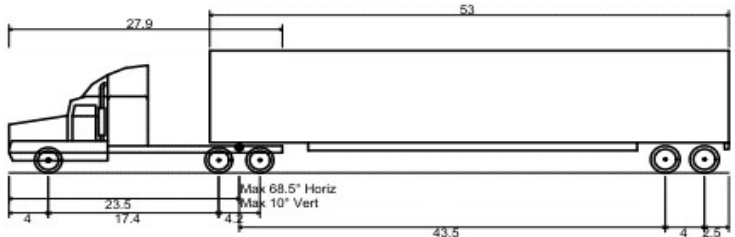
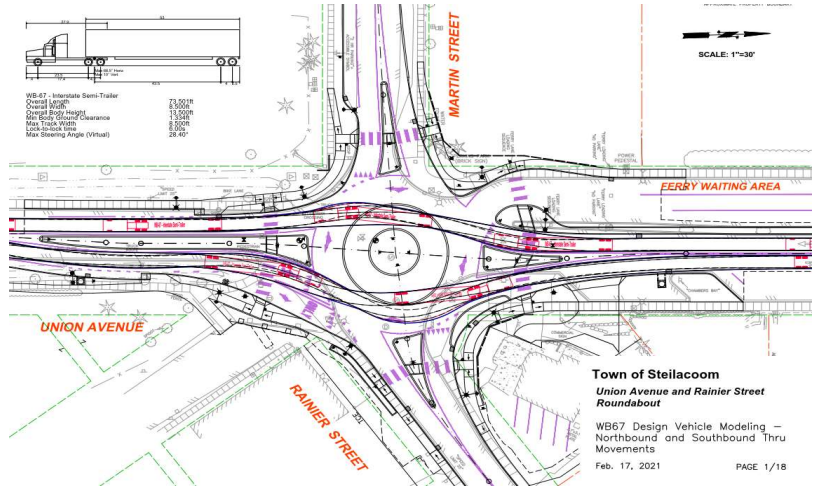
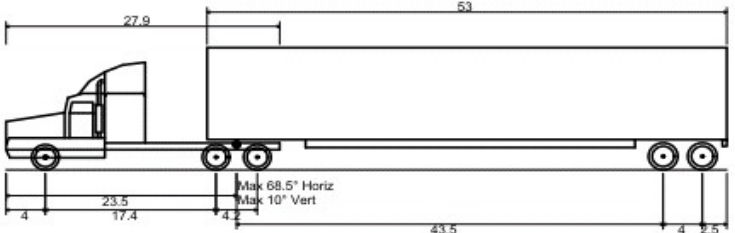
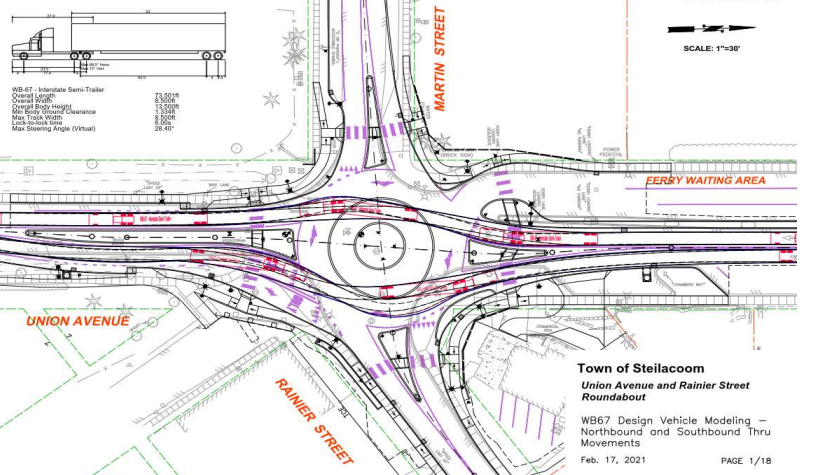
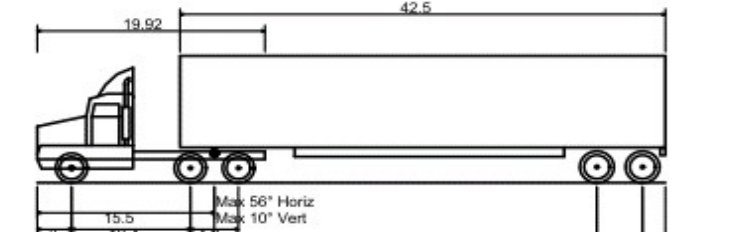
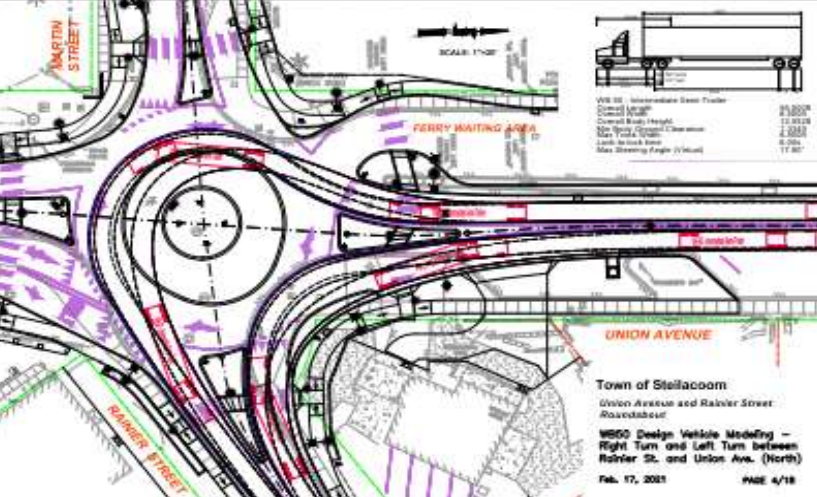
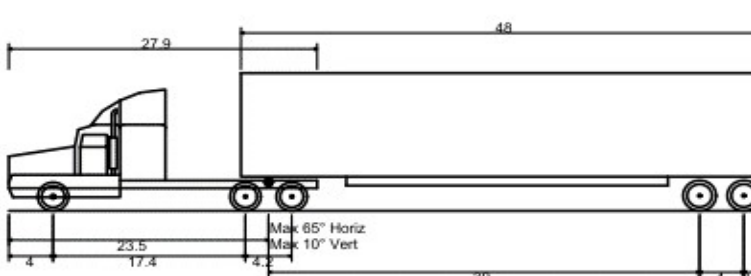
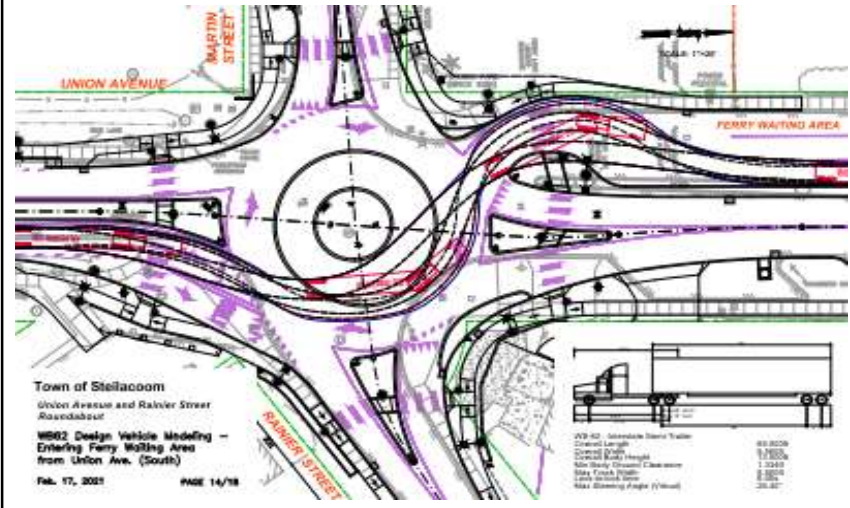
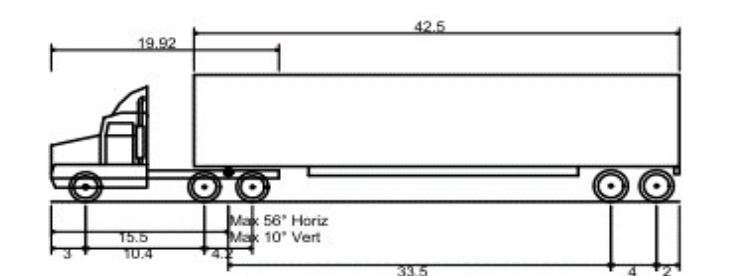
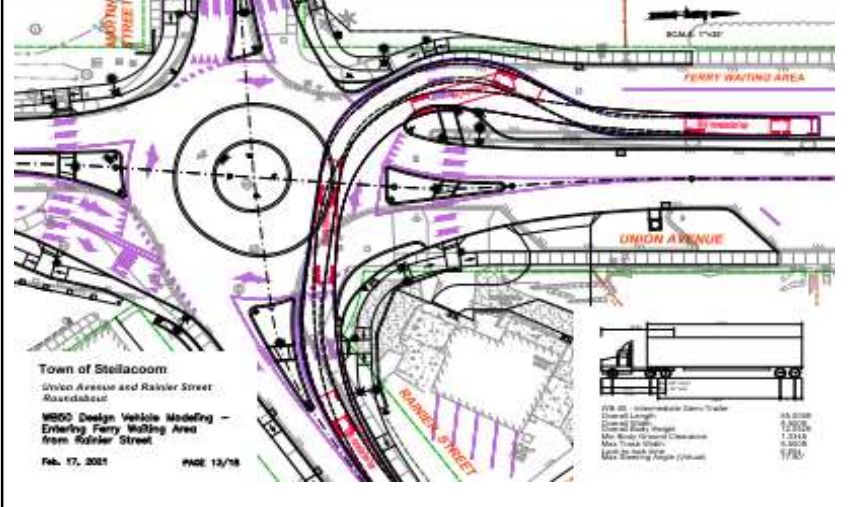


