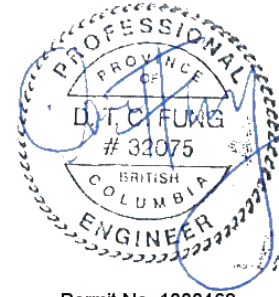


MEMO

2026-03-13

DATE: March 13, 2026
PROJECT NO: 04-24-0376
PROJECT: 1505 56 Street Malcom Centre
SUBJECT: Transportation Memo

TO: Chris Anderson, Darren Trester
Malcom Centre Holdings Inc.



Permit No. 1000468

PREPARED BY: Brian Thi, E.I.T
REVIEWED BY: Daniel Fung, P.Eng.

1. INTRODUCTION

Malcom Centre Holdings Ltd. (The Client) is preparing a rezoning and development permit application for a proposed mixed-use commercial and residential development located at 1505 56 Street in Tsawwassen, Delta, BC. The proposed site is located west of 56 Street, north of 14B Avenue and east of 55B Street. The current proposed development schedule includes a mixture of commercial and residential uses.

This memo was prepared to inform the development site planning and outlines the vehicle trips anticipated to be generated by the proposed site. The analysis represents the third iteration of the assessment and incorporates revisions resulting from changes to the development proposal.

2. PROPOSED DEVELOPMENT

Based on the development statistics provided by the Project Architect, Buro47, the proposed development is planned to accommodate the following:

- 45 purpose built rental units (10 of which are proposed to be adaptable units)
- 4 commercial retail units (CRU) totalling to a gross leasable area of approximately 4,900 ft²

Based on preliminary discussions with the Client, the smallest CRU is anticipated to accommodate a café tenant, while the remaining three CRUs are expected to accommodate a combination of retail, office, and general commercial uses. Although the potential tenant types have been identified, the specific arrangement of CRUs to these uses has not yet been finalized.

For discussion purposes, the CRU-to-land use arrangement summarized in **Table 1** will be used for assessment. This CRU-to-land use arrangement was tested to result in the highest possible trip generation and highest required parking provision.

Table 1: Anticipated Commercial Land Uses

CRU	GROSS FLOOR AREA	EXPECTED LAND USES
CRU1	65.3 m ² (703 ft ²)	Café
CRU2	122.9 m ² (1323 ft ²)	Retail
CRU3	126.1 m ² (1357 ft ²)	Office
CRU4	140.9 m ² (1517 ft ²)	General Commercial
TOTAL	455.2 m² (4,900 ft²)	-

To support the parking demands of the land uses, a total of 49 parking spaces were planned for the development. **Table 2** summarizes the proposed parking provisions.

Table 2: Proposed Parking Provision

COMMERCIAL				
LEVEL	STANDARD	SMALL CAR	ACCESSIBLE	TOTAL
L1	5	0	1	6
P1	3	2	2	7
P2	0	0	0	0
Total Commercial	8	2	3	13
RESIDENTIAL				
L1	0	0	0	0
P1	13	4	0	17
P2	14	3	2	19
Total Residential	27	7	2	36
Total	35	9	5	49

As shown in Table 2, 8 standard vehicle spaces, 2 small car spaces, and 3 accessible parking space were proposed for the commercial portion, while 27 standard vehicle spaces, 7 small car space, and 2 accessible spaces were proposed for the residential portion.

3. TRIP GENERATION

Gross trip projections were estimated based on the application of trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition. Trip generation rates used in the assessment are summarized in **Table 3**.

Table 3: Gross Trip Generation Rates

LAND USE	SOURCE	TRIP GENERATION RATES	
		AM	PM
Residential	ITE LUC 221 (Not Close to Transit)	0.38 trips/unit (23% in/77% out)	0.38 trips/unit (64% in/36% out)
Café	ITE LUC 936	91.02 trips/1,000 SF (51% in/49% out)	31.53 trips/1,000 SF (50% in/50% out)
Office	ITE LUC 712	1.64 trips/1,000 SF (83% in/17% out)	2.16 trips/1,000 SF (34% in/66% out)
Retail	ITE LUC 822	3.93 trips/1,000 SF (55% in/45% out)	6.29 trips/1,000 SF (50% in/50% out)
General Commercial	ITE LUC 822	3.93 trips/1,000 SF (55% in/45% out)	6.29 trips/1,000 SF (50% in/50% out)

* LUC – Land Use Code

Table 4 summarizes the gross trip generation projected for the proposed development based on the expected land uses. It should also be noted that this CRU-to-land use arrangement represents the one of the highest potential trip generation scenario. Alternative arrangements of these land uses among the remaining CRUs would not result in higher peak hour trip generation.

Table 4: Gross Trip Generation Estimates

CRU	LAND USE	INTENSITY	AM PEAK HOUR			PM PEAK HOUR		
			IN	OUT	TOTAL	IN	OUT	TOTAL
-	Residential	45 du	4	13	17	11	6	17
CRU 1	Café	703 SF	33	31	64	11	11	22
CRU 2	Retail	1,323 SF	3	2	5	4	4	8
CRU 3	Office	1,357 SF	2	0	2	1	2	3
CRU 4	General Commercial	1,517 SF	3	3	6	5	5	10
TOTAL			45	49	94	32	28	60

As shown, the proposed development is anticipated to generate approximately 94 two-way gross trips during the AM peak hour and 60 two-way gross trips during the PM peak hour. These projections represent gross trips rather than net new vehicle trips. In practice, mixed-use developments, particularly those that include residential components, typically experience internal capture and commercial synergy, which reduce the number of vehicle trips entering and exiting the site. As such, the actual number of external vehicle trips generated by the site is expected to be lower than the gross trips summarized in Table 4.

Typically, peak hour trip generation of 100 vehicle trips or fewer is not expected to have a material impact on the adjacent street network. As the anticipated peak hour trip generation falls within this threshold, the proposed development is not anticipated to result in any operational issues or trigger the requirement for any road network upgrades. As such, a detailed traffic operations assessment with transportation modelling using Synchro was not conducted for this study.

4. PARKING REQUIREMENTS

4.1 Vehicle Parking

Table 5 summarizes the minimum parking requirements for the proposed purpose-built rental housing and commercial components based on the City of Delta Zoning Bylaw under this arrangement. Similar to the trip generation portion, this CRU-to-land use arrangement represents the one of the highest minimum parking requirements. Alternative arrangements of these land uses among the remaining CRUs would not result in higher required parking provisions.

