

Our Ref: GB10604

7 October 2009

Devine Limited
 Property Development Division
 PO Box 7087
 Riverside Centre
 BRISBANE QLD 4000

Attention: Ms Jill McLauchlan (Manager Planning Services)

PLANS AND DOCUMENTS
 referred to in the ULDA
APPROVAL dated 10 / 11 / 09

Dear Jill

RE: HAMILTON HARBOUR DEVELOPMENT APPLICATION ADDENDUM

I refer to the recent amended car parking layout received in relation to the proposed Hamilton Harbour development, which include a total of 906 car parking spaces. It has been advised that the schedule of uses, in terms of floor areas and apartment numbers is to remain as per the existing approval. This schedule is summarised in Table 1 below.

Table 1: Schedule of Uses

Use	No. of / Size
Residential	452 units
Retail	5,386sq.m
Commercial	34,835sq.m

In this regard, the following assessment has been prepared to address the suitability of the revised car parking provision and layout and the likely traffic impacts on the surrounding network.

A copy of the revised development plans is provided at Attachment A of this letter.

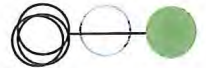
In considering the car parking requirement for the development, reference has been made to the *Northshore Hamilton Urban Development Area Development Scheme*, dated July 2009. Table 1 of this document includes car parking rates to be provided for new developments, as reproduced in Table 2 below.

Table 2: Car Parking Rates

Use	Minimum Rate	Maximum Rate
Residential	1.5 spaces per dwelling unit	1 space per dwelling unit
Commercial	1 space per 50sq.m GFA	1 space per 100sq.m GFA
Retail	1 space per 30sq.m GFA	1 space per 100sq.m GFA

Application of these rates to the proposed development results in the following requirements:

- interim car parking: 678 resident, 697 commercial and 180 retail spaces, or a **total of 1,555 spaces**
- long term car parking: 452 resident, 349 commercial and 54 retail spaces, or a **total of 855 spaces**.



4.10.1.1 Proposed Car Parking Provision

The development includes the provision of 906 car parking spaces. This provision is less than the Interim Requirement, in aiming to reduce car dependency from the day of opening, however is higher than the Long Term Requirements, as fixed public transport capabilities are not yet provided.

On this basis, the proposed car parking provision is appropriate.

4.10.1.2 Proposed Car Parking Layout

The proposed parking layout has been checked against Australian Standard / New Zealand Standard for Off-Street Car Parking (AS/NZS2890.1-2004). The review indicates that the car park is expected to operate satisfactorily.

4.10.1.3 Proposed Car Parking Dimensions

The car parking dimensions at the ground level, for 90 degree parking bays, are a minimum of 2.6m wide by 5.4m long with an aisle width of 7.5m. This meets the requirement of AS/NZS 2890.1-2004 for high turnover parking.

A number of parallel parking bays are located in the at-grade and basement level car parks. These bays are 2.4m wide by 6.0m long in the 'at-grade' car park and 2.1m wide by 6.6m long on basement levels. Given the access aisles are 7.5m (two-way) in the 'at-grade' car park and 6.2m in basement levels, these spaces meet AS/NZS 2890.1-2004 with regard to width and length.

Typical car parking dimensions on basement levels are 2.5m wide, 5.4m long with 6.2m aisles. This meets the requirements of AS/NZS 2890.1-2004 for medium-term parking. This is appropriate for employee, resident and commercially operated car parking. Some car parking bays on the basement levels are 2.4m wide, which meets the requirement of AS/NZS 2890.1-2004 for resident and employee (low turnover) parking.

In addition, AS/NZS2890.1-2004 nominates minimum dimensions for small car bays of 2.3m wide and 5.0m long. These dimensions can be met for small car bays within the proposed development.

