

**RISK REGISTRY: EW NS - Segment A**

Cost Estimate ID	Topical Area	Cost vs. Schedule Impacted	Cost Assumptions	Threat / Opportunity	Threat/Opp Description	Add'l Comments	Segment(A) Impacted (EW2, CREATE)
b	Remove Existing Interlocking or Control Point (CP)	Cost		Threat	Additional interlocking or CP requiring removal	Installation will bear more risk	CREATE
f	ROW Demolition	Cost		Threat			CREATE
c	Subballast	Cost		Threat	Potential additional quantity required		CREATE
d	Topsoil Excavation	Cost		Threat	Unexpected geotechnical issues requiring redesign of structural elements. Determination of soil as special waste requiring removal		CREATE
d	Topsoil Excavation	Schedule		Threat	Sample material to determine weather it is special waste. Additional time for haul away of special waste	Can be mitigated by using an on-site storage location for excavated soil/fill	CREATE
e	Access Road	Cost		Threat	Access roads need to be built for contractors. TBD at final design		CREATE
b	Interim Signal work to support cutovers and construction phasing.	Cost		Threat	Signal cost increase due to supply and regulatory (BABA) issues		CREATE
f	Automatic Block Signals	Cost		Threat	Signal cost increase due to supply and regulatory (BABA) issues		CREATE
g	Automatic Highway Crossing Warning Sys.-Interface with existing signal system	Cost		Threat	Signal cost increase due to supply and regulatory (BABA) issues		CREATE
l	Bridge Repair Locations	Schedule		Threat	Permitting and scheduling - time intensive OUC review		CREATE
d	Erosion Control (SW3P)	Schedule		Threat	Within means and control of design		CREATE
i	Streetscape Improvements	Cost		Threat	No risk, integrated with viaducts/community mobility		CREATE
j	Employment & Job Training	Cost		Threat	Additional cost of implementation; labor force	scope of program TBD	CREATE
b	Maintenance of Traffic (MOT)	Cost		Threat	Extended construction duration requiring extended MOT		CREATE
b	Maintenance of Traffic (MOT)	Schedule		Threat	Contractors need to develop MOT plan during non-construction months to get IDOT/CDOT approval		CREATE
c	Mobilization	Cost		Threat			CREATE
a.ii	Relocations (Roadway/Infrastructure)	Cost		Threat	Additional mitigation measures at known utility conflicts		CREATE
a.ii	Relocations (Roadway/Infrastructure)	Schedule		Threat	Additional mitigation measures at known utility conflicts. Permitting/utility coordination could impact schedule. Additional review of relocation between utility holders.		CREATE
b	Relocations	Schedule		Threat	Volatile eminent domain proceedings		CREATE
d	Acquisition	Schedule		Threat	Acquisition of alternative ROW parcels		CREATE
d	Acquisition	Schedule		Opportunity	Procurement of ROW during Final Design (opportunity)		CREATE
a	PE / ENV	Cost		Threat		Risk is realized as part of phase I	CREATE
a	PE / ENV	Schedule		Threat	NEPA clearance process extends beyond forecast of Nov. 2014	Risk is realized as part of phase I	CREATE
b	Final Design	Cost		Threat			CREATE
b	Final Design	Schedule		Threat	Modifications to track schematics or special trackwork causing realignment of tracks and/or grade separations; new ROW or ENV impacts		CREATE
c	Project Management through Construction	Cost		Threat	Delays in project development or construction requiring additional funds for PM activities beyond forecast at contract execution		CREATE
d	Construction Management (RR Force Acct) - Survey, Testing, Site Investigation, Inspection	Schedule		Opportunity	Advance placement of temporary and permanent track improvements (where possible) at the beginning of construction. (Opportunity)		CREATE
d	Construction Management (Consultant) - Survey, Testing, Site Investigation, Inspection	Schedule		Opportunity	Identify opportunities to continue construction activities through winter months (where possible) i.e. - drill shafts		CREATE
f	Legal, Permits, Review Fees by others	Cost		Threat	Additional track systems or infrastructure scope requiring additional survey, testing and/or inspection		CREATE
a	Track Removal	Cost	Quantities and unit costs provided by CREATE RR partners. Includes	Threat	Design changes to track geometric layout requiring additional track replacement		EW2
a	Track Removal	Schedule		Threat	Design changes to track geometric layout requiring additional track replacement		EW2
c	Remove Signal Bridge	Cost	P2 signal limits is fully encompassed within EW2 limits	Threat		Installation will bear more risk	EW2
d	Remove Signal Cantilever	Cost	P2 signal limits is fully encompassed within EW2 limits	Threat		Installation will bear more risk	EW2
e	Remove Ground Signal	Cost	P2 signal limits is fully encompassed within EW2 limits	Threat	Additional ground signals requiring removal	Installation will bear more risk	EW2
f	ROW Demolition	Schedule		Threat	Identification of contaminated items requiring development of mitigation strategy and potential procurement of services.	Additional schedule risk with related ROW procurement/scope outside of demolition	EW2
a	Earth Excavation	Cost		Threat	Potential additional quantity required		EW2
b	Furnished Fill	Cost		Threat	Potential additional quantity required		EW2
f	Clear and Grub Tress for Access Roads	Schedule		Threat	Potential schedule threat due to workforce and environmental concerns (i.e. long eared bat migration)		EW2
h	Drainage (non viaduct improvements)	Schedule		Threat	Permitting and scheduling - time intensive CDWM review		EW2
h	Drainage (non viaduct improvements)	Cost		Threat	Potential change in design or already large quantity	Additional risks for noise wall drainage	EW2
h	Drainage (non viaduct improvements)	Schedule		Threat	Permitting and scheduling - time intensive CDWM review	Additional risks for noise wall drainage	EW2
a	New Track Construction	Cost		Threat	Potential procurement and regulatory (BABA) issues		EW2
b	Turnouts	Cost		Threat	Potential procurement and regulatory (BABA) issues		EW2
b	Turnouts	Schedule		Threat	Potential procurement and regulatory (BABA) issues		EW2
c	Crossovers	Cost		Threat	Potential procurement and regulatory (BABA) issues		EW2
e	Track Modifications	Schedule		Threat	Potential procurement and regulatory (BABA) issues		EW2
f	Road Crossings (Permanent or Temporary)	Schedule		Threat	High coordination and number of crossings; RR are generally out of control of CDOT/IDOT/ICC concurrence		EW2

