

# MORPC Westerville Road Study Concept Evaluation Table

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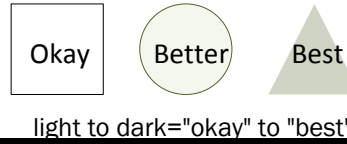
**DRAFT - For Review Only (29-July-10)**

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<b>Design Factors (describes concept)</b>									
<b>Traffic lanes on Westerville Road -</b> This shows the number of traffic lanes. No evaluation is made.	<b>Number of Lanes</b>	2+	3	3	3	5	3	3	2-3
<b>Sidewalk network, lighting, crosswalks, etc.</b> - No pedestrian facilities at all is considered "okay." If ped. facilities are included in the rail corridor only, this is "better" because it does provide sidewalks but they are not located convenient to SR 3. Pedestrian facilities on SR 3 itself is considered "best."	<b>Ped. Facilities?</b> no=no ped facilities yes*=ped facilities in rail corridor only yes=ped facilities on SR 3	no	yes	yes	yes	yes	yes	yes	yes*
<b>Separate path for bicycles or designated lanes</b> - No bicycle facilities or shared (w/autos)-lanes only is considered "okay." "Better" is a bike path in the rail corridor because this is close, but does not directly serve the SR 3 corridor. A separate bike path or bike lanes directly on SR 3 is considered "best."	<b>Bike Facilities?</b> no=no separate path yes*=bike facility in rail corridor only yes=bicycle lanes or path on SR 3	no	no	no	yes	yes	yes*	yes*	yes*
<b>Likely design &amp; build complexity of project</b> - Concepts 2 and 3 were assumed to be the least complex because they involve limited-construction only within the existing SR 3 corridor. Concepts 6 and 7 were assumed to be the most complex because they involve improvements to SR 3 <u>and</u> in the rail corridor. The rail corridor improvements would extend into or near to downtown Columbus. In Concept 8, the rail corridor improvement is only within the study area, so it rated as less complex.	<b>Complexity Scale</b> 0-1=high 2-3=medium 4-5=low	not applicable	4	4	3	2	1	0	2
<b>Provides new transit services (beyond existing service)</b> - Either a concept included new transit services or not. When the new service was in the rail corridor only, as in Concepts 7 and 8, it was assigned the "better" category because it doesn't directly serve SR 3.	<b>New Transit Service?</b> no yes*=in former rail corridor only yes	no	no	yes	yes	yes	yes	yes*	yes*

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<b>Motor Vehicle Travel Impacts</b>									
<b>Reduces traffic congestion</b> - Only Concepts 5 and 8 are expected to have much impact on congestion because they both add travel lanes. The other concepts may have a little impact on traffic flow. Based mostly on intersection operation.	<b>Congestion Reduction Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	1	3	1	1	2
<b>Improves travel time</b> - Only Concepts 5 and 8, that include additional travel lanes, are expected to affect travel time. The other concepts might have a negligible effect. Travel time is based on results from the MORPC travel demand model.	<b>Travel Time Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	1	4	1	1	2
<b>Improves safety</b> - Safety is expected to improve most with the increased motor-vehicle capacity and access management improvements in Concept 5 and the related reduction in congestion. Overall safety is also expected to improve with the physical separation of bicycle, pedestrian and motor vehicle traffic.	<b>Motor-Vehicle Safety Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	2	3	2	2	2
<b>Improves access to freeway system</b> - Concept 5 is expected to do the most to improve access to the freeway system by adding travel lanes on SR 3. Concept 8, by providing some additional capacity, may also help. These ratings are the same as the travel time ratings.	<b>Freeway Access Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	1	4	1	1	2
<b>Transit &amp; Non-Motorized Travel Impacts</b>									
<b>Provides new connections to area bike trails</b> - All of the improvements are expected to provide improved links to bike trails as part of the concepts. All were assigned 3 points.	<b>New Connections Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	3	3	3	3	3	3	3

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<b>Improves access for the transportation-disadvantaged</b> - Are conditions improved for those who may not have access to a car due to constraints such as disability, age, or income? Concepts 1 or 8 do little or nothing to improve these conditions on SR 3.	<b>Transportation-Disadvantaged Improvements?</b> no yes	no	yes	yes	yes	yes	yes	yes	no
<b>Increases use of public transit</b> - The highest scores, partially based on model testing, are given to Concepts 3-7, which all include improved transit service and sidewalks. Concept 7 gets an additional point for better service (transit-way). Concept 8 transit service is rated lower because it is not on SR 3.	<b>Transit Use Increase Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	3	3	3	3	4	2
<b>Increases accessibility of public transit</b> - Transit accessibility is assumed to be most improved by adding sidewalks and by improving transit service directly in the corridor (on SR 3 itself), per Concepts 3-6.	<b>Transit Accessibility Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	4	4	4	4	3	2
<b>Increases pedestrian and bicycle travel</b> - Concept 4 is rated highest because of the separate bike lanes (or path) and sidewalks on SR 3. Points are dropped for a 5-lane roadway (because it is assumed that a widened road may be less comfortable for peds. and bikes) and for improvements not on SR 3.	<b>Ped./Bicycle Travel Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	2	4	3	3	3	2
<b>Improves safety</b> - Sidewalks and a separate bikeway are assumed to most improve ped./bike safety. A wider SR 3 is assumed to detract some from safety for pedestrians and bicyclists. Concept 8 is rated low because the rail rights-of-way do not directly serve the travel needs on SR 3 itself.	<b>Ped/Bike Safety Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	2	3	2	3	3	1

