

CMAP FY 2016-2020 CMAQ PROJECT APPLICATION

TRANSIT PROJECTS

I. PROJECT IDENTIFICATION					
Project Sponsor City of Aurora			Contact Information – Name, Title, Agency, Address, Phone, e-mail (e-mail required)		
Other Agencies Participating In Project Kane County Forest Preserve Fox Valley Park District			Kenneth Schroth, P.E. CFM Director of Public Works/City Engineer City of Aurora 44 E. Downer Place Aurora, IL 60507 Email: kschroth@aurora-il.org Phone: 630/256-3200 Fax: 630/256-3229		
<input checked="" type="checkbox"/> New Project		<input type="checkbox"/> New Project			
<input type="checkbox"/> Existing CMAQ Project		<input type="checkbox"/> Existing CMAQ Project			
<input type="checkbox"/> Add CMAQ to Existing Project		<input type="checkbox"/> Add CMAQ to Existing Project			
II. PROJECT LOCATION					
<ul style="list-style-type: none"> • Projects not readily identified by location must provide a title on the last line of this section • Attach a map sufficient to accurately locate this project in a GIS system 					
Name Of Street Or Facility To Be Improved IL. Rte. 25 (Broadway), Aurora Transportation Center (ATC) and N. River Street			Marked Route # IL. Rte 25		
Parking Facilities					
Project Limits: North/West Reference Point/Cross St/Intersection North: Vine Street West: River Street			Marked Route #		Municipality & County Aurora, Kane
Project Limits: South/East Reference Point/Cross St/Intersection Spring Street and BNSF Railroad/Lincoln Avenue			Marked Route #		Municipality & County Aurora, Kane
Other Project Location Information Or Project Title Aurora Transportation Center (ATC) Enhancements					
III. PROJECT FINANCING & CMAQ FUNDING REQUEST					
Please review the instructions .					
	Starting Federal Fiscal Year*	Total Phase Costs	(New) CMAQ Funds Requested	Other Federal Funds Including prior CMAQ awards	
				Fund Type	Fund Type
Engineering Phase 1	2015	\$381,436	\$		\$
Engineering Phase 2	2016	\$747,588	\$598,071		\$
Right-Of-Way Acquisition		\$	\$		\$
Construction (Including Construction Engineering)	2017	\$13,456,588	\$8,027,911	Forest Preserve District of Kane County in-kind contribution toward construction of pedestrian bridge (IGA Resolution# R10-114)	\$2,000,000
Engineering (For Implementation Projects)		\$	\$		\$
Implementation		\$	\$		\$
Alternatives Analysis		\$	\$		\$
*Phase must be accomplished within 3 years		\$14,585,612	\$8,625,982		
Total Project Costs					
Source Of Local Matching Funds			Transit Enterprise Funds, TIF Funds and Kane County Forest Preserve Grant		
If Soft Matching Funds Are Intended To Be Used, Please Contact CMAP Staff.					
Have the Matching Funds Been Secured? (Provide Details): Yes			Matching funds allocated in the City's Capital Improvement Project (CIP) A055 and A051 and with Kane County Forest Preserve via an IGA Resolution R10-114, April 14, 2010 for \$2 million dollar contribution of to the pedestrian bridge construction.		

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IV. PROJECT EMISSIONS BENEFIT DATA		
Project Type (Check One): <input checked="" type="checkbox"/> Facility Improvement <input type="checkbox"/> Service And Equipment <input checked="" type="checkbox"/> Access to Transit		
Auto Trips Eliminated Per Day (Round Trips): 3,272 (adding 789 parking space and (west lots(715) + 74 in ATC parking spaces and 847 trips because of existing TOD and planned TOD- total of 1636 trips (1636 x 2 =round trip))		
Length Of Auto Trips Eliminated (One-Way Miles To The Nearest Tenth): 41.5 (Union Station to ATC stop- 37.5 mile post & 4 mile from ATC to the furthest City Limit) .		
Auto Trips Diverted Per Day (Round Trips): 3,272 (789 new parking spaces and 847 with construction of TOD)		
Line-Haul Length Of Diverted Trips (One-Way Miles To The Nearest Tenth): 18.8 miles (mile post stop at ATC 37.5/2= 18.8)		
Project Life (Years): over 20 year		
Provide basis for parameters used to estimate benefits (e.g., new ridership, auto occupancy, trip length. See instructions):		
The methods that we used to demonstrate project benefits and supporting documentations are: Trip reduction calculation and comparison used in the ITE manual for Transit Oriented Development (TCRP Report 128), City Comprehensive Plans, 2014 Metra Rail System Station Boarding/Alighting Count, 2008 City of Aurora Traffic Study, 2008 Metra System Wide Bicycle Parking Inventory Report, 2013 Draft Kane County Complete Station Report, 2014 Fox Valley Park District Master Plan and CivilTech Traffic Impact Study and Bicycle and Pedestrian Comprehensive Plan. (See attachments)		
SERVICE IMPROVEMENTS N/A		
On-Time Performance - Route to be Improved: <u> NA </u> System-Wide: <u> NA </u>		
Reliability Enhancements (Check All that Apply):		
Rail <input type="checkbox"/> New Vehicles <input type="checkbox"/> Upgraded Switches <input type="checkbox"/> Upgraded Power Supply <input type="checkbox"/> Positive Train Control <input type="checkbox"/> Station Consolidation <input type="checkbox"/> Track Improvements <input type="checkbox"/> Reduction of Freight/Vehicle/Pedestrian Interference	Bus <input type="checkbox"/> New Vehicles <input type="checkbox"/> Queue Jump/Bypass Lanes <input type="checkbox"/> Off-board Fare Collection <input type="checkbox"/> Reduced Stops/Express Service <input type="checkbox"/> New Dispatching/Decision Support Systems <input checked="" type="checkbox"/> Passenger Vehicle Movement Restrictions	<input type="checkbox"/> Transit signal priority <input type="checkbox"/> Multi-Door Boarding with Off-board Fare Collection <input type="checkbox"/> Bus-on-Shoulders <input checked="" type="checkbox"/> Managed Lanes <input checked="" type="checkbox"/> Dedicated Bus Way <input type="checkbox"/> Far-side Stops <input checked="" type="checkbox"/> Bus Stop Upgrades <input type="checkbox"/> Near Level Boarding
FACILITIES/CAPITAL IMPROVEMENTS: AURORA TRANSPORTATION CENTER (ATC).		
Existing Asset Condition (1-5 scale used by RTA): 3.0 (Fig. 3.4 2014 RTS Capital Condition Assesment Report)		
Description and Location of Service (For Equipment Purchases): N/A		
Net Number Of New Vehicle Parking Spaces: 789 (west lots 715 + 74 ATC lot) Net Number Of New Bicycle Parking Spaces: 20		
V. PROGRAM MANAGEMENT INFORMATION		
Is right-of-way acquisition required for this project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If so, has right-of-way been acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Engineering Status:	<input type="checkbox"/> N.A <input type="checkbox"/> Not Begun <input checked="" type="checkbox"/> Engineering Underway (provide details below) <input type="checkbox"/> Engineering Completed Date completion is anticipated: <u>Approximately 25% of engineering design has been completed. Phase 1 engineering proposal is completed and will be underway.</u>	
Estimated Completion Year/Start Of Service: 2017		

VI. PROJECT DESCRIPTION

The City of Aurora is committed to achieving the objectives of the “GoTo 2040” Regional Plan and the CMAQ Congestion Mitigation and Air Quality Improvements (CMAQ program). In order to succeed in these goals, the City proposes to implement the Aurora Transportation Center (ATC) Enhancements project as described in this application.

Multiple Areas of Impact

The project being proposed for programming is unique in that it encompasses multiple components of CMAQ eligible grant criteria. The proposed improvements are located in, and have positive impacts on, multiple CMAP Index Maps including those for Travel Time Reliability; Congestion Management Highway Network; Pedestrian Environment Factor; Land Use Diversity; Transit Accessibility and Sensitive Population.

The projected impacts and reductions are multi-faceted and thus will have a greater overall positive effect on the Regional Priorities. For example, in order to improve the current Pace Bus service, it is proposed to relocate the passenger loading area closer to the train platform, widen the southern driveway entrance into the ATC and install a traffic signal at Broadway. The intersection improvement would aid Pace in safety and efficiency as well as reduce idling and congestion during peak hours, while the added convenience of the loading area relocation will also encourage increased ridership.

Long Term Regional Impacts

The proposed project supports the regional priorities to reduce congestion and improve air quality, as the improvements support an existing public transit center by adding 789 parking stalls that will be available to commuters; increase transit use with a bicycle/pedestrian transit connection; support the local agency comprehensive plan; improve transit safety; encourage new high density development near an existing transit center; and expand the transit orientated area of influence of an existing transit center by enhancing the multi-modal access for a larger number of existing residential neighborhoods.

The projects’ support of these priorities are quantified in the Benefit Data however, there are other yet un-measurable factors supporting the long term priorities of the region. For example, in order to retain and expand the number of commuter parking spaces available to the ATC, it is proposed to construct a connection to the City’s public parking lots on the west bank of the river. The connection will make **789 public parking spaces** available to the facility which is adding a tangible benefit, while the enhanced bicycle and pedestrian access to the transit center will also re-establish the historic connection of the Tanner Historic District and its 618 homes. This west side neighborhood was developed in 1842 and provided housing for businessmen, merchants and workers who needed to be close to rail transportation for work. The new connection would again provide these west side residents with convenient vehicular and non-vehicular access to the transit center and encourage residents to consider transit a viable alternative to the ever enticing roadway and highway system.

The goal of the City is that this project, and the costs associated with it, achieve the maximum regional benefits, improvements in air quality, and reduction in congestion by impacting these objectives on multiple levels.

Please see Exhibit A for overall project scope location, for the elements, as described below:

1. **Modifying existing Aurora Transportation Center (ATC) parking lot to provide for better multi-modal access and improve pedestrian & traffic flow for safe, accessible, and user friendly transit station.** The BNSF commuter line has the highest ridership of any of Metra’s commuter lines, with average weekday ridership of 64,600. Weekday ridership at this stop is over 2,100 (4th highest on Metra BNSF) commuter line. Metra study indicates 93% parking utilization at this station. The proposed improvements consist of: new sidewalk, new curb, new ADA ramps, new bike shelter, new parking spaces, new drive isles and new PACE bus staging area.

2. **Relocating Pace bus staging area to the east side of the commuter parking lot to improve safety and reduce bus delay into and out of transit center.** Currently there are 8 Pace bus services that utilized this transit facility. Moving the buses closer to the platform and providing designated drop off area for bus-only will improve safety by reducing vehicle/bus/ pedestrian conflicts and increase bus efficiency, as well as improving ADA access. Under current conditions, passage vehicles routinely enter the Pace Pulse staging area or the pulse point access due to the untraditional intersection design. Relocating Pace staging area will necessitate the need for moving the existing traffic signal to the south ATC entrance. With the relocation of Pace staging area, the City can construct a parking lot that will add **74 more** commuter parking stalls, new drive isle, sidewalk, and taxi and kiss-n-ride area within the current bus staging area for commuters.
3. **Constructing 930' pedestrian bridge over the Fox River to provide direct access to the ATC and connectivity to the surrounding neighborhoods and regional bike trail.** The pedestrian bridge will be a catalyst for promoting the use of this transit center and will increase ridership, with the addition of the west parking lots that are accessible and walkability. For example, the pedestrian bridge will:
 - a) Provide direct access to 1) three existing under-utilized parking lots on the west side of the Fox River (715 parking stalls), 2) the west side neighborhoods, 3) existing TOD, and 4) an existing regional bike trail system on the east and west side of the Fox River.
 - b) Close a regional bike trail gap. The Fox River Trail system begins at Bolz Rd. at Sandbloom Rd. in Algonquin and extends to Washington St. at Oswego Village Hall (43 miles). The trail has been interrupted within Downtown Aurora. The City has implemented several projects on the west side of the Fox River to reduce the gap, which currently ends at Hoyt Pl and Downer Pl (at the downtown Waubensee Community College (WCC)). The east side trail currently ends at New York St. The City is proposing as part of a 2015 roadway project to construct a protected multi-use path which begins at Downer Pl and Hoyt Pl and will continue south for approximately 3,100 lineal feet until the final connection is made back the Fox River Trail system at North Ave. The pedestrian bridge will allow for the connection of the east and west side Fox River Trail and will direct pedestrians and bicyclists to the proposed signalized access at the ATC as described above and will thus promote ridership.
 - c) Advance and promote multi-modal access to the Aurora Transportation Center by mean of mass transit, walking and biking. Increase transit use will result in improve air quality and reduce congestion.
 - d) Support City's long term vision for Fox River corridor and transit area. This pedestrian bridge has been identified in the City's Sieze the Future Downtown Mater Plan, RiverEdge Park Master Plan, Kane County DOT Complete Street Report and the City's Master Bicycle and Pedestrian Plan.
4. **Constructing a new parking lot on the west side of the Fox River (715 available parking spaces) to increase ridership.** RTA 2014 parking count noted 1,633 available parking spaces (public and private lots -307). Metra study indicated that there is a 93% utilization of the existing parking lots, prior to the recession in 2007, there was 100% parking utilization. To promote transit use and ridership, the City proposes the expansion of parking Lot X, which will add 90 new parking stalls. In addition, three (3) existing underutilized public parking lots (A, X and W) will be available to transit commuters. **A total of 715 free public parking spaces on the west side of the Fox River, with direct connection via the proposed pedestrian bridge will be available to commuters.** The proposed work will consist of new asphalt pavement, curb and gutter, parking lot lightings, grading, utilities relocation, and landscape.
5. **Installing new traffic signals on IL Rte. 25 (Broadway Street) and intersection improvements into the ATC parking lot to improve access capacity.** These improvements will significantly reduce congestion during peak time and minimize intersection delays for commuters. The proposed work consist of; updating existing traffic interconnect, installing traffic signal, consolidating access points, installing streetlights within a proposed raised median and ADA accessible sidewalk. Without these intersection improvements, Pace staging area cannot be relocated and improvements to the ATC parking lot cannot be accomplished.

Enclosed for reference are various exhibits that support our grant application. Also, listed below are projects that have been accomplished and/or planned for construction to demonstrate the City investments and goals of support of the Go to 2040 Regional Comprehensive Plan.

- **2015.** The City will be completing a two-way conversion project on River Street and Lake St (Il Rte 31), in which a designated protected bike lane will be provided. The bicycle trail gap that has existed through downtown Aurora will be connected on the west side of the Fox River from Downer Place to North Ave. The pedestrian bridge will link the regional bike trail on the east side of the River that currently terminates at New York St to the completely connected regional trail on the west side of the river.
- **2014.** The City installed electronic pay by license plate stations and purchased vehicle license plate readers so that commuters can park and pay using a smart phone. In addition, two electrical charging stations were installed by the City to promote alternative energy use.
- **2013-2014.** Fox Valley Park District constructed several projects (pedestrian bridge, parks and trails- totaling \$2.4 million) on the west side of the River to provide connectivity and connection to the Virgil Gilman Trail and the Fox River Trail System.
- **2012.** When Waubensee Community College (WCC) was under construction in Downtown, the City constructed the lower river walk from Galena Bouvelard to Downer Place to reduce the Fox River Trail gap, costing \$1.2 million.
- **2010.** Kane County Forest Preserve District recognized the importance of the pedestrian bridge and existing trail gap by committing \$2,000,000 to the construction of the bridge.
- **2007.** The RiverEdge Park Master Plan was approved by the City Council on September 25, 2007 by Resolution Number R07-476. As part of said master plan, a bridge was proposed to span the Fox River from the west bank to the east bank across from the Aurora Transportation Center. RiverEdge Park (completed in 2013) is designed to be the center piece of the redevelopment efforts for Aurora's Downtown by connecting neighborhoods on both sides of the river and act as a catalyst to unify Aurora and encourage TODs in the downtown corridor.

No land acquisition is required for this project. All lands are owned by the City of Aurora.

CMAQ FY 2016-2020 PROJECT SCOPING REPORT

FOR PROPOSED INTERSECTION IMPROVEMENTS, BOTTLENECK ELIMINATIONS, BICYCLE/PEDESTRIAN, AND COMMUTER
PARKING FACILITY PROJECTS

FOR PROJECTS FOR WHICH A PROJECT DEVELOPMENT REPORT IS NOT NOW BEING REVIEWED

PART I. OVERVIEW

COMMON ROUTE NAME: Aurora Transportation Center (ATC) Enhancements ROUTE MARKING: NONE

LIMITS: FROM: Spring Street TO: ATC Parking Lot

COUNTY: Kane

FIELD/SITE REVIEW DATE: Commuter Parking Lot/ Site various site visit, latest occurred 1/20/2015

FIELD REVIEW PARTICIPANTS: Souts Thavong PE, Dan Feltman, PE, and Stephane Phifer,

JURISDICTIONS INVOLVED: City of Aurora

KEY PEOPLE:

Name: Ken Schroth, P.E

Name: Dan Feltman, P.E

Title: City Engineer/Public Works Director

Title: New Development Coordinator

Phone/fax: 630/256-3200

Phone/fax 630/256-3204

Project Overview Exhibit

Aurora Transportation Center (ATC), Aurora (see also attachments)



PART II. EXISTING CONDITIONS

VERTICAL CLEARANCE RESTRICTIONS (existing profile/overhead structures): **NONE**

HORIZONTAL RESTRICTIONS (ROW/sidewalks/curb & gutter/buildings): **None**

UNUSUAL SOIL CONDITIONS (CHECK ALL THAT APPLY):

Wetlands cattails in ditches bogs dry land bridges contaminated soil

UTILITIES INVOLVED (CHECK ALL THAT APPLY):

Electrical gas telephone cable sewer water pipelines other

SPECIAL SAFETY CONSIDERATIONS (high accident spots and sections):

ADA accessible sidewalk and bike path will improve safety conditions in the area by providing pedestrians with a defined travel way, reducing conflicts with vehicles and buses. Further, additional parking access will relieve congestion and promote the use of public transportation. Because the Bus staging area will be isolated from the commuter parking, the interaction between buses and passenger vehicles will be reduced and therefore reducing bus/vehicle conflicts.

