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Date:	September 8, 2015
То:	Chair Adam Duininck METRO Blue Line Extension Corridor Management Committee
Cc: From:	Nick Landwer, PE, Director of Transit Systems and Design Engineering
Subject:	Response to August 13, 2015 BLRT CMC meeting Questions

This memorandum has been prepared to respond to questions and request that were presented at the August 13, 2015 Corridor Management Committee.

- Question 1 Mayor Betsy Hodges: What is the actual crossing distance of OMH?
 Answer Existing (Minimum 117 ft., Maximum 154 ft.)
 - Proposed (Minimum 120 ft., Maximum 173 ft.)
- Question 2 Shauen Pearce What is the crossing time of OMH? Would there be a need to extend that time to one minute for wheelchair users?
 - Answer Proposed crossing times will vary from 34 to 49 seconds
- Question 3 Shauen Pearce What are the single phase crossing times at Humboldt Ave intersections? (Impacts park, school and homes in the area)
 - Answer- Crossing times on both the east and west sides of the intersection will be approximately 34 seconds
- Question 4 Shauen Pearce Could you please supply a copy of the study on traffic flow and impacts on Glenwood Avenue?
 - Answer Included is a map of Existing and Future AADT which shows the existing daily traffic, year 2040 forecasted traffic and 2040 traffic with OMH in a 4 lane configuration.
- Question 5 Shauen Pearce Could you provide some clarification on median issues and safety, with specifics on exact time allotted to cross the street, north to south, whether boarding the light rail or just crossing the street? She feels the median will impact pedestrians.
 - Answer A Roadway Comparative Matrix is included that indicates crossing travel time at each intersection. At a signalized intersection it will typically take 11 seconds to cross the median. At mid-block pedestrian crossings it will typically take 24 seconds to cross the median.

- Question 6 George Selman As a reference, the trail on Wirth Lake is actually a walking bridge, and there is a Luce Line trail that runs along north side of Highway 55. Would that bridge include an extension that would connect the Luce Line trail to trail on the north side of Highway 55?
 - Answer We are proposing to extend the trail just to the west of the new westbound OMH bridge, in order to connect to an existing access to the Luce Line trail.



Olson Memorial Highway - Roadway Comparative Matrix

	Description	EXISLING (Note 1)	
			Track (Note 2)
	Maximum number of lanes at an intersection	7 lanes	7 lanes
	Pedestrian crossing length	Minimum 117'	Minimum 120'
	Pedestrian crossing travel time	Maximum 154	Maximum 173 Minimum 24s
	(3.5 ft/s)	Maximum 44s	Maximum 49s
			7 Signalized
Pedestrians (see Table 1 below for intersection details)	Pedestrian crossing locations	6 Signalized crossings 9 Unsignalized crossings	3 Pedestrian only crossings (no vehicular crossing) with control to be determined (Detection-based flashers or signalized control)
	Type and width of facility	5' – 6' concrete sidewalk	6' sidewalk
	Buffer provided between pedestrians/bikes and roadway	North side = yes (except at west end), 10' max South side = no (except at west end). 11' max	10'
	Pedestrian Access to Transit (dependent on direction of travel)	N/A	Pedestrians cross 3 or 4- lanes to access platforms or transfer between modes
Bicyclists	Bike facility location	N/A	10' cycle track on north side from Thomas to Van White
	Westbound (WB) Bus Movements	General purpose lane	Bus stops in outside travel lane, 2 general purpose lanes remain for vehicles
bus operations	Eastbound (EB) Bus Movements	General purpose lane	Bus stops in outside travel lane, 2 general purpose lanes remain for vehicles
Automobiles	Westbound (WB) Mainline Traffic	Limited congestion during PM peak period	Accommodates existing volume Accommodates future volumes along OMH corridor with no expected diversion Some congestion during PM peak period
	Eastbound (EB) Mainline Traffic	Limited congestion during AM and PM peak periods	Accommodates existing volume Accommodates future volumes with no expected diversion Some congestion during AM and PM peak periods
	Diversion	N/A Principal Artorial	U% WB; U% EB Principal Artorial
Roadway	Lane width	Varies: 12' – 17'	11'
Land development opportunities (see Table 2 below for intersection details)	Distance available for development (face of curb to existing private property line)	North Minimum 15' (Van White) Maximum 112' (Thomas) South Minimum 60' (Humboldt) Maximum 213' (Penn)	North Minimum 17' (Van White) Maximum 96' (Thomas) South Minimum 43' (Van White) Maximum 216' (Penn) 0.57 acres less developable