Table 5: Zoning Bylaw Regular Vehicle Parking Review

LAND USE	BYLAW SECTION	INTENSITY	MINIMUM RATE	MINIMUM PARKING SUPPLY
Purpose-Built Rental Dwellings	8.4.2	45 Units	0.75 spaces per dwelling unit	34 spaces
Café	8.4.2	65.3 m ²	5 spaces per 100m ² of gross leasable floor area	3 spaces
Retail	8.4.2	122.9 m ²	1.5 spaces per 100 m ² of gross leasable floor area	2 spaces
Office	8.4.2	126.1 m ²	2 spaces per 100m ² of gross leasable floor area	3 spaces
General Commercial	8.4.2	140.9 m ²	3 spaces per 100 m ² of gross leasable floor area	4 spaces
Residential Accessible	8.5.5 (a)	10 Adaptable Units	1 accessible parking space for 10% of adaptable dwelling units	1 space
Commercial Accessible	8.5.5 (c)	-	1 accessible space required for commercial developments requiring between 11-25 parking spaces	1 space
TOTAL ACCESSIBLE PARKING SPACES				2 SPACES
TOTAL REQUIRED (INCLUDING ACCESSIBLE SPACES)				46 SPACES

As shown, a total of 46 parking spaces, including two accessible stalls, are required in accordance with the Zoning Bylaw. Of these, 34 stalls, including one accessible stall, are to be designated for residential use, and 12 stalls, including one accessible stall, are to be designated for commercial use. **Table 6** compares the parking requirements with the proposed parking provisions. As shown, the proposed provision is sufficient to meet the parking minimums required by the Zoning Bylaw.

Table 6: Zoning Bylaw Regular Vehicle Parking Review

LAND USE	BYLAW REQUIREMENT	PROPOSED PROVISION	DIFFERENCE
Resident (accessible parking)	34 (1)	36 (2)	+2 (+1)
Commercial (accessible parking)	12 (1)	13 (3)	+1 (+2)
TOTAL	48 (2)	51 (5)	+3 (+3)

4.2 Small Car Parking Spaces

The City of Delta Zoning Bylaw Part 8.5.4(a) permits up to 50% of the total required parking spaces, including up to 50% of required visitor spaces, to be designated as small car stalls when the total parking requirement exceeds 30 spaces. While there are exceptions to this clause, they do not apply to the proposed development.

Given the requirement of 46 parking spaces, the maximum allowable number of small car spaces is 23. With only 9 small car stalls proposed, the development complies with the Zoning Bylaw.

4.3 Bicycle Parking

Table 7 presents the City of Delta's Zoning Bylaw bicycle parking requirements for residential and commercial land uses.

Table 7: Zoning Bylaw Bicycle Parking Review

LAND USE	INTENSITY	MINIMUM RATE	MINIMUM PARKING SUPPLY
Residents	45 Units	1 Space per dwelling unit	45
Residential Visitors	45 Units	5 Spaces per apartment Building	5
Commercial	4 Units	The greater of 1 Space per commercial retail unit or 5 spaces per building	5
TOTAL REQUIRED			55

As shown, a total 55 bicycle parking spaces are required for the proposed development as per the bylaw. Based on the site plan and statistics provided by the design team, a total of 55 bicycle parking spaces are proposed to be provided for the development. The proposed provision is expected to be compliant with the Zoning Bylaw.

4.4 Loading

Based on the City of Delta's Zoning Bylaw loading parking requirements, 1 loading space is required for residential buildings with more than 80 dwelling units, and 1 loading space per principal building is required for non-residential uses. As the proposed development is not expected to have more than 80 residential units, a loading space is not required for the residential use as per the

bylaw. However, as the development includes non-residential uses as well, 1 loading space is required.

Based on the provided site plans, a loading space measuring 2.75 m x 9.0 m is proposed on the ground level along 55B Street. These dimensions are consistent with the minimum required dimensions specified in the City of Delta's Zoning Bylaw; therefore, the proposed loading provision is compliant.

5. SITE DESIGN REVIEW

Parking will be provided at ground level (L1) and across two levels of underground parkade. Commercial uses will be served by parking spaces located at ground level and on level P1, while residential parking will be accommodated on Levels P1 and P2. Although both residential and commercial parking are located on P1, the parkade will be divided into two separate sections by a gate that restricts access to residents only.

5.1 Ramp Section Review

The L1/P1 ramp slope starts at an 5% slope transitioning to 10%, 15%, 8%, then to a 7.5% at the bottom of the ramp before flattening out at P1. The L1/L2 ramp slope is similar as it starts with an 8% slope transitioning to 15% and 8.5% before reaching P2. The slope changes between ramp segments do not exceed 8.5%, which is within the acceptable range. In addition, transition segments are recommended to be at least 4.0 m in length to accommodate vehicles with larger axle spacing. A review of the ramp section plans indicates that these transition length requirements are satisfied.

Based on this review, the ramp design is expected to adequately accommodate passenger vehicles and small cars, which are the intended users of the parkade. As garbage collection is not anticipated within the parkade, no additional design considerations for larger vehicles are required.

It must be noted that the clear height must have a minimum of 2.3m clear height (exclusive of any utilities and obstructions measured perpendicular to the ramp), wherever an accessible vehicle traverses and parks throughout the whole parking lot.

5.2 Vehicle Circulation

Residents and commercial users that require the underground parking space will access the underground parkade via a 6.0m wide parkade ramp along the 55B Street. **Exhibit 1** illustrates the two-way passenger vehicle movement (one PTAC and one small vehicle) at the site driveway. As shown, two way maneuvers are expected to be feasible at the parkade ramp entrance. A review of Google Maps Street View imagery indicates that vegetation located north of the ramp may restrict sightlines between vehicles exiting the parkade and southbound traffic on 55B Street. To address this potential limitation, the installation of convex mirrors at the ramp entrance is recommended to improve visibility between approaching and exiting vehicles. Given the low volumes and low

operating speeds on both the ramp and 55B Street, convex mirrors are expected to be an effective measure to mitigate potential sightline concerns.

Exhibit 2 illustrates the two-way vehicle circulation at the bottom of the ramp connecting P1 to the ground level. As shown, two-way circulation is difficult with the proposed aisle width. It is recommended that convex mirrors be installed at this location to improve driver visibility and reduce the likelihood of vehicle conflicts.

Exhibit 3 illustrates a passenger vehicle attempting to turnaround at the dead end located at the southeast corner of P1. This scenario represents a commercial visitor only finding all parking stalls in that area occupied after reaching the end of the aisle. As shown, vehicle turnaround is feasible under the current layout.

5.3 Parking Maneuvers

Bunt used AutoTURN to test individual parking stalls which would be the most challenging to maneuver into and out of given their position in the parking using a PTAC design vehicle for regular stalls and a Honda Civic 2017 for small car vehicles. **Exhibits 4** through **8** illustrate the findings of the analysis. As shown in the exhibits, vehicle maneuvers in and out of all tested difficult parking spaces are expected to be feasible.

In the City of Delta's review of the previous submission of this memo, potential sightline concerns were noted for ground-level parking spaces that take access from 55B Street. Upon further review, Bunt does not anticipate significant safety concerns associated with these spaces. The same parking configuration has been implemented for the development immediately south of the subject site, and the roadway context along 55B Street is characterized by low operating speeds and low traffic volumes, which reduces the likelihood of conflicts. However, to address the City's concerns, it is recommended that all ground-level parking spaces be designated as "Reverse Entry Only" to allow drivers exiting the spaces to achieve improved sight distance along 55B Street.

