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*The most livable city in America*

# Appendices

## Appendix B

Goal Based Multimodal Performance Measures

## Appendix B-1

### How will we evaluate the Ford Site Transportation Plan?

Goal #	Goal Description	Target #	Desired Target	Acceptable Target	Unacceptable Target	Indicator and Source	Comment
1	The Ford Site should provide multimodal access with an express goal of minimizing vehicular impacts.	1	<50% of trips to/from the Ford site will arrive/leave by single-occupancy vehicle	50-70% of trips to/from the Ford site will arrive/leave by single-occupancy vehicle	>70% of trips to/from the Ford site will arrive/leave by single-occupancy vehicle	Indicator: Trips by mode Source: Plan evaluation: Forecast by the Nelson\Nygaard model developed for the Ford Site. Future monitoring: Surveys of onsite users, cordon count around site	
2	The Ford Site and streets within a 1/2-mile of the Ford Site should be designed and operated to provide equitable and safe access by all means of transportation for users of all ages and abilities.	2A	99% of streets follow City of Saint Paul's Complete Street guidelines	80-99% of streets follow Complete Street guidelines	<80% of streets follow Complete Street guidelines	Indicator: Linear percentage of streets following Saint Paul Complete Streets guidelines	Complete Streets addresses the goal of serving all users at a relatively high level. Subsequent goals examine the performance of specific modes in more detail.
		2B	≤20MPH speeds for local streets and ≤25MPH speeds for collector/arterials	20-25 MPH speeds for local streets and 25-30 MPH speeds for collector/arterials	≥25 MPH speeds for local streets and ≥30 MPH speeds for collector/arterials are established	Indicator: 85th percentile speed Sources: Project: Design speed. Monitoring: Speeds from vehicle speed monitors.	In almost any design, safety for both roadway users and those near and crossing the roadway varies with vehicle speed.
3	The Site should provide safe and pleasurable access for people walking.	3A	Pedestrian Level of Service (LOS) A*	Pedestrian LOS B-C	Pedestrian LOS > D	Indicator: Pedestrian LOS Source for both plan evaluation and future monitoring: Charlotte multi-modal LOS methodology.  Because in the Charlotte methodology, pedestrian LOS is a function of design, not throughput, the same methodology can be used for plan evaluation and monitoring.	Different LOS methodologies exist for segments and intersections. Given budget limitations, for this study we used intersections as a proxy for overall experience. That limitation should not subsequently be used to suggest that the segment LOS is not equally important. The developer and the City should pay close attention to design guidelines that improve both intersection and segment LOS. Some quantifiable ones are given here. * Appendix A contains guidelines on how to achieve a high Intersection Level of Service using the Charlotte methodology.

Goal #	Goal Description	Target #	Desired Target	Acceptable Target	Unacceptable Target	Indicator and Source	Comment
3	The Site should provide safe and pleasurable access for people walking.	3B	<b>99% of internal streets</b> have sidewalk on both sides (unless street is intentionally designed for shared use by all modes, such as a “lane”)	<b>80-99% of internal streets</b> have sidewalk on both sides, (unless street is intentionally designed for shared use by all modes, such as a “lane”)	<b>&lt;80% of internal streets</b> have sidewalk on both sides, (unless street is intentionally designed for shared use by all modes, such as a “lane”)	Indicator: Percentage of roadways that have sidewalk on both sides. Source: Plans and built project	In lieu of segment LOS, this and the following Targets provide necessary but not sufficient additional guidance on how to achieve the Goal.
		3C	<b>&gt;6 foot sidewalks</b> are constructed on internal streets	<b>5-6 foot sidewalks</b> are constructed on internal streets	<b>&lt;5 foot sidewalks</b> are constructed on internal streets	Indicator: Sidewalk width Source: Spatial measurement of plans and built project	
		3D	<b>&lt;300 foot</b> pedestrian crossing distances exist between intersections	<b>&lt;300-500 foot</b> pedestrian crossing distances exist between intersections	<b>&gt;500 foot</b> pedestrian crossing distances exist between intersections	Indicator: Distances between pedestrian crossings. Source: Spatial measurement of plans and built project	
		3E	<b>&gt;886 intersection legs per square mile</b> exist in Ford’s street network	<b>590-886 intersection legs per square mile</b> exist in Ford’s street network	<b>&lt;590 intersection legs per square mile</b> exist in Ford’s street network	Indicator: Intersection legs per square mile Source: Spatial measurement of plans and built project	More intersection legs generally indicate higher quality walkable environments.