4.10.1.4 Proposed Car Parking Aisles

There are a number of locations within the basement car parking levels where blind (or dead end) aisles are more than six bays in length. In this regard, it is noted that car parking within these levels will be allocated to particular users, as such, their use is considered appropriate. All blind aisles include the required 1.0m aisle extensions.

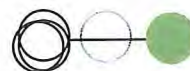
4.10.1.5 Proposed Car Parking Clearances

The proposed development has been reviewed in terms of the requirements of AS/NZS2890.1-2004 with regard to structures adjacent to car bays (including walls and columns). This Standard requires that where a space is impacted by an obstruction adjacent to the space within the door opening clearance, the space is to be widened as follows:

- where obstructed on one side, the space needs to be widened by 300mm (to minimum 2.7m for a typical low turnover car bay, or 2.6m for a small car bay)

- where obstructed on both sides, the space needs to be widened by 600mm (to minimum 3.0m for a typical low turnover car bay, or 2.9m for a small car bay).

A number of spaces are affected by column placement, however these provide appropriate clearances.



The column locations do not encroach into the design envelope for column placement as per Figure 5.2 of AS/NZ 2890.1:2004, unless the car space has been widened as per the above.

Motorcycle / Motor Scooter Parking

Brisbane City Council's TAPS Code requires 2% of the total parking provision of car parking to be provided as motorcycle / motor scooter parking. This standard provides a useful guide for this development.

There are several locations within Basement levels where motorcycle parking could be accommodated. Noting that motorcycles can also use typical car parking bays, this is considered appropriate.

Disabled Car Parking

Four disabled car parking bays have been provided at the Ground and Basement Level Two plan, these bays are required to have a maximum gradient of 1:40. The provision equates to 2% - 3% of the total supply at the Ground Level and 1% of the supply within Basement Level Two.

It is recommended that a further six spaces be allocated on the basement levels for disabled car parking, this would equate to 1% of the total basement parking supply.

Subject to the adoption of the above recommendations, it would be GTA Consultants' opinion that this is an appropriate provision for residents and the commercial users, noting that the disabled car parking can be allocated / titled where there is a need for such parking.

Car Parking Layout

The proposed car parking arrangement includes:

- twenty-six (26) tandem pairs at Basement 1 (52 tandem spaces)
- twenty-four (24) tandem pairs at Basement 2 (48 tandem spaces)
- twenty-four (24) tandem pairs at Basement 3 (48 tandem spaces)
- twenty-eight (28) tandem pairs at Basement 4 (56 tandem spaces).

Whilst the use of tandem parking is appropriate for residents and employees, it is noted that both of the tandem spaces in a pair need to be assigned to the same unit / tenancy. This means that a number of residential dwellings will be assigned two car parking spaces.

Vehicle Access and Egress

It is recommended that ramp grades at the ground plane do not exceed 1:20 (5%). This is appropriate for commercial vehicle access without transitions (in accordance with AS2890.2-2002), with the manoeuvring area essentially flat. This will ensure grades also comply with the requirement for 1:20 for the first 6.0m into the site for pedestrians.

The ramps to the basement car parking levels are a maximum of 1:5 (20%) with transitions of a minimum of 2.0m in length at grades of 1:10 (10%). These grades are in accordance with the Australian Standard (AS/NZS2890.1-2004) and are therefore appropriate.

A minimum height clearance of 2.3m is required within the basement and for any section of roadway leading to a car parking space. It has been advised that this will be achieved within, and on entry to, the basement areas.



Proposed Accessible Ramp

The curved sections of ramp are in accordance with the Australian Standard (AS/NZS2890.1-2004).

A swept path assessment has been provided at Attachment B to confirm accessibility of the entry to the basement car park.

Loading Provision

The development plans include the following loading provision:

- four large rigid vehicles
- two vans.

On the basis of existing approval, the proposed loading dock provision for four large rigid vehicles and two vans is appropriate.

To confirm the accessibility of the central loading area by the various service vehicles, an assessment has been undertaken in AutoTURN. This assessment indicates that the dock is accessible by four large rigid vehicles, independently of each other, whilst entering and exiting the site in a forward direction.