5.4 Loading

Exhibits 9 through **11** illustrate loading vehicle maneuvers within the proposed site. As shown in the exhibits, all loading maneuvers are expected to be feasible.

6. CONCLUSION

This memo was prepared to support the rezoning and development permit application for a proposed mixed-use commercial and residential development located at 1505 56 Street in Tsawwassen, Delta, BC. The proposed development is proposed as a six-storey mixed-use building consisting of 45 residential rental units and 4,900 ft² of ground floor commercial space. The following information lists the highlights of this study:

- The development is expected to generate in the order of 94 two-way gross trips in the AM peak hour and 60 two-way trips in the PM peak hour. A detailed traffic analysis was not conducted for this study as peak hour trip generation is expected to be less than 100 vehicle trips.
- The total parking provision meets the minimum parking supply required by the City of Delta's Zoning Bylaw.
- The proposed development is anticipated to provide 55 bicycle parking spaces, which is compliant with the minimum bicycle parking provisions required by the Zoning Bylaw.
- The proposed development provides one 2.75m x 9.0m loading space, which is compliant to the City of Delta's Zoning Bylaw.
- Convex mirrors are recommended at the parkade ramp entrance to improve visibility along 55B Street and the parkade entrance, as well as at the bottom of the P1 entry ramp.
- "Reverse Entry Only" was recommended for all ground-level parking to improve driver visibility.

