# CIRCULATION AND PARKING

#### **ROADS AND VEHICULAR TRAFFIC**

The Campus Master Plan updates the campus transportation network through a multi-modal approach that encourages walking and biking while improving vehicular and transit movement. Improvements to the campus road network aim to create a connected, hierarchical system to accommodate a variety of modes of travel, ease congestion, and facilitate cross-campus connections. The Campus Master Plan proposes new east-west connections along an expanded East Law Lane to East Fourteenth Street to ease traffic congestion on East Tenth Street. New north-south connections on campus will also facilitate movement and increase options for drivers. North Woodlawn Avenue is proposed as a new street and a transit-oriented roadway connecting the IMU with the Athletics campus and remote parking via a new crossing proposed at the railroad.

#### ROADS AND VEHICULAR TRAFFIC DESIGN PRINCIPLES

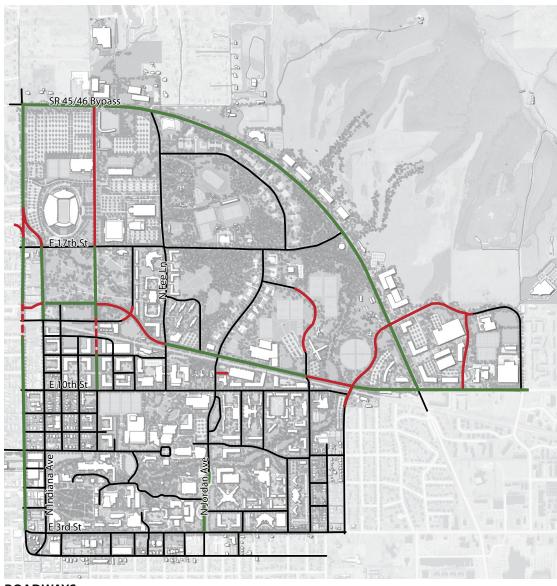
- Improve campus circulation for better mobility for all modes.
- Create a hierarchy of access and circulation.
- Provide alternative east-west routes through campus to reduce congestion on campus streets.
- Simplify north-south movement on campus.

#### ROADS AND VEHICULAR TRAFFIC RECOMMENDATIONS

- Complete East Law Lane between North Dunn Street and East Tenth Street for a new east-west corridor.
- Align East Law Lane with East Fourteenth Street past North Fee Lane for connection to North College Avenue and North Walnut Street.
- Reduce automobile traffic and congestion, and enhance transit on East Tenth Street.
- Supply a new, controlled at-grade railroad crossing on North Woodlawn Avenue for direct vehicular and transit access between the academic core and the Athletics campus.

- Replace the at-grade crossing at North Walnut Grove with the crossing at North Woodlawn Avenue.
- Realign sections of North Walnut Grove,
   East Thirteenth Street, and East Fourteenth
   Street north of the railroad to improve intersection design.
- Realign North Dunn Street and North Indiana Avenue at East Seventeenth Street for better connection to the North Indiana Avenue underpass at the railroad.
- Explore the feasibility of a new railroad crossing at North Dunn Street.
- Extend North Range Road north of the Technology Park to a signaled intersection at the SR 45/46 Bypass, and connect with East Tenth Street.
- Reconfigure and/or remove internal streets within the Technology Park and add a new north-south street from East Tenth Street to North Range Road.
- Reconfigure the East Tenth Street intersections with East Law Lane and North Jefferson Street to improve the underpass at the railroad.

- Explore the feasibility of a new underpass for East Tenth Street and re-use of the existing underpass for pedestrian and bike only use.
- Realign North Union Street north of the railroad to allow for future recreational sports fields and expansion.
- Eliminate East Lingelbach Lane's direct connection to East Seventeenth Street to preserve the woodland area.
- Reconfigure and/or remove parts of East Twelfth Street at North Woodlawn and North Walnut Grove to create larger development parcels.
- Create a boulevard on North Jordan Avenue south of the Jordan River to East Third Street.