CROSSED OR ADJACENT BRIDGES:

- Applicable (**Complete and include one or more copies of Attachment 1**)
 Not Applicable

SIGNALIZED INTERSECTIONS: (IL. RTE. 25 @ SOUTH ATC ENTRANCE, SPRING ST AND ROUNDHOUSE ENTRANCE.

Applicable: **Complete and include for each intersection:**

- **one copy of Attachment 2**
- **two Input Module Worksheets (one for current conditions and one for conditions after the proposed project)**
- **if signals are actuated, the Actuated Controller Properties page of the Input Module Worksheet**
- **As many Actuated Controller Coordination pages of the Input Module Worksheet as warranted, i.e., based on extended side-street leading left-turn phases**

Not Applicable

UNSIGNALIZED INTERSECTIONS NEEDING UPDATE: (IL. RTE 25 AT SOUTH ATC ENTRANCE)

Applicable: **Complete and include for each intersection:**

- **one copy of Attachment 3**
- **two Input Module Worksheets (one for current conditions and one for conditions after the proposed project)**

Not Applicable

DRAINAGE DATA:

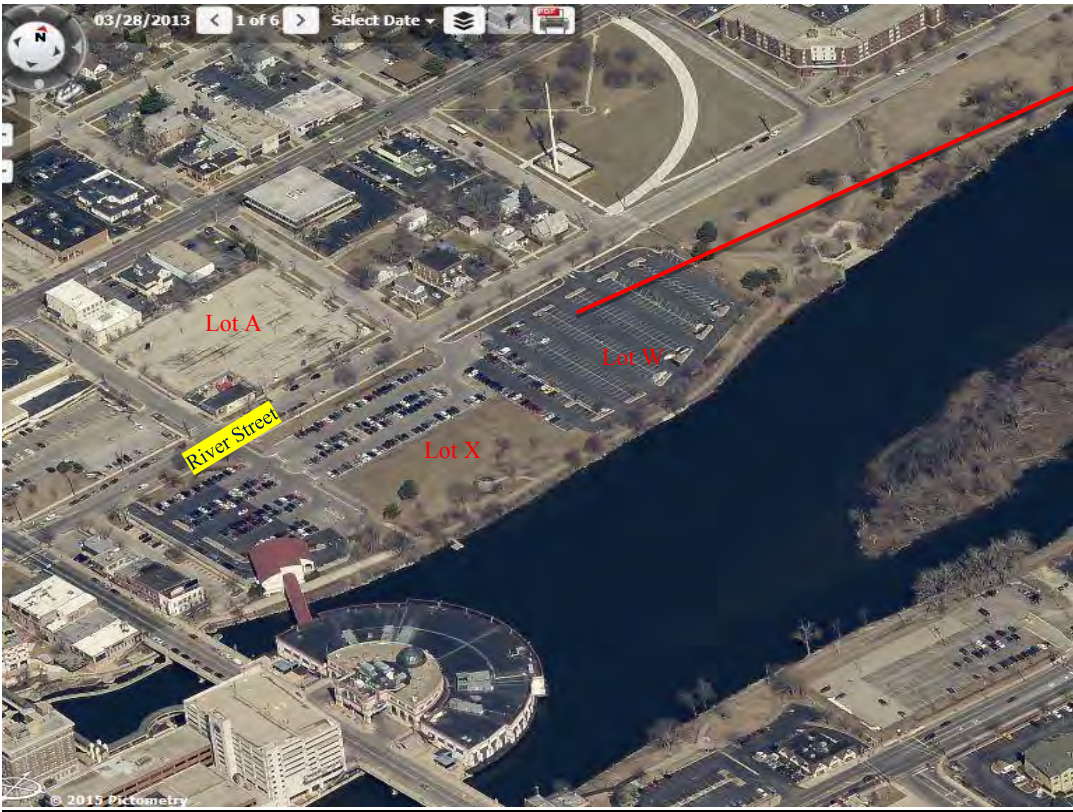
Complete and include one or more copies of Attachment 4

RAILROADS:

Applicable (**Complete and include one or more copies of Attachment 5**)

Not Applicable

Aerial Views-Existing Condition



Available Public Parking Spaces for Commuters (West Lots)

Aerial 1. Existing Condition- Looking NW- West Parking Lots



Aurora Transportation Center (ATC)

Aerial 2. Existing Condition- Looking North- Aurora Transportation Center (ATC)

PART III. ENVIRONMENTAL AND SPECIAL DATA

Documented (IDNR) or possible wetlands: Yes No:

Location(s): Fox River- Permit application being prepared as part of Phase 1.

Parks or Forest Preserve: Yes No:

Location(s) **Kane County Forrest Preserve and Fox Valley Park District Trail System (along Fox River)**

4(f) Involvement Definite Possible

Cultural resource involvement (check all that apply):

Historic district Historic structure Historical marker

Other eligible historic designations Other cultural resources

Location(s): **Fox River-west side and Tanner Historic District- See location map**

Adjacent land use (Check all that apply)

Residential Office/Retail Schools

Industrial Park or Forest Preserve Other Institutional

Hazardous materials (UST, LUST, other hazardous waste sites) yes No Test to be performed as part of Phase 1.

Potential contaminated soils: Test to be performed as part of Phase 1.

Local Acceptability (*a federally accepted public involvement program will be prepared during project development*)

Is there local public support, generally? Yes No

Has the affected public been involved/informed? Yes No

How? **The public was involved in the development/drafting of the Seize the Future Master Plan for Downtown and River Edge Park Master Plan. Fox River walk Commission and the Aurora Downtown Executive Committee was engaged during the preliminary bridge design.**

PART IV. PROPOSED SCOPE OF WORK

Engineering (Enter cost if eligible for federal funding):

Phase I (preliminary design)	\$ 381,436	% complete 25	Months to complete 6
Phase II (plans, specs and estimates)	\$ 747,588	% complete 0%	Months to complete 6

Right of way needed: No Yes: Estimated cost \$ **0**

Utility Relocation No Yes: Construction: Cost \$ **13,456,588** Months to complete: **9** Calendar Year **2017**

(INCLUDE DETAILED COST ESTIMATE FOR CONSTRUCTION ITEMS ON FOLLOWING PAGE).

Proposed cross section(s)/dimensions (If applicable):

Number of through lanes (Roads): Pavement width:
Shoulder or parkway width:
Median: None Raised Flush Mixed
Square feet (Parking) _____

Project Length: 1,800' + 930' Pedestrian

Check all that apply, and complete number where applicable.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Intersection improvements (Number <u>3</u>) | <input type="checkbox"/> Bottleneck elimination |
| <input checked="" type="checkbox"/> New traffic signals (Number <u>1</u>) | <input type="checkbox"/> Traffic signal modernization (Number <u> </u>) |
| <input type="checkbox"/> Signals to be interconnected (Number <u>3</u>) | <input type="checkbox"/> Structural improvements |
| <input checked="" type="checkbox"/> Pedestrian/bicycle accommodations (Describe Below. Include limits and connecting facilities) | <input type="checkbox"/> Roadside Improvements (Retaining walls, positive barriers, etc.) |
| <input type="checkbox"/> Train Station Improvements | <input type="checkbox"/> New/Relocated Train Station |
| <input type="checkbox"/> Railroad Grade Crossing Improvements | <input checked="" type="checkbox"/> ADA Access Improvements |
| <input checked="" type="checkbox"/> Landscaping | <input checked="" type="checkbox"/> Commuter parking: (715 parking spaces available to commuters and 74 parking spaced gained in ATC, totaling 789 new available parking spaces for commuters. |

For all items checked above, describe improvements in the space below. Attach additional sheets if necessary.

Commuter Parking (ATC Parking Enhancement).

The proposed improvements will consist of: new traffic signal into the commuter parking lot from the intersection of Rte. 25, internal lane modifications will be done to improve traffic movement, designated bus only lane with fencing will be provided, proposed area for kiss-n-ride and taxi, motor cycle and bike shelter will also be provided. Approximately **789** (west lots 715 + 74 ATC parking) parking spaces, west of the Fox River, on City's lots, will be available for commuters. Pace bus staging area will be relocated and area will be designated for commuter parking with net gain of 74 parking stalls. Relocating Pace drop off/pick up will greatly reduce pedestrian and vehicular conflicts and improve safety.

Pedestrian/Bicycle Accommodation (Bridge over Fox River)

A box beam concrete bridge that will span approximately 930 ft will be constructed to provide direct connection to the existing public parking spaces on the west side of the River to ATC, which will be available to commuters. The pedestrian bridge and associated intersection work will be designed to accommodate ADA requirements.

Intersection & New Traffic Signal & Interconnected.

Installing new traffic signals on IL Rte. 25 (Broadway Street) and intersection improvements into the commuter parking lot to improve access capacity into and out of the parking lot, significantly reducing congestion during peak time and minimizing intersection delays for commuters.

Location 1. Spring Street and Rte. 25.

Shared access on Spring Street will be provided for properties that will be impacted with the removal of the traffic signal at the Roundhouse. Existing signalized T-intersection will be improved to provide for full access (west bound traffic). Designed turn lanes (north bound) will be provided.

Location 2. IL.Rte 25 and Roundhouse Entrance.

Existing traffic signal will be removed. Restricted access will be provided meeting IDOT's standard. The turning movement will be Left In Only (southbound) and Right In Only (northbound) and Right Out (northbound) to the Roundhouse & Comfort Suites will be provided. Raised median be constructed to control access.

Location 3. - IL. Rte. 25 and South ATC Entrance.

Existing stop controlled intersection will be improved with new traffic signal, designated lanes for Left and Right Out only. This will increase the exiting capacity during peak hours.

Drainage:

- Urban (Enclosed) Rural (Open)
- Is detention required? No Yes (If yes, check type below)
- In line detention New outlets (Where?) _____
- Detention basin Detention off-site _____

PROJECT MILESTONE SCHEDULE

Municipality:	City of Aurora
Project:	Aurora Transportation Center (ATC) Enhancements
Scope of Work:	Parking Lot Improvements, Pedestrian Bridge and Intersection Improvements
TIP #:	N/A
TIP Years (Ph II / Const):	N/A
Section #:	N/A
Last Constr & E3 Cost (date):	N/A
Current Constr & E3 Cost (date):	N/A

Contact Information

Municipality:	City of Aurora, Public Works Department, Kenneth Schroth, P.E., CFM, Public Works Director/City Engineer. 44 E. Downer Place, Aurora, IL 60507
Council/Liaison:	Kane County/Mike Sullivan & Jennifer Becker-KDOT
Consultant:	Mr. Patrick Kelsey, Wills Burke Kelsey Associates, 8 East Galena Blvd. Suite 402, Aurora, IL 60507. Email: pkelsey@wbkengineering.com. Phone: 630/701-2245
IDOT:	N/A

Date Prepared: 2/4/2015

 Date Revised:

Projected Dates

	Initial Est.	Kick-Off	Revised/Actual	Notes
1. Project Scoping		Feb-15		
2. IDOT Phase I Kick-off Meeting		Feb-15	2/20/2015	
3. 1st State/Federal Coordination Meeting		Apr-15		
4. Categorical Exclusion Concurrence		Apr-15		
5. Design Variance Concurrence		May-15		
6. Submit Draft Phase I Report (PDR) to IDOT (a)		Jun-15		
7. Public Hearing/Meeting (or N/A)		N/A		
8. Right-of-Way Kick-off Meeting (or N/A)		N/A		
9. Submit Final Phase I Report (PDR) to IDOT (b)		Nov-15		
10. Submit Phase II Engr. Agreem't to IDOT (or N/A)		Jan-16		
11. Phase I Design Approval		Mar-16		
12. ROW Acquisition Initiation (or N/A) (c)		N/A		
13. Phase II Engr. Agreement Approval (or N/A)		May-16		
14. Submit Pre-Final Plans and Estimates (d)		Nov-16		
15. Submit Phase III Engr. Agreement to IDOT		Mar-17		
16. Submit Final Plans, Specs & Estimates (PS&E) (e)		Apr-17		
17. ROW Acquisition Complete		N/A		
18. Construction Letting		9/22/2017		Construction to occurred at end of summer concerts series.

Notes:

- (a) 3 to 6 month review required per complexity and submittal quality
- (b) 1 to 3 month review
- (c) Minimum 9 to 18 months required from plats to acquisition
- (d) 1 to 4 month review
- (e) 7 to 10 days before Springfield BLR due date

See IDOT Local Roads' **Mechanics of Project Management** "Federal Aid Project Initiation to Completion" Flow Chart for sequence of events and estimated review times.

