Transportation Policies

DRAFT

Street Network

T-1 Develop new, parallel and perpendicular avenues to N. Tryon St.. The vehicle capacity of N. Tryon St. is not expected to substantially increase in the future. Additional network is important in order to provide additional route options and reduced dependence on N. Tryon St. for many local trips.

The following extensions or re-alignments should be designed as avenues for accessibility and circulation throughout the area:

- Berkeley Place Dr. extension to Emerald Cove Dr.
- E. McCullough Dr. extension to Shopping Center Dr.
- Macfarlane Blvd. extension to the I-85 connector, including working with the NCDOT towards a possible median opening and connection to N. Tryon St.
- Rocky River Rd. West re-alignment to the signal at the University City light rail station

T-2 Provide additional connectivity over Interstate 85 between University City and the University Research Park with the University Pointe Blvd. and Doug Mayes Pl. extensions. These street connections over I-85 will better link the University City area with the activity center at University Research Park by providing additional route options for pedestrians, bicyclists and motorists and reduce reliance on WT Harris Blvd.

T-3 Construct key street connections to provide accessibility to the transit stations, as well as create a smaller block structure supportive of denser development. The existing street network lacks connectivity between different land uses, as well as to N. Tryon St. and the light rail stations. The NECI program identified key street connections that would provide important accessibility throughout the station areas.

Important street connections include, but are not limited to:

- Ikea Blvd. extension between University City Blvd. and McFarlane Blvd.
- Connection between Ikea Blvd. and Clark Blvd.
- Connection between I-85 Service Road and Stetson Dr.
- Ken Hoffman Dr. extension between N. Tryon St. and University Executive Park Dr.
- Collins-Aikman Dr. extension to University Executive Park Dr.
- Emerald Cove Dr. extension to Berkeley Place Dr.
- E. McCullough Dr. extension between E. McCullough Dr., N. Tryon St. and Shopping Center Dr.
- Carolyn Ln. extension between University City Blvd. and Shopping Center Dr.
- Connection between University Hospital Dr. and Robert D Snyder Rd.
- Connection between Rocky River Rd. and N. Tryon St. at University City Blvd. Transit Station

T-4 Develop a network of local streets as development occurs, with block lengths of generally no more than 400', consistent with the Transit Station Area principles and Urban Street Design Guidelines. A more robust system of local streets offers alternatives to thoroughfares for shorter trips, as well as supporting denser development and pedestrian accessibility. A possible example includes the redevelopment of the large retail parcels on the west side of JW Clay Blvd. will provide the opportunity to create a local street paralleling JW Clay between Village Shopping Center Dr. S and Doug Mayes Place. (* General Transportation Policy)

T-5 Upgrade key streets to provide accommodations for pedestrians and bicyclists. When new streets are built, they are required to have sidewalks per City ordinance. However, many existing roads within the study area, both publicly and privately owned, lack facilities to accommodate pedestrians and bicyclists. For example, providing sidewalks and bicycle facilities on the following roads will provide important access from light rail stations to destinations throughout the area:

- Macfarlane Blvd.
- I-85 Service Rd.
- Rocky River Rd. West
- Shopping Center Dr.
- McCullough Dr.
- University Executive Park Dr.
- JM Keynes Dr.
- JW Clay Blvd.
- Mary Alexander Rd.

T-6 **Develop a multi-use trail linking Uptown and the University area.** The extension of the Toby Creek greenway south of UNCC, as well as the construction of the Cross Charlotte Trail from Uptown to Toby Creek, will ultimately provide a seamless multi-use trail connection from the Town of Pineville, through the University City area, and into Cabarrus County.

