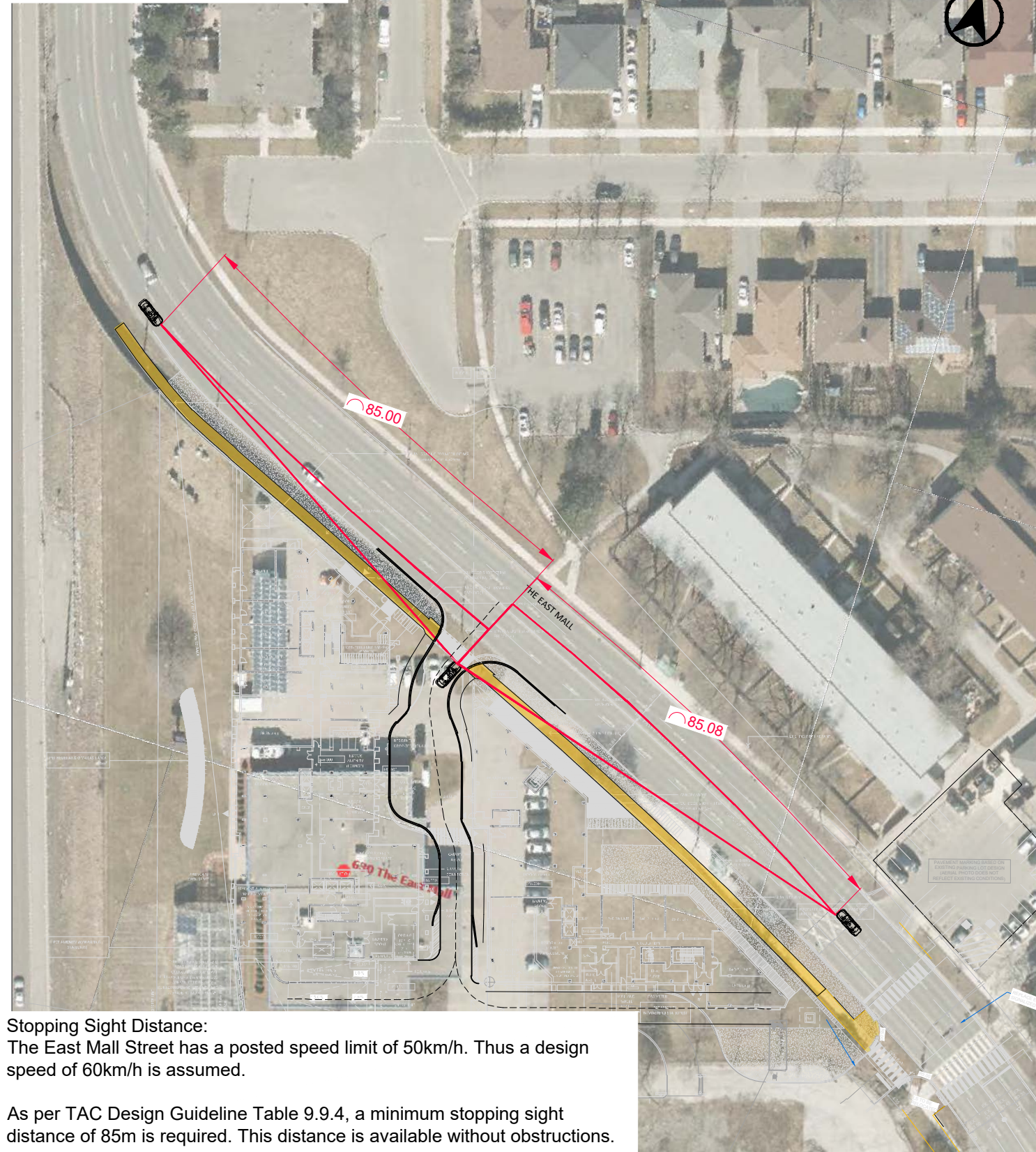
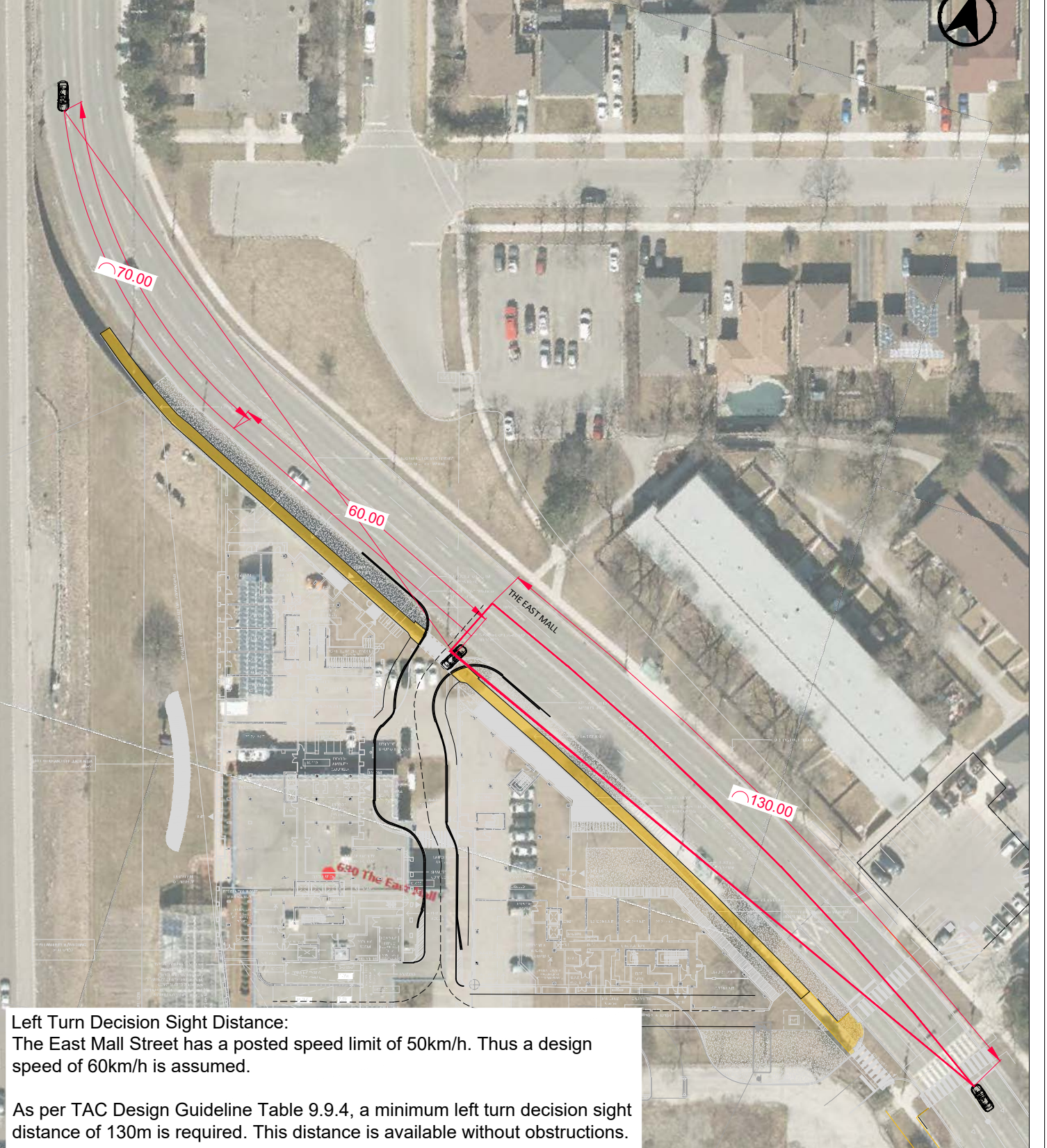


Stopping Sight Distance



Left Turn Decision Sight Distance



S:\PLANNING DWGS\221-03327-00 The East Mall TS\Plan

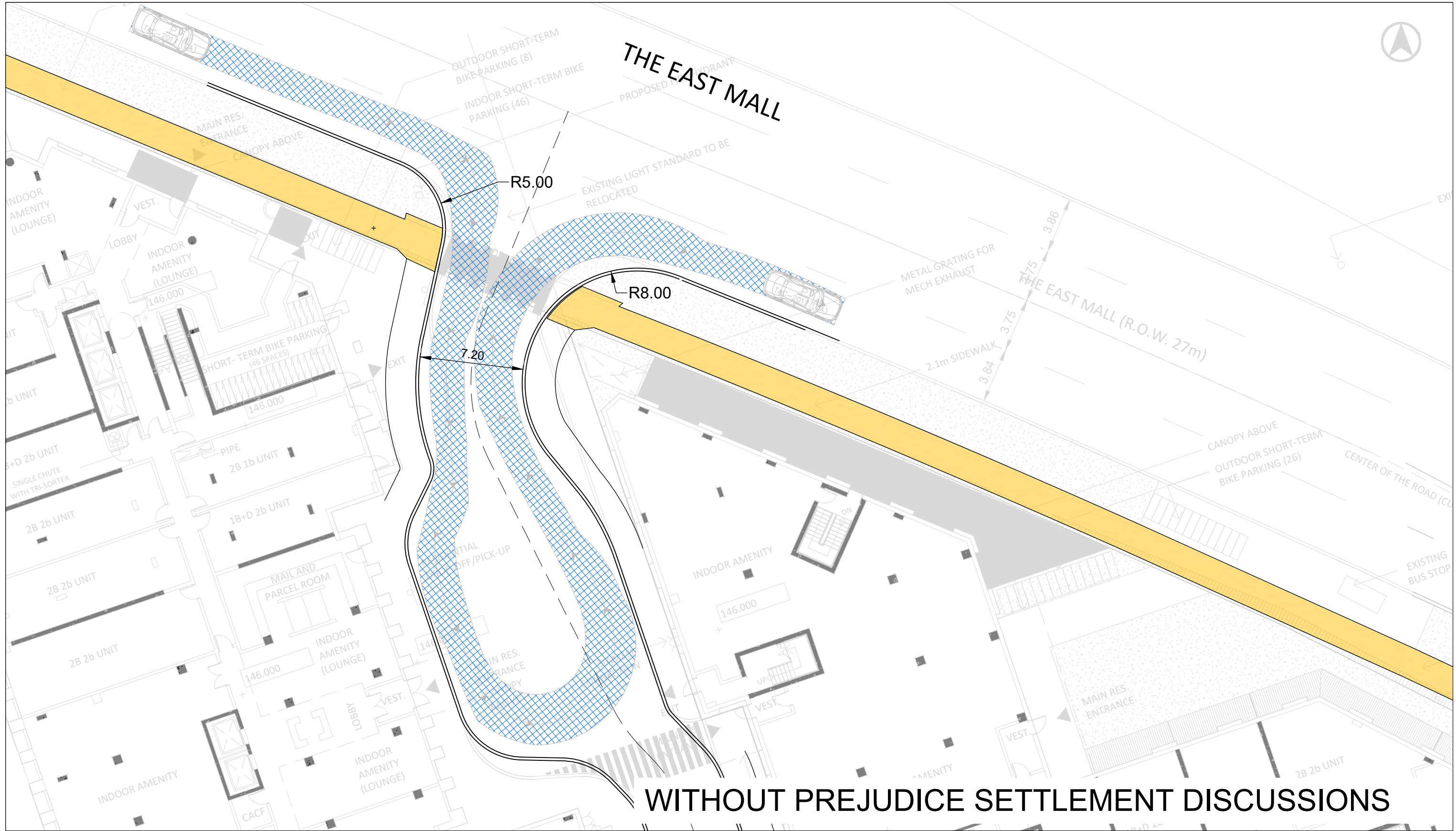
Source: _Sheet - A 1-03 - GROUND FLOOR SITE PLAN.dwg received Jun 05, 2024

Scale: 1:1000



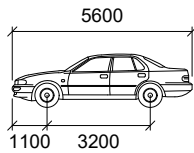
WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

