, the Oakville analysis goes further to conclude that, regardless of the type of congregation, a large Place of Worship will have greater impacts than a smaller centre. In particular, the Study states:

“as places of worship get bigger, they do serve larger congregations which may act, or have the capacity to act, as a ‘regional centre’, regardless if they serve a dispersed regional population. As such, these larger facilities would ultimately create a higher intensity land use creating additional constraints during peak-times due to traffic volumes and parking. Also, these facilities could likely see increased usage during off-peak times with the establishment of

¹ Ontario Ministry of Finance, Office of Economic Policy, Labour and Demographic Analysis Branch, Census 2001 Highlights, Factsheet 6, Visible Minorities and Ethnicity in Ontario, February 5, 2003.

² Statistics Canada, “Canada’s Ethnocultural Mosaic, 2006: Canada’s major census metropolitan areas”, www12.statcan.gc.ca/census-recensement/2006/as-sa/97-562/p2.

³ Statistics Canada; Immigration and Ethnocultural Diversity in Canada, National Household Survey 2011, Catalogue no. 99-010-X2011001, page 16.

⁴ Town of Oakville Planning Services Department, Town of Oakville Places of Worship Land Use Study, February 7, 2011, pages 19-21.

additional programming and uses. The analysis shows that the impacts of these facilities are different than the local places of worship developed in the past due to the higher intensity nature of the use. Therefore it is not unreasonable to seek certain designations and criteria for the placement of these uses.”⁵

In addition, there are indications that the location of major ethnic Places of Worship which are regional in scale, can also take on a “local serving function” as they can cause “demographic shifts in their immediate vicinity and act as catalysts for new developments.”⁶

The trends in 2013 build on the conclusions of the 2002/2003 Study, and recognize that regardless of the nature of the congregation, larger Places of Worship will require specific controls on development to address the high intensity nature of the use. This was recognized in the 2002/2003 Study and implemented through the introduction of detailed policies for Places of Worship in the Official Plan. These focused on the need for appropriate access by all modes of transportation, effective management of traffic impacts and parking and minimization of impacts on adjacent residential uses through the use of buffering. A range of studies were required to allow for evaluation of proposed Places of Worship including a site plan, parking, traffic impact, acoustic/lighting and tree conservation. The City’s proposed new Official Plan also provides similar, specific direction with respect to Places of Worship.

2.2.3 Trend: The facility requirements of a worship group vary over time and between faith groups.

2002/2003 Study

The 2002/2003 Study identified four stages in the development of Places of Worship based on an analysis of trends in Markham and a review of the literature:

- Meetings in homes of individual members;
- Use of rented or other temporary facilities, perhaps commercial or industrial space, or shared space with another Place of Worship;
- Construction of a Place of Worship; and,
- Expansion of the Place of Worship, or creation of a new worship group.

The Study further indicated that municipal policy should “recognize the needs of both the small, newer worship groups requiring temporary facilities, and larger worship groups requiring more permanent facilities.”

2013

The four stages of development have been confirmed in a number of studies including the City of Brampton, Places of Worship Policy Review (Macaulay Shiomi Howson Ltd. 2008) and the Town of Oakville Places of Worship Study. The trends in 2013 therefore continue to support the

⁵ Oakville, op.cit., p. 20-21.

⁶ Sandeep Kumar Agrawal, “New Ethnic Places of Worship and Planning Challenges”, Plan Canada, Special Edition, Welcoming Communities, 2010, page 67.

conclusions of the 2002/2003 Study which indicate that City policy should continue to recognize the needs of all stages of development of Places of Worship and faith groups.

2.2.4 Trend: The average size of Places of Worship is increasing

2002/2003 Study

At the time of the study it was noted that the average size of Places of Worship had “doubled over the last 20 years in Markham” and that a similar trend had been observed throughout the Greater Toronto Area and other areas. The result was “the potential for land use conflicts, if they are not carefully planned.”

2013

The conclusion of the 2002/2003 Study is confirmed with the recent Oakville study indicating:

“a recurring finding in place of worship land use research has found that the average size of places of worship is increasing”.⁷

Specifically, indications are that a typical development application is for a floor area of at least 10,000 square feet, while new ethnic Places of Worship average 2 hectares in size.⁸ However, despite this trend to larger Places of Worship, no significant numbers of “mega” Places of Worship have been built in the Greater Toronto Area. Mega churches are defined as Places of Worship with weekly attendance of 2,000 people or more.⁹

Nevertheless the increasing size of these facilities and the potential for “mega” Places of Worship confirms the need for careful consideration of such uses, with potential impacts related to traffic, noise and parking.

2.2.5 Trend: There is no trend to substantially increased site size.

2002/2003 Study

The 2002/2003 Study indicated that, unlike floor area, “the average site size of Places of Worship has increased over time, but at a more gradual rate than average gross floor area.”

2013

There are no precise statistics available, however, the cost of land would appear to be a factor in site size and given that land costs are generally increasing, it can be assumed that the conclusions of the earlier study are still valid. This direction is also supported by Provincial policy in the PPS and Growth Plan, implemented through the Official Plans of the Region and the City, which encourage efficient land use patterns – intensification rather than increased site sizes. Nevertheless, it should be recognized that some increase in site sizes is occurring. For

⁷ Oakville, op. cit. page 16.

⁸ Agrawal, op.cit. pages 66 -67.

⁹ Town of Oakville, op. cit., page 16.

instance, the City of Brampton Places of Worship Policy Review¹⁰, indicates that the standard used by the City for reserve sites of 0.6-1.2 hectares was not large enough for many faith groups. This fact, together with the increasing size of facilities, confirms the need for careful consideration of such uses, with potential impacts related to traffic, noise and parking.

2.2.6 Trend: Site location diversity

2002/2003 Study

Areas designated “Urban Residential” (42 of 73 sites) were identified as the predominate location for Places of Worship in 2002/2003. However, a trend to locating outside residential areas was also noted, in particular locations in employment areas. At the same time, a shift away from locations in rural areas since 1987 was identified.

2013

The continuation of the trend to locate Places of Worship outside residential areas is apparent through a review of the literature, as worship groups seek lower cost locations where impacts on neighbouring uses are perceived to be relatively minimal compared with residential areas. In particular, the Brampton Places of Worship Study¹¹ identified the location of a significant number of Places of Worship in industrial areas in small rental units in industrial complexes as a significant issue. The Oakville Study also identifies:

“an increasing tendency for places of worship to locate in employment areas (Agrawal, 2009; Hoernig, 2006 & 2009; Macaulay Shiomi Howson, 2008). This trend has been spurred on by a number of factors including lower property costs, limited financial resources of religious groups, parking demands, over-flow parking potential with neighbouring employment properties during off-peak business hours, and the avoidance of nuisance issues associated with residential areas (Agrawal, 2009; Hoernig, 2006).”¹²

There is also some indication of pressures to locate in greenfield and rural areas.

The rationale for moving to locations outside residential areas may be partly to resolve impacts on adjacent uses. However, significant issues have still been identified with these alternative locations. In the Brampton study, locations in industrial areas caused traffic and parking problems including on weekdays. In addition, uses such as day cares and schools associated with such Places of Worship created a significant land use compatibility problem because they are sensitive uses requiring separation from industrial uses.

Developments in greenfield and rural areas are identified as “adding to the sprawl and causing burden on the city’s infrastructure.”¹³

¹⁰ Macaulay Shiomi Howson Ltd. et. al., City of Brampton Places of Worship Policy Review, January 2008, p. 18-19.

¹¹ Macaulay Shiomi Howson Ltd. et. al., op. cit. p. 23-26.

¹² Oakville, op. cit., p. 17.

¹³ Agrawal, op.cit., p. 67.

2.2.7 Trend: All Places of Worship have potential land use and traffic implications, particularly parking.

2002/2003 Study

Regardless of the site location, the 2002/2003 Study concluded that:

“parking is always a concern. This is accentuated by the difficulty of establishing seating capacity, and the resulting potential for parking shortfalls. Other matters which should be considered include traffic, noise and lighting.”

2013

Parking continues to be identified in the literature as the primary issue identified with Places of Worship, although traffic, noise and lighting are also a concern.

“A number of parking challenges in the literature are identified and include, among others: parking standards based on a seating capacity when dealing with facilities that have open floor prayer halls, and providing parking for additional uses which may be associated with a place of worship and create their own traffic generation and parking needs independent of the place of worship such as community centres, banquet halls, or supportive housing (Agrawal, 2009). Another issue tied to parking is traffic generation. Places of worship have various traffic generation models and peak-times due to varying ways religious organizations practice their faith making it difficult for standardized policies. Traffic generation is further impacted by additional uses on place of worship sites. As such, places of worship are often asked to provide traffic impact studies in order to determine if traffic capacities can be accommodated by the existing road network.”¹⁴

In addition to requiring specific studies to address parking and traffic issues, approaches to dealing with these issues included shared parking with adjacent uses; locations in proximity to public transit and active transportation facilities; and establishment of Transportation Demand Management (TDM) plans.

2.2.8 Trend: Places of Worship provide a range of services not only to their congregants, but also to the rest of the community. They are an important part of any community, and a key component of the “social safety net.”

2002/2003 Study

The 2002/2003 Study notes that “Places of Worship provide a range of services and facilities beyond their worship function. Some of these are primarily for congregants, while others serve the general community.” The implication is that Places of Worship are used not just for religious services, but on a regular basis as centres for the community. It was also noted that with increased social needs as a result of government “down loading” this role will expand.

¹⁴ Oakville, op.cit., p 21-22.

2013

Since 2002/2003, the recession of 2008 and further cutbacks in government spending have led to an increase in the need for social services, reinforcing this important function of religious communities as “critical nodes in the social safety network.” In particular, recognizing the diversity of Markham’s population:

“At a time when social needs are high, municipal resources are strained, and federal and provincial efforts rarely meet the shortfall, religious and cultural community organizations play a key role in meeting the short-term settlement and long-term integration needs of many immigrants.”¹⁵

2.2.9 Trend: Some Places of Worship are accommodating auxiliary uses/activities that extend beyond the concept of “accessory” use.

2002/2003 Study

The Study notes that uses typically accessory to a Place of Worship “might include offices, classrooms for religious instruction, meeting rooms or a residence for the head of the congregation.” Auxiliary uses however “encompass a much wider range of activities, and are generally not devoted to the main religious use. Such uses might include a daycare centre, a licensed school, banquet or recreational facilities.” It is further noted that “the increasing presence of auxiliary uses associated with Places of Worship, especially larger facilities, has potential implications including land use conflicts, parking, traffic, and hours of operation.”

2013

The trend to include auxiliary uses is identified in the literature as a continuing trend. Issues are identified as

“increased traffic, parking problems, or noise due to more on-going activities. Other land use concerns include the built form... Due to the nature of some auxiliary uses such as special needs housing which take on higher density housing forms, existing neighbourhoods and properties may be impacted due to shadowing, and a general change in the character of the neighbourhood due to a departure from the existing scale or massing of the surrounding adjacent uses. Auxiliary uses are also a concern in employment areas since many are considered sensitive land uses. These uses may create conflict with surrounding employment uses and impact the intent of the employment lands.”¹⁶

In addition to requiring specific studies to address issues (e.g. parking, traffic, shadow, design and massing), approaches to dealing with parking and traffic issues include shared parking with

¹⁵ Hoernig, Heidi. “Planning Amidst Cultural Diversity: Lessons from Religious Development”. Plan Canada Special Edition, 2010, p. 58.

¹⁶ Oakville, *ibid.*, p. 18-19.

adjacent uses; locations in proximity to public transit and active transportation facilities; and establishment of Transportation Demand Management (TDM) plans.

2.3 Policy Framework

Since the completion of the Places of Worship Study in 2003, there have been significant changes in the Provincial, Regional and City planning policy framework. In particular, changes to the Provincial Policy Statement (PPS) introduced in 2005 and the establishment of the Growth Plan for the Greater Golden Horseshoe (Growth Plan) in 2006, as well as the Greenbelt Plan in 2005. The new Region of York Official Plan which was largely approved through a number of OMB Orders between July 2012 and March 2013 must also be taken into consideration. The City's own proposed new Official Plan is under review, but not yet approved.

2.3.1 Provincial Policy Framework

Despite the changes to Provincial policy, similar to the situation in 2002/2003, there is no specific direction regarding Places of Worship, rather the implication for the City continues to be "to create a policy and regulatory environment which provides for the development of these important facilities in appropriate locations, while ensuring such development is compatible with its surroundings."

The PPS and the Growth Plan build on the directions in the PPS, 1997 which was in effect in 2002/2003 and provide that urban areas and rural settlement areas should be the focus of growth, with rural areas generally being "the focus of resource activity, resource-based recreational activity and other rural land uses." (PPS 1997) The Greenbelt Plan reinforces this direction by providing more specific direction with respect to the limited development permitted in areas which are subject to its policies. The Greenbelt Plan applies to certain lands in the City's agricultural area.

The PPS and the Growth Plan continue to direct growth to settlement areas and place a priority on the efficient use of land and resources. As part of this direction, there is now more emphasis on the promotion of intensification of the built-up areas of communities, and "a more compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities" (PPS Section 1.1.3.7) in greenfield areas. The Growth Plan specifically directs "a significant portion of new growth to the built-up areas of the community through intensification" (Section 2.2.2.1) and it establishes targets for intensification (a minimum of 40% of all residential development per year after 2015) and minimum densities for development in greenfield areas (not less than 50 residents and jobs combined per hectare). The Growth Plan also promotes the creation of complete communities which are defined as:

"Complete communities meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, a full range of housing, and community infrastructure including affordable housing, schools, recreation and

open space for their residents. Convenient access to public transportation and options for safe, non-motorized travel is also provided.” (Section 7)

Community infrastructure is defined in the Growth Plan as providing “public services for health, education, recreation, socio-cultural activities, security and safety and affordable housing”, which would include some aspects of the services provided by Places of Worship. The concept of complete communities would also recognize implicitly the importance of Places of Worship to meet people’s needs for daily living.

The location of Places of Worship is also affected by the policy requirements for employment uses. Employment areas are defined in both the PPS and the Growth Plan as:

“Areas designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities.” (PPS Section 6, Growth Plan Section 7)

At the same time, both documents indicate that municipalities should promote economic development and competitiveness by “providing for an appropriate mix of employment uses including industrial, commercial and institutional uses to meet long-term needs.” (PPS Section 1.3.1, Growth Plan Section 2.2.6.2). Thus, the policy documents do not specifically permit institutional uses such as Places of Worship in employment areas, but they do not preclude them either.

At the same time Section 1.7.1 e) of the PPS requires the design, buffering and/or separation of sensitive land uses from major facilities including industries to prevent adverse effects. This would mitigate against permitting Places of Worship, which would be considered sensitive uses, near industries. In addition, sensitive land uses such as day care centres, special needs housing, and schools are often auxiliary uses to Places of Worship which could also affect location in employment areas.

2.3.2 Region of York Official Plan

The Region of York’s 2010 Official Plan (June 20, 2013 Office Consolidation) reflects the directions in the current Provincial policy framework including the PPS and Growth Plan including directing new development to Urban Areas and Towns and Villages as designated on the Regional Structure Plan.

The Plan does not provide specific direction with respect to Places of Worship, but it does provide policies related to institutional uses as well as a range of general policies applicable to all development (e.g. Section 5.2 Sustainable Buildings). Specific policy directions related to institutional development include:

- encourage institutional uses in Regional Centres and Corridors designed in a manner which supports the structure of the Plan, including a compact form and be pedestrian-

oriented, transit-supportive, and multi-storey where appropriate (Section 4.2, City Building, Section 5.2 Sustainable Cities, Sustainable Communities);

- provide for institutional uses in Local Centres and Corridors designed in a manner which supports the Plan (Section 5.5 Local Centres and Corridors);
- provide for community core areas in new community areas which will be a focus for human services as well as other facilities (Section 5.6, Building Complete, Vibrant Communities); and,
- requires the maintenance of a sufficient supply of employment lands to meet the employment forecasts, but does not provide direction on the location of institutional uses in such areas (Section 4.3, Planning for Employment Lands).

2.3.3 City of Markham Official Plan

The City is currently reviewing their Official Plan. The draft Plan is under public review with adoption targeted for late 2013.

The City's proposed new Plan reflects the directions in the current Provincial policy framework including the PPS and Growth Plan, as well as the new Regional Official Plan. In particular, it directs growth to the Urban Area and encourages intensification and minimum densities for development in greenfield areas.

With respect to Places of Worship, the Plan has included specific policies for Places of Worship in Section 8.13.7. The policies provide direction with respect to the majority of the key issues addressed in the policies of the current Official Plan including location, traffic and parking, accessibility, and design and site layout. The specific study requirements for Places of Worship currently identified in the existing Official Plan are now covered by the general requirements for a complete application. However, the Plan no longer provides the same detailed direction on the process for dealing with auxiliary uses or the site reservation policy for new secondary plans.

In addition to the policies of Section 8.13.7, the following directions are applicable to Places of Worship, in addition to the general policies applicable to all development (e.g. Section 6.1.5 Landmarks and Views):

- directs the integration of Places of Worship and certain other uses such as cemeteries within the community in accordance with the policies of the Residential, Mixed-Use and Private Open Space designations, but the uses "are not intended to be located within the 'Employment Lands' designations" (Section 5.1.6.3);
- Places of Worship are permitted in all Residential and Mixed Use designations subject to the provisions of Section 8.13.7 (Section 8.2.1);
- Places of Worship are permitted in Commercial designations subject to a site specific zoning amendment and the provisions of Section 8.13.7 (Section 8.4.1.4);
- buildings associated with Places of Worship are permitted in Hamlets;

- Places of Worship are specifically prohibited in the Business Park Employment, Business Park Office Priority Employment and General Employment designations (Sections 8.5.2.4, 8.5.3.4 and 8.5.5.4); and,
- no direction is provided with respect to Places of Worship in the Service Employment designation (Section 8.5.4).

These directions are generally similar to those in the current Official Plan. However, the current Plan permits Places of Worship in certain Industrial designations, specifically Business Corridor Area and General Industrial Area, while the proposed new Plan does not.

2.3.4 Site Reservation Policy

Markham provides policy direction on the location of Places of Worship in the Official Plan similar to most other municipalities. However, since 1997, Markham has also had a Council Site Reservation Policy. The Policy was amended to incorporate the recommendations of the Places of Worship Study in 2003. It directs the identification of Place of Worship sites in secondary plan areas and their reservation through subdivision, site plan or other agreements.

Sites are pre-zoned, with a “hold” prefix to permit a Place of Worship, accessory uses and appropriate alternate uses, if not acquired for a Place of Worship. Sites are not held in escrow by the Town and purchase and sale of sites is privately arranged by vendors and purchasers, although a price guideline based on fair market value for serviced residential land in Markham, as established through the York Region School Boards’ Education Development Charge process, is included in the related subdivision or other agreement.

Most municipalities do not provide for site reservation with Markham and Brampton being the two key exceptions. Issues identified with the process relate to:

“the diversity of needs of faith groups and place of worship facilities, land values, development industry concerns around resident expectations, and cooperation between land owners, developers, the municipality, and faith communities. Because of these concerns, among others, it was noted that many faith groups chose their own sites to develop Places of Worship which meet their specific needs, under their own negotiation efforts outside the site reservation process.”¹⁷

However, the Markham process appears to work fairly well, with only relatively minor issues identified in the 2002/2003 Study which were addressed in the modifications to the Site Reservation Policy at that time. The City’s dual process which essentially provides for site reservation as an option for the location of Places of Worship in new Secondary Plan areas, while still allowing for the location of Places of Worship on other sites chosen by faith groups through their own efforts, assists in addressing the diversity of needs of faith groups and ensuring that resident’s needs for such facilities can be met.

¹⁷ Oakville, op. cit., p. 82.

2.3.5 Zoning By-law

In accordance with the current Official Plan, the majority of applications for Places of Worship would require a zoning by-law amendment. Given the special policies which are applicable to Places of Worship in the proposed new Official Plan which require a specific evaluation of such uses, it is likely that this will approach will continue. The only identified issue with respect to the current zoning regime related to the parking standards. This issue is reviewed in Section 3 of this Report.

2.3.6 Policy and Regulatory Framework Implications

The review of the current policy and regulatory framework indicates that conclusions of the original Study with respect to the implications for the development of Places of Worship remain generally appropriate including:

- Restrictions on development of Places of Worship in the Agricultural Area should continue in conformity with Provincial, Regional and City policy which directs such development to urban areas;
- A flexible approach to the location of Places of Worship in most designations in the Urban Area continues to be appropriate, modified to introduce increased restrictions on locations in industrial areas;
- Increases in the number and type of Places of Worship will continue, and existing facilities will expand and move to accommodate increased population and its diversity. Such new Places of Worship and changes to existing Places of Worship will result in many which are larger facilities. Such high intensity land uses continue to require careful evaluation to ensure compatibility with respect to traffic, parking, location and scale of development in accordance with the specific policies and development criteria of the City's existing Official Plan and proposed new Official Plan for Places of Worship.
- In accordance with current policies, specific studies to address issues will continue to be required (e.g. parking, traffic, shadow, design and massing). Approaches to dealing with parking and traffic issues include shared parking with adjacent uses; locations in proximity to public transit and active transportation facilities; and establishment of Transportation Demand Management (TDM) plans will have to be considered as part of application review.
- Continuation of site reservation policy for new secondary plans given that it appears to work fairly well and provides an option for the location of Places of Worship in new Secondary Plan areas, while still allowing for the location of Places of Worship on other sites in the City chosen by faith groups through their own efforts.

3. Parking Standards Review

3.1 Background

As a basis for the review of the issue of non-fixed seating area occupant capacity calculations, HDR carried out a parking survey of selected Places of Worship locations. The detailed results of their work are found in City of Markham Places of Worship Future Directions Report Parking Standards Review, August 2013 found under separate cover. Their work and conclusions are summarized below.

3.2 Survey Methodology

A parking survey was carried out as a basis for the parking standards review. The following approach was used for the survey:

- Six Place of Worship locations were chosen by City of Markham staff with the assistance of Markham Residents for Responsible Community Planning (MRRCP) to obtain a reasonable sample of parking data pertaining to different faiths, locations, demographics and worship activities including with and without fixed seating, although none of the locations had fixed bench seating (See Table 1, Place of Worship Survey Location Details).

Table 1: Places of Worship Survey Location Details

Place of Worship Name	Address	Faith	Est.	Seating	Typical Peak Attendance
St. Justin Martyr Church	3898 Highway 7	Christian	1990	Fixed	Sunday Mass
Temple Har Zion	7360 Bayview Ave	Reform Judaism	1974	Fixed	Saturday Worship
Islamic Society of Markham	2900 Denison St	Islamic	2005	Non-Fixed	Daily Prayers
Apple Creek Seventh Day Adventist Church	700 Apple Creek Blvd	Christian	1976	Fixed	Saturday Worship
Buddhist Cham Shan Temple	7524 Bayview Ave	Buddhist	1973	Fixed	Festival Days
Masjid Darul Iman (temporary location)	9833 Markham Rd	Islamic	n/a	Non-Fixed	Daily Prayers

- Site statistics were provided by the City of Markham including site plans, worship area floor area, fixed seats (where applicable); occupancy load and parking supply including site and shared parking (See Table 2).

