Manga Hotels (Richmond) Inc.

TRANSPORTATION IMPACT ASSESSMENT

PROPOSED COMMERCIAL REDEVELOPMENT

471 RICHMOND STREET WEST & 38 CAMDEN STREET, CITY OF TORONTO

June 2019

Disclaimer

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1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained by Manga Hotels (Richmond) Inc. to conduct a Transportation Impact Assessment (TIA) for a proposed commercial development located at 471 Richmond Avenue West & 38 Camden Street in the City of Toronto (herein referred to as the "subject site"). The subject site is currently occupied by commercial buildings and parking lot. The subject site is located on the south side of Richmond Avenue West with abutting properties located to the east, west and south of the site. The subject site is situated between Spadina Avenue and Brant Street, as illustrated in **Figure 1-1**.

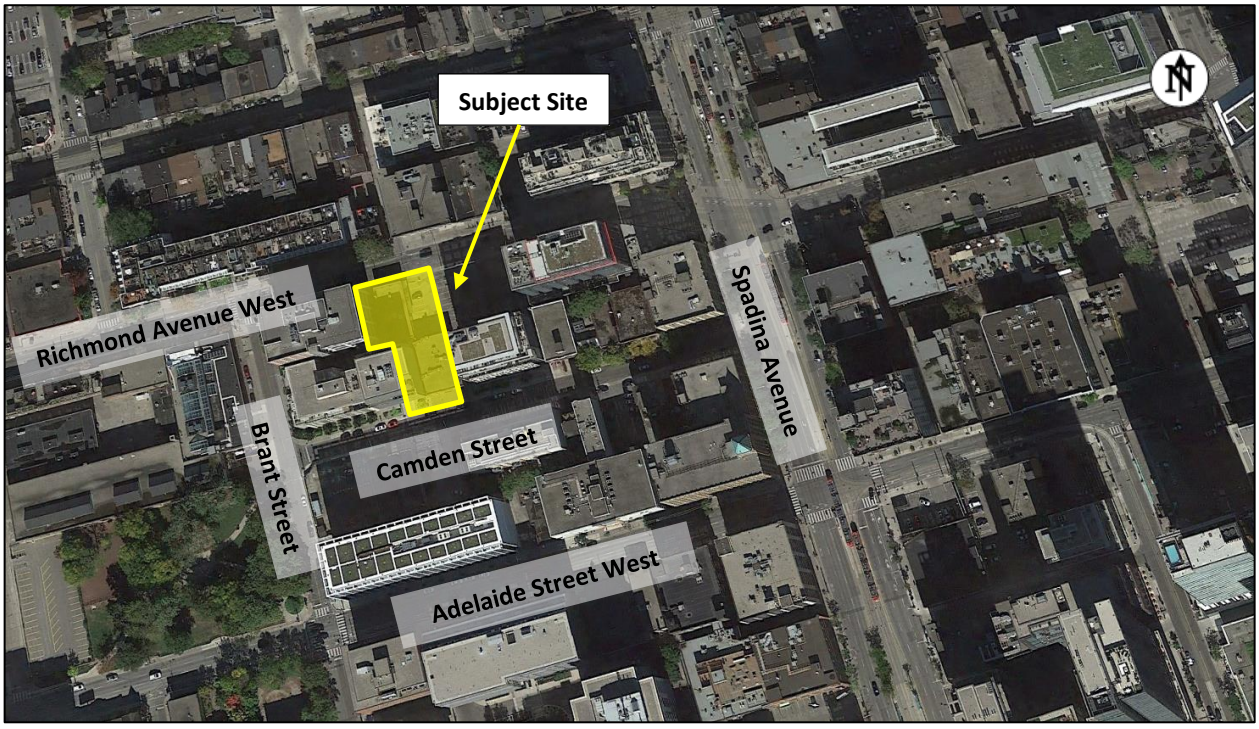


Figure 1-1: Site Location

The redevelopment proposal will introduce two (2) hotel towers at 17- and 15-storeys, with 375 total guest suites. Access to the site will be provided via a driveway to Richmond Street West. site. A total of 35 vehicle parking spaces are proposed via three (3) levels of underground parking. The proposed site plan is shown in **Figure 1-2**. The site statistics of the proposed redevelopment are presented below in **Table 1-1**.

Land Use	GFA (m^2)	Guest Suites
Commercial (hotel)	14,177	375
TOTAL	**14,177**	**375**

Table 1-1: Proposed Site Statistics

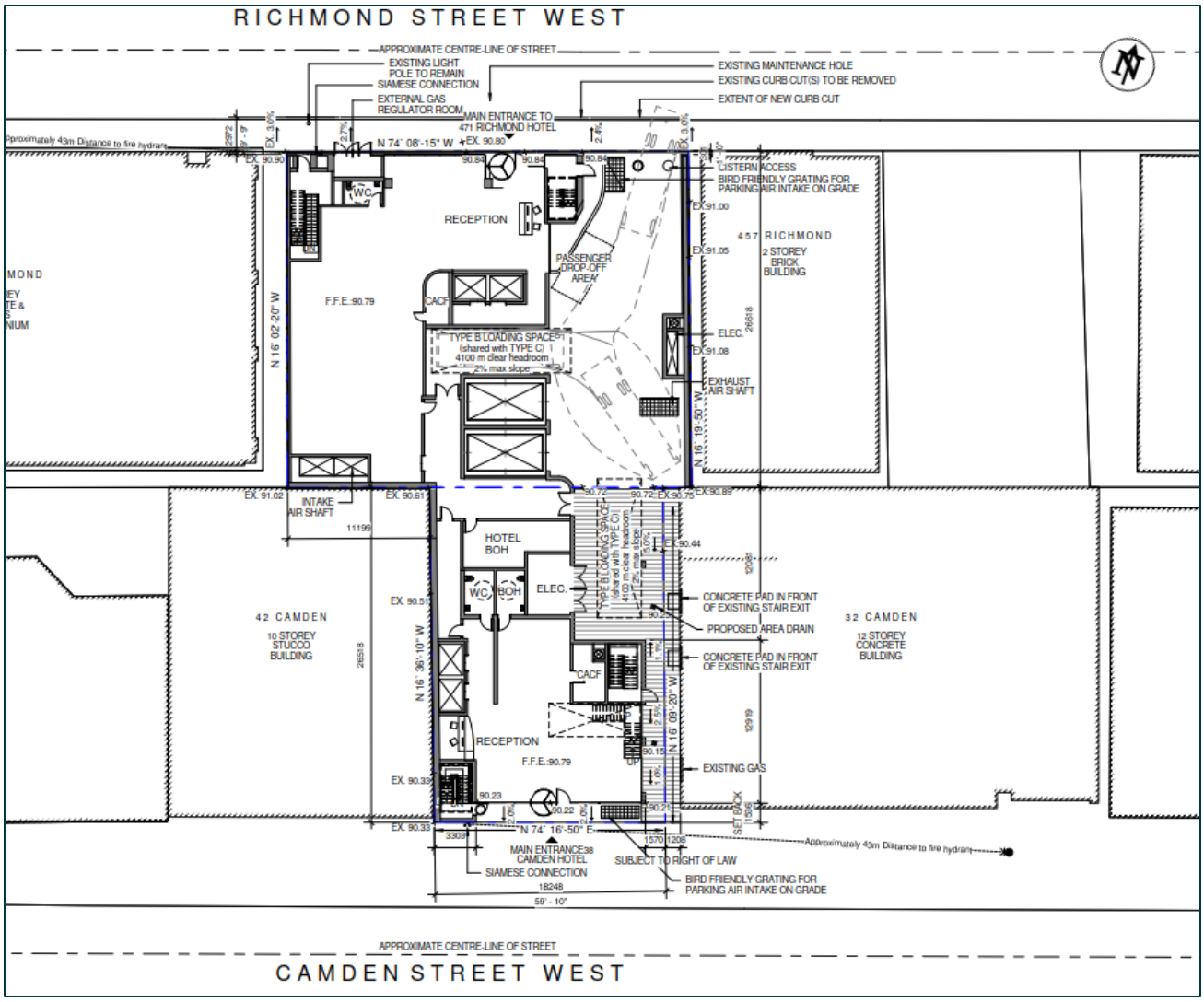


Figure 1-2: Proposed Site Plan

2 EXISTING TRANSPORTATION CONDITIONS

This section will identify and assess the existing transportation conditions present in the surrounding area, including the road, transit, cyclist, and pedestrian networks. The review of the surrounding area will generally include the following intersections:

- Richmond Street West & Spadina Avenue (Signalized);
- Richmond Street West & Brant Street (Signalized); and
- Richmond Street West & 471 Richmond Street West (Unsignalized).

2.1 ROAD NETWORK

A description of the roadways within the surrounding area is provided below, while **Figure 2-1** illustrates the nearby road network and configuration.

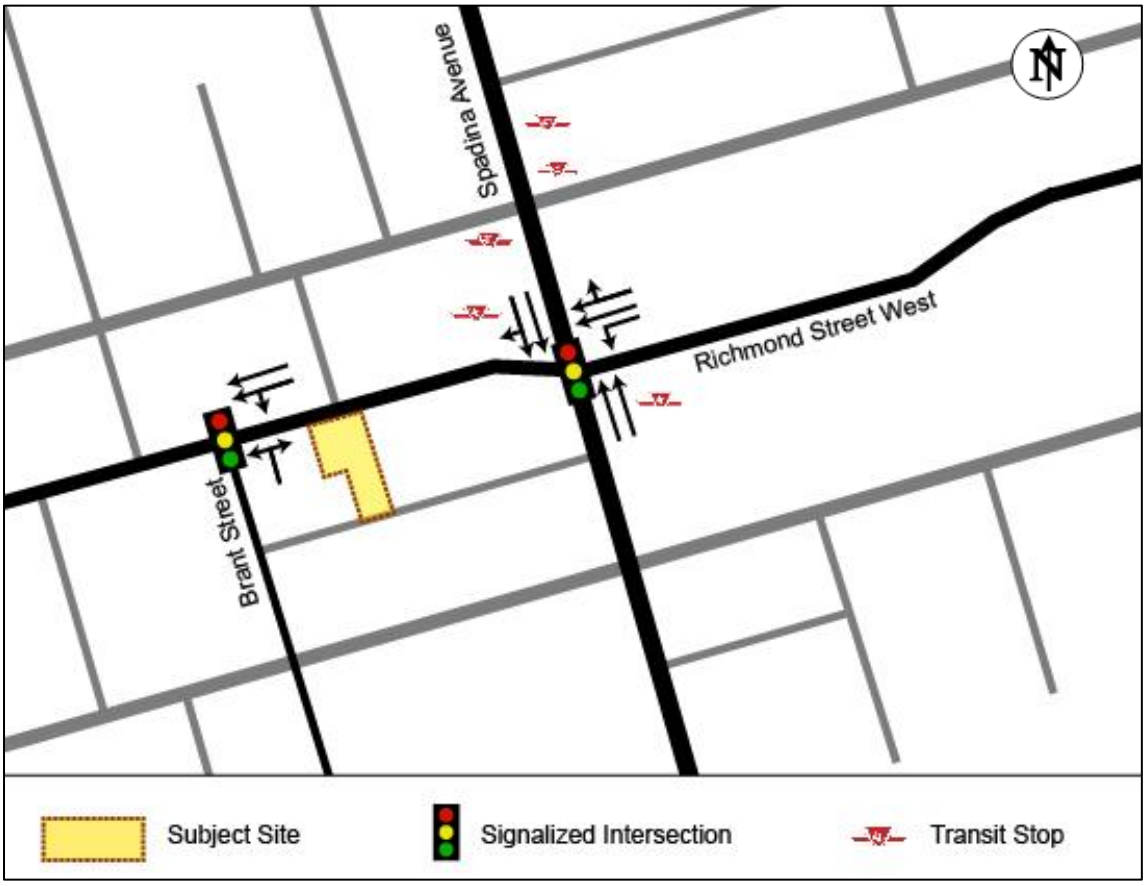


Figure 2-1: Existing Lane Configuration

- **Richmond Street West** is a westbound only Major Arterial road with a 2-lane cross section. Richmond Street West begins at Yonge Street and continues west to Bathurst Street where thereafter it operates in the eastbound direction only. East of Yonge Street, the roadway operates as Richmond Street East. Bike lanes are present on the north side of Richmond Street West. The posted speed limit is 40 km/hr in the surrounding area.