Goal #	Goal Description	Target #	Desired Target	Acceptable Target	Unacceptable Target	Indicator and Source	Comment
4	The Site should provide safe and pleasurable access for people bicycling.	4A	<b>Bicycle LOS A</b>	<b>Bicycle LOS B- C</b>	<b>Bicycle LOS &gt; D</b>	Indicator: Bicycle LOS Source for both plan evaluation and future monitoring: Charlotte multi-modal LOS methodology	Different LOS methodologies exist for segments and intersections. Given budget limitations, for this study we used intersections as a proxy for overall experience. That limitation should not subsequently be used to suggest that the segment LOS is not equally important. The developer and the City should pay close attention to design guidelines that improve both intersection and segment LOS. Some quantifiable ones are given here. * Appendix A contains guidelines on how to achieve a high Intersection Level of Service using the Charlotte methodology.
		4B	Bicycle access to and in the site will be provided through a <b>network of protected lanes.</b>		<b>No protected</b> bicycle access will be provided.	Indicator: Connected network of protected lanes exists. Source: Plans and built project	In lieu of segment LOS, this and the following Targets provide necessary but not sufficient additional guidance on how to achieve the Goal.
		4C	<b>&lt;20 feet</b> is where outdoor bicycle parking is located from building entries	<b>20-50 feet**</b> is where outdoor bicycle parking is located from building entries	<b>&gt;50 feet</b> is where outdoor bicycle parking is located from building entries	Indicator: Distance between outdoor bicycle parking and all building entries Source: Plans and built project	** Source: Association of Pedestrian and Bicycle Planners "Bicycle Parking Guidelines".
		4D	<b>&gt;1 bicycle shower amenity</b> is provided per building with 20 or more employees	<b>1 bicycle shower amenity</b> is provided per building with 20 or more employees	<b>No shower amenity</b> is provided per building with 20 or more employees	Indicator: Quantity of bicycle shower amenities per building. Source: Plans and built project	
		4E	<b>&gt;1 bicycle locker amenity</b> is provided per building with 20 or more tenants	<b>1 bicycle locker amenity</b> is provided per building with 20 or more tenants	<b>No bicycle locker amenity</b> is provided per building with 20 or more tenants	Indicator: Quantity of bicycle locker amenities per building Plans and built project	