Table 2: Places of Worship Site Statistics

Place of Worship Name	Source Date & Description	Worship Area Floor Area (m ²) ¹	Fixed Seats	Occupancy Load ²	Parking Supply ³		
					Site	Shared	Tot
St. Justin Martyr Church	<i>June 12, 2000</i> Addition and Renovations to: St Justin The Martyr. Issued for Amendment to Site Control Agreement	2,115.79	866	-	166	0	166 ⁴
Temple Har Zion	<i>February 6, 1991</i> Issued to: Site Plan Agreement	1,456.86	350	-	63	68 ⁵	131
Islamic Society of Markham	<i>May 2/4, 2011</i> Occupant Load Calcs <i>June 8, 2004</i> Basement Addition	1,139.8 (net floor area)	0	2,402 ⁶	135	0	135
Apple Creek Seventh Day Adventist Church	<i>April 30, 1991</i> Site Plan	2,263.76	766	-	137	n/a ⁷	137+
Buddhist Cham Shan Temple	<i>August 9, 1989</i> Addition to Buddhist Temple (For Site Plan Approval) <i>April, 2013</i> Discussions with contact	-	300	-	154	0	154
Masjid Darul Iman (temporary location) ⁸	<i>July 17, 2012</i> Variance Application to Allow Temporary Worship Activities	370.84 (net floor area)	0	247 ⁹	72	0	72

Notes: 1) By-law 2003-301's definition of Worship Area includes below grade and balconies if they can be used for worship activities. Worship Area should be based on net floor area, however only gross floor areas were provided in the site statistics unless otherwise noted. The use of gross floor area when calculating parking requirements results in an overestimate of the parking requirement and is a conservative approach.

2) Occupancy load as posted within the building according to the provided site statistics and documents.

3) Parking supply taken from site plan / source.

4) There are two additional spaces located in a garage which serves the residential component. By-law 28-97 requires one parking space for accessory apartments. We have not assessed residential parking requirements.

5) Sharing agreement is with the Islamic Centre directly to the south. There is a cross-access between the two.

6) The occupant load calculated in the calculations provided reflected standing area (0.4 m²/person) instead of prayer area (0.75 m²/person).

7) Although there is a sharing agreement with 241 Whitehall Drive, we do not know how many spaces are shared.

8) The temporary location is intended to be superseded by a new 16th Avenue location.

9) Reflects floor area of 185.11 m². No details were provided explaining how this floor area was determined. We have used net floor area in our calculations (370.84 m²).

- Parking surveys were undertaken at each Place of Worship based on recommended days and times determined through direct discussions with contacts from each location, as well as desktop research. The intent was to select a day which represented “typical peak parking demand”, but not necessarily the single highest day of the year (See Table 3).

- The surveys were undertaken beginning at the recommended time of arrival as provided by the contact persons. Surveys began before worship or prayer times had begun so it was evident when parking demand increased and peaked. Parking demand was noted on arrival, as well as the observed locations worshippers parked in. This meant the surveyor was aware of walk-in traffic that may have parked off-site, as well as illegally parked vehicles and queued vehicles. Additional information such as off-site parking and off-site sharing agreements was taken into account. When sharing agreements were in use, HDR identified which vehicles already parked were actually associated with the Place of Worship surveyed (See Table 3).

Table 3: Survey Dates and Times

Place of Worship Name	Survey Date	Survey Times
St. Justin Martyr Church	Sunday April 7 th 2013	10:00am to 11:30am
Temple Har Zion	Saturday April 6 th , 2013	9:30am to 11:00am
Islamic Society of Markham	Thursday March 28 th , 2013	6:15pm to 8:00pm
Apple Creek Seventh Day Adventist Church	Saturday April 6 th , 2013	11:15am to 1:00pm
Buddhist Cham Shan Temple	Tuesday March 26 th , 2013	12:00am to 12:30pm
Masjid Darul Iman (temporary location)	Friday May 17 th , 2013	1:15pm to 2:30pm

- Parking demand was recorded immediately. Upon observing any changes in parking demand, the new parking demand numbers were recorded. Demand was not necessarily recorded in equal intervals, but whenever a change in demand was observed, or as soon as possible given the magnitude of the vehicles being counted. The goal of the surveys was not to observe the change in demand over time, but the peak parking demand for that day.
- Typically, an exodus from the Place of Worship signified that peak parking demand had been recorded. However, if a large exodus was not evident, discussions with representatives confirmed that peak parking demand had already occurred. Since it was not always evident when peak parking demand had occurred, it may have been necessary to remain on site longer; therefore, the survey times detailed in Table 3 vary.

3.3 Survey Results

The Survey results are summarized in Table 4.

Table 4: Parking Survey Results

Place of Worship Name	Peak Parking Demand	Occurred at	On
St. Justin Martyr Church	289 vehicles	11:00am	Sunday April 7 th
Temple Har Zion	72 vehicles	10:30 am	Saturday April 6 th
Islamic Society of Markham	123 vehicles	7:54 pm	Thursday March 28 th
Apple Creek Seventh Day Adventist Church	236 vehicles	12:45 pm	Saturday April 6 th
Buddhist Cham Shan Temple	154 vehicles	12:15 pm	Tuesday March 26 th
Masjid Darul Iman (temporary location)	85 vehicles	2:00 pm	Friday May 17 th

3.4 Parking Analysis

The City's Zoning By-law 28-97 currently has the following parking requirements for Places of Worship:

Section 3.0 Parking Standards, Table B Non-Residential Uses

"Place of Worship"

1.1.1 The number of parking spaces required for a place of worship and other uses on the same lot as a place of worship shall be calculated by adding together the parking required by each of paragraphs (a) and (b) below.

- (a) Parking for the place of worship, including any accessory use areas except accessory residential uses, shall be the greater of:
 - (i) 1 space per 4 persons of the worship area capacity; or*
 - (ii) 1 space per 9 square metres of the net floor area of the Worship Area(s) and any accessory use areas, excluding any residential uses.**
- (b) Parking for all other uses shall be provided in accordance with the provisions of Section 3.0 PARKING STANDARDS, TABLE A – RESIDENTIAL USES and TABLE B – NON-RESIDENTIAL USES of By-law 28-97, as amended.*

Where a portion of a building(s) is shared/used by two or more uses, the greatest number of parking spaces required by (a) or (b) above, for that area, shall be used to calculate the total number of required parking spaces for the lot.

1.1.2 The provisions of Sections 4.0 and 8.3 of By-law 28-97 shall not apply.”

Section 2.0 Definitions

“WORSHIP AREA

means the net floor areas, whether above or below established grade, within the walls of sanctuary(s), hall(s) or meeting room(s) that a religious group uses for the practice of its religious rites, including any balcony or other area that, by the removal or opening of any walls or partitions, can expand the area of the sanctuary, hall or meeting room(s), and any choir or musicians area. Net floor areas intended solely for the use of the worship group leader, such as altar or pulpit areas are not included in the worship area.”

“WORSHIP AREA CAPACITY

means the number of persons for whom the worship area(s) is designed, and is determined by adding the total of (i) and (ii) below:

(i) *Where there are fixed seats in the worship area(s):*

The number of fixed seats in the worship area(s), (where fixed seating is provided in the form of open benches each 0.5 metres bench width shall be considered as one seat); and

(ii) *Where there are no fixed seats in the worship area(s):*

The number of square metres of worship area floor area(s) multiplied by 0.75.”

“WORSHIP AREA FLOOR AREA

means the net floor area of all floors in a building used as worship area(s).”

Subsection ii) of the definition for Worship Area Capacity which deals with worship area capacity where there are no fixed seats incorrectly states that the calculation of worship area capacity is obtained by multiplying the worship area floor area(s) by 0.75 (instead of dividing by 0.75). For instance, if a worship area with non-fixed seating has a net floor area of the worship area equal to 750 m², application of the above ratio yields an occupant capacity of 1,000 persons. Interpretation of the By-law as currently written would actually yield an incorrect occupant capacity of 563 persons; which would result in a smaller parking supply requirement. Based on the available site statistics and the survey results, HDR compared:

- The parking supply with the requirements of Zoning By-law 2003-301;
- The parking supply with the observed peak parking demand; and,
- The requirements of Zoning By-law 2003-301 with the observed peak parking demand.

For the above comparisons with respect to Zoning By-law 2003-301, HDR used the correct application of 0.75 m² per person, for non-fixed seating worship area capacity calculations.

A summary of the comparisons described above are shown in, Table 6, Table 7, Table 8 and Table 9 respectively.

3.4.1 Parking Supply VS. Zoning By-Law Requirements

Tables 5 and 6 summarize the existing parking supply at the six sites and the parking supply requirements of Zoning By-law 2003-301 with the correct interpretation of 0.75 m² per person for non-fixed seating worship areas.

Table 5: Parking Supply & Zoning By-law Requirements

Place of Worship Name	Supply	Zoning By-law Requirement	
		Amending By-law* (under appeal)	Current By-law
St. Justin Martyr Church	166	235 (GFA)	235 (GFA)
Temple Har Zion	131	162 (GFA)	162 (GFA)
Islamic Society of Markham	135	380 (NFA Prayer)	214 (NFA Prayer)
Apple Creek Seventh Day Church	137	252 (GFA)	252 (GFA)
Buddhist Cham Shan Temple	154	75 (Seats)	75 (Seats)
Masjid Darul Iman (temp. location)	72	124 (NFA Prayer)	70 (NFA Prayer)

Notes: (NFA or GFA) – The Zoning By-law requirements are based on worship area floor area. Net floor area should be used, however only gross floor area was available for some locations as indicated in **Table 2**.
 (Seats) – The Zoning By-law requirements are governed by calculations based on fixed seating capacity.
 (Prayer) – The Zoning By-law requirements are governed by calculations based on non-fixed seating capacity.
 Negative numbers are shown in brackets and red font.

Table 6: Parking Supply VS. Zoning By-law Requirements

Place of Worship Name	Amending By-law (under appeal)		Current By-law	
	Supply minus By-law Req.	Percent Difference	Supply minus By-law Req.	Percent Difference
St. Justin Martyr Church	(69)	(42%)	(69)	(42%)
Temple Har Zion	(31)	(24%)	(31)	(24%)
Islamic Society of Markham	(245)	(181%)	(79)	(59%)
Apple Creek Seventh Day Church	(115)	(84%)	(115)	(84%)
Buddhist Cham Shan Temple	79	51%	79	51%
Masjid Darul Iman (temp. location)	(52)	(72%)	2	2.7%

Note: Negative numbers are shown in brackets and red font.

The results of the above comparison indicate that the existing parking supply at five out of six locations are deficient compared to the Zoning By-law requirements as corrected, except at the Buddhist Cham Shan Temple where the provided parking supply is in excess of the By-law requirements. The temple may have areas which are used for prayer during festivals times; however additional floor area statistics are not available for the purposes of that calculation and this may explain why the by-law requirement is lower than the supply.

The parking supply for the Masjid Darul Iman was based on the non-fixed seating ratio and was correctly based on net floor area; however the worship area used in the calculations is not the total net floor area for the unit, and there is no explanation for the difference. We have used

the total unit's net floor area as the worship area, which accounts for the difference between the actual supply and the by-law requirement.

Temple Har Zion has the least deficient parking supply, however that supply included the sharing agreement spaces. Without the inclusion of these spaces the temple's parking supply would be deficient by -157%. At the Islamic Society of Markham the source provides net floor area. The parking supply based on the non-fixed seating ratio is much larger than the current supply. It appears that the supply does not reflect the entire building capacity based on the available data.

At Apple Creek Seventh Day Adventist Church, as well as St Justin Martyr Church the parking supplies are smaller than the By-law requirement, as expected, based on the observed demand. Apple Creek has two parking spaces dedicated to the on-site residence. According to By-law 28-97, only one space is required for accessory apartment uses. Therefore, the residential component exceeds the by-law requirement by one space.

3.4.2 Parking Supply VS. Peak Parking Demand

Table 7 compares the parking supply with observed peak parking demand.

Table 7: Parking Supply VS. Observed Peak Parking Demand

Place of Worship Name	Parking Supply	Observed Peak Parking Demand	Supply minus Demand	Percent Difference
St. Justin Martyr Church	166	289	(123)	(74%)
Temple Har Zion	131	72	59	45%
Islamic Society of Markham	135	123	12	9%
Apple Creek Seventh Day Adventist Church	137	236	(99)	(72%)
Buddhist Cham Shan Temple	154	154	0	0%
Masjid Darul Iman (temporary location)	72	85	(13)	(18%)

Note: Negative numbers are shown in brackets and red font.

The results of the above comparison indicate that the existing parking supply at the surveyed Places of Worship are satisfying current demand at Temple Har Zion, Islamic Society of Markham, and the Buddhist Cham Shan Temple. However, without a sharing agreement the Temple Har Zion would have been deficient by 9 spaces.

At Apple Creek Seventh Day Adventist Church, as well as St Justin Martyr Church the parking supplies were very deficient based on the observed demand. St Justin Martyr Church utilizes the adjacent Montessori School parking lot but we could not confirm whether or not there is a sharing agreement. Apple Creek Seventh Day Adventist Church has a sharing agreement with a nearby commercial building. Furthermore, at the Masjid Darul Iman the supply is largely made

of unmarked spaces. Thus, it is clear that parking concerns are already expected at these locations where there is shared parking or sharing agreements.

As mentioned, the Cham Shan Temple parking demand was metered, which is why the parking demand and the supply are equal. Although some vehicles parked and queued off-site, some spaces on-site were unusable, which coincidentally resulted in the supply equalling the demand.

The Islamic Society of Markham parking supply also seemed to very accurately accommodate the existing demand. However, there seems to be no clear relationship between the parking supply and the posted occupant loads within the building, or the calculated worship area capacity. During the parking survey a maximum of 123 vehicles were counted. Even if each vehicle had 5 passengers including the driver (615 people total), the building would not meet its worship area capacity (1,520 persons). Therefore, it appears that the parking demand observed during the survey may have reflected typical attendance which may reflect low building utilization; but if the building were 100% utilized, the parking supply would likely fall very short of the demand.

At the Masjid Darul Iman the parking supply is close to the demand although slightly short. This may be due to the floor area used in the parking requirement calculations from the Variance Application which was provided to us.

3.4.3 By-Law Requirement VS. Peak Parking Demand

Table 8 and Table 9 compare the zoning by-law requirement with observed peak parking demand.

Table 8: Zoning By-law Requirement & Observed Peak Parking Demand

Place of Worship Name	Observed Peak Parking Demand	Zoning By-law Requirement ¹	
		Amending By-law ²	Current By-law ³
St. Justin Martyr Church	289	235	235
Temple Har Zion	72	162	162
Islamic Society of Markham	123	380	214
Apple Creek Seventh Day Church	236	252	252
Buddhist Cham Shan Temple	154	75	75
Masjid Darul Iman (temp. location)	85	124	70

Note: 1) See Table 5 for more detail.

2) The zoning by-law requirement shown is *as corrected*, with the correct interpretation of 0.75 m² per person for non-fixed seating worship areas. This interpretation is currently under appeal.

3) The zoning by-law requirement shown is *interpreted verbatim* as per Zoning By-law 2003-301, with the incorrect application of 0.75 m² per person for non-fixed seating worship areas.

Table 9: Zoning By-law Requirement VS. Observed Peak Parking Demand

	Amending By-law (under appeal)		Current By-law	
Place of Worship Name	By-law Req. minus Demand	Percent Difference	By-law Req. minus Demand	Percent Difference
St. Justin Martyr Church	(54)	(23%)	(54)	(23%)
Temple Har Zion	90	56%	90	56%
Islamic Society of Markham	257	68%	91	43%
Apple Creek Seventh Day Church	16	6%	16	6%
Buddhist Cham Shan Temple	(79)	(105%)	(79)	(105%)
Masjid Darul Iman (temp. location)	39	31%	(15)	(21%)
Average	-	5.5%	-	(7.3%)

Note: Negative numbers are shown in brackets and red font.

The results of the above comparison indicate that the Zoning By-law requirements as corrected will accommodate observed parking demand at most locations except for St Justin Martyr Church, and the Cham Shan Temple.

The supply for St Justin Martyr Church would be deficient by 23% if it met the By-law requirements. This is a reflection of the particularly high attendance at this location.

At the Cham Shan Temple the existing parking supply is meeting demand. As discussed, the calculated parking supply requirement based on the Zoning By-law only reflects fixed seating used for feasts during the festival during which the parking survey was conducted. There may be areas within the temple that have non-fixed seating areas which also generate parking demand, but statistics were not available for these areas.

At the remaining locations the Zoning By-law parking supply requirements exceed the observed demand. In the case of Apple Creek Seventh Day Adventist Church and Masjid Darul Iman, the supplies are well matched to the observed demand. At the Masjid Darul Iman, if the zoning by-law is interpreted verbatim, the parking supply does not meet demand.

At the remaining two Places of Worship – Temple Har Zion, and Islamic Society of Markham – the by-law requires parking supplies which would be larger than the demand. At the Islamic Centre of Markham the potential parking demand is much higher and may be reflective of the By-law requirements if the building were to be 100% utilized. As discussed, the uncertainty here is related to the building area and the worship area capacity calculations which do not proportionately reflect the size of the parking supply.

3.5 Parking Standards Review Conclusions

The analysis of the parking surveys shows that the parking requirements set out in Zoning By-law 2003-301 (when correctly applied) are on average within 5.5% of the peak parking demand observed at the six Places of Worship that were surveyed as part of this scoped review. This generally confirms the validity of the recommendations from the original 2003 Places of Worship Study, specifically with respect to parking requirements.

When applicable, we have correctly applied the Zoning By-law 2003-301 non-fixed seating worship area capacity ratio of 0.75 m² per person, instead of applying this ratio as is required by Zoning By-law 2003-301. We have found that the worship area capacity based on this ratio tends to govern the Zoning By-law requirements instead of net worship floor area calculations.

When calculating the worship area capacity for non-fixed seating, it is important to not underestimate the net worship areas which will be used for prayer as this will determine the parking supply requirements.

4. Conclusions

The scoped review of the approach to Places of Worship indicates the following:

4.1 Development Trends

There have been no significant changes in the nine trends identified in the 2002/2003 Study with implications for the development of policies with respect to Places of Worship in Markham. Therefore the policy framework developed at that time is still an appropriate framework for future development of Places of Worship. In particular, the policy framework is designed to respond to the following trends:

- Increases in the number and type of Places of Worship will continue in response to the growth of the community and the increasing diversity of its population;
- Larger Places of Worship will continue to be built requiring specific controls on development to address the high intensity nature of the use and potential impacts related to traffic and noise and, in particular parking which is always a significant concern;
- Auxiliary uses can also create significant impacts which must be considered;
- Locations outside residential areas have been sought by many groups to mitigate impacts, however such locations create their own concerns. In particular, locations in employment areas which create a range of specific issues; and,
- City policy should continue to recognize the needs of all stages of development of Places of Worship, and to recognize the importance of Places of Worship as a key component of the “social safety net”.

4.2 Policy and Regulatory Framework Implications

The review of the current policy and regulatory framework indicates that conclusions of the original Study with respect to the implications for the development of Places of Worship remain generally appropriate including:

- Restrictions on development of Places of Worship in the Agricultural Area should continue in conformity with Provincial, Regional and City policy which directs such development to urban areas;
- A flexible approach to the location of Places of Worship in most designations in the Urban Area continues to be appropriate, modified to introduce increased restrictions on locations in industrial areas;
- Increases in the number and type of Places of Worship will continue, and existing facilities will expand and move to accommodate increased population and its diversity.

Such new Places of Worship and changes to existing Places of Worship will result in many which are larger facilities. Such high intensity land uses continue to require careful evaluation to ensure compatibility with respect to traffic, parking, location and scale of development in accordance with the specific policies and development criteria of the City's existing Official Plan and proposed new Official Plan for Places of Worship.

- In accordance with current policies, specific studies to address issues will continue to be required (e.g. parking, traffic, shadow, design and massing). Approaches to dealing with parking and traffic issues include shared parking with adjacent uses; locations in proximity to public transit and active transportation facilities; and establishment of Transportation Demand Management (TDM) plans will have to be considered as part of application review.
- Continuation of site reservation policy for new secondary plans given that it appears to work fairly well and provides an option for the location of Places of Worship in new Secondary Plan areas, while still allowing for the location of Places of Worship on other sites in the City chosen by faith groups through their own efforts.

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When applicable, we have correctly applied the Zoning By-law 2003-301 non-fixed seating worship area capacity ratio of 0.75 m² per person, instead of applying this ratio as is required by Zoning By-law 2003-301. We have found that the worship area capacity based on this ratio tends to govern the Zoning By-law requirements instead of net worship floor area calculations. When calculating the worship area capacity for non-fixed seating, it is important to not underestimate the net worship areas which will be used for prayer as this will determine the parking supply requirements.

Bibliography

Agrawal, S. 2009. *New Ethnic Places of Worship and Planning Challenges*. Plan Canada Special Edition. March. Pp. 64-67

Church Future. *How Congregations Can Work Together for Mission*. Retrieved from:
http://www.churchcollaboration.com/Parish_model.htm

City of Brampton. March 8, 2010. *Information Report: Places of Worship City-Wide Policy Review*. Report to the Planning Design and Development Committee

City of Brampton. May 28, 2010. *Recommendation Report: Places of Worship City-Wide Policy Review*. Report to the Planning Design and Development Committee

City of Markham. September 2003. *Official Plan Amendment No. 115*

City of Markham. March 17, 2009. *Worship Group Resources*. Retrieved from:
<http://www.markham.ca>

/wps/wcm/connect/ef246900449080779bf4ff225e5306dc/WorshipGroup_Overview.htm?MOD=AJPERES&attachment=true

City of Mississauga. January 15, 2008. *Community Uses Study – Draft for Discussion – Mississauga Plan Review*. Report to Planning and Development Committee.

Halton Catholic District School Board. 2010. *Community Use of Schools*. Retrieved from:
<http://www.hcdsb.org/Community/UseOfSchools/Pages/default.aspx>

Halton District School Board. 2010. *Rentals – Community Use of Schools*. Retrieved from:
<http://www.hdsb.ca/aboutus/facilityservices/rentals/Pages/default.aspx>

HDR Corporation. August 2013. *Places of Worship Future Directions Report Parking Standards Review*. Prepared for the City of Markham. Author: HDR Corporation in association with Macaulay Shiomi Howson Ltd.

Hoernig, H. 2009. *Planning Admits Cultural Diversity: Lessons From Religious Development*. Plan Canada Special Edition. March. Pp 55-59

Macaulay Shiomi Howson Ltd. June 2002. *Places of Worship Study – Background Issues & Options Report*. Prepared for the Town of Markham. Author: Macaulay Shiomi Howson Ltd. in association with C.N. Watson and Associates Ltd., and iTRANS Consulting Inc.

Macaulay Shiomi Howson Ltd. June 2003. *Places of Worship Study – Future Policy Directions Report*. Prepared for the Town of Markham. Author: Macaulay Shiomi Howson Ltd. in association with C.N. Watson and Associates Ltd., and iTRANS Consulting Inc.

Macaulay Shiomi Howson Ltd. January 2008. *Places of Worship Policy Review*. Prepared for the City of Brampton. Author: Macaulay Shiomi Howson Ltd in association with iTRANS Consulting Inc., and Hemson Consulting Ltd.

Ministry of Finance. February 5, 2003. *Census 2001 Highlights Factsheet 6 – Visible Minorities and Ethnicity in Ontario*. Prepared by: Office of Economic Policy Labour and Demographic Analysis Branch

Perrott, K. 2008. *Markham, ON – an overview of development trends*. Author: Katherine Perrott for the suburbs project

Statistics Canada. 2010. *Canada's Ethnocultural Mosaic, 2006 Census: Canada's major census metropolitan areas*. Retrieved from: <http://www12.statcan.gc.ca/census-recensement/2006/as-sa/97-562/p21-eng.cfm>

Statistics Canada. 2013. *Immigration and Ethnocultural Diversity in Canada; National Household Survey, 2011*. Retrieved from: <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001-eng.cfm>

Town of Oakville. February 7, 2011. *Places of Worship Land Use Study*. Prepared by the Town of Oakville Planning Services Department

Wikipedia. 2013. *Markham, Ontario*. Retrieved from: http://en.wikipedia.org/wiki/Markham,_Ontario

York Region District School Board. 2013. *Policy and Procedure #412.0, Community Use of Schools*. Retrieved from: <http://www.yrdsb.edu.on.ca/pdfs/p&p/a/policy/412.pdf>

City of Markham

August 2013

Places of Worship Future Directions Report Parking Standards Review

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EXECUTIVE SUMMARY

A. Introduction

The City of Markham has engaged Macaulay Shiomi Howson Ltd. and HDR Corporation to undertake a scoped review of the original Places of Worship Study which was prepared in 2003, to ensure the recommendations which have been applied in Zoning By-law 2003-301 are still appropriate. This study also serves to support a proposed zoning by-law amendment which has been appealed to the Ontario Municipal Board with respect to one item in the By-law.