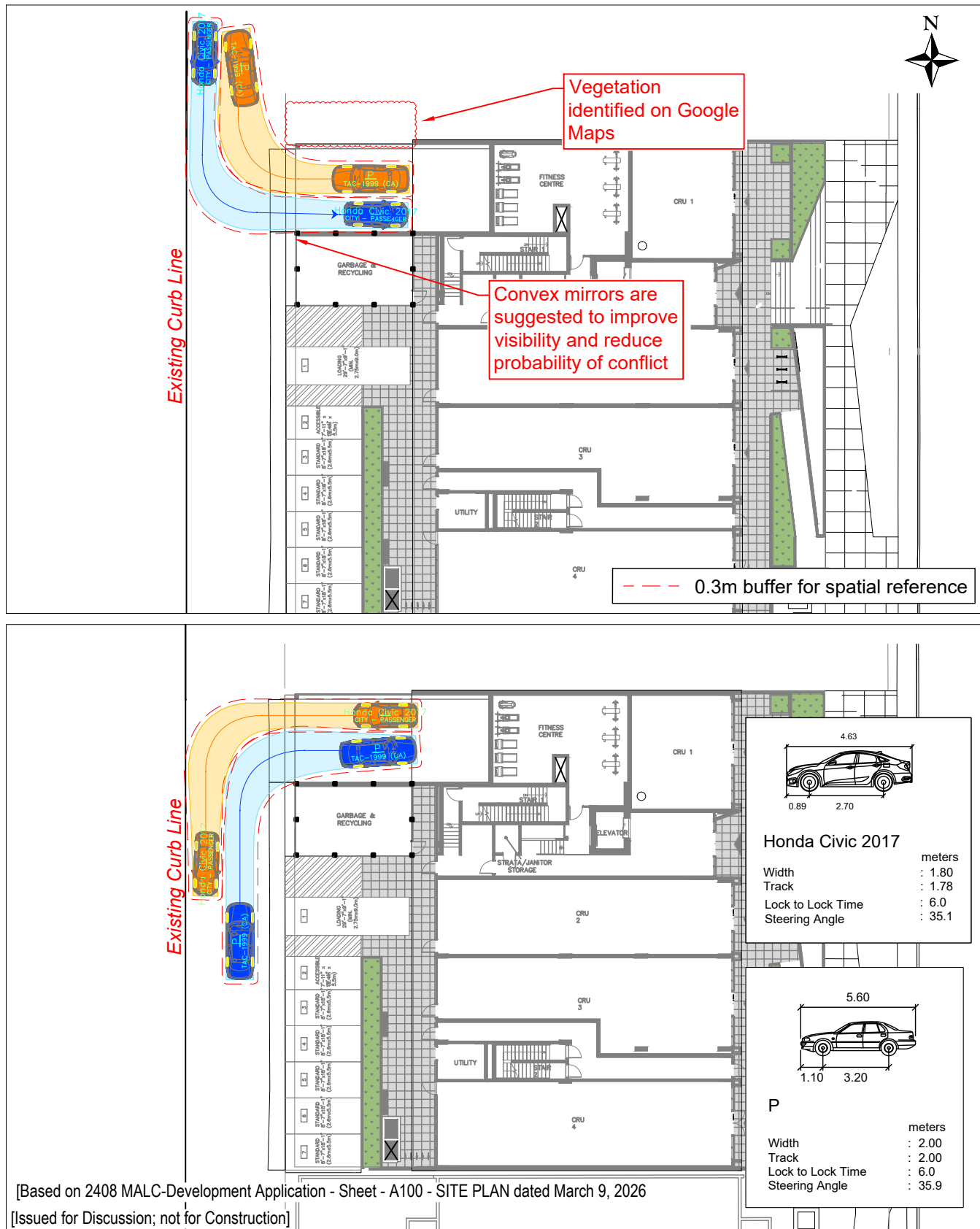


Exhibit 1 Passenger Vehicle Maneuvers L1

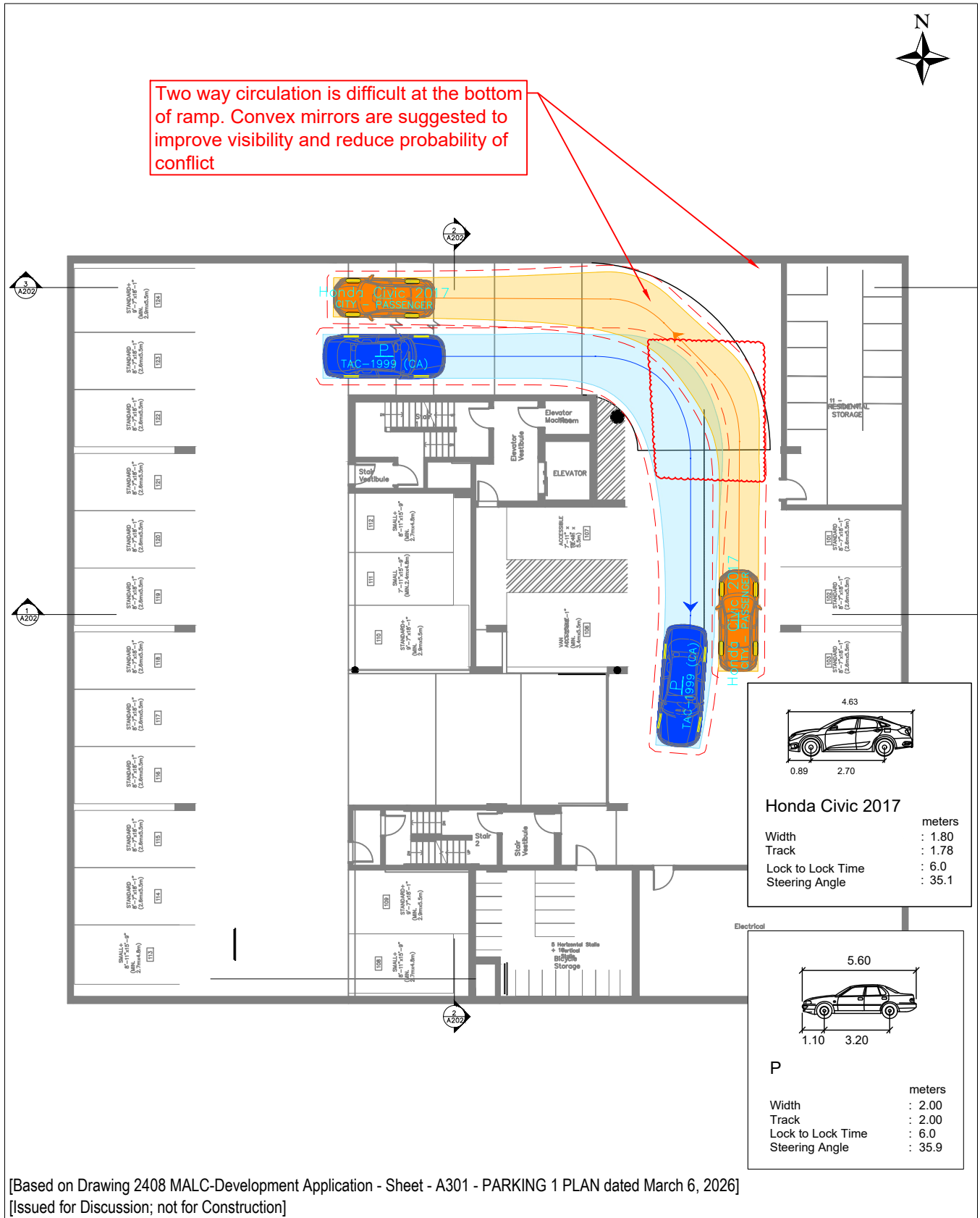
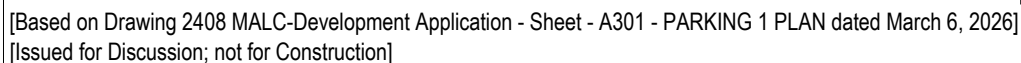


