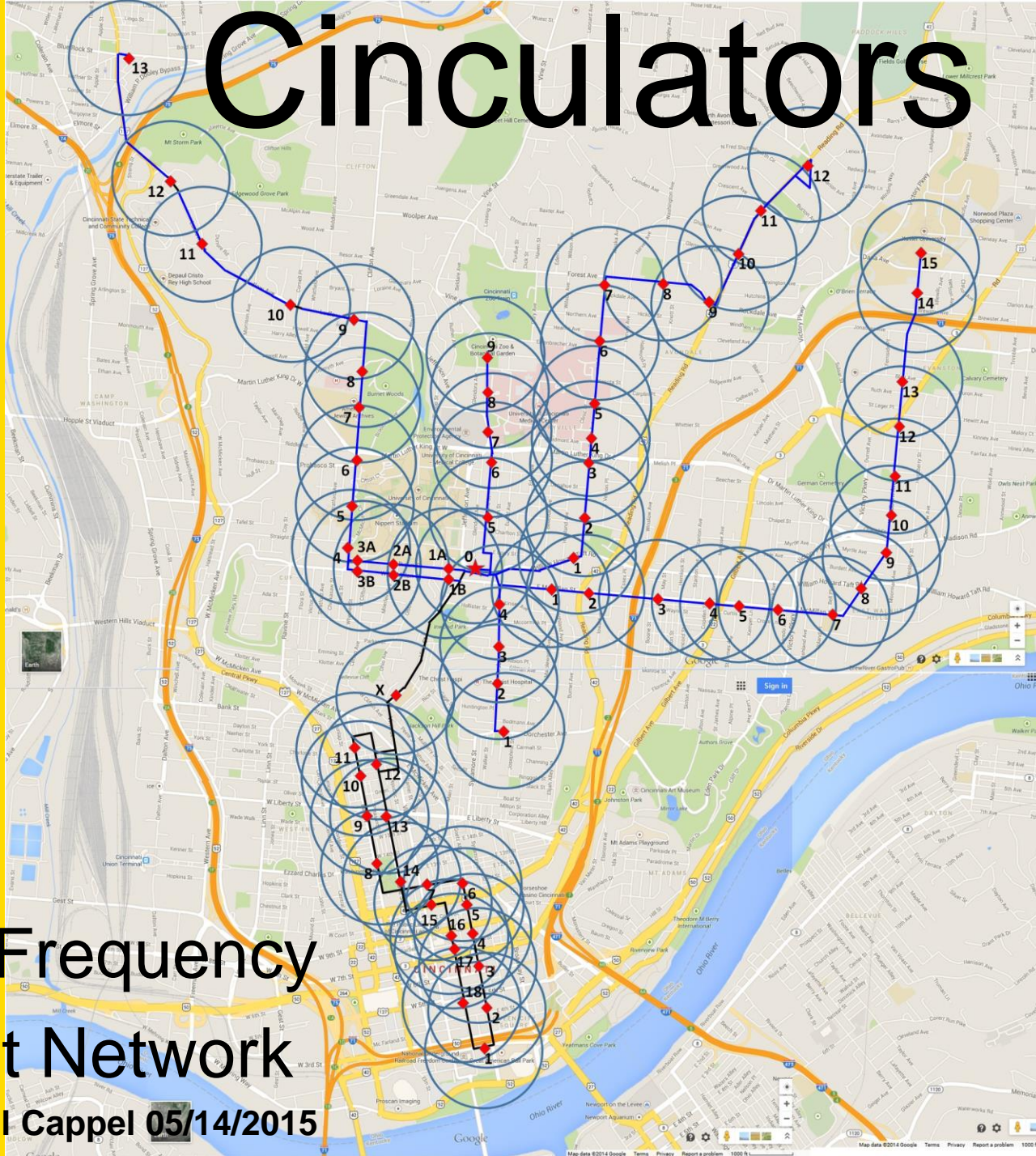


Circulators



A High Frequency
Transit Network

Created by Bill Cappel 05/14/2015

Executive Summary

This is a proposal for a high frequency transit network serving the Downtown and Uptown cores of Cincinnati. It is made up of four bus lines that connect to the Cincinnati Streetcar line.

About this file

I don't want to confuse anyone with this pdf. These are my personal ideas. This is not an official plan from the city, transit agencies, or streetcar project in any way. I am not affiliated with any of the aforementioned entities. This is not the opinion of the various streetcar citizen organizations. I am not a transit expert, urban planner or civil engineer. I'm simply an interested citizen of Cincinnati.

What are the
Circulators?

What are the Cinculators?

- The Cinculators are a system of four bus lines that comprehensively serve the Uptown area plus the Cincinnati Streetcar.
- The Cinculators all connect at a common Transit Center in Uptown.
- The Cinculators make high frequency service (10 minutes or less in between vehicles) the hallmark of their brand.

What are the Cinculators?

- The Cinculator bus lines are Northside/Clifton, Auburn/Vine, Hospitals/Avondale, and Walnut Hills.
- Phase 1B of the Cincinnati Streetcar comes Uptown to meet them using Vine Street.

What are the Circulators?

- The Circulators would be defined by the following characteristics:
 - High-frequency service (all day, 10-minute headways).
 - Long Span Service (long per-day operating hours.)
 - Connections to key activity centers and transit modes.
 - Simple, affordable fare structure.
 - Same fare structure as Cincinnati Streetcar
 - \$1 per two hours usage
 - Free transfer between lines
 - Easy to understand routes.

What are the Cinculators?