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<b>Potential Right-of-Way Impacts</b>									
<b>Reduces number of access points</b> - It is assumed that Concept 5 would provide the most opportunity to address additional access management issues (beyond planned ODOT project). Concept 8 also could be beneficial by providing alternate business access for the west side of SR 3 (and thereby reduce direct access from SR 3 itself).	<b>Access Management Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	1	3	1	1	2
<b>Relocations/displacements</b> - No displacements or relocations of people or businesses were identified. Possibly impacted properties includes a gas station pump roof and miscellaneous outbuildings and garages, primarily in Concept 8.	<b>Estimated Number of Structures Within Needed ROW</b>	not applicable	0	0	0	1	1	2	21
<b>New rights-of-way</b> - Improvements in the rail corridor (Concepts 6, 7 & 8) require the most additional rights-of-way because all needed ROW would have to be newly-purchased. Relatively little new right-of-way is required for improvements to SR 3 (per this planning-level review).	<b>Estimated Acres of Additional Rights-of-Way Needed</b>	not applicable	1-2	1-2	1.5-2.5	4.5-5.5	11-13	20-22	27-30
<b>Land parcels affected</b> - The number of individual land parcels directly affected by the improvements is highest for Concepts 5 and 8 and lowest for SR 3 improvements without separate bike lanes.	<b>Estimated Number of Land Parcels Directly-Impacted</b>	not applicable	30-40	30-40	40-50	80-100	40-50	40-50	90-110
<b>Potential Environmental &amp; Community Impacts</b>									
<b>Streams</b> - Several streams cross SR 3 and the abandoned rail line. Approximate linear feet estimates are based on the width of roads, sidewalks, bike paths, and an additional 10-foot "buffer" on either side.	<b>Estimated Linear Feet of Streams Impacted</b>	0	300	300	350	500	350	450	300

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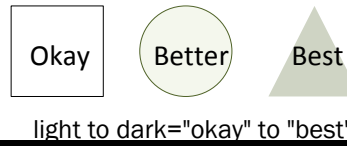
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<b>Wetlands</b> - Wetlands are present in several locations where small streams or creeks cross SR 3 and near Alum Creek.	<b>Acres of Wetlands Impacted</b>	0	1.9	1.9	2.3	3.2	2.2	3	2.3
<b>Endangered species</b> - No endangered species were identified in the corridor.	<b>Are Endangered Species Impacted?</b> no yes	no	no	no	no	no	no	no	no
<b>Floodplain</b> - Floodplains mostly affect a small section of the corridor from Cooper Road to Alum Creek. Acres shown are based on the width of roads, sidewalks, bike paths, and a "buffer."	<b>Acres of Floodplain Impacted</b>	0	1.1	1.1	1.3	1.7	1.3	1.9	1.6
<b>Environmental justice</b> - EJ involves disproportionate adverse impacts on minority, low-income, or other special populations. None of the concepts are expected to negatively-impact these groups.	<b>EJ Impacts?</b> no yes	no	no	no	no	no	no	no	no
<b>Public spaces and uses</b> - A small amount of "public" space could be affected by the concepts that utilize the old rail line. Concept 8 may affect Cooper Park, the Minerva Lake golf course, and the NCA soccer field.	<b>Acres of Land Impacted</b>	0	0	0	0	0	0.1	0.4	1.2
<b>Historic properties</b> - Historic properties in the area were identified. One National Historic Registry site and one Ohio Historical Inventory site, both located in the area south of SR 161, were identified. These sites could be impacted by Concepts 4 and 5.	<b>Number of Historic Properties Impacted</b>	0	0	0	2	2	0	0	0
<b>Hazardous materials sites</b> - Certified, Sunoco, and Columbus Southern Power gas stations were identified. Only Concept 5 is likely to affect these.	<b>Number of Hazardous Materials Sites</b>	0	0	0	0	3	0	0	0