Preliminary Estimate of Cost

TYLIN INTERNATIONAL & WBK ASSOCIATES&CBBEL & CITY OF AURORA
2/23/2015

ITEM	CONTRACT ITEMS				UNIT	QUANTITY	PRICE	AMOUNT				
Substructure	Abutments Concrete/rebar				CY	190	\$800.00	\$151,703.70				
	Abutment width	16	ft.									
	Height	15	ft.									
	stem thickness	4	ft.									
	Stem Volume	71	CY									
	Footing depth	10										
	Footing width	10										
	Footing volume	119	CY									
	Total Abutment Concrete	190	CY									
	Abutments Excavation/Backfill								CY	750	\$80.00	\$60,000.00
Abutment Piles				LF	60	\$800.00	\$48,000.00					
Abutment Piles CIDH-Rock Socket 8' diameter				LF	40	\$15,000.00	\$600,000.00					
Abutment Piles												
	Soil	Rock	Diameter									
	Length	Length										
A1	30	20	8									
A7	30	20	8									
	60	40										
Coffer Dam				SF	8400	\$75.00	\$630,000.00					
Pier Concrete/rebar				CY	164	\$1,200.00	\$196,593.89					
Col Concrete												
	Height	Diameter	Vol									
	ft.	ft.	CY									
B2	15	8	28									
B3	18	8	34									
B4	22	8	41									
B5	18	8	34									
B6	15	8	28									
			164									
Pier Excavation/Backfill				CY	100	\$120.00	\$12,000.00					
Pier Piles CIDH - soil 81 diameter				LF	75	\$800.00	\$60,000.00					
Pier Piles CIDH-Rock Socket				LF	100	\$15,000.00	\$1,500,000.00					
Pier Piles												
	Soil	Rock	Diameter									
	Length	Length										
B2	15	20	8									
B3	15	20	8									
B4	15	20	8									
B5	15	20	8									
B6	15	20	8									
	75	100										
SUBTOTAL								\$3,258,297.59				
Superstructure	Concrete Superstructure (beam and slab)				CY	2739	\$1,200.00	\$3,287,111.11				
	Section at start	92		ft2								
	Sxn at end	77		ft2								
	Avg Section	84.5		ft2								
	Length	800		ft2								
	Volume	2,504		CY								
	Section at mid-overlook	106		ft2								
	Length	60		ft2								
	Volume	236		CY								
	Total Superstructure	2,739										
Post-tensioning				LB	120655	\$4.00	\$482,620.06					
Number of strands					190	strands						
Length of tendons					860	ft.						
Wt of PT					120,655	lbs						
At Grade Approach	Ramp approach built on fill				SF	3200	\$200.00	\$640,000.00				
	North End	Length	100	ft.								
		Width	16	ft.								
		Area	1,600	SF								
	South End	Length	100	ft.								
		Width	16	ft.								
		Area	1,600	SF								
	Total slab on fill area	3,200		SF								
	Misc. items (metal, drainage, deck surfacing, paint)								SF	12090	\$50.00	\$604,500.00
	SUBTOTAL								\$5,014,231.17			
Railing	Railing				LF	2130	\$200.00	\$426,000.00				
	Lighting				LF	2130	\$200.00	\$426,000.00				
SUBTOTAL								\$852,000.00				
Pedestrian Bridge								\$9,124,528.76				
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL				CU YD	500	\$45.00	\$22,500.00					
POROUS GRANULAR EMBANKMENT				CU YD	500	\$45.00	\$22,500.00					
PERIMETER EROSION BARRIER				FOOT	1,000	\$3.50	\$3,500.00					
TREE REMOVAL				EACH	10	\$250.00	\$2,500.00					
PAVEMENT REMOVAL				SQ YD	4,465	\$12.00	\$53,580.00					
COMBINATION CURB AND GUTTER REMOVAL				FOOT	6,334	\$5.00	\$31,670.00					
SIDEWALK REMOVAL				SQ FT	13,305	\$2.00	\$26,610.00					
REMOVING DRAINAGE STRUCTURES				EACH	25	\$750.00	\$18,750.00					
ADJUSTING STRUCTURES				EACH	75	\$300.00	\$22,500.00					
LIGHT POLE REMOVAL				EACH	35	\$1,000.00	\$35,000.00					
LANDSCAPE MEDIAN REMOVAL				SQ FT	12,605	\$2.00	\$25,210.00					
STORM SEWER SYSTEMS				L SUM	1	\$250,000.00	\$250,000.00					
BIOSWALE				L SUM	1	\$30,000.00	\$30,000.00					
PCC SIDEWALK				SQ FT	43,160	\$6.50	\$280,540.00					
DETECTABLE WARNINGS				SQ FT	300	\$50.00	\$15,000.00					
RECONSTRUCT METRA RAMP				SQ FT	600	\$30.00	\$18,000.00					
PAVEMENT PATCHING/NEW PAVEMENT				SQ YD	8,152	\$55.00	\$448,360.00					
PAVEMENT GRINDING				SQ YD	1,154	\$2.50	\$2,885.00					
PAVEMENT RESURFACING (2")				TON	141	\$80.00	\$11,280.00					
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12				FOOT	6,300	\$24.00	\$151,200.00					
CONCRETE RETAINING CURB (VARIABLE HEIGHT, 2' MAX)				FOOT	150	\$40.00	\$6,000.00					
CAST-IN-PLACE CONCRETE RETAINING WALL (3' MAX HT)				SQ FT	300	\$65.00	\$19,500.00					
ORNAMENTAL FENCE, ATTACHED TO CONCRETE				FOOT	100	\$65.00	\$6,500.00					
RECONSTRUCT BIKE RACK AREA FOR NEW CURB RAMP				L SUM	1	\$5,000.00	\$5,000.00					
ORNAMENTAL FENCE, 4'-TALL, POST MOUNTED INTO PAVEMENT				FOOT	930	\$100.00	\$93,000.00					
ATC SITE LIGHTING				L SUM	1	\$100,000.00	\$100,000.00					
IL 25 ROADWAY LIGHTING				L SUM	1	\$308,000.00	\$308,000.00					
THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS				SQ FT	500	\$10.00	\$5,000.00					
THERMOPLASTIC PAVEMENT MARKING - LINE 4"				FOOT	11,120	\$1.25	\$13,900.00					
THERMOPLASTIC PAVEMENT MARKING - LINE 6"				FOOT	1,707	\$3.50	\$5,974.50					
THERMOPLASTIC PAVEMENT MARKING - LINE 24"				FOOT	351	\$10.00	\$3,510.00					
STRIPING IMPROVEMENTS - IL ROUTE 25				L SUM	1	\$10,000.00	\$10,000.00					
RAISED MEDIAN CONSTRUCTION - IL ROUTE 25				FOOT	2,030	\$35.00	\$71,050.00					
MEDIAN LANDSCAPING - IL ROUTE 25				SQ FT	7,050	\$10.00	\$70,500.00					
RELOCATE STATUE				L SUM	1	\$10,000.00	\$10,000.00					
RELOCATE BICYCLE LOCKERS				L SUM	1	\$1,500.00	\$1,500.00					
RELOCATE PAYMENT BOXES				L SUM	1	\$2,500.00	\$2,500.00					
REMOVE PARKING SHELTER				EACH	5	\$1,000.00	\$5,000.00					
REMOVE BUS SHELTER				EACH	4	\$2,500.00	\$10,000.00					
INSTALL PACE BUS SHELTER				EACH	8	\$15,000.00	\$120,000.00					
INSTALL PACE ELECTRICAL CONDUIT/HANDHOLE ALLOWANCE				L SUM	1	\$10,000.00	\$10,000.00					
SIGNAGE ALLOWANCE				L SUM	1	\$20,000.00	\$20,000.00					
LANDSCAPING ALLOWANCE				L SUM	1	\$50,000.00	\$50,000.00					
RELOCATE AURORA TRANSIT CENTER MONUMENT SIGN				L SUM	1	\$15,000.00	\$15,000.00					
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT				L SUM	1	\$25,000.00	\$25,000.00					
NEW TRAFFIC SIGNAL @ ATC ENTRANCE				L SUM	1	\$275,000.00	\$275,000.00					
TRAFFIC SIGNAL MODIFICATIONS @ SPRING STREET				L SUM	1	\$50,000.00	\$50,000.00					
WEST LEG OF SPRING STREET				L SUM	1	\$150,000.00	\$150,000.00					
SPECIAL WASTE ALLOWANCE				L SUM	1	\$50,000.00	\$50,000.00					
TRAFFIC CONTROL AND PROTECTION				L SUM	1	\$50,000.00	\$50,000.00					
MOBILIZATION				L SUM	1	\$50,000.00	\$50,000.00					
CONSTRUCTION LAYOUT				L SUM	1	\$25,000.00	\$25,000.00					
RECORD DRAWINGS				L SUM	1	\$15,000.00	\$15,000.00					
ATC Parking Lot								\$3,123,519.50				
HMA Binder Course, IL 19.0, N50				TON	1094	68	\$74,392.00					
HMA Surface Course, Mix "D", N50				TON	699	70	\$48,930.00					
Bituminous Materials(Prime Coat)				GAL	1823	1	\$1,823.00					
Aggregate Base Course, Type B 8"				SY	4100	7	\$28,700.00					
Combination P.C.C. Curb and Gutter-18" (B-6.12)				LF	430	22	\$9,460.00					
Storm Sewer Relocate				EA	1	5000	\$5,000.00					
Grading and Shaping				SY	4100	5	\$20,500.00					
Furnish and Place Topsoil				CY	160	40	\$6,400.00					
Parking Lighting				EA	3	5000	\$15,000.00					
Paint Pavement Marking - Letters and Symbols				SF	500	1.5	\$750.00					
Handicapped Parking Signs				EA	4	200	\$800.00					
Parking Lot X Expansion								\$211,755.00				

Project Subtotal \$12,459,803.26
Construction Engineering (8%) \$996,784.26
Project Total \$13,456,587.52

Proposed Preliminary Plan-
Aurora Transportation Center (ATC) Enhancements

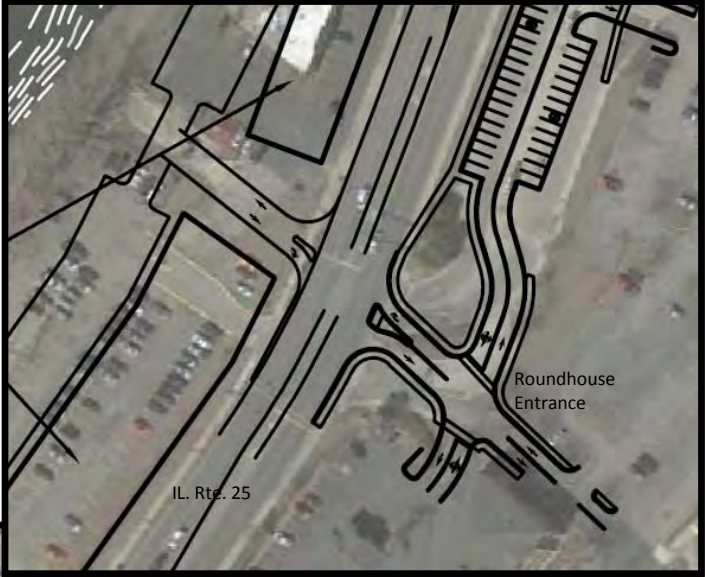


ATC Enhancements
Existing Parking: 733
Gain of Approx. 74 spaces

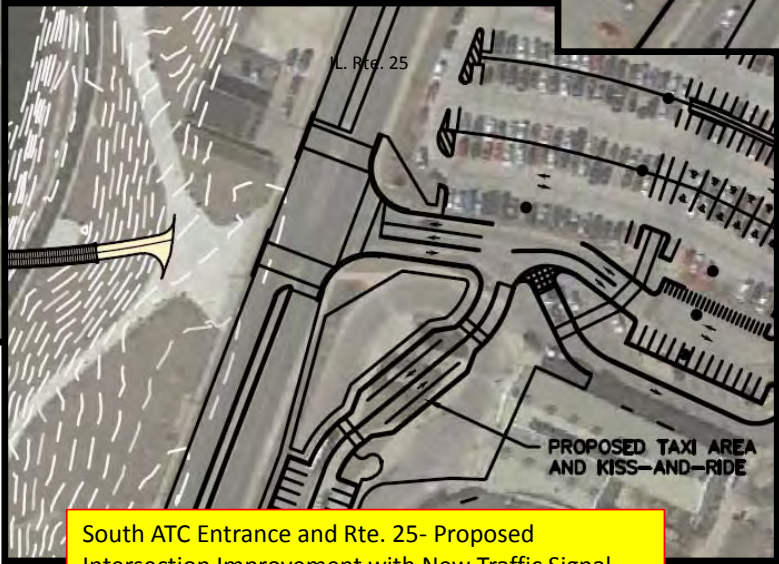
Preliminary Intersection Improvements associated with Aurora Transportation Center (ATC) Enhancements



Spring Street & Rte. 25- Proposed Intersection Improvement per IDOT

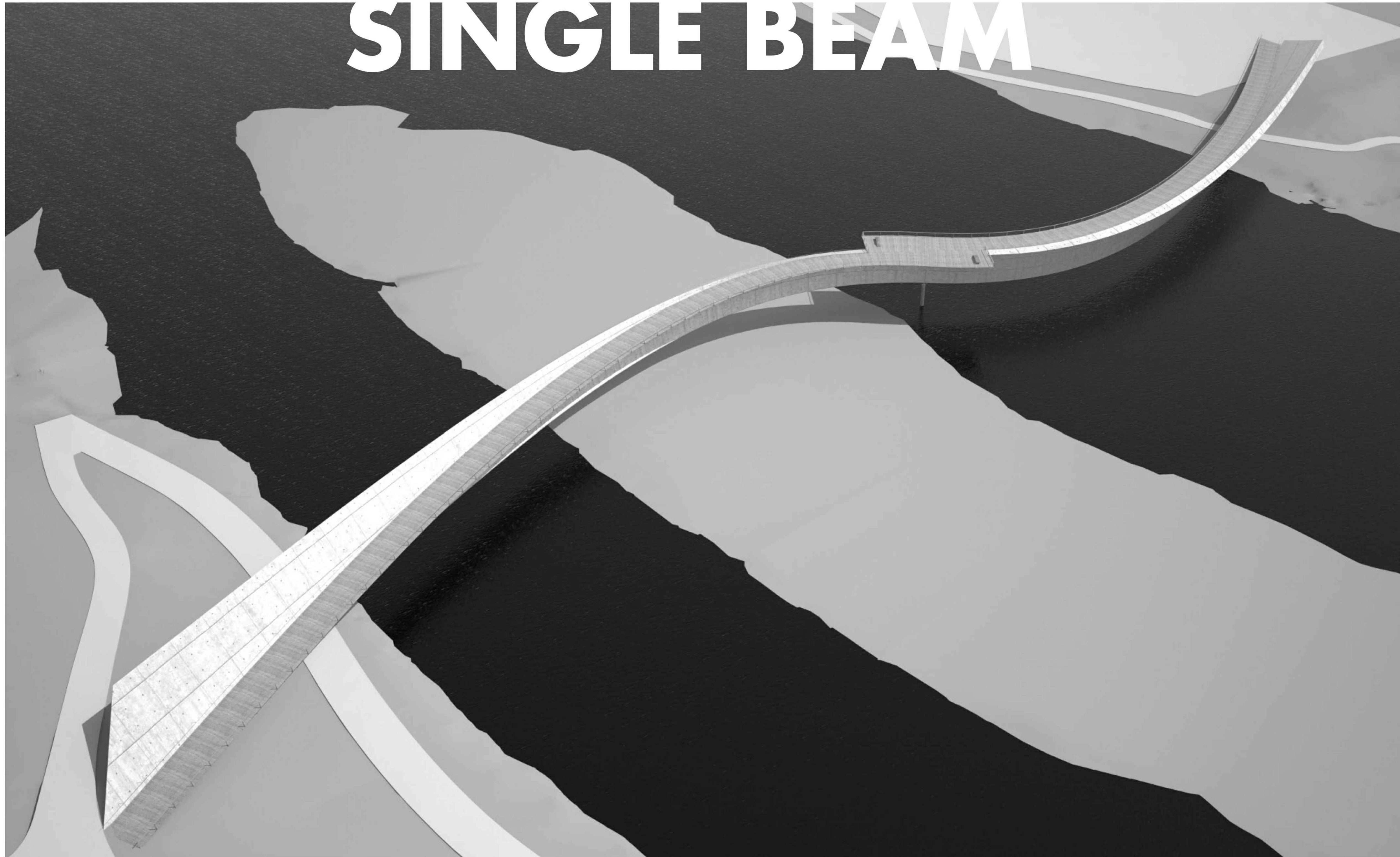


Rte. 25 and Pace Entrance. (Proposed Restricted Intersection Per IDOT)



South ATC Entrance and Rte. 25- Proposed Intersection Improvement with New Traffic Signal

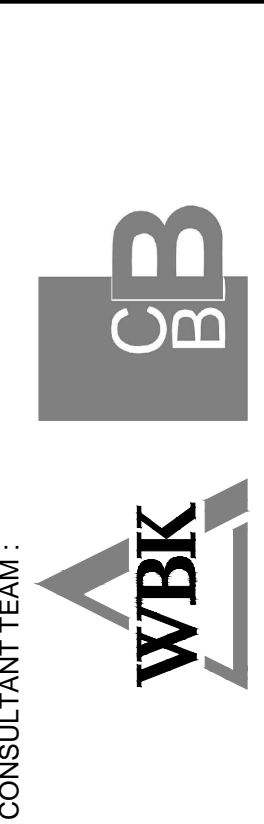
SINGLE BEAM



TITLE: RIVEREDGE PARK
PEDESTRIAN BRIDGE
SINGLE BEAM

DSGN.	
DWN.	
CHKD.	
SCALE:	
EX130125-RRIDGEIMAGES.DWG	
NO.	DATE
	NATURE OF REVISION

CITY OF AURORA
44 EAST DOWNER PLACE
AURORA, IL 60505



PROJECT NO.	13-0125
DATE	02/12/15
DRAWING NO.	EX1
SHEET:	1 OF 2

W:\Projects\2013\130125_RiverEdgePark\ACAD\DWG\130125-RRIDGEIMAGES.dwg, EX1, 2/12/2015 8:17:41 AM, ark

Ridership Data-Aurora Station

"the region has ambitious goals to increase the use of public transportation, which too many people avoid due to concerns about delay or infrequent service" CMAP".

Metra Rail Ridership Summary for October 2014

Summary Metra rail ridership data is available for January 2002 through October 2014.

Note: Metra monthly ridership figures are based on ticket sales. Ridership on the South Shore Line is reported as boardings on and off the train at the "Weekday" conductor counts taken as trains enter or depart downtown. Click on the "Weekday" link to view the "Weekday" ridership figures.

Month: **October** Year: **2014**

Overview

Ticketed Boardings	7,154,169
Free Rides	105,618
Total Boardings	7,259,787

Average Weekly Passenger Loads

Service Period	Load
Weekday Peak Direction	1,116,000
Weekday Off-Peak	378,000
Saturday	69,700
Sunday	48,000
Total Week	1,611,700

Passenger loads are three-month rolling averages and do not include the South Shore Line.

Ridership

Ridership Trend

Weekday Boardings: **2,180** (2006 count)

Parking Capacity: **1,633 spaces** (2014 count)

Parking Utilization: 93%

Mode of Access: 2% Walked, 68% Drive Alone, 17% Dropped Off, 6% Carpool, Parking and Access 5% Bus, 1% Other (2006 Survey)

Goal: High Quality Travel Experience

- Improve Reliability
- Improve Comfort
- Increase Ridership



Ridership by Branch Weekday Ridership

October 2014 Total Ridership by Line

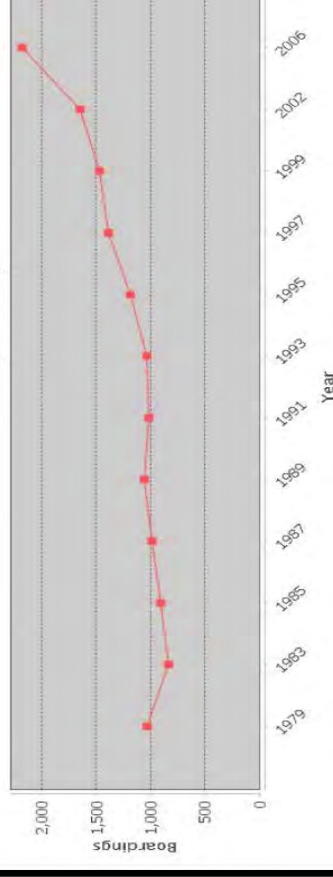


Metra Aurora Station Weekday Ridership Trend

Note: this chart displays boardings from Metra Boardings and Alightings counts.

Station: **Aurora** Ridership Tables

Aurora Station Weekday Ridership



Station Summary: BNSF Railway

Count Conducted Tuesday, April 15, Wednesday, April 16, and Thursday, May 01, 2014

Station	Mile Post	Inbound Trains		Outbound Trains		All Trains	
		Ons	Offs	Ons	Offs	Ons	Offs
Aurora	37.5	2,107	0	0	1,972	2,107	1,972
Route 59	31.6	5,858	19	16	5,344	5,874	5,363
Naperville	28.5	3,936	41	66	4,058	4,002	4,099
Lisle	24.5	1,941	42	52	1,979	1,993	2,021
Belmont	22.6	1,312	13	13	1,335	1,325	1,348
Downers Grove, Main St.	21.2	2,380	70	93	2,608	2,473	2,678

Aurora Station-Parking Capacity

"Access- By providing residents with access to safe, reliable, and economical public transportation, more people will be able to use transit, walk, or bike- so driving becomes a choice rather than a necessity" CMAP



Rail Station: Aurora

Overview
 Rail Lines: [Burlington Northern Santa Fe](#)
 Status: year-round
 Location: 233 N. Broadway
 Fare Zone: H
 Detailed Metra Fare Structure
 Milepost: 37.5
 Related Web: [Burlington Northern Santa Fe Schedule from Metra](#)
 Metra Station Page
 Station Area Diagram



Metra Aurora BNSF Station, Source: Metra, Date: September 2009

Demographics	1/2 Mile	1 Mile
2000 Population:	5,344	26,127
2010 Population:	6,517	32,666
Population Change:	+22.7%	+20.0%
2000 Employment:	5,344	17,478
2010 Employment:	3,706	11,062
Employment Change:	-44.2%	-58.1%

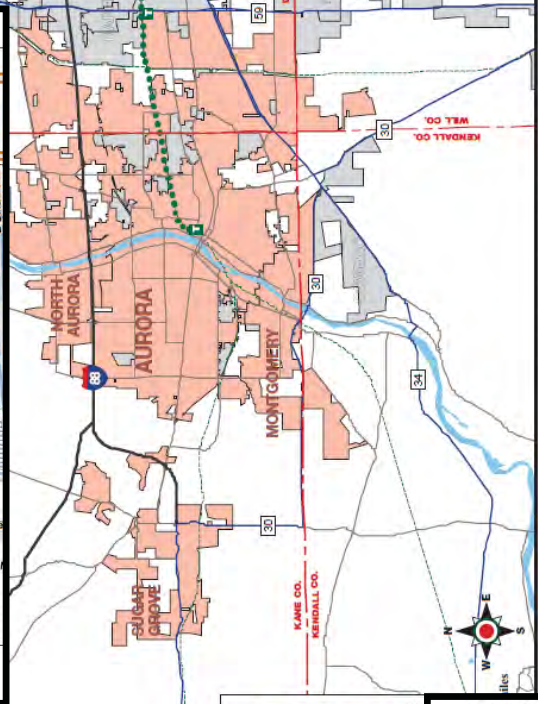
The 2000 population and employment data are estimates tabulated by the Northeastern Illinois Planning Commission (NIIPC). The 2010 population and employment data (release date 9/12) are estimates tabulated by the Chicago Metropolitan Agency for Planning (CMAP). For more information on the 2010 data, see <http://www.cmap.ilinc.gov/population-forecast>.