- **Spadina Avenue** is a north-south Major Arterial road that operates with a 4-lane cross-section (two lanes per direction) north of Richmond Street West, and a 5-lane cross-section south of Richmond

Street West (3 lanes southbound and 2 lanes northbound) in the area of the subject site. TTC streetcar tracks occupy a dedicated centre ROW. Spadina Avenue operates from Queens Quay West till Bloor Street, continuing as Spadina Road until truncation at Eglinton Avenue West. Spadina Avenue operates with a 40 km/h speed limit in the surrounding area.

- **Camden Street** is a one-way westbound only local road with a 1-lane cross-section. Camden Street operates from Richmond Street West to Brant Street. The roadway operates with an assumed speed limit of 50km/h. On-street parking is generally permitted on the north side of the street.

- **Brant Street** is a north-south local road with a 2-lane cross-section (1 lane per direction). Brant Street operates from Richmond Street West to King Street West. The roadway operates with a posted speed limit of 30 km/h within the surrounding area.

2.2 TRANSIT NETWORK

The proposed development is highly accessible by public transit operated by the Toronto Transit Commission (TTC), located within a short walking distance of both east-west and north-south major transit routes. The existing transit network in the surrounding area is described below and illustrated in **Figure 2-2**.

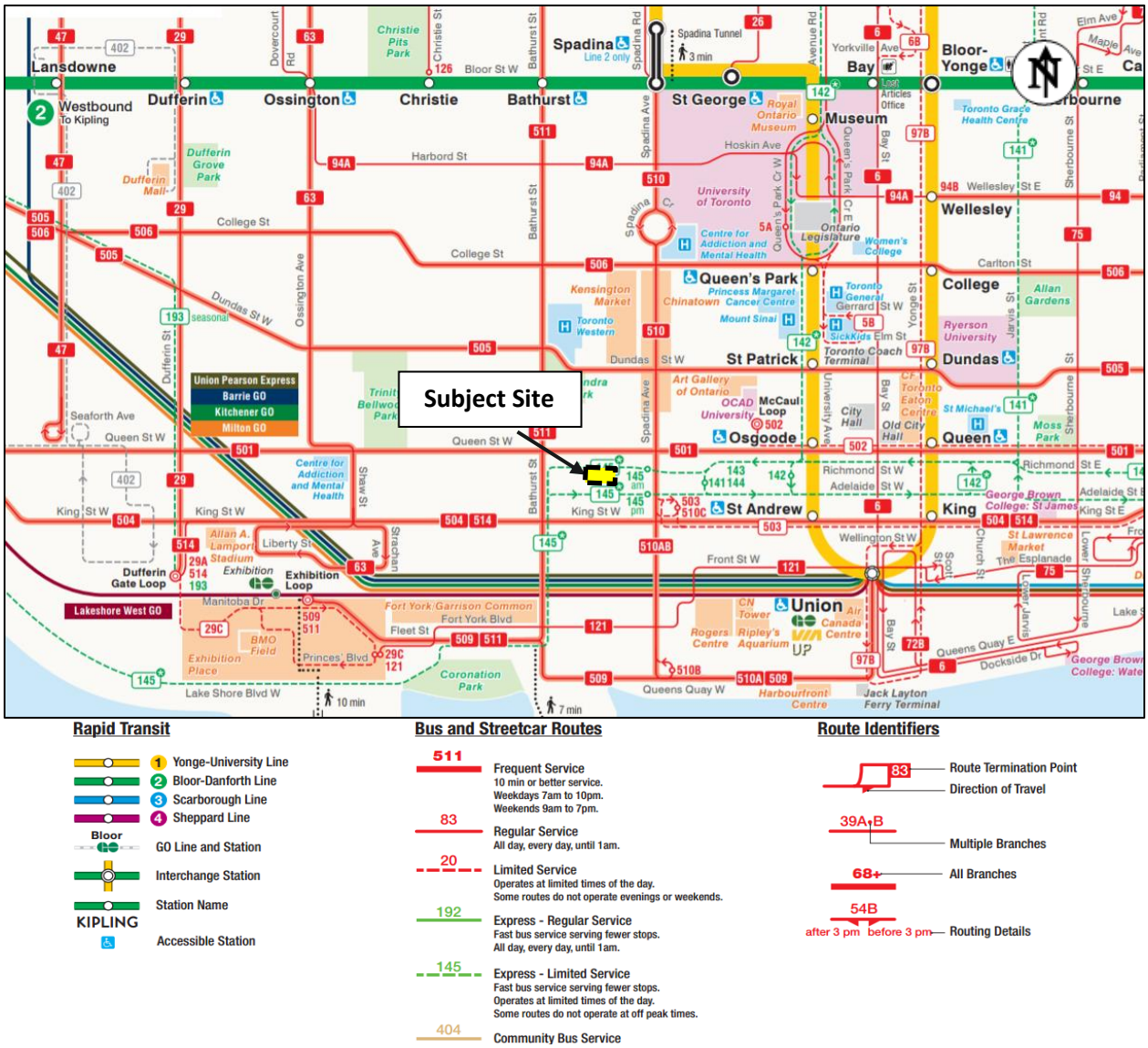


Figure 2-2: Existing Transit Services

TTC Route 501 Queen is a streetcar route operating from Long Branch Loop to Neville Park Loop, through the downtown core of Toronto. TTC 501 operates east-west along Lake Shore Boulevard West till The Queensway / Queen Street West, operating east-west until Neville Park Loop. Connectivity to TTC Line 1 is provided at Osgoode Subway Station and Queen Subway Station. The route is part of the 10-Minute Network and operates 10 minutes or better all day.

Access Locations: TTC Route 501 is accessible near the subject site at the Queen Street West & Spadina Avenue intersection.

TTC Route 510 Spadina is a streetcar route operating from Spadina Station on Line 1 and Line 2, to Union Station. From Spadina Station, TTC Route 510 operates north-south along Spadina Avenue to Queens Quay West, where it operates east-west through the Waterfront to Union Station. Along Spadina Avenue, TTC Route 510 operates in a dedicated right-of-way (ROW). The route is part of the 10-Minute Network and operates 10 minutes or better all day.

Access Locations: TTC Route 510 is accessible near the subject site at the Richmond Street West & Spadina Avenue intersection.

2.3 CYCLING NETWORK

Cycling infrastructure is immediately accessible to the subject site. Cycle tracks are readily available along Richmond Street West providing for (in combination with Adelaide Street West) significant east-west connectivity through the Downtown core. Furthermore, there are a number of significant cycling facilities that are located nearby, and in the surrounding area that connect with the cycle tracks on Richmond Street West. These include bike lanes on Berkley Street, and cycle tracks on Simcoe Street. A map of the existing cycling facilities present in the area is illustrated in **Figure 2-3**.

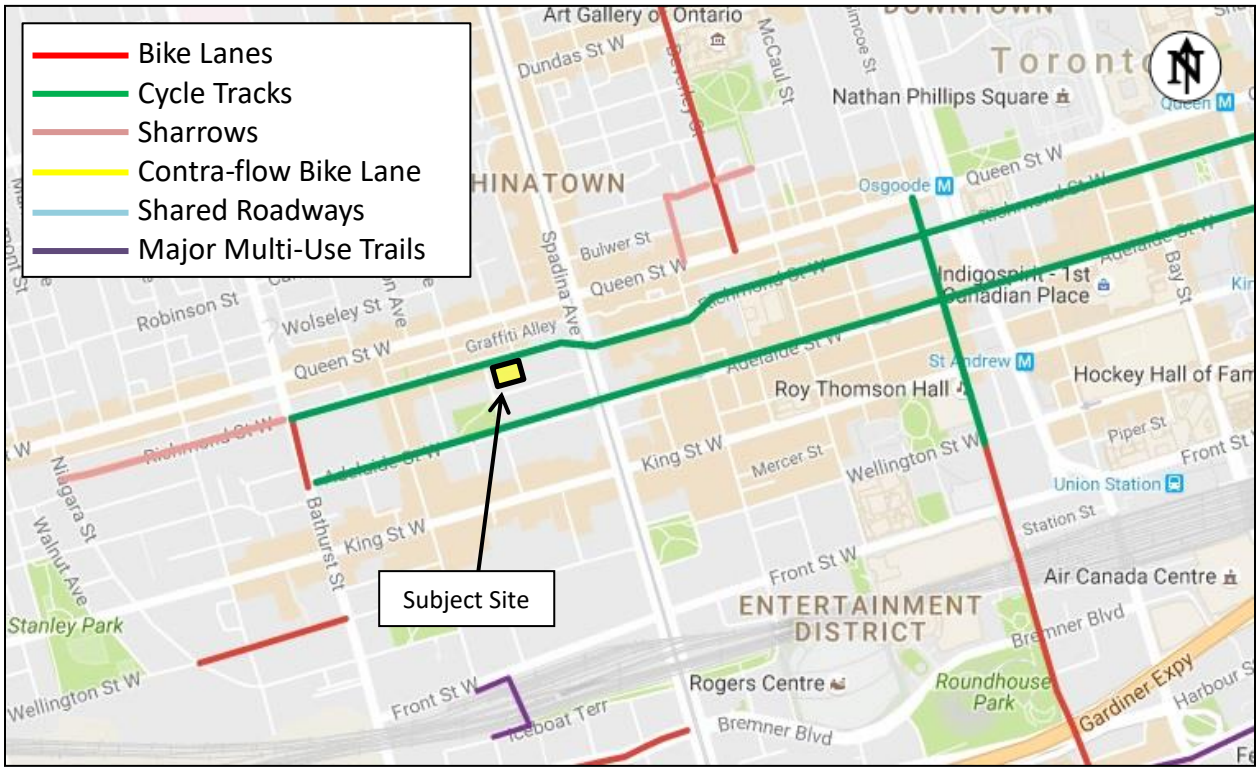


Figure 2-3: Existing Cycling Network

Overall, cycling opportunities in the area are ample, and will serve to encourage those staying and/or working at the subject site to travel by bicycle.

2.4 PEDESTRIAN NETWORK

In the area immediately surrounding the subject site, the existing pedestrian network consists of continuous sidewalks and wide sidewalks that provide for good pedestrian connectivity. Well-situated within the Downtown core, the subject site is located nearby a plethora of daily amenities, restaurants, and service locations that will serve future guests and employees on-site.

When entered as a testable address on the Walkscore application, the subject site receives a score of 99 – Walker's Paradise. This is a near perfect score, revealing that all daily trips can be accomplished on foot, and there is no need for a personal automobile.

3 SITE-GENERATED TRAFFIC

3.1 TRIP GENERATION

The proposed development will introduce 380 hotel suites. To determine the trip generation for the proposed uses, LEA conducted a proxy site trip generation survey of a comparable hotel development, the Hilton Garden Inn located at 92 Peter Street, approximately 500 m from the subject site. The trip generation survey was conducted on June 14, 2018 between the hours of 7:00 – 9:00 AM and 4:00 – 6:00 PM. The trip generation rates were determined by relating the inbound and outbound trips at the site driveway to the number of rooms at the proxy site.

The trip generation for the proposed development is summarized in **Table 3-1.** Detailed proxy survey data are provided in **Appendix A.**

Trips Generated	Rooms	AM Peak Hour (Trips)			PM Peak Hour (Trips)		
		In	Out	Total	In	Out	Total
Proxy Trip Generation							
Hilton Garden Inn (92 Peter Street)	224	6	7	13	8	7	15
Trip Generation Rate		0.03	0.03	0.06	0.04	0.03	0.07
Proposed Site Trip Generation							
New Site Trips	**375**	12	11	23	15	11	26
Existing Site Trips	**-**	*-5*	*-1*	*-6*	*-2*	*-9*	*-11*
Net New Site Trips		**7**	**10**	**17**	**12**	**5**	**17**

Table 3-1: Trip Generation Summary

Based on the proxy trip rates, the subject site is projected to generate 17 net new trips (7 inbound, 10 outbound) and 17 net new trips (12 inbound, 5 outbound) during the AM and PM peak hour periods, respectively. Given the minimal site trips projected, the subject site is expected to introduce an acceptable traffic impact on the surrounding road network, and intersection capacity analyses have not been conducted.