Exhibit 2 Passenger Vehicle Maneuvers P1



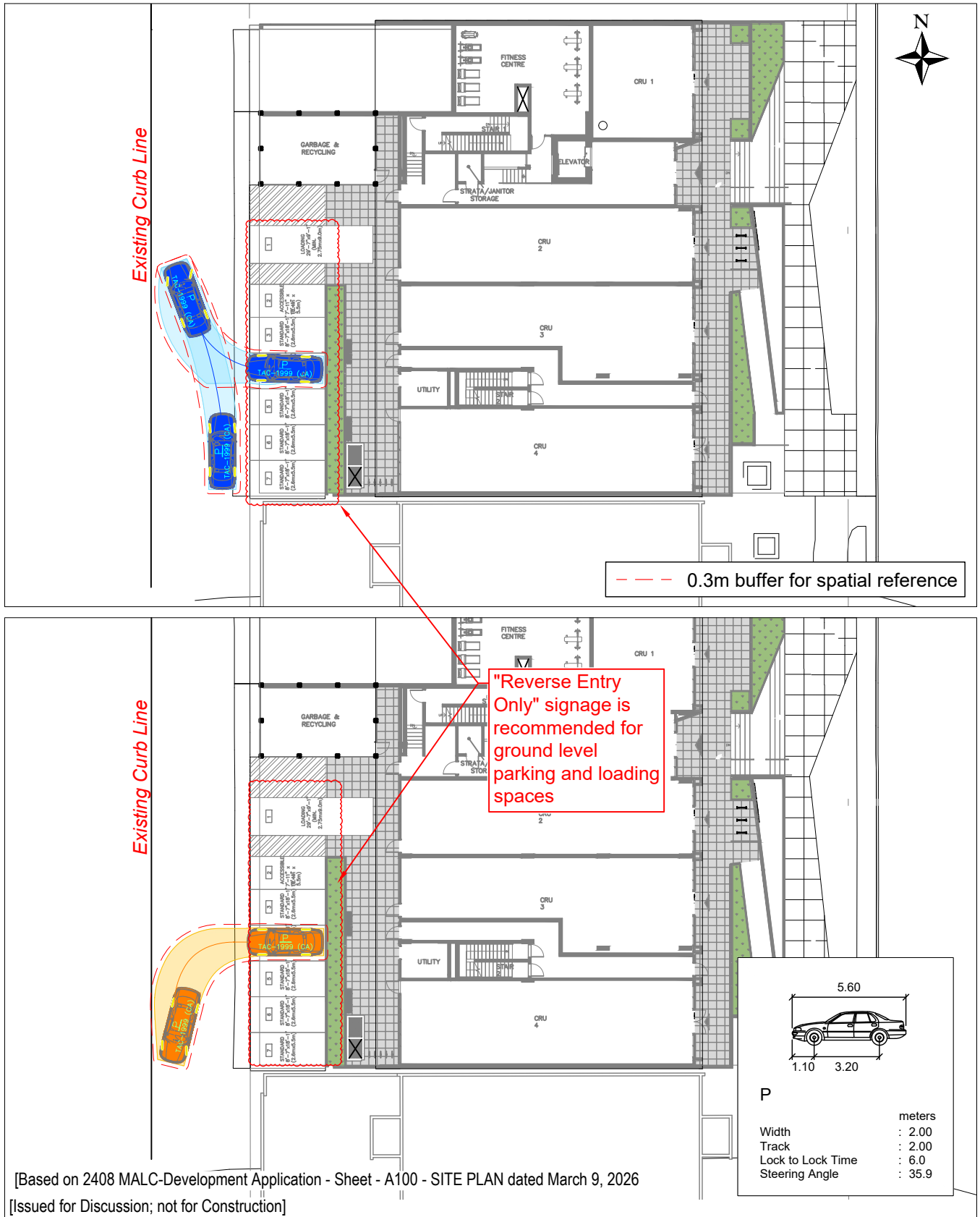
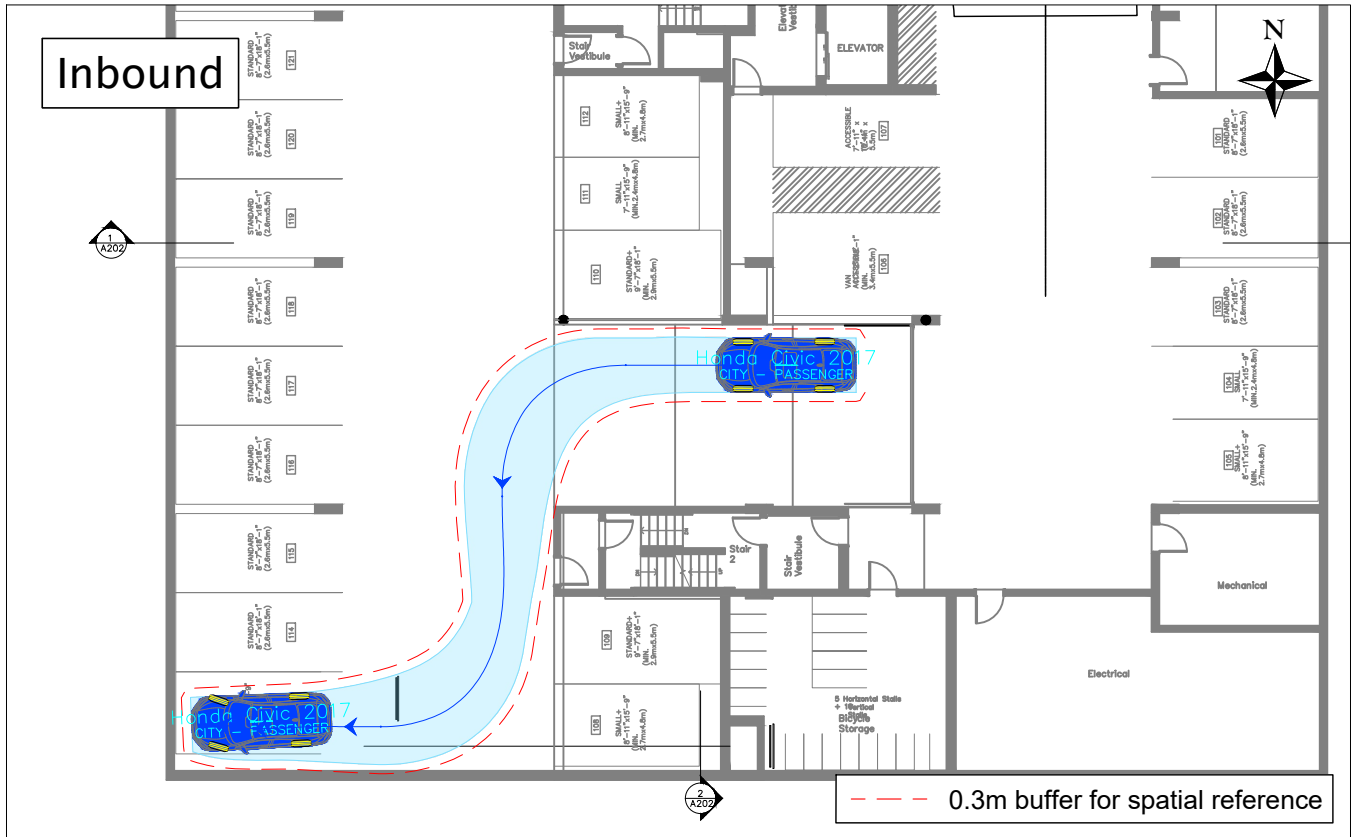