- The Cinculators connect Jobs
 - 60,028 in Downtown/OTR/Pendleton
 - 53,492 in Uptown (Avondale, Clifton, Corryville & Mount Auburn)
 - 113,520 Total (~52% of city total)
 - Source: UC Economics Center
- The Cinculators connect People
 - 13,521 in Downtown/OTR/Pendleton (2013 DCI Estimate)
 - 76,133 in other neighborhoods (2010 Census)
 - 89,654 Total (~30% of city total)

What are the CinculATORS?

- The Cinculator bus lines serve **Cincinnati State**, the **University of Cincinnati**, and **Xavier University**
- The Cinculator bus lines serve all **seven hospitals**
Uptown
 - Good Samaritan
 - Deaconess
 - VA
 - University
 - Children's
 - Shriners
 - Christ
- The Cinculator bus lines serve the **Cincinnati Zoo**
- The Cinculator bus lines serve **ten neighborhoods**:
 - Northside
 - Clifton
 - Clifton Heights
 - Corryville
 - Mt. Auburn
 - Avondale
 - North Avondale
 - Walnut Hills
 - East Walnut Hills
 - Evanston

The Circulator Bus Lines

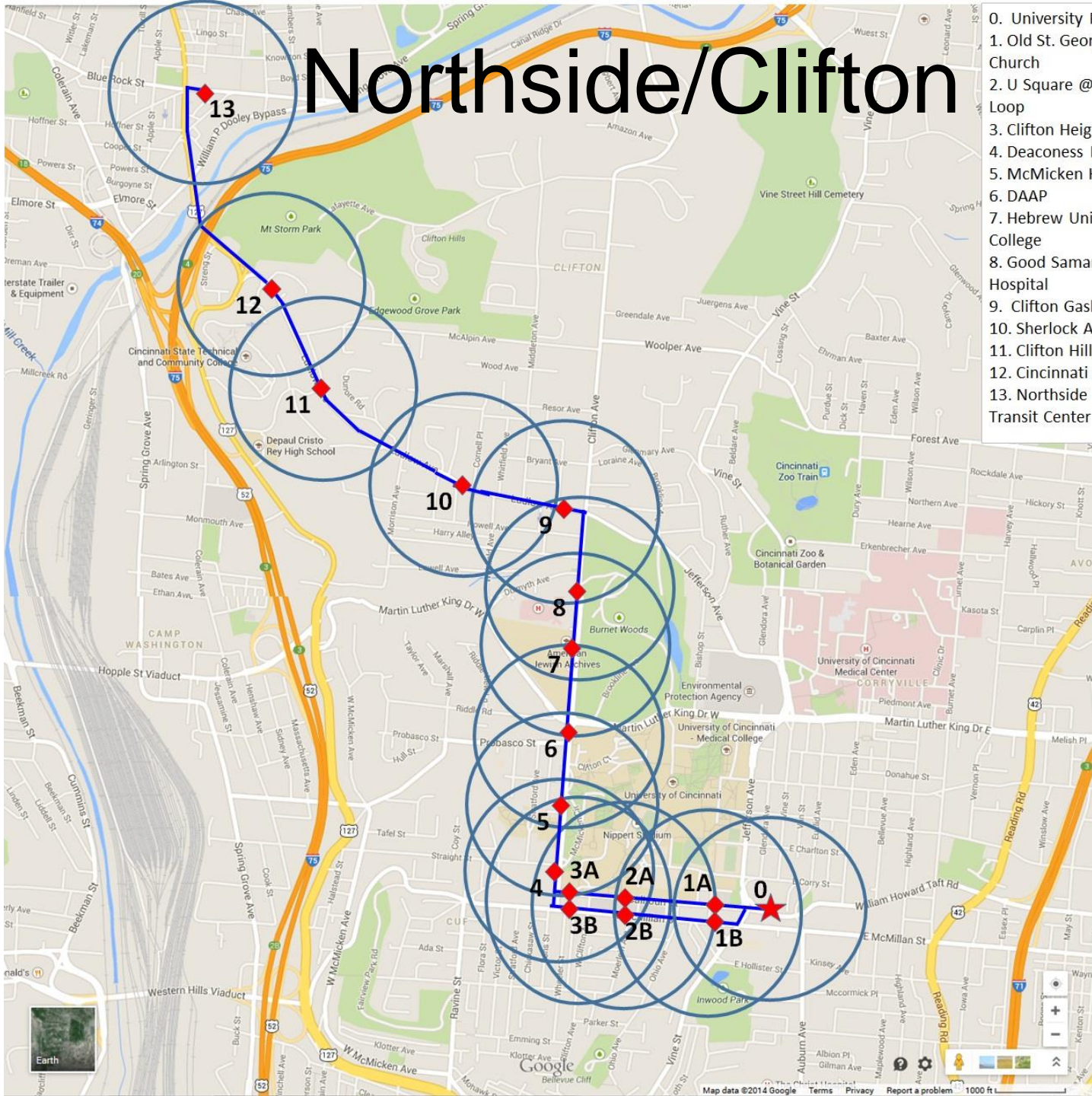
Star is the Uptown Transit Center

Diamonds are stops

Circles are approximate Quarter Mile Walkshed radii

Northside/Clifton

0. University Plaza
1. Old St. George Church
2. U Square @ the Loop
3. Clifton Heights
4. Deaconess Hospital
5. McMicken Hall
6. DAAP
7. Hebrew Union College
8. Good Samaritan Hospital
9. Clifton Gaslight
10. Sherlock Ave.
11. Clifton Hills
12. Cincinnati State
13. Northside Metro Transit Center



Northside/Clifton

Line Lengths and Times

Line	Line Miles	Round Trip Miles	Line Stops	Round Trip Stops	Stops/ Mile	Vehicles	MPH	Line Time (Minutes)	Round Trip Time (Minutes)	Min Headway (Minutes)
Clifton/ Northside	3.4	6.8	14	26	3.8	5	12	17.0	34.0	6.8