a	New Control Point	Cost		Threat	Signal cost increase due to supply and regulatory (BABA) issues		EW2
h	Pedestrian Crossings	Cost		Threat	Signal cost increase due to supply and regulatory (BABA) issues		EW2
b	Bridge Repair Locations	Cost		Threat	Basic Rehabilitation. Additional work based on bridge designer's assessment to take place before design progresses ( Kedzie/79th, Damen)	(??)# of Locations (expressed as % of bridge locations)	EW2
c	Bridge Repair Locations	Cost		Threat	Potential required deep foundations where existing abutments assumed to remain	Clearance requirements could change depending on change in scope	EW2
d	Bridge Repair Locations	Schedule		Threat	Delay in delivery of prefabricated materials		EW2
e	Bridge Repair Locations	Cost		Threat	Consecutive (or close by) bridge improvements may be delayed to minimize traffic impacts due to road closures	Potential for bidding in multiple packages for maximum contractor involvement would be coordination intensive	EW2
g	Bridge Repair Locations	Schedule		Threat	Consecutive (or close by) bridge improvements may be delayed to minimize traffic impacts due to road closures	Potential for bidding in multiple packages for maximum contractor involvement would be coordination intensive	EW2
i	Bridge Repair Locations	Schedule		Threat	Cost increase due to supply and regulatory (BABA) issues (supply)		EW2
a - ak	Viaducts	Cost		Threat	Changed regulation and/or city ordinances (External)	Estimates have been inclusive of potential needed improvements	EW2
a - ak	Viaducts	Schedule		Threat	Changed regulation and/or city ordinances (External)	Special waste, ESR has potential for risk in scheduling/coordination with design	EW2
a	Noise Walls	Schedule		Threat	Structure design, drainage, permitting, and administration of the noise wall (ownership, maintenance) with public partners (CDOT, IDOT)		EW2
b	Hazardous Materials (risk assessment count by parcel)	Cost		Threat	Unknown HazMat locations along RR or Private ROW (large project area)		EW2
b	Hazardous Materials (risk assessment count by parcel)	Schedule		Threat	Unknown HazMat locations along RR or Private ROW (large project area)		EW2
c	Contaminated Soil Disposal	Cost		Threat	Unknown contamination at removal sites		EW2
g	Additional Community Mobility Improvement	Cost		Threat	Mobility improvements within communities TBD in Final Design		EW2
h	Remnant & Vacant Parcel Improvement	Cost		Threat	Scope of improvements to be coordinated with stakeholders		EW2
a	Engineer's Field Office, staging area, fencing, security, etc...	Cost		Threat	Additional staging locations at bridge, viaduct structures		EW2
d	Flagging (RR Maintenance of Way)	Cost		Threat	Labor constraints and overlapping activities require increased coordination with RR's		EW2
d	Flagging (RR Maintenance of Way)	Schedule		Threat	Labor constraints and overlapping activities require increased coordination with RR's		EW2
f	RR Labor Rate and/or Overhead Increase	Cost		Threat	Labor force negotiation		EW2
a.i	Relocations (RR ROW)	Cost		Threat	Significant unknown utility conflicts may be present within RR ROW		EW2
a.i	Relocations (RR ROW)	Schedule		Threat	Significant unknown utility conflicts may be present within RR ROW. Permitting/utility coordination could drastically impact schedule. Additional review of relocation between utility holders.		EW2
a	Temporary Easements	Cost		Threat	Additional temporary easements required for constructability	Temporary (Construction) easements TBD during design	EW2
d	Acquisition	Cost		Threat	Acquisition of alternative ROW parcels		EW2