Goal #	Goal Description	Target #	Desired Target	Acceptable Target	Unacceptable Target	Indicator and Source	Comment
5	Frequent, convenient, quality transit or carshare is available for Site residents, employees, and visitors within 1/4 mile.	5A	<b>&gt;50% of building entries</b> are within 1/4 mile of vehicle sharing or high-frequency transit service	<b>40-50% of building entries</b> are within 1/4 mile of vehicle sharing or high-frequency transit service.	<b>&lt;40% of building entries</b> are within 1/4 mile of vehicle sharing or high-frequency transit service.	Indicator: % of building entries within ¼-mile Source: Spatial measurement of plans and built project	
		5B	<b>&gt;605 of average daily weekday buses</b> stop within a 1/4 mile of the Ford Site's building centroids	<b>465-605 of average daily weekday buses</b> stop within a 1/4 mile of the Ford Site's building centroids	<b>&lt;465 of average daily weekday buses</b> stop within a 1/4 mile of the Ford Site's building centroids	Indicator: Source: Spatial measurement and Bus Frequency in plans and built project.	Developments larger than ½ mile across must be broken into smaller units for determining the average transit service index
		5C	<b>&gt;99% transit stations or bus stops</b> within Ford Site are constructed with basic passenger amenities and pedestrian access	<b>80-99% transit stations or bus stops</b> within Ford site are constructed with basic passenger amenities and pedestrian access	<b>&lt;80% transit stations or bus stops</b> within Ford site are constructed with basic passenger amenities and pedestrian access	Basic amenities consist of a pole, sign, and bench. Transit station / bus stop amenities and accessibility. Plans and built project.	
6	Vehicular level of service at the Ford Site <i>and</i> intersections within a 1/2 mile of the Ford Site should continue to function within acceptable levels.	6	<b>Auto LOS D</b> or higher	<b>Auto LOS D</b> , but may be LOS E or lower for short distances/segments.*	<b>Auto LOS E</b> or lower	Indicator: Peak period auto LOS Source: peak hour vehicular traffic counts	* For example, "Desired" LOS may be different for a segment passing through a pedestrian-intensive retail block with outdoor dining.

Goal #	Goal Description	Target #	Desired Target	Acceptable Target	Unacceptable Target	Indicator and Source	Comment
7	Parking should be shared and minimized as part of overall site plan. The Site should accommodate cars, but not encourage them.	7A	<b>&gt; 50% of the parking supply</b> within the site should be shared among different uses during certain times of the day or throughout the day	<b>40-50% of the parking supply</b> within the site should be shared among different uses during certain times of the day or throughout the day	<b>&lt;40% of the parking supply</b> within the site should be shared among different uses during certain times of the day or throughout the day	Indicator: Percentage of parking supply that is shared. Plans and built project.	
		7B	Site-wide, <b>0.75 spaces per independent residential unit, 0.25 spaces per affordable unit and shared residential living units. 1 space per 600 sq ft of commercial office, civic or institutional use</b>		<b>2 spaces per independent residential unit, 1 spaces per affordable unit and shared residential living units. 1 space per 400 sq ft of commercial office, civic or institutional use</b>	Indicator: Number of parking spaces per 1,000 sq ft Plans and built project.	Examples of shared residential living units include senior housing, congregate housing, or shareable housing.
		7C	<b>&lt;5% variance from market rate parking price</b> exists at the Ford's public on- and off-street parking spaces where businesses can opt to provide parking vouchers to customers	<b>5-15% variance from market rate parking price</b> exists at the Ford's public on- and off-street parking spaces where businesses can opt to provide parking vouchers to customers	<b>&gt;15% variance from market rate parking price</b> exists at the Ford's public on- and off-street parking spaces where businesses can opt to provide parking vouchers to customers	Indicator: Parking price per hour as a percentage of market rate parking. Sources: Parking prices: Plans and built project. Market rate amount: TBD	Parking price is a tool through which to manage various other impacts. It is not generally a goal in itself. It is included here because it is such a powerful tool for managing parking demand.
8	The Site should reduce greenhouse gases related to vehicle miles driven.	8A	<b>&lt;4,000 vehicle miles traveled</b> per year are driven by Ford Site residents, on average	<b>4,000-6,000 vehicle miles traveled</b> per year are driven by Ford Site residents, on average	<b>&gt;6,000 vehicle miles traveled</b> per year are driven by Ford Site residents, on average	Indicator: Average annual VMT per Ford Site resident  Future: Surveys	Data needs to be collected.
		8B	<b>&gt;10%</b> of resident and employer vehicles are Electric Vehicles (EV)	<b>5-10%</b> of resident and employer vehicles are EVs	<b>&lt;5%</b> of resident and employer vehicles are EVs	Future: Surveys Percentage of EV car ownership	The GHG performance of EVs varies depending on a variety of factors. This goal is included with an eye toward future likely grid generation mixes in MN.