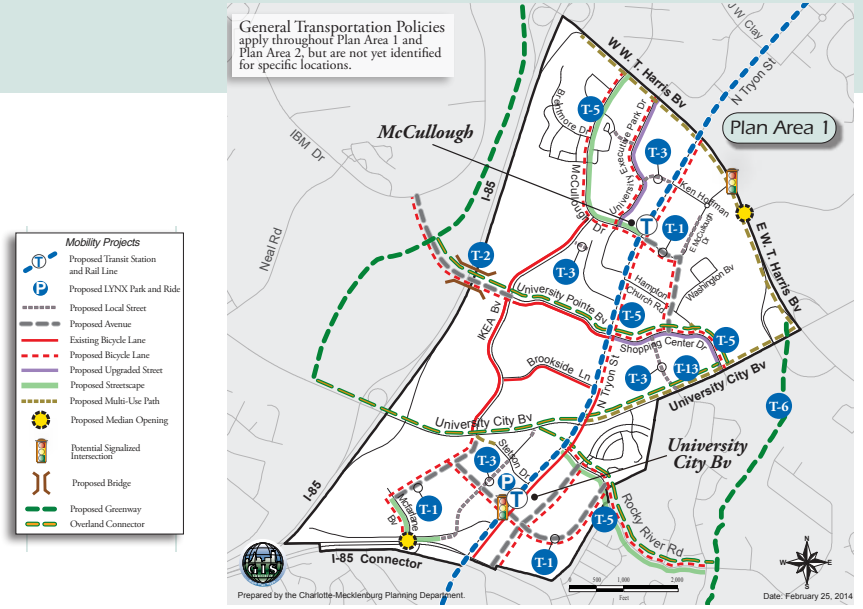
T-7 **Create new bicycle-pedestrian connections.** Where street connections are not possible or where even greater pedestrian/bicycle connectivity is desired, consider providing bicycle-pedestrian connections.

Important bicycle-pedestrian connections include, but are not limited to:

- The planned Barton Creek greenway between
- Mallard Creek greenway and JW Clay Blvd.
- Between Ikea Blvd. and Stetson Dr.
- Between N. Tryon St. and the Mallard Creek greenway
- Between Toby Creek Greenway and N. Tryon St. through
- the UNCC and CMC-Northeast campuses

T-8 **Provide pedestrian crossings to access station areas and facilitate pedestrian crossings along long blocks.** With the implementation of light rail in the median of N. Tryon St., additional crossings are unlikely along this street. For other streets within the station areas, mid-block or non-signalized crossings may be considered on block lengths longer than 400'. (* General Transportation Policy)

T-9 **Provide pedestrian connections between adjacent parcels and the sidewalk along N. Tryon St..** In some locations, retaining walls may preclude frequent individual connection, but pedestrian passages and connections should be built where feasible. (* General Transportation Policy)



T-10 **Consider new signalized intersections and/or pedestrian hybrid beacons to enhance access, circulation and provide crossing opportunities for pedestrians.** With the implementation of light rail in the median of N. Tryon St., additional signalized intersections are unlikely along this street. However, future signalized intersections and other crossing opportunities should be considered along other streets in the University City area. (* General Transportation Policy)

T-11 **Create bicycle lanes along Avenues via street conversions and streetscape projects.** Bicycle lanes are the expected bicycle facility along avenues and boulevards. A new curbline will be required of development along streets identified with bike lanes, especially when moving the curb for other needs. If not needing to move the curb during development, a wider planting strip with trees offset from the curb and closer to the sidewalks should be provided, in order to preserve the space for future bike lanes. (* General Transportation Policy)

T-12 **Add shared lane markings to Main Streets and physically constrained Avenues.** Main Streets, due to low speeds, allow bicyclist to comfortably ride in mixed traffic. Shared lane markings on Main Streets may help remind motorists to share the road and direct cyclists to ride outside the door zone of parked automobiles. Avenues, on the other hand, ideally have bicycle lanes. However, where major redevelopment is largely not envisioned by the Plan, shared lane markings provide an opportunity to connect gaps in the thoroughfare bicycle network until such time as bicycle lanes or other bicycle specific facilities are provided through reconstruction of the street. (* General Transportation Policy)

T-13 **Create multi-use paths along WT Harris Blvd. and University City Blvd.** Due to the type of street and a lack of parallel street network to WT Harris, a parallel, 12' wide **multi-use path** should be constructed at the edge of the right-of-way. **Multi-use paths** are also recommended along University City Blvd. in support of the adjacent UNCC campus, student-oriented housing, and supporting services that will create a large student demand for bicycling. This bicycle treatment will require the consolidation of intersecting driveways to maintain a safe, acceptable level-of-service for pedestrians and bicyclists. The preferred access spacing to safely accommodate **multi-use paths** is recommended at 880' or greater for street intersections and 440' or greater for driveways.