Exhibit 4 Passenger Vehicle Parking Maneuvers L1



[Based on Drawing 2408 MALC-Development Application - Sheet - A301 - PARKING 1 PLAN dated March 6, 2026]
[Issued for Discussion; not for Construction]

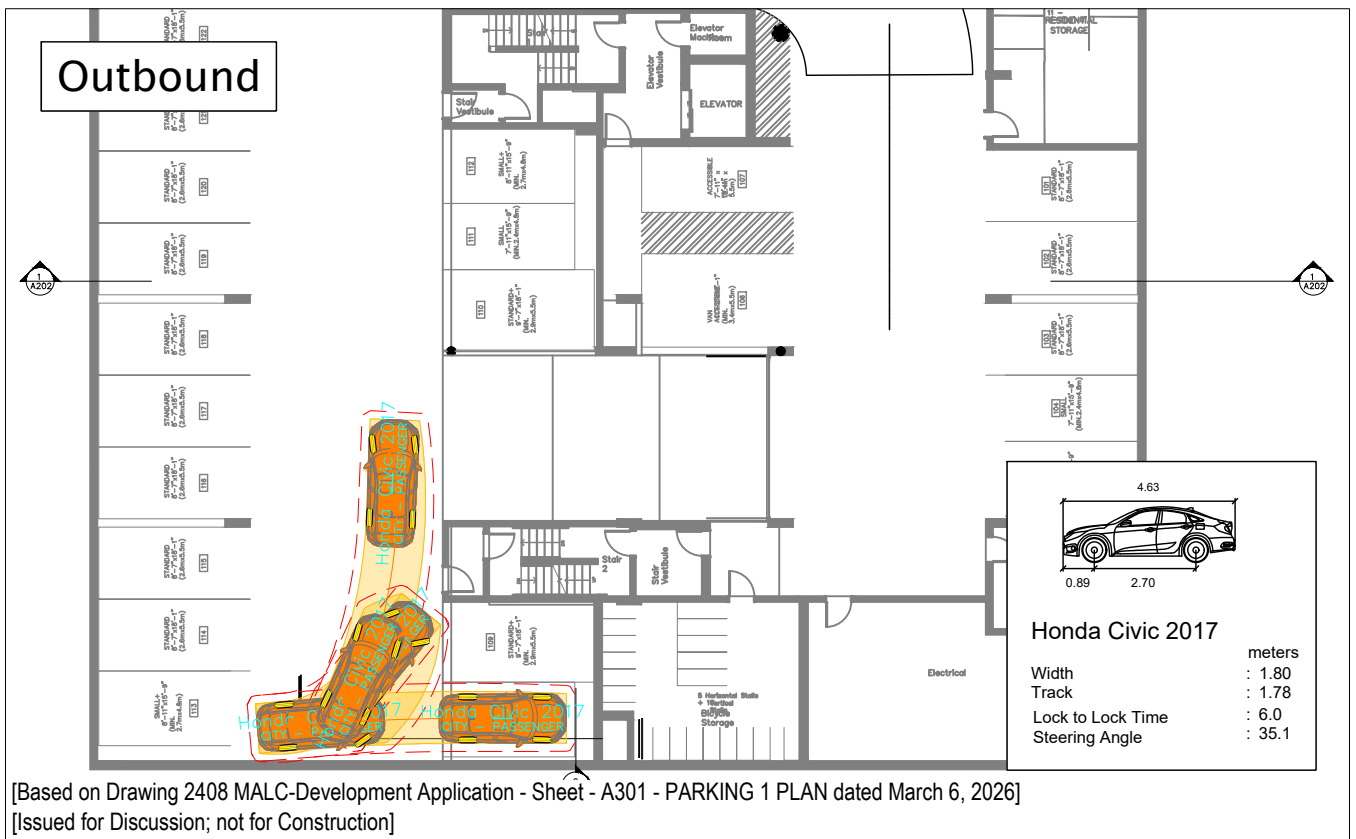
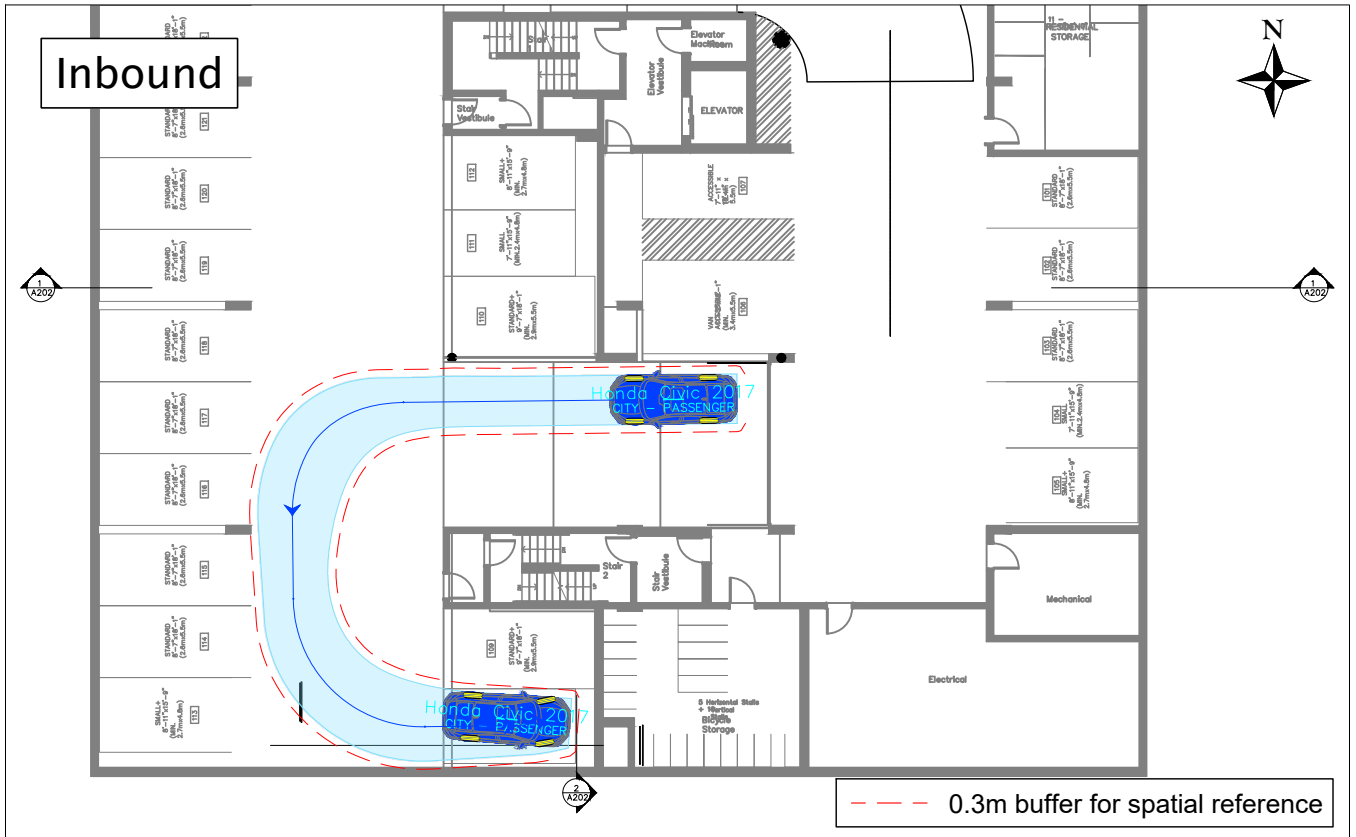
Exhibit 5 Small Car Parking Maneuvers P1 Part 1

04-24-0376

March 2026

Scale 1:250 on Letter

1505 56 Street
Prepared by BT



[Based on Drawing 2408 MALC-Development Application - Sheet - A301 - PARKING 1 PLAN dated March 6, 2026]
 [Issued for Discussion; not for Construction]