The recommendations from the original Places of Worship Study were erroneously transcribed to Zoning By-law 2003-301. This error affected only places of worship with non-fixed seating. The calculation of worship area capacity is based on a ratio of 0.75 m² per person. The By-law incorrectly applies this ratio to the worship area net floor area through multiplication, when the ratio should in fact be divided into the floor area. The proposed zoning by-law amendment would rectify this error.

B. Findings

The analysis of the parking surveys shows that the parking requirements set out in Zoning By-law 2003-301 (when correctly applied) are on average within 5.5% of the peak parking demand observed at the six places of worship that were surveyed. This generally confirms the validity of the recommendations from the original 2003 Places of Worship Study, specifically with respect to parking requirements.

When applicable, we have correctly applied the Zoning By-law 2003-301 non-fixed seating worship area capacity ratio of 0.75 m² per person, instead of applying this ratio as is required by Zoning By-law 2003-301. We have found that the worship area capacity based on this ratio tends to govern the Zoning By-law requirements instead of net worship floor area calculations.

When calculating the worship area capacity for non-fixed seating, it is important to not underestimate the net worship areas which will be used for prayer as this will determine the parking supply requirements.

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A. Site Statistics & Background Data	C. Parking Standards Review
B. Detailed Parking Analysis	



1. INTRODUCTION

1.1 Background

The City of Markham (formerly the Town of Markham) had retained Macaulay Shiomi Howson Ltd. and HDR Corporation (formerly iTrans Consulting Inc.) to undertake the original Places of Worship Study in June 2002. The results were provided in two reports:

- Background Issues & Options Report, June 2002; and,
- Future Policy Directions Report, June 2003.

In June 2003 Council directed City staff to prepare the necessary amendments to the Official Plan and Zoning By-law to give effect to the recommendations in the Places of Worship Study, including updating the definitions and development standards for places of worship in the City's Zoning By-law. One of the key recommendations was a new parking standard, as well as a definition of places of worship.

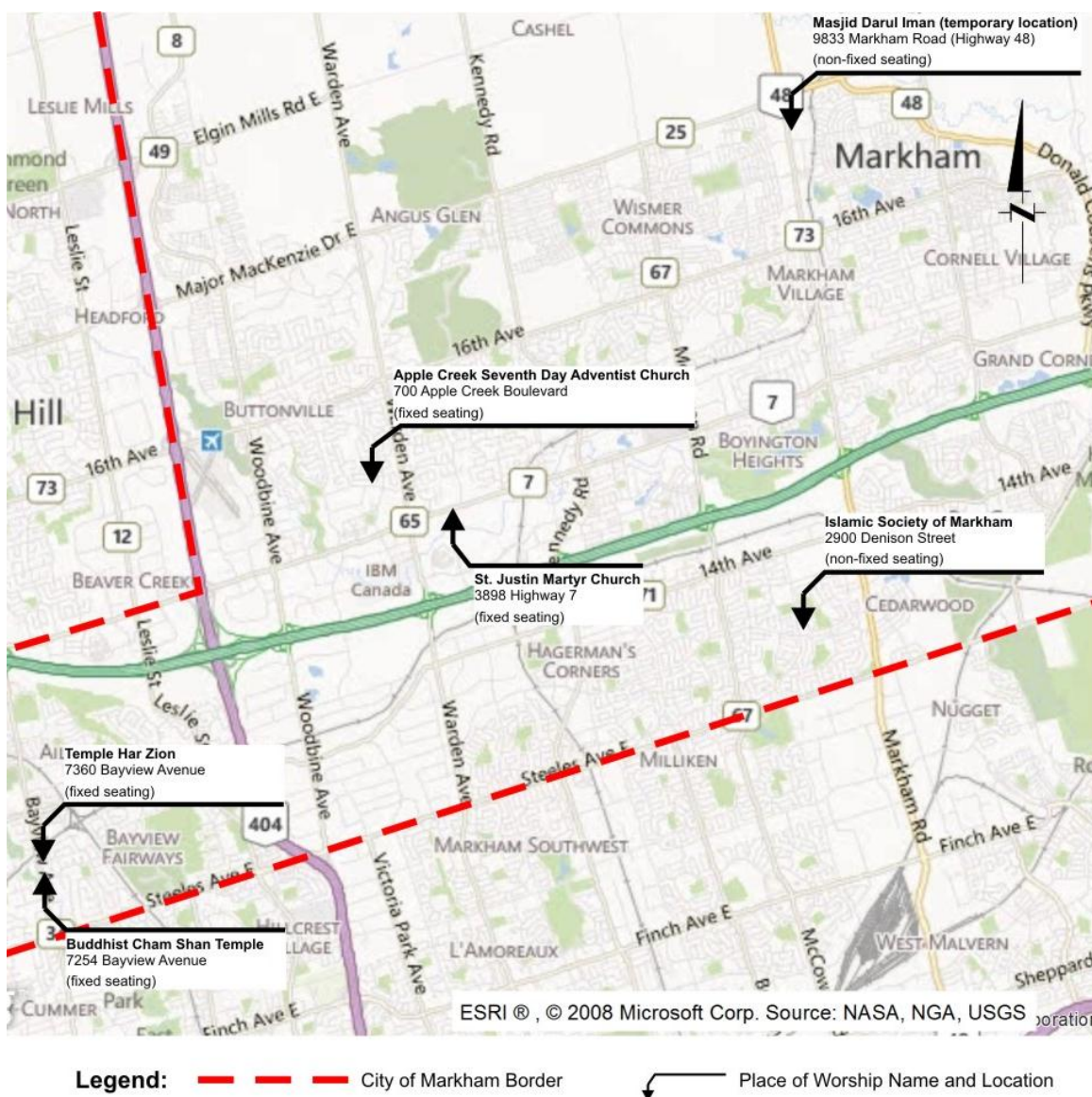
Subsequent to the passing of the by-law, an issue with respect to non-fixed seating area occupant capacity calculations was brought to light. The issue was not with the recommendations of the Places of Worship Study, but with the transcription into the Zoning By-law 2003-301. The Places of Worship Study recommended that occupant capacity for worship areas with non-fixed seating be calculated assuming 0.75 m² are occupied by each individual. However, this was erroneously transcribed to the Zoning By-law such that this number was multiplied by the net worship area rather than divided into the net worship area. This error results in lowering the parking supply required by the by-law.

The City of Markham addressed this issue through a housekeeping amendment to the Zoning By-law, which has been appealed by the Ontario Municipal Board. The City is required to provide evidence to the Ontario Municipal Board to justify the proposed amendment.

The City of Markham has engaged Macaulay Shiomi Howson Ltd. and HDR Corporation to undertake a scoped review of the original Places of Worship Study in addition to the review of the non-fixed seating calculations in support of the zoning by-law amendment.

1.2 Selected Places of Worship Survey Locations

Survey locations were selected by City of Markham staff with the assistance of the Markham Residents for Responsible Community Planning (MRRCP). Six locations were chosen, some of which had fixed seating and some of which had non-fixed seating, in an effort to obtain a reasonable sample of parking data pertaining to different faiths, locations, demographics, and worship activities. None of the locations had fixed bench seating. The locations of the places of worship surveyed are shown in **Exhibit 1**. Details for each place of worship are outlined in **Table 1**.

Exhibit 1: Places of Worship Survey Locations**Table 1: Places of Worship Survey Location Details**

Place of Worship Name	Address	Faith	Est.	Seating	Typical Peak Attendance
St. Justin Martyr Church	3898 Highway 7	Christian	1990	Fixed	Sunday Mass
Temple Har Zion	7360 Bayview Ave	Reform Judaism	1974	Fixed	Saturday Worship
Islamic Society of Markham	2900 Denison St	Islamic	2005	Non-Fixed	Daily Prayers
Apple Creek Seventh Day Adventist Church	700 Apple Creek Blvd	Christian	1976	Fixed	Saturday Worship
Buddhist Cham Shan Temple	7254 Bayview Ave	Buddhist	1973	Fixed	Festival Days
Masjid Darul Iman (temporary location)	9833 Markham Rd	Islamic	n/a	Non-Fixed	Daily Prayers

As shown in **Exhibit 1**, the majority of the locations selected are within the urbanized areas of the City of Markham. The Markham Road location of the Masjid Darul Iman is an interim location. This location differs from the other places of worship because it currently temporarily occupies two units within a commercial plaza.

1.3 Site Statistics and Background Data

Site statistics were provided by the City of Markham. The site plans and other relevant documents are included in **Appendix A**. Site statistics are summarized in **Table 2**.

Table 2: Places of Worship Site Statistics

Place of Worship Name	Source Date & Description	Worship Area Floor Area (m ²) ¹	Fixed Seats	Occupancy Load ²	Parking Supply ³		
					Site	Shared	Tot
St. Justin Martyr Church	<i>June 12, 2000</i> Addition and Renovations to: St Justin The Martyr. Issued for Amendment to Site Control Agreement	2,115.79	866	-	166	0	166 ⁴
Temple Har Zion	<i>February 6, 1991</i> Issued to: Site Plan Agreement	1,456.86	350	-	63	68 ⁵	131
Islamic Society of Markham	<i>May 2/4, 2011</i> Occupant Load Calcs <i>June 8, 2004</i> Basement Addition	1,139.8 (net floor area)	0	2,402 ⁶	135	0	135
Apple Creek Seventh Day Adventist Church	<i>April 30, 1991</i> Site Plan	2,263.76	766	-	137	n/a ⁷	137+
Buddhist Cham Shan Temple	<i>August 9, 1989</i> Addition to Buddhist Temple (For Site Plan Approval) <i>April, 2013</i> Discussions with contact	-	300	-	154	0	154 ⁴
Masjid Darul Iman (temporary location) ⁸	<i>July 17, 2012</i> Variance Application to Allow Temporary Worship Activities	370.84 (net floor area)	0	247 ⁹	72	0	72

- Notes:
- 1) By-law 2003-301's definition of Worship Area includes below grade and balconies if they can be used for worship activities. Worship Area should be based on net floor area, however only gross floor areas were provided in the site statistics unless otherwise noted. The use of gross floor area when calculating parking requirements results in an overestimate of the parking requirement and is a conservative approach.
 - 2) Occupancy load as posted within the building according to the provided site statistics and documents.
 - 3) Parking supply taken from site plan / source.
 - 4) There are two additional spaces located in a garage which serves the residential component. By-law 28-97 requires one parking space for accessory apartments. We have not assessed residential parking requirements.
 - 5) Sharing agreement is with the Islamic Centre directly to the south. There is a cross-access between the two.
 - 6) The occupant load calculated in the calculations provided reflected standing area (0.4 m²/person) instead of prayer area (0.75 m²/person).
 - 7) Although there is a sharing agreement with 241 Whitehall Drive, we do not know how many spaces are shared.
 - 8) The temporary location is intended to be superseded by a new 16th Avenue location.
 - 9) Reflects floor area of 185.11 m². No details were provided explaining how this floor area was determined. We have used net floor area in our calculations (370.84 m²).



2. PARKING SURVEY

2.1 Parking Survey Description

2.1.1 Date Selection

Parking surveys were undertaken at each place of worship shown in **Exhibit 1** based on recommended days and times determined through direct discussions with contacts from each location, as well as desktop research. The intent was to select a day which represented “typical peak parking demand”, but not necessarily the single highest day of the year. As a guide, HDR asked the contacts at the places of worship about parking demands and their daily, weekly, and monthly patterns and special occasions that generate high parking demands. The intent is to record representative or typical peak ‘weekly’ parking demand or the equivalent.

As an example, a Catholic or Christian place of worship may experience yearly peak parking demand on Christmas Day or on Easter; however, parking demand on these days is likely to be much higher than is experienced throughout the remainder of the year. Since it is not practical to design a parking supply to accommodate this demand, HDR specifically asked the contacts which days to avoid based on uncharacteristically high demand.

Another example is the Buddhist Cham Shan Temple. At this location festivals are held consistently throughout the year with some landing on weekdays and others on weekends. HDR was advised that although it is possible for the festivals to occur on weekends, it is not common. Festivals occurring on Saturdays (infrequent throughout the year) tended to be much busier than the weekday festivals (frequently occur). Therefore, a weekday festival was surveyed rather than a Saturday festival.

The survey dates and times are summarized in **Table 3**.

Table 3: Survey Dates and Times

Place of Worship Name	Survey Date	Survey Times
St. Justin Martyr Church	Sunday April 7 th 2013	10:00am to 11:30am
Temple Har Zion	Saturday April 6 th , 2013	9:30am to 11:00am
Islamic Society of Markham	Thursday March 28 th , 2013	6:15pm to 8:00pm
Apple Creek Seventh Day Adventist Church	Saturday April 6 th , 2013	11:15am to 1:00pm
Buddhist Cham Shan Temple	Tuesday March 26 th , 2013	12:00am to 12:30pm
Masjid Darul Iman (temporary location)	Friday May 17 th , 2013	1:15pm to 2:30pm

2.1.2 Methodology

The parking surveys were undertaken beginning at the recommended time of arrival as provided by the contact persons. Surveys began before worship or prayer times had begun so that it was evident when parking demand increased and peaked. Parking demand was noted upon arrival, as well as the observed locations worshippers parked in. This meant the

surveyor was aware of walk-in traffic that may have parked off-site, as well as illegally parked vehicles and queued vehicles. Additional information provided by the contact persons were taken into consideration, such as off-site parking and off-site sharing agreements. When sharing agreements were in use, HDR identified which vehicles already parked were actually associated with the place of worship being surveyed.

Parking demand was recorded immediately. Upon observing any changes in parking demand, the new parking demand numbers were recorded. Demand was not necessarily recorded in equal intervals, but whenever a change in demand was observed, or as soon as possible given the magnitude of the vehicles being counted. The goal of the surveys was not to observe the change in demand over time, but the peak parking demand for that day.

Typically, an exodus from the place of worship signified that peak parking demand had been recorded. However, if a large exodus was not evident, discussions with representatives confirmed that peak parking demand had already occurred. Since it was not always evident when the peak parking demand had occurred, it may have been necessary to remain on site longer; therefore, the survey times detailed in **Table 3** vary.

2.2 **Parking Survey Results**

The results of the parking survey are summarized in **Table 4**. Observations from each survey location are discussed in the following subsections.

Table 4: Parking Survey Results

Place of Worship Name	Peak Parking Demand	Occurred at	On
St. Justin Martyr Church	289 vehicles	11:00am	Sunday April 7 th
Temple Har Zion	72 vehicles	10:30 am	Saturday April 6 th
Islamic Society of Markham	123 vehicles	7:54 pm	Thursday March 28 th
Apple Creek Seventh Day Adventist Church	236 vehicles	12:45 pm	Saturday April 6 th
Buddhist Cham Shan Temple	154 vehicles	12:15 pm	Tuesday March 26 th
Masjid Darul Iman (temporary location)	85 vehicles	2:00 pm	Friday May 17 th

2.2.1 **St. Justin Martyr Church**

This place of worship was extremely busy on the day on which the survey occurred. The surveyor arrived well before the majority of worshippers had arrived. As the parking lot filled with vehicles, worshippers began to park illegally on site, as well as on the local streets to the north of the church. As these streets became burdened with vehicles, people also began to park at the adjacent Markville Montessori School located west on Highway 7. Vehicles were also observed parked along Highway 7 on the unpaved shoulder. It was quickly evident that the parking supply was not accommodating demand. It was not confirmed whether or not there was a sharing agreement with the adjacent Montessori School. Walk-in traffic was not observed. After the service finished there was an exodus from the church.

Exhibit 2 shows the survey overview for St. Justin Martyr Church.

Exhibit 2: St Justin Martyr Church Survey Overview

Legend: ● St. Justin Martyr Church [] Site Boundary ● Markville Montessori School → Approximate Location of Observed On-street Parking

Peak Parking Demand: 189 vehicles on-site
 Occurred at 11:00am
 on Sunday April 7, 2013
 45 vehicles on side streets to the north
 36 vehicles on Highway 7
 19 vehicles at Markville Montessori School
 = 289 vehicles

2.2.2 Temple Har Zion

The temple has a sharing agreement with the adjacent Islamic Centre to the south. Upon arrival, there were already some vehicles parked at the temple, as well as at the Islamic Centre. The majority of the temple's parking supply was occupied, as well as a few of the shared parking spaces. After observing operations for some time it became evident which vehicles were associated with which building.

Torah readings occurred on this day beginning at 9:00am. However, the readings ended and overlapped with a bar mitzvah. Thus, the vehicles already on site were attributed to the readings, while later arrivals are attributed to the bar mitzvah. Peak parking demand occurred when the two events overlapped; the temple parking lot was fully occupied with a portion of the shared parking in use.

Discussions with the on-site parking attendant confirmed that there are a few events per month which overlap with readings, and that the day surveyed was slightly busier than a typical day as a result of this. The attendant also confirmed that it was not an extremely busy day. No vehicles were observed to park illegally and no walk-in traffic was observed.

Exhibit 3 shows the survey overview for Temple Har Zion.

Exhibit 3: Temple Har Zion Survey Overview



Legend: ● Temple Har Zion □ Site Boundary ● Islamic Centre □ Shared Parking Zone

Peak Parking Demand:	48 vehicles on-site
Occurred at 10:30am	<u>24 vehicles at Islamic Centre</u>
on Saturday April 6, 2013	<u>= 72 vehicles</u>

2.2.3 Islamic Society of Markham

Upon arrival there were some vehicles already parked on-site. This is likely because there are several prayer times at this location throughout the day during the week; furthermore, the prayer times are not fixed, and instead they vary daily. The evening prayer times have higher attendance because of worshipper availability.

Due to the uncertainty as to when the peak prayer time would occur, this survey lasted longer than the others. The peak demand occurred much later than anticipated, at nearly 8:00pm. During the time before peak demand was observed there were many worshippers who came and went. However, after the peak demand was observed, there was an evident exodus.

Vehicles were only observed to park on-site. No vehicles were observed to park illegally and no walk-in traffic was observed. There were unused spaces during peak demand.

Exhibit 4 shows the survey overview for the Islamic Society of Markham.

Exhibit 4: Islamic Society of Markham Survey Overview



Legend: ● Islamic Society of Markham □ Site Boundary

Peak Parking Demand: 123 vehicles on-site
Occurred at 8:00pm
on Thursday March 28, 2013

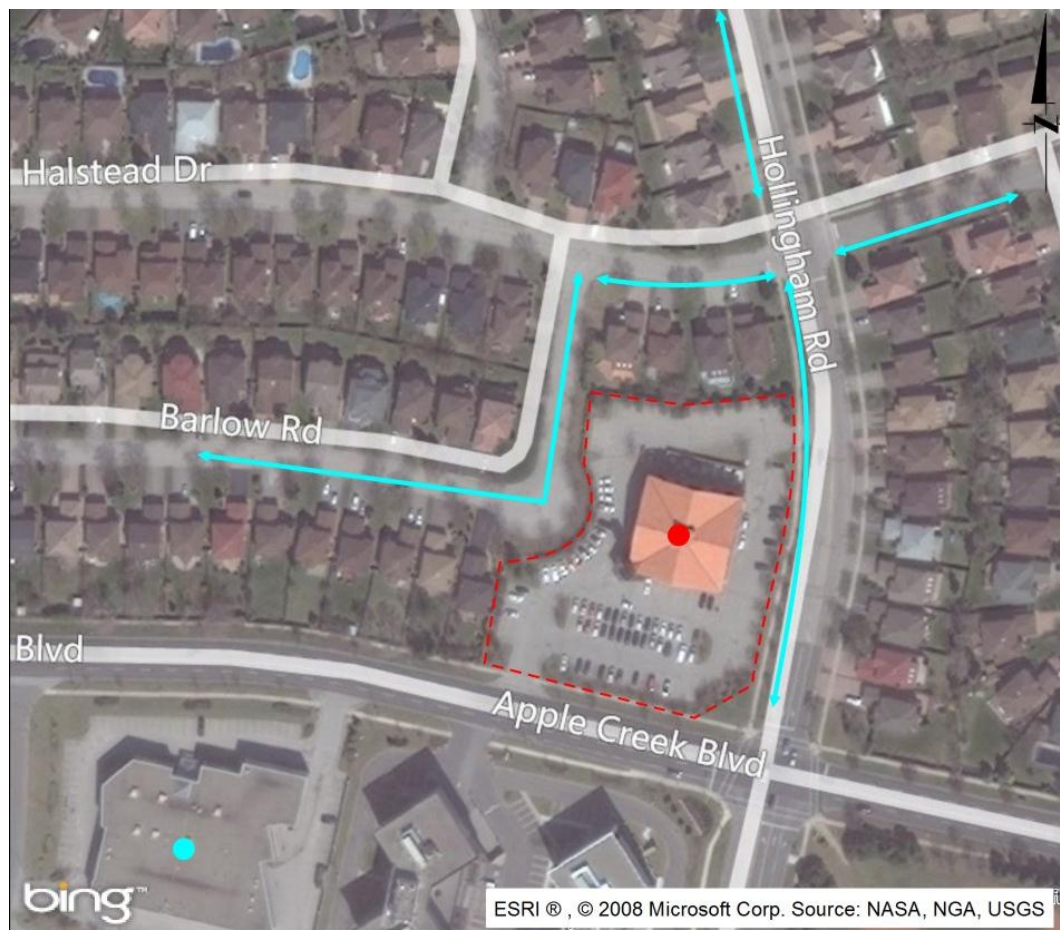
2.2.4 Apple Creek Seventh Day Adventist Church

This place of worship was very busy on the day on which the survey occurred. The surveyor arrived well before the majority of worshippers had arrived. As the parking lot filled with vehicles, worshippers began to park illegally on site, as well as on the local streets to the north, east, and west of the church. People also parked at 241 Whitehall Drive, a commercial development located on the south side of Apple Creek Boulevard, west of the church.

It was quickly evident that the on-site parking supply was not accommodating demand. It was confirmed that the church does have a sharing agreement with the commercial building at 241 Whitehall Drive. Walk-in traffic was not observed. After the service finished there was an evident exodus from the church.

Exhibit 5 shows the survey overview for Apple Creek Seventh Day Adventist Church.