4 PARKING REVIEW

This section will review the parking supply proposed as part of the redevelopment, including both vehicular and bicycle parking. These parking supplies will be contrasted against the applicable City of Toronto Zoning By-Law requirements.

4.1 VEHICULAR PARKING

The subject site is governed by the parking requirements set out in the City of Toronto Zoning By-law 569-2013 for Policy Area 1 (PA 1). The parking requirements for the proposed commercial use, as well as the proposed parking supply is summarized in **Table 4-1**.

City of Toronto By-Law 569-2013 PA1 Rates				
Land Use	**GFA (m^2)**	**Minimum Parking Standard**	**Parking Required**	**Provided**
Hotel	14,177	0.2 spaces per 100m^2 GFA	28	35

Table 4-1: Zoning By-Law Parking Requirements

Based on the parking review, the subject site is required to provide a total of 28 spaces. The proposed parking supply of 35 spaces will exceed the minimum parking requirements of Zoning By-Law 569-2013.

Parking is proposed via three (3) levels of below-grade parking which will be accessible via two (2) parking elevators. In support of the parking elevators as proposed, a functional review of the vehicle turning paths has been prepared and is available in **Appendix B**. The turning path analysis finds that parking elevators to be functional. In addition, it is understood that the future hotel will not permit use of the on-site parking by the public. Parking will be the responsibility of valet staff who will be familiar with the elevator arrangement, direction of ingress/egress, and managing the tandem parking spaces.

As for pick-up and drop-off, a pick-up/drop-off is provided for the Richmond Street West entrance on-site via a lay-by parking space. As for the Camden entrance, it is anticipated that any pick-up/drop-off activity would use the available on-street parking in the vicinity of the hotel entrance. There is also the possibility of designating a few on-street parking spaces directly in front of the entrance as short-term parking spaces for a maximum duration of 10-15minutes.

4.2 BICYCLE PARKING REQUIREMENTS

As per the Zoning By-Law 569-2013, the proposed development is not required to provide bicycle parking, however seven (7) short-term and two (2) long-term spaces will be provided as means to encourage cycling to/from the site and to act as a Transportation Demand Management (TDM) measure.

5 LOADING REVIEW

The City of Toronto Zoning By-law 569-2013 was reviewed to determine the loading requirements on site. The loading requirements for the proposed commercial use, as well as the proposed parking supply is summarized in **Table 5-1**.

A review of site circulation indicates that garbage and loading vehicles can manoeuvre the site in a safe and acceptable manner. Detailed swept path diagrams are provided in **Appendix B**.

City of Toronto By-Law 569-2013 Loading Standards			
Land Use	**GFA (m^2)**	**Loading Spaces Required**	**Loading Provided**
Hotel	10,000 to 19,999 m^2	2 Type "B" and 1 Type "C"	2 Type B/C

Table 5-1: Zoning By-Law Loading Requirements

The loading requirements will consist of 2 Type "B" and 1 Type "C" loading spaces. The proposed redevelopment will include two (2) Type B loading spaces which will be used as shared Type B/C loading spaces. This will be sufficient given the proposed land uses on-site and is considered to satisfy the Zoning By-Law requirement.

The turning path diagrams in **Appendix B** demonstrate that while the northern loading space is occupied, a second loading vehicle can access the southern loading space, but will not be able to exit the site until such time as the northern loading space is vacated as the northern loading area will be needed to turn a loading vehicle around. However, the use of the loading areas will be strictly controlled and scheduled by hotel staff. This will ensure the use of the loading spaces are coordinated, avoiding any potential conflict.

6 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) is a set of strategies which strive towards a more efficient transportation network by influencing travel behavior. Effective TDM measures can reduce vehicle usage and encourage people to engage in more sustainable methods of travel. There are several opportunities to incorporate TDM measures that support alternative modes of transportation. The recommendations should enhance non-single occupant vehicle trips for the future employees of the proposed hotel.

6.1 PEDESTRIAN-BASED STRATEGIES

1. Building entrances are to be located close to the street with a direct connection to pedestrian corridors.

The proposed pedestrian entrances are oriented to Richmond Street West and Camden Street which contain existing sidewalks to provide convenient linkages for pedestrians, transit users, and cyclists to access the building. The development should also maintain enhanced landscaping and facades throughout the site to encourage walking and ensure minimal barriers to provide a safe and accessible pedestrian realm.

2. Mixed land uses to facilitate walking trips.

The proximity to the various nearby commercial and residential uses provides a great opportunity for hotel guests and employees to walk to these destinations. This will reduce the need for automobile travel in the area.

6.2 TRANSIT-BASED STRATEGIES

3. Connection to transit network.

The subject site is located in a transit supportive neighbourhood with existing transit stops within a 2-minute walking distance. As detailed in **Section 2.2**, the TTC transit routes in the immediate area include streetcar Route 510 Spadina and Route 501 Queen. Both routes operate seven days a week and provide significant north-south and east-west connections to major destinations and TTC subway stations. The availability of transit services within the area will allow hotel visitors and staff to conform to the neighbourhood's existing non-auto dependent lifestyle.

6.3 CYCLING-BASED STRATEGIES

4. Promote and increase cycling awareness and multi-modal transport.

Provide information packages to employees to encourage active transportation and different travel demand management programs. This should include providing pedestrian, cycling and transit maps of the available infrastructure in the surrounding area.

The applicant should provide the information packages and communications to be distributed to employees and guests. A designated Information Centre should be set up within the lobby area to provide updated information on SmartCommute initiatives and multi-modal connections.

5. Provide bicycle parking.

As per the Zoning By-Law, no bicycle parking is required to be provided on-site. In an effort to encourage cycling to/from the site and to capitalize on the immediately available high-quality cycling infrastructure in the study area, seven (7) short-term and two (2) long-term bicycle parking spaces are proposed.

6.4 TRAVEL AND PARKING MANAGEMENT STRATEGIES

Programs and parking management enhances the utilization of multi-modal infrastructure. Some specific TDM strategies include:

6. Establish and promote travel management programs.

Develop marketing campaigns to reach employees and guests, such as welcome packets with transit system information. Strongly promote SmartCommute participation to the hotel management with the local Transportation Management Association. Provide pre-loaded PRESTO cards to all employees within their welcome package, and reserve space in communal areas such as lobby's for SmartCommute information materials.

7. Enforce parking management program.

Permit reductions in maximum and minimum parking requirements once TDM measures are adopted as part of the development approval. The off-site, shared and existing on-street parking should count toward the parking requirements. Further, paid parking should be enforced on-site to help promote a shift toward alternative forms of transportation to access the site. Priority should be given to accessible parking spaces as well as carpool and alternative energy vehicles. The proposed development will not provide surface parking, therefore minimizing the visual impact of parking as much as possible.

8. Provide a passenger pick-up/drop-off area.

A passenger pick-up/drop-off area is proposed which will encourage hotel guests to travel to the hotel as a passenger whether through taxi service or rideshare services. Furthermore, the passenger pick-up/drop-off may also encourage carpooling for hotel employees who may be dropped-off or picked-up in travelling to the site.

7 CONCLUSIONS

- The proposed development will introduce two (2) hotel towers containing 375 rooms on the site of 471 Richmond Avenue West & 38 Camden Street. This will replace the existing land uses on site. The site will maintain access to Richmond Avenue West.
- The existing transportation networks in the area were reviewed. The subject site is located in an area well serviced by the TTC with frequent service along Spadina Avenue and Queen Street West. Significant cycling facilities are located on the doorstep of the subject site, and the existing pedestrian network consists of continuous wide sidewalks providing for a high degree of walkability and connectivity.
- The projected site trips were determined through a proxy survey conducted at a comparable hotel development within the area. The subject site is projected to generate 17 net new trips (7 inbound, 10 outbound) and 17 net new trips (12 inbound, 5 outbound) during the AM and PM peak hour periods, respectively. The proposed redevelopment is expected to have an acceptable traffic impact.
- The parking requirements of the City of Toronto By-Law 569-2013 indicate a minimum supply of 28 parking spaces. The proposed development will satisfy the minimum requirement by providing a total of 35 spaces. Further, seven (7) short-term and two (2) long-term bicycle parking spaces will be provided compared to none being required.
- The loading requirements of the City of Toronto By-Law 569-2013 include 2 Type "B" and 1 Type "C" loading space. The proposed development will include two (2) shared Type B/C loading space which is considered to satisfy the Zoning By-Law requirements.
- A number of TDM measures have been recommended, including the provision of PRESTO Cards to employees and promoting multi-modal travel alternatives. The nearby transit stops and amenities surrounding the subject site will allow employees and guests to engage in alternative transportation methods and reduce the need for travel using a personal vehicle.

APPENDIX A

Proxy Trip Generation Survey Results

TABULAR SUMMARY OF TRIP GENERATION COUNT

COUNT DA Thursday June 14, 2018 | N / S STREET: 461 Richmond St W Access | AREA: Toronto

PROJECT # 18349.200 | E / W STREET: Richmond Street West | PROV.: ON

471 Richmond Street West

START TIME	471 Richmond Street West Access		TOTAL				
	Inbound (EBR/WBL)	Outbound (NBL/NBR)	IB	OB	ALL	HOURLY	
07:00			0	0	0		
07:15		1	0	1	1		
07:30		2	0	2	2		
07:45	1		1	0	1	4	
08:00	1		1	0	1	5	
08:15			0	0	0	4	
08:30	3	1	3	1	4	**6**	<-- PeakHour
08:45			0	0	0	5	
04:00	1	1	1	1	2		
04:15	2		2	0	2		
04:30	1	2	1	2	3		
04:45			0	0	0	7	
05:00	1	1	1	1	2	7	
05:15	1		1	0	1	6	
05:30	1	3	1	3	4	7	
05:45			0	0	0	7	
06:00	1	3	1	3	4	**9**	<-- PeakHour
06:15		3	0	3	0	3	
06:30			0	0	0	0	
TOTAL	13	17	13	17	27	74	

AM PEAK	5	1	5	1	6
PM PEAK	3	6	3	6	9
TOTAL	8	7	8	7	15

TABULAR SUMMARY OF TRIP GENERATION COUNT

COUNT DA Thursday June 14, 2018 | N / S STREET: Peter Street | AREA: Toronto
PROJECT # 18349.200 | E / W STREET: Hilton Garden Inn Parking Access | PROV.: ON

START TIME	Hilton Garden Inn Parking Access		TOTAL				
	Inbound (SBR/NBL)	Outbound (EBL/EBR)	IB	OB	ALL	HOURLY	
07:00	1		1	0	1		
07:15	2	1	2	1	3		
07:30		3	0	3	3		
07:45		1	0	1	1	8	
08:00	4	2	4	2	6	**13**	<-- PeakHour
08:15		2	0	2	2	12	
08:30	2		2	0	2	11	
08:45	1	1	1	1	2	12	
04:00	1	1	1	1	2		
04:15	2	2	2	2	4		
04:30	1	1	1	1	2		
04:45	1	2	1	2	3	11	
05:00	4	1	4	1	5	14	
05:15	1		1	0	1	11	
05:30	3	1	3	1	4	13	
05:45	2	1	2	1	3	13	
06:00	2	5	2	5	7	**15**	<-- PeakHour
06:15	1		1	0	1	15	
06:30			0	0	0	11	
TOTAL	28	24	28	24	52	165	

AM PEAK	6	7	6	7	13
PM PEAK	8	6	8	7	15
TOTAL	14	13	14	14	28

APPENDIX B

Swept Path Diagrams

RICHMOND STREET WEST

APPROXIMATE CENTRE-LINE OF STREET

EXISTING LIGHT POLE TO REMAIN

SIAMESE CONNECTION

EXTERNAL GAS REGULATOR ROOM

EXISTING MAINTENANCE HOLE

EXISTING CURB CUT(S) TO BE REMOVED

EXTENT OF NEW CURB CUT

1.0 6.0 1.0

EXISTING ON-STREET PARKING

Approximately 43m Distance to fire hydrant

MAIN ENTRANCE TO 471 RICHMOND HOTEL

VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1

N 74° 08'-15" W

PROPERTY LINE

EX. 90.90

90.84 90.84 90.84

WC

RECEPTION

UP DN

CISTERN ACCESS

BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE

EX.91.00

457 RICHMOND

2 STOREY BRICK BUILDING

EX.91.05

477 RICHMOND

10 STOREY CONCRETE & GLASS CONDOMINIUM

PROPERTY LINE

N 16° 19'-50" W

F.F.E.:90.79

CACF

INBOUND CAR ELEVATOR

TYPE G LOADING SPACE (shared with TYPE C) 4100 h clear height 2% max slope

CAR ELEVATOR WAITING AREA

PROPERTY LINE

N 16° 19'-50" W

26618

ELEC.