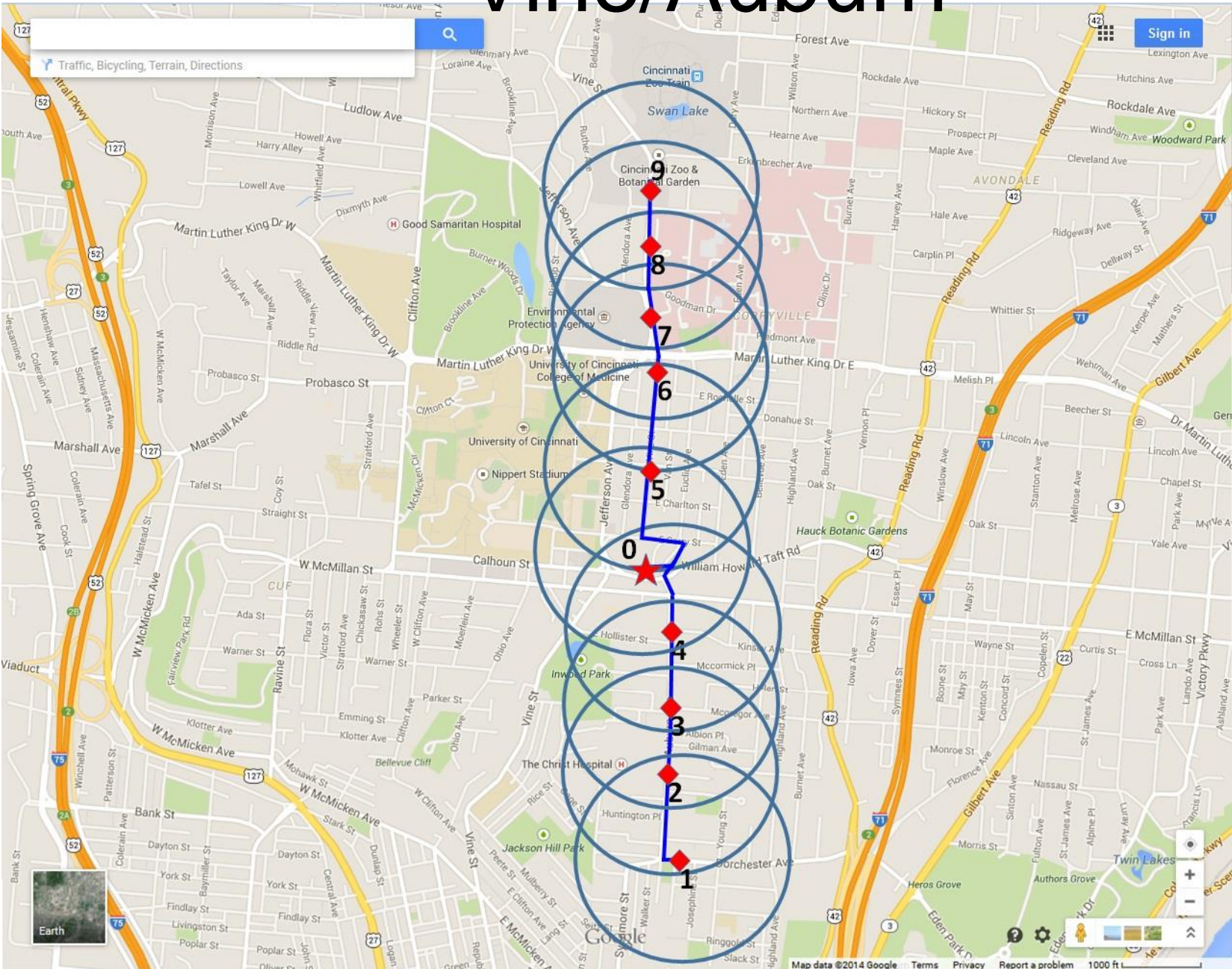
What's on the Line

Route	POI's (Points of Interest)	Neighborhoods	2010 Census Neighborhoods Population
Clifton Heights/ Clifton	University Plaza, University of Cincinnati, U Square at the Loop, Hughes High School, Deaconess Hospital, Stratford Heights, Hebrew Union College, Burnet Woods, Good Samaritan Hospital, future Clifton co-op grocery, Ace Hardware, Esquire Theater, Clifton Place Apts., Cincinnati State, Hoffner Park, American Can Building	CUF, Clifton, Northside	32,760

Connections

- Uptown Transit Center
- Northside Metro Transit Center (Routes 15x, 16, 17, 19, 20, 23, 27, 51)

Vine/Auburn



1. Dorchester Ave.
2. Christ Hospital
3. McGregor Ave.
4. Hollister St.
0. Uptown Transit Center
5. Daniels St.
6. MLK/Hampton Inn
7. EPA
8. VA
9. Cincinnati Zoo

Vine/Auburn

Line Lengths and Times

Line	Line Miles	Round Trip Miles	Line Stops	Round Trip Stops	Stops/ Mile	Vehicles	MPH	Line Time (Minutes)	Round Trip Time (Minutes)	Min Headway (Minutes)
Vine St/ Auburn Ave	1.7	3.4	10	18	5.3	3	12	8.5	17.0	5.7