Exhibit 5: Apple Creek Seventh Day Adventist Church Survey Overview



Legend: ● Apple Creek Seventh Day Adventist Church [] Site Boundary ● 241 Whitehall Drive → Approximate Location of Observed On-street Parking

Peak Parking Demand: 151 vehicles on-site
 Occurred at 12:45pm
 on Saturday April 6, 2013
 64 vehicles on side streets to the north and east
 21 vehicles at 241 Whitehall Drive
 = 236 vehicles

2.2.5 Buddhist Cham Shan Temple

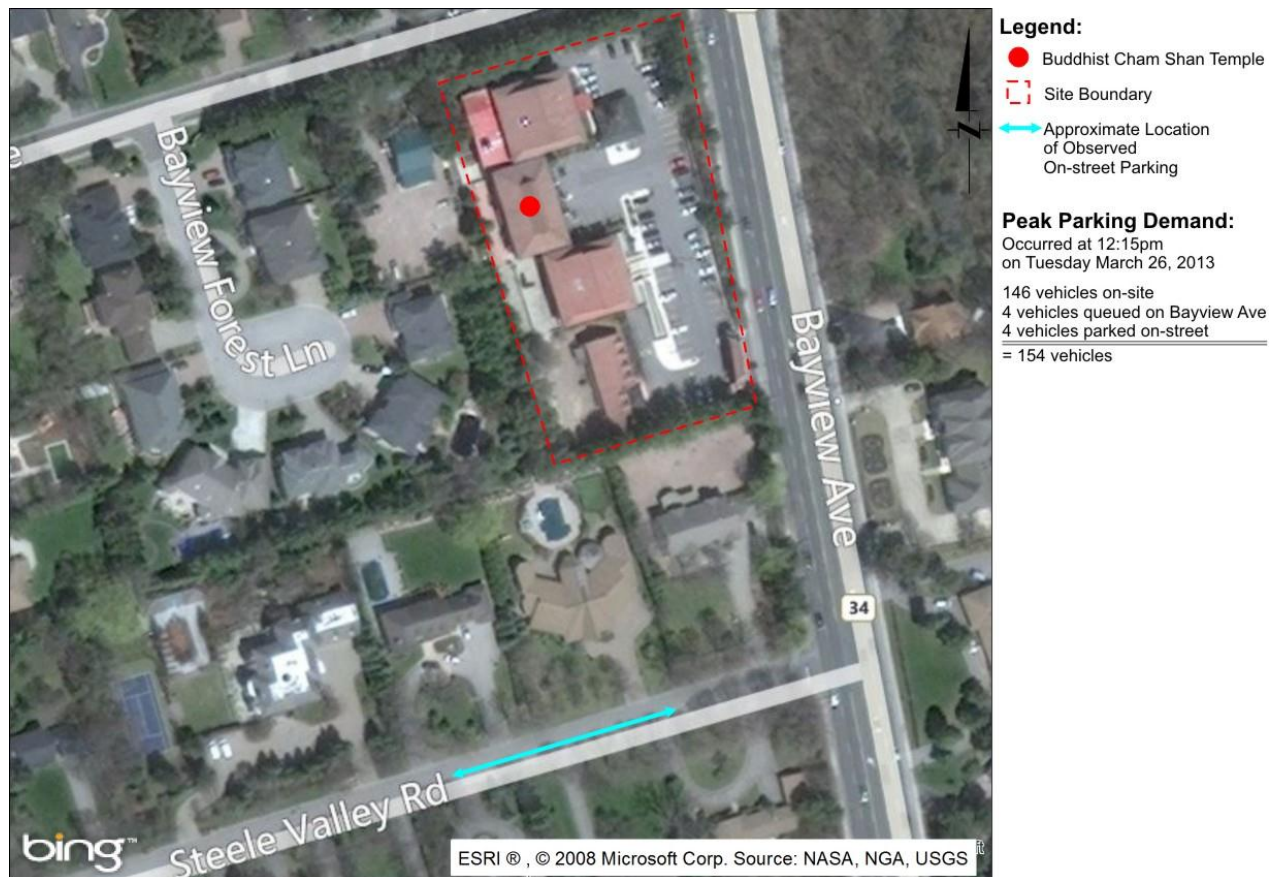
Upon arrival there were already quite a number of people parked at the temple and the festival had already begun. Observations showed few people parked off-site, with a maximum of 4 vehicles parked on Steele Valley Road, which is the next local road to the south. The driveway on Bayview Avenue serves as the only site driveway, and it is metered by attendants who control the number of vehicles on site. For the entirety of the survey, the on-site parking supply appeared to be fully utilized, or very near 100% utilization.

A maximum of 4 vehicles were observed to queue on Bayview Avenue to enter the site; however this queue did not last more than a few minutes. The moment that the maximum Bayview Avenue queue formed was taken as the moment of peak parking demand for the site, since the site was already saturated and entry was being metered.

No vehicles were observed to park illegally. Some walk-in traffic was observed. There was no obvious exodus from the temple. The festivals are typically large lunch feasts in which people arrive and leave at their convenience. It was determined the peak parking demand was observed after discussions with parking attendants and the lack of off-site queuing was noted.

Exhibit 6 shows the survey overview for the Buddhist Cham Shan Temple.

Exhibit 6: Buddhist Cham Shan Temple Survey Overview



2.2.6 Masjid Darul Iman (Temporary Location)

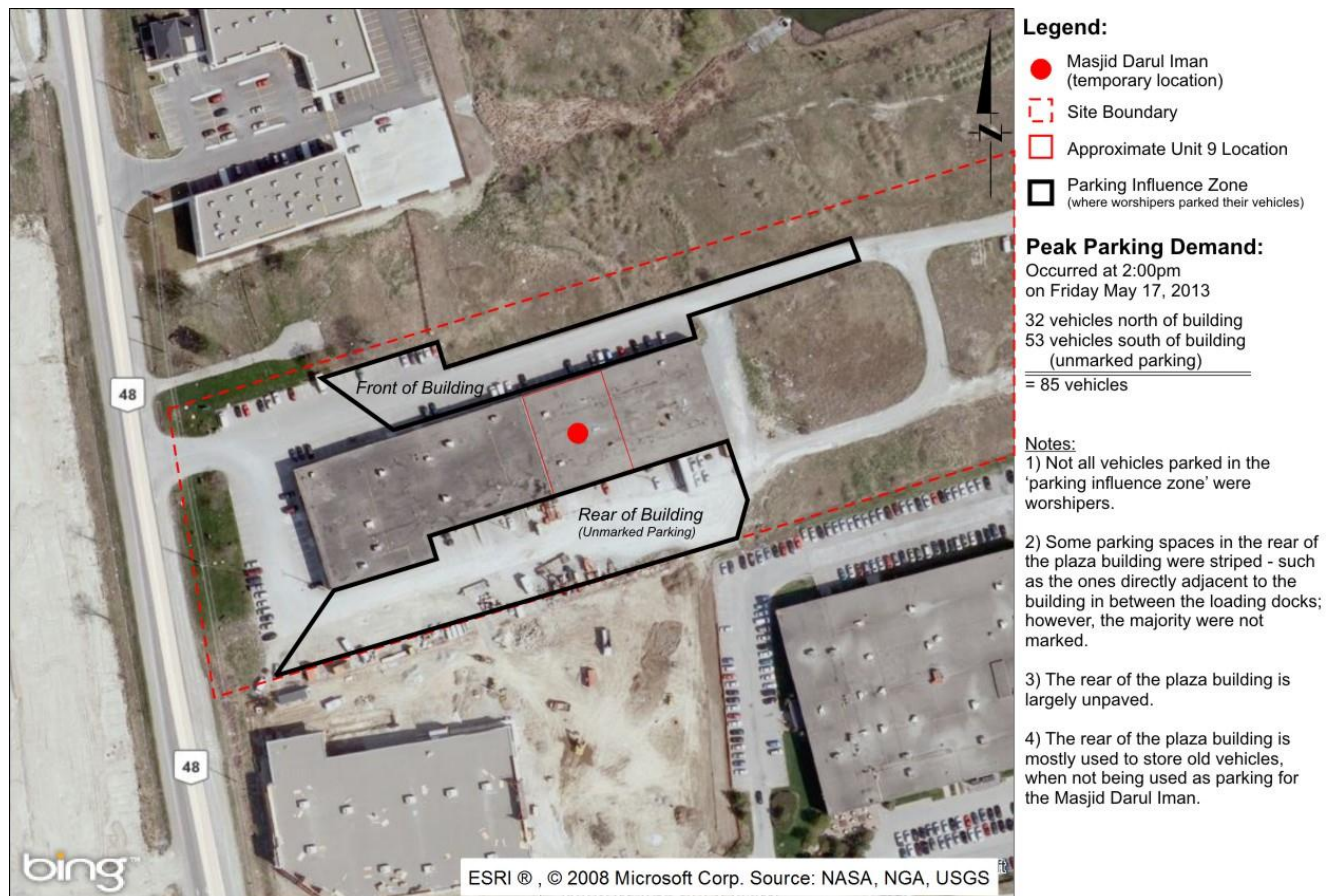
Upon arrival there were many vehicles already parked on-site, many of which were parked away from the units containing the temporary worship location, which implied they were customers to the commercial uses on site (there was some vacancy in the plaza during the time of the count). Thus, with some observations it was easy to differentiate between parked plaza customer vehicles versus worshipper vehicles.

It was clear when demand for the Masjid Darul Iman began to grow. Worshippers were observed to park in the striped parking area in front of the unit, but also in the rear of the plaza building which did not have striped parking. The majority of worshippers parked in the rear. After the peak demand was observed, there was an exodus from the building.

Vehicles were only observed to park on-site. Some vehicles were observed to parallel park illegally along the drive aisle in front of the unit. Vehicles parked in unmarked spaces at the rear of the building may also be considered illegal. No walk-in traffic was observed. There were some unused spaces on site during peak demand.

Exhibit 7 shows the survey overview for the Masjid Darul Iman.

Exhibit 7: Masjid Darul Iman Survey Overview





3. PARKING ANALYSIS

Zoning By-law currently has the following parking requirements:

“1.0 By-law 28-97, as amended, be and the same is hereby further amended as follows:

1.1 1.1 By deleting the parking standards for “Place of worship” in Section 3.0 PARKING STANDARDS, TABLE B NON-RESIDENTIAL USES, and replacing same with the following new standards:

“Place of Worship

1.1.1 The number of parking spaces required for a place of worship and other uses on the same lot as a place of worship shall be calculated by adding together the parking required by each of paragraphs (a) and (b) below.

(a) Parking for the place of worship, including any accessory use areas except accessory residential uses, shall be the greater of:

*(i) 1 space per 4 persons of the worship area capacity;
or*

(ii) 1 space per 9 square metres of the net floor area of the Worship Area(s) and any accessory use areas, excluding any residential uses.

(b) Parking for all other uses shall be provided in accordance with the provisions of Section 3.0 PARKING STANDARDS, TABLE A - RESIDENTIAL USES and TABLE B - NON-RESIDENTIAL USES of By-law 28-97, as amended.

Where a portion of a building(s) is shared/used by two or more uses, the greatest number of parking spaces required by (a) or (b) above, for that area, shall be used to calculate the total number of required parking spaces for the lot.

1.1.2 The provisions of Sections 4.0 and 8.3 of By-law 28-97 shall not apply.”

1.2 By adding the following new definitions to Section 2.0:

“WORSHIP AREA

means the net floor areas, whether above or below established grade, within the walls of sanctuary(s), hall(s) or meeting room(s) that a religious group uses for the practice of its religious rites, including any balcony or other area that, by the removal or opening of any walls or partitions, can expand the

area of the sanctuary, hall or meeting room(s), and any choir or musicians area. Net floor areas intended solely for the use of the worship group leader, such as altar or pulpit areas are not included in the worship area.”

“WORSHIP AREA CAPACITY

means the number of persons for whom the worship area(s) is designed, and is determined by adding the total of (i) and (ii) below:

- (i) *Where there are fixed seats in the worship area(s):*

The number of fixed seats in the worship area(s), (where fixed seating is provided in the form of open benches each 0.5 metres bench width shall be considered as one seat); and

- (ii) *Where there are no fixed seats in the worship area(s):*

The number of square metres of worship area floor area(s) multiplied by 0.75.”

“WORSHIP AREA FLOOR AREA

means the net floor area of all floors in a building used as worship area(s).”

2.0 *All other provisions of By-law 28-97, as amended, unless specifically modified/amended by this By-law continue to apply.”*

We note that clause 1.2 (ii) which deals with worship area capacity where there are no fixed seats incorrectly states that the calculation of worship area capacity is obtained by multiplying the worship area floor area(s) by 0.75 (instead of dividing by 0.75). For instance, if a worship area with non-fixed seating has a net floor area of the worship area equal to 750 m², application of the above ratio yields an occupant capacity of 1,000 persons. Interpretation of the By-law as currently written would actually yield an incorrect occupant capacity of 563 persons; which would result in a smaller parking supply requirement.

Based on the available site statistics summarized in **Section 1.3** and the survey results summarized in **Section 2.2**, we have compared:

1. The parking supply with the requirements of Zoning By-law 2003-301;
2. The parking supply with the observed peak parking demand; and,
3. The requirements of Zoning By-law 2003-301 with the observed peak parking demand.

For the above comparisons with respect to Zoning By-law 2003-301, we have used the correct application of **0.75 m² per person**, for non-fixed seating worship area capacity calculations.

A summary of the comparisons described above are shown in **Table 5, Table 6, Table 7, Table 8, and Table 9**. For a more detailed analysis please see **Appendix B**.

A review of current parking standards for places of worship from other municipalities is provided in **Appendix C**.

3.1 **Parking Supply VS. Zoning By-Law Requirements**

Table 5 and **Table 6** summarize the existing parking supply at the six sites and the parking supply requirements of Zoning By-law 2003-301 with the correct interpretation of 0.75 m² per person for non-fixed seating worship areas.

Table 5: Parking Supply & Zoning By-law Requirements

Place of Worship Name	Supply	Zoning By-law Requirement	
		Amending By-law* (under appeal)	Current By-law
St. Justin Martyr Church	166	235 (GFA)	235 (GFA)
Temple Har Zion	131	162 (GFA)	162 (GFA)
Islamic Society of Markham	135	380 (NFA Prayer)	214 (NFA Prayer)
Apple Creek Seventh Day Church	137	252 (GFA)	252 (GFA)
Buddhist Cham Shan Temple	154	75 (Seats)	75 (Seats)
Masjid Darul Iman (temp. location)	72	124 (NFA Prayer)	70 (NFA Prayer)

Notes: (NFA or GFA) – The Zoning By-law requirements are based on worship area floor area. Net floor area should be used, however only gross floor area was available for some locations as indicated in **Table 2**.

(Seats) – The Zoning By-law requirements are governed by calculations based on fixed seating capacity.

(Prayer) – The Zoning By-law requirements are governed by calculations based on non-fixed seating capacity.

Negative numbers are shown in brackets and red font.

Table 6: Parking Supply VS. Zoning By-law Requirements

Place of Worship Name	Amending By-law (under appeal)		Current By-law	
	Supply minus By-law Req.	Percent Difference	Supply minus By-law Req.	Percent Difference
St. Justin Martyr Church	(69)	(42%)	(69)	(42%)
Temple Har Zion	(31)	(24%)	(31)	(24%)
Islamic Society of Markham	(245)	(181%)	(79)	(59%)
Apple Creek Seventh Day Church	(115)	(84%)	(115)	(84%)
Buddhist Cham Shan Temple	79	51%	79	51%
Masjid Darul Iman (temp. location)	(52)	(72%)	2	2.7%

Note: Negative numbers are shown in brackets and red font.

The results of the above comparison indicate that the existing parking supply at five out of six locations are deficient compared to the Zoning By-law requirements as corrected, except at the Buddhist Cham Shan Temple where the provided parking supply is in excess of the By-law requirements. The temple may have areas which are used for prayer during festivals times; however additional floor area statistics are not available for the purposes of that calculation and this may explain why the by-law requirement is lower than the supply.

The parking supply for the Masjid Darul Iman was based on the non-fixed seating ratio and was correctly based on net floor area; however the worship area used in the calculations is not the total net floor area for the unit, and there is no explanation to the difference. We have used the total unit's net floor area as the worship area, which accounts for the difference between the actual supply and the by-law requirement.

Temple Har Zion has the least deficient parking supply, however that supply included the sharing agreement spaces. Without the inclusion of these spaces the temples parking supply would be deficient by -157%. At the Islamic Society of Markham the source provides net floor area. The parking supply based on the non-fixed seating ratio is much larger than the current supply. It appears that the supply does not reflect the entire building capacity based on the available data.

At Apple Creek Seventh Day Adventist Church, as well as St Justin Martyr Church the parking supplies are smaller than the By-law requirement, as expected, based on the observed demand. Apple Creek has two parking spaces dedicated to the on-site residence. According to By-law 28-97, only one space is required for accessory apartment uses. Therefore, the residential component exceeds the by-law requirement by one space.

3.2 Parking Supply VS. Peak Parking Demand

Table 7 compares the parking supply with observed peak parking demand.

Table 7: Parking Supply VS. Observed Peak Parking Demand

Place of Worship Name	Parking Supply	Observed Peak Parking Demand	Supply minus Demand	Percent Difference
St. Justin Martyr Church	166	289	(123)	(74%)
Temple Har Zion	131	72	59	45%
Islamic Society of Markham	135	123	12	9%
Apple Creek Seventh Day Adventist Church	137	236	(99)	(72%)
Buddhist Cham Shan Temple	154	154	0	0%
Masjid Darul Iman (temporary location)	72	85	(13)	(18%)

Note: Negative numbers are shown in brackets and red font.

The results of the above comparison indicate that the existing parking supply at the surveyed places of worship are satisfying current demand at Temple Har Zion, Islamic Society of Markham, and the Buddhist Cham Shan Temple. However, without a sharing agreement the Temple Har Zion would have been deficient by 9 spaces.

At Apple Creek Seventh Day Adventist Church, as well as St Justin Martyr Church the parking supplies were very deficient based on the observed demand. St Justin Martyr Church utilizes the adjacent Montessori School parking lot but we could not confirm whether or not there is a sharing agreement. Apple Creek Seventh Day Adventist Church has a sharing agreement with a nearby commercial building. Furthermore, at the Masjid Darul Iman the supply is largely made of unmarked spaces. Thus, it is clear that parking concerns are already expected at these locations where there is shared parking or sharing agreements.

As mentioned, the Cham Shan Temple parking demand was metered, which is why the parking demand and the supply are equal. Although some vehicles parked and queued off-site, some spaces on-site were unusable, which coincidentally resulted in the supply equalling the demand.

The Islamic Society of Markham parking supply also seemed to very accurately accommodate the existing demand. However, there seems to be no clear relationship between the parking supply and the posted occupant loads within the building, or the calculated worship area capacity. During the parking survey a maximum of 123 vehicles were counted. Even if each vehicle had 5 passengers including the driver (615 people total), the building would not meet its worship area capacity (1,520 persons). Therefore, it appears that the parking demand observed during the survey may have reflected typical attendance which may reflect low building utilization; but if the building were 100% utilized, the parking supply would likely fall very short of the demand.

At the Masjid Darul Iman the parking supply is slightly short and may be due to the floor area used in the parking requirement calculations from the Variance Application which was provided to us (see **Appendix A**). This was discussed in greater detail in **Section 3.1**.

3.3 **By-Law Requirement VS. Peak Parking Demand**

Table 8 and **Table 9** compare the zoning by-law requirement with observed peak parking demand.

Table 8: Zoning By-law Requirement & Observed Peak Parking Demand

Place of Worship Name	Observed Peak Parking Demand	Zoning By-law Requirement ¹	
		Amending By-law ²	Current By-law ³
St. Justin Martyr Church	289	235	235
Temple Har Zion	72	162	162
Islamic Society of Markham	123	380	214
Apple Creek Seventh Day Church	236	252	252
Buddhist Cham Shan Temple	154	75	75
Masjid Darul Iman (temp. location)	85	124	70

Note: 1) See **Table 5** for more detail.

2) The zoning by-law requirement shown is *as corrected*, with the correct interpretation of 0.75 m² per person for non-fixed seating worship areas. This interpretation is currently under appeal.

3) The zoning by-law requirement shown is *interpreted verbatim* as per Zoning By-law 2003-301, with the incorrect application of 0.75 m² per person for non-fixed seating worship areas.

Table 9: Zoning By-law Requirement VS. Observed Peak Parking Demand

Place of Worship Name	Amending By-law (under appeal)		Current By-law	
	By-law Req. minus Demand	Percent Difference	By-law Req. minus Demand	Percent Difference
St. Justin Martyr Church	(54)	(23%)	(54)	(23%)
Temple Har Zion	90	56%	90	56%
Islamic Society of Markham	257	68%	91	43%
Apple Creek Seventh Day Church	16	6%	16	6%
Buddhist Cham Shan Temple	(79)	(105%)	(79)	(105%)
Masjid Darul Iman (temp. location)	39	31%	(15)	(21%)
Average	-	5.5%	-	(7.3%)

Note: Negative numbers are shown in brackets and red font.



The results of the above comparison indicate that the Zoning By-law requirements as corrected will accommodate observed parking demand at most locations except for St Justin Martyr Church, and the Cham Shan Temple.

The supply for St Justin Martyr Church would be deficient by 23% if it met the By-law requirements. This is a reflection of the particularly high attendance at this location.

At the Cham Shan Temple the existing parking supply is meeting demand. As discussed, the calculated parking supply requirement based on the Zoning By-law only reflects fixed seating used for feasts during the festival during which the parking survey was conducted. There may be areas within the temple that have non-fixed seating areas which also generate parking demand, but statistics were not available for these areas.

At the remaining locations the Zoning By-law parking supply requirements exceed the observed demand. In the case of Apple Creek Seventh Day Adventist Church and Masjid Darul Iman, the supplies are well matched to the observed demand. At the Masjid Darul Iman, if the zoning by-law is interpreted verbatim, the parking supply does not meet demand.

At the remaining two places of worship – Temple Har Zion, and Islamic Society of Markham – the by-law requires parking supplies which would be larger than the demand. At the Islamic Centre of Markham the potential parking demand is much higher and may be reflective of the By-law requirements if the building were to be 100% utilized. As discussed, the uncertainty here is related to the building area and the worship area capacity calculations which do not proportionately reflect the size of the parking supply.



4. CONCLUSIONS

The analysis of the parking surveys shows that the parking requirements set out in Zoning By-law 2003-301 (when correctly applied) are on average within 5.5% of the peak parking demand observed at the six places of worship that were surveyed. This generally confirms the validity of the recommendations from the original 2003 Places of Worship Study, specifically with respect to parking requirements.

When applicable, we have correctly applied the Zoning By-law 2003-301 non-fixed seating worship area capacity ratio of 0.75 m² per person, instead of applying this ratio as is required by Zoning By-law 2003-301. We have found that the worship area capacity based on this ratio tends to govern the Zoning By-law requirements instead of net worship floor area calculations.

When calculating the worship area capacity for non-fixed seating, it is important to not underestimate the net worship areas which will be used for prayer as this will determine the parking supply requirements.

Appendix A

Site Statistics & Background Data

NOTES

- DENOTES MONUMENT FOUND
- SIB DENOTES STANDARD IRON BAR
- (WIT) DENOTES WITNESS
- UP DENOTES UTILITY POLE
- CB DENOTES CATCH BASIN
- LS DENOTES LAMP STANDARD
- Ø DENOTES DIAMETER
- DENOTES TREE
- FF DENOTES FINISHED FLOOR ELEVATION
- W- DENOTES OVERHEAD UTILITY WIRES
- MH DENOTES MANHOLE
- WVC DENOTES WATER VALVE CHAMBER
- PCL DENOTES PARCEL
- 152.70 DENOTES EXISTING ELEVATIONS
- 152.70 DENOTES NEW ELEVATIONS
- DENOTES DIRECTION OF SITE DRAINAGE

UNDERGROUND SERVICE LOCATIONS HAVE BEEN MARKED OUT ON SITE BY THE APPROPRIATE UTILITY, RADY-PENK & EDWARD SURVEYING LTD. O.L.S. DOES NOT WARRANT THE LOCATION OF UNDERGROUND SERVICES.

BEARINGS ARE ASTROMONIC AND ARE REFERRED TO THE NORTH LIMIT OF LOT 98 AS SHOWN ON PLAN 64R-5388 HAVING A BEARING OF N 73° 12' 10"E

BENCHMARK NOTE

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE TOWN OF MARKHAM BENCHMARK NUMBER M-01-006, LOCATED ON CONCRETE BRIDGE OVER EAST DON RIVER 0.8KM. NORTH OF STEELES AVENUE ON BAYVIEW AVENUE HAVING AN ELEVATION OF 152.535 METRES.

SITE DATA ON LOT NUMBER 97 - RP 2368 TAKEN FROM TOWN OF MARKHAM BY LAW 40-78, SCHEDULE A DATED FEBRUARY 14TH, 1978.