Copies of the swept path assessments are provided at Attachment B.

A minimum height clearance of 4.5m is provided in the loading docks. This is appropriate, noting that to enable overhead clearance for bin collection, vehicles will reverse to the open area behind the loading dock, where there is unrestricted height available.

It is also noted that each loading dock is connected to the commercial lift cores through a service corridor, which is appropriate.

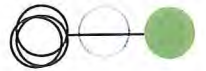
Previous Development

The previous development application included traffic generation rates that were adopted on the basis of GTA Consultants' engineering judgement. In particular the adopted generation rates give consideration to the ultimate road network within Hamilton Northshore, increased public transport accessibility, as discussed in GTA Consultants Traffic Impact Assessment Report dated 18 June 2009, reduced car parking provision and reduced reliance on the private vehicle for travel to / from Hamilton Harbour¹.

It is noted that the revised development application has not altered the above development intensity or schedule of use. Furthermore, it is considered that the previously adopted traffic generation rates remain appropriate.

On this basis, the previous traffic engineering assessment and recommended infrastructure remain relevant.

¹ It has been considered that, as a maximum, each car parking space would generate one vehicle movement in the road network peak periods.



01/01/19

On the basis of the above review, the revised site / car parking arrangement is expected to operate satisfactorily.

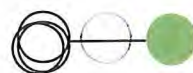
I trust the above and attached are clear. Naturally, should you have any questions or require any further information, please do not hesitate to contact me on (07) 3113 5000.

Yours sincerely

GTA CONSULTANTS

Beth Whelan
Associate Director (RPEQ)

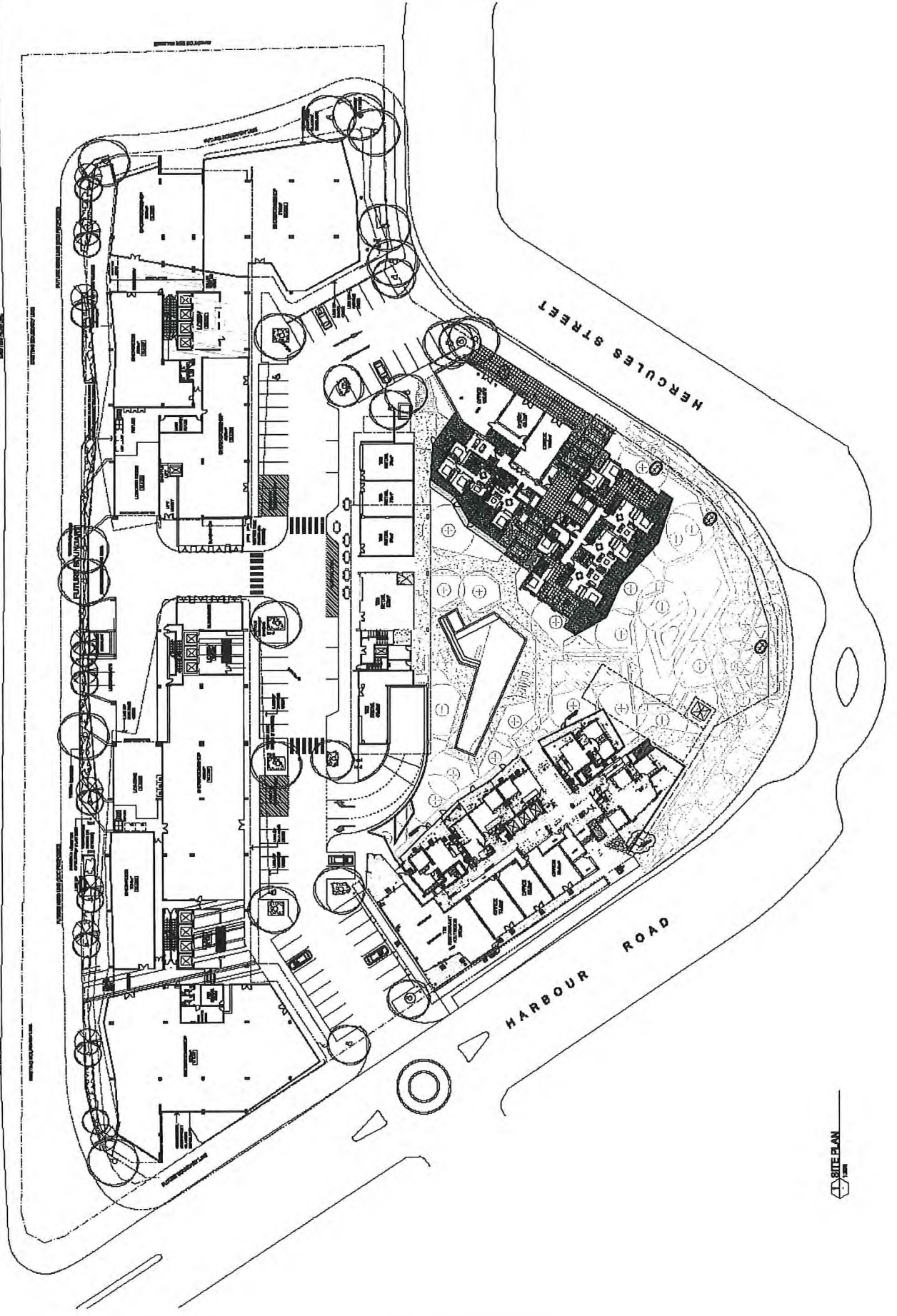
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Attachment A