Note 1: Existing = 3 Lanes EB, 3 Lanes WB, Left-Turn Lanes

Note 2: 6-Lane Alternative = 3 Lanes EB, 3 Lanes WB, Left-Turn Lanes





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		6-Lane with Cycle Track			
Intersection	Existing Pedestrian Crossing Length (ft) ¹	Proposed Pedestrian Crossing Length (ft) ¹	Proposed Pedestrian Crossing Travel Time (based on 3.5 ft/s)	Pedestrian Refuge Area	
Thomas - East	58+(27)+47= <u>132</u>	36+(68)+36= <u>140</u>	40	10 x 11 (south) 10 x 14 (north)	
Russell	N/A	36+(85)+36= <u>157</u> ²	45	28 x 4 (south) 28 x 4 (north)	
Penn - West	57+(15)+67= <u>139</u>	37+(53)+50= <u>140</u>	40	10 x 8 (center)	
Penn - East	64+(17)+56= <u>137</u>	51+(54)+37= <u>142</u>	41	10 x 10 (center)	
Oliver/Newton	N/A	36+(101)+36= <u>173</u> ²	49	28 x 4 (south) 28 x 4 (north)	
Morgan - West	63+(16)+63= <u>142</u>	36+(38)+46= <u>120</u>	34	10 x 4 (north)	
Morgan - East	62+(16)+54= <u>132</u>	46+(38)+36= <u>120</u>	34	10 x 4 (south)	
James	55+(28)+57= <u>140</u>	38+(85)+36= <u>159</u> ²	45	28 x 4 (south) 28 x 4 (north)	
Humboldt - West	50+(11)+58= <u>119</u>	36+(38)+46= <u>120</u>	34	10 x 4 (north)	
Humboldt - East	59+(10)+52= <u>121</u>	46+(38)+36= <u>120</u>	34	10 x 4 (south)	
Van White - West	53+(10)+62= <u>125</u>	38+(52)+46= <u>136</u>	39	10 x 7 (center)	
Van White - East	61+(22)+46= <u>129</u>	52+(54)+36= <u>142</u>	41	10 x 10 (center)	
Bryant - West	54+(10)+53= <u>117</u>	36+(49)+46= <u>131</u>	37	10 x 4 (center)	
Bryant - East	54+(30)+41= <u>125</u>	46+(42)+37= <u>125</u>	36	10 x 4 (south)	
Lyndale - West ³	53+(16)+52+(13)+20= <u>154</u>	39+(45)+50+(19)+20= <u>173</u>	49	10 x 6 (north)	

Table 1. Intersection Pedestrian Crossing Detail Matrix (Center-Platform Alternative)

¹ Legend: WB Lanes + (Median) + EB Lanes = <u>Total Roadway</u>

² Note: Length includes U-shaped track crossing segment

³ Note: Lyndale - West crossing includes two pedestrian refuges

Shreet	Quadrant	Distance from face of curb to property line (ft)		Width of frontage road (ft)	Width of alley (ft)	
Street	Quaarant	Existing	6 Lane	6 Lane with Cycle Track		
Thomas	NE	112**	96**	96**	32	12
	SE	79*	79*	79*	32	
	NE	56	40	50		
Popp	SE	201	211	201		12
1 6111	SW	213	224*	216*		
	NW	46	32*	41*		
	NE	56	51*	61*	20	
Morgan	SE	132	146*	135*	32	
Morgan	SW	141	159	149	32	
	NW	56	50*	60	18	
	NE	49	55	59	32	
Humboldt	SE	63	55	51	32	
πυιοαπυ	SW	60	52	48	32	
	NW	62	68	72	30	
	NE	15*	17	17		
Van	SE	64	43	43	32†	
White	SW	65	44*	45*		
	NW	33	37*	38		
	NE	24	25	25		
Bryant	SE	67	49*	48*		
	SW	67	46**	46**	32†	
	NW	20	22**	22**		
Lyndale	SW	varies	varies	varies		
	NW	25	26	26		

Table 2. Land Development Opportunities Matrix

* Distance varies; minimum distance listed

** Distance varies; maximum distance listed

 \dagger Frontage road would be removed in 6 lane option