Figure 2
Sightline Analysis Northern Driveway
630 The East Mall



Source: _Sheet - A 1-03 - GROUND FLOOR SITE PLAN.dwg received Jun 05, 2024

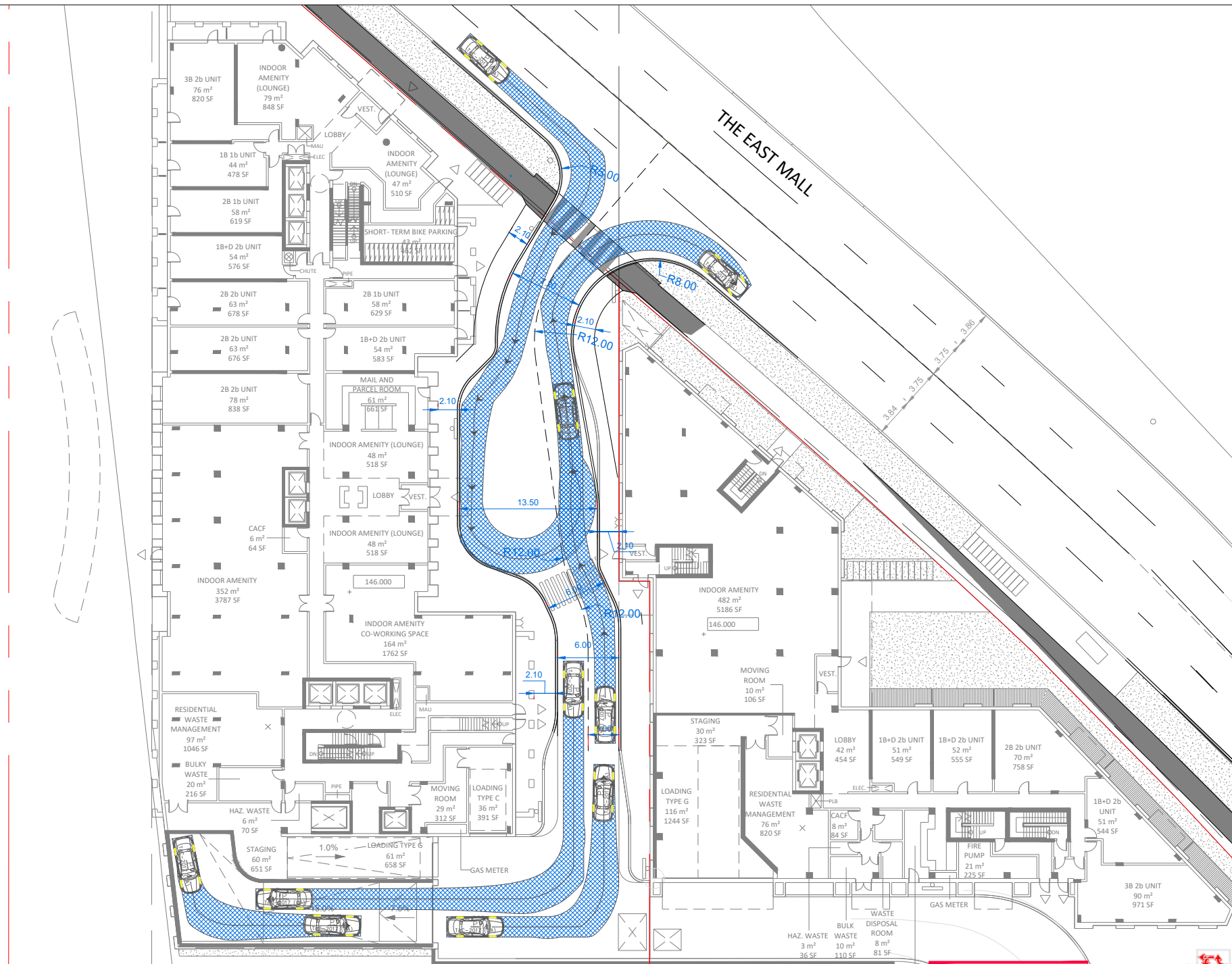
Scale: 1:250



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

FIGURE 3 - Pick-up/Drop-off Circulation
Passenger Vehicle Simulation - Inbound & Outbound
630 The East Mall

C:\Users\CAMY\075367\Desktop\Projects\On-going\630 The East Mall\2024-06-05\New

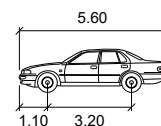


Date Site Plan Received: 2024-06-05

Scale: 1:500



wsp - 630 East Mall - 28032024.dwg_Fig 3



P-TAC

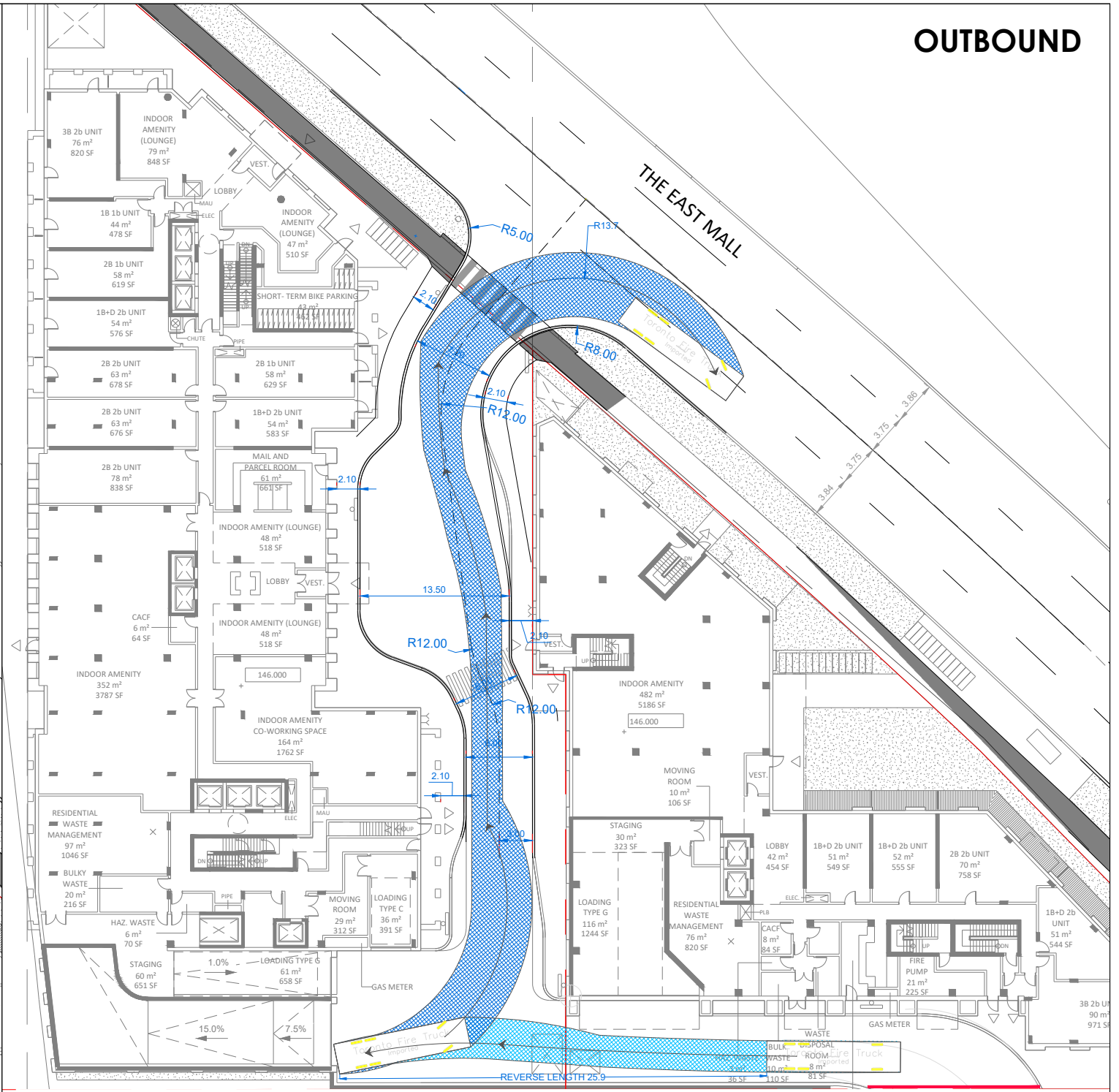
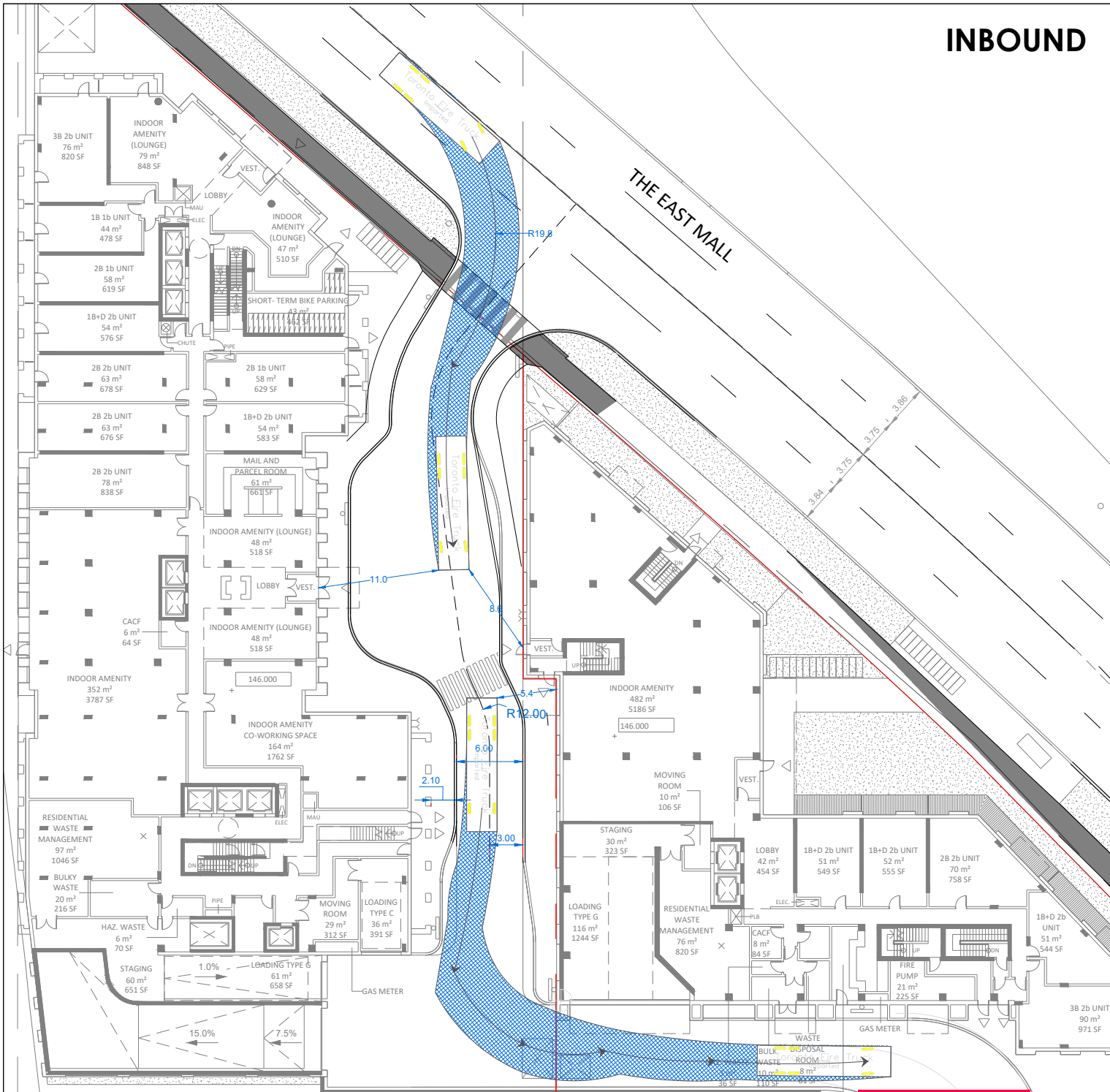
	meters
Width	: 2.00
Track	: 2.00
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