What's on the Line

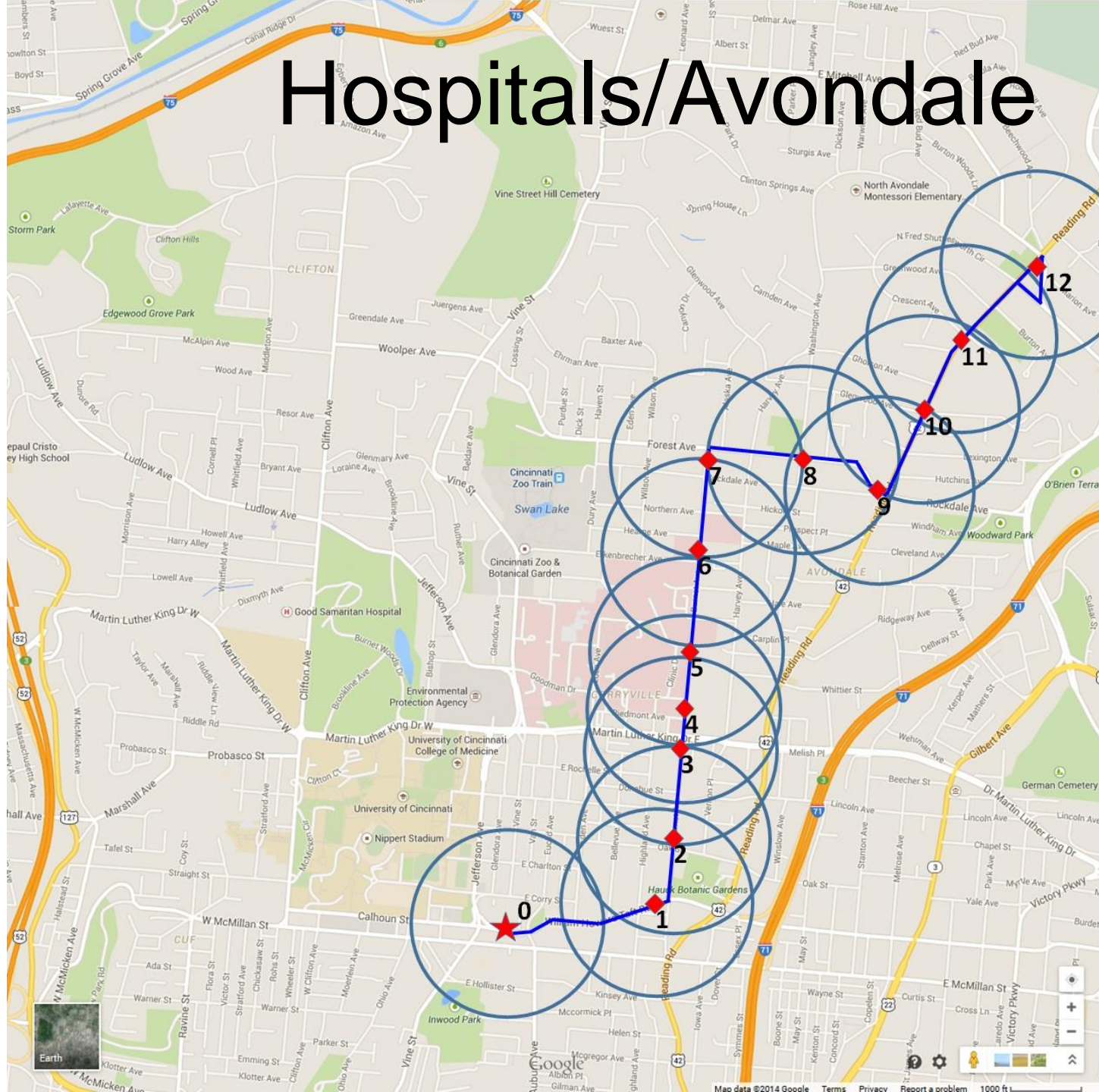
Route	POI's (Points of Interest)	Neighborhoods	2010 Census Neighborhoods Population
Vine St/Auburn Ave.	Cincinnati Zoo, VA, EPA, Marriott, Hampton Inn, Stetson Square, Views on Vine, University Plaza, Inwood Park, Planned Parenthood, The Christ Hospital, Christ Hospital Joint and Spine Center, Taft Historic Site, Hamilton County Juvenile Center, Taft Elementary/Mt Auburn Community Center, Mt. Auburn International Academy, Jackson Hill Park	Mt Auburn, Corryville	8,231

Connections

- Uptown Transit Center

Hospitals/Avondale

0. Uptown Transit Center
1. Christ Hospital Offices
2. Oak St./ Vernon Manor
3. MLK Drive
4. University Hospital
5. Children's Hospital
6. Children's Hospital Offices
7. Forest Ave.
8. Washington Ave.
9. Avondale Town Center
10. Glenwood Ave.
11. South Fred Shuttlesworth Circle
12. Seasongood Square



Hospitals/Avondale

Line Lengths and Times

Line	Line Miles	Round Trip Miles	Line Stops	Round Trip Stops	Stops/ Mile	Vehicles	MPH	Line Time (Minutes)	Round Trip Time (Minutes)	Min Headway (Minutes)
Hospitals/ Avondale	2.9	5.8	13	24	4.1	5	12	14.5	29.0	5.8