Declaration of Interest

KINGSFORD SMITH DRIVE



1 SITE PLAN

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HAMILTON BARBER

HAMILTON BARBER

HAMILTON BARBER

STEPAN

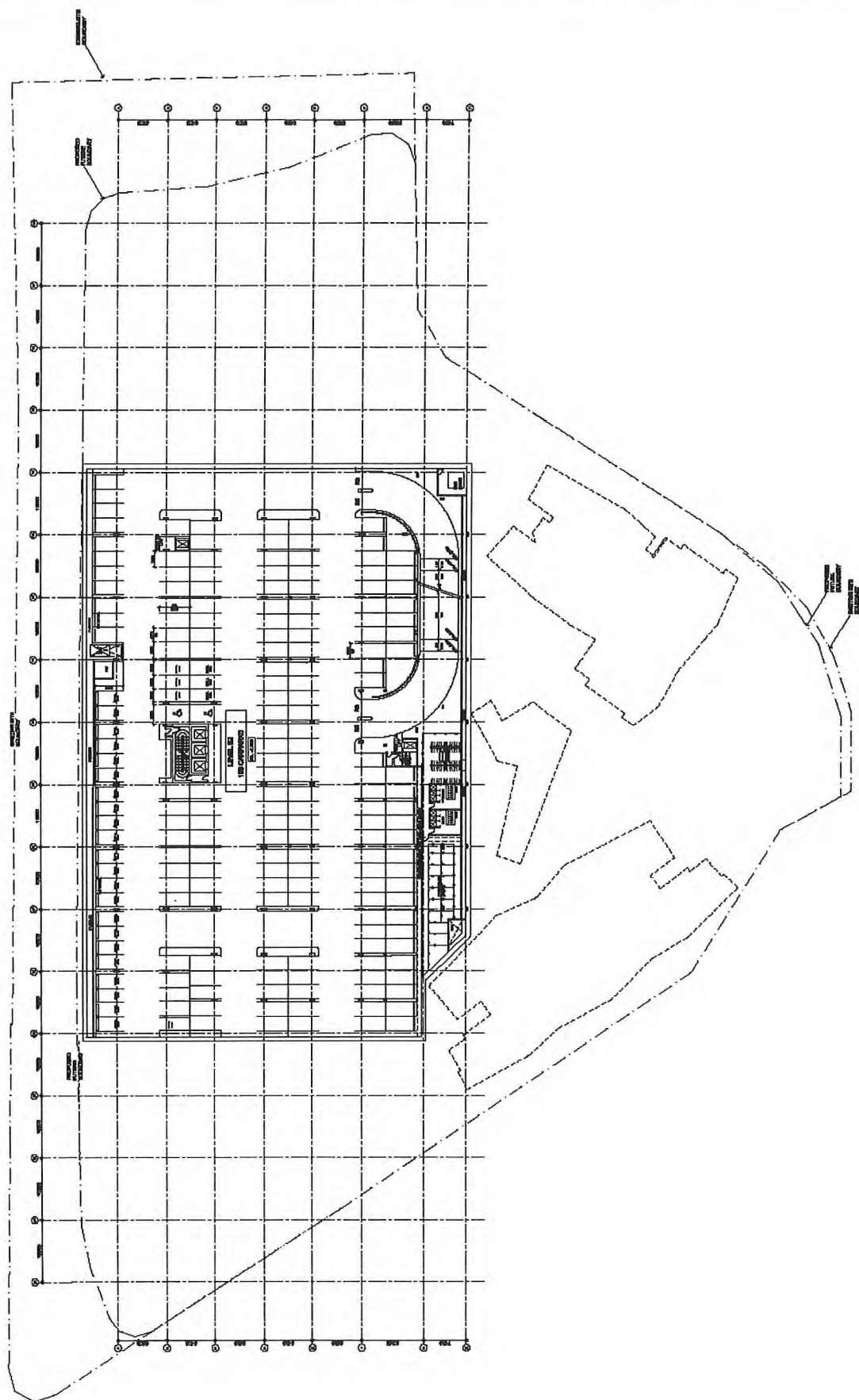
INFORMATION ONLY

NOT FOR CONSTRUCTION

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P. 1		P. 2		P. 3		P. 4		P. 5		P. 6		P. 7		P. 8		P. 9		P. 10		P. 11		P. 12		P. 13		P. 14		P. 15		P. 16		P. 17		P. 18		P. 19		P. 20		P. 21		P. 22		P. 23		P. 24		P. 25		P. 26		P. 27		P. 28		P. 29		P. 30		P. 31		P. 32		P. 33		P. 34		P. 35		P. 36		P. 37		P. 38		P. 39		P. 40		P. 41		P. 42		P. 43		P. 44		P. 45		P. 46		P. 47		P. 48		P. 49		P. 50		P. 51		P. 52		P. 53		P. 54		P. 55		P. 56		P. 57		P. 58		P. 59		P. 60		P. 61		P. 62		P. 63		P. 64		P. 65		P. 66		P. 67		P. 68		P. 69		P. 70		P. 71		P. 72		P. 73		P. 74		P. 75		P. 76		P. 77		P. 78		P. 79		P. 80		P. 81		P. 82		P. 83		P. 84		P. 85		P. 86		P. 87		P. 88		P. 89		P. 90		P. 91		P. 92		P. 93		P. 94		P. 95		P. 96		P. 97		P. 98		P. 99		P. 100	
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[illegible]