T-14 **Facilitate cross-access and parallel connections to N. Tryon St., University City Blvd., and WT Harris Blvd.** New development should limit driveways along these major streets, while incorporating multiple access points through secondary driveways located on perpendicular streets, cross-access driveways and parallel street connections. While short blocks are generally preferred in station areas, the presence of multi-use paths along University City Blvd. and WT Harris Blvd. make cross-access and driveway consolidation particularly important. (* General Transportation Policy)

T-15 **Consider innovative bicycle treatments on a case-by-case basis.** Buffered bicycle lanes, cycletracks, bicycle boulevards and other innovative bicycle treatments may enhance the bicycle network recommended as part of this plan, and should be considered where conditions allow their implementation. (* General Transportation Policy)

T-16 **Eliminate gaps within the sidewalk system.** The City's Sidewalk Program prioritizes construction of sidewalks along thoroughfares. Among the many public and private local streets within the area without sidewalks, land redevelopment may provide opportunities to upgrade streets to include sidewalks. If implemented via the Sidewalk Program, sidewalk construction on local streets would require residential support through a petition-based process prior to implementation. Other City programs may assist with sidewalk construction as well. (* General Transportation Policy)

*** General Transportation Policy**
applies throughout Plan Area 1 and Plan Area 2, but are not yet identified for specific locations on the Future Transportation Network maps.