Figure 4
Passenger Vehicle Circulation Review - Ground Floor
630 The East Mall

Modified: 6/6/2024 5:19 PM

By: CAMY075367

Plot Date: 2024/06/06

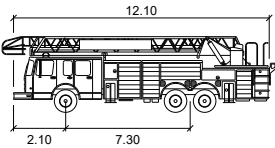


WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

Date Site Plan Received: 2024-06-05

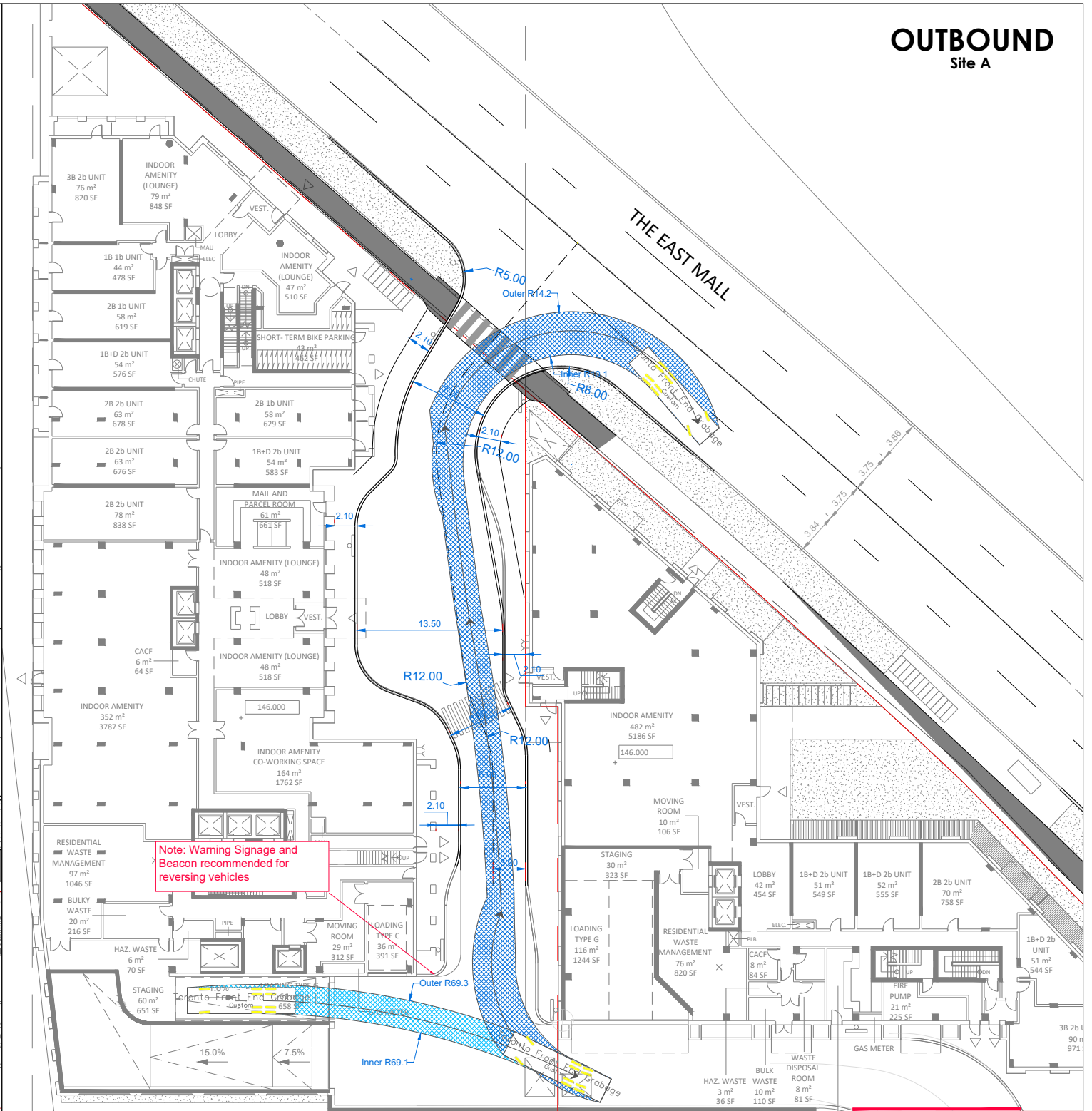
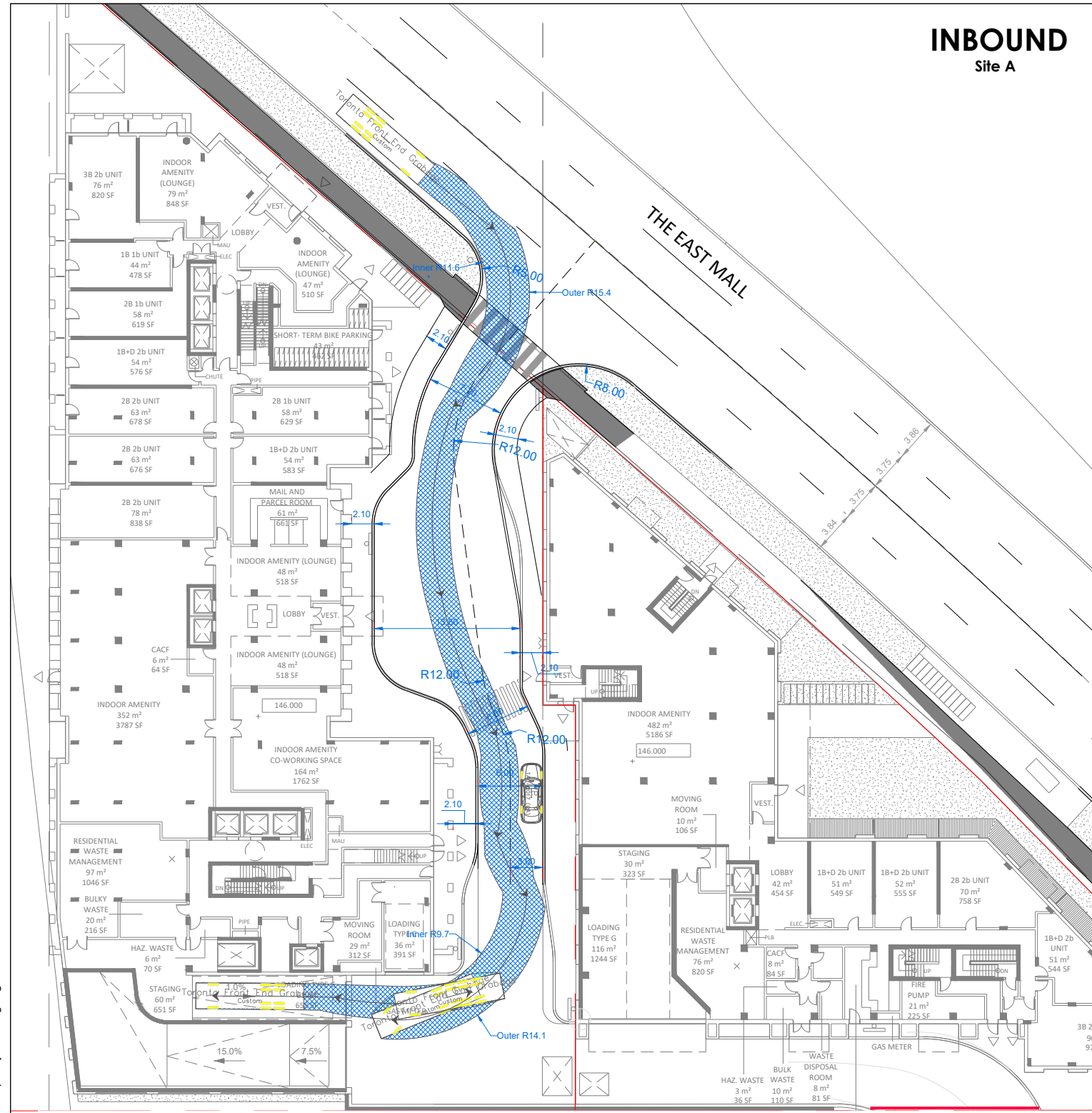
Scale: 1:500



Toronto Fire Truck	
	meters
Width	: 2.75
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.5

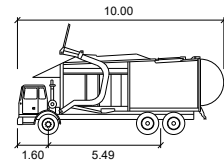
Figure 5
Fire Truck Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

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Date Site Plan Received: 2024-06-05

Scale: 1:500



Toronto Front End Garbage	
meters	
Width	: 2.40
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 23.1

Figure 6
Front End Garbage Truck Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