HANDICAP RESERVED PARKING

EXISTING BUILDING FOOTPRINT

FOOTPRINT OF BUILDING ADDITION

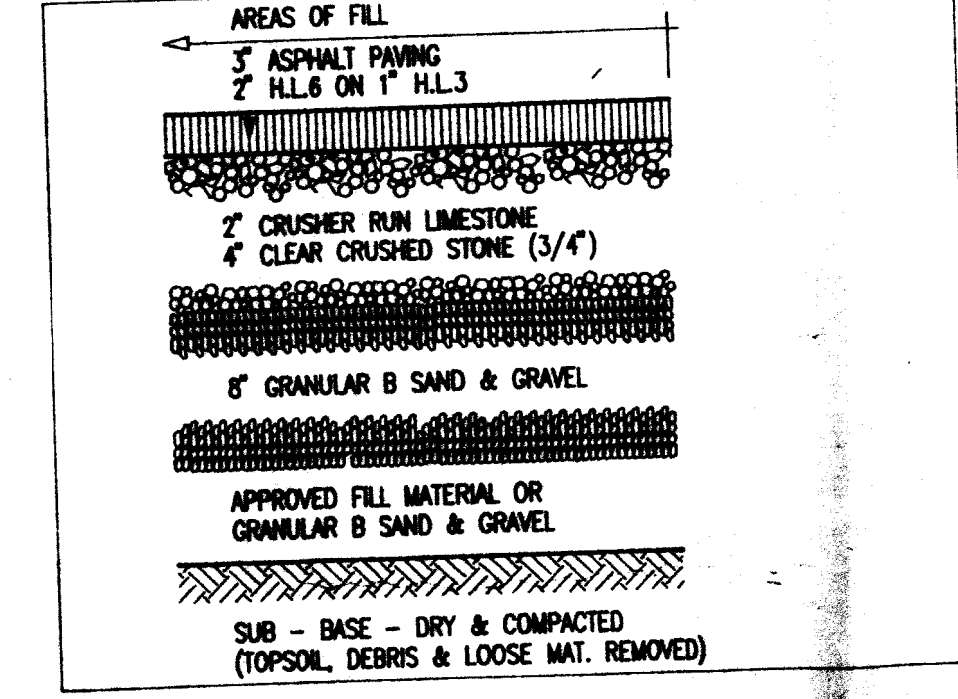
ENTRANCE

DESIGN DATA

	EXISTING	REQUIRED	PROPOSED
SITE AREA	9,589.7 SQUARE METERS		
FRONTAGE	66.66 m		
GROSS FLOOR AREA			
LOWER LEVEL	520.49 m ²	N/A	561.7 m ²
MAIN LEVEL	936.37 m ²	N/A	1,280.1 m ²
UPPER LEVEL	0	N/A	501.06 m ²
TOTAL	1,456.86 m²	N/A	2,342.86 m²
ACCESSORY STORAGE SHEDS	22.58 m ²		22.58 m ²
SEATING	15 m² / PERSON	10 B.C.	15 m² / PERSON
COVERED	15.19 %	25 %	15.19 %
BUILDING FOOTPRINT	936.37 m² (9.76 %)	25 %	1,284 m² (13.39 %)
OF SITE	15.19 %	N/A	25.6 %
SETBACKS			
FRONT YARD	11.4m	7.62 m	9.422 m
REAR YARD	89.06m	7.62 m	85.71m
SIDE YARDS	37.21 m	15% OF FRONTAGE 10m	31.44 m
PARKING	PAVED UNPAVED ADJACENT	PAVED UNPAVED ADJACENT	PAVED UNPAVED ADJACENT
AS PER BY-LAW	43 20 66	43 20 66	43 20 66
AS PER COUNCIL RESOLUTION	86	86	86
BY SANITARY SERVICES	83	83	83
BY GROSS FLOOR AREA	131	131	131
TOTAL	131	131	131
PARKING STALL SIZE			
REGULAR	3.75 X 5.90	2.75m X 4.8m	2.75 X 5.90
W/ADJACENT SPACE	3.88 X 5.90	AS PER COUNCIL	3.88 X 5.90
DRIVE ALLEYS	6.71 m	6 m MIN.	6.71 m
BUILDING LIGHT	VARIABLES	SHALL BE DETERMINED BY THE ARCHITECT	VARIABLES
LANDSCAPE OPEN SPACE	PAVED PARKING DRIVEWAYS	PAVED PARKING DRIVEWAYS	PAVED PARKING DRIVEWAYS
1,890.17 m ² 19.71 %	N/A	2,338.3 m ² 24.38 %	
HARD - SOFT LANDSCAPE	6,783.16 m² 70.66 %	N/A	5,967.4 m² 62.22 %
CHILDREN'S PLAYGROUND	1,095.87 m²	N/A	1,095.87 m²

1 CONCRETE WALK

A1 N.T.S.



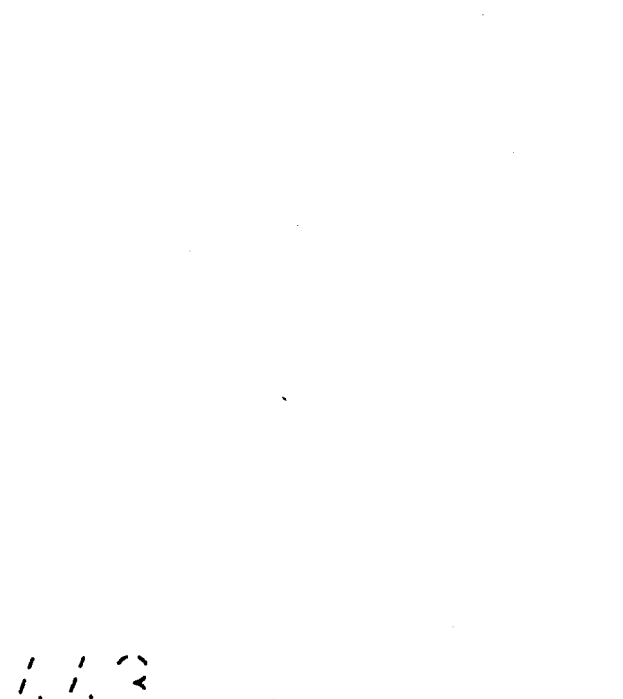
2 GUARD RAIL DETAIL

A1 N.T.S.



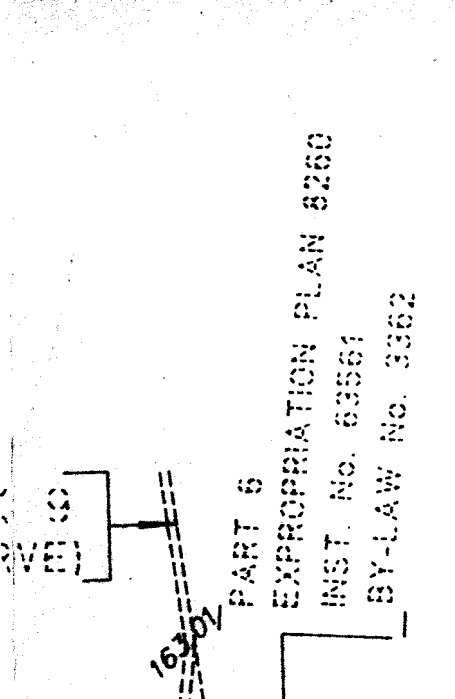
3 WHEELCHAIR RAMP

A1 N.T.S.



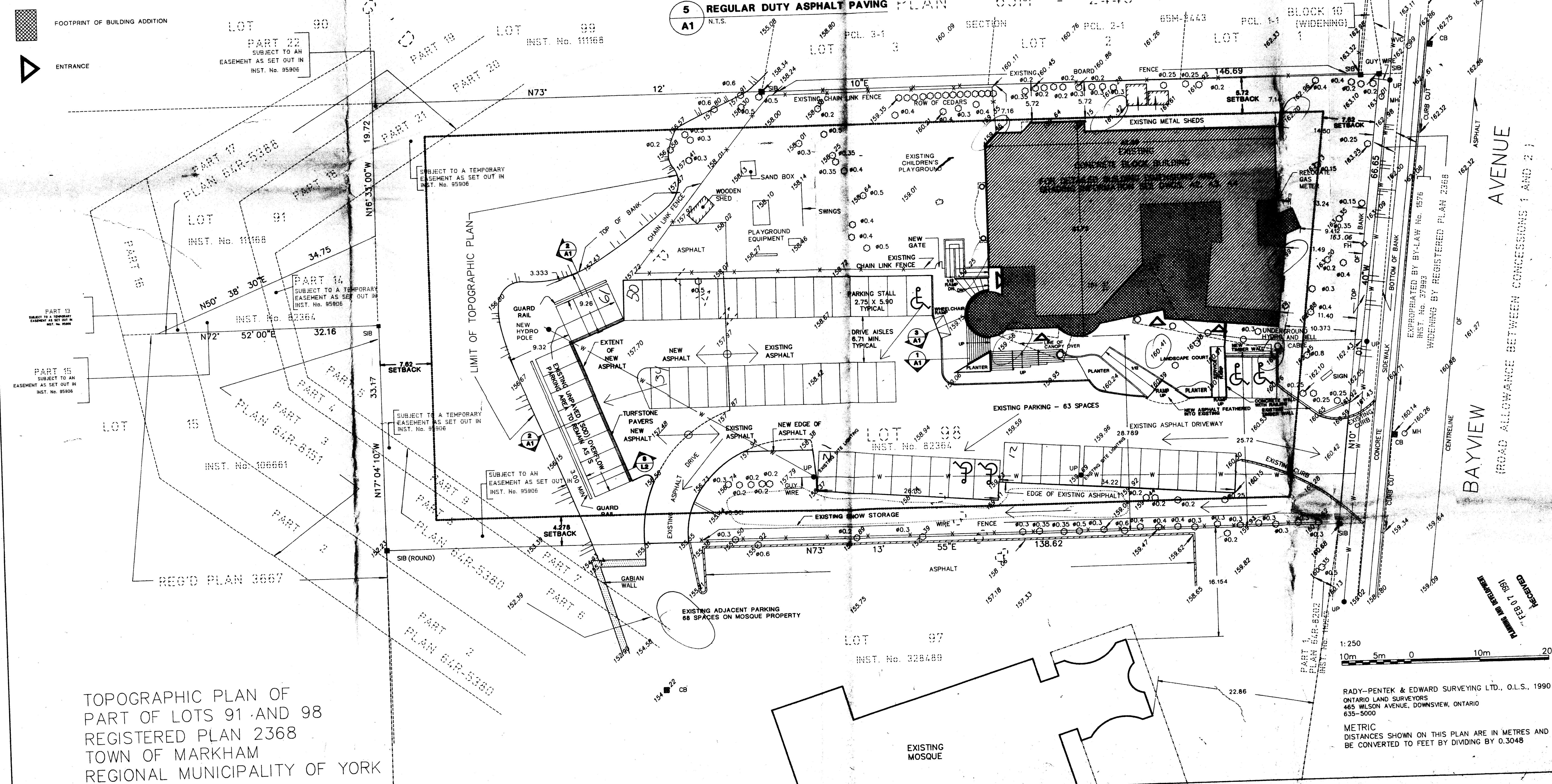
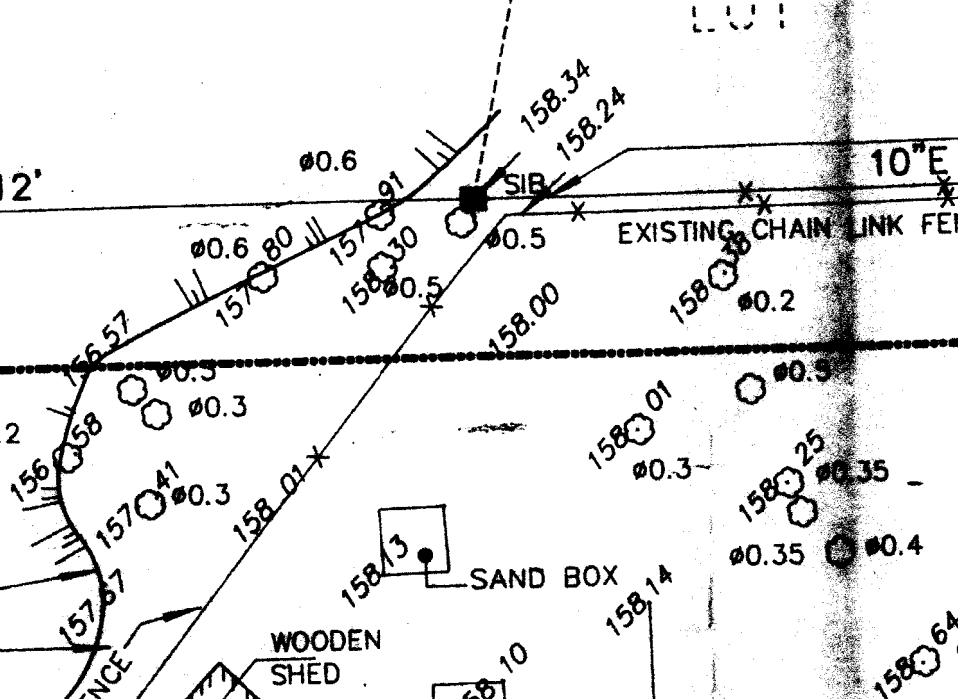
4 KEY PLAN

A1 N.T.S.



5 REGULAR DUTY ASPHALT PAVING PLAN

A1 N.T.S.



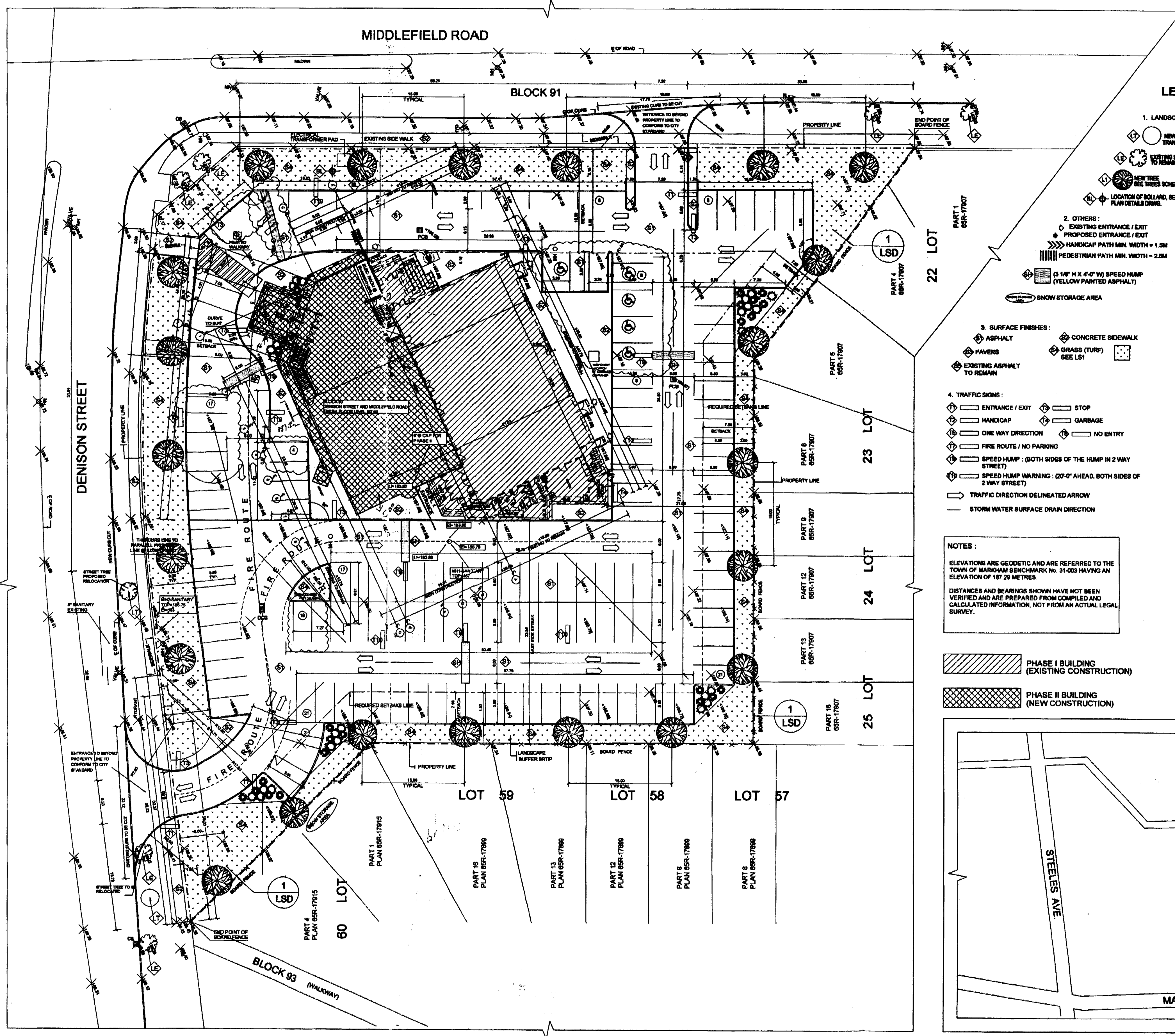
TOPOGRAPHIC PLAN OF
PART OF LOTS 91 AND 98
REGISTERED PLAN 2368
TOWN OF MARKHAM
REGIONAL MUNICIPALITY OF YORK

DISTRIBUTION + REVISIONS		
NO.	DATE	ISSUED
1	15/04/91	SITE PLAN MEMORANDUM
2	15/04/91	PLANNING AND DESIGN
3	15/04/91	REC.

TEMPLE HAR ZION APPROVAL	
CONSENT APPROVAL	DATE
FOR SITE PLAN AGREEMENT	DATE
DESIGN DEVELOPMENT APPROVAL DATE	
WORKING DRAWING/TENDER APPROVAL DATE	
APPROVED FOR CONSTRUCTION	DATE

L. E. GLAZER ARCHITECT	
99 SCHARSDALE ROAD SUITE 100	SCARSDALE, ONTARIO
TEL: (416) 291-8777	

PROJECT TITLE	
TEMPLE HAR ZION	
DRAWING TITLE	
SITE PLAN	
DRAWING SCALE	
1:250	AS SHOWN ON DRAWING
DATE	
JAN 15, 1991	PLANT DATE
DRAWN BY	
SM CM LEG F31	PLANT DATE
PROJECT NUMBER	
8940	PLANT DATE



1 SITE PLAN
A1 SCALE: 1/300

2 KEY PLAN
A1 SCALE: N.T.S.

6. SURVEY INFORMATION:

UP	DOWN	UTILITY POLE
HYD	HYD	HYDRANT
4	4	DIAMETER
MM	MM	MEANS OF EGRESS AND INGRESS
WV	WV	WATER VALVE
CB	CB	CATCH BASIN
PCB	PCB	PROPOSED CATCH BASIN
DI	DI	EXIST. INVERT
LI	LI	LEADING IN/VERT
RL	RL	RAIN WATER LEADER
100.00	100.00	EXISTING LEVELS
-100.00	-100.00	PROPOSED LEVELS (LEFT ARROW SHOWS GRADING POINT)

LEGEND:

1. LANDSCAPE LEGEND:

- NEW LOCATION FOR TRANSPLANTED TREES
- EXISTING BAPLING TREE TO REMAIN
- NEW TREES SEE TREES SCHEDULE
- LOCATION OF BOLLARD, SEE SITE PLAN DETAILS DRAWING

2. OTHERS:

- EXISTING ENTRANCE / EXIT
- PROPOSED ENTRANCE / EXIT
- HANDICAP PATH MIN. WIDTH = 1.5M
- PEDESTRIAN PATH MIN. WIDTH = 2.5M
- 1/2" H X 4" W SPEED HUMP (YELLOW PAINTED ASPHALT)
- SNOW STORAGE AREA

3. SURFACE FINISHES:

- ASPHALT
- PAVERS
- EXISTING ASPHALT TO REMAIN
- CONCRETE SIDEWALK
- GRASS (TURF) SEE LS1

4. TRAFFIC SIGNS:

- ENTRANCE / EXIT
- HANDICAP
- ONE WAY DIRECTION
- FIRE ROUTE / NO PARKING
- SPEED HUMP (BOTH SIDES OF THE HUMP IN 2 WAY STREET)
- SPEED HUMP WARNING: 50' AHEAD, BOTH SIDES OF 2 WAY STREET
- TRAFFIC DIRECTION DELINEATED ARROW
- STORM WATER SURFACE DRAIN DIRECTION
- STOP
- GARAGE
- NO ENTRY

NOTES:

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE TOWN OF MARKHAM BENCHMARK NO. 31-003 HAVING AN ELEVATION OF 107.29 METRES.

DISTANCES AND BEARINGS SHOWN HAVE NOT BEEN VERIFIED AND ARE PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL LEGAL SURVEY.

- PHASE I BUILDING (EXISTING CONSTRUCTION)
- PHASE II BUILDING (NEW CONSTRUCTION)

6. DATA (PHASE I):

BLDG. CLASSIFICATION: 3.2.2.28 GROUP A, DIVISION 2 (SPRINKLERED)

TOTAL LOT AREA = 8,200.00 m²

BLDG. AREA = 1,202.00 m²

LOT COVERAGE = 14.66 %

7. DATA (PHASE II):

BLDG. CLASSIFICATION: 3.2.2.24 GROUP A, DIVISION 2 (SPRINKLERED)

TOTAL LOT AREA = 8,200.00 m²

BLDG. AREA = 1,202.00 m²

LOT COVERAGE = 14.66 %

FLOOR AREA:

BASEMENT FLOOR = 4,248.17 m² (204,000 sq ft) NEW ADDITION 1150.23 m² (12,422 sq ft) WHERE:
- FINISHED BASEMENT ADDITION = 45 m²
- UNFINISHED BASEMENT ADDITION = 4242.82 m²

GROUND FLOOR = 5,847.750 m² (624,805 sq ft)
SECOND FLOOR = 3,184.50 m² (34,201 sq ft)
TOTAL PHASE II FLOOR AREA = 14,216.95 m² (1,529,811 sq ft)

8. TOTAL PHASE I & II FLOOR AREA & OCCUPANT LOAD:

BASEMENT FLOOR = 5,847.750 m² (624,805 sq ft)
GROUND FLOOR = 5,847.750 m² (624,805 sq ft)
SECOND FLOOR = 3,184.50 m² (34,201 sq ft)
TOTAL BUILDING FLOOR AREA = 25,843.55 m² (2,781,377 sq ft)

NOTE: GFA = ACTUAL TOTAL AREA

NEW ADDED PARKING PROVIDED:
REGULAR: 4 SPACES
HANDICAPPED: 1 SPACE
TOTAL ADDED PARKING PROVIDED: 5 SPACES
PARKING STALL SIZE = 2.75m x 5.5m (STANDARD)
PARKING STALL SIZE = 3.00m x 5.5m (HANDICAPPED)

9. PARKING REQUIRED FOR THE 133M FINISHED BASEMENT ADDITION:
FORMULA: 1 PARKING SPACE / 10.0 m² (10.0 sq ft)
REQUIRED: 459.5 SPACES

TOTAL PHASE I & II PERMITTED POSTED OCCUPANT LOAD = 520 PERSONS
TOTAL PHASE I & II REVISED PHASE: NEW POSTED OCCUPANT LOAD = 540 PERSONS

10. SETBACKS:

REQUIRED	PROPOSED
NORTH: 7.50M	21.00M
SOUTH: 15.00M	15.00M
EAST: 7.50M	32.54M
WEST: 15.00M	15.00M

11. BUILDING HEIGHT & NO. OF STOREYS:

A. NO. OF STOREYS:
ABOVE GRADE: TWO
BELOW GRADE: ONE
B. BUILDING HEIGHT: 29'-2", DOME: 43'-3", MINARET: 80'-0"



31 CURZON STREET, TORONTO, ONTARIO, M4M 3B3, CANADA
TEL: 416-463-3081 FAX: 416-463-8808
E-MAIL: zak@zghanim.com WEB: www.zghanim.com

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- ALL WORK SHALL MEET THE REQUIREMENTS OF THE LATEST GOVERNING BUILDING CODE, MUNICIPAL ORDINANCES AND ALL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT.
- THIS DRAWING IS NOT TRANSFERABLE AND SHALL NOT FORM A PART OF ANY AGREEMENTS WITHOUT THE ARCHITECT'S CONSENT IN WRITING.
- CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE SITE AND WITH ALL SUPPLIERS AND REPORT ANY DISCREPANCIES OR ERROR TO THE ARCHITECT BEFORE COMMENCING ANY WORK.
- DO NOT SCALE DRAWINGS.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT ARCHITECT FOR SITE REVIEW SCHEDULE.
- CONSTRUCTION SHALL BE EXECUTED AS PER DRAWINGS. NO ADDITIONS OR REVISIONS WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
- THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION WITHOUT "CONSTRUCTION SET" STAMPED, SEALED BY THE ARCHITECT.