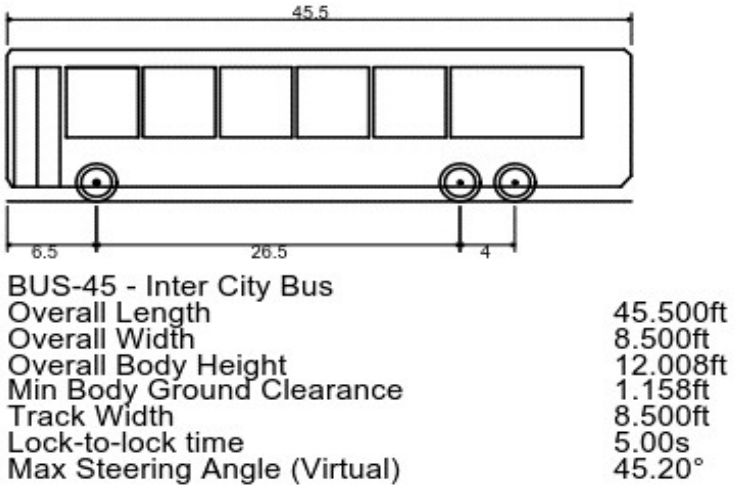
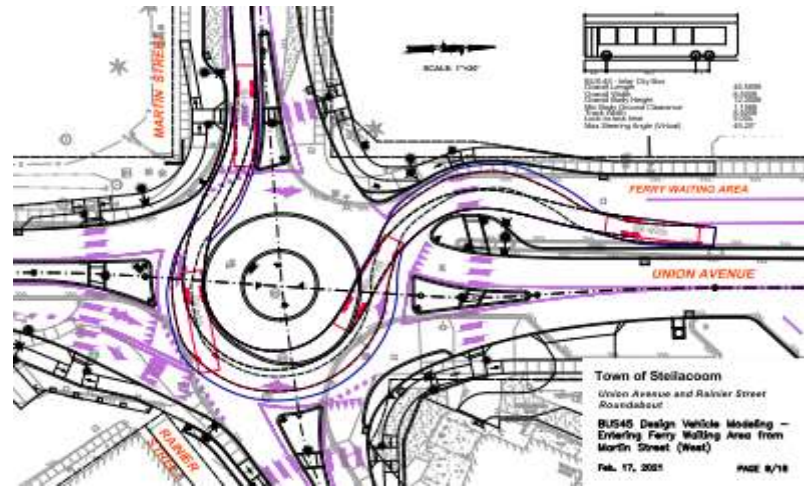
Town of Steilacoom
Union Avenue and Rainier Street Roundabout (RA)
"AutoTURN / Vehicle Tracking" Modeling Summary
G&O #19422
March 18, 2021