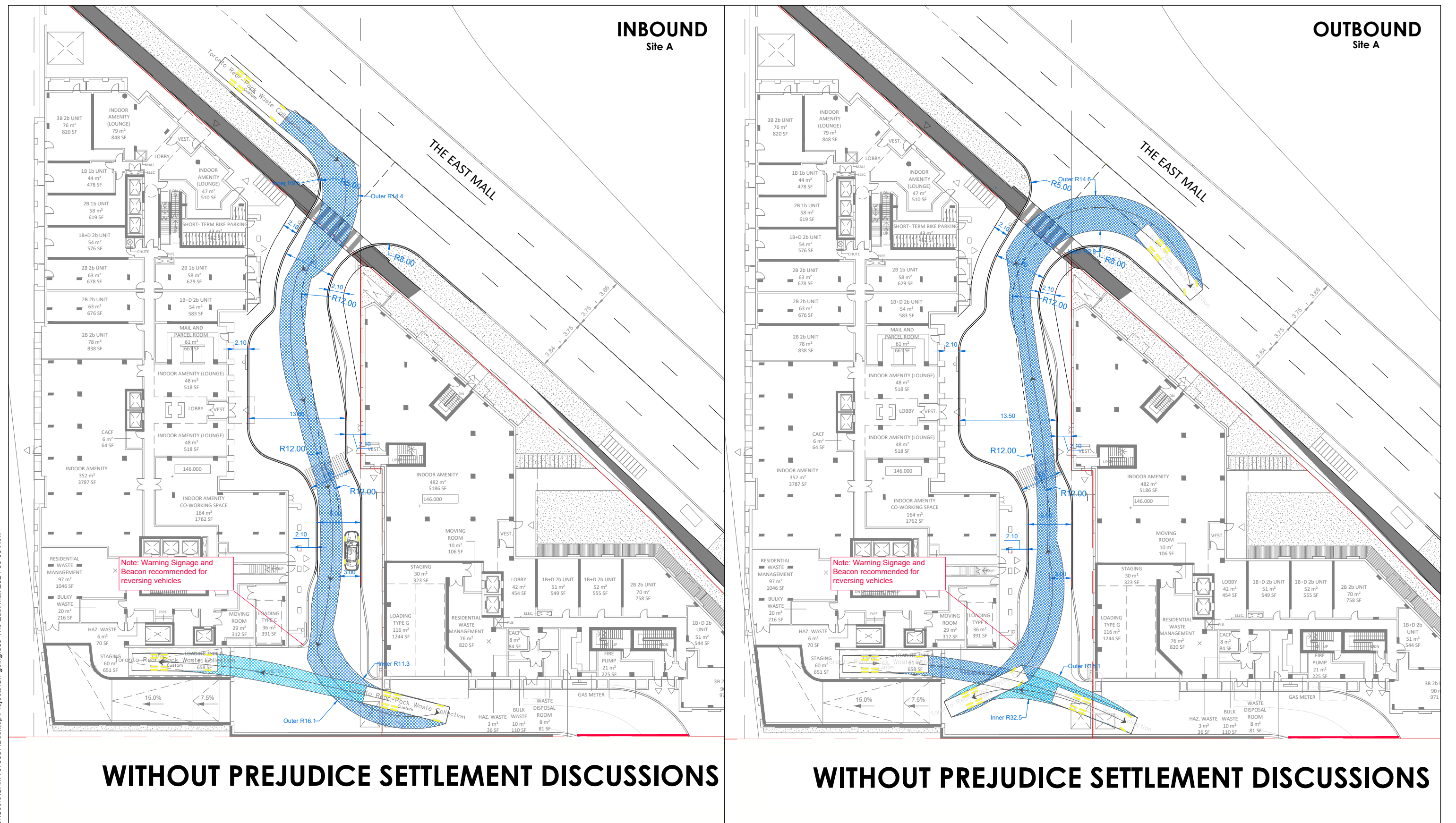
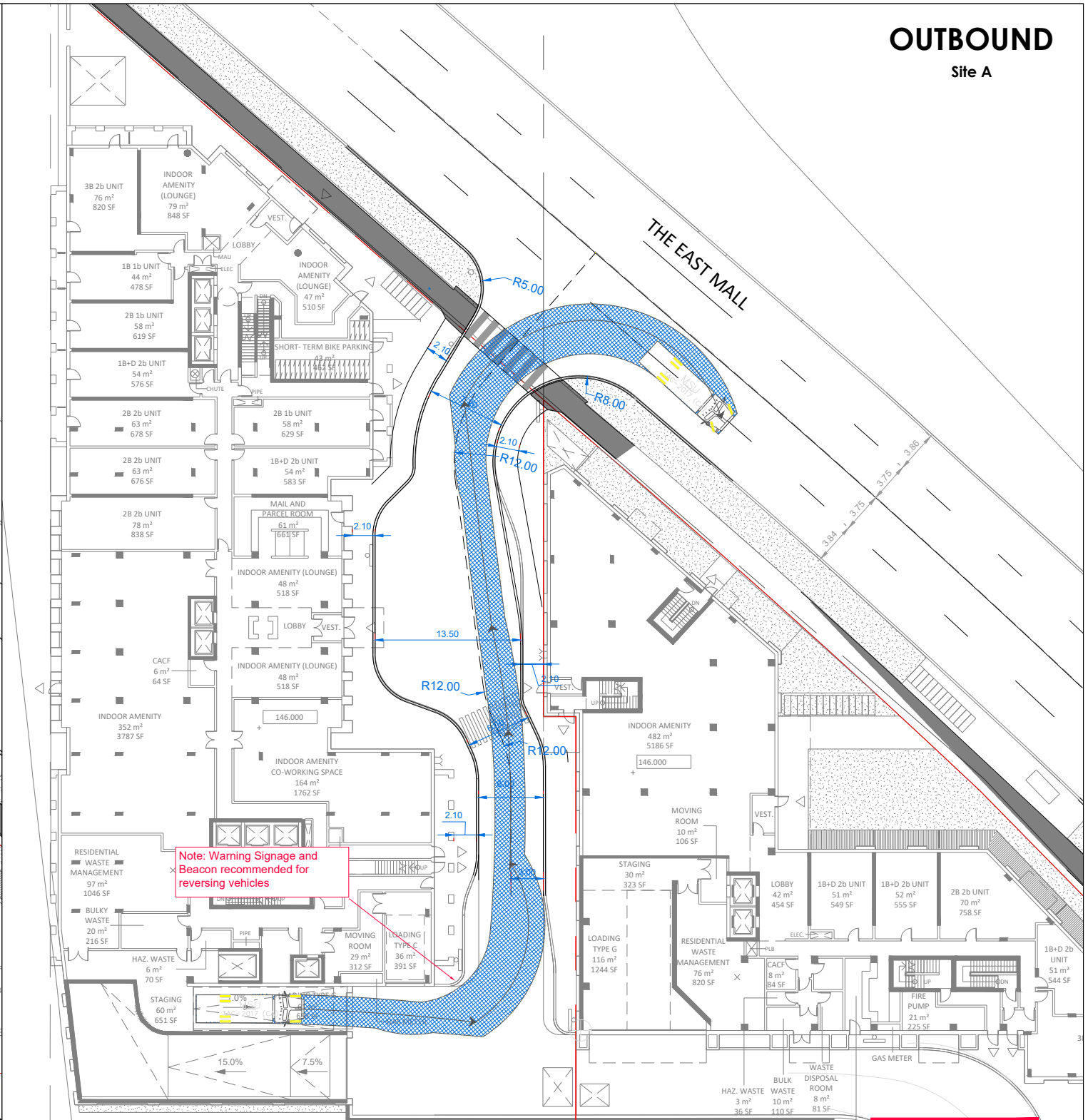
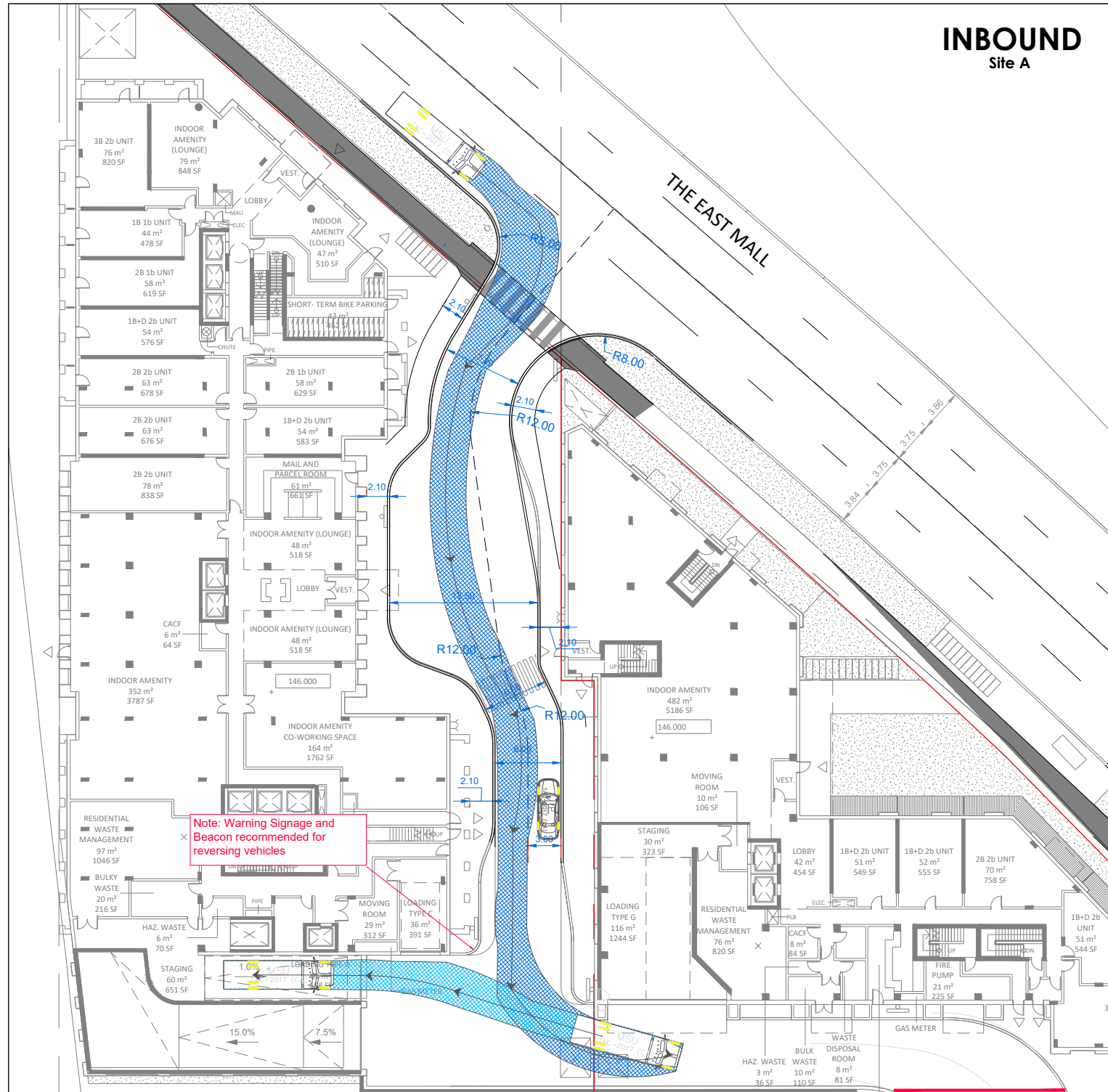


Figure 8
Rear End Garbage Truck Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

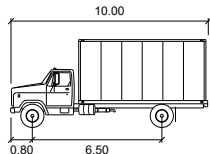


WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

Date Site Plan Received: 2024-06-05

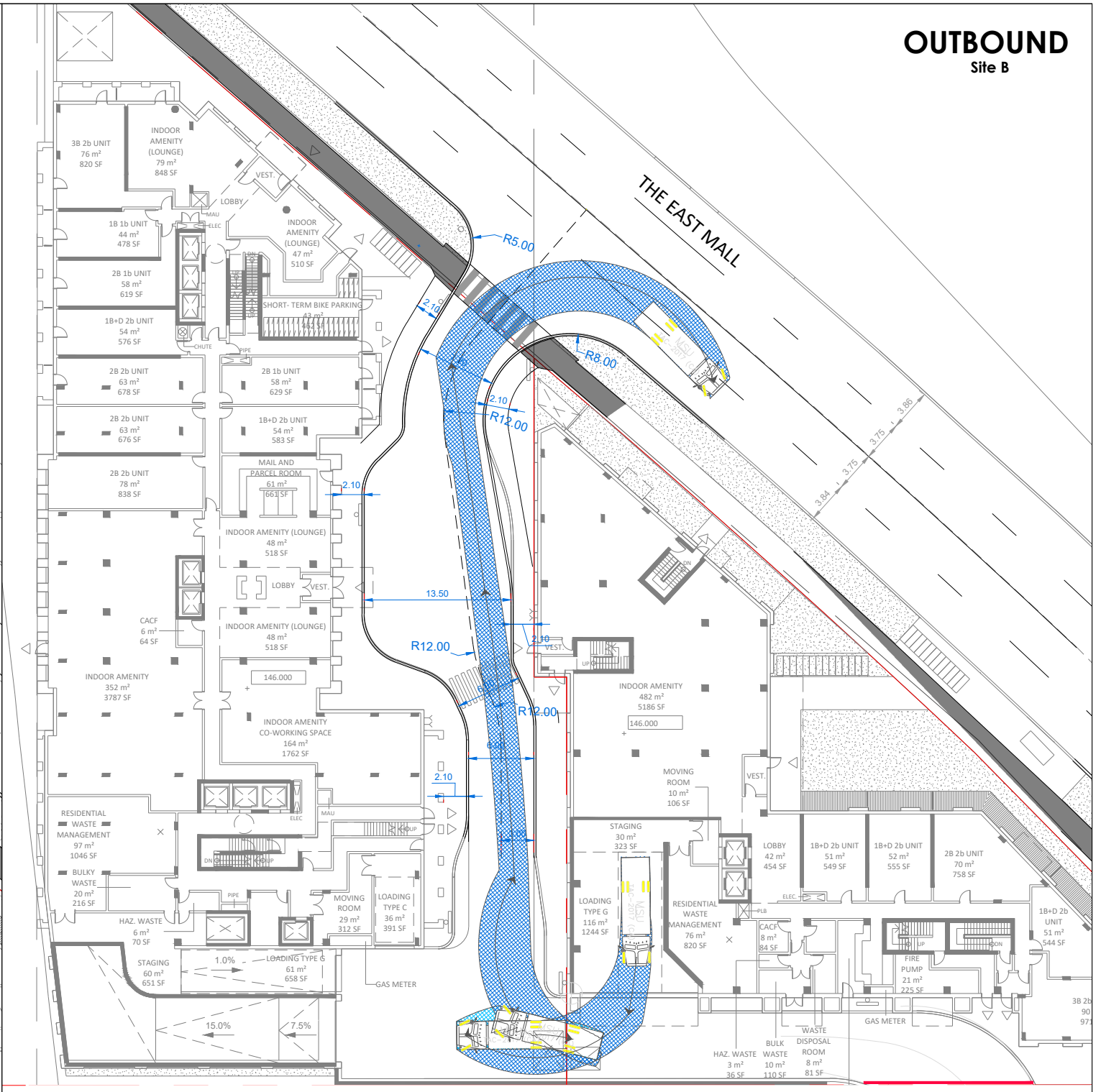
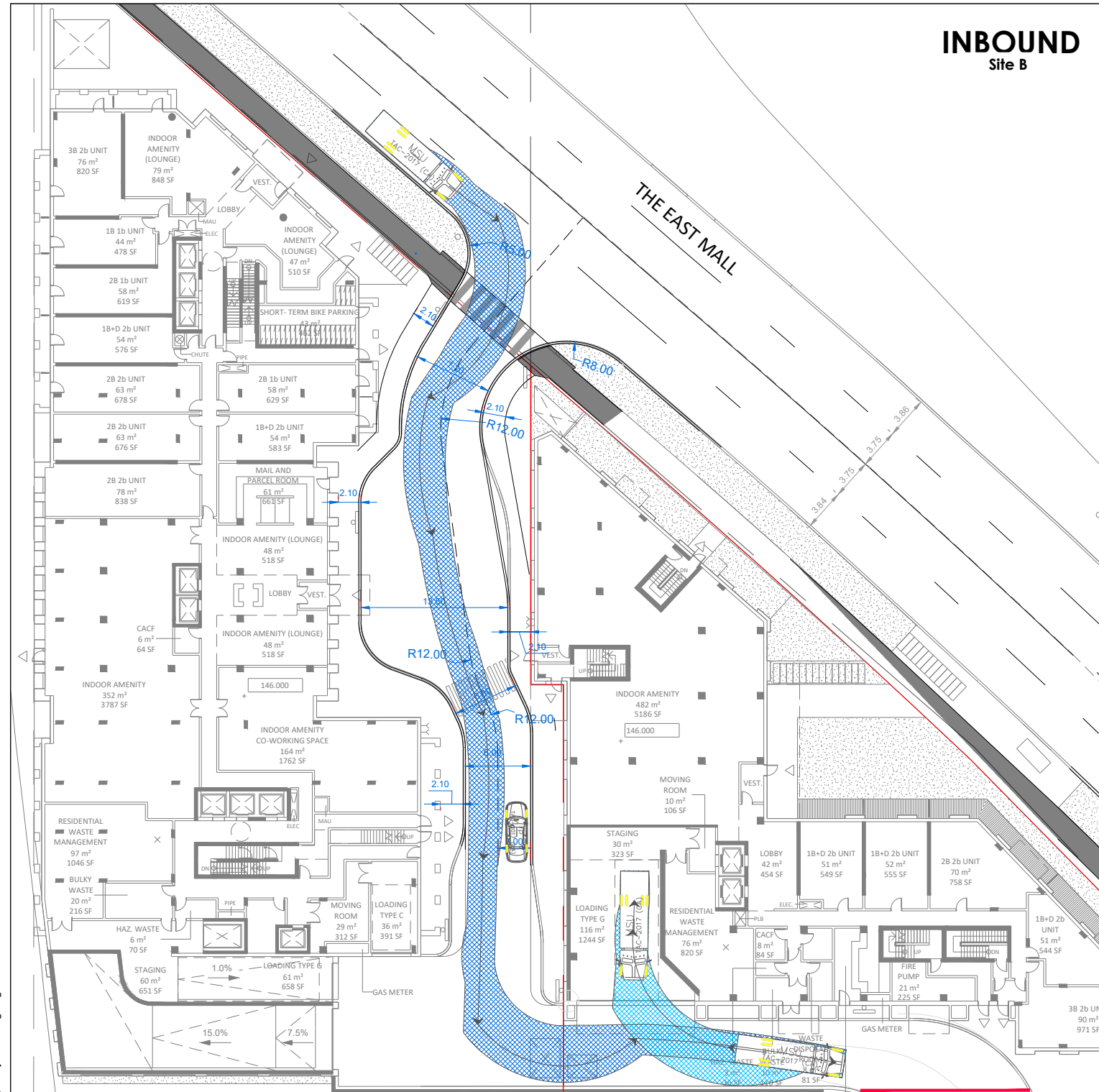
Scale: 1:500