1 FLOOR PLAN - BASEMENT LEVEL 2

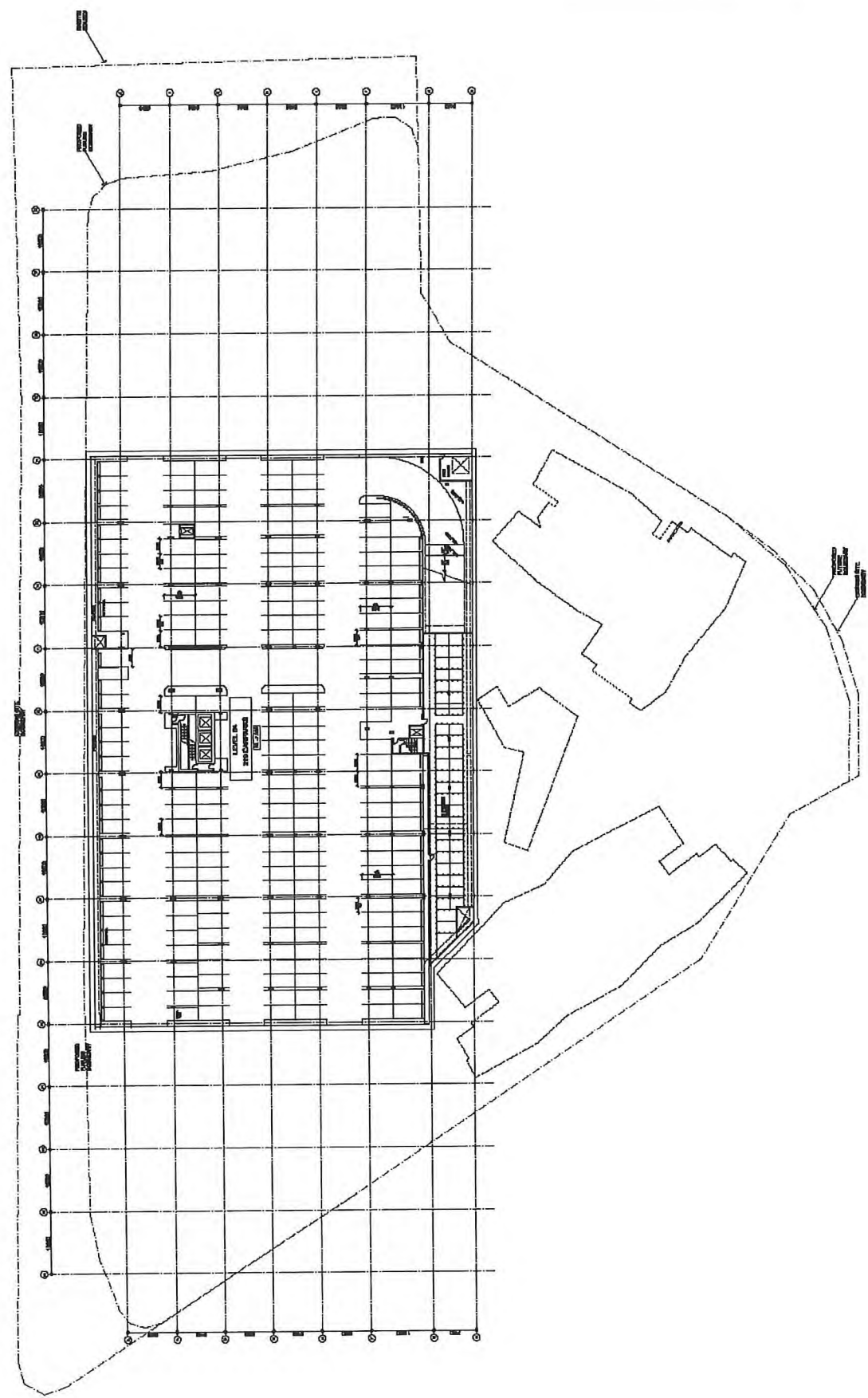
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6	PROJECT ZIP	100-100-100
7	PROJECT PHONE	100-100-100
8	PROJECT FAX	100-100-100
9	PROJECT E-MAIL	100-100-100
10	PROJECT WEBSITE	100-100-100
11	PROJECT DESCRIPTION	100-100-100
12	PROJECT OWNER	100-100-100
13	PROJECT ARCHITECT	100-100-100
14	PROJECT ENGINEER	100-100-100
15	PROJECT CONTRACTOR	100-100-100
16	PROJECT SUBMITTER	100-100-100
17	PROJECT DATE	100-100-100
18	PROJECT SCALE	100-100-100
19	PROJECT SHEET NO.	100-100-100
20	PROJECT SHEET TOTAL	100-100-100