DRAFT

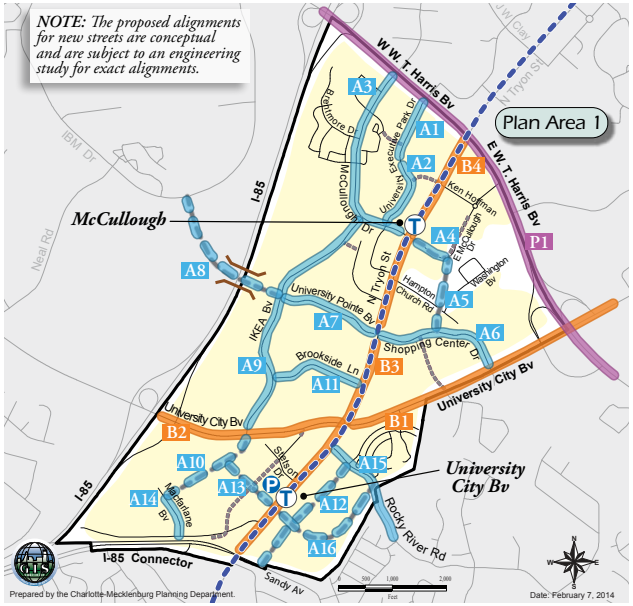
Transportation Cross-Sections

UCAP/BLE

Concept Plan
Transportation

UNIVERSITY CITY & McCULLOUGH TRANSIT STATION AREAS

Map 27: CROSS-SECTION LOCATIONS ▪ University City Stations



PLAN AREA 1

University City Boulevard and MCullough Cross-Sections Locations

Avenues

- A1 University Executive Park Dr (WT Harris Bv to Collins-Aikman Dr extension)
- A2 University Executive Park Dr (Collins-Aikman Dr extension to McCullough Dr)
- A3 McCullough Dr (WT Harris Bv to N Tryon St)
- A4 East McCullough Dr (existing) (N Tryon St to E McCullough Dr extension)
- A5 East McCullough Dr extension (new) (E McCullough Dr to Shopping Center Dr)
- A6 Shopping Center Dr (N Tryon St to University City Bv)
- A7 University Pointe Bv (N Tryon to IKEA Bv)
- A8 University Pointe Bv extension (new) (IKEA Bv to IBM Dr)
- A9 IKEA Bv (McCullough Dr to University City Bv)
- A10 IKEA Bv (new) (University City Bv to Macfarlane Bv)
- A11 Brookside Ln (IKEA Bv to N Tryon St)
- A12 Kemp St extension (new) (Rocky River Rd W to Sandy Av)
- A13 University City Station Parking Deck street (new) (IKEA Bv to N Tryon St)
- A14 Macfarlane Bv (IKEA Bv to I-85 Connector)
- A15 Rocky River Rd West (N Tryon St to Fortescue Dr)
- A16 New Street (Rocky River Rd W to N Tryon St)

Boulevards

- B1 University City Bv (N Tryon St to Mallard Creek Church Rd)
- B2 University City Bv (I-85 to N Tryon St)
- B3 North Tryon St (Sandy Av to Shopping Center Dr/University Pointe Bv)
- B4 North Tryon St (Shopping Center Dr/University Pointe Bv to WT Harris Bv)

Parkways

- P1 WT Harris Bv (I-85 to University Ridge Dr)

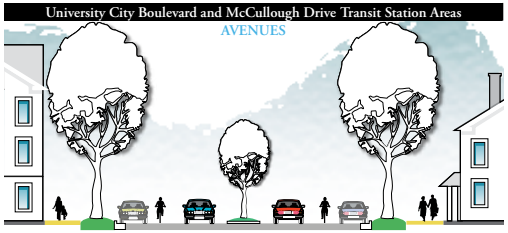
Local Streets

Transit-Supportive/ Mixed-Use Areas

Local streets in these areas are expected to be designed to either the residential-wide or office/commercial-wide cross-section, depending on the adjacent land use. The cross-section of local streets outside of the transit-supportive/mixed-use areas are best determined by Charlotte's land development ordinances.

University City Boulevard and McCullough Drive Transit Station Areas

AVENUES



	Sidewalk	Planting Strip	Parking	Bike Lane	Travel Lane	Median/ Turning Zone	Travel Lane	Bike Lane	Parking	Planting Strip	Sidewalk
A1: University Executive Park Drive *(WT Harris Bv to Collins-Aikman Dr extension)*	•	•	•	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking								16' or 24' setback
A2: University Executive Park Drive *(Collins-Aikman Dr extension to McCullough Dr)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A3: McCullough Drive *(WT Harris Bv to N Tryon St)*	•*	•	•	•	•		•	•		•	•*
	16' or 24' setback		*8' sidewalks and 18' setback between IKEA Bv and N Tryon St								16' or 24' setback
A4: East McCullough Drive *(N Tryon St to E McCullough Dr extension)*	•	•	•	•	•		•	•		•	•
	16' or 24' setback										16' or 24' setback
A5: East McCullough Drive extension (new) *(E McCullough Dr to Shopping Center Dr)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A6: Shopping Center Drive *(N Tryon St to University City Bv)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A8: University Point Boulevard extension (new) *(IKEA Bv to IBM Dr)*	•	•		•	•		•	•		•	•
	16' or 24' setback		Along bridge span, provide 8.5' sidewalks with no planting strips								16' or 24' setback
A9: IKEA Boulevard *(McCullough Dr to University City Bv)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A10: IKEA Boulevard (new) *(University City Bv to Macfarlane Bv)*	•	•		•	•		•	•		•	•
	16' or 24' setback										16' or 24' setback
A11: Brookside Lane *(IKEA Bv to N Tryon St)*	•	•		•	•		•	•		•	•
	16' or 24' setback										16' or 24' setback
A12: Kemp Street extension (new) *(Rocky River Rd W to Sandy Av)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A13: University City Station Parking Deck street (new) *(IKEA Bv to N Tryon St)*	•	•		•	•		•	•		•	•
	16' or 24' setback										16' or 24' setback
A14: Macfarlane Boulevard *(IKEA Bv to I-85 Connector)*	•	•	•*	•	•		•	•	•*	•	•
	16' or 24' setback		*Option to widen for recessed parking, in which case bike lanes shall be 6'								16' or 24' setback
A15: Rocky River Road West *(N Tryon St to Fortescue Dr)*	•	•		•	•	*	•	•		•	•
	16' or 24' setback		*11' left turn lanes where necessary								16' or 24' setback
A16: New Street *(Rock River Road W to N Tryon St)*	•*	•	**	•	•		•	•	**	•	•*
			* 8' sidewalks and 18' setbacks within ¼ mile of LYNX station ** Option to widen for recessed parking, in which case bike lanes shall be 6'								