No.	DATE	DESCRIPTION	BY
5	JUN, 04	BASEMENT ADDITION	B.S.
4	MAR, 04	BASEMENT ADDITION	M.E.
3	DEC, 03	FINAL SUBMISSION	M.E.
2	OCT, 03	BARRIER FREE RAMP @ SOUTH PART OF BUILDING	A.E.
1	SEP, 03	OCCUPANT LOAD DATA	A.E.
No.	DATE	DESCRIPTION	BY

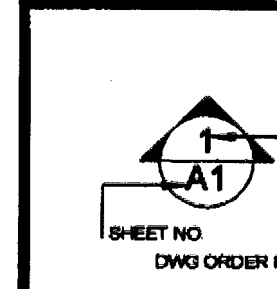
No.	DATE	DESCRIPTION	SIGNATURE
CLIENT APPROVAL			

CLIENT INFORMATION:

NAME: ISLAMIC SOCIETY OF MARKHAM

OWNER OF THE BUILDING INFORMATION:

NAME: ISLAMIC SOCIETY OF MARKHAM
ADDRESS: 2900 DENISON ST.,
UNIT # : MARKHAM
CITY: MARKHAM
PROVINCE: ON
POSTAL CODE: L3S 4J8
TEL: (905) 294-7886



DRAWING TITLE:

SITE PLAN

PROJECT:

ISLAMIC SOCIETY OF MARKHAM

☐ NEW CONSTRUCTION ☒ ADDITION ☒ RENOVATION

ADDRESS:

STREET: 2900 DENISON ST.
CITY: MARKHAM
PROVINCE: ON

DRAWN:

A.E.

CHECKED:

Z.G.

DATE:

18 MAY 2003

SCALE:

1/300

SHEET No.:

A 01

PROJECT No.:

186



NOTICE OF OCCUPANCY

IT IS DANGEROUS AND UNLAWFUL TO HAVE MORE PERSONS THAN AS INDICATED:

NONFIXED CHAIRS ONLY

XXX

CHAIRS WITH TABLES (DANCING)

XXX

CHAIRS WITH TABLES (DINING)

XXX

CHAIRS WITH TABLES (OTHER)

XXX

Standing Space

1087

(other uses)

Multi Use Room

To be posted for the

At

2900 Denison St. Markham, On. L3S 4J8

IN CONFORMANCE WITH THE FIRE
PROTECTION & PREVENTION ACT
1997, so, 1997 c4 as amended



101 TOWN CENTRE BOULEVARD
MARKHAM, ONTARIO
L3R 9W3

NOTICE OF OCCUPANCY

IT IS DANGEROUS AND UNLAWFUL TO HAVE MORE PERSONS THAN AS INDICATED:

NONFIXED CHAIRS ONLY

XXX

CHAIRS WITH TABLES (DANCING)

XXX

CHAIRS WITH TABLES (DINING)

XXX

CHAIRS WITH TABLES (OTHER)

XXX

Standing Space

198

(other uses)

To be posted for the

Ladies Prayer Room, second floor

At

2900 Denison St. Markham, On. L3S 4J8

IN CONFORMANCE WITH THE FIRE
PROTECTION & PREVENTION ACT
1997, so, 1997 c4 as amended



101 TOWN CENTRE BOULEVARD
MARKHAM, ONTARIO
L3R 9W3

NOTICE OF OCCUPANCY

IT IS DANGEROUS AND UNLAWFUL TO HAVE MORE PERSONS THAN AS INDICATED:

NONFIXED CHAIRS ONLY	XXX
CHAIRS WITH TABLES (DANCING)	XXX
CHAIRS WITH TABLES (DINING)	XXX
CHAIRS WITH TABLES (OTHER)	XXX
<u>Standing Space</u> (other uses)	397

To be posted for the Basement Prayer Room

At 2900 Denison St. Markham, On. L3S 4J8

IN CONFORMANCE WITH THE FIRE
PROTECTION & PREVENTION ACT
1997, so, 1997 c4 as amended



101 TOWN CENTRE BOULEVARD
MARKHAM, ONTARIO
L3R 9W3

NOTICE OF OCCUPANCY

IT IS DANGEROUS AND UNLAWFUL TO HAVE MORE PERSONS THAN AS INDICATED:

NONFIXED CHAIRS ONLY	XXX
CHAIRS WITH TABLES (DANCING)	XXX
CHAIRS WITH TABLES (DINING)	XXX
CHAIRS WITH TABLES (OTHER)	XXX
<i>Standing Space</i>	720
(other uses)	

To be posted for the Men's Prayer Room

At 2900 Denison St. Markham, On. L3S 4J8

IN CONFORMANCE WITH THE FIRE
PROTECTION & PREVENTION ACT
1997, so, 1997 c4 as amended



101 TOWN CENTRE BOULEVARD
MARKHAM, ONTARIO
L3R 9W3



Occupant Load Calculation

Name of Establishment: Islamic Society Floor / Room: Multi Purpose
 Address: 2900 Denison Street Km

Inspector: Kristy Jarrett
 Date: May 2nd 2011

Occupant Load
 Persons
☒ Based on Area ☐ Based on Exits
☐ Designed (Provide Exit Calculations)

Floor Area Calculation:

Provide summary of measurements from sketch of room, exclude stairs, dance floors and service spaces.

Note: Where floor area is used for additional purposes or occupancies, consideration must be given to the overall floor occupant load to ensure there are satisfactory exits.

29 Metres x 15 Metres = 435 Metres²

Use of Area Calculation:

Non-fixed seats	<u> </u>	÷	0.75 m ²	=	<u> </u>
Non-fixed seats and tables	<u> </u>	÷	0.95 m ²	=	<u> </u>
Standing space	<u>435</u>	÷	0.40 m ²	=	<u>1087</u>
Dining, cafeteria, and licenced	<u> </u>	÷	1.10 m ²	=	<u> </u>
Other	<u> </u>	÷	<u> </u>	=	<u> </u>

Exit Calculation:

Provide exit measurements, divide by the appropriate factors and provide total exit capacity based on the most restrictive number for each exit

EXIT	Door Width in mm	Factor	Number of Persons	Stair Width in mm	Factor	Number of Persons	Allowable Number of Persons
10.1	<u>914.4</u>	<u>÷ 9.2</u>	<u>= 99</u> (or)	<u> </u>	<u>÷</u>	<u>=</u>	
10.2	<u>914.4</u>	<u>÷ 9.2</u>	<u>= 99</u> (or)	<u> </u>	<u>÷</u>	<u>=</u>	
10.3	<u>914.4</u>	<u>÷ 9.2</u>	<u>= 99</u> (or)	<u> </u>	<u>÷</u>	<u>=</u>	
10.4	<u>914.4</u>	<u>÷ 9.2</u>	<u>= 99</u> (or)	<u> </u>	<u>÷</u>	<u>=</u>	
	<u>1828.8</u>	<u>÷ 9.2</u>	<u>= 198</u>				
	<u>1828.8</u>	<u>÷ 9.2</u>	<u>= 198</u>				
	<u>3657.6</u>	<u>÷ 9.2</u>	<u>= 397</u>				
TOTAL							<u>1189</u>

Exit Factors: 1828.8 ÷ 9.2 = 198
3657.6 ÷ 9.2 = 397
 3.1 mm / person For doorways, corridors and ramps with a slope not more than 1 in 8.
 3.0 mm / persons For stairs where the rise is not more than 180 mm and whose run is not less than 280 mm.
 3.2 mm / person For stairs or ramps other than those described above

Notes



Occupant Load Calculation

Name of Establishment: Islamic Society of Markham Floor / Room: Ladies Prayer Rm
 Address: 2900 Denison St.

Inspector: Kristy Jarett
 Date: May 4th 2011

Occupant Load
 Persons
☐ Based on Area ☒ Based on Exits
☐ Designed (Provide Exit Calculations)

For Area Calculation:

Provide summary of measurements from sketch of room, exclude stairs, dance floors and service spaces.

Note: Where floor area is used for additional purposes or occupancies, consideration must be given to the overall floor occupant load to ensure there are satisfactory exits.

$$15.8 \text{ Metres} \times 13.7 \text{ Metres} = 165.9 \text{ Metres}^2$$

$$3.2 \times 0.9144 = 2.92608 + 165.9 = 168.8$$

Use of Area Calculation:

Non-fixed seats	_____	÷	0.75 m ²	=	_____
Non-fixed seats and tables	_____	÷	0.95 m ²	=	_____
Standing space	<u>168.8</u>	÷	0.40 m ²	=	<u>422 ppl</u>
Dining, cafeteria, and licensed	_____	÷	1.10 m ²	=	_____
Other	_____	÷	_____	=	_____

Exit Calculation:

Provide exit measurements, divide by the appropriate factors and provide total exit capacity based on the most restrictive number for each exit

EXIT	Door Width in mm	Factor	Number of Persons	Stair Width in mm	Factor	Number of Persons	Allowable Number of Persons
lo. 1	<u>0.9144</u>	<u>0.2</u>	<u>99</u>	(or)	<u>+</u>	<u>=</u>	
lo. 2	<u>0.9144</u>	<u>0.2</u>	<u>99</u>	(or)	<u>+</u>	<u>=</u>	
lo. 3	<u>+</u>	<u>=</u>	<u>(or)</u>	<u>+</u>	<u>=</u>		
lo. 4	<u>+</u>	<u>=</u>	<u>(or)</u>	<u>+</u>	<u>=</u>		
TOTAL							<u>198 ppl</u>

Exit Factors:

3.1 mm / person
 3.0 mm / persons
 3.2 mm / person

For doorways, corridors and ramps with a slope not more than 1 in 8.
 For stairs where the rise is not more than 180 mm and whose run is not less than 280 mm.
 For stairs or ramps other than those described above

Notes

Occupant Load is based on
Exits 198 ppl



Occupant Load Calculation

Name of Establishment

Islamic Society of
Markham
2900 Denison

Floor / Room

Basement
Prayer Rm

Inspector

Kristy Jarrett

Date

May 2nd. 2011

Occupant Load

Persons

☐ Based on Area
☐ Designed (Provide Exit Calculations)

☒ Based on Exits

For Area Calculation:

Provide summary of measurements from sketch of room, exclude stairs, dance floors and service spaces.

Note: Where floor area is used for additional purposes or occupancies, consideration must be given to the overall floor occupant load to ensure there are satisfactory exits.

15.5 Metres x 16 Metres = 248 Metres²

Use of Area Calculation:

Non-fixed seats

_____ ÷ 0.75 m² = _____

Non-fixed seats and tables

_____ ÷ 0.95 m² = _____

Standing space

248 ÷ 0.40 m² = 620

Dining, cafeteria, and licensed

_____ ÷ 1.10 m² = _____

Other

_____ ÷ _____ = _____

Exit Calculation:

1828.8 mm

Provide exit measurements, divide by the appropriate factors and provide total exit capacity based on the most restrictive number for each exit

EXIT	Door Width in mm	Factor	Number of Persons	Stair Width in mm	Factor	Number of Persons	Allowable Number of Persons
lo. 1	1828.8	9-2	= 198.7 (or)	+	=		198.7
lo. 2	1828.8	9-2	= 198.7 (or)	+	=		198.7
lo. 3	+	=	(or)	+	=		
lo. 4	+	=	(or)	+	=		
TOTAL							397 ppl

Exit Factors:

3.1 mm / person

For doorways, corridors and ramps with a slope not more than 1 in 8.

3.0 mm / persons

For stairs where the rise is not more than 180 mm and whose run is not less than 280 mm.

3.2 mm / person

For stairs or ramps other than those described above

Notes

0% set for Basement Prayer
Rm 397 ppl



Occupant Load Calculation

Name of Establishment

Islamic Society

Address of Markham

2900 Denison Ave

Floor / Room

Men's Prayer Rm

Occupant Load

Persons

☒ Based on Area☐ Based on Exits☐ Designed (Provide Exit Calculations)

For Area Calculation:

Provide summary of measurements from sketch of room, exclude stairs, dance floors and service spaces.

Note: Where floor area is used for additional purposes or occupancies, consideration must be given to the overall floor occupant load to ensure there are satisfactory exits.

18 Metres x 16 Metres = 288 Metres²

Use of Area Calculation:

Non-fixed seats

+ 0.75 m² =

Non-fixed seats and tables

+ 0.95 m² =

Standing space

288 + 0.40 m² =

Dining, cafeteria, and licenced

+ 1.10 m² =

Other

+ =

720 ppl

Exit Calculation:

Provide exit measurements, divide by the appropriate factors and provide total exit capacity based on the most restrictive number for each exit

EXIT	Door Width in mm	Factor	Number of Persons	Stair Width in mm	Factor	Number of Persons	Allowable Number of Persons
lo. 1	1828.8	9.2	= 198	(or)	=		
lo. 2	1828.8	9.2	= 198	(or)	=		
lo. 3	1828.8	9.2	= 198	(or)	=		
lo. 4	1828.8	9.2	= 198	(or)	=		
36.57.6 ÷ 9.2 = 397							TOTAL 1189

Exit Factors:

3.1 mm / person

For doorways, corridors and ramps with a slope not more than 1 in 8.

3.0 mm / persons

For stairs where the rise is not more than 180 mm and whose run is not less than 280 mm.

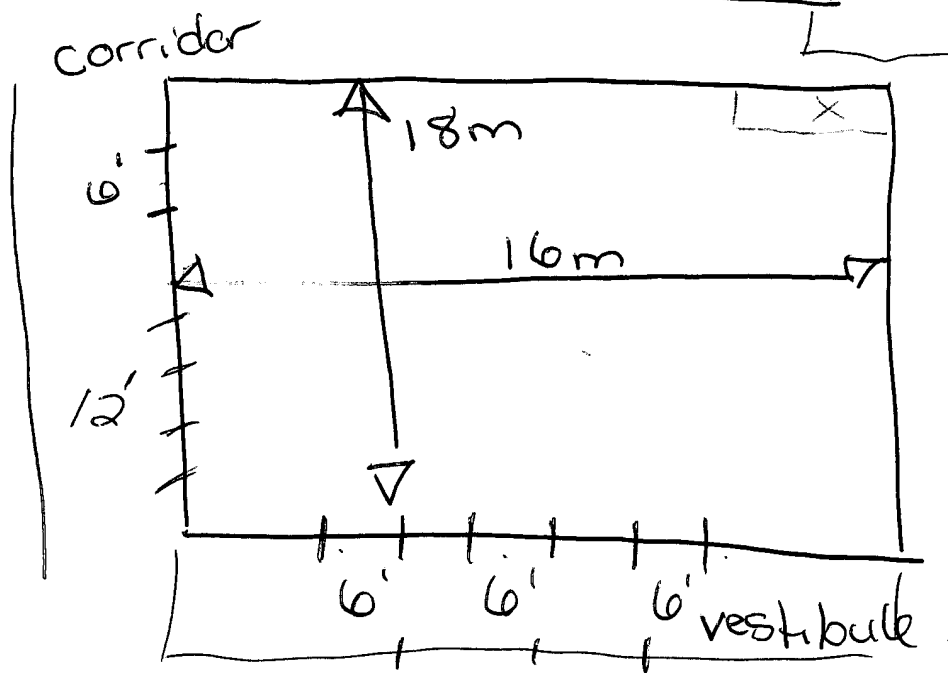
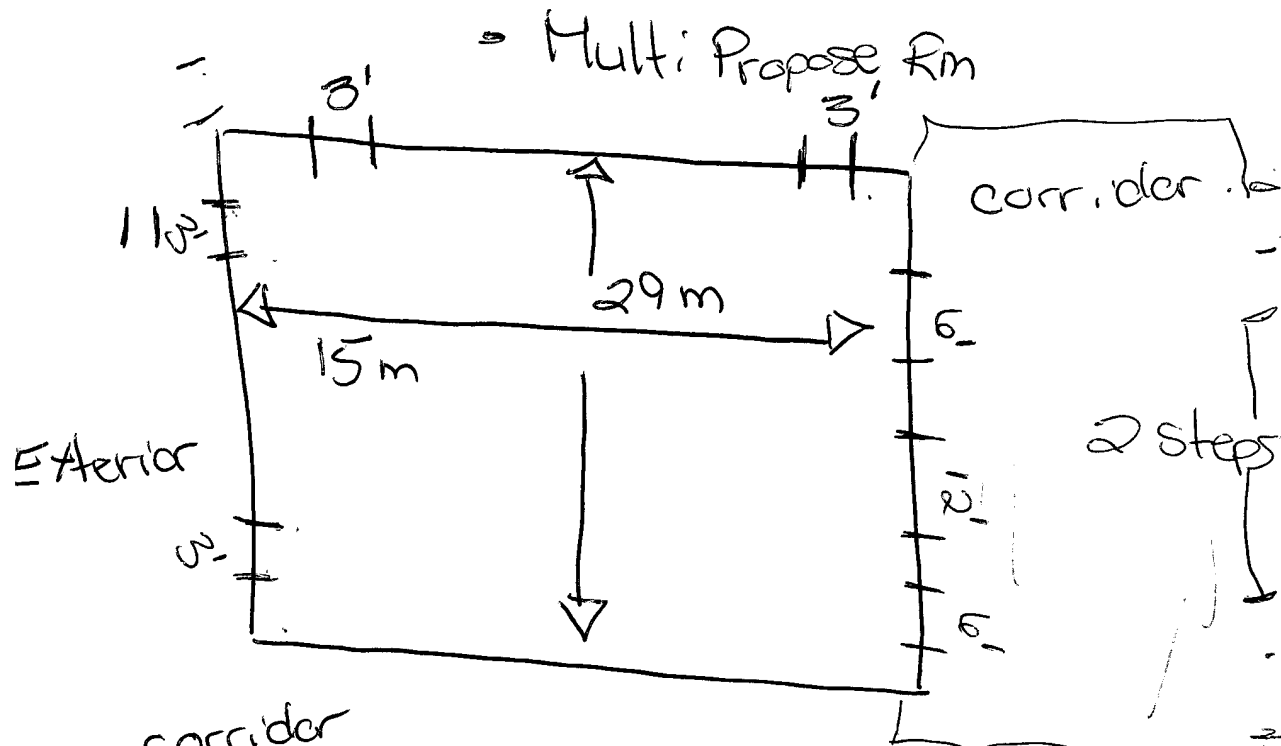
3.2 mm / person

For stairs or ramps other than those described above

Notes

O/C Based on Area 720 ppl

Multi Purpose Rm



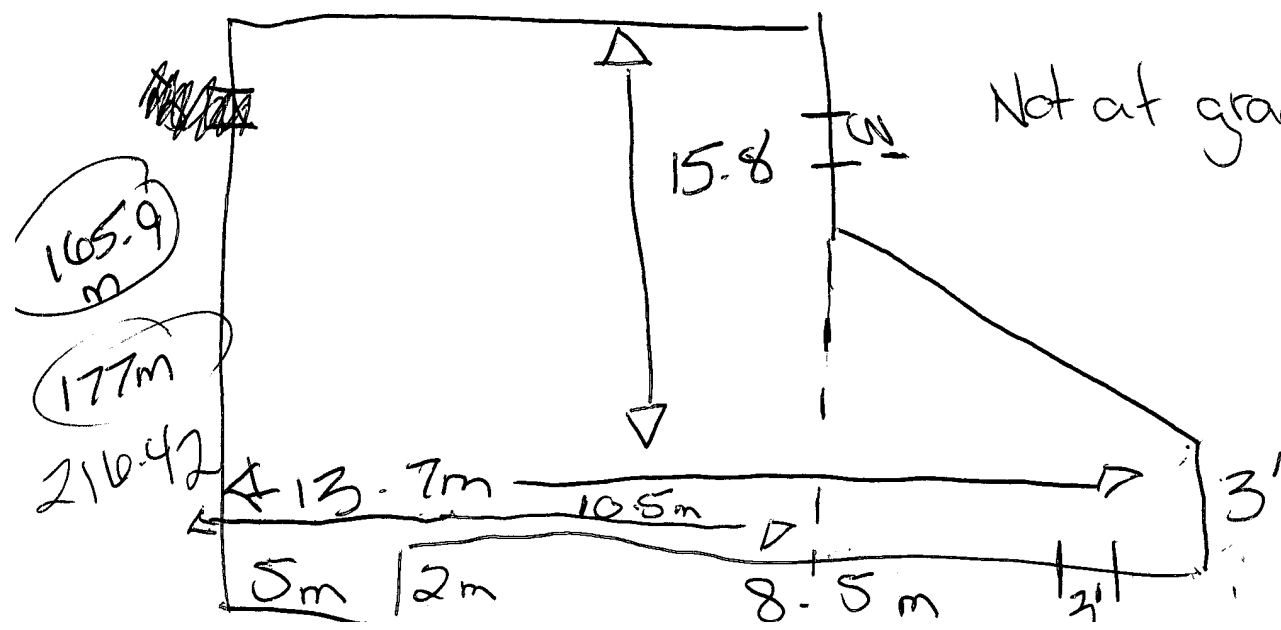
Mens Prayer Rm

2 steps

Main level

Second Floor

Ladies Prayer Rm



Not at grade

165.9 m

177m

216.42

SITE ANALYSIS	
LOT AREA	7,636.00 m ²
BUILDING AREA	1,004.22 ' (13.15 %)
GROSS FL. AREA	
MAIN FLOOR	1,004.22 m ² .
BASEMENT	1,004.22 ' .
BALCONY	255.32 ' .
	<u>2,263.76 m².</u>
PARKING AREA	= 4,516.88 (59.15 %)
LANDSCAPING AREA	= 2,114.90 (27.64 %)
No. OF FIXED SEATS	= 766
No. OF PARKING PER SEATS	= 766/142 = 5.39
PARKING REQUIRED	2,263.76 / 17.50 m ² = 129.31
PARKING PROVIDED	= # 142
LOT # 69 TO # 75 AND # 80 TO # 85	
PARCEL 12-2 SECTION MA-4	
PART 1, PLAN 65R - 4300	

No. OF FIXED SEATS = 766
No. OF PARKING PER SEATS = $766/142 = 5.39$
PARKING REQUIRED $2,263.76 / 17.50 \text{ m}^2 = 129.36$
PARKING PROVIDED = # 142

A cross-sectional diagram of a retaining wall assembly. The wall consists of several layers: a top concrete face, a central core of concrete-filled hollow blocks, and a base layer of concrete slabs. A horizontal dimension line at the bottom indicates a width of 0-60 inches. A vertical dimension line on the right indicates a height of 8'-0". Labels include:

- RETAINING WALL TO MATCH EXIST. RETAINMENT**: Points to the top concrete face.
- CON. REINFORCING AS SHOWN IN S.D.S. BY CONC. CONTRACTOR**: Points to the internal reinforcement within the wall core.
- FILL GRADE**: Points to the ground level behind the wall.
- CON. SLAB CONC. BLOCK FOUNDATION WALL**: Points to the base slab of the wall.
- 80 Mpa CONCRETE FOOTINGS**: Points to the foundation below the base slab.
- 0-60"**: Horizontal dimension at the base.
- 8'-0"**: Vertical dimension on the right side.