EX.91.08

EXHAUST AIR SHAFT

TRAFFIC SIGNAL LIGHT

PROPOSED WAITING AREA FOR INBOUND VEHICLES

CONVEX MIRROR

EX. 91.02

INTAKE AIR SHAFT

PROPERTY LINE

11199

OUTBOUND CAR ELEVATOR

90.72 90.72 EX.90.75 EX.90.89

TYPE B LOADING SPACE (SHARED WITH TYPE C) 4100mm clear height 2% max slope

HOTEL BOH

WC BOH ELEC.

EX. 90.44

5.0%

12081

EX. 90.51

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

90.23

PROPOSED AREA DRAIN

50 CAMDEN

8 STOREY MASONRY BUILDING

42 CAMDEN

10 STOREY STUCCO BUILDING

26518

N 16° 36'-10" W

32 CAMDEN

12 STOREY CONCRETE BUILDING

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

CACF

LUP

RECEPTION

F.F.E.:90.79

N 16° 09'-20" W

12919

90.15

UP

EXISTING GAS

EX. 90.33

UP DN

90.23

90.22

90.21

SET BACK 1536

EX. 90.33

3303

N 74° 16'-50" E

1570 1208

MAIN ENTRANCE38

Approximately 43m Distance to fire hydrant

10000

800 6500

MSU mm

Width : 2600

Track : 2600

Lock to Lock Time : 6.0

Steering Angle : 40.1

PLOT DATE: May 30, 2019

DRAWN BY: D.C.

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

N

Project No.
19332-220

Date
MAY 30, 2019

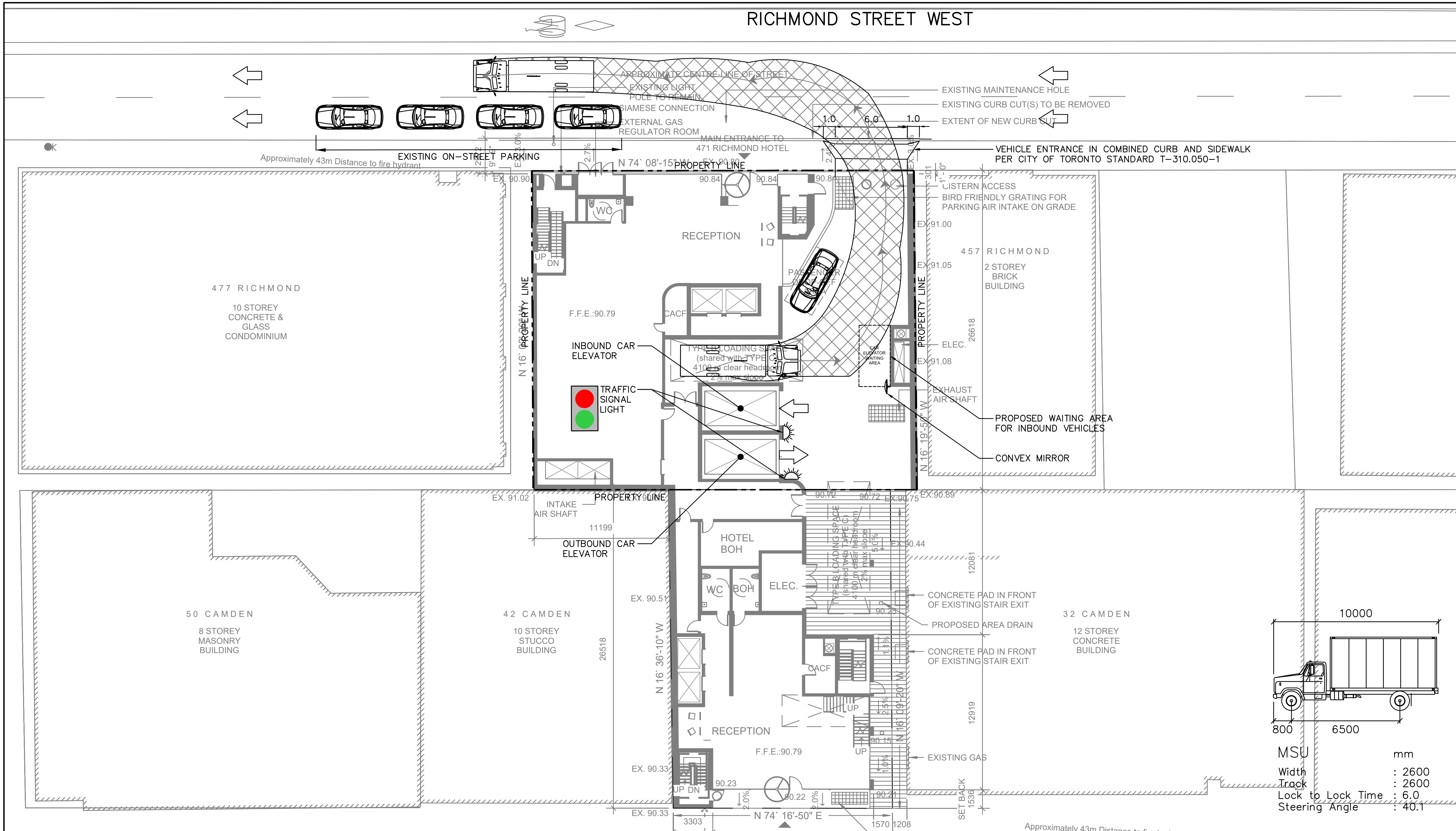
471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR - LOADING REVIEW
MOVING/DELIVERY TRUCK No.1
ENTRY PATH

Drawing No.
001A

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg


RICHMOND STREET WEST
APPROXIMATE CENTRE LINE OF STREET
EXISTING LIGHT POLE TO REMAIN
SIAMESE CONNECTION
EXTERNAL GAS REGULATOR ROOM
MAIN ENTRANCE TO 471 RICHMOND HOTEL
EXISTING MAINTENANCE HOLE
EXISTING CURB CUT(S) TO BE REMOVED
EXTENT OF NEW CURB CUT
VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1
EXISTING ON-STREET PARKING
Approximately 43m Distance to fire hydrant
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TRAFFIC SIGNAL LIGHT
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EXHAUST AIR SHAFT
PROPOSED WAITING AREA FOR INBOUND VEHICLES
CONVEX MIRROR
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477 RICHMOND
10 STOREY CONCRETE & GLASS CONDOMINIUM
457 RICHMOND
2 STOREY BRICK BUILDING
50 CAMDEN
8 STOREY MASONRY BUILDING
42 CAMDEN
10 STOREY STUCCO BUILDING
32 CAMDEN
12 STOREY CONCRETE BUILDING
HOTEL BOH
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
PROPOSED AREA DRAIN
EXISTING GAS
MAIN ENTRANCE
10000
800
6500
MSU
mm
Width : 2600
Track : 2600
Lock to Lock Time : 6.0
Steering Angle : 40.1

DRAWN BY: D.C.

PLOT DATE: May 30, 2019

LEA Consulting Ltd.
Consulting Engineers and Planners
www.LEA.ca

N

Project No.
19332-220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR – LOADING REVIEW
MOVING/DELIVERY TRUCK No.1
EXIT PATH

Drawing No.
001B

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

RICHMOND STREET WEST

APPROXIMATE CENTRE-LINE OF STREET

EXISTING LIGHT POLE TO REMAIN

SIAMESE CONNECTION

EXTERNAL GAS REGULATOR ROOM

EXISTING MAINTENANCE HOLE

EXISTING CURB CUT(S) TO BE REMOVED

EXTENT OF NEW CURB CUT

1.0 6.0 1.0

EXISTING ON-STREET PARKING

Approximately 43m Distance to fire hydrant

MAIN ENTRANCE TO 471 RICHMOND HOTEL

VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1

N 74° 08'-15" W

EX. 90.80

PROPERTY LINE

EX. 90.90

90.84 90.84 90.84

CISTERN ACCESS

BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE

EX.91.00

WC

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EX.91.05

477 RICHMOND

10 STOREY CONCRETE & GLASS CONDOMINIUM

PROPERTY LINE

N 16° 19'-50" W

F.F.E.:90.79

CACF

INBOUND CAR ELEVATOR

TYPE B LOADING SPACE (shared with TYPE C) 4100 m clear headroom 2% max slope

CAR ELEVATOR WAITING AREA

ELEC.

EX.91.08

EXHAUST AIR SHAFT

TRAFFIC SIGNAL LIGHT

PROPOSED WAITING AREA FOR INBOUND VEHICLES

CONVEX MIRROR

EX. 91.02

INTAKE AIR SHAFT

PROPERTY LINE

90.72 90.72 EX.90.75 EX.90.89

11199

OUTBOUND CAR ELEVATOR

HOTEL BOH

LOADING SPACE (shared with TYPE B) 4100 m clear headroom 2% max slope

EX.90.44

12081

WC BOH ELEC.

EX. 90.51

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

PROPOSED AREA DRAIN

50 CAMDEN

8 STOREY MASONRY BUILDING

42 CAMDEN

10 STOREY STUCCO BUILDING

26518

N 16° 36'-10" W

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

32 CAMDEN

12 STOREY CONCRETE BUILDING

CACF

UP

RECEPTION

N 16° 09'-20" W

12919

F.F.E.:90.79

EXISTING GAS

EX. 90.33

UP DN

90.23 90.22 90.21

SET BACK 1536

EX. 90.33

N 74° 16'-50" E

3303 1570 1208

MAIN ENTRANCE38

Approximately 43m Distance to fire hydrant

10000

800 6500

MSU mm

Width : 2600

Track : 2600

Lock to Lock Time : 6.0

Steering Angle : 40.1

PLOT DATE: May 30, 2019

DRAWN BY: D.C.