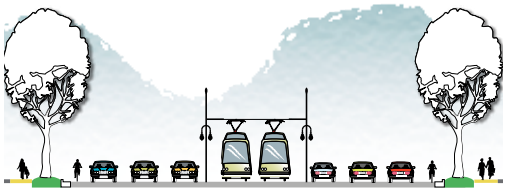
NOTE: ▸ Setbacks for avenues should be 16' if mixed-use and non-residential uses, 24' if residential uses.
▸ Cross-section reflects mid-block location elements and dimensions will vary at intersections.

Urban Street Design Guidelines (2007) recommends:
Posted Speed – 25-30 mph, with 35 mph allowable.
Design Speed – 30-40 mph.

Sources: Charlotte Department of Transportation (CDOT), 2014

University City Boulevard and McCullough Drive Transit Station Areas

BOULEVARDS



	Sidewalk	Planting Strip	Bike Lane	Travel Lane	Travel Lane	Travel Lane	Median only or LYNX within Median	Travel Lane	Travel Lane	Travel Lane	Bike Lane	Planting Strip	Sidewalk
B1: University City Boulevard *(N Tryon St to Mallard Creek Church Rd)*	•	•	•	•	•	•	•	•	•	•	•	•	•
	45' setback		Preferred access spacing to safely accomodate sidepaths would by > 880' street intersection spacing and > 440' residential driveway spacing										45' setback
B2: University City Boulevard *(I-85 to N Tryon St)*	•	•	•	•	•	•	•	•	•	•	•	•	•
	24' setback												24' setback
B3: North Tryon Street *(Sandy Av to Shopping Center Dr/University Pointe Bv)*	•*	•	•	•	•	•	LYNX •	•	•	•	•	•	•*
	24' setback		* 8' sidewalks within ¼ mile of LYNX transit stations										24' setback
B4: North Tryon Street *(Shopping Center Dr/University Pointe Bv to WT Harris Bv)*	•*	•	•	•	•	•	LYNX •	•	•	•	•	•	•*
	24' setback		* 8' sidewalks within ¼ mile of LYNX transit stations										24' setback

NOTE: ▸ Additional setback footage may be required for additional improvements.
▸ Cross-section reflects mid-block location elements and dimensions will vary at intersections.

Urban Street Design Guidelines (2007) recommends:
Posted Speed – 35-40 mph.
Design Speed – up to 45 mph.

Sources: Charlotte Department of Transportation (CDOT), 2014

University City Boulevard and McCullough Drive Transit Station Areas

PARKWAYS

	Multi-Use Path	Planting Strip	Bike Lane	Travel Lane	Travel Lane	Travel Lane	Median	Travel Lane	Travel Lane	Travel Lane	Bike Lane	Planting Strip	Multi-Use Path
P1: WT Harris Boulevard *(I-85 to University Ridge Dr)*	•	•*	•	•	•	•	•	•	•	•	•	•*	•
	55' setback		* 30' buffer preferred, 15' buffer allowed in constrained circumstances										55' setback

NOTE: ▸ Additional setback footage may be required for additional improvements.
▸ Cross-section reflects mid-block location elements and dimensions will vary at intersections.

Urban Street Design Guidelines (2007) recommends:
Posted Speed – 45-50 mph.
Maximum Design Speed – 55 mph.

Sources: Charlotte Department of Transportation (CDOT), 2014