Direction	Largest Design Vehicle Accommodated	Additional Notes	Design Vehicle Dimensions	Exhibits
	AASHTO 2004/2011			
<p>Load Ferry - Northbound Union Ave Through RA</p>	<p>WB-67</p>	<p>Oversize vehicle load to Ferry via northbound Union Ave, through RA</p>	 <p>WB-67 - Interstate Semi-Trailer Overall Length 73.501ft Overall Width 8.500ft Overall Body Height 13.500ft Min Body Ground Clearance 1.334ft Max Track Width 8.500ft Lock-to-lock time 6.00s Max Steering Angle (Virtual) 28.40°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout WB67 Design Vehicle Modeling - Northbound and Southbound Through Movements Feb. 17, 2021 PAGE 1/18</p>
<p>Disembark Ferry - Southbound Union Ave Through RA</p>	<p>WB-67</p>	<p>Tight condition, vehicles disembark Ferry onto southbound Union Ave through RA</p>	 <p>WB-67 - Interstate Semi-Trailer Overall Length 73.501ft Overall Width 8.500ft Overall Body Height 13.500ft Min Body Ground Clearance 1.334ft Max Track Width 8.500ft Lock-to-lock time 6.00s Max Steering Angle (Virtual) 28.40°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout WB67 Design Vehicle Modeling - Northbound and Southbound Through Movements Feb. 17, 2021 PAGE 1/18</p>
<p>Disembark Ferry, LT through RA: Southbound -> Eastbound</p>	<p>WB-50</p>	<p>Vehicles disembark Ferry onto southbound Union Ave, enter RA and then exit RA eastbound on Rainier Street</p>	 <p>WB-50 - Intermediate Semi-Trailer Overall Length 55.000ft Overall Width 8.500ft Overall Body Height 12.052ft Min Body Ground Clearance 1.334ft Max Track Width 8.500ft Lock-to-lock time 6.00s Max Steering Angle (Virtual) 17.90°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout WB50 Design Vehicle Modeling - Right Turn and Left Turn between Rainier St. and Union Ave. (North) Feb. 17, 2021 PAGE 4/18</p>