MSU
Width : 2.60
Track : 2.60
Lock to Lock Time : 6.0
Steering Angle : 40.2

Figure 10
MSU Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

C:\Users\CAMY075367\Desktop\Projects\On-going\630 The East Mall\2024-06-05\New

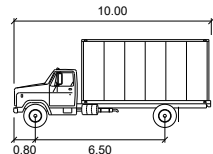


Date Site Plan Received: 2024-06-05

Scale: 1:500



wsp - 630 East Mall - 28032024.dwg_Fig 10



MSU

Width : 2.60
Track : 2.60
Lock to Lock Time : 6.0
Steering Angle : 40.2

meters

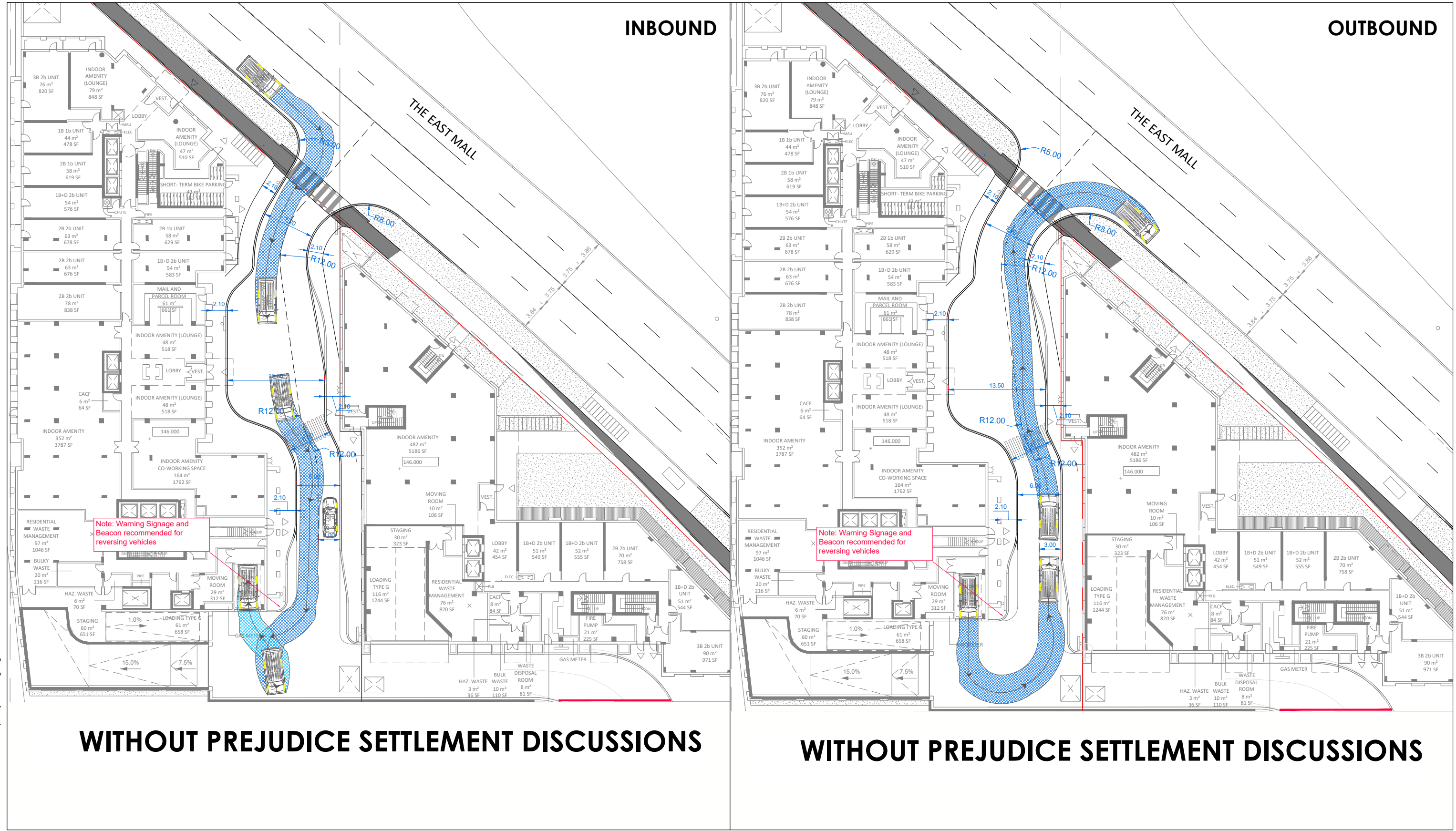
Figure 11
MSU Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

Modified: 6/6/2024 5:19 PM

By: CAMY075367

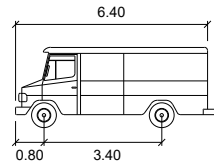
Plot Date: 2024/06/06

C:\Users\CAMY075367\Desktop\Projects\On-going\630 The East Mall\2024-06-05\New



Date Site Plan Received: 2024-06-05

Scale: 1:500



LSU

Width
Track
Lock to Lock Time
Steering Angle

meters
: 2.60
: 2.60
: 6.0
: 40.3

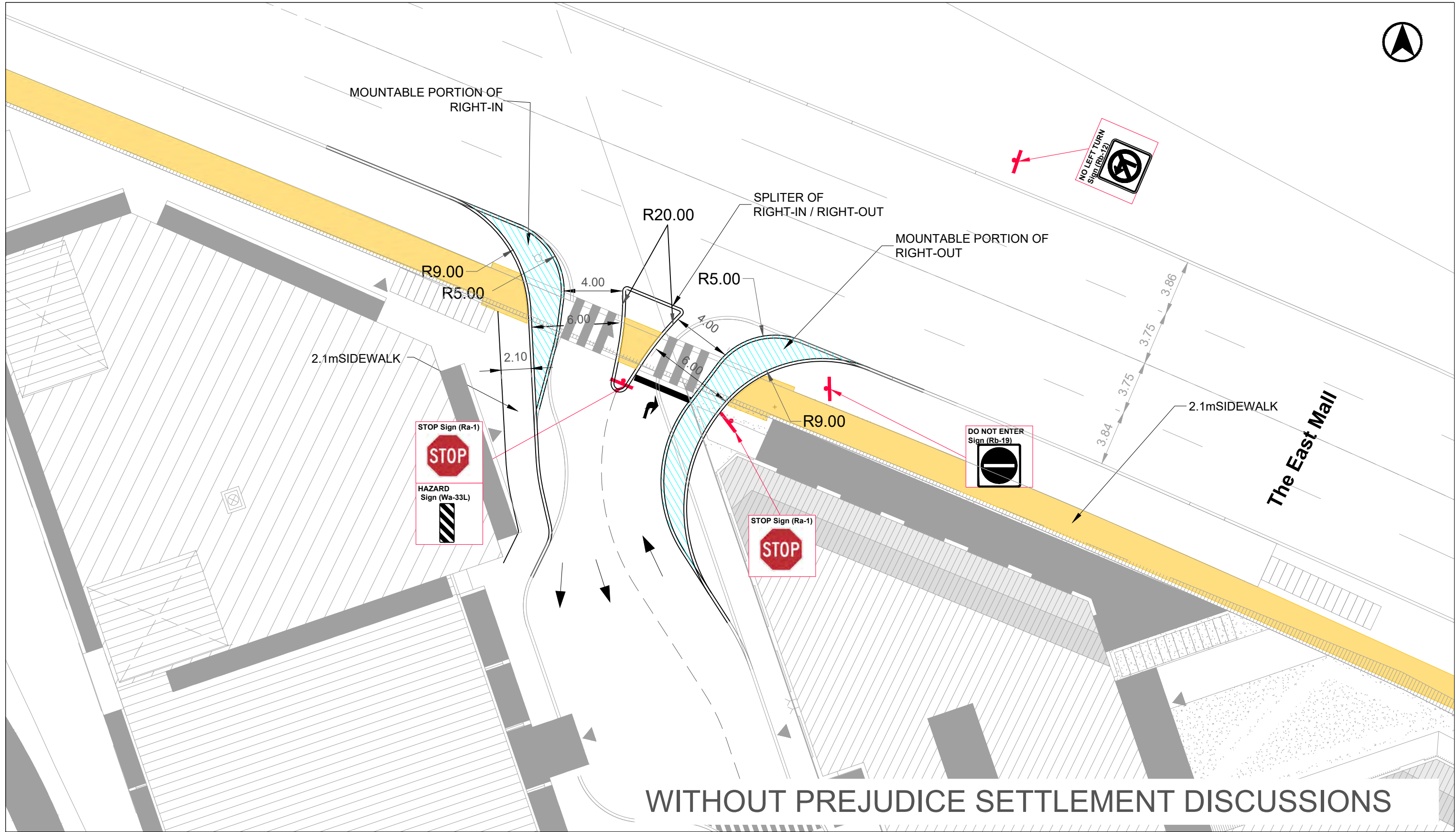
LSU Turning Maneuver Simulation Review - Ground Floor
630 The East Mall