HAMILTON HARBOR
 HAMILTON HARBOR
 HAMILTON

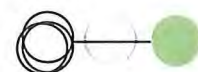
BASEMENT 4 PLAN

INFORMATION ONLY
 NOT FOR CONSTRUCTION

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 PROJECT SUBMITTER 100-100-100
 PROJECT DATE 100-100-100
 PROJECT SCALE 100-100-100
 PROJECT SHEET NO. 100-100-100
 PROJECT SHEET TOTAL 100-100-100



FLOOR PLAN - BASEMENT LEVEL 4

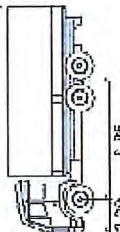


Attachment B

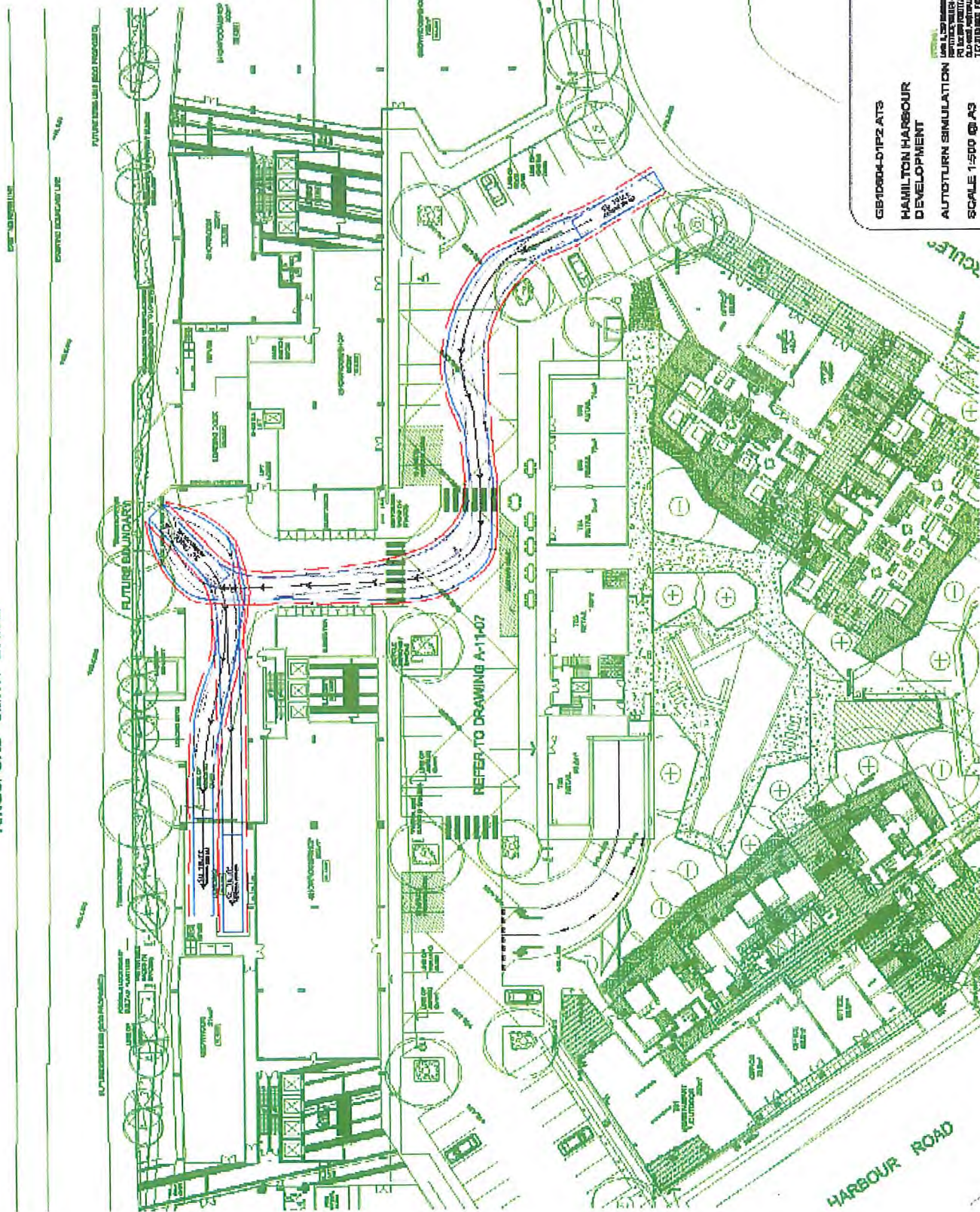
Swedish Health Authority

KINGSFORD SMITH DRIVE

12.5C



SL TRUCK
Width : 2.20m
Track : 2.50m
Lock Time : 6.0s
Steering Angle : 38.0°



REFER TO DRAWING A-11-07

HARBOUR ROAD

PREPARED BY P. A.
DATE: 10/10/2010



QTA Consultants

GB10004-DTP2-ATS

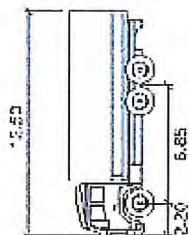
HAMILTON HARBOUR
DEVELOPMENT

AUTOTURN SIMULATION

SCALE 1:500 @ A3

QTA CONSULTANTS
100-102 HAMILTON ROAD
HAMILTON, ONTARIO L8N 2V5
CANADA
TEL: (905) 571-1111
WWW.QTA-CANADA.COM

QTA CONSULTANTS
100-102 HAMILTON ROAD
HAMILTON, ONTARIO L8N 2V5
CANADA
TEL: (905) 571-1111
WWW.QTA-CANADA.COM



Wash	: 1.50
