

West 70th Street/Cornelia Area Traffic Study  
 Study Advisory Committee Meeting #5 – November 29, 2007

CONCEPT ALTERNATIVES COMPARISON										
Segment Alternatives	Reduce Traffic Volumes	Reduce Travel Speeds	Driveway Access	Reduce Delays from Side-Streets	Acceptable Intersection Operations	Change of Roadway Character	Pedestrian Safety	Right-of-Way Required	Concept Level Cost Estimate	Approvals Required
<b>Arneson Parkway – Roundabout Alternative with Two-Lane Roadway</b>	Deter motorists with additional delay at roundabouts. Roundabouts add twice as much delay as a traffic signal. Truck traffic is more impacted by a roundabout than a traffic signal.	Reduce travel speeds at roundabouts, and possibly in between them.	Fewer available gaps than signals, which affect backing out from driveways. Many driveways are modified to right-turn movements with the center median, which require smaller gaps if the motorist doesn't have to back out. Left-turn movements are accommodated at roundabouts.	Fewer available gaps than signals, which affect entering from side streets. However, all side-street access is modified to right-turn movements with the center median, which require smaller gaps. Left-turn movements are accommodated at roundabouts.	All intersections operate at acceptable levels of service (overall average).	Parkway character with center median. Additional enhancements will be considered.	Safe pedestrian crossings at roundabouts spaced one-third of corridor. A trail facility can be provided.	Additional right-of-way needed at roundabouts.	Initial construction costs.	State Aid approvals.
<b>Traffic Signal Alternative with Three-Lane Roadway</b>	Deter motorists with additional delay at traffic signals.	Pre-timed coordinated traffic signals can lower mainline speeds.	Traffic signals will increase gaps for motorists backing/entering from driveways. Provides refuge for left-turn vehicles into driveways.	Pre-timed signalized intersections will provide an increase in green time for side-street traffic to enter. Traffic signals will increase gaps for motorists entering from other side-streets.	All intersections operate at acceptable levels of service (overall average).	Maintains current roadway character. Additional enhancements will be considered.	Safe pedestrian crossings at signalized intersections spaced one-third of corridor. A trail facility can be provided.	Minimal right-of-way needed.	Initial construction costs. Additional maintenance and operations cost for traffic signals.	State Aid approvals. Mn/DOT approvals include signal warrant analysis for traffic signal at West Shore
<b>Traffic Signal Alternative with Two-Lane Roadway</b>	Deter motorists with additional delay at traffic signals.	Pre-timed coordinated traffic signals can lower mainline speeds.	Traffic signals will increase gaps for motorists backing/entering from driveways.	Pre-timed signalized intersections will provide an increase in green time for side-street traffic to enter. Traffic signals will increase gaps for motorists entering from driveways.	All intersections operate at acceptable levels of service (overall average).	Maintains current roadway character. Additional enhancements will be considered.	Safe pedestrian crossings at signalized intersections spaced one-third of corridor. A trail facility can be provided.	Minimal right-of-way needed.	Initial construction costs. Additional maintenance and operations cost for traffic signals.	State Aid approvals. Mn/DOT approvals include signal warrant analysis for traffic signal at West Shore
<b>Combined Traffic Signal/Roundabout Alternative with Two-Lane Roadway</b>	Deter motorists with additional delay at roundabout, although not as much since only one roundabout instead of two.	Reduce travel speeds at roundabout, although to a lesser degree since only one roundabout. No ability to time traffic signals to control speeds.	Decrease in available gaps, which affect backing out from driveways. Cannot construct continuous center median since signalized intersection cannot handle u-turns. Therefore, difficulty to access the corridor from driveways will increase.	Decrease in available gaps due to roundabout, which affect entering from side streets. Cannot construct continuous center median since signalized intersection cannot handle u-turns. Therefore, difficulty to access the corridor from side-streets will increase.	All intersections operate at acceptable levels of service (overall average).	Maintains current roadway character. Median at roundabout will match into existing section. Additional enhancements will be considered.	Safe pedestrian crossings at roundabout and signalized intersections spaced one-third of corridor. A trail facility can be provided.	Minimal right-of-way needed at traffic signal. Additional right-of-way needed at roundabouts	Initial construction costs. Additional maintenance and operations cost for traffic signal.	State Aid approvals.
<b>Existing Roadway Section</b>	Currently, 13,600 vehicles per day. In 2030, 19,300 vehicles per day.	80 percent motorists traveling over 30 mph	48 residential driveways. 23 residential driveways require backing out onto the corridor.	N/A	All intersections operate at acceptable levels of service (overall average).	N/A	N/A	N/A	Additional maintenance and operations cost for traffic signal. Additional pavement replacement cost.	

CONCEPT ALTERNATIVES COMPARISON										
East End Alternatives	Reduce Traffic Volumes	Reduce Travel Speeds	Driveway Access	Reduce Delays from Side-Streets	Acceptable Intersection Operations	Change of Roadway Character	Pedestrian Safety	Right-of-Way Required	Concept Level Cost Estimate	Approvals Required
<b>West 70th Street/Valley View Road Roundabout</b>	Deter motorists with additional delay at roundabout and at France Avenue with single eastbound through lane. Some motorist may want to avoid roundabout.	Reduce travel speeds at roundabout.	N/A	N/A	All intersections operate at acceptable levels of service (overall average).	Visual cue of entering neighborhood from east end. Aesthetic barrier for residential neighborhood.	Improved pedestrian crossing at east end at roundabout.	Possible additional right-of-way needed.	Initial construction costs. Additional screening cost.	State Aid approvals. County approvals for France Avenue.
<b>West 70th Street/Valley View Road Direct Connection</b>	Deter motorists with additional distance and travel time to destination.	No impact on travel speeds.	N/A – although additional circuitry for residential area at east end of corridor.	N/A	All intersections operate at acceptable levels of service (overall average).	More circuitous roadway network. Maintains current roadway character. Additional enhancements will be considered.	No change.	Possible right-of-way needed along Valley View Road.	Initial construction cost. Additional maintenance and operations cost for traffic signal. Additional screening cost.	State Aid approvals.
<b>Existing Roadway Section</b>	Currently, 12,800 vehicles per day. In 2030, 17,200 vehicles per day.	70 percent motorists traveling over 30 mph	48 residential driveways. 23 residential driveways require backing out onto the corridor.	N/A	All intersections operate at acceptable levels of service (overall average).	N/A	N/A	N/A	Additional pavement replacement cost.	