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Project No.
19332-220

Date
MAY 30, 2019

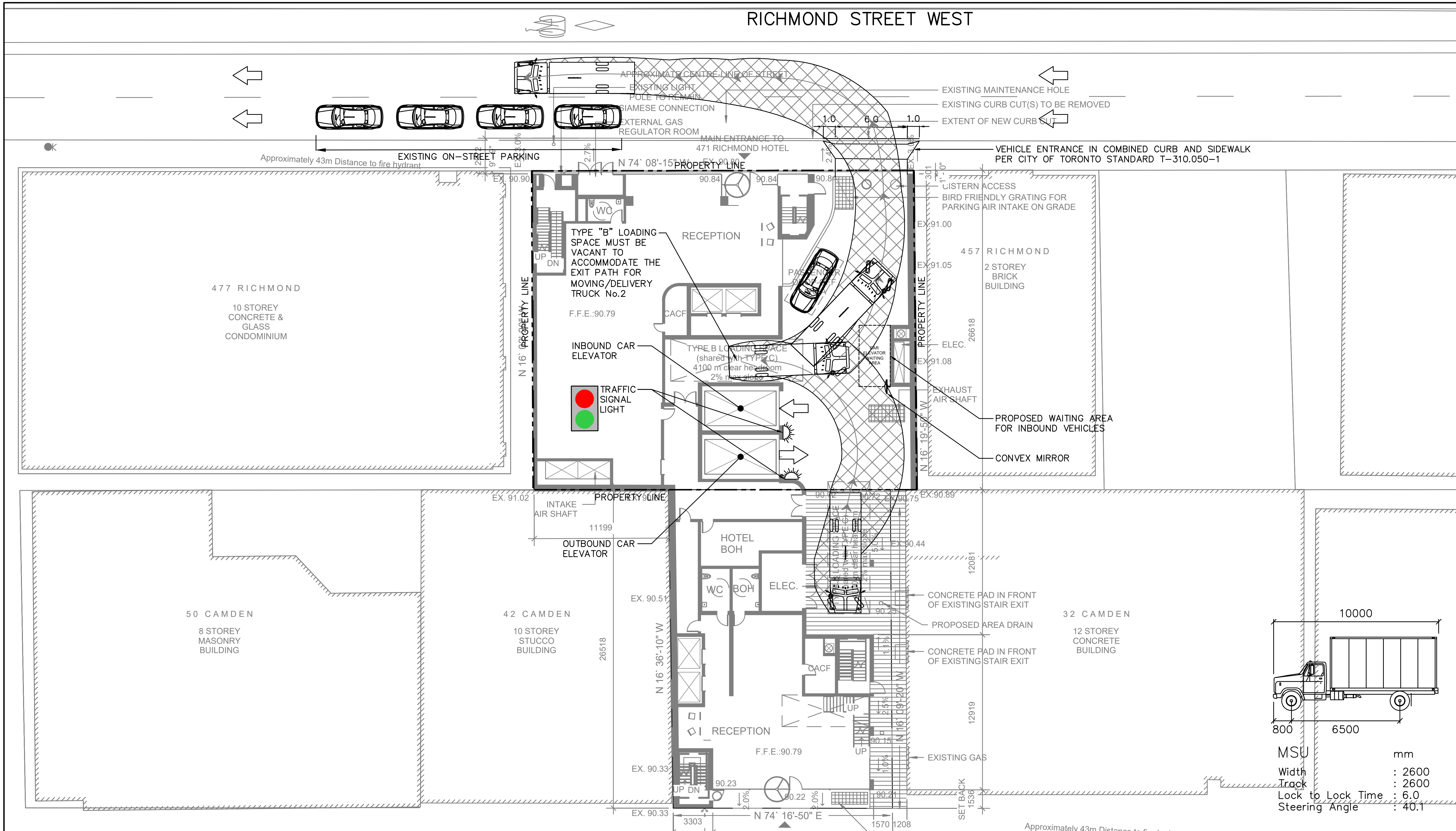
471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR – LOADING REVIEW MOVING/DELIVERY TRUCK No.2 ENTRY PATH

Drawing No.
002A

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg


RICHMOND STREET WEST
APPROXIMATE CENTRE-LINE OF STREET
EXISTING LIGHT POLE TO REMAIN
SIAMESE CONNECTION
EXTERNAL GAS REGULATOR ROOM
MAIN ENTRANCE TO 471 RICHMOND HOTEL
EXISTING MAINTENANCE HOLE
EXISTING CURB CUT(S) TO BE REMOVED
EXTENT OF NEW CURB CUT
1.0
6.0
1.0
VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1
EXISTING ON-STREET PARKING
Approximately 43m Distance to fire hydrant
N 74° 08'-15" W
PROPERTY LINE
CISTERN ACCESS
BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE
RECEPTION
TYPE "B" LOADING SPACE MUST BE VACANT TO ACCOMMODATE THE EXIT PATH FOR MOVING/DELIVERY TRUCK No.2
F.F.E.:90.79
477 RICHMOND
10 STOREY CONCRETE & GLASS CONDOMINIUM
457 RICHMOND
2 STOREY BRICK BUILDING
INBOUND CAR ELEVATOR
TYPE B LOADING SPACE (shared with TYPE C) 4100 m clear headroom 2% max slope
TRAFFIC SIGNAL LIGHT
ELEC.
EXHAUST AIR SHAFT
PROPOSED WAITING AREA FOR INBOUND VEHICLES
CONVEX MIRROR
INTAKE AIR SHAFT
OUTBOUND CAR ELEVATOR
HOTEL BOH
WC
BOH
ELEC.
50 CAMDEN
8 STOREY MASONRY BUILDING
42 CAMDEN
10 STOREY STUCCO BUILDING
32 CAMDEN
12 STOREY CONCRETE BUILDING
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
PROPOSED AREA DRAIN
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
CACF
RECEPTION
F.F.E.:90.79
EXISTING GAS
N 74° 16'-50" E
MAIN ENTRANCE
Approximately 43m Distance to fire hydrant
10000
800
6500
MSU
mm
Width : 2600
Track : 2600
Lock to Lock Time : 6.0
Steering Angle : 40.1

DRAWN BY: D.C.
PLOT DATE: May 30, 2019

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Project No.	19332-220
Date	MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR - LOADING REVIEW
MOVING/DELIVERY TRUCK No.2
EXIT PATH

Drawing No.
002B

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

RICHMOND STREET WEST

APPROXIMATE CENTRE-LINE OF STREET

EXISTING LIGHT POLE TO REMAIN

SIAMESE CONNECTION

EXTERNAL GAS REGULATOR ROOM

EXISTING MAINTENANCE HOLE

EXISTING CURB CUT(S) TO BE REMOVED

EXTENT OF NEW CURB CUT

MAIN ENTRANCE TO 471 RICHMOND HOTEL

EXISTING ON-STREET PARKING

Approximately 43m Distance to fire hydrant

VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1

CISTERN ACCESS

BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE

PROPERTY LINE

N 74° 08'-15" W

EX. 90.90

90.84

90.84

90.84

WC

RECEPTION

UP DN

F.F.E.:90.79

CACF

INBOUND CAR ELEVATOR

TRAFFIC SIGNAL LIGHT

CAR ELEVATOR WAITING AREA

ELEC.

EXHAUST AIR SHAFT

PROPOSED WAITING AREA FOR INBOUND VEHICLES

CONVEX MIRROR

N 16° 19'-50" W

EX.91.00

EX.91.05

EX.91.08

457 RICHMOND

2 STOREY BRICK BUILDING

477 RICHMOND

10 STOREY CONCRETE & GLASS CONDOMINIUM

EX. 91.02

INTAKE AIR SHAFT

OUTBOUND CAR ELEVATOR

11199

26618

90.72

90.72

EX.90.75

EX.90.89

HOTEL BOH

WC

BOH

ELEC.

EX. 90.51

EX.90.44

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

PROPOSED AREA DRAIN

CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT

12081

12919

50 CAMDEN

8 STOREY MASONRY BUILDING

42 CAMDEN

10 STOREY STUCCO BUILDING

32 CAMDEN

12 STOREY CONCRETE BUILDING

26518

N 16° 36'-10" W

N 16° 09'-20" W

CACF

LUP

RECEPTION

F.F.E.:90.79

90.15

UP

EXISTING GAS

EX. 90.33

UP DN

90.23

90.22

90.21

SET BACK 1536

EX. 90.33

3303

N 74° 16'-50" E

MAIN ENTRANCE38

1570 1208

Approximately 43m Distance to fire hydrant

6400

800 3400

LSU

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 40.3

DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Date MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR – LOADING REVIEW LIGHT MOVING/DELIVERY TRUCK ENTRY PATHS

Drawing No. 003

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

RICHMOND STREET WEST

APPROXIMATE CENTRE LINE OF STREET
EXISTING LIGHT POLE TO REMAIN
SIAMESE CONNECTION
EXTERNAL GAS REGULATOR ROOM
MAIN ENTRANCE TO 471 RICHMOND HOTEL
EXISTING MAINTENANCE HOLE
EXISTING CURB CUT(S) TO BE REMOVED
EXTENT OF NEW CURB CUT
VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1
EXISTING ON-STREET PARKING
Approximately 43m Distance to fire hydrant
N 74° 08'-15" W
PROPERTY LINE
EX. 90.90
90.84
90.84
90.84
WC
RECEPTION
UP
DN
CISTERN ACCESS
BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE
EX.91.00
457 RICHMOND
2 STOREY BRICK BUILDING
EX.91.05
477 RICHMOND
10 STOREY CONCRETE & GLASS CONDOMINIUM
F.F.E.:90.79
CACF
INBOUND CAR ELEVATOR
TRAFFIC SIGNAL LIGHT
CAR ELEVATOR WAITING AREA
ELEC.
EX.91.08
EXHAUST AIR SHAFT
PROPOSED WAITING AREA FOR INBOUND VEHICLES
CONVEX MIRROR
N 16° 19'-50" W
26618
EX. 91.02
INTAKE AIR SHAFT
PROPERTY LINE
11199
OUTBOUND CAR ELEVATOR
90.72
90.72
EX.90.75
EX.90.89
HOTEL BOH
EX.90.44
WC
BOH
ELEC.
EX. 90.51
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
PROPOSED AREA DRAIN
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
50 CAMDEN
8 STOREY MASONRY BUILDING
42 CAMDEN
10 STOREY STUCCO BUILDING
32 CAMDEN
12 STOREY CONCRETE BUILDING
26518
N 16° 36'-10" W
12081
12919
N 16° 09'-20" W
CACF
LUP
RECEPTION
F.F.E.:90.79
90.15
UP
EXISTING GAS
EX. 90.33
90.23
UP DN
90.22
90.21
SET BACK 1536
EX. 90.33
3303
N 74° 16'-50" E
MAIN ENTRANCE38
1570
1208
Approximately 43m Distance to fire hydrant

6400
800
3400
LSU

	mm
Width	: 2600
Track	: 2600
Lock to Lock Time	: 6.0
Steering Angle	: 40.3

DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Date MAY 30, 2019

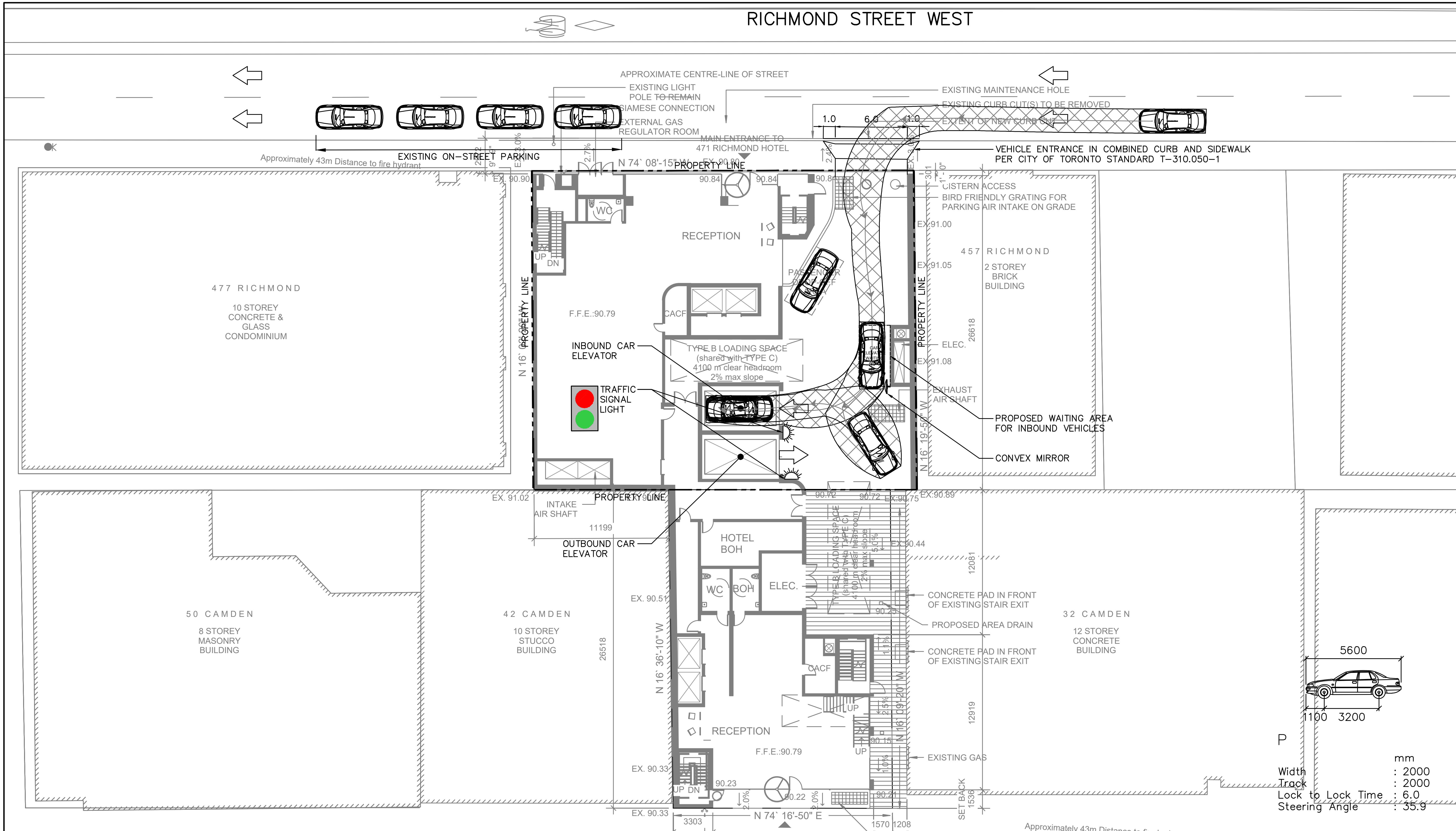
471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR – LOADING REVIEW LIGHT MOVING/DELIVERY TRUCK EXIT PATHS