# **ROADWAYS**

Future Road Improvements
Proposed Roads

Proposed RoadsFuture Railroad Crossing

Existing Campus Roads

Existing Road Network



#### **PARKING**

Little change is expected in the campus population over the time frame of the Campus Master Plan, and parking demands are not expected to change significantly. Implementation of the Campus Master Plan, the location of future facilities, and the relocation of new housing will displace some existing parking lots and garages. New development and changes in campus population will also shift and redistribute parking demand in the future.

The recommendations regarding parking in the Campus Master Plan focus on locations for replacing parking facilities that are displaced by development. Proposed parking, primarily in decks, is located to continue serving the density of the academic core, for both the daily campus population and campus visitors. One or two new parking decks south of the railroad will accommodate additional density proposed for the areas around the campus core and replace parking displaced by new development. Additional future deck locations are shown as part of the long-term planning in the Campus Master Plan.

These locations should only be considered after implementation of Transportation Demand Management strategies and as demand justifies their construction.

The Athletics Master Plan, conducted separately, recommended the addition of over 1,500 spaces to the Athletics campus. Improved transit connections, bike paths, and pedestrian walks are proposed to better utilize the supply of remote parking in the Athletics campus.

# West of the SR 45/46 Bypass

<u>Parking</u>	Existing	Proposed
Surface Lots	10,116	7,171
Decks	3,023	2,590
Totals	13,139	9,427
Net Reduction		3,378

# East of Bypass

<u>Parking</u>	Existing	Proposed
Surface Lots	1,000	750
Decks	0	718
Totals	1,000	1,468
Net Gain		468

### **Athletics Parking**

<u>Parking</u>	Existing	Proposed
Surface lots	6,500	8,075
Decks	0	0
Totals	6,500	8,075
Net Gain		1,575

# **Total All Parking**

Existing	20,639
Proposed	19,304
Net Reduction	1,335

# **Long-Term Opportunities**

Campus Decks	1,870
Private Decks	2,006

# **EXISTING AND PLANNED PARKING STRUCTURES**

424	Henderson Garage-constr. 8/07	550	550
442	Atwater Garage	644	644
458	Ballantine Garage-Upper	53	0
459	Ballantine Garage-Lower	64	0
255	11th & Fee Garage	635	635
400	Poplars Garage	427	427
528	Jordan Ave. Garage-Upper	331	0
529	Jordan Ave. Garage-Lower	319	0
PD1		0	1,053
PD2		0	991
PD4			334

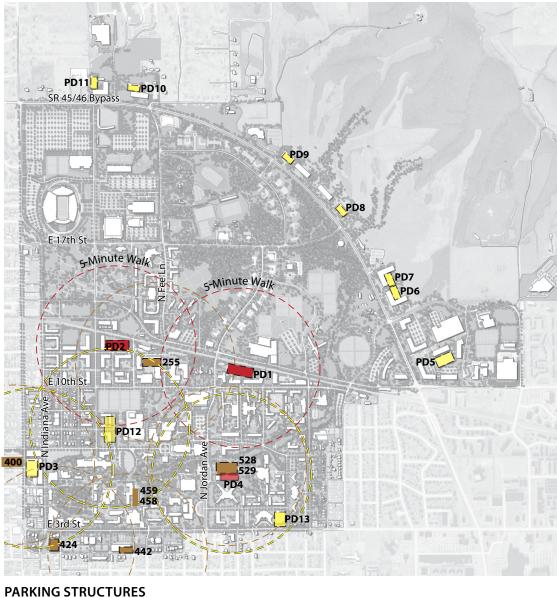
# **FUTURE PARKING OPPORTUNITIES**

PD3		0		334
PD12		0		619
PD13		0		582
	_		ſ	1,870

# **FUTURE TECHNOLOGY PARK PARKING**

PD5		0	718
PD6		0	334
PD7		0	334
PD8		0	334
PD9		0	334
PD10		0	334
PD11		0	334





Existing Parking Decks
Planned Parking Structures

Future and Technology Park Parking

Opportunities





# TRANSPORTATION DEMAND MANAGEMENT (TDM)

In order to reduce the need to construct more garages and make parking more readily available, it is recommended that the university implement a Transportation Demand Management (TDM) strategy. This will provide incentives for students, faculty, and staff to use alternative transportation rather than single-occupancy vehicular travel. TDM strategies include the following:

- Review current parking pricing policies and implement changes that can help reduce demand.
- Establish a bicycle-sharing program.
- Provide subsidies for transit and bicycle usage.
- Increase marketing of the carpooling program, including reserving more spaces in high quality locations and implementing a matching service.
- Increase marketing of the Guaranteed Ride Home Program.
- Establish a car-sharing program on campus.

#### **TDM DESIGN PRINCIPLES**

- Distribute parking to serve the majority of campus within a 5-minute walk of campus destinations.
- Develop parking garages rather than surface lots in strategic locations to better utilize land in the academic core.
- Promote better utilization of existing decks south of East Third Street.
- Locate future decks closer to the direction of arrival, to reduce traffic volumes on and across campus.
- Promote better utilization of remote parking for regular campus use.
- Link parking facilities to transit and bicycle facilities.
- Enhance the sustainable design of parking facilities.

#### **TDM RECOMMENDATIONS**

- Implement TDM measures.
- Remove the structured parking east of Ballantine Hall for the future academic building site, and reallocate spaces to existing decks south of East Third Street.
- Develop a new parking deck east of North
  Jordan Avenue between the railroad and East
  Tenth Street to replace parking from the
  Wells Library lot. Provide primary ingress
  and egress off of North Jordan Avenue.
- Remove most of the surface parking at the IMU and the lot north of East Seventh Street at North Woodlawn Avenue for new development and a new Campus Green. Maintain some visitor and ADA parking at the IMU hotel drop-off.
- Develop new underground structured parking to serve the IMU at North Woodlawn Avenue at East Seventh and East Eighth Streets, with a transit stop and bicycle parking.

- Reserve the site on North Dunn Street between East Kirkwood Avenue and East Seventh Street as a future parking deck to serve future mixed-use development, new student services building, conferencing, and events at the IMU.
- Redevelop the 2-story deck on North
  Jordan Avenue south of East Seventh Street
  as a smaller footprint with new academic
  development.
- Provide limited, small-scale surface lots within the academic core to serve short-term parking needs.
- Retrofit surface lots with porous pavement and additional landscape.



North Jordan Avenue

# **TRANSIT**

Transit recommendations within the Campus Master Plan involve simplification of the existing routes combined with altering routes to take advantage of the proposed North Woodlawn Avenue corridor and to serve the east side via the extension of North Range Road across the SR 45/46 Bypass. To improve campus mobility, it is recommended that a number of campus transit routes be simplified to more direct, out and back, east-west, and north-south connectors, with a few transfer stops at key campus locations. Plans also recommend the establishment of a high-quality loop shuttle with multiple transfer options to connect the east-west and north-south routes.

The express shuttle from the remote parking at the Athletics campus is recommended to take advantage of the proposed North Woodlawn Avenue corridor and new railroad crossing. Future underground parking at the intersection of North Woodlawn Avenue and East Seventh Street is proposed as a multi-modal stop at the terminus of the North Woodlawn Avenue express shuttle and other campus routes.

In the long term, if rail passenger service is established, the Campus Master Plan has identified a location near the intersection of North Woodlawn Avenue and the railroad tracks to serve as a the potential site of a future station.

# TRANSIT DESIGN PRINCIPLES

- Simplify transit runs to out and back routes.
- Increase connectivity and areas of service.
- Create transfer stops to reduce redundant loop routes.
- Connect transit stops to parking reserves, decks, and major campus destinations.
- Integrate bike parking, transit stops, and parking garages where possible to encourage ridership.