What's on the Line

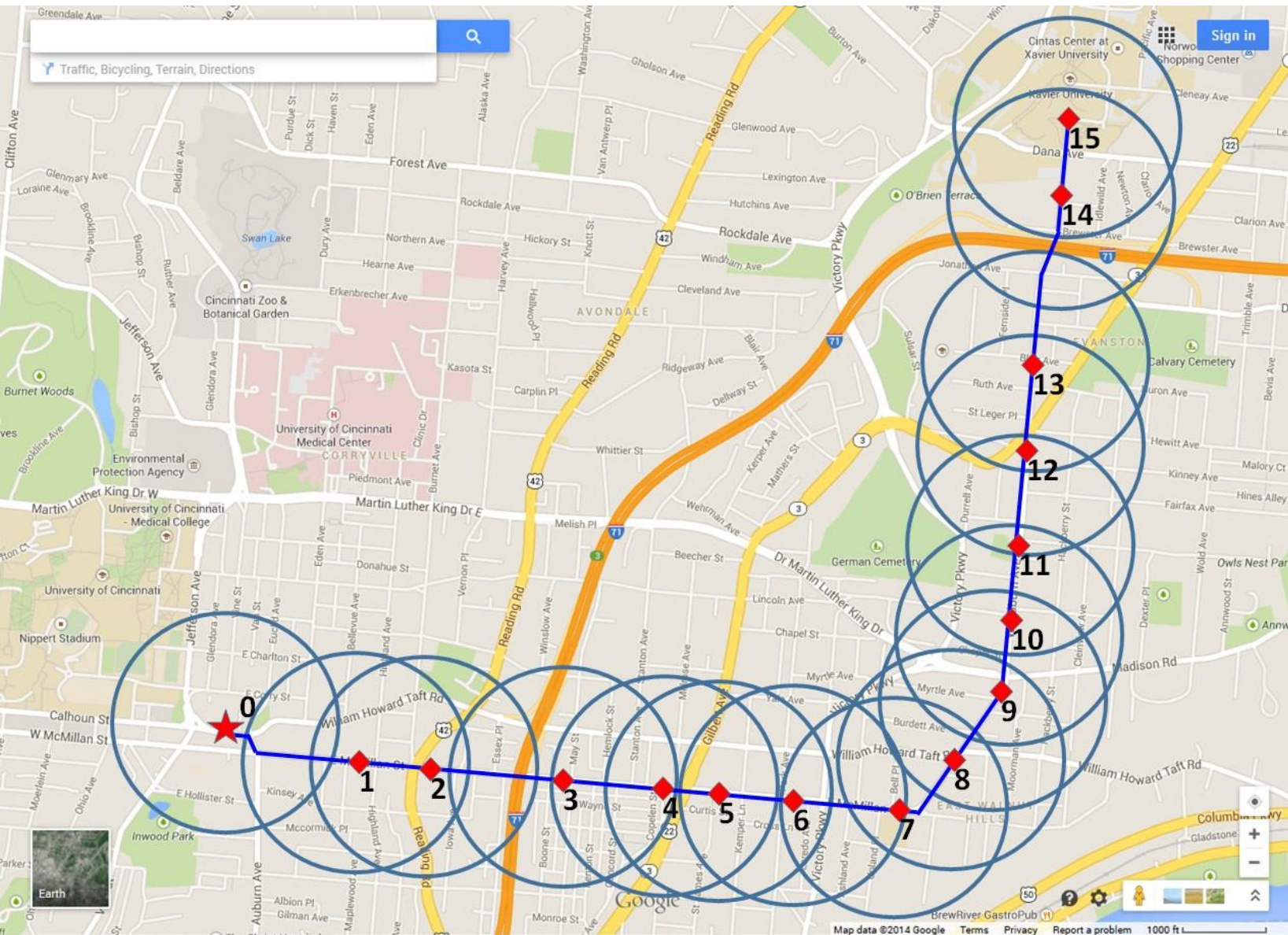
Route	POI's (Points of Interest)	Neighborhoods	2010 Census Neighborhoods Population
Hospitals/ Avondale	University Plaza, Christ Hospital offices, Cincinnati Public Schools Office, Hauck Gardens, Tri Health Bethesda Oak Complex, Vernon Manor, Children's Hospital Offices, Talbert House/Crossroads Center, Stetson Square, future MLK interchange development, Barret Cancer Center, Hoxworth Blood Center, Cincinnati Board of Health, UC medical colleges, UC Health, Shriner's Hospital, University Hospital, Children's Hospital, Children's Hospital Research Tower, Children's Hospital Annexes, Rockdale Academy, The Beechwood, South Avondale Elementary, Lincoln Statue, Avondale Town Center (with grocery under development,) Avondale Library, The Redding, The Belvedere	Avondale, North Avondale	15,695

Connections

- Uptown Transit Center

Route Requires Two Way Conversion or a Transit Only lane on a portion of Taft Rd.

Walnut Hills



0. Uptown Transit Center
1. Campus Park
2. Reading Road Bridge and Stairs
3. May St.
4. Gilbert Ave.
5. Walnut Hills Kroger (Victory Parkway)
6. Laredo Ave. (Victory Parkway)
7. St. Ursula
8. Anthem offices
9. DeSales Corner
10. Purcell Marian
11. Dexter Ave./Hoffman Playground
12. Evanston Community Center
13. Walnut Hills High School
14. Wasson Way
15. Xavier University

Walnut Hills

Line Lengths and Times

Line	Line Miles	Round Trip Miles	Line Stops	Round Trip Stops	Stops/ Mile	Vehicles	MPH	Line Time (Minutes)	Round Trip Time (Minutes)	Min Headway (Minutes)
Walnut Hills	3.2	6.4	16	30	4.7	5	12	16.0	32.0	6.4

What's on the Line

Route	POI's (Points of Interest)	Neighborhoods	2010 Census Neighborhoods Population
Walnut Hills	University Plaza, McMillan Manor, new Women's Drop Inn Center & Anna Louise Inn, United Way, Union Institute & University, Lighthouse Youth Services, Essex Studios bldg, Dohn community high school, Beck Hardware, Kroger, Walnut Hills Library, Alms Apts, St Ursula Academy, UC College of Applied Science, high rises overlooking river, Anthem Blue Cross Blue Shield Offices, St. Francis de Sales, Purcell Marion High School, Evanston Academy (Hoffman,) Evanston Community Center, Walnut Hills High School, Xavier University, University Station, Listerman Brewing	Walnut Hills, East Walnut Hills, Evanston	19,447

Connections

- Uptown Transit Center
- Wasson Way Trail System

Route Requires Two Way Conversion or a Transit Only lane on portions of McMillan St.