Ridership	Ridership Trend
Weekday Boardings:	2,180 (2005 count)

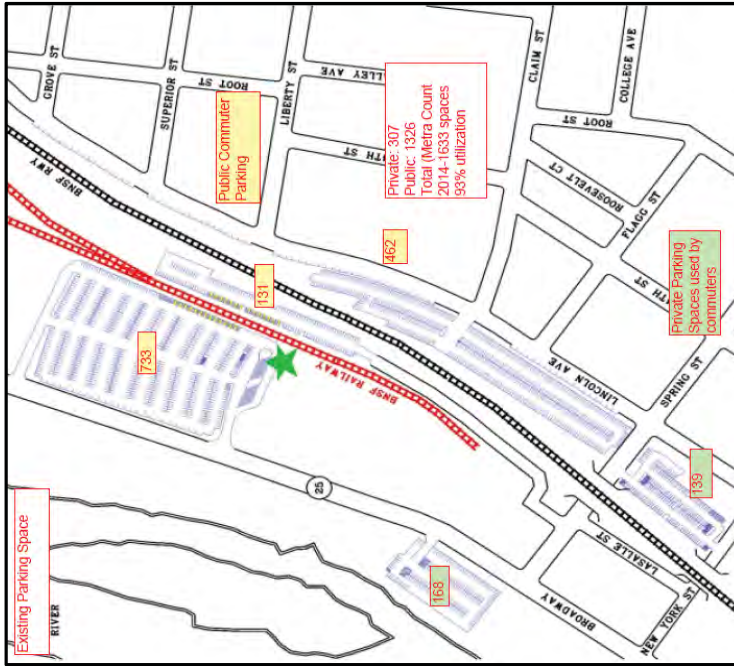
The Greater Aurora Transit Area

The Greater Aurora Transit Area includes the City of Aurora, the Village of Sugar Grove, and unincorporated areas of Kane County. This area has experienced 51 percent population growth from 1990 to 2000 and employment is expected to increase in this area by approximately 80 percent between 1990 and 2020 according to projections by the Northeastern Illinois Planning Commission (NIIPC). The Greater Aurora Transit Area is expected to have over 100,000 jobs by the year 2020.

Existing Parking Spaces/Locations



Source: Northeastern Illinois Planning Commission's Digital Map of the Region.



Existing Comprehensive Plans-

In support of TOD and long term regional substantial investment.

Aurora Riverfront Vision

— visioning design guidelines for aurora and the fox river

Shape the Future

A Master Plan for Downtown Aurora, Illinois



KANE COUNTY 2012-2016 COMMUNITY HEALTH IMPROVEMENT PLAN



- 2012-2016 Community Health Improvement Plan
- KCHID Strategic Plan
- Fit Kids 2020 Plan



- 2040 Transportation Plan
- Bicycle Pedestrian Plan
- Bus Rapid Transit Study

- 2040 Plan
- 2040 Energy Plan
- Farmland Preservation

— conservation design forum, inc.

Boards And Commissions

Sustainable Aurora

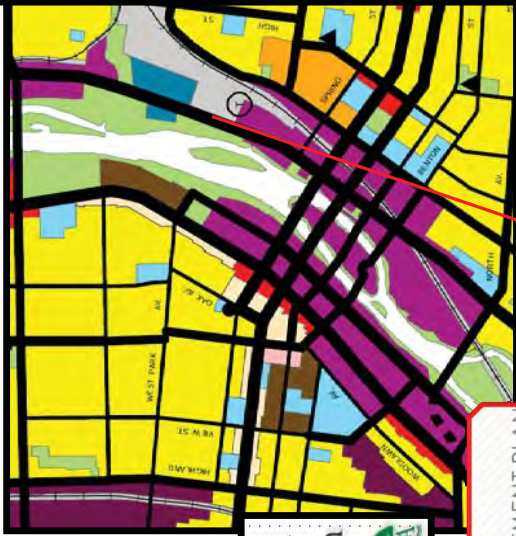
“Sustainable Aurora” (Mayor’s Sustainable Aurora Advisory Board) is an advisory body to the City Council

1984 COMPREHENSIVE PLAN REVISION/UPDATE CITY OF AURORA, ILLINOIS COMPREHENSIVE PLAN GENERAL LAND USE AND CIRCULATION

INTERIM PLAN *

LAND USE

Rivers/Lakes/Ponds/Streams	Public	Quasi - Public	Conservation/Open Space/Recreation (100+ Acres)	Estates (1-100 / Acres)	Low Density Residential (0 - 5 DUs / Acre)	Medium Density Residential (6 - 12 DUs / Acre)	High Density Residential (12+ DUs / Acre)	Office	Comm.	Mixed U. (20 - 30)	Office/	Mixed U. (100+)	Industrial	Utilities	Boundary
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Project Location- TOD
_ Land Use



CITY OF AURORA

BICYCLE AND PEDESTRIAN PLAN

A RIVER THAT IS A PARK | A PARK THAT IS A RIVER
RiverEdge Park Master Plan

The adopted Bicycle and Pedestrian Comprehensive Plan and encourage TOD through the City Revised Comprehensive Plan for this area demonstrate the City support of the Go To 2040 plan.

2008 System-Wide Bicycle-Parking Inventory Report

Division of Capital & Strategic Planning
August 2009



COMPREHENSIVE PLAN PHYSICAL DEVELOPMENT POLICIES

Adopted by the Aurora City Council, April 3, 1984 – Ord. No. 084-5279

The FoxWalk Overlay District Design Guidelines

Regulations and Procedures

REV: 2008

Aurora, Illinois

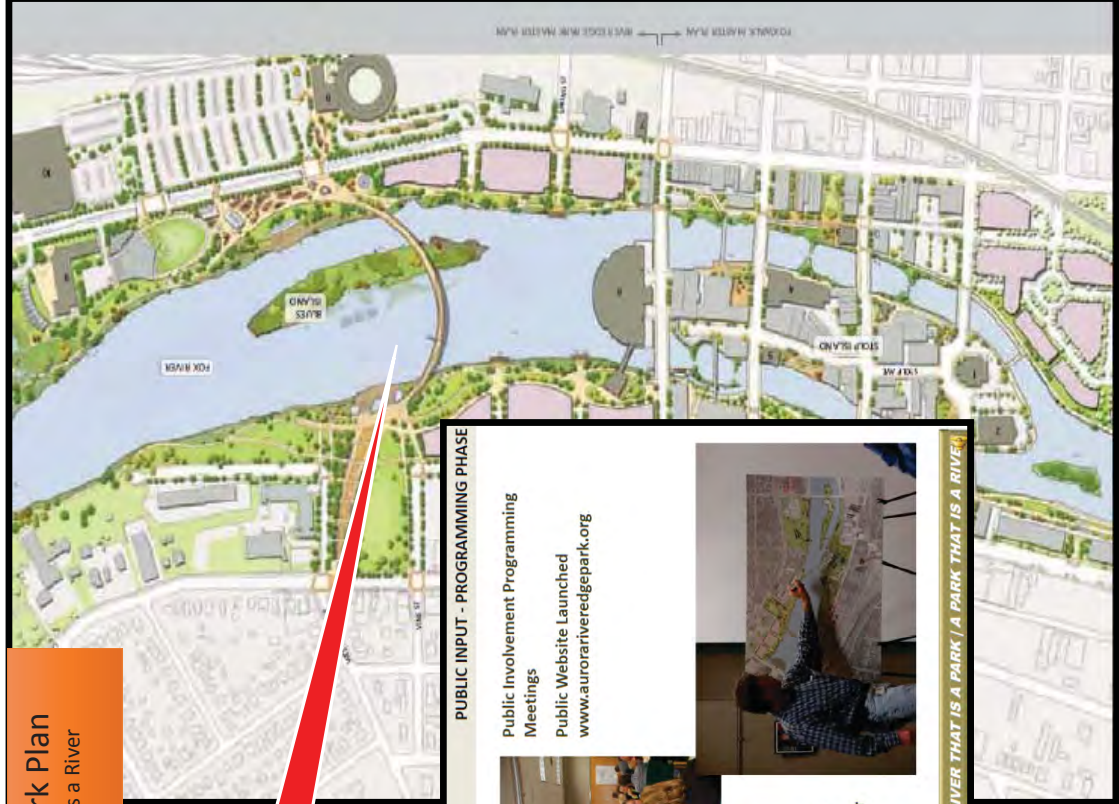
September 2007



517 West Jackson Blvd., Chicago, IL 60661

River Edge Master Park Plan
 River That is A Park A Park that is a River
 2007

**Project Location:
 ATC Parking and
 associated
 improvements**



MUSIC GARDEN DESIGN

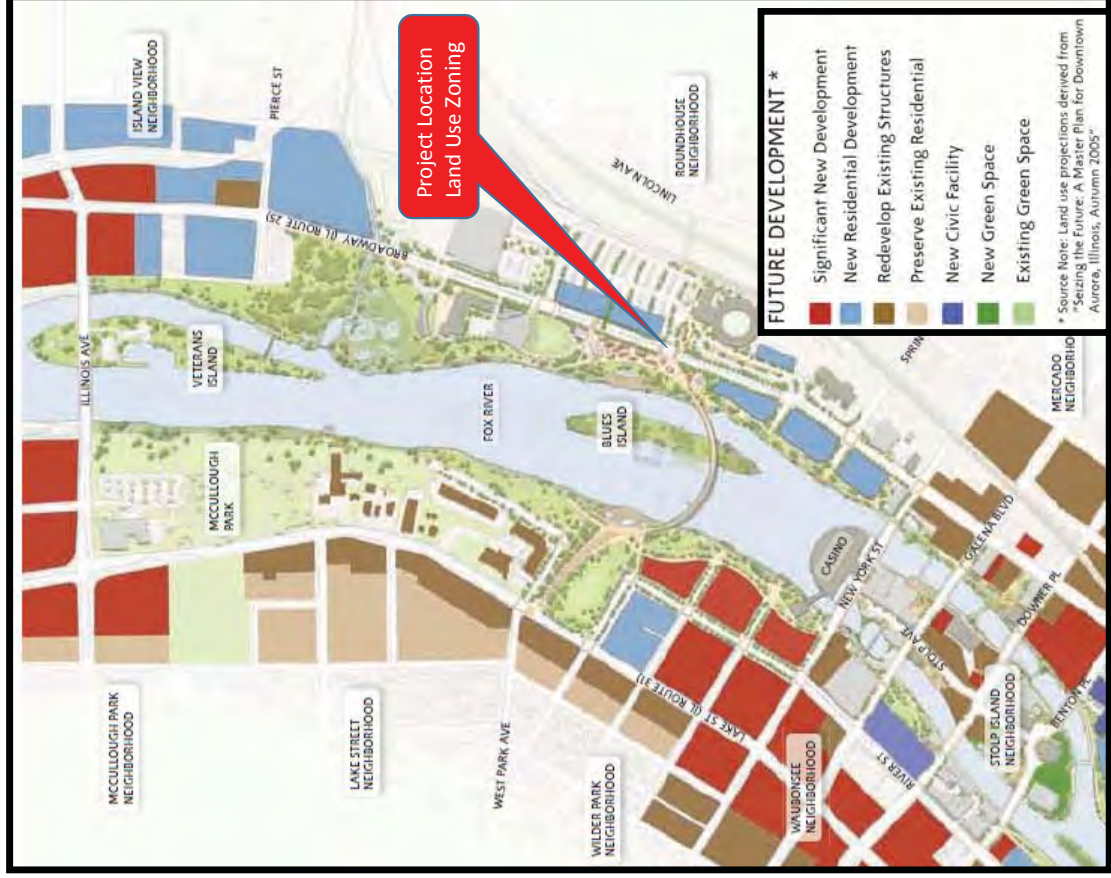
PUBLIC INPUT - PROGRAMMING PHASE

Public Involvement Programming Meetings
 Public Website Launched
www.aurorariveredgepark.org

Presentations to Seize the Future
 Board, Fox Valley Park District Board,
 Aurora Economic Development
 Commission, Greater Aurora Chamber
 of Commerce, Kiwanis, GreenTown
 Conference, ACTV

RiverEdge Park
 A RIVER THAT IS A PARK / A PARK THAT IS A RIVER

Spring/Summer 2008



2012 Construction



DAILY HERALD/Photo courtesy of City of Aurora Public Information Office
RiverEdge Park, where Aurora Mayor Tom Weisner stands with Dunham Fund Board Chairman Stewart Beach, left, and Dunham Fund board member Michael Morcos, right, will be a gathering place for the community and an economic engine when it's completed, Weisner said Thursday during his State of the City address.

The Beacon-News

FRIDAY, JUNE 17, 2011 | BEACONNEWSLINE.COM • 1,178,700 VIEWS THIS PAST WEEK



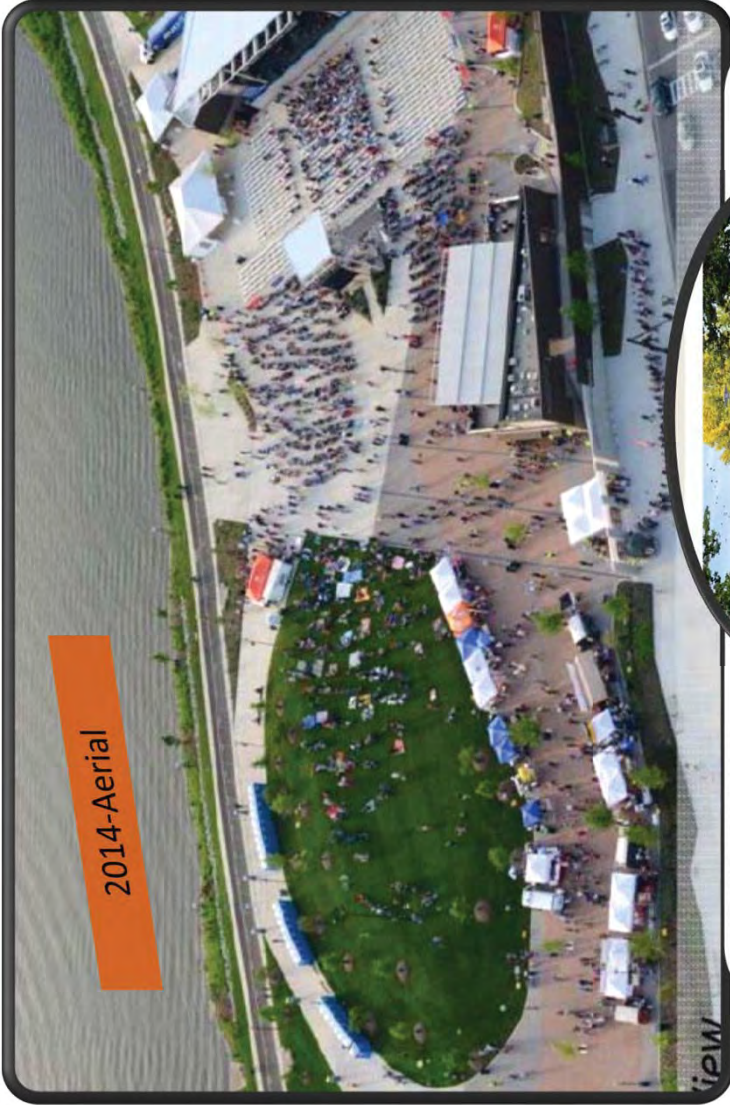
FROM THE MAIN STAGE, **STAGERS ARE ALMOST SET — AND PARK COMING ALONG**
 Musicians will be highlights of Aurora's new RiverEdge Park. — JAMES K. S.

Aurora embraces Fox River in its revitalization efforts



JEFF HUBBARD, president of Aurora Downtown and spokesman for Windness Community College, says the college's new \$50 million campus and RiverEdge Park top a list of projects reshaping land use along the Fox River through the city's commercial corridor. — WALTER STAFF PHOTOGRAPHER

2014-Aerial



ALBUQUERQUE NEWS-ONLINE.COM | TUESDAY, APRIL 10, 2012

RiverEdge Park coming into shape

Workers progressing at downtown Aurora's new riverbank showplace



Site layout for Aurora's RiverEdge Park, scheduled to open in 2013.