Town of Steilacoom
Union Avenue and Rainier Street Roundabout (RA)
"AutoTURN / Vehicle Tracking" Modeling Summary
G&O #19422
March 18, 2021

Direction	Largest Design Vehicle Accommodated	Additional Notes	Design Vehicle Dimensions	Exhibits
	AASHTO 2004/2011			
<p style="text-align: center;">Enter Ferry Lanes - Northbound (Union) through RA to Ferry Lanes</p>	<p style="text-align: center;">WB-62 **</p>	<p>Tight condition, vehicles on northbound Union Avenue enter RA and exit RA to ferry lanes</p>	 <p>WB-62 - Interstate Semi-Trailer Overall Length 69.000ft Overall Width 8.500ft Overall Body Height 13.500ft Min Body Ground Clearance 1.334ft Max Track Width 8.500ft Lock-to-lock time 6.00s Max Steering Angle (Virtual) 28.40°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout WB62 Design Vehicle Modeling - Entering Ferry Waiting Area from Union Ave. (South) Feb. 17, 2021 PAGE 14/18</p>
<p style="text-align: center;">Enter Ferry Lanes - Westbound (Rainier) through RA to Ferry Lanes</p>	<p style="text-align: center;">WB-50 **</p>	<p>Tight condition, vehicles on westbound Rainier St enter RA, use RA center island truck apron for positioning/alignment and exit RA to ferry lanes.</p>	 <p>WB-50 - Intermediate Semi-Trailer Overall Length 55.000ft Overall Width 8.500ft Overall Body Height 12.052ft Min Body Ground Clearance 1.334ft Max Track Width 8.500ft Lock-to-lock time 6.00s Max Steering Angle (Virtual) 17.90°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout WB50 Design Vehicle Modeling - Entering Ferry Waiting Area from Rainier Street Feb. 17, 2021 PAGE 13/18</p>