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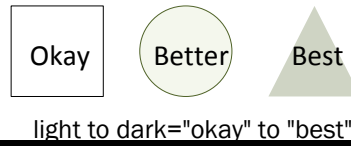
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<b>Greenhouse gases (GHGs)</b> - CO <sub>2</sub> is a significant contributor to GHGs and transportation contributes approximately 1/3 of CO <sub>2</sub> emissions in the U.S. By providing travel options, most of the concepts would allow for reduced motor vehicle use, which can reduce GHGs. Concept 8 was assigned zero points because it adds more traffic lanes and it does little to improve non-motorized travel options on SR 3. Scores roughly based on regional VMT estimates from model.	<b>Addition to Greenhouse Gases</b> 4-5=low 2-3=medium 0-1=high	1	2	3	3	2	3	3	0
<b>Air quality impact</b> - this was evaluated for Ozone and PM 2.5. Model networks for the concepts were developed and analyzed. Air quality model analysis based on Mobile 6.2.	<b>Air Quality Impact Scale</b> 4-5=low 2-3=medium 0-1=high	1	2	3	3	2	3	3	0
<b>Increase in traffic noise</b> - Concepts 7 & 8 are subjectively-rated highest noise impact (lowest score) because they will introduce motor traffic and noise into a new area (the rail corridor). Concept 5 will bring traffic closer to residences than existing (but may reduce some stop & go related noise).	<b>Traffic Noise Impact Scale</b> 4-5=low 2-3=medium 0-1=high	2	3	3	3	2	3	1	0
<b>Barrier effects/community cohesion</b> - A subjective evaluation, sidewalks and bike lanes in the SR 3 corridor are assumed to help reduce barriers and increase community cohesion. A widened roadway provides a more formidable barrier.	<b>Barrier Elimination Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	3	4	1	2	2	1
<b>Improved emergency response</b> - This is evaluated consistent with travel time changes; assumes that improved travel time also improves emergency response.	<b>Emerg. Response Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	1	1	4	1	1	4

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<b>Reduction in neighborhood "cut-through" traffic</b> - SR 3 with additional travel lanes is assumed to do the most to reduce traffic on neighborhood streets (less time-advantage to taking alternate routes through neighborhoods).	<b>Reduction in Cut-Through Traffic</b> 0-1=low 2-3=medium 4-5=high	0	2	2	2	3	2	2	1
<b>Overall travel connectivity improved in community</b> - Concepts 6-8 are assumed to most-increase connectivity because they would link areas east and west of the old rail line. Sidewalks and separate bike lanes also contribute to the score in Concepts 4 and 5.	<b>Travel Connectivity Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	2	3	3	4	4	5
<b>Cost</b>									
<b>Estimated right-of-way cost</b> - ROW unit costs per acre and per parcel, based on ROW costs in ODOT SR 3 maintenance/safety project, were developed.	dollars (millions)	not applicable	\$1- \$2	\$1- \$2	\$2- \$3	\$3.5- \$4.5	\$3.5- \$5.5	\$3.5- \$5.5	\$5.5- \$6.5
<b>Estimated construction cost</b> - Construction costs are based on ODOT unit costs for the different components of each concept.	dollars (millions)	not applicable	\$4- \$6	\$4- \$6	\$5.5- \$8	\$37- \$44	\$14- \$16	\$42- \$52	\$20- \$30
<b>Transit capital costs</b> - Capital costs for the expanded bus concepts include purchase of approximately 10 additional vehicles. For the transitway concept, 2 "stations" and 2 park-and-ride lots also are included.	dollars (millions)	not applicable	not applicable	\$4- \$5	\$4- \$5	\$4- \$5	\$4- \$5	\$8.5- \$9.5	\$4- \$5
<b>Total estimated project cost</b> - This is the total of right-of-way and construction/capital costs.	dollars (millions)	not applicable	\$5- \$8	\$9- \$13	\$11- \$16	\$44- \$54	\$21- \$27	\$54- \$67	\$29- \$42
<b>Transit operating costs per year</b> - Operating costs are assumed to be similar for all transit options.	dollars (millions)	not applicable	not applicable	\$2.5- \$3.5	\$2.5- \$3.5	\$2.5- \$3.5	\$2.5- \$3.5	\$2.5- \$3.5	\$2.5- \$3.5

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<b>Land Use and Economic Development</b>									
<b>Consistency with area plans</b> - Area plans include the Columbus bikecentennial plan and the draft Blendon Township Community Plan.	<b>Consistency with Plans Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	3	4	3	3	2	1
<b>Likelihood of encouraging large-scale redevelopment</b> - Widening the roadway to 5-lanes is assumed to do the most for encouraging larger-scale new development (though other factors also would have to support this, e.g., economic demand).	<b>Large-Scale Development</b> 0-1=low 2-3=medium 4-5=high	0	1	1	2	4	1	1	1
<b>Likelihood of encouraging small-scale redevelopment</b> - A 3-lane road with sidewalks and bike lanes, by improving the corridor but not significantly increasing capacity, is expected to do the most to encourage smaller-scale development.	<b>Small-Scale Development</b> 0-1=low 2-3=medium 4-5=high	0	1	2	4	2	1	1	1
<b>Will improve aesthetics of corridor</b> - It is assumed that major widening would provide the most opportunity to improve the attractiveness of the SR 3 corridor due to the larger construction area that the widening would affect.	<b>Aesthetics Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	2	2	2	3	2	2	0
<b>Improve access and visibility of businesses</b> - A 5-lane roadway, which will bring more traffic onto SR 3, is assumed to provide the best access and visibility for businesses.	<b>Business Visibility Improvement Scale</b> 0-1=low 2-3=medium 4-5=high	0	1	2	2	3	1	1	0

+Concepts 6 and 7 are assumed to continue into the downtown area

**Note:** "No Build" concept assumes completion of ODOT maintenance/safety project on SR 3 from SR 161 to north of I-270.