COMPLETE STATIONS REPORT for KANE COUNTY

The Aurora Metra station is the final stop on the BNSF Metra line from Aurora to Chicago. The station is located within a 10 minute walk of downtown Aurora, but is separated from the station from all sides, there are major regional bike trails on both the east and west sides of the Fox River, and 8 Pace bus routes serve the station. Approximately 2,000 people board or alight the train each weekday morning. More than half the train riders live outside the city limits.

Key issues and opportunities for the station:

No direct route across the Fox River for people on bikes

Broadway lacks accommodations for people on bikes

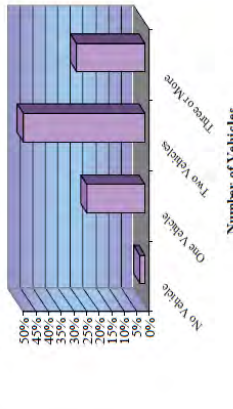
All traffic signals on Broadway near the station should accommodate pedestrians on all sides.

A new trail entrance has been constructed across from the parking lot entrance. A crosswalk and/or traffic signal should be installed there.

The Greater Aurora Transit Area

The Greater Aurora Transit Area includes the City of Aurora, the Village of North Aurora, the Village of Montgomery, the Village of Sugar Grove, and unincorporated areas of Kane County. This area has experienced 31 percent population growth from 1990 to 2000 and employment is expected to increase in this area by approximately 80 percent between 1990 and 2020 according to projections by the Northeastern Illinois Planning Commission (NIPC). The Greater Aurora Transit Area is expected to have over 100,000 jobs by the year 2020.

Numbers of Vehicles Per Household in Kane County



INTERGOVERNMENTAL AGREEMENT FOR BRIDGE CONTRIBUTION

THIS INTERGOVERNMENTAL AGREEMENT (the "Agreement") is made and entered into as of the 9th day of February, 2010, by and between the FOREST PRESERVE DISTRICT OF KANE COUNTY, an Illinois municipal corporation (hereinafter referred to as the "FPDKC") and the CITY OF AURORA, an Illinois municipality (hereinafter referred to as the "CITY").

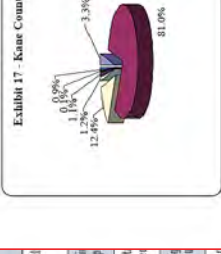
KANE COUNTY TRANSIT OPPORTUNITY ASSESSMENT STUDY



All new Fox River Bridge crossings should be accessible to people walking, biking and using transit. Transit connections to the proposed E&E passenger line should be established.

2013-14
Kane & Northern Kendall Counties Bicycle Map
Kane County Highway Map
Share the Road
Published by Kane County Association of Municipalities
Kane County Board of Supervisors
Local Public Utilities

Exhibit 17 contains a breakdown of the percentage of trips taken in Kane County by the mode of travel. The automobile, both as a driver and passenger, dominates as a travel method in Kane County representing 93.4 percent. Walking has a share of 3.3 percent. This is higher than public transit, which accounts for 1.1 percent.



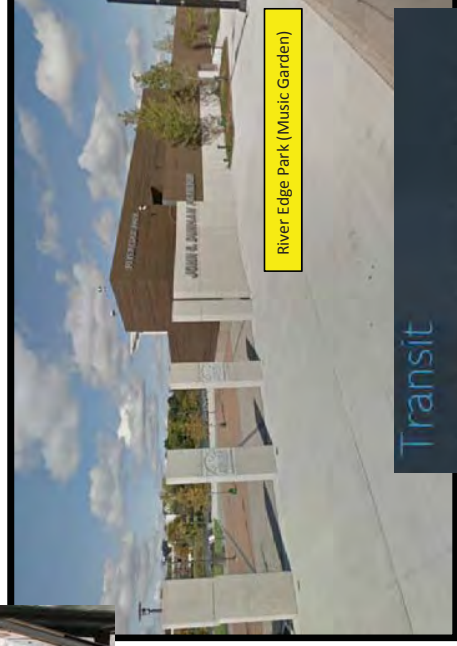
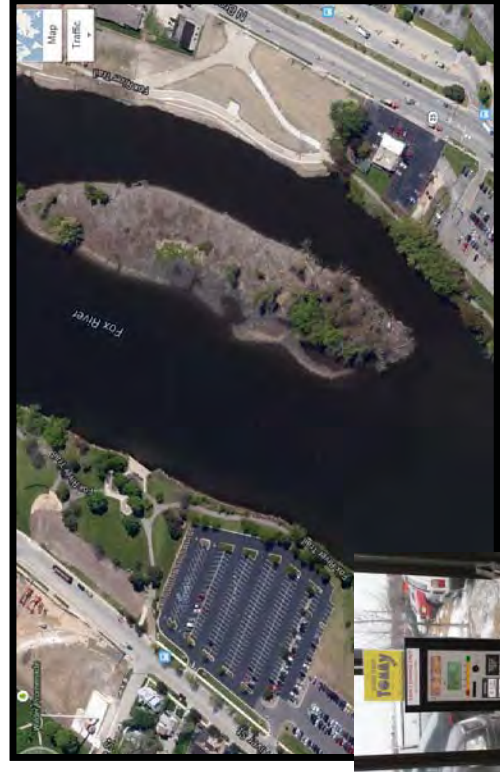
Train Ridership and Mode	The station has about 2,000 riders, but only 33 arrive on foot, bike or bus.
Review of Local Plans	The City is very proactive about improving the station area and is constantly developing bike and pedestrian compatible land uses in the station area.
Station House and Platform Amenities	The station house has long hours, restrooms, concessions and ample seating. There are many transit supportive land uses a few blocks away from the station. Leased retail spaces that, if filled, would make the station a more inviting place.
Station Area Context	There are many transit supportive land uses a few blocks away from the station. Leased retail spaces that, if filled, would make the station a more inviting place.
Signs	The immediate area surrounding the station is well-signed. Signs informing riders of transit services and transit routes are available inside the station house, but wayfinding signage in the surrounding area is limited.
Intersections	Most intersections near the station have at least some accommodations for pedestrians and bicyclists. The intersection at Spring and Broadway is well-served by a pedestrian underpass and a bicycle lane.
Track Crossings	There are two underpasses, a pedestrian underpass at Elm St. and an underpass at Spring. The underpass at Spring could benefit from additional lighting.
Pedestrian Access	Almost all streets within a 10-15 minute walk have sidewalks and at least some pedestrian accommodations at the intersections. Sidewalk on Broadway could be widened or improved with a buffer from traffic.
Bike Access	The neighborhood east of the station has many bike friendly streets, but accessing the station from the west on bike can be challenging. Consider adding a bike lane or shared lane markings on Lincoln Avenue and a side path on Broadway. A bike path bridge across the Fox River would help connect people walking and biking to the station from the west.
Bicycle parking at the Station	Bike parking at the station is limited, and there is no covered parking. Bikes were locked to fences, railings and trees, illustrating the need for more bike parking.
Transit Connections	The station is well served by Pace buses, but there is limited information on routing and exact bus arrival times. Some of the buses pick up or drop off the station, but others are often walking rather than a majority of the parking spaces.

Existing Condition



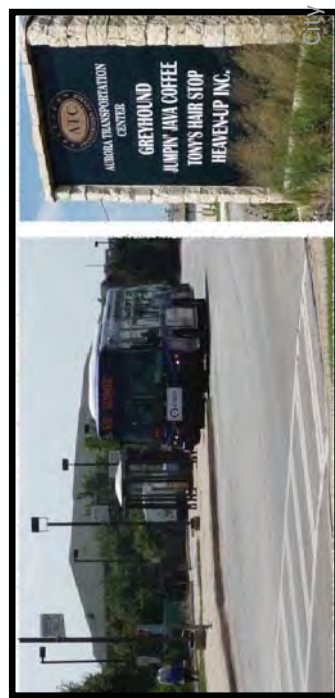
Existing electrical charging stations

To maintain a well, safe and pedestrian friendly transit center and promote the use of transit, the City has invested in licensed plat readers (increase efficient), new pay stations (pay via smart phone) and installed electrical charging stations. These technologies are available at the Aurora Station, which will help retain/attract new riders. The proposed improvements are our commitment to transit use and how it can impact the surrounding communities.



River Edge Park (Music Garden)

Transit
 The region must increase its commitment to making public transit the preferred option for...
 FY 2016-2020



City of Aurora, CMAQ Grant

Trip Reduction/Elimination Benefits Calculation

Trip Reduction Calculation and Trip Generation Calculations based on Comparison of Transit Oriented Development				
		Standard (ITE Manual (Trip Generation)	Transit Oriented Development (TCRP Report 128) Effects of TOD on Housing, Parking and Travel.	Approx. Number of Trip Reduce
TOD Development	Dwelling Unit	6.67 trips per dwelling unit	3.55 trip per dwelling unit	
River Street Plaza (0.5 mile from ATC) constructed 2006	95	634	337	296
Fox River East TOD (lot size 4.2 ac)* approximate DU based on similar design	176	1177	626	550
		1810	963	847

Transit Oriented Development		
Project Name	lot size	DU
River Street Plaza-2006	2.8	95
Future TOD (Fox River East)	4.2ac	176.4

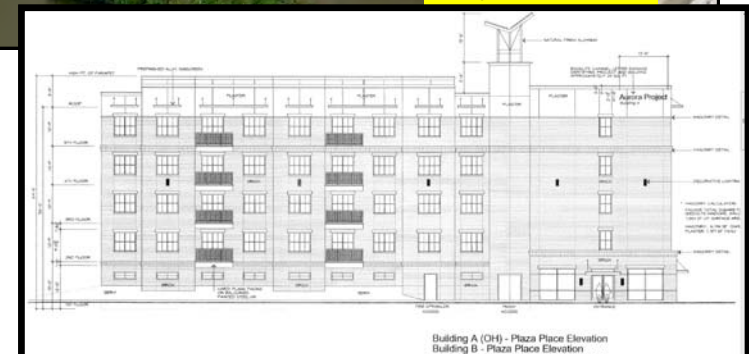
Notes: Assume similar design as Plaza of New York 5 stories condo bldg. (1st floor parking). Dwelling unit: 42unit/ac)

Existing Parking Capacity	
Metra Parking Count 2014	1633
New Parking at ATC	74
Proposed Parking- West Parking Lots	715
Total Available Parking Spaces	2422

Notes: 307 of space are private

Auto Trips Eliminated Per Day (Round Trips)-Addition of New Parking Spaces	
715	West Parking Lot
74	New ATC Parking Space
847	TOD
1636	One Way
3272	Round Trip (Auto Trips Eliminated)

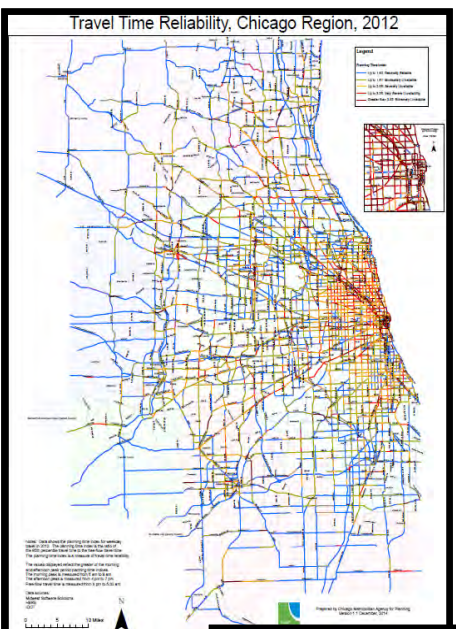
Line Haul Length of Trip Diverted			
miles			
Line Haul Trip-Transit Facility (ATC) to Destination (Union Station)	from ATC to Union Station- Chicago	37.5	post mile marker at Aurora Stop (ATC)
Total Length Trips Eliminated		37.5	



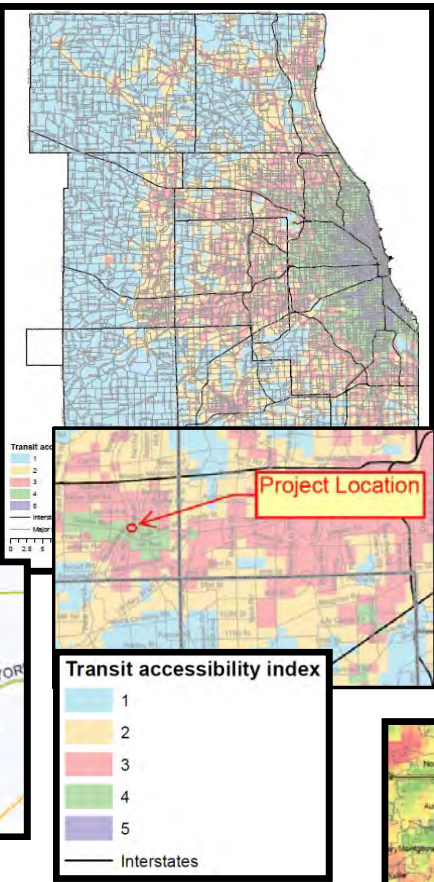
Region Congestion Management Map



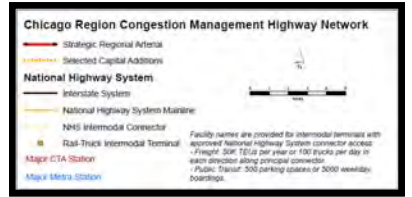
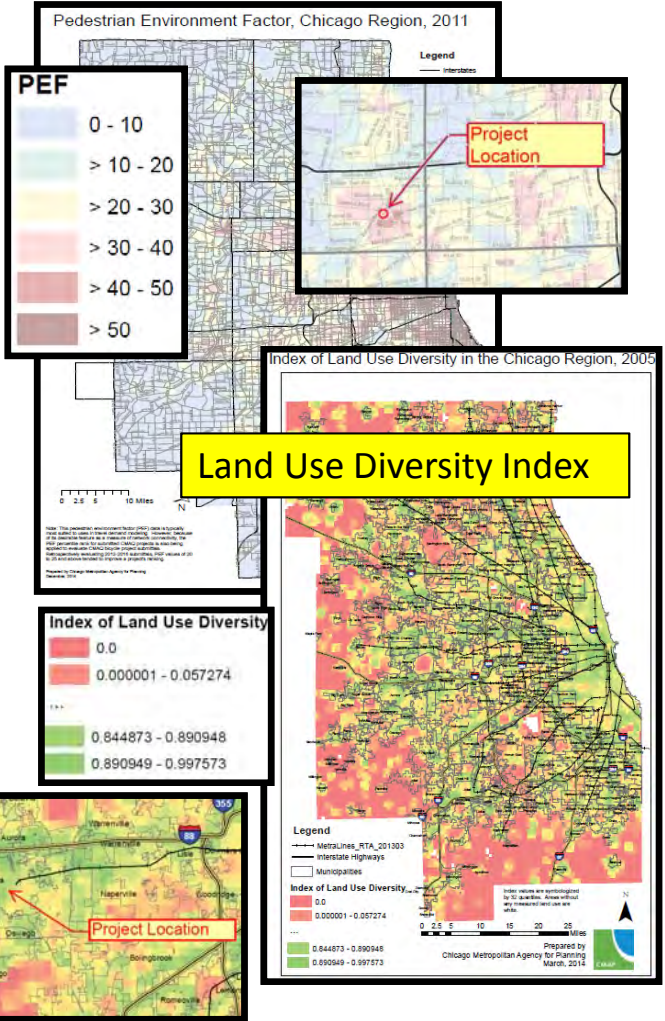
Travel Time Reliability Index Map



Transit Accessibility Index Map



Pedestrian Environment Factor and Land Use Diversity Index Maps



Traffic Study & Traffic Volume-Intersection Improvements

Notes:

- Commuter Peak Hours are:
A.M. : 7:00 A.M. to 8:00 A.M.
P.M. : 5:00 P.M. to 6:00 P.M.
- Event Peak Hour is weekday 6:30 P.M. to 7:30 P.M.
- 2015 Background Traffic is 2008 Existing Traffic with a 0.54% growth rate per year for 7 years per Chicago Metropolitan Agency for Planning (CMAP) projections.