Lines Summary

Line	Line Miles	Round Trip Miles	Line Stops	Round Trip Stops	Stops/ Mile	Vehicles	MPH	Line Time (Minutes)	Round Trip Time (Minutes)	Min Headway (Minutes)
Downtown + Up the Hill (Cincinnati Streetcar)	3.2 (northbound)		14 (northbound)					24 (northbound)		
	2.6 (southbound)	5.8	10 (southbound)	23	4.0	5	8	19.5 (southbound)	43.5	8.7
Clifton/ Northside	3.4	6.8	14	26	3.8	5	12	17.0	34.0	6.8
Vine St/ Auburn Ave	1.7	3.4	10	18	5.3	3	12	8.5	17.0	5.7
Hospitals/ Avondale	2.9	5.8	13	24	4.1	5	12	14.5	29.0	5.8
Walnut Hills	3.2	6.4	16	30	4.7	5	12	16.0	32.0	6.4

Line Miles: Length of line on map end-to-end

Round Trip Miles: Miles a vehicle travels on a line and back again

Line Stops: Number of stops end-to-end

Round Trip Stops: Number of stops seen by vehicle going out and back

Stops/Mile: Round Trip Stops / Round Trip Miles

Vehicles: number of vehicles dedicated to each line

MPH: Assumes average speed

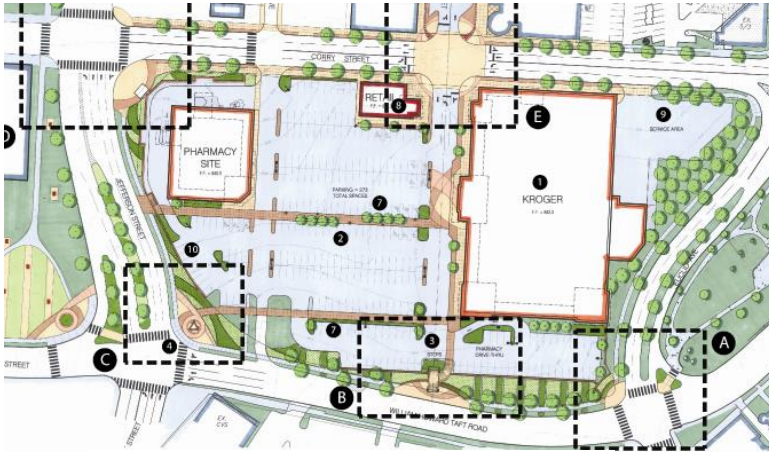
Line Time: Time to traverse line end to end

Round Trip Time: Time for vehicle to travel out and back

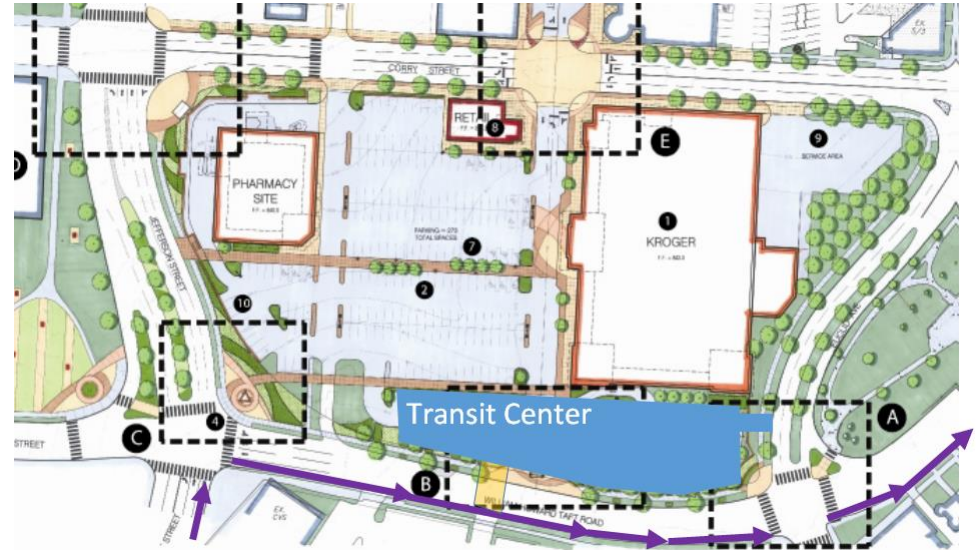
Minimum Headway: minimum time in between vehicles at a given stop

Uptown Transit Center

Uptown Transit Center



Site Plan for University Plaza (2008*)



Proposed Transit Center
(Detail next page)

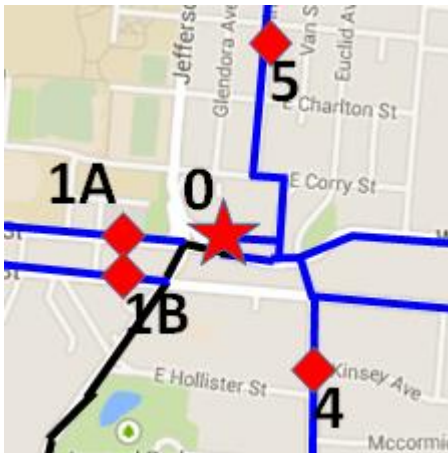
Transit Center in Blue

New Intersection with Signal in Orange

Transit Only Lane in Purple

Transit Center is at same elevation with Taft Rd.