Exhibit 6 Small Car Parking Maneuvers P1 Part 2

04-24-0376

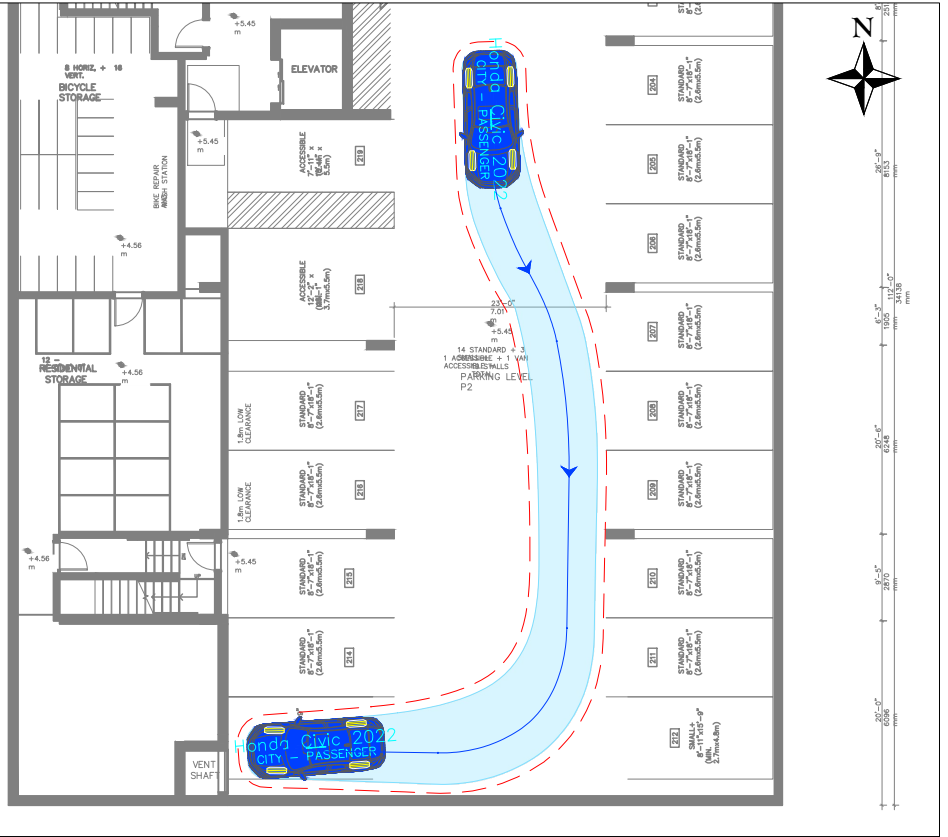
March 2026

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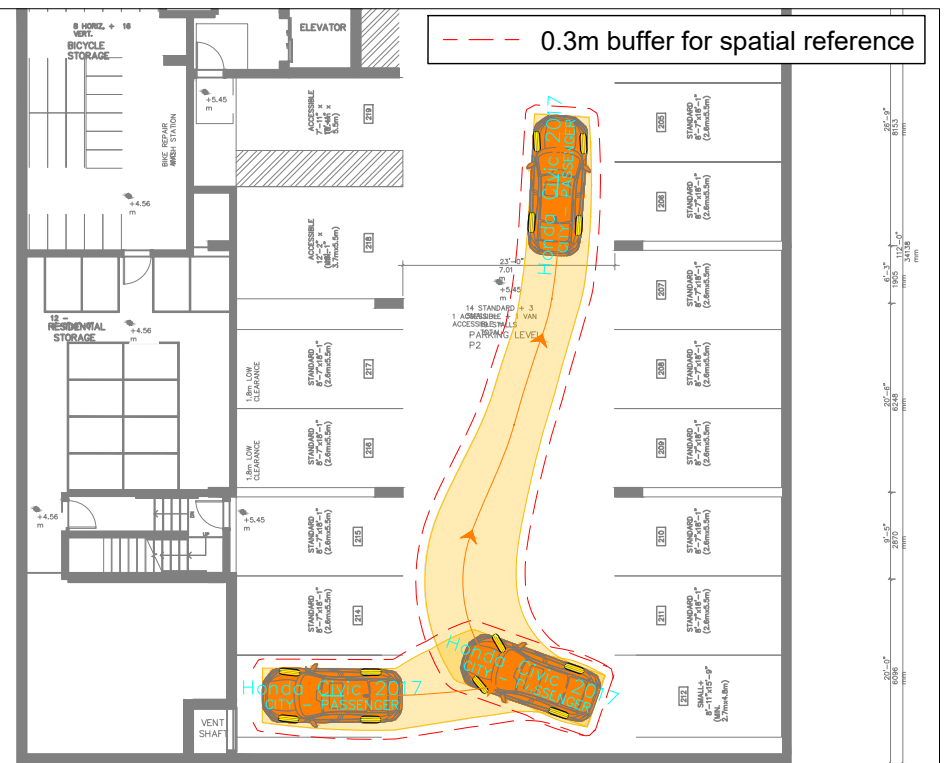
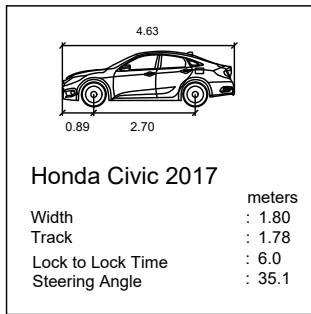
1505 56 Street
Prepared by BT



Inbound



Outbound



[Based on Drawing 2408 MALC-Development Application - Sheet - A300 - PARKING 2 PLAN dated March 6, 2026
[Issued for Discussion; not for Construction]