City of Aurora
RiverEdge Park Music Garden
Traffic Impact Analysis

2015 BACKGROUND TRAFFIC
A.M. (P.M.) [EVENT] PEAK HOUR

CIVILTECH June 4, 2008 Scale: NTS

Proposed Intersection (see overall location map)

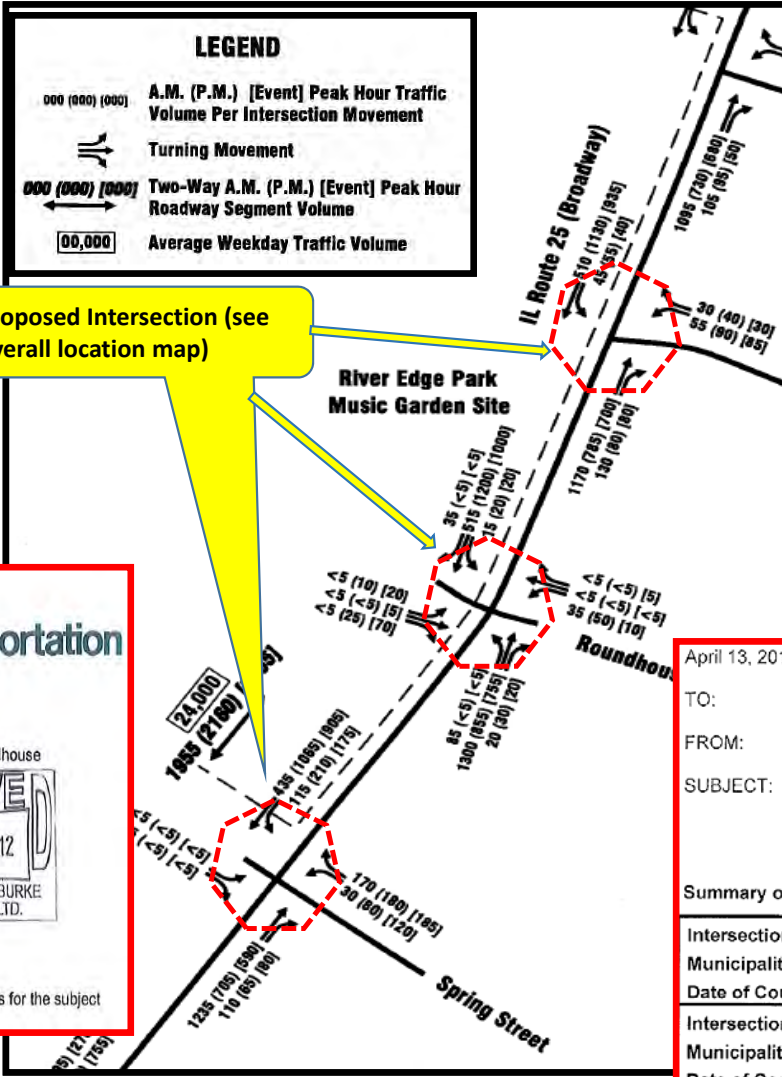
LEGEND

000 (000) (000) A.M. (P.M.) [Event] Peak Hour Traffic Volume Per Intersection Movement

Turning Movement

000 (000) (000) Two-Way A.M. (P.M.) [Event] Peak Hour Roadway Segment Volume

00,000 Average Weekday Traffic Volume



Executive Summary

Aurora RiverEdge Park Music Garden Traffic Impact Study
June 4, 2008

The City of Aurora is planning the redevelopment of several acres of land along the Fox River into a large municipal park and recreational area. The area planned for redevelopment is bounded by New York Street on the south, Illinois Avenue on the north, IL Route 31 (Lake Street) on the west, and IL Route 25 (Broadway) on the east. The focus of this stage of redevelopment is the RiverEdge Park Music Garden, which is proposed to be located along the west side of IL Route 25 between Spring Street and the Aurora Post Office. The main feature of the RiverEdge Park Music Garden is an outdoor amphitheatre with a capacity of 6,000 attendees.

Christopher B. Burke Engineering, Ltd. (CBBEL) has been retained by the City of Aurora to conduct preliminary and design engineering for the RiverEdge Park Music Garden. Civiltech Engineering, Inc. was retained by CBBEL to perform the traffic impact study for this proposed stage of development. The goal of this study was to determine the level of impact generated by the proposed RiverEdge Park Music Garden, and recommend measures to mitigate impacts as necessary.

Existing traffic volumes were collected at intersections along IL Route 25 (Broadway) within the study area. The existing traffic volumes were then adjusted for estimated growth based on regional travel demand modeling and forecasting to establish background traffic volumes for the proposed site opening year plus five years, resulting in a horizon year of 2015.

Estimated site-generated traffic and pedestrian volumes were developed using vehicle occupancy data for a similar site within the region, as well as engineering judgment. Origins and destinations for these trips were determined based on location of residential areas and downtown attractions, as well as location of parking near the RiverEdge Park Music Garden site. These trips were then assigned to the roadway network based on estimated origins and destinations.

Diversion of some traffic under the background traffic conditions was assumed in order to approximate motorists avoiding congestion near the RiverEdge Park Music Garden site.

Illinois Department of Transportation

Division of Highways/Region One / District One
201 West Center Court/Schaumburg, Illinois 60196-1096

PERMITS
Location: IL Route 25 at South Transportation Access, IL 25 at Roundhouse
Reference No : 045-55510
Re: D & M Paid Parking Lot access
September 4, 2012

Mr. G. Michael Ziegler, P.E., PTOE
Head, Traffic Operations Department
Christopher B. Burke Engineering, Ltd.
9575 W. Higgins Road, Suite 600
Rosemont, IL 60018-4920

Dear Mr. Ziegler:

We have completed our review of your Traffic Control Warrant Analysis for the subject location. We offer the following comments:

April 13, 2012

TO: Stephane Phifer

FROM: Mike Ziegler, P.E., PTOE

SUBJECT: IL Route 25
Traffic Control Warrant Analyses
(CBBEL Project No.: 12-0024.0000)

Summary of Findings

Intersection:	IL Route 25 & South Transportation Access		
Municipality:	Aurora	Warrants Met:	MUTCD #3
Date of Counts:	March 20, 2012	Recommendation:	Install Traffic Control Signal.
Intersection:	IL Route 25 & Roundhouse Access		
Municipality:	Aurora	Warrants Met:	None
Date of Counts:	March 20, 2012	Recommendation:	Remove Traffic Control Signal.

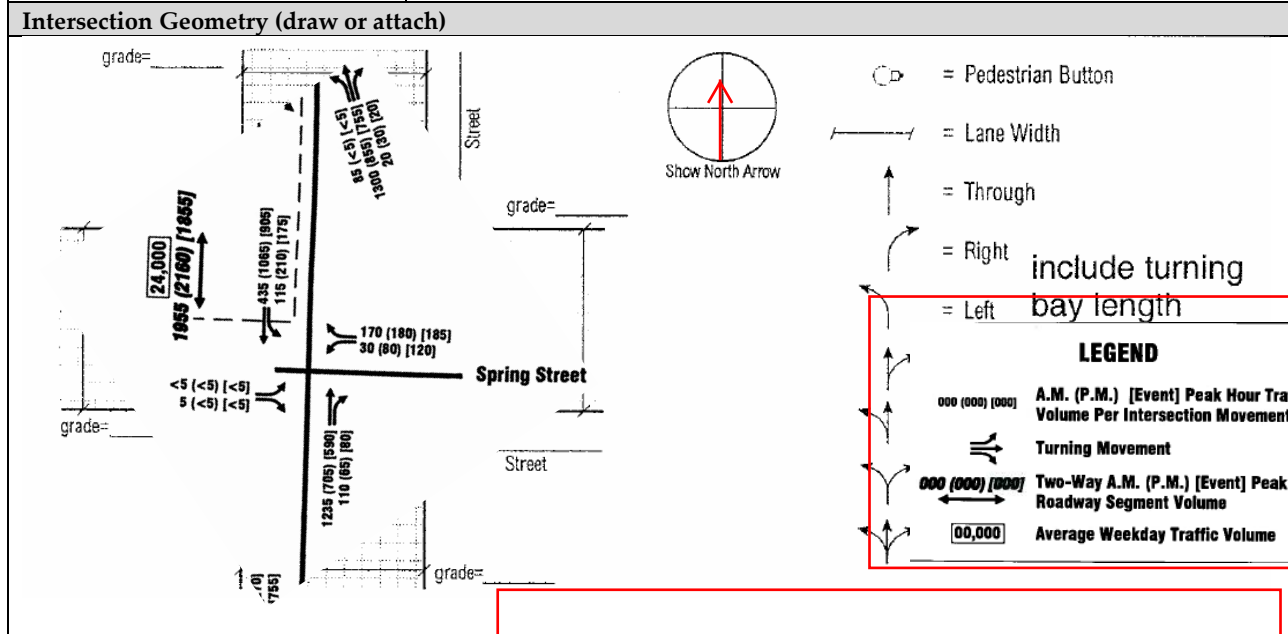
CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>IL Rte. 25 and Spring Street (Signalized)</u>
Analysis Year <u>2008</u>	Area Type <input type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>



Volume and Timing Input

Volume, V (veh/h)

% heavy vehicles, % HV

Peak-hour factor, PHF

Pretimed (P) or actuated (A)

Start-up lost time, I_l (s)

Extension of effective green time, e (s)

Arrival type, AT

Approach pedestrian volume,² V_{ped} (p/h)

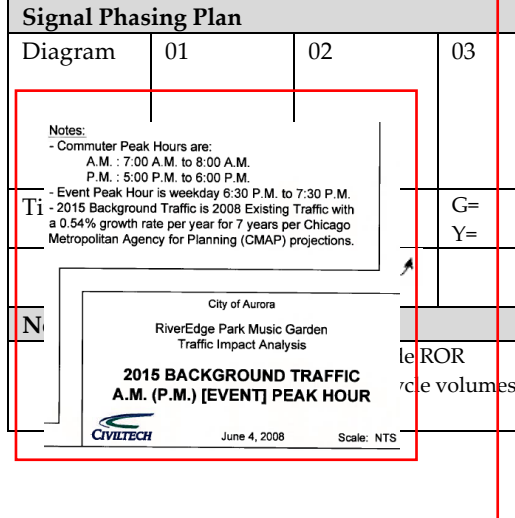
Approach bicycle volume,² V_{bic} (bicycles/h)

Parking (Y or N)

Parking maneuvers, N_m, (maneuvers/h)

Bus Stopping, N_b (buses/h)

Min. timing for pedestrians,³ G_p (s)



HCS+: Signalized Intersections Release 5.2

Analyst: BRD Inter.: Broadway & Spring
 Agency: Civiltech Engineering Area Type: CBD or Similar
 Date: 6/3/2008 Jurisd: IDOT
 Period: Event Peak Hour Year : 2015 Background Traffic
 Project ID: Aurora River Edge Park Music Garden TIS
 E/W St: Spring Street N/S St: IL Route 25 (Broadway)

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	1	0	1	0	2	0	1	2	0
LGConfig	LTR			LR			TR			LT		
Volume	10	0	0	120	185	590	80	1175	905			
Lane Width	12.0			12.0			12.0			12.0		
RTOR Vol	0			0			0			0		

Duration 0.25 Area Type: CBD or Similar

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru	A				Thru	A		
Right	A				Right	A		
Peds	X				Peds	X		
WB Left		A			SB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right	A	A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0	23.0			9.0	27.0		
Yellow	4.0	4.0			3.0	4.0		
All Red	1.0	1.0			0.0	1.0		

Cycle Length: 100.0 secs

Appr/ Lane Grp	Lane Capacity	Adj Sat Flow Rate (s)	Ratio v/c	Ratio g/C	Lane Group Delay LOS	Approach Delay LOS
Eastbound LTR	389	1693	0.00	0.23	29.6 C	
Westbound L	370	1608	0.34	0.23	33.3 C	
Westbound R	331	1439	0.59	0.23	38.5 D	36.5 D
Northbound TR	843	3121	0.84	0.27	43.2 D	43.2 D
Southbound L	221	1601	0.83	0.39	44.9 D	
Southbound T	1310	3359	0.73	0.39	26.4 C	29.4 C

Intersection Delay = 34.9 (sec/veh) Intersection LOS = C

ACTUATED CONTROLLER PROPERTIES

OPERATIONAL ANALYSIS

Analyst: BRD
 Agency/Co.: Civiltech Engineering
 Date Performed: 6/3/2008
 Analysis Time Period: Event Peak Hour
 Intersection: Broadway & Spring
 Area Type: CBD or Similar
 Jurisdiction: IDOT
 Analysis Year: 2015 Background Traffic
 Project ID: Aurora River Edge Park Music Garden TIS
 E/W St: Spring Street N/S St: IL Route 25 (Broadway)

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	10	0	0	120		185	590	80		175	905	
% Heavy Veh	1	1	1	1		1	1	1		1	1	
PHF	0.95	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	
PK 15 Vol	0	0	0	32		49	155	21		46	238	
Hi Ln Vol												
% Grade		0			0		0				0	
Ideal Sat		1900		1900		1900	1900			1900	2000	
ParkExist												
NumPark												
No. Lanes	0	1	0	1	0	1	0	2	0	1	2	0
LGConfig		LTR		L		R		TR		L		T
Lane Width		12.0		12.0		12.0		12.0		12.0	12.0	
RTOR Vol			0			0			0			
Adj Flow		0		126		195		705		184	953	
%InSharedLn												
Prop LTs		0.000						0.000			1.000	0.000
Prop RTs		0.000					1.000	0.119		0.000		
Peds Bikes	5		0		9			10		0		
Buses		0		10		0		6		10	5	
%InProtPhase										1	0.0	

Area Type: CBD or Similar

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet		0.0		0.0		0.0		0.0		0.0	0.0	
Arriv. Type		3		3		3		4		4	4	
Unit Ext.		3.0		5.0		5.0		7.0		13.0	7.0	
I Factor		1.000			1.000			0.967			0.926	
Lost Time		2.0		2.0		2.0		2.0		2.0	2.0	
Ext of g		2.0		2.0		2.0		2.0		2.0	2.0	
Ped Min g		3.2			3.3			3.3				

Phase Set

Phase

Max Green

Min Green

Amber

All Red

Veh. Ext.

Min Recd

Max Recd

8

ACTUATED CONTROLLER COORDINATION

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left			
Thru	A				Thru	A		
Right	A				Right	A		
Peds	X				Peds	X		
WB Left		A			SB Left	A	A	
Thru		A			Thru	A	A	
Right		A			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0	23.0			9.0	27.0		
Yellow	4.0	4.0			3.0	4.0		
All Red	1.0	1.0			0.0	1.0		

Cycle Length: 100.0 secs

seconds

	6	7	8
0			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	10	0	0	120	185		590	80		175	905	
PHF	0.95	0.95	0.95	0.95	0.95		0.95	0.95		0.95	0.95	
Adj flow	10	0	0	126	195		621	84		184	953	
No. Lanes	0	1	0	1	0	1	0	2	0	1	2	0
Lane group		LTR		L		R		TR		L		T
Adj flow		0		126		195		705		184		953
Prop LTs		0.000						0.000		1.000		0.000
Prop RTs		0.000			1.000		0.119				0.000	

iods

Begin Times

2	<input type="text"/>	3	<input type="text"/>
---	----------------------	---	----------------------

End Times

2	<input type="text"/>	3	<input type="text"/>
---	----------------------	---	----------------------

Control Delay and LOS Determination

Appr/Lane Grp	Ratios v/c	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Res Del d2	Res Del d3	Lane Group Delay	Approach LOS
Eastbound									
LTR	0.00	0.23	29.6	1.000	389	0.11	0.0	0.0	29.6 C
Westbound									
L	0.34	0.23	32.2	1.000	370	0.23	1.2	0.0	33.3 C
R	0.59	0.23	34.3	1.000	331	0.28	4.2	0.0	38.5 D
Northbound									
TR	0.84	0.27	34.4	1.000	843	0.46	8.7	0.0	43.2 D
Southbound									
L	0.83	0.39	23.3	1.000	221	0.37	21.5	0.0	44.9 D
T	0.73	0.39	26.0	0.905	1310	0.44	2.9	0.0	26.4 C

Intersection delay = 34.9 (sec/veh) Intersection LOS = C

CAPACITY AND LOS WORKSHEET

Appr/Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound						
Prot Left						
Prot Thru Right	LTR	0	1693	0.00	0.23	389
Westbound						
Prot Left	L	126	1608	0.08	0.23	370
Prot Thru Right	R	195	1439	0.14	0.23	331
Northbound						
Prot Thru Right	TR	705	3121	0.23	0.27	843
Southbound						
Prot Left	L	184	256	0.16	0.39	221
Prot Thru Right	T	953	3359	0.28	0.39	1310

Sum of flow ratios for critical lane groups, $Y_c = \sum (v/s) = 0.45$
 Total lost time per cycle, $L = 20.00$ sec
 Critical flow rate to capacity ratio, $X_c = (Y_c) / (C-L) = 0.56$

CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

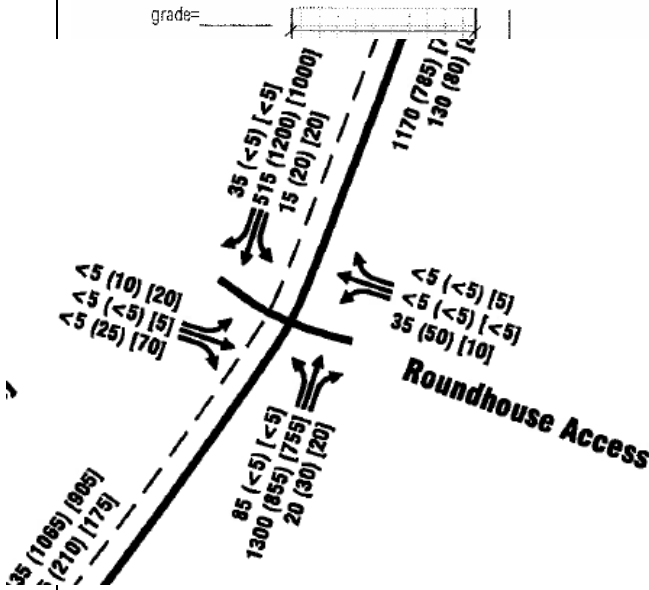
Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>IL. Rte 25 and Roundhouse Entrance (Signalized)</u>
Analysis Year <u>2008</u>	Area Type <input type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>

Intersection Geometry (draw or attach)



- = Pedestrian Button
- = Lane Width
- = Through
- = Right **include turning bay length**
- = Left **bay length**
- = Through + Right
- = Left + Through
- = Left + Right
- = Left + Through + Right

Volume and Timing Input		EB	TH
	LT		
Volume, V (veh/h)			
% heavy vehicles, % HV			
Peak-hour factor, PHF			
Pretimed (P) or actuated (A)			
Start-up lost time, I _l (s)			
Extension of effective green time, e (s)			
Arrival type, AT			
Approach pedestrian volume, ² V _{ped} (p/h)			
Approach bicycle volume, ² V _{bic} (bicycles/h)			
Parking (Y or N)			
Parking maneuvers, N _m , (maneuvers/h)			
Bus Stopping, N _B (buses/h)			
Min. timing for pedestrians, ³ C _p (s)			

Signal Phasing Plan				
Diagram	01	02	03	04
Timing	G= Y=	G= Y=	G= Y=	G= Y=
	Protected turns			Permitted Ped

- Notes**
- RT volumes, as shown, exclude ROR
 - Approach pedestrian and bicycle volumes are those that
 - Refer to Equation 16-2