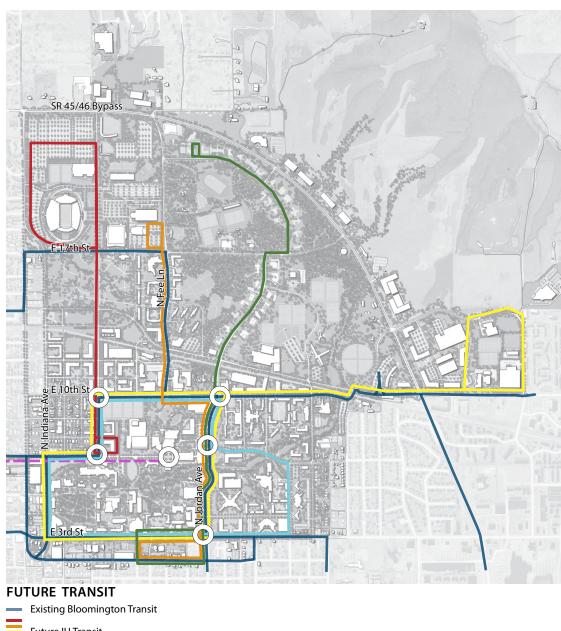
#### TRANSIT RECOMMENDATIONS

- Create a simple north-south transit run on North Woodlawn Avenue from East Seventh Street to the SR 45/46 Bypass within the Athletics campus, utilizing the proposed rail crossing.
- Create an internal bus transit route within the Athletics campus to serve the commuter

- lots and off-campus apartments, utilizing the proposed North Woodlawn Avenue pedestrian mall north of East Seventeenth Street.
- Develop a combined transit stop, varsity team shop, possible bookstore, and coffee shop at the south end of the stadium.
- Create a new east-west bus route that connects the Technology Park to the central campus.
- Simplify bus routes to more direct runs and reduce redundant loops around campus.
- Create a series of bus transfer points on campus to facilitate transit links.
- Work with the City of Bloomington to develop a bus transit route on East Seventh Street from downtown to the IMU.



North Indiana Avenue





Future Connection to City

Transfer Points



#### **BICYCLE CIRCULATION**

Improvements to bicycle circulation on campus involve strengthening north-south and east-west connections as well as the creation of new bike lanes, off-street paths, and bike-friendly streets. New roadways such as East Law Lane and North Woodlawn Avenue should contain bike lanes. The Campus Master Plan also recommends a bike station on campus and a possible bicycle-sharing program. Bicycle circulation on campus will benefit from general improvements in the transportation network. With traffic refocused on certain routes, streets such as East Tenth Street become friendly to bicyclists and pedestrians.

#### BICYCLE CIRCULATION DESIGN PRINCIPLES

- Make bicycle transportation easier and more convenient to increase bike use and reduce reliance on automobiles to and around campus.
- Connect the campus bike system to regional resources.
- Design new roadways to encourage on-street bike lanes.

- Utilize off-street paths for mix of bike and pedestrian use.
- Develop multi-modal centers in conjunction with bus transit and parking.

#### **BICYCLE CIRCULATION RECOMMENDATIONS**

- Develop designated on-street bike lanes for East Law Lane and North Woodlawn Avenue, a minimum 5-foot width, on both sides of the street.
- Develop connected off-street multi-use bike paths across campus.
- Develop a multi-use recreational trail along the SR 45/46 Bypass, and create bike- and pedestrian-safe crossings at signalized intersections at East Tenth Street and the proposed North Range Road extension.
- Develop bike-friendly streets on campus secondary roads with wide vehicle lanes and traffic calming to accommodate occasional bike use.
- Add more bike parking and storage near major campus classrooms and destinations, including the IMU, dining, and housing locations.

- Where feasible, include covered bike parking within parking decks and major destinations.
- Where feasible, incorporate showers and lockers.
- Explore the development of a bike repair shop on campus.
- Develop a bike-sharing program.



**Dunn Meadow**