Town of Steilacoom
 Union Avenue and Rainier Street Roundabout (RA)
 "AutoTURN / Vehicle Tracking" Modeling Summary
 G&O #19422
 March 18, 2021

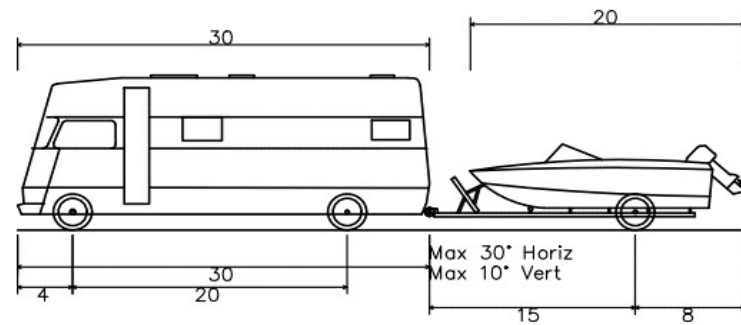
Direction	Largest Design Vehicle Accommodated	Additional Notes	Design Vehicle Dimensions	Exhibits
	AASHTO 2004/2011			
Enter Ferry Lanes - Eastbound (Ferry Overflow Parking) through RA to Ferry Lanes	BUS-45 **	Tight condition, vehicles in overflow parking on Martin Street head east and enter RA and exit RA to ferry lanes.	 <p>BUS-45 - Inter City Bus Overall Length 45.500ft Overall Width 8.500ft Overall Body Height 12.008ft Min Body Ground Clearance 1.158ft Track Width 8.500ft Lock-to-lock time 5.00s Max Steering Angle (Virtual) 45.20°</p>	 <p>Town of Steilacoom Union Avenue and Rainier Street Roundabout BUS-45 Design Vehicle Modeling - Entering Ferry Waiting Area from Martin Street (West) Feb. 17, 2021 PAGE 8/18</p>

Note: The Tight condition indicates that portions of the path could not maintain a minimum clearance of 1 ft, preferably 2 ft, as described in the AASHTO or NCHRP guidelines.

Town of Steilacoom
 Union Avenue and Rainier Street Roundabout (RA)
 "AutoTURN / Vehicle Tracking" Modeling Summary
 G&O #19422
 March 18, 2021

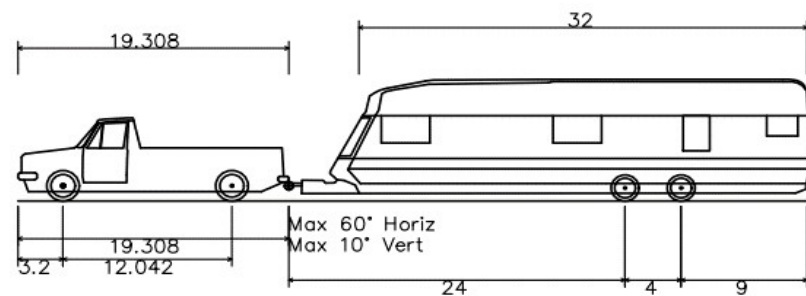
Direction	Largest Design Vehicle Accommodated	Additional Notes	Design Vehicle Dimensions	Exhibits
	AASHTO 2004/2011			

**Other Design Vehicle combinations that can use the RA and exit into the ferry lanes



MH/B – Motorhome and Boat Trailer

Overall Length	53.000ft
Overall Width	8.000ft
Overall Body Height	12.000ft
Min Body Ground Clearance	1.031ft
Track Width	8.000ft
Lock-to-lock time	4.00s
Max Steering Angle (Virtual)	25.80°



Passenger Vehicle and Trailer – Commercial Use

Overall Length	56.308ft
Overall Width	7.546ft
Overall Body Height	9.260ft
Min Body Ground Clearance	0.583ft
Max Track Width	7.539ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	23.500ft