HCS+: Signalized Intersections Release 5.2

Analyst: BRD Inter.: Broadway & Roundhouse Ent.
 Agency: Civiltech Engineering Area Type: All other areas
 Date: 05/21/2008 Jurisd: IDOT
 Period: Event Peak Hour Year : 2015 Background Traffic
 Project ID: Aurora River Edge Music Garden TIS
 E/W St: Roundhouse Entrance N/S St: IL Route 25 (Broadway)

SIGNALIZED INTERSECTION SUMMARY												
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	1	0	1	1	2	0	1	2	0
LGConfig	LTR			L	L	TR	L	TR		L	TR	
Volume	20	5	70	10	5	10	755	20		20	1000	0
Lane Width	12.0			12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vol	0					0						0

Duration 0.25 Area Type: All other areas

Phase Combination	Signal Operations							
	1	2	3	4	5	6	7	8
EB Left	A							
Thru	A							
Right	A							
Peds	X							
WB Left		A						
Thru		A						
Right		A						
Peds		X						
NB Right								
SB Right								
Green	29.0				5.0 53.0			
Yellow	4.0				3.0 4.0			
All Red	1.0				0.0 1.0			

Cycle Length: 100.0 secs

Intersection Performance Summary									
Appr/ Lane Gp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach		
			v/c	g/C	Delay	LOS	Delay	LOS	
Eastbound									
LTR	457	1577	0.22	0.29	27.2	C	27.2	C	
Westbound									
L	358	1236	0.03	0.29	25.5	C	25.4	C	
Northbound									
L	464	1599	0.01	0.29	25.3	C			
L	271	512	0.00	0.53	11.0	B			
TR	1891	3567	0.43	0.53	10.6	B	10.6	B	
Southbound									
L	385	1782	0.05	0.61	8.3	A			
TR	2185	3582	0.48	0.61	6.3	A	6.3	A	

Intersection Delay = 9.2 (sec/veh) Intersection LOS = A

ACTUATED CONTROLLER PROPERTIES

OPERATIONAL ANALYSIS												
Analyst:	BRD											
Agency/Co.:	Civiltech Engineering											
Date Performed:	05/21/2008											
Analysis Time Period:	Event Peak Hour											
Intersection:	Broadway & Roundhouse Ent.											
Area Type:	All other areas											
Jurisdiction:	IDOT											
Analysis Year:	2015 Background Traffic											
Project ID:	Aurora River Edge Music Garden TIS											
E/W St:	Roundhouse Entrance				N/S St: IL Route 25 (Broadway)							
VOLUME DATA												
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	20	5	70	10	5	10	755	20	20	1000	0	0
% Heavy Veh	1	1	1	1	1	1	1	1	1	1	1	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PK 15 Vol	5	2	18	3	2	10	199	5	15	263	0	0
Hi Ln Vol												
% Grade	0			0			0			0		
Ideal Sat	1900			1900			1900			1900		
ParkExist												
NumPark												
No. Lanes	0	1	0	1	0	1	1	2	0	1	2	0
LGConfig	LTR			L		R	L	TR		L	TR	
Lane Width	12.0			12.0			12.0			12.0		
RTOR Vol	0			0			0			0		
Adj Flow	100			11			5			816		
%InSharedLn												
Prop LTs	0.210			1.000			1.000			0.000		
Prop RTs	0.740			1.000			0.026			0.000		
Peds Bikes	77	0	0	4	0	0	10	0	6	0	0	0
Buses	0	0	0	0	0	0	0	0	0	0	0	0
%InProtPhase										0.0		
Duration	0.25			Area Type: All other areas								
OPERATING PARAMETERS												
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Phase	Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Green	Arriv. Type	3	3	3	4	4	4	4	4	4	4	4
Min Green	Unit Ext.	3.5	2.5	2.5	2.5	5.0	2.5	5.0	2.5	5.0	2.5	5.0
Amber	I Factor	1.000	1.000	1.000	0.896	0.896	0.896	0.896	0.896	0.896	0.896	0.896
All Red	Lost Time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Ext of g	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Ped Min g	3.8	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Veh. Ext.												
Min Recall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Max Recall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Phase Settings (A)

Notes:

- Commuter Peak Hours are:
A.M. : 7:00 A.M. to 8:00 A.M.
P.M. : 5:00 P.M. to 6:00 P.M.
- Event Peak Hour is weekday 6:30 P.M. to 7:30 P.M.
- 2015 Background Traffic is 2008 Existing Traffic with a 0.54% growth rate per year for 7 years per Chicago Metropolitan Agency for Planning (CMAP) projections.

City of Aurora
RiverEdge Park Music Garden
Traffic Impact Analysis
2015 BACKGROUND TRAFFIC
A.M. (P.M.) [EVENT] PEAK HOUR



June 4, 2008

Scale: NTS

LEGEND

- 000 (000) [000]** A.M. (P.M.) [Event] Peak Hour Traffic Volume Per Intersection Movement
- Turning Movement
- 000 (000) [000]** Two-Way A.M. (P.M.) [Event] Peak Hour Roadway Segment Volume
- [00,000]** Average Weekday Traffic Volume

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds	X				Peds	X		
WB Left	A				SB Left	A	A	
Thru					Thru	A	A	
Right	A				Right	A	A	
Peds					Peds	X	X	
NB Right					EB Right			
SB Right					WB Right			
Green	29.0				5.0	53.0		
Yellow	4.0				3.0	4.0		
All Red	1.0				0.0	1.0		

in seconds

	6	7	8
	0		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cycle Length: 100.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
Volume, V	20	5	70	10	5	10	755	20	120	1000	0		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj flow	21	5	74	11	5	10	795	21	121	1053	0		
No. Lanes	0	1	0	1	0	1	1	2	0	1	2	0	
Lane group	LTR			L	R		L	TR	L	TR			
Adj flow	100			11	5		10	816	121	1053			
Prop LTs	0.210			1.000			1.000			0.000			
Prop RTs	0.740			1.000			0.026			1.000			

Periods

Begin Times

<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>
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End Times

Control Delay and LOS Determination

Appr/ Lane Grp	Ratio v/c	Ratio g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Res Del d2	Res Del d3	Lane Group	Delay	LOS	Approach
Eastbound												
LTR	0.22	0.29	26.9	1.000	457	0.13	0.3	0.0	27.2	C	27.2	C
Westbound												
L	0.03	0.29	25.4	1.000	358	0.08	0.0	0.0	25.5	C	25.4	C
R	0.01	0.29	25.3	1.000	464	0.08	0.0	0.0	25.3	C		
Northbound												
L	0.00	0.53	11.0	1.000	271	0.08	0.0	0.0	11.0	B		
TR	0.43	0.53	14.3	0.718	1891	0.23	0.3	0.0	10.6	B	10.6	B
Southbound												
L	0.05	0.61	8.2	1.000	385	0.08	0.0	0.0	8.3	A		
TR	0.48	0.61	10.8	0.550	2185	0.23	0.3	0.0	6.3	A	6.3	A

Intersection delay = 9.2 (sec/veh) Intersection LOS = A

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity									
Appr/ Lane Grp	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio		
Eastbound									
	Prot								
	Perm								
	Left								
	Prot								
	Perm								
	Thru	LTR	100	1577	0.06	457	0.22		
	Right								
Westbound									
	Prot								
	Perm								
	Left	L	11	1236	0.01	358	0.03		
	Prot								
	Perm								
	Thru	R	5	1599	0.00	464	0.01		
	Right								
Northbound									
	Prot								
	Perm								
	Left	L	0	512	0.00	271	0.00		
	Prot								
	Perm								
	Thru	TR	816	3567	0.23	1891	0.43		
	Right								
Southbound									
	Prot		21	1782	0.01	89	0.24		
	Perm		0	528	0.00	296	0.00		
	Left	L	21		0.61	385	0.05		
	Prot								
	Perm								
	Thru	TR	1053	3582	0.29	2185	0.48		
	Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.36
 Total lost time per cycle, L = 10.00 sec
 Critical flow rate to capacity ratio, Xc = (Yc) (C) / (C-L) = 0.40

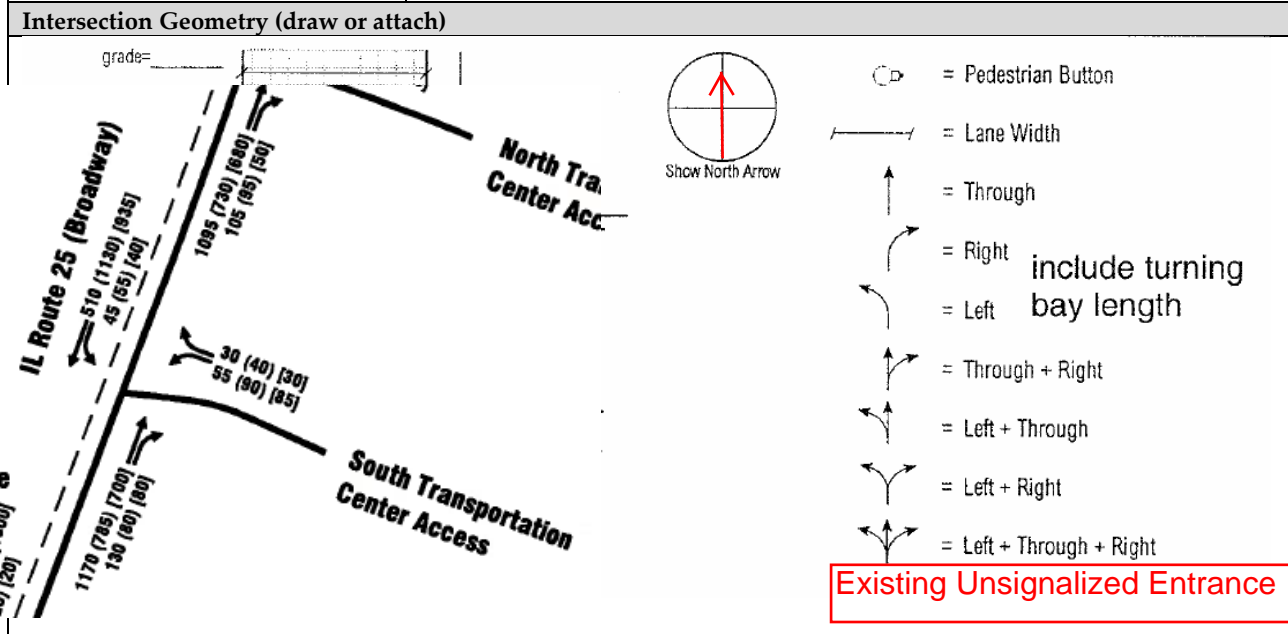
CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>Broadway Street (IL. 25) and South Entrance to ATC</u>
Analysis Year <u>2008</u>	Area Type <input type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>



Volume and Timing Input		Timing	
		G	Y
		03	04
Volume, V (veh/h)			
% heavy vehicles, % HV			
Peak-hour factor, PHF			
Pretimed (P) or actuated (A)			
Start-up lost time, I _l (s)			
Extension of effective green time, e (s)			
Arrival type, AT			
Approach pedestrian volume, ² V _{ped} (p/h)			
Approach bicycle volume, ² V _{bic} (bicycles/h)			
Parking (Y or N)			
RT Channelized?			
Lanes			
Configuration			
Upstream Signal?			
Flared Approach?			
Lanes			
Configuration			
Delay, Queue Length, and Level of Service			
v (vph)			
C(m) (vph)			
v/c			
95% queue length			
Control Delay			
LOS			
Approach Delay			
Approach LOS			

LEGEND

- A.M. (P.M.) [Event] Peak Hour Traffic Volume Per Intersection Movement
- Turning Movement
- Two-Way A.M. (P.M.) [Event] Peak Hour Roadway Segment Volume
- Average Weekday Traffic Volume

Notes:

- Commuter Peak Hours are: A.M. : 7:00 A.M. to 8:00 A.M. P.M. : 5:00 P.M. to 6:00 P.M.
- Event Peak Hour is weekday 6:30 P.M. to 7:30 P.M.
- 2015 Background Traffic is 2008 Existing Traffic with a 0.54% growth rate per year for 7 years per Chicago Metropolitan Agency for Planning (CMAP) projections.

City of Aurora
RiverEdge Park Music Garden
Traffic Impact Analysis

2015 BACKGROUND TRAFFIC A.M. (P.M.) [EVENT] PEAK HOUR

CIVILTECH June 4, 2008 Scale: NTS

HCS+: Unsignalized Intersections Release 5.2

TWO-WAY STOP CONTROL SUMMARY

Analyst: BRD
Agency/Co.: Civiltech Engineering
Date Performed: 05/21/2008
Analysis Time Period: Event Peak Hour
Intersection: Broadway & South ATC Ent
Jurisdiction: IDOT
Units: U. S. Customary
Analysis Year: 2015 Background Traffic
Project ID: Aurora River Edge Park Music Garden TIS
East/West Street: South ATC Entrance
North/South Street: IL Route 25 (Broadway)
Intersection Orientation: NS Study period (hrs): 0.25

Major Street: Approach Movement	Northbound			Southbound		
	L	T	R	L	T	R
Volume	700	80	40	935		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR	736	84	42	984		
Percent Heavy Vehicles	--	--	1	--		
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	2	0		1	2	
Configuration	T	TR		L	T	
Upstream Signal?	Yes			Yes		

Minor Street: Approach Movement	Westbound			Eastbound		
	L	T	R	L	T	R
Volume	85		30			
Peak Hour Factor, PHF	0.95		0.95			
Hourly Flow Rate, HFR	89		31			
Percent Heavy Vehicles	1		1			
Percent Grade (%)	0			0		
Flared Approach?	Exists?/Storage			No /		
Lanes	0		0			
Configuration	LR					

Approach Movement	NB	SB	Westbound			Eastbound		
	1	4	7	8	9	10	11	12
Lane Config	L	L	L	L	L	L	L	L
v (vph)	42		120					
C(m) (vph)	811		170					
v/c	0.05		0.71					
95% queue length	0.16		4.28					
Control Delay	9.7		65.4					
LOS	A		F					
Approach Delay			65.4					
Approach LOS			F					

ACTUATED CONTROLLER PROPERTIES

		<p>----- TWO-WAY STOP CONTROL (TWSC) ANALYSIS -----</p> <p>Analyst: BRD Agency/Co.: Civiltech Engineering Date Performed: 05/21/2008 Analysis Time Period: Event Peak Hour Intersection: Broadway & South ATC Ent Jurisdiction: IDOT Units: U. S. Customary Analysis Year: 2015 Background Traffic Project ID: Aurora River Edge Park Music Garden TIS East/West Street: South ATC Entrance North/South Street: IL Route 25 (Broadway) Intersection Orientation: NS</p> <p style="text-align: right;">Study period (hrs): 0.25</p>	4																																																																																				
	1	<p style="text-align: center;">Vehicle Volumes and Adjustments</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Major Street Movements</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> <tr> <td></td> <th>L</th> <th>T</th> <th>R</th> <th>L</th> <th>T</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>Volume</td> <td></td> <td>700</td> <td>80</td> <td>40</td> <td>935</td> <td></td> </tr> <tr> <td>Peak-Hour Factor, PHF</td> <td></td> <td>0.95</td> <td>0.95</td> <td>0.95</td> <td>0.95</td> <td></td> </tr> <tr> <td>Peak-15 Minute Volume</td> <td></td> <td>184</td> <td>21</td> <td>11</td> <td>246</td> <td></td> </tr> <tr> <td>Hourly Flow Rate, HFR</td> <td></td> <td>736</td> <td>84</td> <td>42</td> <td>984</td> <td></td> </tr> <tr> <td>Percent Heavy Vehicles</td> <td></td> <td>--</td> <td>--</td> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>Median Type/Storage</td> <td colspan="3">Undivided</td> <td colspan="3">/</td> </tr> <tr> <td>RT Channelized?</td> <td colspan="6"></td> </tr> <tr> <td>Lanes</td> <td></td> <td>2</td> <td>0</td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>Configuration</td> <td></td> <td>T</td> <td>TR</td> <td></td> <td>L</td> <td>T</td> </tr> <tr> <td>Upstream Signal?</td> <td></td> <td colspan="3">Yes</td> <td colspan="2">Yes</td> </tr> </tbody> </table>	Major Street Movements	1	2	3	4	5	6		L	T	R	L	T	R	Volume		700	80	40	935		Peak-Hour Factor, PHF		0.95	0.95	0.95	0.95		Peak-15 Minute Volume		184	21	11	246		Hourly Flow Rate, HFR		736	84	42	984		Percent Heavy Vehicles		--	--	1	--	--	Median Type/Storage	Undivided			/			RT Channelized?							Lanes		2	0		1	2	Configuration		T	TR		L	T	Upstream Signal?		Yes			Yes		8
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Lanes	0		0																																																																																				
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Phase Settings (All times are in minutes)	1							8																																																																															
Phase		Pedestrian Volumes and Adjustments																																																																																					
Max Green		Movements	13	14	15	16																																																																																	
Min Green		Flow (ped/hr)	0	0	0	0																																																																																	
Amber		Lane Width (ft)	12.0	12.0	12.0	12.0																																																																																	
All Red		Walking Speed (ft/sec)	4.0	4.0	4.0	4.0																																																																																	
Veh. Ext.		Percent Blockage	0	0	0	0																																																																																	
Min Recall	<input type="checkbox"/>							<input type="checkbox"/>																																																																															
Max Recall	<input type="checkbox"/>							<input type="checkbox"/>																																																																															

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Upstream Signal Data							
	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2	Left-Turn	0	1700	3	0	100	30
	Through	816	1700	4	64	100	30
S5	Left-Turn	211	1787	3	18	100	30
	Through	816	1700	4	70	100	30