Figure 12

APPENDIX

C

ULTIMATE ACCESS
DRAWINGS

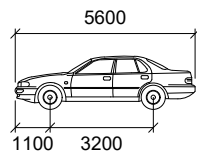
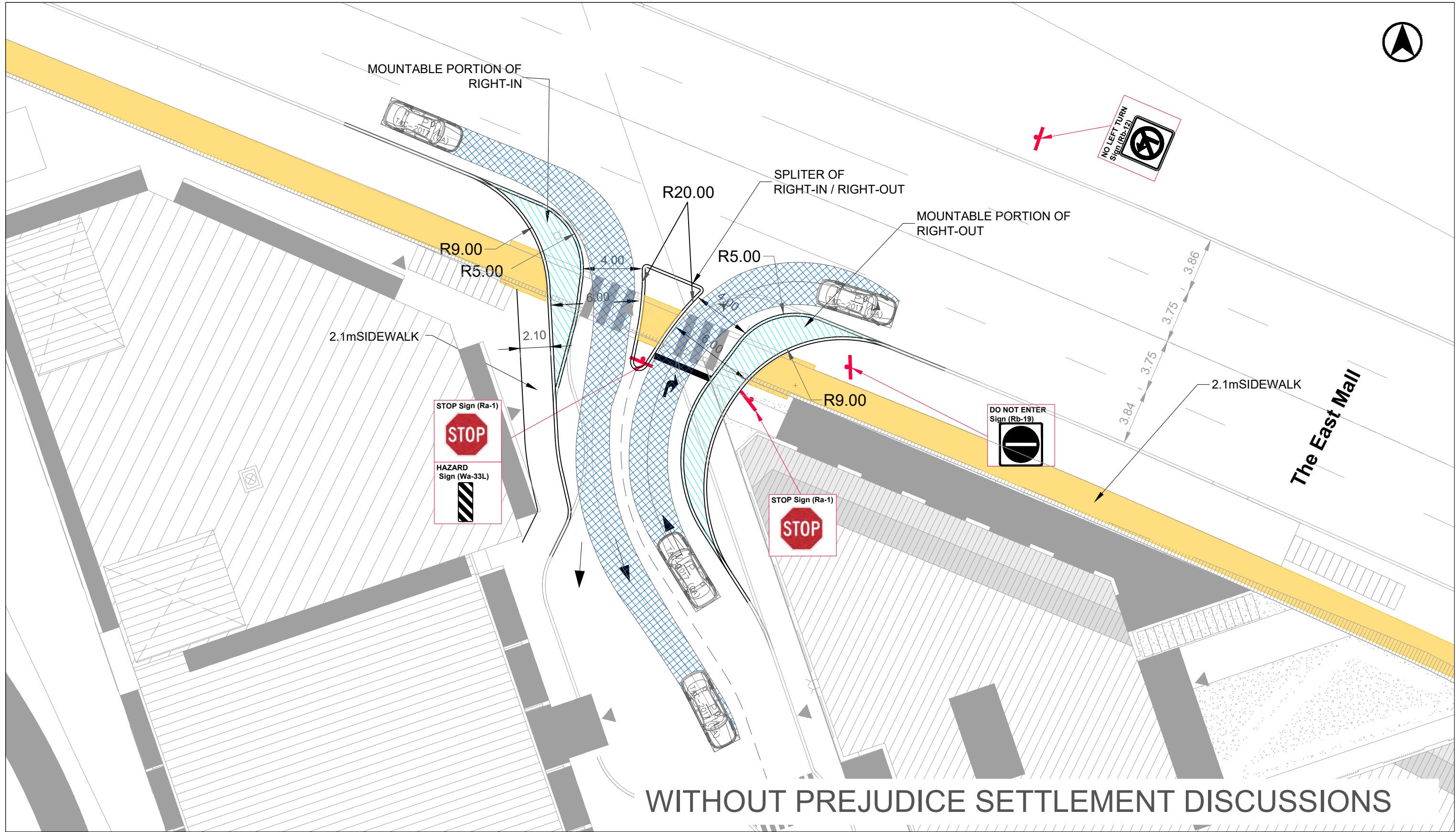


Source: _Sheet - A 1-01 - GROUND FLOOR SITE PLAN.dwg received Mar 05, 2023

Scale: 1:25



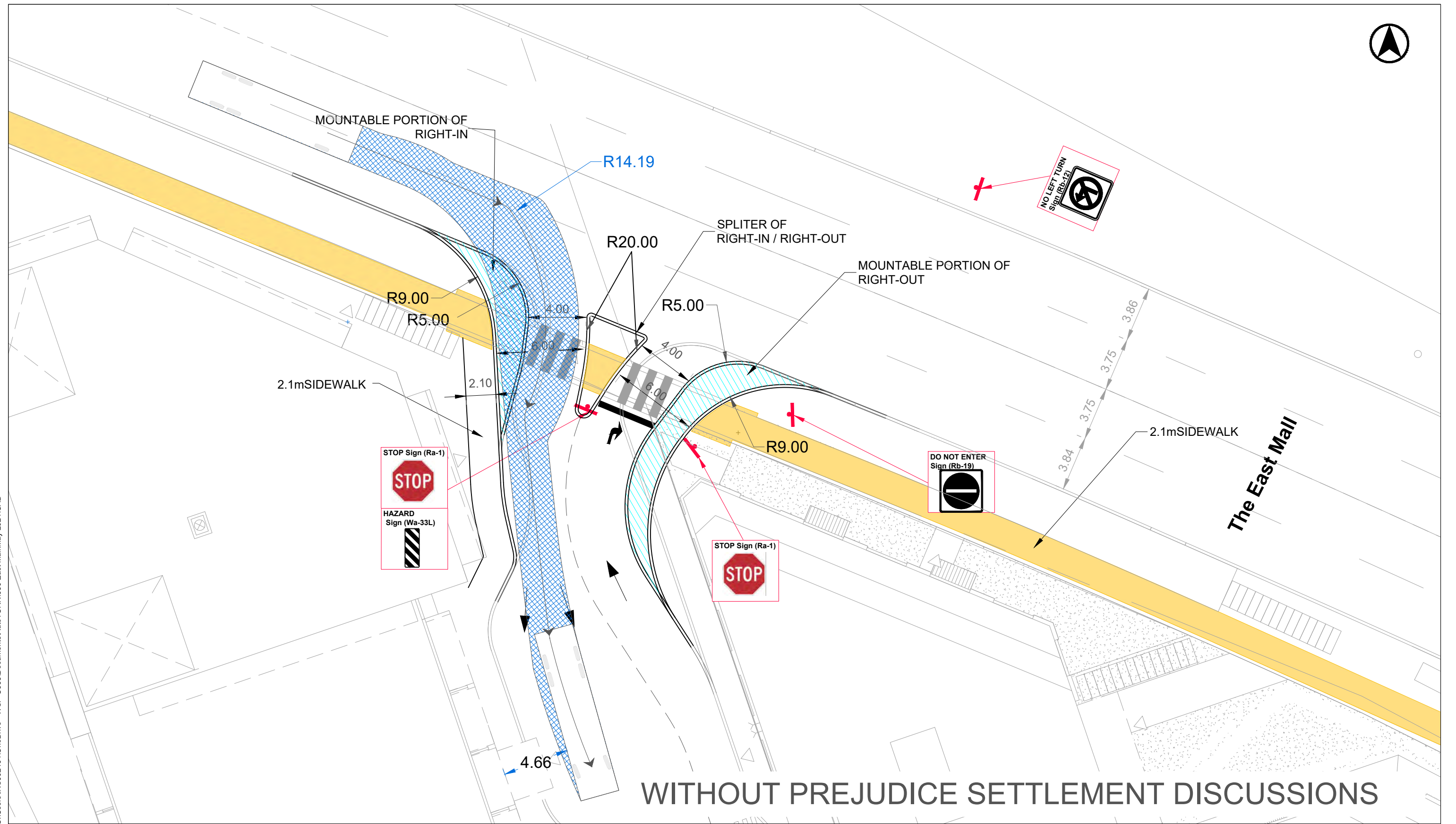
Figure 13
North Access Right-in / Right-out
630 The East Mall



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

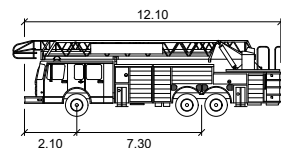
Figure 14 - North Access Right-in / Right-out
 Passenger Vehicle Simulation - Inbound & Outbound
 630 The East Mall

C:\Users\INSJ02464\OneDrive - WSP\0365\Documents\AutoTURN\630 East Mall\May 2024\CAD



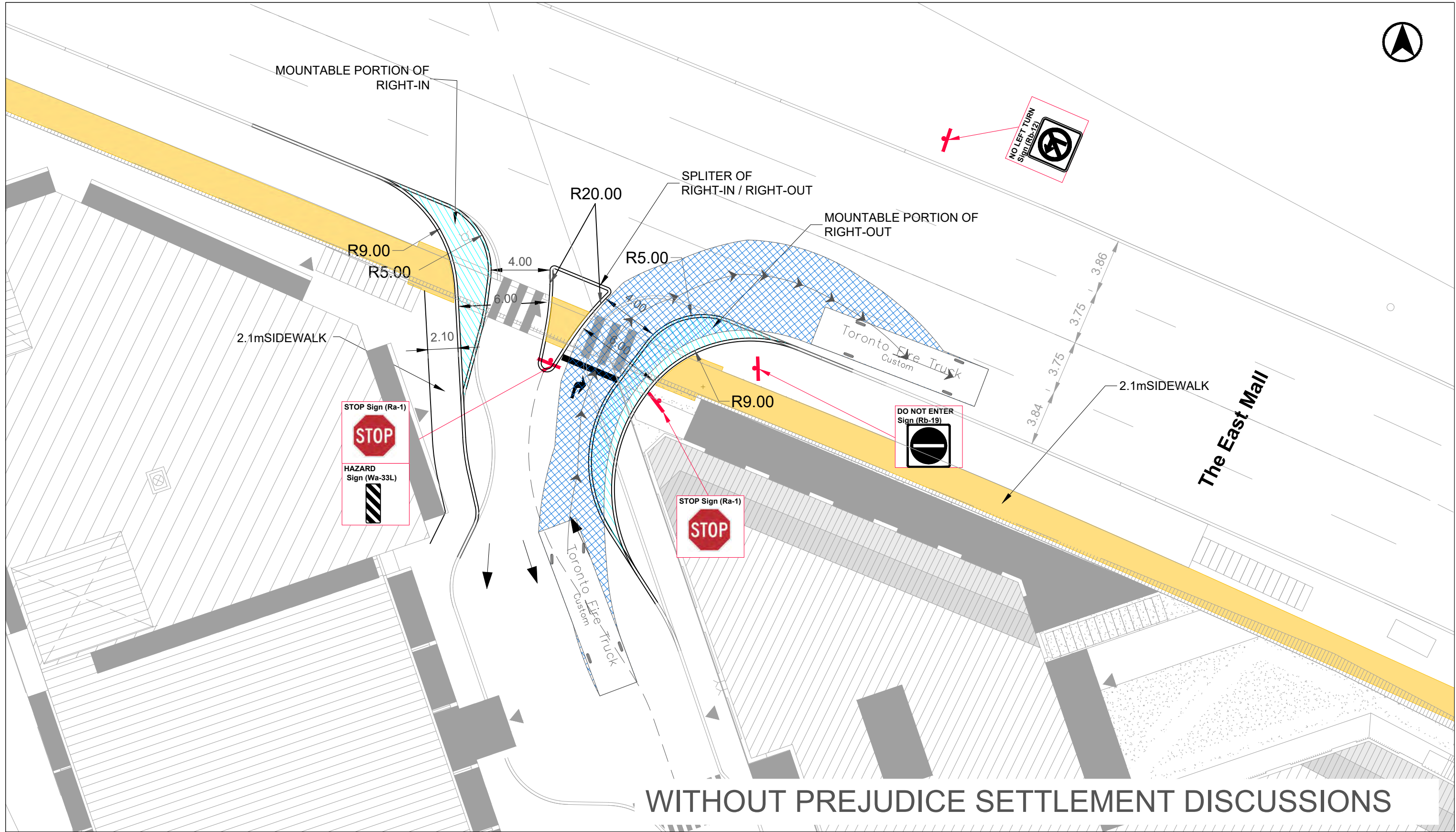
Source: _Sheet - A 1-01 - GROUND FLOOR SITE PLAN.dwg received Mar 05, 2023

Scale: 1:250



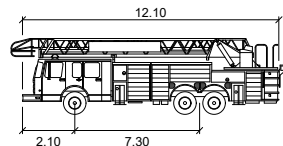
Toronto Fire Truck	
Width	: 2.75
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.5

Figure 15 - North Access Right-in / Right-out
Toronto Fire Truck Vehicle Simulation - Inbound
630 The East Mall