Lot is preserved beneath Transit Center

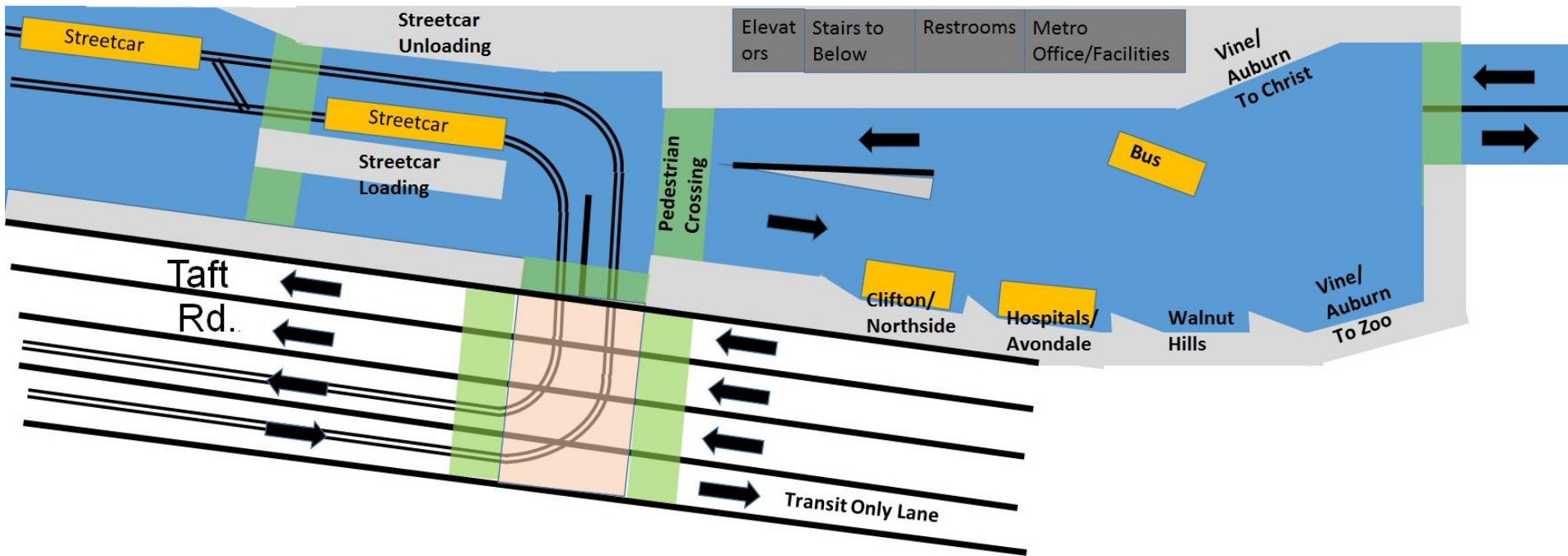


Close up of the
Converging Lines

*Source:

http://www.uc.edu/cdc/images/community_projects/environment/univ_plaza/univ_plaza_redev_hist.pdf

Uptown Transit Center



Uptown Transit Center Concept Drawing

- Transit Center is on a deck that is level with Taft Rd. extending out over the University Plaza parking lot. Parking is preserved underneath the deck.
- Stairs and elevator offer access to University Plaza below.
- Streetcars and buses enter Uptown Transit Center via a new intersection on Taft Rd. except Vine/Auburn bus which utilizes Euclid Ave. entrance/exit
- An eastbound Transit Only lane is added to Taft Rd.
- Proximity to Metro Routes 19, 24, 31, 38x, 46, 78, and Metro Plus

Why Cinculators?

Frequency

- According to transit expert Jarrett Walker, “Frequency is Freedom” for a transit customer.
- Frequency enables people to take spontaneous trips and is important for a less auto dependent lifestyle.
- High frequency reduces the disliked waiting phase of a transit trip and reduces total trip time.

(source: Jarrett Walker, *Human Transit*)

Connection Points

- According to transit expert Jarrett Walker, “Connections Buy Frequency”
- This is because there are more vehicles heading in your intended direction of travel than if the same number of vehicles were spread out over many direct lines.
- A connection point can also simplify the whole system and make it easier to understand.

(source: Jarrett Walker, *Human Transit*)

Cinculator Goals

- Provide people access to jobs
 - Get people working without high entry cost of vehicle ownership
 - “Eds and Meds” facilities along the Cinculator lines will be the growth engines of our economy for years to come
- Promote the repopulation of the city
 - High frequency neighborhood circulators will be an amenity that attracts people of all backgrounds and income levels
 - More taxpayers equals better services for everyone
- Boost neighborhoods
 - City neighborhoods and first ring suburbs face challenges nationwide while urban cores and exurbs thrive
 - Need a gamechanger to hold and grow property values
 - Need to make restoration of abandoned historic buildings an attractive option before these buildings decay past the point of no return

Cinculator Goals

- Give the option for a car-lite or car-free lifestyle
 - Enable everyday non-commute trips via transit
 - Provides Cincinnati an economic advantage- not many competitor cities for hundreds of miles can offer this.
 - Good for the environment
 - A city built for people and not cars is physically more attractive
- Promote Density
 - Density means less infrastructure maintenance costs spread out over more people.
 - We often say that Cincinnati is a city of 300k people built for 500k people (our historic peak.) But it wasn't built to accommodate suburban-style parking requirements and traffic from 500k completely auto dependent people.
- Would be a logical place for Senior Housing
 - Senior population is growing rapidly as Baby Boomers age
 - Seniors are outliving their ability to drive
 - Vibrant city neighborhoods can help seniors stay connected
 - Cincinnati's largest hospitals and countless medical facilities are along the Cinculator transit network.
 - Provides access to grocery stores and Findlay Market