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2				Movement 5			
	1	4	7	8	9	10	11	12
	L	L	L	T	R	L	T	R
Shared in volume, major th vehicles:								
Shared in volume, major rt vehicles:								
Sat flow rate, major th vehicles:								
Sat flow rate, major rt vehicles:								
Number of major street through lanes:								

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation								
Movement	1	4	7	8	9	10	11	12
	L	L	L	T	R	L	T	R
t(c,base)		4.1	7.5		6.9			
t(c,hv)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
P(hv)	1	1	1	1	1	1	1	1
t(c,g)		0.20	0.20	0.10	0.20	0.20	0.10	0.10
Grade/100		0.00	0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)		0.00	0.70		0.00			
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c)		4.1	6.8		6.9			

Follow-Up Time Calculations								
Movement	1	4	7	8	9	10	11	12
	L	L	L	T	R	L	T	R
t(f,base)		2.20	3.50		3.30			
t(f,HV)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
F(HV)	1	1	1	1	1	1	1	1
t(f)		2.2	3.5		3.3			

Note: All ti

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Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog	816	0	816	211
Total Saturation Flow Rate, s (vph)	3400	3400	3400	3574
Arrival Type	4	3	4	3
Effective Green, g (sec)	64	0	70	18
Cycle Length, C (sec)	100	100	100	100
Rp (from Exhibit 16-11)	1.333	1.000	1.333	1.000
Proportion vehicles arriving on green P	0.853	0.000	0.933	0.180
g(q1)	3.5	0.0	1.6	4.8
g(q2)	1.7	0.0	0.8	0.3
g(q)	5.2	0.0	2.4	5.1

Computation 2-Proportion of TWSC Intersection Time blocked				
	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha	0.500		0.500	
beta	0.667		0.667	
Travel time, t(a) (sec)	17.664		16.259	
Smoothing Factor, F	0.145		0.156	
Proportion of conflicting flow, f	1.000	1.000	1.000	1.000
Max platooned flow, V(c,max)	1890	0	1117	2078
Min platooned flow, V(c,min)	2000	2000	2000	2000
Duration of blocked period, t(p)	0.0	0.0	0.0	0.6
Proportion time blocked, p		0.000		0.006

Computation 3-Platoon Event Periods		Result
p(2)		0.000
p(5)		0.006
p(dom)		0.006
p(subo)		0.000
Constrained or unconstrained?		U

Proportion unblocked for minor movements, p(x)	(1)	(2)	(3)
	Single-stage Process	Two-Stage Stage I	Two-Stage Process Stage II
p(1)			
p(4)	1.000		
p(7)	0.994		
p(8)			
p(9)	1.000		
p(10)			
p(11)			
p(12)			

Begin Times

End Times

Computation 4 and 5											
Single-Stage Process											
Movement	1	4	7	8	9	10	11	12			
	L	L	L	T	R	L	T	R			
V c,x		820	1354		410						
s		3000	3000		3000						
P		1.000	0.994		1.000						
V c,u,x		820	1345		410						
C r,x		811	144		594						
C plat,x		811	143		594						

Two-Stage Process												
	7			8			10			11		
	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)		3000	3000									
P(x)												
V(c,u,x)												
C(r,x)												
C(plat,x)												

Worksheet 6-Impedance and Capacity Equations			
Step 1: RT from Minor St.			
Conflicting Flows		410	
Potential Capacity		594	
Pedestrian Impedance Factor		1.00	1.00
Movement Capacity		594	
Probability of Queue free St.		0.95	1.00
Step 2: LT from Major St.			
Conflicting Flows		820	
Potential Capacity		811	
Pedestrian Impedance Factor		1.00	1.00
Movement Capacity		811	
Probability of Queue free St.		0.95	1.00
Step 3: TH from Minor St.			
Conflicting Flows		1.00	1.00
Potential Capacity		0.95	0.95
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmt		0.95	0.95
Movement Capacity		1.00	1.00
Probability of Queue free St.		1.00	1.00

Left-T

Step 4: LT from Minor St.

Conflicting Flows	1354	
Potential Capacity	143	
Pedestrian Impedance Factor	1.00	1.00
Maj. L. Min T Impedance factor	0.95	0.95
Maj. L. Min T Adj. Imp Factor	0.95	0.95
Cap. Adj. factor due to Impeding mvmt	0.95	0.95
Movement Capacity	136	

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.			
Part 1 - First Stage			
Conflicting Flows			
Potential Capacity			
Pedestrian Impedance Factor			
Cap. Adj. factor due to Impeding mvmt			
Movement Capacity			
Probability of Queue free St.			
Part 2 - Second Stage			
Conflicting Flows			
Potential Capacity			
Pedestrian Impedance Factor			
Cap. Adj. factor due to Impeding mvmt			
Movement Capacity			
Part 3 - Single Stage			
Conflicting Flows		1.00	1.00
Potential Capacity		0.95	0.95
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmt		0.95	0.95
Movement Capacity		0.95	0.95
Result for 2 stage process:			
a			
b			
c			
t			
Probability of Queue free St.	1.00	1.00	

2

2

3

3

Step 4: LT from Minor St.

Part 1 - First Stage			
Conflicting Flows		1354	
Potential Capacity		143	
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmt		0.95	0.95
Movement Capacity		136	
Part 2 - Second Stage			
Conflicting Flows		820	
Potential Capacity		811	
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmt		0.95	0.95
Movement Capacity		811	
Probability of Queue free St.		0.95	1.00
Part 3 - Single Stage			
Conflicting Flows		1.00	1.00
Potential Capacity		0.95	0.95
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmt		0.95	0.95
Movement Capacity		1.00	1.00
Results for Two-stage process:			
a			
b			
c			
t			
Probability of Queue free St.		1.00	1.00

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)		83		31		
Movement Capacity (vph)		136		594		
Shared Lane Capacity (vph)			170			

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
C sep		136		594		
Volume		83		31		
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh				170		
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L			LR				
v (vph)		42		120				
C(m) (vph)		811		170				
v/c		0.05		0.71				
95% queue length		0.16		4.28				
Control Delay		9.7		65.4				
LOS		A		F				
Approach Delay				65.4				
Approach LOS				F				

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
p(oj)		1.00		0.95
v(i1), Volume for stream 2 or 5				
v(i2), Volume for stream 3 or 6				
s(i1), Saturation flow rate for stream 2 or 5				
s(i2), Saturation flow rate for stream 3 or 6				
P*(oj)				
d(M,i2), Delay for stream 1 or 4				9.7
N, Number of major street through lanes				
d(rank,1) Delay for stream 2 or 5				

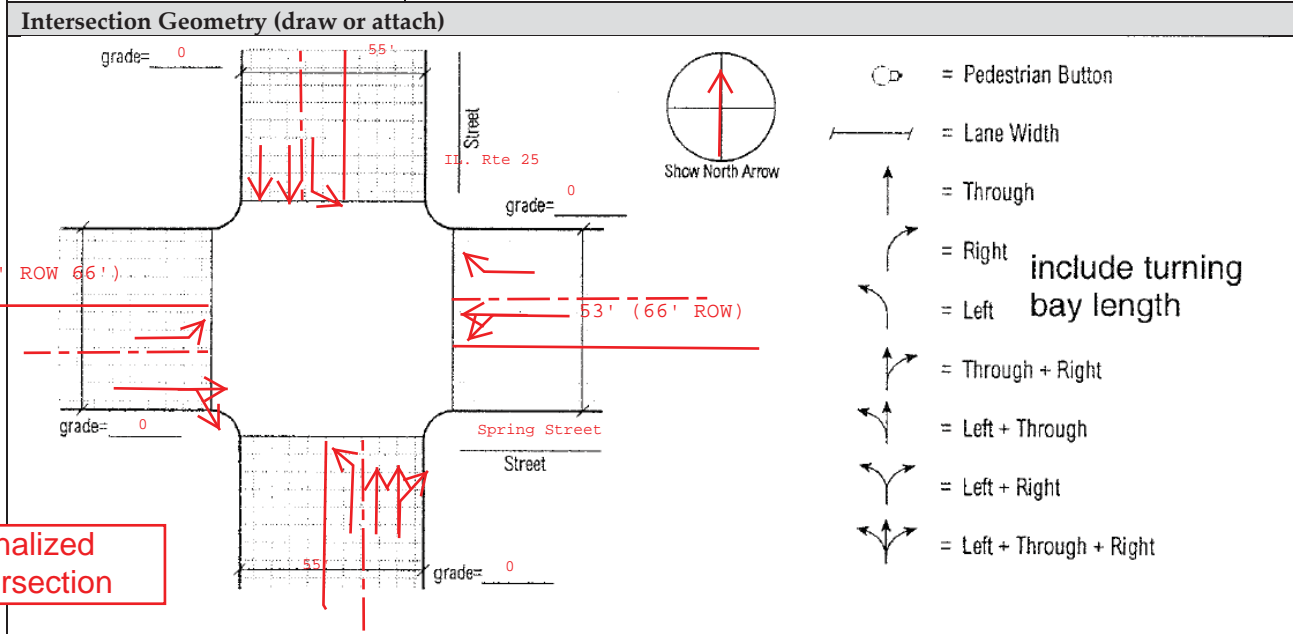
CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>IL. Rte 25 and Spring Street</u>
Analysis Year <u>2008</u>	Area Type <input checked="" type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>



Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹
Volume, V (veh/h)												
% heavy vehicles, % HV												
Peak-hour factor, PHF												
Pretimed (P) or actuated (A)												
Start-up lost time, I ₁ (s)												
Extension of effective green time, e (s)												
Arrival type, AT												
Approach pedestrian volume, ² V _{ped} (p/h)												
Approach bicycle volume, ² V _{bic} (bicycles/h)												
Parking (Y or N)												
Parking maneuvers, N _m , (maneuvers/h)												
Bus Stopping, N _B (buses/h)												
Min. timing for pedestrians, ³ C _p (s)												

Existing traffic study for Aurora RiverEdge Park Music Garden, prepared by Civiltech to be revised to reflect intersection improvements.

Signal Phasing Plan

Diagram	01	02	03	04	05	06	07	08
Timing	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=
Protected turns			Permitted turns Pedestrian			Cycle length, C = _____ s		

Notes

1. RT volumes, as shown, exclude ROR
2. Approach pedestrian and bicycle volumes are those that conflict with right turns from the subject approach.
3. Refer to Equation 16-2

CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

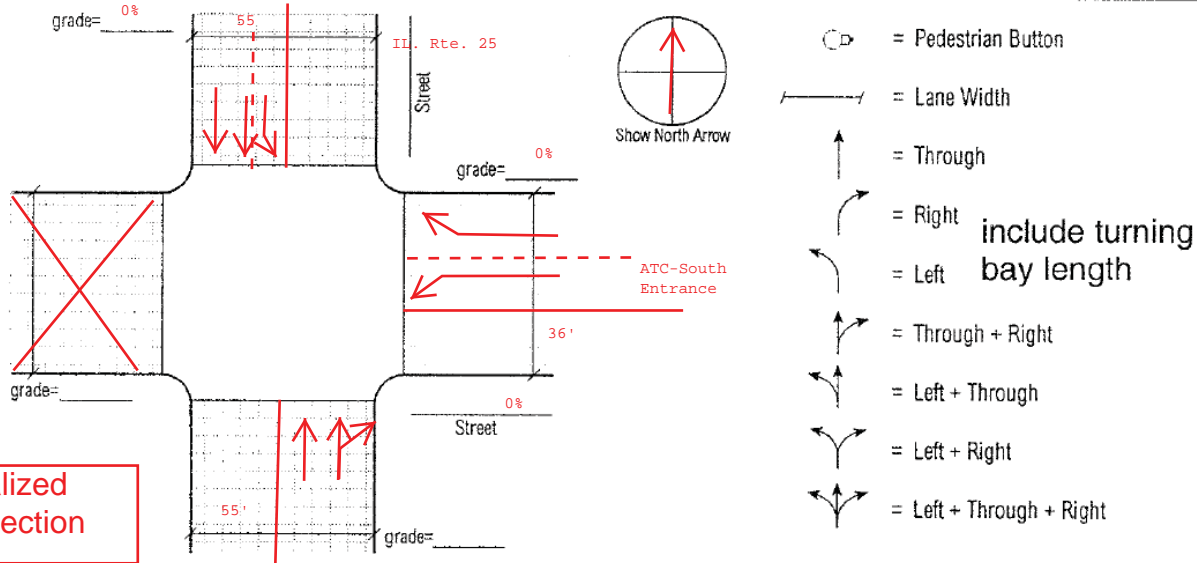
Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>IL. Rte 25 and ATC South Entrance</u>
Analysis Year <u>2008</u>	Area Type <input type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>

Intersection Geometry (draw or attach)



Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹
Volume, V (veh/h)												
% heavy vehicles, % HV												
Peak-hour factor, PHF												
Pretimed (P) or actuated (A)												
Start-up lost time, I ₁ (s)												
Extension of effective green time, e (s)												
Arrival type, AT												
Approach pedestrian volume, ² V _{ped} (p/h)												
Approach bicycle volume, ² V _{bic} (bicycles/h)												
Parking (Y or N)												
Parking maneuvers, N _m , (maneuvers/h)												
Bus Stopping, N _B (buses/h)												
Min. timing for pedestrians, ³ C _p (s)												

Existing traffic study for Aurora RiverEdge Park Music Garden, prepared by Civiltech to be revised to reflect intersection improvements.

Signal Phasing Plan

Diagram	01	02	03	04	05	06	07	08
Timing	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=
Protected turns			Permitted turns Pedestrian			Cycle length, C = _____ s		

Notes

1. RT volumes, as shown, exclude ROR
2. Approach pedestrian and bicycle volumes are those that conflict with right turns from the subject approach.
3. Refer to Equation 16-2

CMAQ FY 2016-2020 INPUT MODULE WORKSHEET

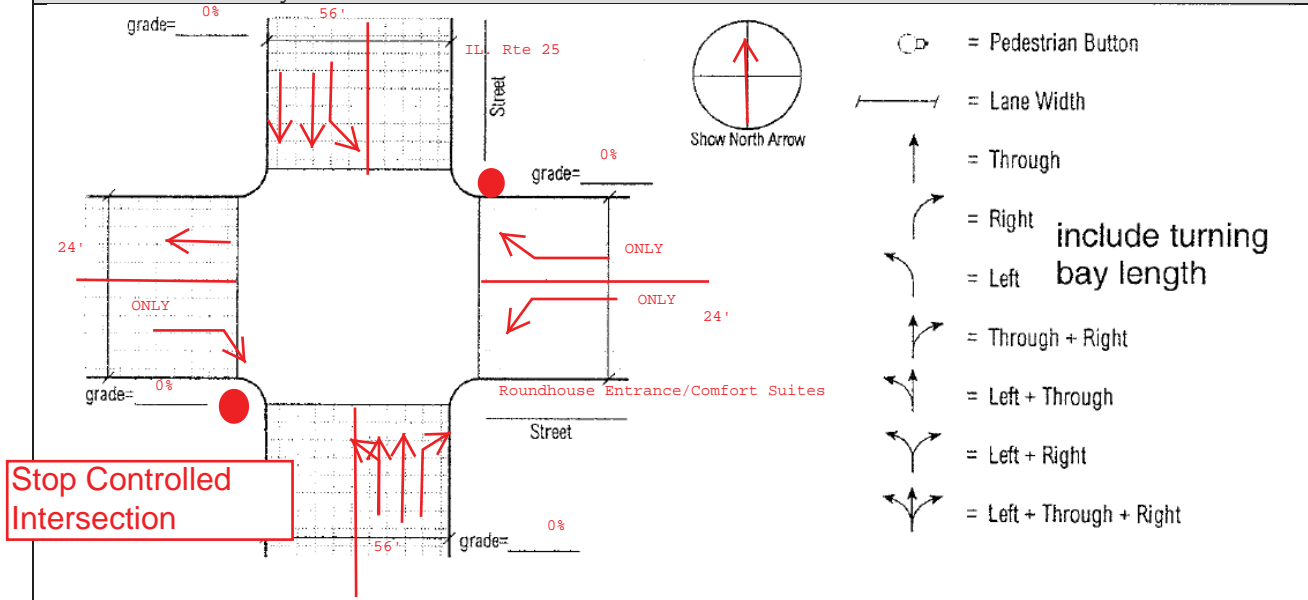
Before Improvement

(Complete one worksheet for before conditions and one worksheet for after conditions)

After Improvement

General Information	Site Information
Analysis Time Period: PM Peak	Intersection <u>IL Rte 25 and Roundhouse Entrance/Comfort Suites</u>
Analysis Year <u>2008</u>	Area Type <input type="checkbox"/> CBD <input type="checkbox"/> Other Jurisdiction <u>IDOT</u>

Intersection Geometry (draw or attach)



Stop Controlled Intersection

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹	LT	TH	RT ¹
Volume, V (veh/h)												
% heavy vehicles, % HV												
Peak-hour factor, PHF												
Pretimed (P) or actuated (A)												
Start-up lost time, I ₁ (s)												
Extension of effective green time, e (s)												
Arrival type, AT												
Approach pedestrian volume, ² V _{ped} (p/h)												
Approach bicycle volume, ² V _{bic} (bicycles/h)												
Parking (Y or N)												
Parking maneuvers, N _m , (maneuvers/h)												
Bus Stopping, N _B (buses/h)												
Min. timing for pedestrians, ³ C _p (s)												

Existing traffic study for Aurora RiverEdge Park Music Garden, prepared by Civiltech to be revised to reflect intersection improvements.

Signal Phasing Plan

Diagram	01	02	03	04	05	06	07	08
Timing	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=	G= Y=
Protected turns			Permitted turns Pedestrian			Cycle length, C = _____ s		

Notes

1. RT volumes, as shown, exclude ROR
2. Approach pedestrian and bicycle volumes are those that conflict with right turns from the subject approach.
3. Refer to Equation 16-2