Drawing No. 004

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg


RICHMOND STREET WEST
APPROXIMATE CENTRE-LINE OF STREET
EXISTING LIGHT POLE TO REMAIN
SIAMESE CONNECTION
EXTERNAL GAS REGULATOR ROOM
MAIN ENTRANCE TO 471 RICHMOND HOTEL
EXISTING MAINTENANCE HOLE
EXISTING CURB CUT(S) TO BE REMOVED
EXTENT OF NEW CURB CUT
VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1
EXISTING ON-STREET PARKING
Approximately 43m Distance to fire hydrant
PROPERTY LINE
N 74` 08'-15" W
CISTERN ACCESS
BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE
477 RICHMOND
10 STOREY CONCRETE & GLASS CONDOMINIUM
457 RICHMOND
2 STOREY BRICK BUILDING
RECEPTION
F.F.E.:90.79
CACF
TYPE B LOADING SPACE (shared with TYPE C) 4100 m clear headroom 2% max slope
INBOUND CAR ELEVATOR
TRAFFIC SIGNAL LIGHT
ELEC.
EXHAUST AIR SHAFT
PROPOSED WAITING AREA FOR INBOUND VEHICLES
CONVEX MIRROR
INTAKE AIR SHAFT
OUTBOUND CAR ELEVATOR
HOTEL BOH
WC
BOH
ELEC.
50 CAMDEN
8 STOREY MASONRY BUILDING
42 CAMDEN
10 STOREY STUCCO BUILDING
32 CAMDEN
12 STOREY CONCRETE BUILDING
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
PROPOSED AREA DRAIN
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
EXISTING GAS
RECEPTION
F.F.E.:90.79
N 74` 16'-50" E
MAIN ENTRANCE38
SET BACK 1536
5600
1100 3200
P
mm
Width : 2000
Track : 2000
Lock to Lock Time : 6.0
Steering Angle : 35.9

PLOT DATE: May 30, 2019

DRAWN BY: D.C.

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Date
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471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR - LOADING REVIEW
PASSENGER CAR
FORWARD AND REVERSE ENTRY PATH

Drawing No.
005

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

RICHMOND STREET WEST

APPROXIMATE CENTRE LINE OF STREET
EXISTING NIGHT POLE TO REMAIN
SIAMESE CONNECTION
EXTERNAL GAS REGULATOR ROOM
EXISTING MAINTENANCE HOLE
EXISTING CURB CUT(S) TO BE REMOVED
EXTENT OF NEW CURB CUT
1.0 6.0 1.0
EXISTING ON-STREET PARKING
Approximately 43m Distance to fire hydrant
MAIN ENTRANCE TO 471 RICHMOND HOTEL
VEHICLE ENTRANCE IN COMBINED CURB AND SIDEWALK PER CITY OF TORONTO STANDARD T-310.050-1
N 74° 08'-15" W
PROPERTY LINE
EX. 90.90
90.84
90.84
90.86
CISTERN ACCESS
BIRD FRIENDLY GRATING FOR PARKING AIR INTAKE ON GRADE
EX.91.00
WC
RECEPTION
UP DN
457 RICHMOND
2 STOREY BRICK BUILDING
EX.91.05
477 RICHMOND
10 STOREY CONCRETE & GLASS CONDOMINIUM
N 16° 19'-50" W
PROPERTY LINE
F.F.E.:90.79
CACF
INBOUND CAR ELEVATOR
TYPE B LOADING SPACE (shared with TYPE C) 4100 m clear headroom 2% max slope
ELEC.
EX.91.08
26618
TRAFFIC SIGNAL LIGHT
EXHAUST AIR SHAFT
PROPOSED WAITING AREA FOR INBOUND VEHICLES
CONVEX MIRROR
N 16° 19'-50" W
EX. 91.02
INTAKE AIR SHAFT
PROPERTY LINE
11199
OUTBOUND CAR ELEVATOR
90.72
90.72
EX.90.75
EX.90.89
HOTEL BOH
TYPE B LOADING SPACE (shared with TYPE C) 4100 m clear headroom 2% max slope
EX.90.44
5.0%
12081
WC
BOH
ELEC.
EX. 90.51
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
90.23
PROPOSED AREA DRAIN
50 CAMDEN
8 STOREY MASONRY BUILDING
42 CAMDEN
10 STOREY STUCCO BUILDING
26518
N 16° 36'-10" W
32 CAMDEN
12 STOREY CONCRETE BUILDING
CONCRETE PAD IN FRONT OF EXISTING STAIR EXIT
CACF
11.1%
2.5%
N 16° 09'-20" W
12919
LUP
RECEPTION
F.F.E.:90.79
90.15
UP
1.0%
EXISTING GAS
EX. 90.33
UP DN
90.23
2.0%
90.22
2.0%
90.21
SET BACK 1536
EX. 90.33
3303
N 74° 16'-50" E
1570 1208
MAIN ENTRANCE38
Approximately 43m Distance to fire hydrant

5600
1100 3200
P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

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Date
MAY 30, 2019

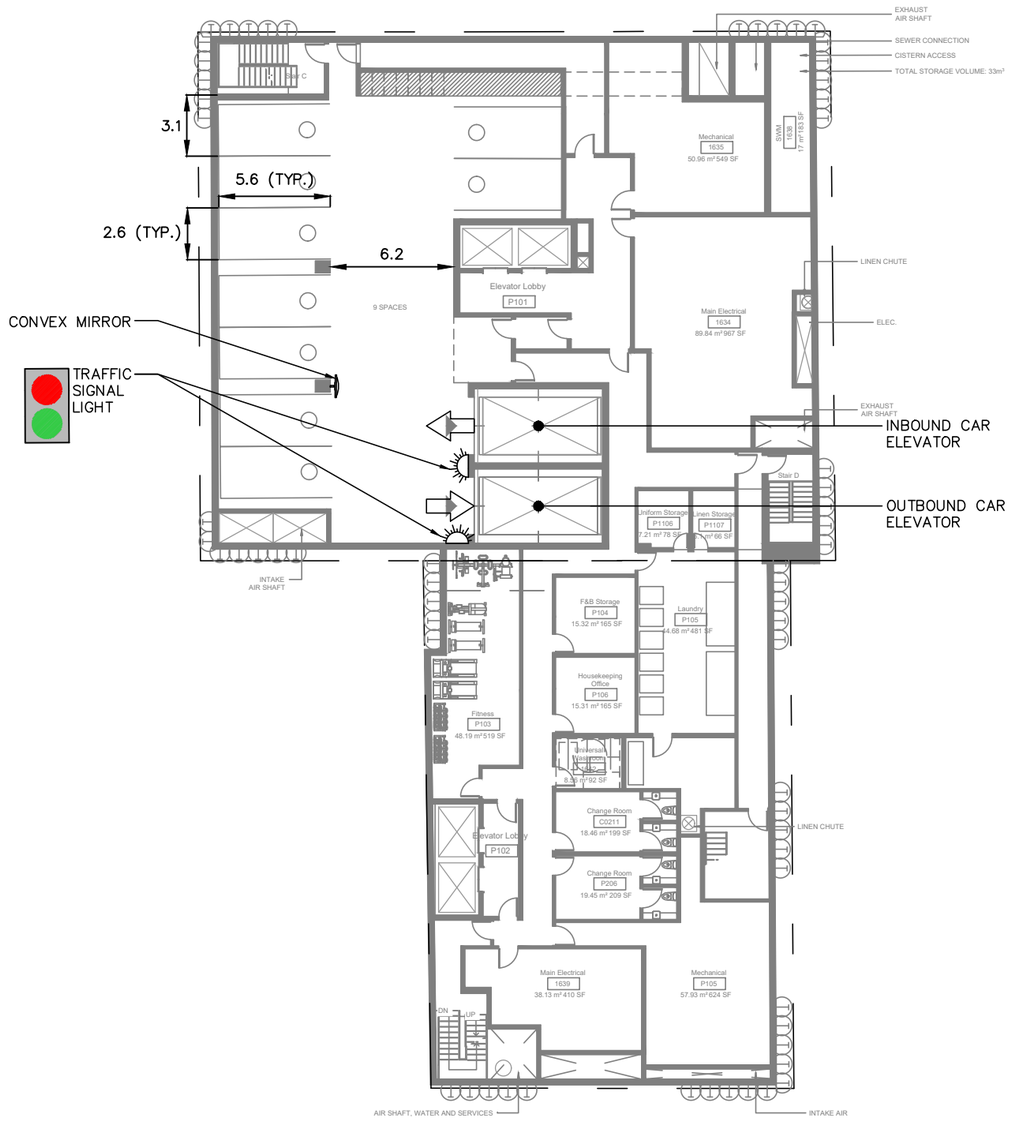
471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

GROUND FLOOR – LOADING REVIEW PASSENGER CAR FORWARD AND REVERSE EXIT PATH

Drawing No.
006

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg



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Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