Source: _Sheet - A 1-01 - GROUND FLOOR SITE PLAN.dwg received Mar 05, 2023

Scale: 1:250



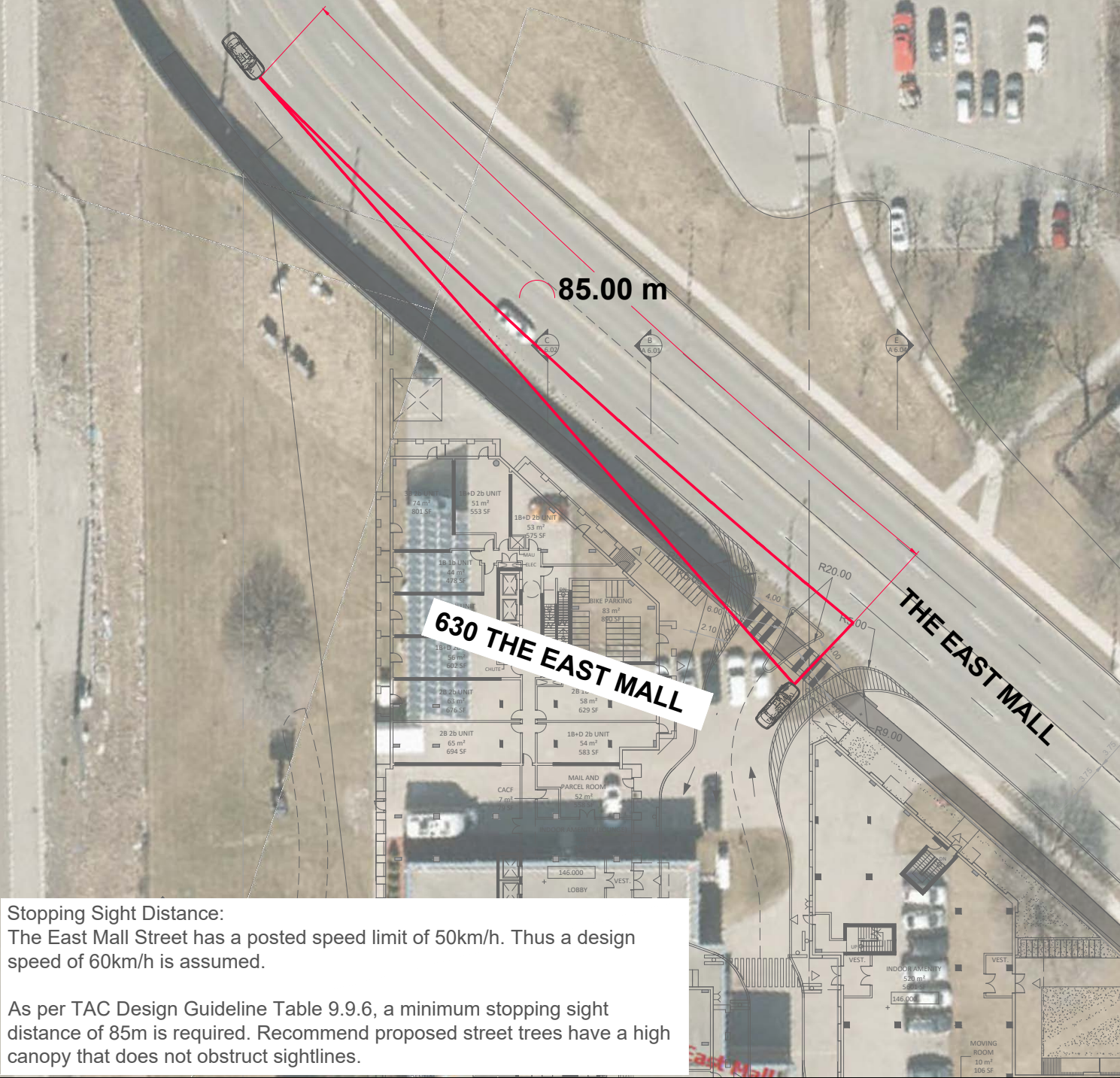
Toronto Fire Truck
 Width : 2.75 meters
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 37.5

Figure 16 - North Access Right-in / Right-out
 Toronto Fire Truck Vehicle Simulation - Outbound
 630 The East Mall

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Stopping Sight Distance

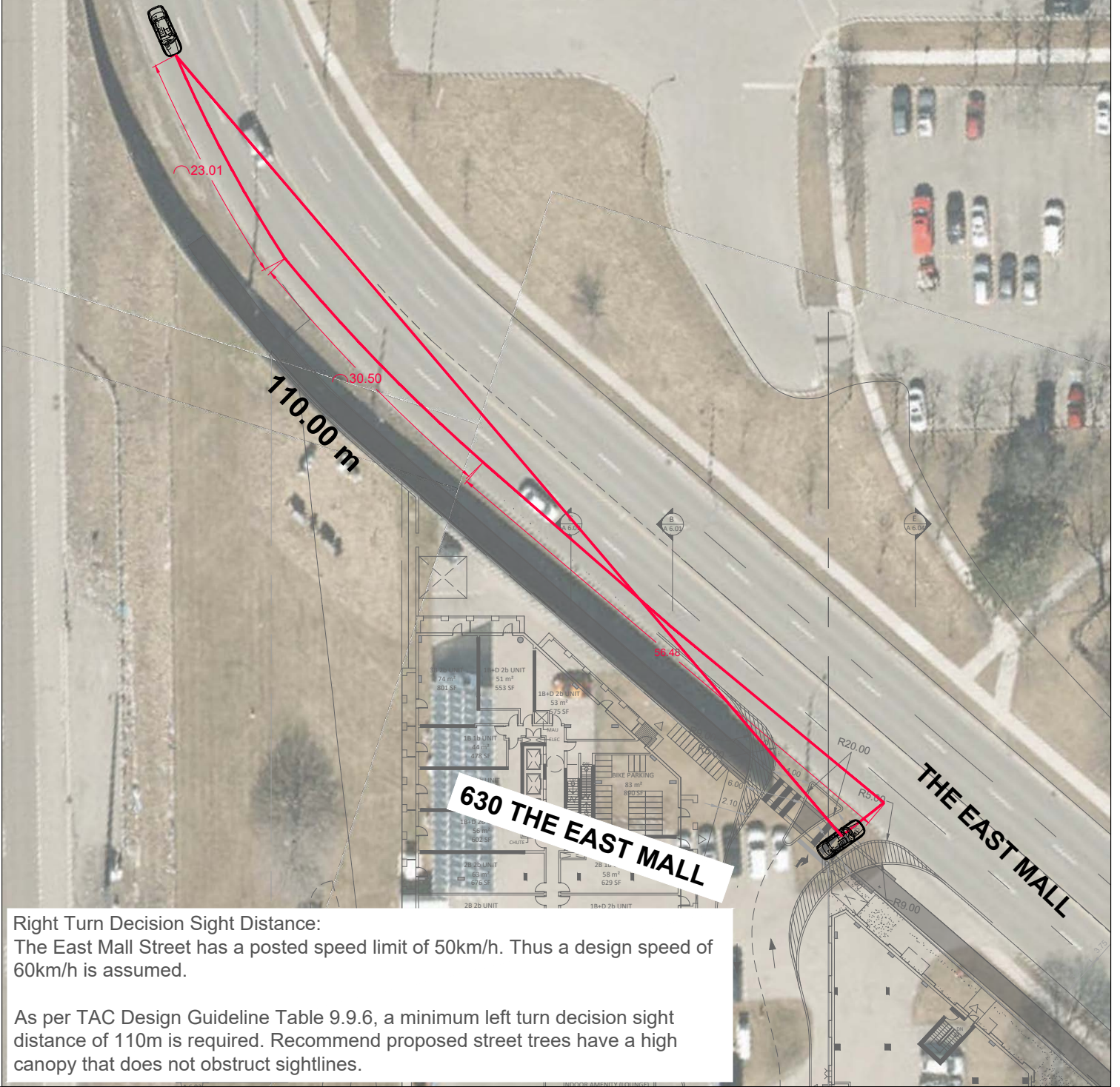
See Figure 6 for Streetview image



Source: _Sheet - A 3-01 - GROUND FLOOR SITE PLAN.dwg received Mar 05, 2023

Right Turn Decision Sight Distance

See Figure 6 for Streetview image



Source: Aerial - City of Toronto maps (<https://map.toronto.ca/torontomaps/>) 2023

Scale: 1:800



C:\Users\INSJ02464\OneDrive - WSP\0365\Documents\AutoTURN\630 East Mall\May 2024\CAD

Approximate distance of 85m from
site driveway

Approximate distance of 110m
from site driveway

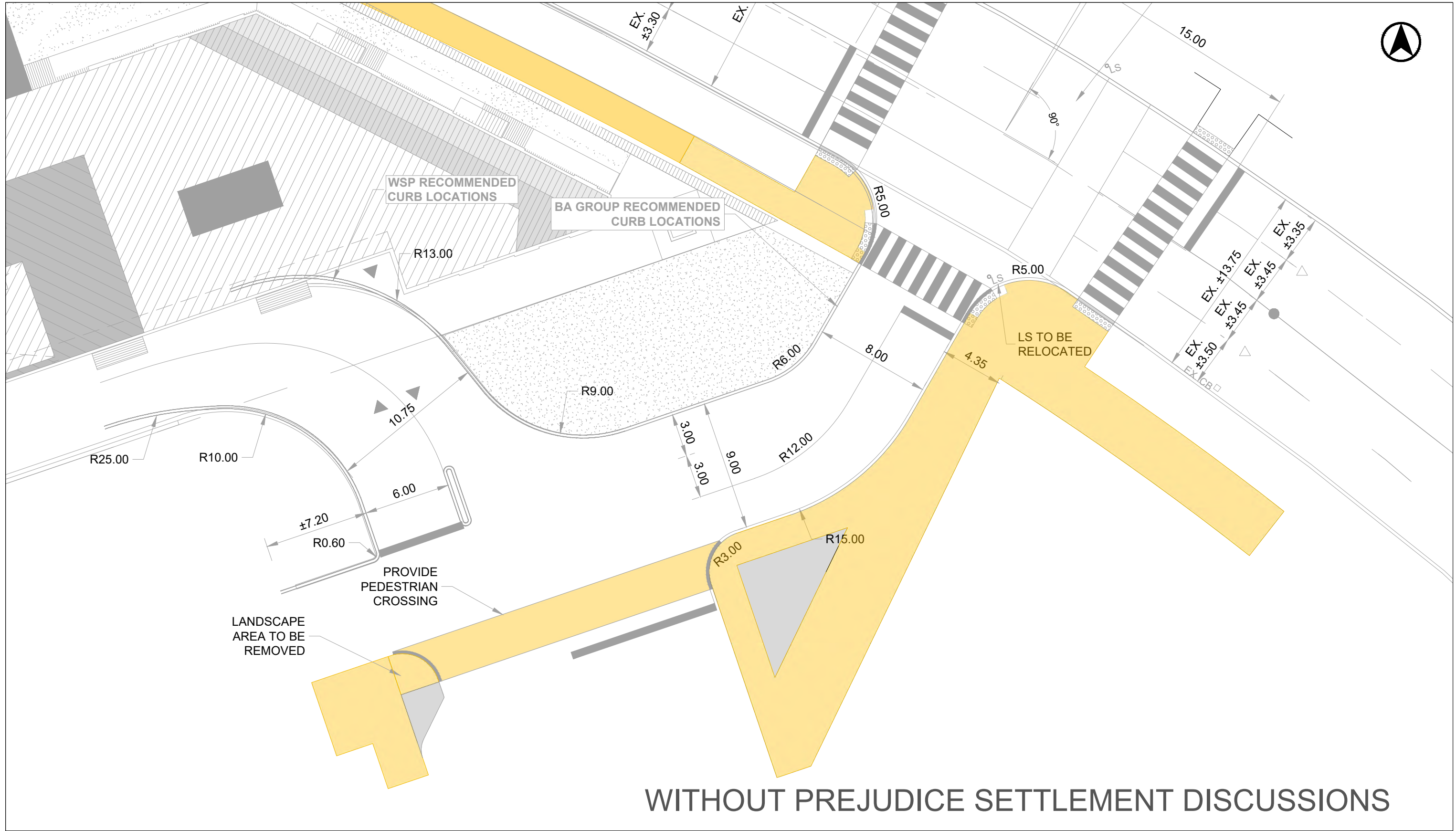


Source: Google Map, August 2022

WITHOUT PREJUDICE SETTLEMENT DISCUSSIONS

Scale: NTS





Source: _Sheet - A 1-01 - GROUND FLOOR SITE PLAN.dwg received Mar 05, 2023

Scale: 1:250



Figure 19
South Driveway
630 The East Mall

APPENDIX

D

SYNCHRO REPORT



Single Access (Interim)

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	82	59	251	442	6
Future Vol, veh/h	15	82	59	251	442	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	10	4	2
Mvmt Flow	18	98	70	299	526	7
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	820	267	533	0	-	0
Stage 1	530	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	313	731	1031	-	-	-
Stage 1	555	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	288	731	1031	-	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.6	1.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1031	-	591	-	-	
HCM Lane V/C Ratio	0.068	-	0.195	-	-	
HCM Control Delay (s)	8.7	0.2	12.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	