[illegible][illegible]

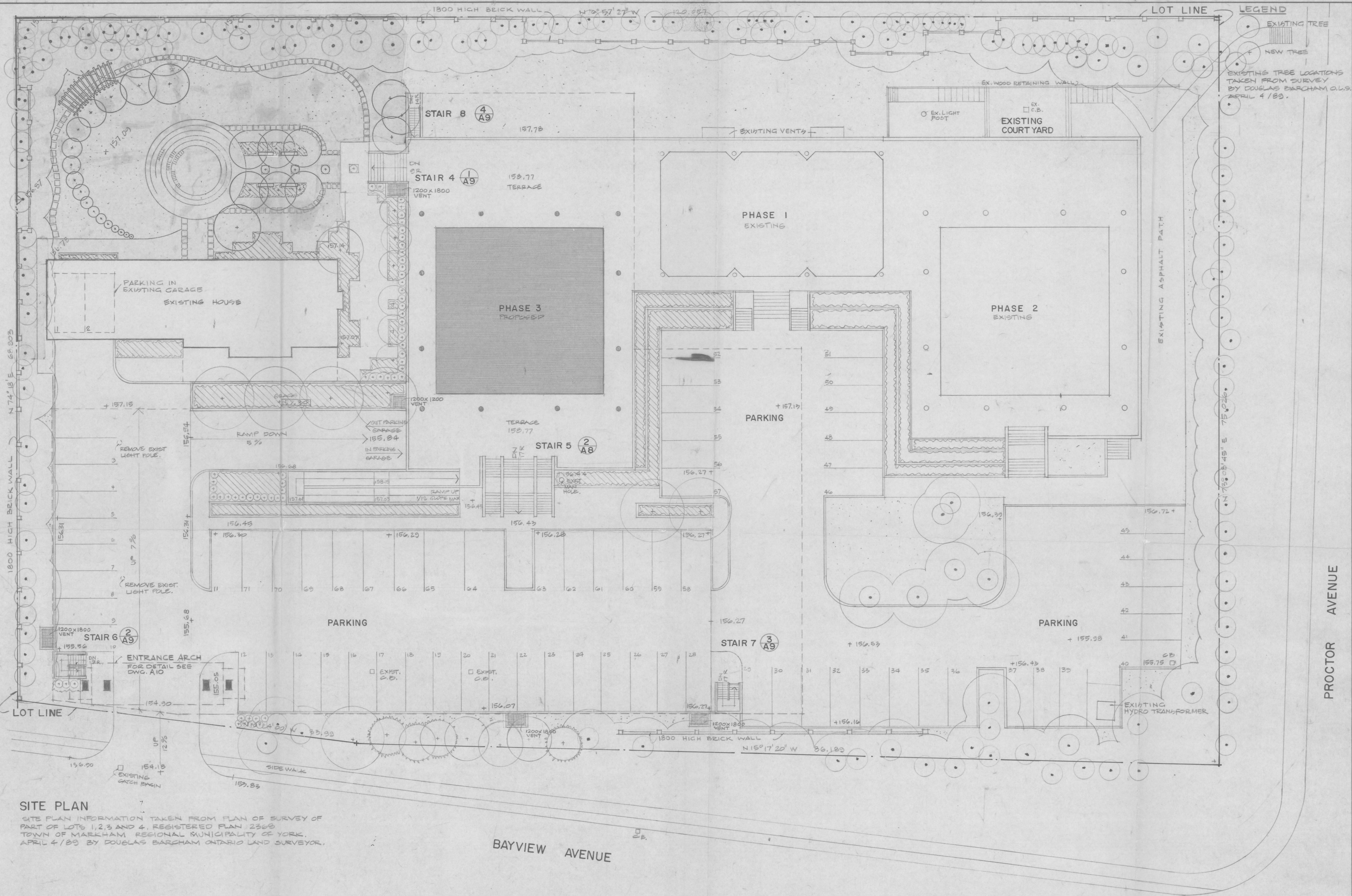
GENERAL NOTES	
DRAWINGS ARE TO BE CONSIDERED PRELIMINARY UNTIL APPROVED BY THE BUILDING INSPECTIONS AND A BUILDING PERMIT HAS BEEN ISSUED.	
ALL WORK TO BE DONE ACCORDING TO ONTARIO BUILDING CODE REGULATIONS.	
CHECK ALL DIMENSIONS AND ELEVATIONS ON THE FIELD AND REPORT DISCREPANCIES TO THE ARCHITECT BEFORE COMMENCING WORK.	
ADJUST DIMENSIONS AND ELEVATIONS TO SUIT EXISTING CONDITIONS AS APPROVED BY THE ARCHITECT	
ONLY DRAWINGS MARKED "FOR CONSTRUCTION PURPOSES" AND BEARING THE LATEST REVISION DATE ARE TO LIST FOR CONSTRUCTION.	
DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED AT THE COMPLETION OF THE WORK.	
DUPLICATION OF DRAWINGS IN FULL OR IN PART WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS STRICTLY PROHIBITED.	

AGINCOURT 7th-DAY
ADVENTIST CHURCH.
OWNER:
ONTARIO CONFERENCE
7th-DAY ADVENTIST CHURCH
BOX 520, 1110 KING ST. E.
OSHAWA, ONTARIO, L1H 7M1

PLANNING AND DEVELOPMENT
MAY 23 1991
RECEIVED

14-S

Issued



SITE PLAN

SITE PLAN INFORMATION TAKEN FROM PLAN OF SURVEY OF PART OF LOTS 1, 2, 3 AND 4, REGISTERED PLAN 2366, TOWN OF MARKHAM, REGIONAL MUNICIPALITY OF YORK, APRIL 4/89 BY DOUGLAS BARCHAM ONTARIO LAND SURVEYOR.

BAYVIEW AVENUE

PROCTOR AVENUE

LEGEND

EXISTING TREE
NEW TREE
EXISTING TREE LOCATIONS TAKEN FROM SURVEY BY DOUGLAS BARCHAM O.L.S. APRIL 4/89.

All drawings and related documents are the property of the Architects and must be returned on request. Reproduction of drawings and related documents in part or whole is forbidden without the Architects' written permission.
Check all dimensions on site and report immediately any discrepancies to the Architects before proceeding with the work.

Notes

PARKING	NO. OF SPACES
EXISTING RESIDENCE	2
SURFACE PARKING	69
UNDERGROUND PARKING	85
TOTAL	= 156

No.	Revisions	Date	By
-----	-----------	------	----

This drawing not valid for construction unless signed by the Architect.

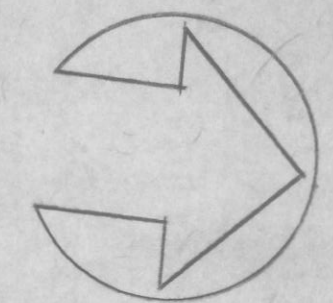
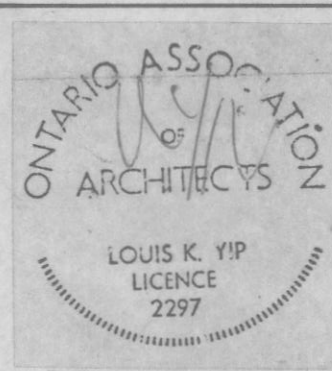
Architect _____ Date _____

Status

FOR SITE PLAN APPROVAL

A	A'	Detail No.
B	B	Sheet No. where detailed

Consultants



Yip Ridsdale Architects Inc.

179 John Street, Suite 502, Toronto, Ontario M5T 1X4
Tel: (416) 593-0229 Fax: (416) 593-0230

Project
ADDITION TO BUDDHIST TEMPLE

7254 BAYVIEW AVENUE
MARKHAM, ONTARIO

Title	PLANNING
SITE PLAN	AUG 11 1989 RECEIVED

Drawn	Am	Project	Sheet
Checked		8810	A1
Scale	1:200		
Date	AUG. 8. 89		

PLANNING
AUG 11 1989
RECEIVED





INTER OFFICE MEMO

TO: David Miller, Manager, East District
Stacia Muradali, Planning Comments
Syed Sultan, Project Engineer
Sally Campbell, Design Group
Janelle Baldwin, Plans Examiner
George Macris, Fire Prevention Officer
Colin Campbell, Councillor, Ward 5
Greg Lees, Provincial Offences Officer

CC: Ian Robertson, Tree Preservation Coordinator

FROM: Stephen Corr, Secretary-Treasurer, Committee of Adjustment

DATE: July 17, 2012

RE: A/145/12
KRASHNIK INVESTMENTS LTD.
CONC 8 PT LOT 19 65R7230 PTS 1&2
9833 48 Hwy Markham

Attached for your review is a copy of the above-noted variance application, which is scheduled to be heard by the Committee of Adjustment on August 22, 2012.

The owner is requesting relief from the requirements of By-law 88-76, as amended, to permit an existing private club to conduct temporary prayer and worship activities, whereas the By-law restricts private club activities to community, social and cultural activities. It is proposed that the prayer and worship activities are temporary while a fully functional place of worship is planned and constructed.

Any comments you may wish to submit are required ***no later than Monday August 13, 2012 with the exception of zoning comments, which are required no later than Monday August 06, 2012. Comments and/or conditions received after this date will not be considered by the Committee.***

Should you have any questions or require further information, please contact me at extension 4721.

Stephen Corr, B.E.S.
Secretary-Treasurer
Committee of Adjustment

APPLICATION FOR MINOR VARIANCE
OR FOR PERMISSIONApplication No.: A/145/12

Personal information collected in response to this planning notice will be used to assist Town staff and Council to process this application and will be made public. The undersigned hereby applies to the Committee of Adjustment for the Town of Markham under Section 45 of the Planning Act, R.S.O. 1990 (as revised), for relief, as described in this form.

By-law No.: 88-76

, as amended by By-law No.:

206-78
167-82
150-97
2005-277

PROPERTY INFORMATION					
Property Address	Street No.: <u>9833</u>	Street Name: <u>HIGHWAY 48</u>	Unit Num.:		
Registered Plan	<u>N/A</u>				
Block and/or Lot	<u>N/A</u>				
Legal Description	<u>SEE BELOW</u>				
Concession/PT LOT	<u>PART LOT 19, CONCESSION 8, TOWN OF MARKHAM</u>				
Tax roll number	<u>36030233 66000 0000 08</u>				
Folder/Bill/Property RSN (Office use only)	Folder RSN	Property RSN	Bill RSN	<u>250872</u> <u>250873</u>	
OWNER/APPLICANT INFORMATION					
Select One:	<input type="checkbox"/> Person(s)		<input checked="" type="checkbox"/> Company		
Registered Land Owner	Surname: <u>N/A</u>		First Name: <u>N/A</u>		
Company Name	(Company ONLY) <u>KRASHNIK INVESTMENTS LTD.</u>		Company Officer/Position: <u>DORIS ROSENBERG, CO-OWNER</u>		
Application Contact	Surname: <u>ROSENBERG</u>		First Name: <u>DORIS</u>		
Address	Street No.: <u>26</u>	Street Name: <u>KINGS CROSS AVE.</u>	Unit Num.:		
City	<u>RICHMOND HILL</u>	Province: <u>ONT.</u>	Postal Code		
Telephone	<u>(905) 737-2219</u>	Fax () <u>N/A</u>	E-Mail	<u>N/A</u>	
AGENT INFORMATION					
Firm	<u>QX4 INVESTMENTS LIMITED</u>				
Application Contact	Surname: <u>QUAN</u>		First Name: <u>BEN</u>	Position: <u>PLANNER</u>	
Address	Street No.: <u>17</u>	Street Name: <u>BAUER CRES.</u>	Unit Num.: <u>N/A</u>		
City	<u>MARKHAM</u>	Province: <u>ONT.</u>	Postal Code	<u>L3R-4H3</u>	
Telephone	<u>(416) 564-0351</u>	Fax <u>(905) 479-4517</u>	E-Mail	<u>ben.quan@rdgers.com</u>	
MORTGAGEES, HOLDERS OF CHARGES OR OTHER ENCUMBRANCES					
Institution / Company	<u>NIL</u>				
Contact / Reference	Surname:		First Name:	Position:	
Address	Street No.:	Street Name:	Unit No.:		
City		Province:	Postal Code		
Telephone	()	Fax ()	Email		

Application No.: A/145/12

1.

Describe the nature and the extent of relief applied for (please indicate what the bylaw requirement is and what you are proposing):

PERMISSION FOR AN EXISTING "PRIVATE CLUB" TO CONDUCT TEMPORARY "PRAYER & WORSHIP" ACTIVITIES, WHEREAS THE BY-LAW RESTRICTS THE PRIVATE CLUB ACTIVITIES TO COMMUNITY, SOCIAL AND CULTURAL ACTIVITIES.

(THE PRAYER & WORSHIP ACTIVITIES ARE "TEMPORARY" WHILE A FULLY FUNCTIONAL PLACE OF WORSHIP IS PLANNED AND CONSTRUCTED.)

2.

Why is it not possible to comply with the provisions of the by-law?

THE BY-LAW CONSIDERS PRAYER & WORSHIP ACTIVITIES AS THE PRACTICE OF RELIGIOUS RITES ONLY PERMITTED IN A "PLACE OF WORSHIP".

 3. Provide the date of the acquisition of the property: 1970's

 4. Provide the date of the construction of all buildings/structures 1980's

 5. What is the existing use of the property? MIXED INDUSTRIAL / COMMERCIAL & PRIVATE CLUB WITH PRAYER & WORSHIP FACILITY

 6. Provide the length of time the existing uses of the property have continued: +/- 30 yrs.
(WITH TENANT CHANGE FROM TIME TO TIME)

 7. Provide the existing uses of the abutting properties COMMERCIAL

Application No.: A/145/12

8. Dimensions of the property affected:

Property Dimensions	Metric	Imperial
Frontage:	150.49 m	493.73 sqft
Depth:	377.53 m	1,238.62 sqft
Area:	55,995.00 m ²	602,725.16 sqft

9. Describe the particulars (in metric) of all buildings and/or structures on the existing and the proposed for the subject property:

Building/Structure Particulars	Existing	Proposed
Accessory Structure:	N/A	
Ground Floor Area (including garage, if applicable):		
Ground Floor Area (excluding garage, if applicable):		
Height:		
Width:		
Length:		
Number of Storeys:		
Please identify side yard setback by minimum distance of the lot lines and which geographical direction (i.e., east, west, etc.)	Existing	Proposed
Front yard Setback:	36.90 m	
Rear yard Setback:	9.45 m	
Side yard Setback:	28.97 m (South)	
Side yard Setback:	76.20 m (North)	

10. Check the box where Municipal Services are applicable and available:

Source of Water/Sewer:	YES	NO
Municipal Water	x	
Sanitary Sewers	x	
Storm Sewers	x	
Well		x

11. What is the Parent Zoning By-Law number? 38-76

NOTE: DIMENSIONS FROM
OWNER'S ARCHITECT
DAVID JONSTON



APPLICATION FOR MINOR VARIANCE
OR FOR PERMISSION

Application No.: A/MS/12

12. What is the By-Law Zoning Designation? MI
13. What is the Official Plan Designation? MAJOR COMMERCIAL AREA
14. Has the present owner(s) ever applied for a minor variance or permission regarding the subject property?

☒ Yes ☐ No

If yes, briefly describe and include file numbers and the dates of filing:

FILE NO. A/141/12 - PERMISSION FOR
RETAIL USES

15. Is the subject property part of a current application for consent under section 53 of the Planning Act, R.S.O. 1990 (as revised)?

☐ Yes ☒ No



APPLICATION FOR MINOR VARIANCE
OR FOR PERMISSION

Application No.: A/145/12

AUTHORIZATION OF OWNER(S)

I/We, DORIS ROSENBERG, KAASNIK INVESTMENTS LTD. the undersigned,
hereby authorize BEN QUAN, QX4 INVESTMENTS LIMITED
(print full name, including company)

to submit the enclosed application to the Committee of Adjustment of the Corporation of the Town of Markham, and to appear on my/our behalf at any hearing(s) of the application, and further, to provide any information or materials required by the Committee relevant to the application.

Signature(s): Doris Rosenberg

At the: TOWN OF RICHMOND HILL
(town, city, etc.) (Markham, Toronto, etc.)

this 4th day of JULY, 2012
(Day) (Month) (Year)

DECLARATION

I/We BEN QUAN
(name)
of the CITY OF MARKHAM
(town, city, etc.) (Markham, Toronto, etc.)
in the REGION OF YORK
(Region, County, etc.) (York, Durham, etc.)

solemnly declare that all the statements contained in this application are true and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

B. Quan
(signature of owner(s) or authorized agent)

Declared before me at the CITY OF MARKHAM this 17/07/12
(Town or City) (Day) (Month) (Year)

Stephen Edward Corr
A Commissioner, etc.

Stephen Edward Corr, a Commissioner, etc.,
Province of Ontario, for
The Corporation of the Town of Markham.
Expires May 18, 2014.



TOWN OF MARKHAM
ROMAN CENTRE
101 TOWN CENTRE BOULEVARD
MARKHAM, ONTARIO L3R 9W3
TAX INQUIRIES: 905-475-4864
FAX: 905-415-7544

TAX BILL

Interim 2012

Billing Date: 2012-01-01
Customer No: W78FFOJB

KRASHNIK INVESTMENTS LIMITED
26 KING'S CROSS AVE
RICHMOND HILL ON L4B 2T1

292/5
T201(A)

Tax Roll #:
Location:
Legal Dscr:

36 03 0 233 66000 00000 08
9829 HIGHWAY 48
CON 8 PT LT19 RS65R7230 PTS 1 & 2

Prior Year Tax Class	Assessment	Prior Year Tax Rate (%)	Prior Year Annualized Tax Levy
CT	1,906,683	2.005443	38,237.44
CU	1,912,190	1.403815	26,843.61
IT	1,840,225	2.308048	42,473.28
ST	1,388,070	2.005443	27,836.95
SU	1,392,083	1.403815	19,542.27
Totals	8,439,251		154,933.55

Prior Year Annualized Tax Levy

154,933.55

Prior Year Annualized Taxes

\$154,933.55

Account Summary (as of Jan 01, 2012)
Future Due 77,466.00
Account Balance **\$77,466.00**

Summary
Interim Levy (50%) \$77,466.00

OVERDUE TAXES, IF APPLICABLE, ARE INCLUDED IN YOUR FIRST INSTALMENT. Late payment charges are applied to overdue taxes at a rate of 1.25% on the first day of each month until paid

The future due amount indicated in your Account Summary also includes any future instalment(s) from previous billings.

For information regarding one of our convenient Preauthorized Payment Plans, please refer to the application form enclosed with your bill.

Total Amount Due \$77,466.00

Due Date	Amount
Feb 6, 2012	25,822.00
Mar 5, 2012	25,822.00
Apr 5, 2012	25,822.00



Project No. 10017/05

Date: Jul 03/12

9833 Markham Road, Markham, Ontario Parking Calculations for Tenants

Subject:

Existing Main Building	5,566 m ²
Mezzanine – Long & McQuade	107 m ²
Total Building Area	5,673 m²

Parking Calculations

Per Tenant Use - Tenant *Net Floor Areas*
expressed as 95% of *Gross Floor Area*
for purpose of Parking By-Law – which
is based upon *Net Floor Area*

Tenant Area – Dance Studio - 572 m²

Use – Commercial Fitness Centre	
1 car per 30 m ² <i>Net Floor Area</i>	
572 x 95% =	543 m ²
Parking Required	18 cars

Tenant Area - Long & McQuade – 1,418 m²

First Floor Area	1,311	
Mezzanine	107	
Total Floor Area	1,418 m ²	
Use – Retail		
1 car per 30 m ² <i>Net Floor Area</i>		
1,418 x 95% =	1,347 m ²	
Parking Required		45 cars

1887.63

Tenant Areas - Industrial Uses - 2,300 m²

First Floor Areas ~~2,300~~ 1887.63

Use - Industrial

1 car per 40 m² Net Floor Area

1887.63 ~~2,300~~ x 95% =

Parking Required

1793.25

~~2,185~~ m²

45
55 cars

Tenant Areas - Retail - 1,331 m²

First Floor Area 1,331

Use - Retail

1 car per 30 m² Net Floor Area

1,331 x 95% =

1,264 m²

Parking Required

42 cars

(PROPOSED UNDER FILE A/141/12)

Building Area - Transformer Vault - 49 m²

First Floor Area 49

Use - Equipment

Parking Required

0 cars

Total Parking Requirement

Parking Provided

212 ~~160~~ cars
222 + ~~182~~ cars

Yours truly, David Johnston B.Arch., MRAIC, O.A.A.

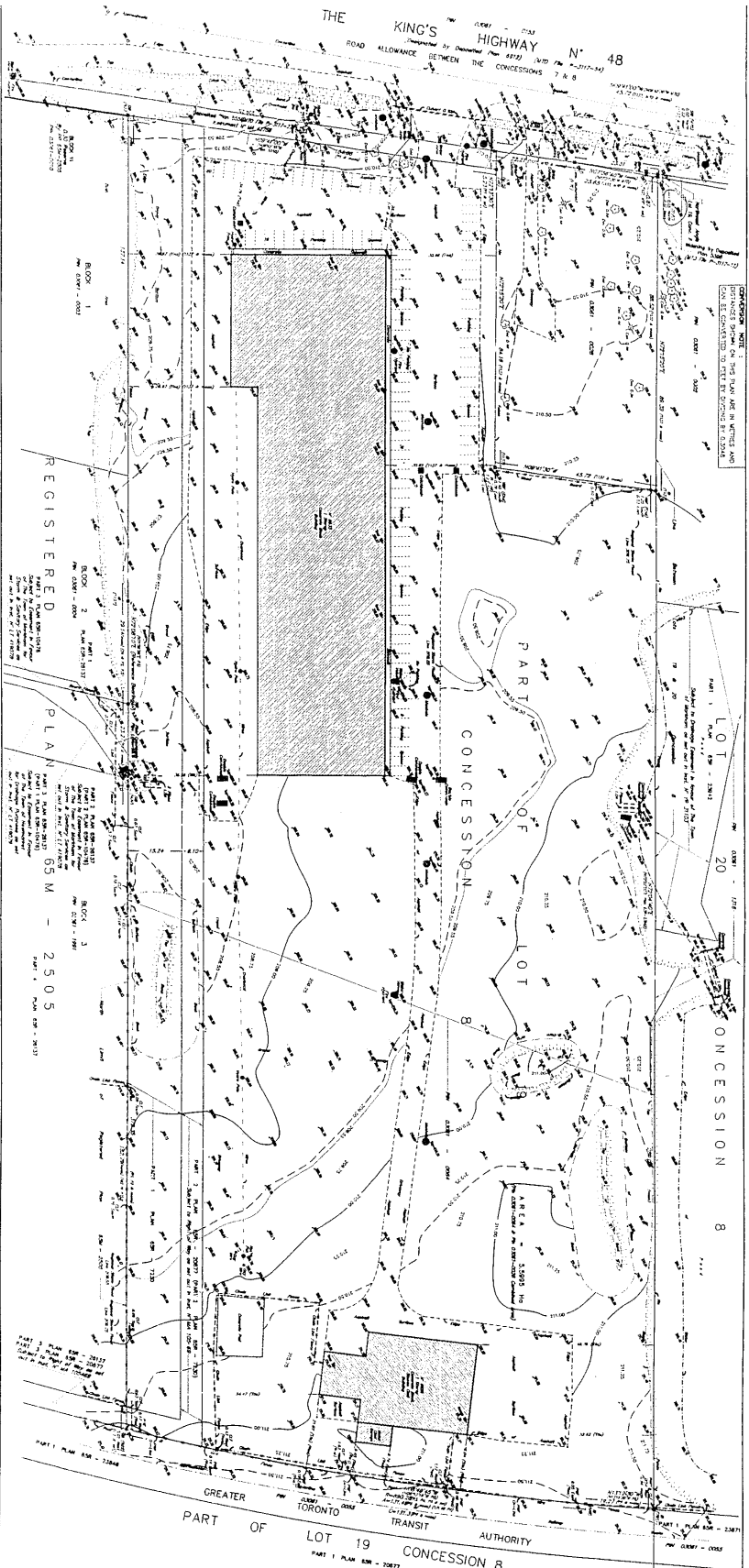
EXISTING "PRIVATE CLUB"
WITH PROPOSED

"PRAYER & WORSHIP AREA": Gross Floor Area = 412.37 m²
Net Floor Area = 370.84 m²
Worship Area Capacity = 185.11 m²

No. of Pages: 2

PARKING REQUIRED: $(185.11 \div 0.75) = 62 \text{ cars}$
(@ PLACE OF WORSHIP RATE) 4

July 17/12
RA



TOPOGRAPHICAL PLAN OF SURVEY
 PART OF LOT 19
 CONCESSION 8
 TOWN OF MARKHAM
 (SENIOR MUNICIPALITY OF YORK)
 SCALE 1 : 500
 2004

NOTES
 1. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
 2. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
 3. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
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 7. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
 8. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
 9. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.
 10. The survey was conducted in accordance with the provisions of the Survey Act, R.S.O. 1990, c. S.5, and the Regulations made thereunder.