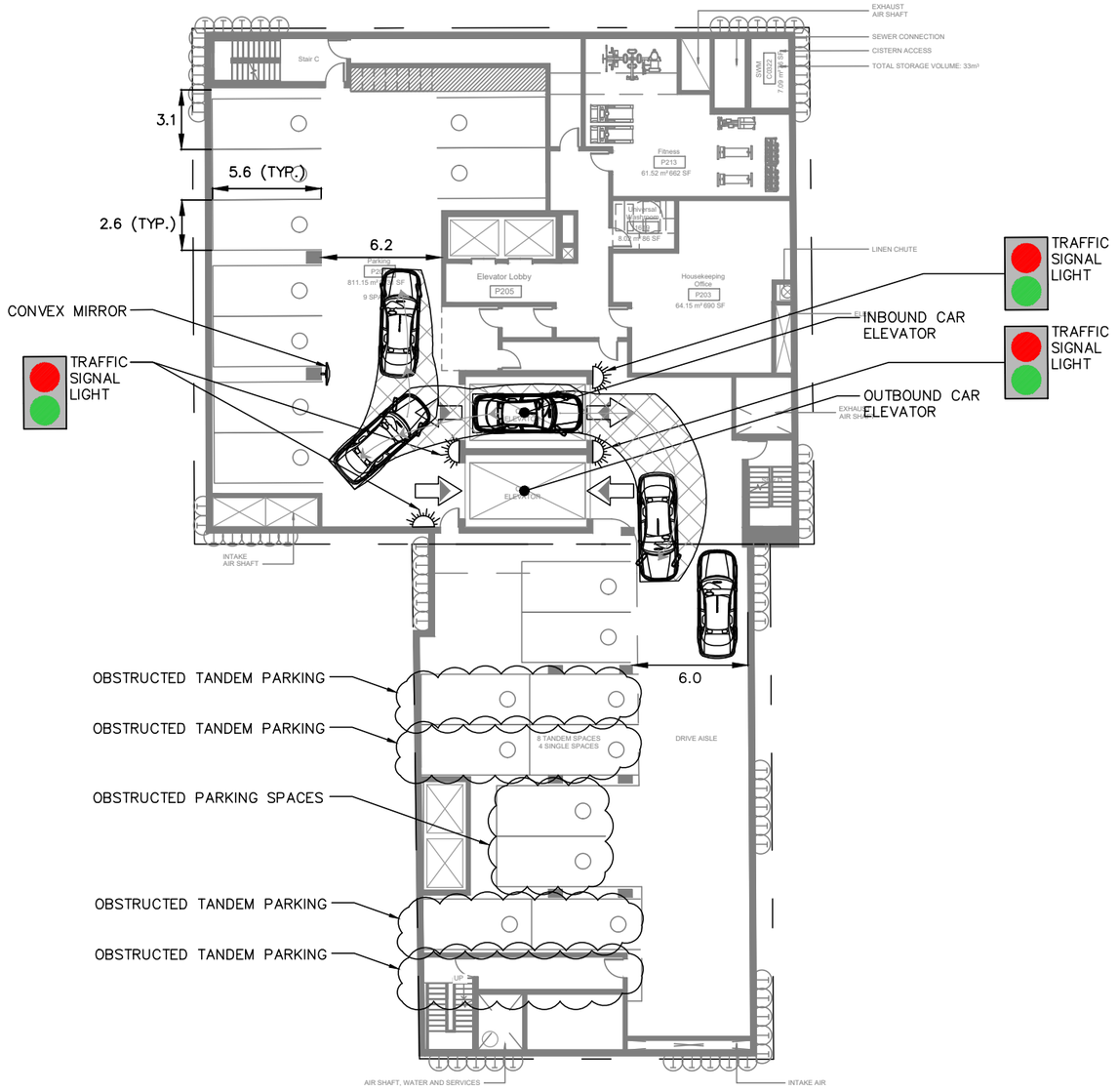
3 0 3 6 9m
1:300

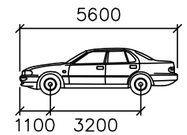
LEVEL P1 – PARKING REVIEW

Drawing No.
007

DRAWN BY: D.C. PLOT DATE: May 30, 2019

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg





P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Date
MAY 30, 2019

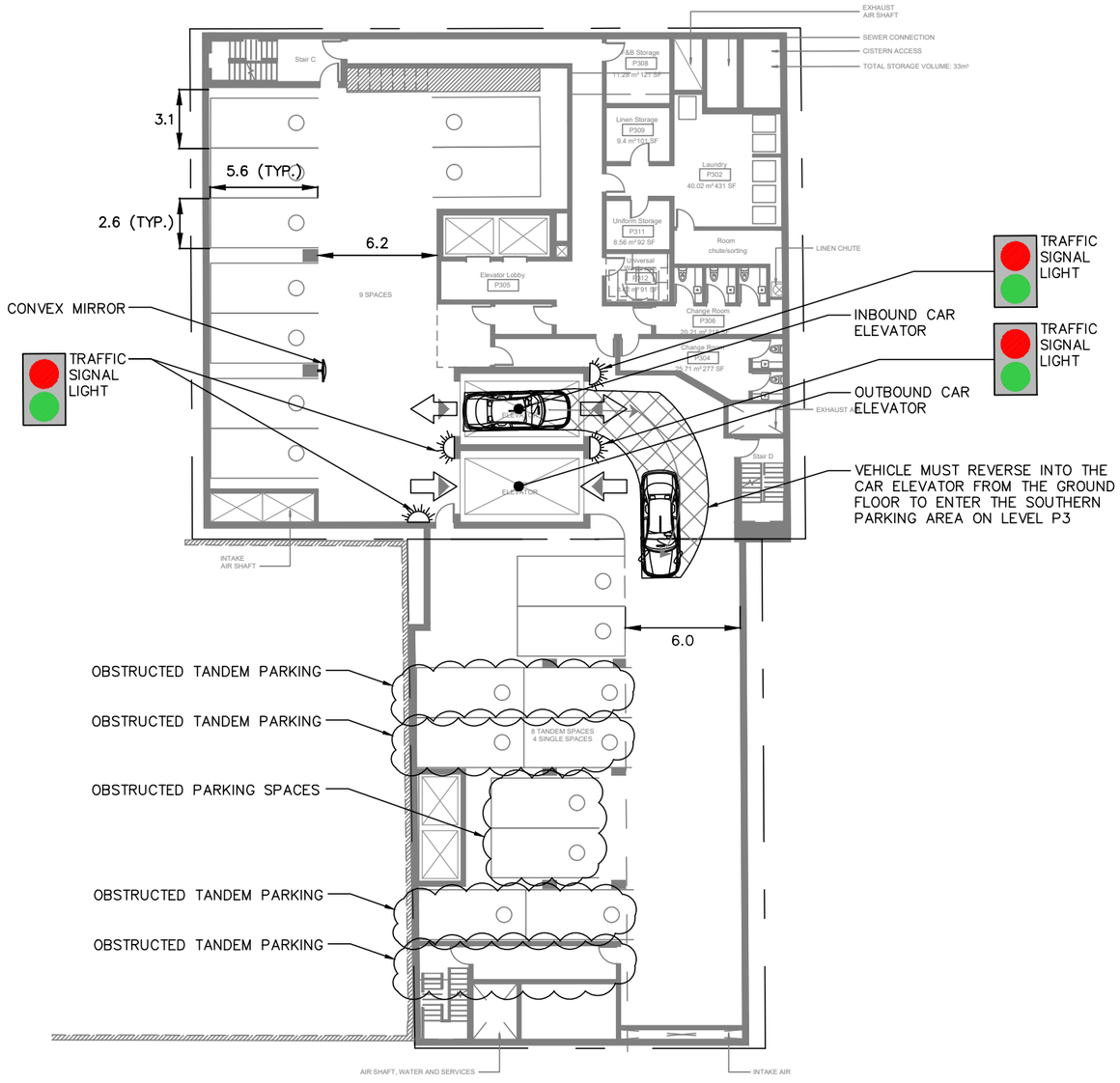
471 RICHMOND STREET WEST
TORONTO ONTARIO

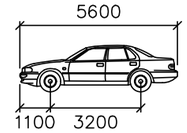
3 0 3 6 9m
1:300

LEVEL P2 – PARKING REVIEW

Drawing No.
008

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg





P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Project No.
19332–220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

LEVEL P3 – PARKING REVIEW

Drawing No.
009

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

TRAFFIC SIGNS SCHEDULE

SIGN/ID	LOCATION	NEW QUANTITY REQUIRED	COLOURS
STOP	1	1	Ra–1 (600x600) WHITE REFL. LEGEND & BORDER, RED REFL. BACKGROUND.
LOADING ZONE	2,3	2	Rb–51 MOD. (300x450) RED REFL. INTERDICTORY SYMBOL, BLACK LEGEND & BORDER, WHITE REFL. BACKGROUND.
	4,5	2	Rb–51 (300x300) RED REFL. INTERDICTORY SYMBOL, BLACK LEGEND & BORDER, WHITE REFL. BACKGROUND.
DROP–OFF AREA MAX. 5 MINUTES WAITING	6	1	(300x450) BLACK LEGEND & BORDER, WHITE REFL. BACKGROUND.
CAR ELEVATOR WAITING AREA	7	1	Rb–52 MOD. (300x450) RED REFL. INTERDICTORY SYMBOL, BLACK SYMBOL, LEGEND & BORDER, WHITE REFL. BACKGROUND.
REVERSE IN ONLY FOR ENTRY TO LEVEL P2 AND P3	8	1	(300x450) BLACK LEGEND & BORDER, WHITE REFL. BACKGROUND.

NOTE:
- ALL SIGNS ARE STEEL POST–MOUNTED, UNLESS OTHERWISE INDICATED.
- UNDERSIDES OF ALL SIGNS TO BE LOCATED 2.0m MINIMUM ABOVE TOP OF PAVEMENT OR TOP OF SIDEWALK, AS THE CASE MAY BE. ALL SIGNS ARE PER "ONTARIO TRAFFIC MANUAL", LATEST EDITION.
- ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH "ONTARIO TRAFFIC MANUAL, BOOK 11"

PAVEMENT MARKINGS LEGEND:

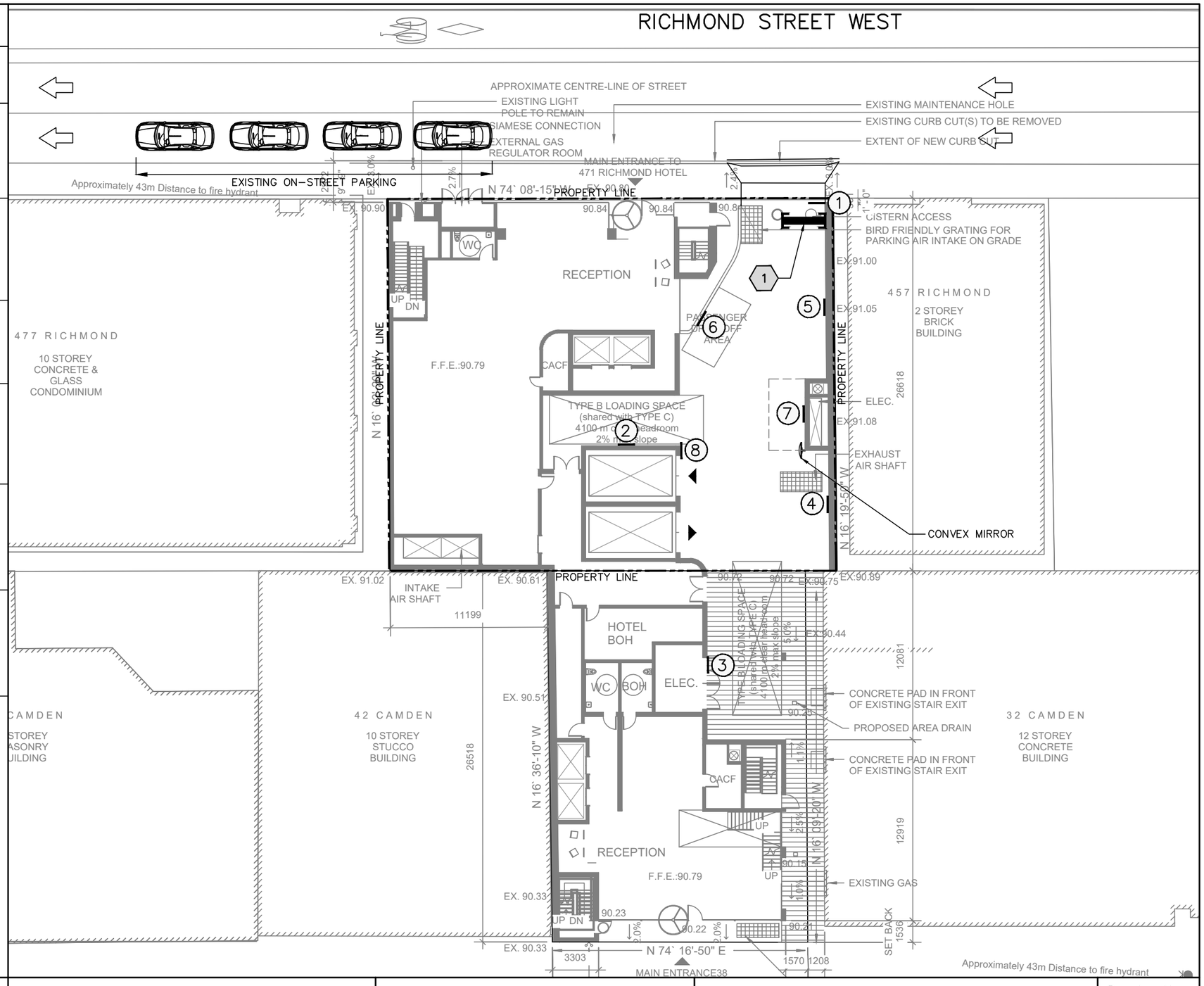
(1) 50cm SOLID WHITE LINE

[ ] LIMITS OF PAINT LINE

SIGNAGE LEGEND:

— WALL–MOUNTED SIGN

(1) SIGN NUMBER



PLOT DATE: May 30, 2019

DRAWN BY: D.C.