Track	: 1.50
Lock to Lock Time	: 60
Steering Angle	: 35.5

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ನಿರ್ಧರಿಸಿದಂತೆ

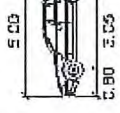
GB10804-01P2 AT4
HAMILTON HARBOUR
DEVELOPMENT

AUTOTURN SIMULATION
 800-4-A-7777 • 7:300 422 423

STACONS 1917

Lane 2, 470 Pacific Highway
 Oak Bay, B.C. V8R 1A1
 PO Box 254, West Vancouver
 BC V8W 2H5
 Tel: 779-1100
 Fax: 779-1101

CAR 93%/2004aters
 Width : 1.84
 Track : 1.84
 Loop to Jcs Time : 6.0
 Steering Angle : 35.4



SUBSTATION

LOBBY

1:4,000

TRAIL ON

BICYCLE PARKING SPACES

VISITOR BIKE RACKS (7 SPACES)

16 SINGLE PARKING ZONE

LINE OF BUILDING OVER

LINE OF BUILDING OVER

LINE OF BUILDING OVER

REFER TO DRAWING A-11-07

PLANTING ZONE

T02 RETAIL 88.5m²

T03 RETAIL 100m²

T04 RETAIL 74m²

OFFICE 73.5m²

OFFICE 86.5m²

RESTAURANT OUTDOOR 240m²

PRELIMINARY PLAN
 SHEET 01 OF 02
 DATE 11/11/2004



GIA CONSULTANTS
 1111 1111 1111

GB10804-01P2 ATS
 HAMILTON HARBOR
 DEVELOPMENT

AUTOTURN SIMULATION
 SCALE 1:250 @ A3
 DATE 11/11/2004

PROJECT TEAM
 PROJECT MANAGER
 DESIGNER
 CHECKER
 APPROVER