ELEVATION DATA
 The elevations shown on this plan are based on the datum of 1985, as determined by the Survey of Canada. The elevations are given in meters above sea level.

SURVEYOR'S CERTIFICATE
 I, the undersigned, being a duly qualified and licensed Surveyor, do hereby certify that the foregoing is a true and correct copy of the original plan of survey, as the same appears in my office, and that the same has been duly filed for record in the office of the Registrar of Deeds.

R. G. JACOBSON LIMITED
 1534 KENNEDY
 MARKHAM, ONTARIO L3R 9W7
 TEL: (905) 477-1111
 FAX: (905) 477-1112

[illegible]

FUTURE DEVELOPMENT

RECEIVED FROM DAVID JOHNSON, REALTIC
July 13, 2012

7/17/2012 4:58:13 PM U:\12scriv\2014 - 9833 Markham Rd - Minor Variance\00 Revit & AutoCAD\10017 - Site - MINOR VARIANCE.rvt

MOUNT JOY SHOPPING CENTRE

9833 MARKHAM ROAD, MARKHAM, ON.

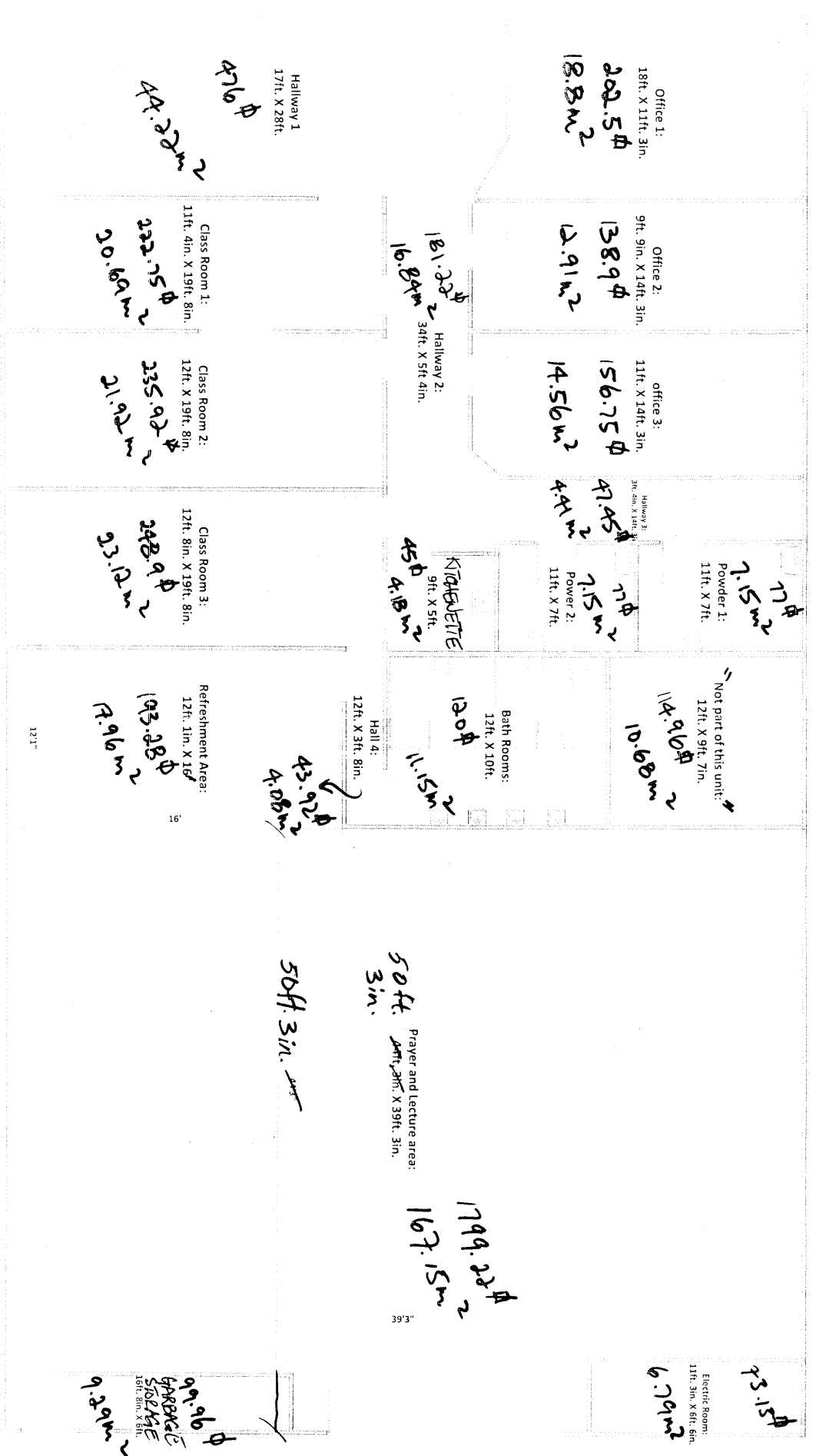
Description

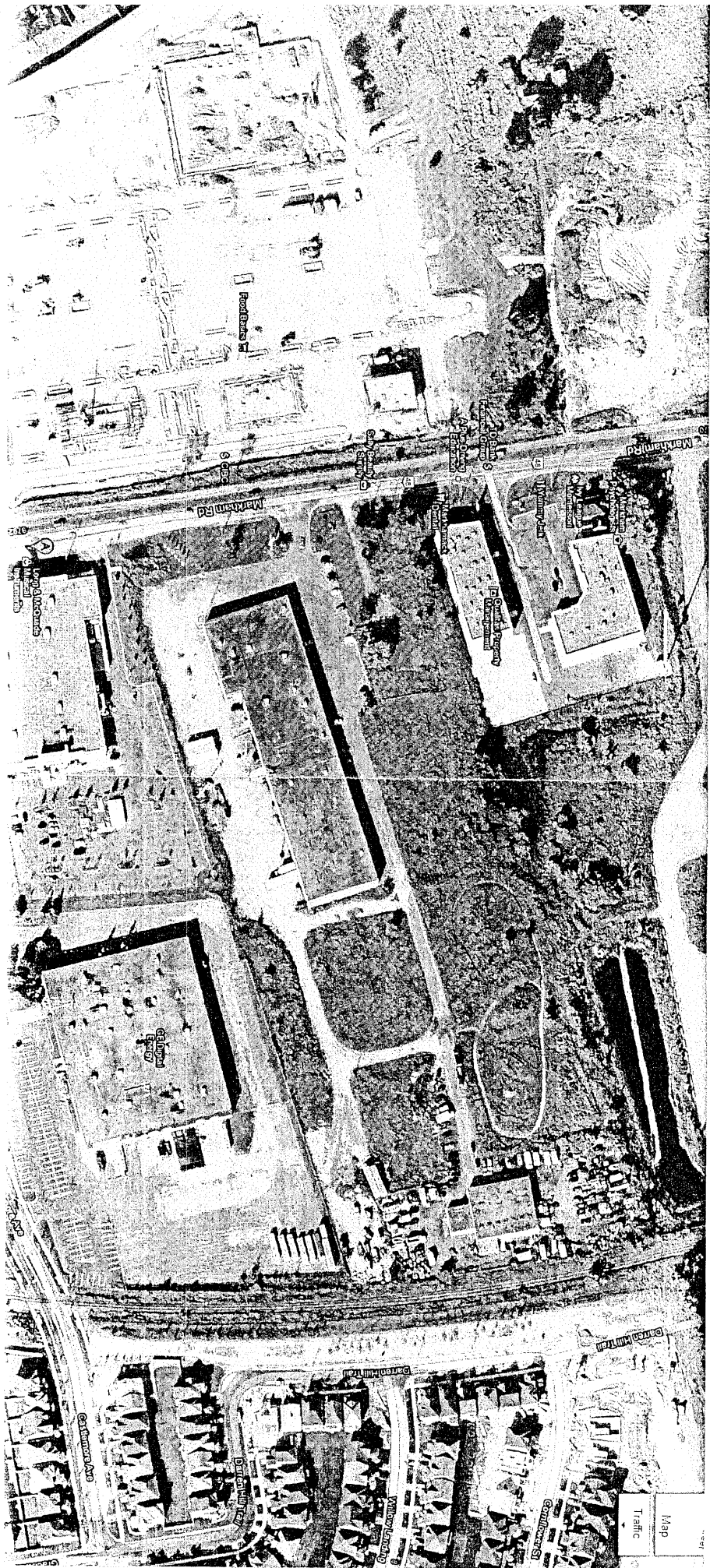
Date : By :

Address: 9833 Highway 48, Unit #9
 Gross Floor Area of DARUL IMAN = 412.37 m²
 Net Floor Area of DARUL IMAN = 370.84 m²

July 17/12

115.4"





Appendix B

Detailed Parking Analysis

Summary

Summary Table															
Place of Worship	Parking Supply VS. By-law Requirement				Parking Supply VS. Peak Demand				By-law Requirement VS. Peak Demand				Observed Parking Rates		
	<i>Parking Supply</i>	By-law Req.	<i>Parking Supply</i> - Bylaw Req.	Percent (%) Difference	<i>Parking Supply</i>	Peak Parking Demand	<i>Parking Supply</i> - Peak Demand	Percent (%) Difference	<i>By-law Req.</i>	Peak Parking Demand	<i>By-law Req.</i> - Pk Demand	Percent (%) Difference	Based on fixed seating capacity	Based on floor area	Based on non-fixed seating capacity
St. Justin Martyr Church	166	235	(69)	(42%)	166	289	(123)	(74%)	235	289	(54)	(23%)	1 space / 3.0 persons	1 space / 7.3 square metres	n/a
Temple Har Zion	131	162	(31)	(24%)	131	72	59	45%	162	72	90	56%	1 space / 4.9 persons	1 space / 20.2 square metres	n/a
Islamic Society of Markham	135	380	(245)	(181%)	135	123	12	9%	380	123	257	68%	n/a	1 space / 9.3 square metres	1 space / 12.4 persons
Apple Creek Seventh-Day	137	252	(115)	(84%)	137	236	(99)	(72%)	252	236	16	6%	1 space / 3.2 persons	1 space / 9.6 square metres	n/a
Buddhist Cham Shan Temple	154	75	79	51%	154	154	0	0%	75	154	(79)	(105%)	1 space / 1.9 persons	n/a	n/a
Masjid Darul Iman	72	124	(52)	(72%)	72	85	(13)	(18%)	124	85	39	31%	n/a	1 space / 4.4 square metres	1 space / 5.8 persons

Notes: Negative numbers are shown in brackets and in red font: (##)

Note(s); with respect to the above Summary Table.			
St. Justin Martyr Church	Required parking supply (235) based on church gross floor area (GFA). Required supply based on worship area capacity (seating) is 217 spaces.	Based on discussions with contact person, it is common for vehicles to fill the on-site parking lot and then park on surrounding streets and at the adjacent school.	The by-law requirement is short 54 spaces (23%) with respect to the observed demand. The by-law requirement is based on GFA and may therefore be slightly exaggerated. However, based on seating the by-law is still only short 33%.
Temple Har Zion	Required parking supply (162) based on building gross floor area (GFA). Required supply based on worship area capacity (seating) is 88 spaces.	Based on discussions with contact person, it is common / expected for vehicles to fill the on-site parking lot and then park at the adjacent Islamic Centre.There is a sharing agreement for this. The parking supply includes the sharing agreement spaces (68).	The by-law required parking supply is much larger than the actual demand. This may be because GFA was used to calculate the by-law requirement, and some of the area included may not be worship area as defined in the by-law. Using seating as an estimate yields a supply which is appropriate based on the observed demand.
Islamic Society of Markham Source	Required parking supply (380) based on building worship area capacity using 0.75 SM / person rate and net floor area (NFA). Required parking supply is 127 spaces based on building net floor area (NFA).	The parking supply appears to meet the demand well.	The parking supply required by the by-law is based on worship area capacity and NFA. As mentioned above, it is possible that not all areas are used for prayer, and the ratio of 0.75 SM per person may not apply to the entire area. This calculation appears to superseded the previous source since the net floor area calculations are more precise.
Apple Creek Seventh-Day	Required parking supply (252) based on building gross floor area (GFA). Required supply based on worship area capacity (seating) is 192 spaces.	Based on discussions with contact person, it is common / expected for vehicles to fill the on-site parking lot and then park on-street or at adjacent commercial lots.There is a sharing agreement for this. The shared spaces are not included in the supply.	The By-law required parking supply based on the entire building gross floor area is appropriate based on the observed demand. Seating also appears to be a good measure. Since GFA was used, the requirement may be slightly exaggerated.
Buddhist Cham Shan Source	Required parking supply (75) based on worship area capacity (seating).	The parking supply appears to meet the demand well. Based on discussions with contact person, it is common / expected for vehicles to fill the on-site parking lot (with few parking off-site). Parking demand is metered by attendants at the driveway entrance, with some queuing on the mainline roadway.	The By-law required parking supply is based on seating availability since the parking demand was observed during a lunch festival feast. Floor areas were not available for this location, therefore I is not possible to calculate the parking requiriements for the remainder of the building without fixed seating. This may be the reason for the by-law parking requirement being much lower than the observed demand.
Masjid Darul Iman	Required parking supply (124) based on building worship area capacity using 0.75 SM / person rate and net floor area (NFA). Required parking supply is 41 spaces based on building net floor area (NFA).	The parking supply appears to meet the demand well.	The by-law requirement (124 spaces) is based on worship area capacity using a rate of 0.75 SM per person. The calculated net worship area shown in the available occupancy load calculations is much smaller than the units net floor area which was used to calculate 124 spaces. There is no detail explaining why the two numbers differ. We deferred to the larger area to calculate the parking requirement. However, if the smaller worship area is used, the parking requirement is 62 spaces. The peak demand (85) falls between 62 and 124 spaces.

The required parking supply shown above is based on By-law 2003-301 as corrected.

Detailed Calculations

Place of Worship	Site Plan / Source						By-Law 2003-301 Required Supply, Max of	Parking Survey				Supply	By-law Req.			
	Date	Building Gross Floor Area		Fixed Seating	Occupant Load?	Parking Supply		Notes	Observed Peak Demand		Calculated Parking Rate	VERSUS				
		Component	Size (SM)						Date	# Vehicles		Notes	Observed Peak Demand			
St. Justin Martyr Church - 3898 Highway 7 East	2000-Jun-12	Church	Basement 887.75 Ground Floor 938.47 Mezzanine 289.57	866	n/a	166	Two (2) spaces are dedicated to the residence. Therefore there are actually 168 spaces total. The residential spaces are located inside a garage which does not serve worshippers. Seating is also provided in the mezzanine, according to the site plan.	Church: 1 space / 4 persons worship area capacity: 866 / 4 = 217 1 space / 9 SM net floor area of worship area + other uses, excl. res: 2,115.79 / 9 = 235 Residence: By-law 28-97: One space req for accessory apartments. Two spaces are provided.	Sun April 7, 2013 @ 11:00am	289	Extremely busy. Vehicles parked on site, on-site illegally, on-streets surrounding (rear / north of church), at adjacent montessori school, and even along Highway 7.	866 / 289 = 1 space / 3.0 persons 2,115.79 / 289 = 1 space / 7.3 square metres	(123)	(74%)	(54)	(23%)
		Total Worship Area 2,115.79														
	Issued for Amendment to Site Control Agreement	Residence (Incl. Office) Basement 176.51 Ground Floor 176.51 Second Floor 112.97														
	Stats shown are all PROPOSED.	Total Office + Res 465.99														
Temple Har Zion - 7360 Bayview Ave	1991-Feb-6	Existing	Lower Level 520.49 Main Level 936.37 Upper Level 0.00	350	n/a	131	63 spaces on site, plus another 68 on the adjacent mosque property. Total is 131 spaces because they have this sharing agreement.	1 space / 4 persons worship area capacity: 350 / 4 = 88 1 space / 9 SM net floor area of worship area + other uses, excl. res: 1,456.86 / 9 = 162	Sat April 6, 2013 @ 10:30am	72	Torah readings overlapped with bar mitzvah. The attendant said: "There are a few of these events per month. Today was slightly busier than an average day because the reading and bar mitzvah overlapped a bit."	350 / 72 = 1 space / 4.9 persons 1,456.86 / 72 = 1 space / 20.2 square metres	59	45%	90	56%
	Issued to: Site Plan Agreement	Total 1,456.86														
Islamic Society of Markham - 2900 Denison St	2011-May-2&4 Occupant Load Calculations		Multi Purp Room 435 Ladies Prayer Room 168.8 Basement Prayer Rm 248 Mens Prayer Room 288	0	1,087 198 397 720 2,402 (standing capacity)	135	The occupant load calculated in the provided document was based on Markham Fire Department standards, and standing space which assumes 0.40 SM per person.	1 space / 4 persons worship area capacity: 1,139.8 / 0.75 / 4 = 380 1 space / 9 SM net floor area of worship area + other uses, excl. res: 1,139.8 / 9 = 127	Thu March 28, 2013 @ 7:54pm	123	Worship times vary daily. People were observed parking their vehicles on-site only. No one was observed to park off-site.	1,139.8 / 0.75 / 123 = 1 space / 12.4 persons 1,139.80 / 123 = 1 space / 9.3 square metres	n/a		257	68%
	2004-Jun-8 Site Plan Description: Basement Addition (parking supply source only)	Total NFA 1,139.80														
Apple Creek Seventh-Day Adventist Church - 700 Apple Creek Blvd	1991-April-30		Main Floor 1,004.22 Basement 1,004.22 Balcony 255.32	766	n/a	137	The parking supply shown on the site plan (142 spaces) differs from what I counted.	1 space / 4 persons: 766 / 4 = 192 1 space / 9 SM NFA: 2,263.76 / 9 = 252	Sat April 6, 2013 @ 12:45pm	236	Extremely busy. People parking on site, illegally on site, on-street, and at other commercial lots to south.	766 / 236 = 1 space / 3.2 persons 2,263.76 / 236 = 1 space / 9.6 square metres	(99)	(72%)	16	6%
		Total 2,263.76														
Buddhist Cham Shan Temple - 7254 Bayview Ave	1989-Aug-8		n/a	n/a	n/a	154	2 spaces are dedicated to the residence. Therefore there are actually 156 spaces total.	n/a	Tue March 26, 2013 @ 12:15pm	154	Festival Day (occurs about 2 to 3 times per month and are much busier than a typical day). A very small component of people parked off-site. There was some on and off site queueing.	n/a	0	0%	n/a	
	Addition to Buddhist Temple (For Site Plan Approval)															
	Discussions with the contact from the Cham Shan Temple (Cecillia)	n/a	300	n/a	n/a	Seating for 300 people as per Cecillia (contact persons) estimate.	Church: 1 space / 4 persons worship area capacity: 300 / 4 = 75 Residence: By-law 28-97: One space req for accessory apartments. Two spaces are provided.									
Masjid Darul Iman (temporary location) - 9833 Markham Rd, Unit 9	2012-Jul-17 Variance Application to allow temporary worship activities.		Unit #9 GFA 412.37 Unit #9 NFA 370.84 Worship Area NFA 185.11 <i>There is no explanation for how worship area (185.11 SM) was calculated.</i>	0	247 (as calculated in variance application)	72	The variance used a reduced floor area (185.11 SM) to calculate the parking requirement.	1 space / 4 persons worship area capacity: 370.84 / 0.75 / 4 = 124 1 space / 9 SM net floor area: 370.84 / 9 = 41	Fri May 17, 2013 @ 2:00pm	85	Some people parked on the north side of the building and some parked on the south side. There was a large exodus at 2:00pm.	370.84 / 0.75 / 85 = 1 space / 5.8 persons 370.84 / 85 = 1 space / 4.4 square metres	(13)	(18%)	39	31%

Notes

1 By-law 2003-301's parking requirements for worship areas are based on the greater of:

- i) 1 spaces per 4 persons worship area capacity; or
- ii) 1 space per 9 square metres of net floor area of worship areas

where worship area capacity is based on fixed or non-fixed seating calculations.

The required parking supply shown above, when based on non-fixed seating, is based on By-law 2003-301 as corrected; thus the ratio of 0.75 square metres per person was correctly applied by dividing into the worship area floor areas.

- 2** By-law 2003-301's definition of Worship Area includes below grade and balconies if they can be used for worship activities.
- 3** By-law 2003-301's definition of Worship Area is based on net floor area.
- 4** Unless specified as net floor area (NFA), areas reflect gross floor area (GFA)
- 5** Occpant loads are shown for comparison purposes but have not been used to calculate parking requirements.
- 6** Negative numbers are shown in brackets and in red font: **(##)**

Legend

GFA - Gross Floor Area
NFA - Net Floor Area
SM - Square Metres
n/a - Not Available

Governing By-law
Calculation shown
in bold blue.

Appendix C

Parking Standards Review

Comparison of Municipal Parking Standards

	City of Markham Zoning By-Law 2003-301	City of Brampton Zoning By-law 204-2010	City of Mississauga Zoning By-law 0225-2007	Town of Oakville Parking and Loading Regulations	City of Toronto Zoning By-law 569-2013	City of Vaughan By-law 1-88
Worship Area	<p><i>Greater of:</i></p> <p>1 space per 4 persons worship area capacity;</p> <p><i>or;</i></p> <p>1 space per 9m² (NFA) of building</p>	<p>1 space per 4 seats,</p> <p><i>and;</i></p> <p>1 space for each 2m of bench space,</p> <p><i>and;</i></p> <p>1 space per 5m² (NFA) for open floor area seating</p>	<p>1 space per 4.5 seats for permanent fixed seating</p> <p><i>plus the greater of;</i></p> <p>1 space per 3.7m² (GFA) in worship area for non-fixed moveable seating.</p> <p><i>or;</i></p> <p>1 space per 10m² (GFA) of building</p>	<p>Urban Core: <i>Greater of;</i></p> <p>1 space per 6 seats</p> <p><i>or;</i></p> <p>1 space per 15m² (LFA) of building</p> <p>Outside Urban Core: <i>Greater of;</i></p> <p>1 space per 4 seats</p> <p><i>or;</i></p> <p>1 space per 10m² (LFA) of building</p>	<p><i>Greater of;</i></p> <p>With fixed seats: 1 space per 4.35m² of worship area</p> <p><i>or;</i></p> <p>No fixed seating or variable seating: 1 space per 3.7m² of worship area</p>	1 spaces per 9.1m ² GFA
<i>Fixed Seats</i>	1 seat / person	1 seat / person	1 seat / person	1 seat / person	1 seat / person	
<i>Fixed Benches</i>	0.5 m / person	0.5 m / person		0.5 m / person		
<i>Non-fixed</i>	1.33m ² / person	1.25m ² / person implied (5m ² /4seats)	0.82 m ² / person implied (3.7m ² /4.5seats)	2.5m ² / person Implied (10m ² /4seats) (outside urban core)		
Auxiliary Uses	Based on Table B, By-law 28-97	Based on By-law 270-2004	Based on By-law 0225-2007	Based on Parking and Loading Regulations	Based on By-law 569-2013	Based on By-law 1-88
Residential Uses	Based on Table A, By-law 28-97	"Areas intended for the use of a permitted residential unit do not require additional parking."	Based on By-law 0225-2007	Based on Parking and Loading Regulations	Based on By-law 569-2013	Based on By-law 1-88
Notes		Net floor area is taken as 70% of the of the floor area of the Place of Worship			The above is summarized for "all other areas of the City". Worship area is referred to as 90% of the area used for worship activities	

Notes: NFA = Net Floor Area; GFA = Gross Floor Area; LFA = Leasable Floor Area



HDR