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Project No.
19332–220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1: 300

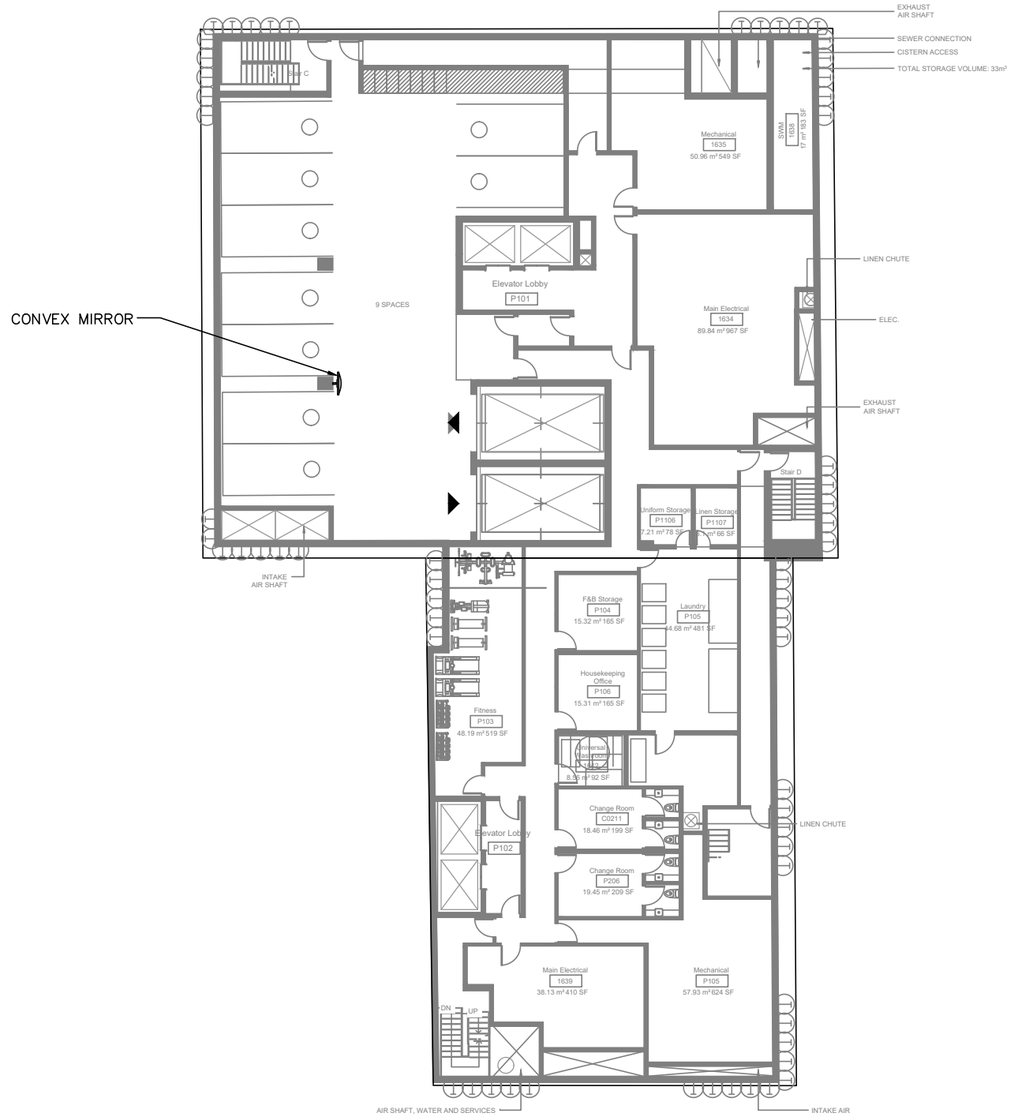
GROUND FLOOR
PAVEMENT MARKING AND SIGNAGE PLAN

Drawing No.
010

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

NOTE:

- ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH "ONTARIO TRAFFIC MANUAL, BOOK 11"



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19332–220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

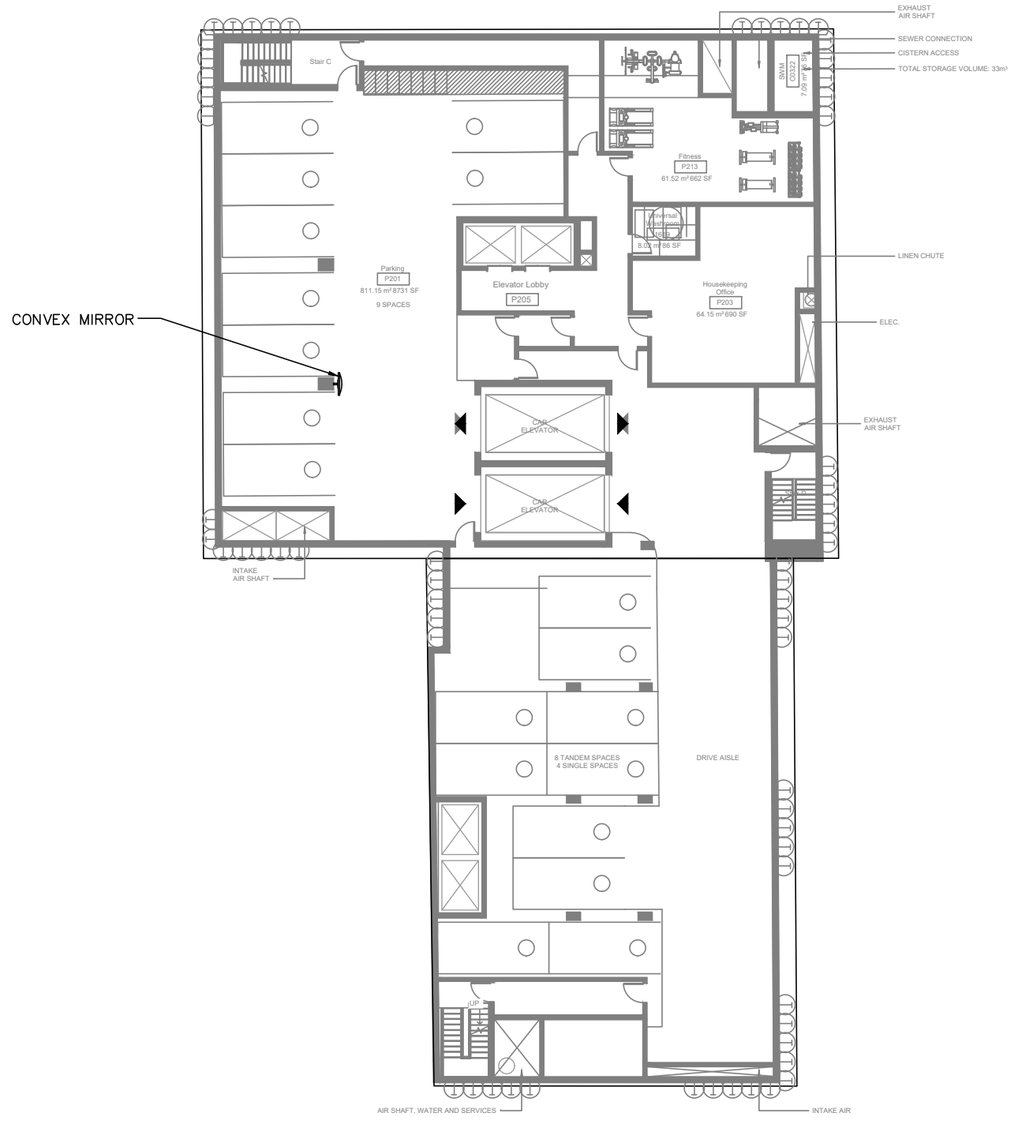
LEVEL P1
PAVEMENT MARKING AND SIGNAGE PLAN

Drawing No.
011

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

NOTE:

- ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH "ONTARIO TRAFFIC MANUAL, BOOK 11"



DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Project No.
19332–220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

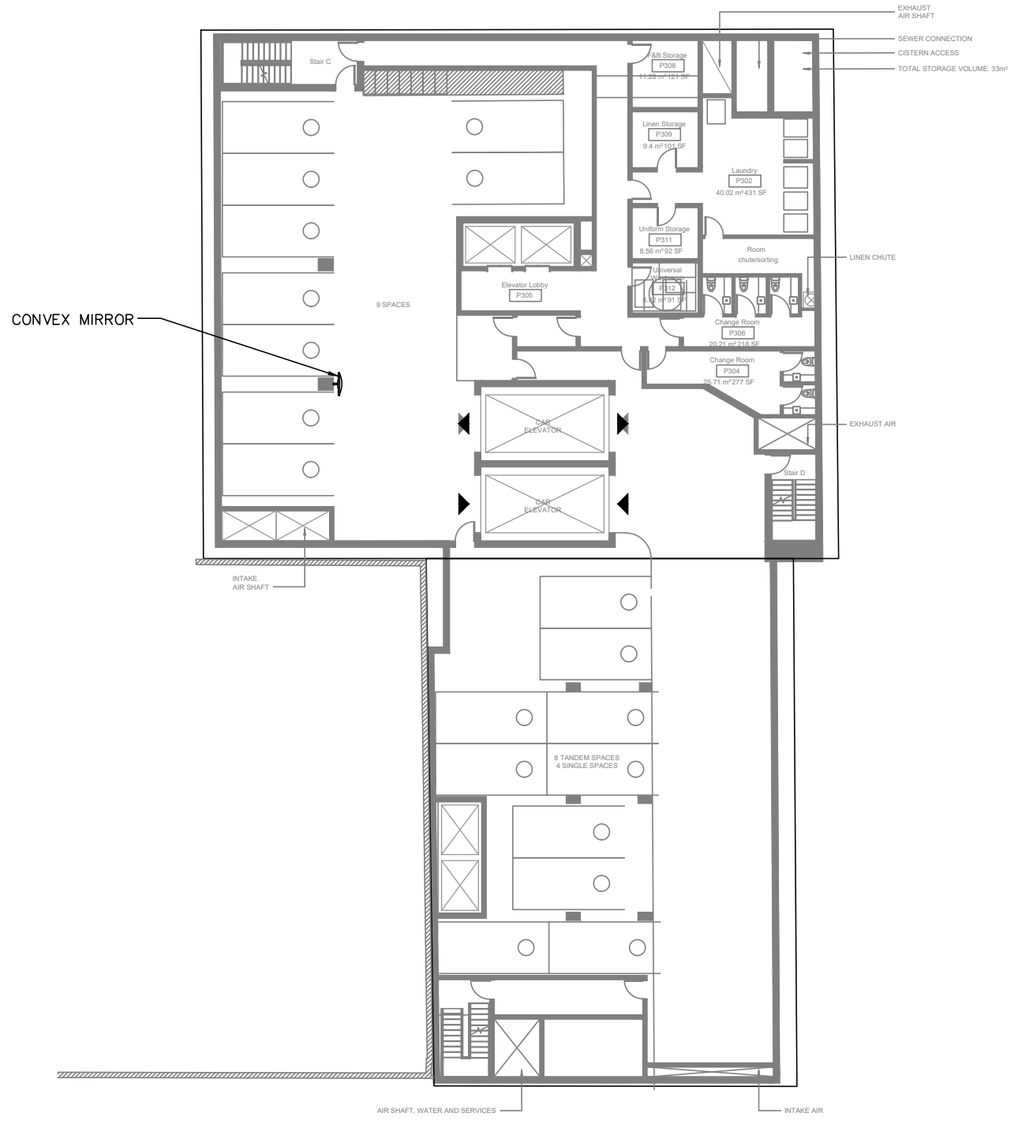
LEVEL P2
PAVEMENT MARKING AND SIGNAGE PLAN

Drawing No.
012

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg

NOTE:

- ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH "ONTARIO TRAFFIC MANUAL, BOOK 11"



DRAWN BY: D.C. PLOT DATE: May 30, 2019

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Project No.
19332–220

Date
MAY 30, 2019

471 RICHMOND STREET WEST
TORONTO ONTARIO

3 0 3 6 9m
1:300

LEVEL P3
PAVEMENT MARKING AND SIGNAGE PLAN

Drawing No.
013

DRAWING NAME: F:\19332\Drafting\19332WF04.dwg