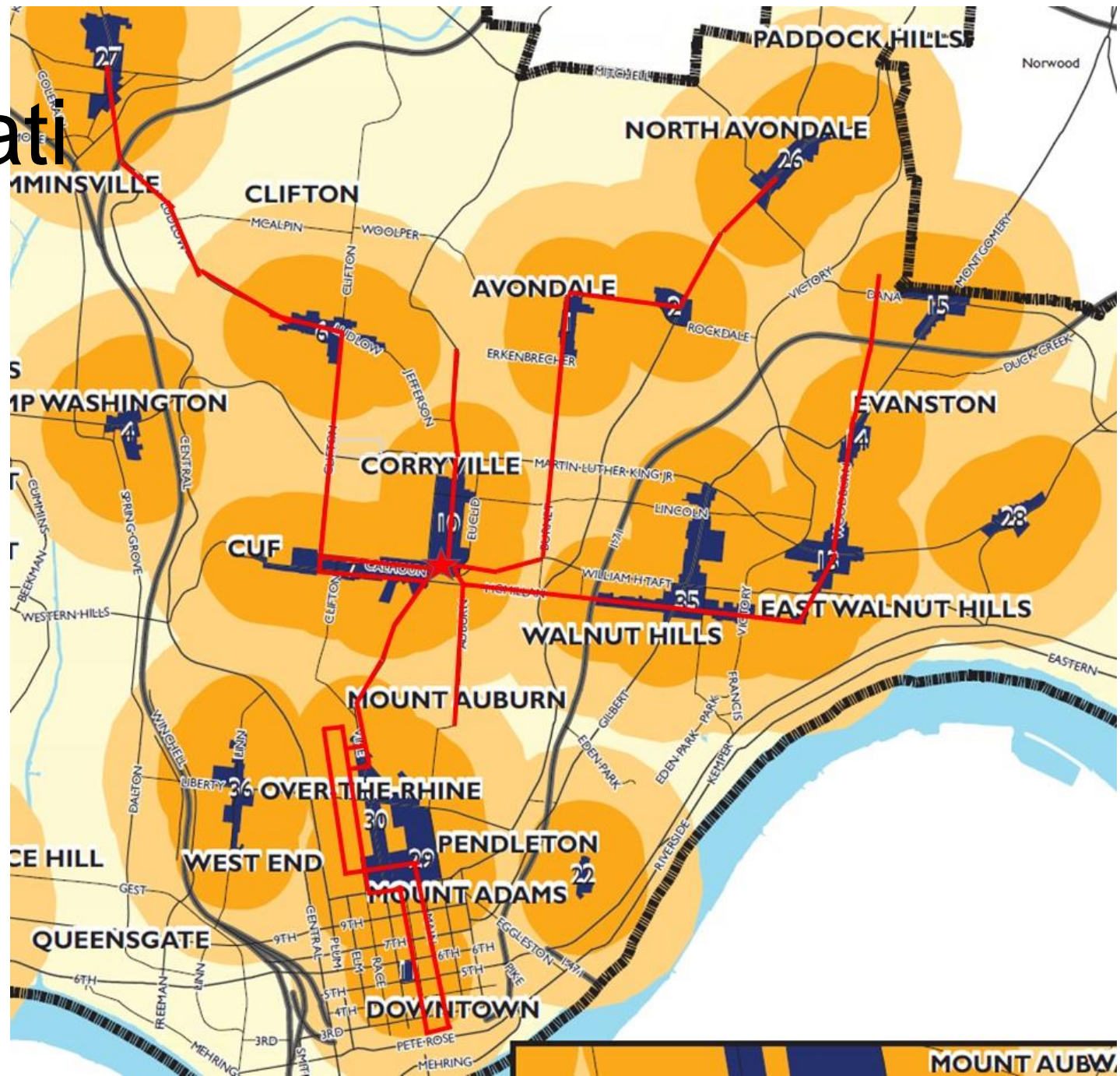
Plan Cincinnati

- The Cinculator bus lines would assist in reaching the goals laid out by Plan Cincinnati, Cincinnati's award winning plan for the future adopted in 2012
- The Cinculator bus lines connects 11 uptown neighborhood centers as defined by Plan Cincinnati. They are:
 - Northside
 - Clifton
 - Clifton Heights
 - Corryville
 - Avondale (A)
 - Avondale (B)
 - North Avondale
 - Walnut Hills
 - East Walnut Hills
 - Evanston (A)
 - Evanston (B)
- Also, Auburn Ave. was designated as a "Preliminary Opportunities for Future Mixed-Use Development or Neighborhood Centers."

Plan Cincinnati

Circulator Bus Lines and Downtown Streetcar superimposed in **RED** onto Plan Cincinnati Map.

Star is Uptown Transit Center



Plan Cincinnati

- In Plan Cincinnati, the centers were ranked either maintain, evolve, or transform for walkability (Maintain having the highest walkability.)
- The 11 centers connected by the Circulator bus lines were categorized as follows:

Maintain	Evolve	Transform
Clifton	Clifton Heights	Avondale (A)
	Corryville	Avondale (B)
	East Walnut Hills	Walnut Hills
	Northside	Evanston (A)
	North Avondale	Evanston (B)

- A neighborhood circulator could help increase walkability and pedestrian activity in the centers that need a boost.
- A neighborhood circulator would help transform Auburn Ave. into a Future Neighborhood Center as suggested by the Plan