Intersection

Int Delay, s/veh 2.5

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 12 94 94 201 404 17

Future Vol, veh/h 12 94 94 201 404 17

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 96 96 96 96 96 96

Heavy Vehicles, % 2 2 2 4 2 2

Mvmt Flow 13 98 98 209 421 18

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 731 220 439 0 - 0

Stage 1 430 - - - - -

Stage 2 301 - - - - -

Critical Hdwy 6.84 6.94 4.14 - - -

Critical Hdwy Stg 1 5.84 - - - - -

Critical Hdwy Stg 2 5.84 - - - - -

Follow-up Hdwy 3.52 3.32 2.22 - - -

Pot Cap-1 Maneuver 357 784 1117 - - -

Stage 1 624 - - - - -

Stage 2 725 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 322 784 1117 - - -

Mov Cap-2 Maneuver 322 - - - - -

Stage 1 562 - - - - -

Stage 2 725 - - - - -

Approach EB NB SB

HCM Control Delay, s 11.4 2.9 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1117 - 674 - -

HCM Lane V/C Ratio 0.088 - 0.164 - -

HCM Control Delay (s) 8.5 0.2 11.4 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0.3 - 0.6 - -

Right-In/Right-Out

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗	↗	
Traffic Vol, veh/h	0	9	0	265	447	1
Future Vol, veh/h	0	9	0	265	447	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	10	4	2
Mvmt Flow	0	11	0	315	532	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	267	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	731	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	731	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 731		-	-		
HCM Lane V/C Ratio	- 0.015		-	-		
HCM Control Delay (s)	- 10		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0		-	-		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total _**RIRO Access**_2024.06.04.syn

06/05/2024

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	49	217	106	282	619	17	
Future Volume (vph)	49	217	106	282	619	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Ped Bike Factor	0.98				1.00		
Frt	0.890				0.996		
Flt Protected	0.991			0.987			
Satd. Flow (prot)	1536	0	0	3231	3290	0	
Flt Permitted	0.991			0.674			
Satd. Flow (perm)	1535	0	0	2207	3290	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	226				4		
Link Speed (k/h)	50			50	50		
Link Distance (m)	87.5			226.7	109.0		
Travel Time (s)	6.3			16.3	7.8		
Confl. Peds. (#/hr)	2	6					
Confl. Bikes (#/hr)						3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	0%	0%	4%	2%	0%	
Adj. Flow (vph)	51	226	110	294	645	18	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	277	0	0	404	663	0	
Turn Type	Prot		Perm	NA	NA		
Protected Phases	4			2	6		9
Permitted Phases			2				
Detector Phase	4		2	2	6		
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0		1.0
Minimum Split (s)	24.0		24.0	24.0	24.0		5.0
Total Split (s)	38.0		57.0	57.0	57.0		5.0
Total Split (%)	38.0%		57.0%	57.0%	57.0%		5%
Yellow Time (s)	2.0		2.0	2.0	2.0		2.0
All-Red Time (s)	4.0		4.0	4.0	4.0		0.0
Lost Time Adjust (s)	-1.0			-1.0	-1.0		
Total Lost Time (s)	5.0			5.0	5.0		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max		None
Act Effct Green (s)	11.5			78.5	78.5		
Actuated g/C Ratio	0.12			0.78	0.78		
v/c Ratio	0.74			0.23	0.26		
Control Delay	21.5			4.5	3.7		
Queue Delay	0.0			0.0	0.0		
Total Delay	21.5			4.5	3.7		
LOS	C			A	A		
Approach Delay	21.5			4.5	3.7		
Approach LOS	C			A	A		
Queue Length 50th (m)	9.8			10.7	13.7		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Queue Length 95th (m)	34.0			22.8	30.5		
Internal Link Dist (m)	63.5			202.7	85.0		
Turn Bay Length (m)							
Base Capacity (vph)	658			1733	2584		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.42			0.23	0.26		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 37 (37%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: The East Mall & South Access

57 s	38 s	5 s
57 s		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	
Traffic Vol, veh/h	0	10	0	187	379	2
Future Vol, veh/h	0	10	0	187	379	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	0	10	0	195	395	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	199	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	809	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	809	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.5	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 809		-	-		
HCM Lane V/C Ratio	- 0.013		-	-		
HCM Control Delay (s)	- 9.5		-	-		
HCM Lane LOS	- A		-	-		
HCM 95th %tile Q(veh)	- 0		-	-		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	49	217	106	282	619	17	
Future Volume (vph)	49	217	106	282	619	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Ped Bike Factor	0.98				1.00		
Frt	0.890				0.996		
Flt Protected	0.991			0.987			
Satd. Flow (prot)	1536	0	0	3231	3290	0	
Flt Permitted	0.991			0.674			
Satd. Flow (perm)	1535	0	0	2207	3290	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	226				4		
Link Speed (k/h)	50			50	50		
Link Distance (m)	87.5			226.7	109.0		
Travel Time (s)	6.3			16.3	7.8		
Confl. Peds. (#/hr)	2	6					
Confl. Bikes (#/hr)						3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	0%	0%	4%	2%	0%	
Adj. Flow (vph)	51	226	110	294	645	18	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	277	0	0	404	663	0	
Turn Type	Prot		Perm	NA	NA		
Protected Phases	4			2	6		9
Permitted Phases			2				
Detector Phase	4		2	2	6		
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0		1.0
Minimum Split (s)	24.0		24.0	24.0	24.0		5.0
Total Split (s)	38.0		57.0	57.0	57.0		5.0
Total Split (%)	38.0%		57.0%	57.0%	57.0%		5%
Yellow Time (s)	2.0		2.0	2.0	2.0		2.0
All-Red Time (s)	4.0		4.0	4.0	4.0		0.0
Lost Time Adjust (s)	-1.0			-1.0	-1.0		
Total Lost Time (s)	5.0			5.0	5.0		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max		None
Act Effct Green (s)	11.5			78.5	78.5		
Actuated g/C Ratio	0.12			0.78	0.78		
v/c Ratio	0.74			0.23	0.26		
Control Delay	21.5			4.5	3.7		
Queue Delay	0.0			0.0	0.0		
Total Delay	21.5			4.5	3.7		
LOS	C			A	A		
Approach Delay	21.5			4.5	3.7		
Approach LOS	C			A	A		
Queue Length 50th (m)	9.8			10.7	13.7		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Queue Length 95th (m)	34.0			22.8	30.5		
Internal Link Dist (m)	63.5			202.7	85.0		
Turn Bay Length (m)							
Base Capacity (vph)	658			1733	2584		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.42			0.23	0.26		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 37 (37%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: The East Mall & South Access

57 s	38 s	5 s
57 s		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	9	0	300	457	1
Future Vol, veh/h	0	9	0	300	457	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	10	4	2
Mvmt Flow	0	11	0	357	544	1
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	273	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	725	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	725	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	10	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	725	-	-		
HCM Lane V/C Ratio	-	0.015	-	-		
HCM Control Delay (s)	-	10	-	-		
HCM Lane LOS	-	B	-	-		
HCM 95th %tile Q(veh)	-	0	-	-		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	51	233	132	257	449	17	
Future Volume (vph)	51	233	132	257	449	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Ped Bike Factor	0.98			1.00	1.00		
Frt	0.889				0.994		
Flt Protected	0.991			0.983			
Satd. Flow (prot)	1401	0	0	3020	3222	0	
Flt Permitted	0.991			0.678			
Satd. Flow (perm)	1401	0	0	2081	3222	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	243				6		
Link Speed (k/h)	50			50	50		
Link Distance (m)	87.5			226.7	109.0		
Travel Time (s)	6.3			16.3	7.8		
Confl. Peds. (#/hr)		4	2			2	
Confl. Bikes (#/hr)						1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	12%	9%	10%	4%	0%	
Adj. Flow (vph)	53	243	138	268	468	18	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	296	0	0	406	486	0	
Turn Type	Prot		Perm	NA	NA		
Protected Phases	4			2	6		9
Permitted Phases			2				
Detector Phase	4		2	2	6		
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0		1.0
Minimum Split (s)	24.0		24.0	24.0	24.0		5.0
Total Split (s)	38.0		57.0	57.0	57.0		5.0
Total Split (%)	38.0%		57.0%	57.0%	57.0%		5%
Yellow Time (s)	2.0		2.0	2.0	2.0		2.0
All-Red Time (s)	4.0		4.0	4.0	4.0		0.0
Lost Time Adjust (s)	-1.0			-1.0	-1.0		
Total Lost Time (s)	5.0			5.0	5.0		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max		None
Act Effct Green (s)	12.4			77.6	77.6		
Actuated g/C Ratio	0.12			0.78	0.78		
v/c Ratio	0.77			0.25	0.19		
Control Delay	22.4			4.8	3.8		
Queue Delay	0.0			0.0	0.0		
Total Delay	22.4			4.8	3.8		
LOS	C			A	A		
Approach Delay	22.4			4.8	3.8		
Approach LOS	C			A	A		
Queue Length 50th (m)	10.2			11.8	9.8		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Queue Length 95th (m)	35.5			m20.1	24.0		
Internal Link Dist (m)	63.5			202.7	85.0		
Turn Bay Length (m)							
Base Capacity (vph)	625			1615	2502		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.47			0.25	0.19		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 22.5 (23%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 8.8

Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: The East Mall & South Access

Ø9 Ø2 (R) 57 s	Ø4 38 s	
Ø6 (R) 57 s		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	10	0	212	419	2
Future Vol, veh/h	0	10	0	212	419	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	0	10	0	221	436	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 219	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 785	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 785	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 785	- -	- -
HCM Lane V/C Ratio	- 0.013	- -	- -
HCM Control Delay (s)	- 9.6	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	49	217	261	272	589	87	
Future Volume (vph)	49	217	261	272	589	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Ped Bike Factor	0.98				1.00		
Frt	0.890				0.981		
Flt Protected	0.991			0.976			
Satd. Flow (prot)	1536	0	0	3223	3239	0	
Flt Permitted	0.991			0.570			
Satd. Flow (perm)	1535	0	0	1882	3239	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	226				24		
Link Speed (k/h)	50			50	50		
Link Distance (m)	87.5			226.7	109.0		
Travel Time (s)	6.3			16.3	7.8		
Confl. Peds. (#/hr)	2	6					
Confl. Bikes (#/hr)						3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	0%	0%	4%	2%	0%	
Adj. Flow (vph)	51	226	272	283	614	91	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	277	0	0	555	705	0	
Turn Type	Prot		Perm	NA	NA		
Protected Phases	4			2	6		9
Permitted Phases			2				
Detector Phase	4		2	2	6		
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0		1.0
Minimum Split (s)	24.0		24.0	24.0	24.0		5.0
Total Split (s)	38.0		57.0	57.0	57.0		5.0
Total Split (%)	38.0%		57.0%	57.0%	57.0%		5%
Yellow Time (s)	2.0		2.0	2.0	2.0		2.0
All-Red Time (s)	4.0		4.0	4.0	4.0		0.0
Lost Time Adjust (s)	-1.0			-1.0	-1.0		
Total Lost Time (s)	5.0			5.0	5.0		
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max		None
Act Effct Green (s)	11.5			78.5	78.5		
Actuated g/C Ratio	0.12			0.78	0.78		
v/c Ratio	0.74			0.38	0.28		
Control Delay	21.5			5.4	3.6		
Queue Delay	0.0			0.0	0.0		
Total Delay	21.5			5.4	3.6		
LOS	C			A	A		
Approach Delay	21.5			5.4	3.6		
Approach LOS	C			A	A		
Queue Length 50th (m)	9.8			16.7	14.4		

Lanes, Volumes, Timings
5: The East Mall & South Access

TEM_Future Total **RIRO Access**_2024.06.04.syn

06/05/2024



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Queue Length 95th (m)	34.0			33.7	32.0		
Internal Link Dist (m)	63.5			202.7	85.0		
Turn Bay Length (m)							
Base Capacity (vph)	658			1478	2548		
Starvation Cap Reductn	0			0	0		
Spillback Cap Reductn	0			0	0		
Storage Cap Reductn	0			0	0		
Reduced v/c Ratio	0.42			0.38	0.28		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 37 (37%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: The East Mall & South Access

57 s	38 s	5 s
57 s		