Exhibit 8
Small Vehicle Parking Maneuver P2 Part 2

04-24-0376 March 2026 Scale 1:250 on Letter

1505 56 Street
Prepared by BT



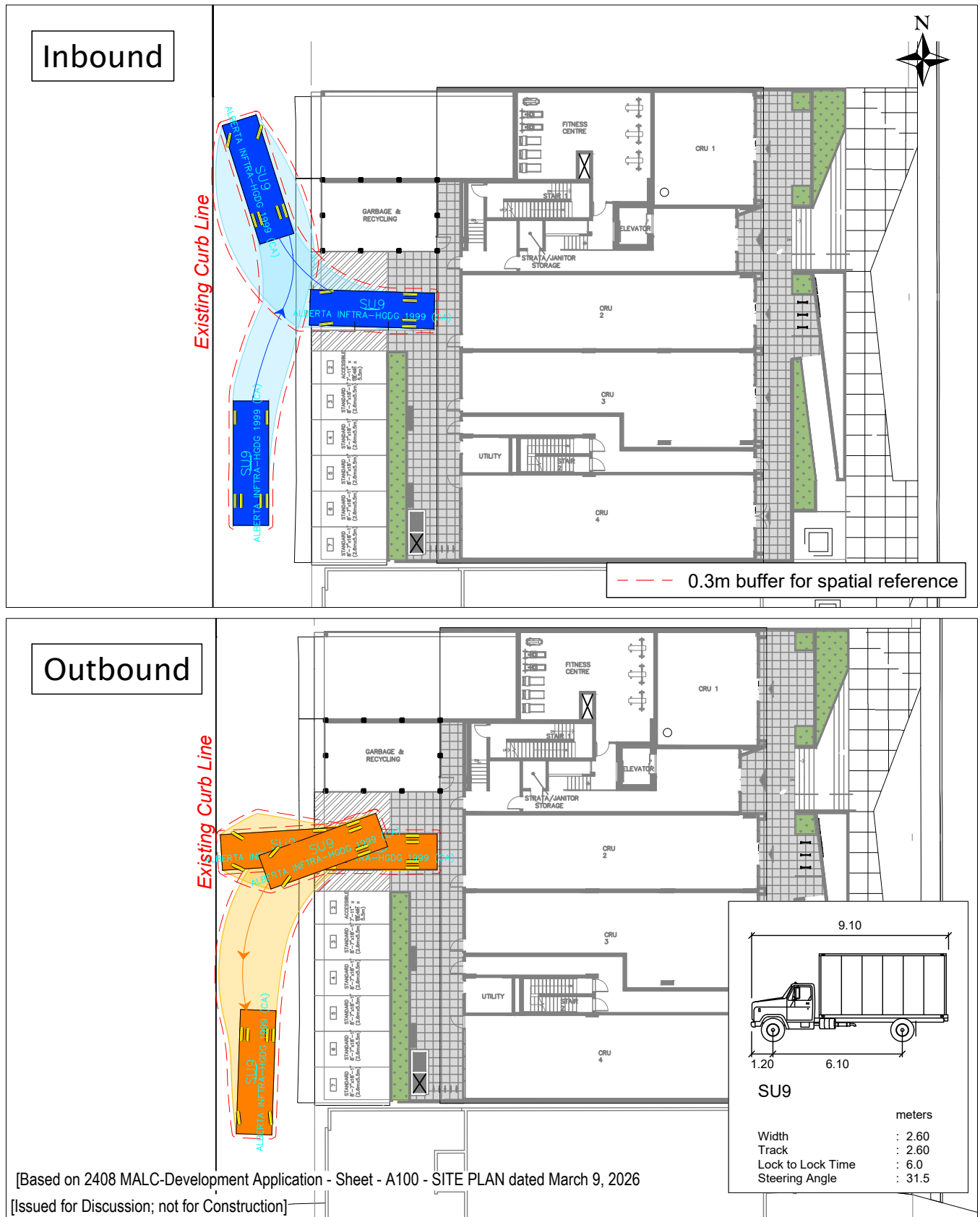


Exhibit 10 SU9 Loading Maneuvers Part 1

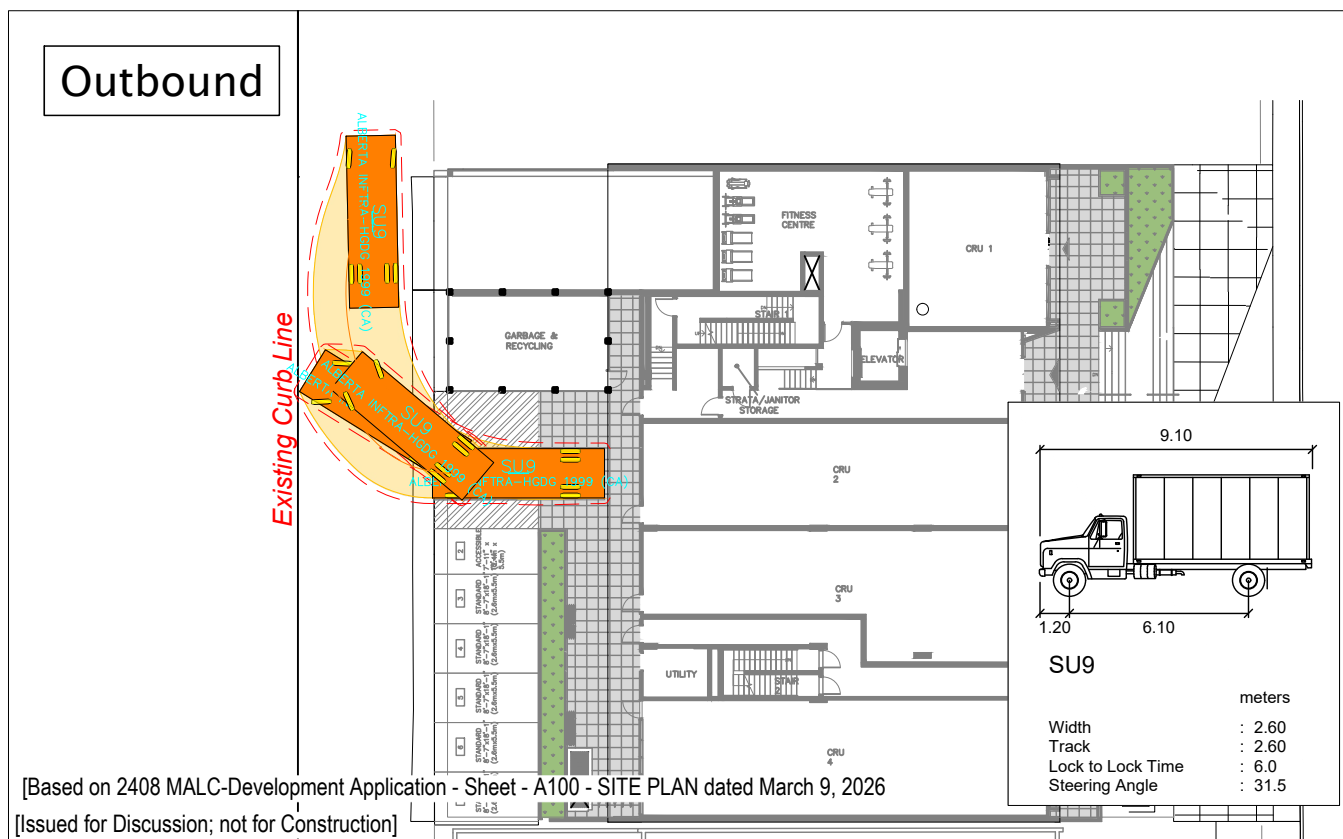
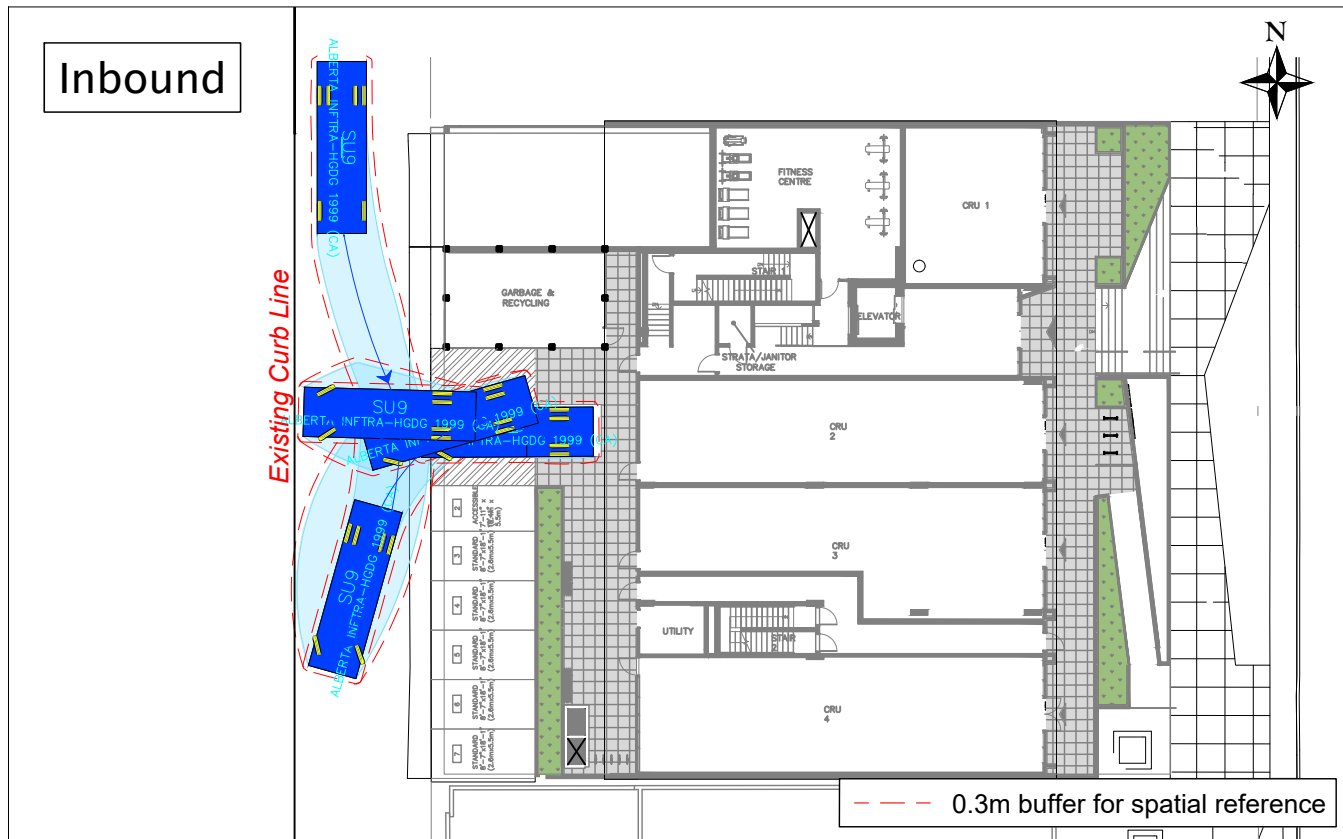


Exhibit 11 SU9 Loading Maneuvers Part 2