

# Transportation and Circulation



How Cornell’s campus functions and the experience it provides depends in large part on how people move about and how well connected its various parts are to one another. By definition, a campus should be highly “walkable”, but given its location, size and land use diversity, Cornell must accommodate different modes of travel in nearly all parts of its campus. This chapter addresses all aspects of the university’s movement systems, focusing on strategies that will make the campus more pedestrian and transit friendly.



Cornell’s location away from densely populated areas is one of its most treasured aspects. The relatively low density setting and the two gorges have a significant impact on access to and through the campus, particularly for vehicles. The bridges across Fall Creek direct the approach routes from the north; access from Collegetown and Downtown Ithaca is limited to only two routes; and steep slopes limit direct access from the west. From the east and southeast, access to the campus is less restricted. Given its setting and the limited through-routes in the area, campus streets tend to be used by all vehicle types. Except for load requirements and turning geometry, there are no vehicular restrictions.

As the university evolves, cars will continue to have a presence in Core Campus, but by making walking, cycling and transit use easier with a variety of strategies, the number of vehicles traveling to and across campus can be reduced. And by building an extensive path network across campus, reducing the amount of surface parking and carefully managing truck movements, more car-free zones can be created. Where vehicles are welcome, the needs of pedestrians and transit users should be a paramount concern to ensure the development of a truly pedestrian-oriented campus.

4.27

## Build and maintain a comprehensive network of sidewalks and pathways

A pedestrian-oriented campus is one where almost anyone can walk to almost anywhere they choose, safely and comfortably, and where they are encouraged to do so.

Much of campus is criss-crossed by paths and is highly walkable, but pedestrian routes on East Campus are far fewer and South Campus has not been designed for walking. The extension and maintenance of a fine-grained pedestrian network as the campus evolves are essential. This network should include, sidewalks, paths through quads, gardens, trails through quads, gardens, trails through natural areas, shared ped-bike pathways and connections through buildings, and should be kept clear of snow in the winter. In the busiest parts of Core Campus, pathways should be generous enough to accommodate the high volumes of traffic during class changes. As East Campus intensifies, an extensive pathway network should be developed within the planned open space system, and large academic buildings should have highly-visible, public

through-connections. An “accessible-by-all” approach should guide the design of paths, open spaces and buildings.

Pathways and sidewalks should be wide enough to accommodate two-way wheelchair traffic, especially along major pedestrian corridors such as East Avenue and Tower Road. In order to accommodate two-way wheelchair traffic, pathways and sidewalks should be a minimum of six feet wide. Entries to streets from sidewalks should be designed with ADA-compliant pedestrian ramps in all areas of campus. Due to Cornell’s unique topography it is not always practical to provide gently sloping ramps instead of stairways. In these instances, alternative routes that are wheelchair-friendly, via buildings with elevators where possible, should be clearly marked with appropriate signage.

### Mid-Campus Walk

As development in East Campus intensifies, the establishment of a defined east-west pedestrian corridor will strengthen physical and visual connections to Central Campus. The Mid-Campus Walk, built in phases, will run parallel to Tower Road and Campus Road, linking future development, open spaces, cultural facilities, and possibly a new student center in East Campus. See Section 4.25 for a conceptual description and illustration of the proposed Mid-Campus Walk.



Using existing and new sidewalks and off-road paths, the pedestrian network should be extended to all populated areas of campus, including East Hill Village and the Ellis Hollow and Pine Tree Road Athletic Complexes. Not only will well-designed paths and trails encourage walking and cycling to these areas; they will also provide access to the natural features of Cascadilla Creek.

### Make maintenance a priority

Another important aspect to encourage walking is pathway maintenance. Repairing pathways that are not in good condition or do not drain properly should be a priority. During the winter months, snow removal on primary pathways campus-wide is paramount.

### Minimize construction impacts

As development of the campus continues, Cornell needs to accommodate pedestrians during construction. Pathways

The Primary Pedestrian Network includes walks, streets, trails, and significant pathways and other connections. While the design of these pedestrian routes can and will vary greatly, their alignment should generally conform to this plan. Primary pedestrian routes can pass through the public lobby, atrium or other interior public space of a building. The Secondary Pedestrian Network includes pedestrian connections and paths intended to augment the Primary Pedestrian Network and ensure a fine-grain network of paths is achieved across the campus. The location of future secondary routes may vary from the network illustrated here, and many more than are shown may ultimately be created.

should remain unobstructed wherever possible with signed detours when blocking sidewalks is absolutely necessary. Likewise, service and construction vehicles should be prohibited from parking on sidewalks. Cornell should require bicycle and pedestrian access plans for all phases of construction be reviewed and approved before development projects begin.

**Connect the network to surrounding communities**

As part of the completion and enhancement of the pedestrian network, Cornell should coordinate with surrounding neighborhoods to connect the campus pedestrian network with the community network, thereby encouraging commuting by foot to campus. One particular opportunity to be explored is a new pedestrian/bicycle bridge over to the Cascadilla gorge at Eddy Gate to improve connections between Collegetown and West Campus.



Ho Plaza

- primary pedestrian route
- - - secondary pedestrian route

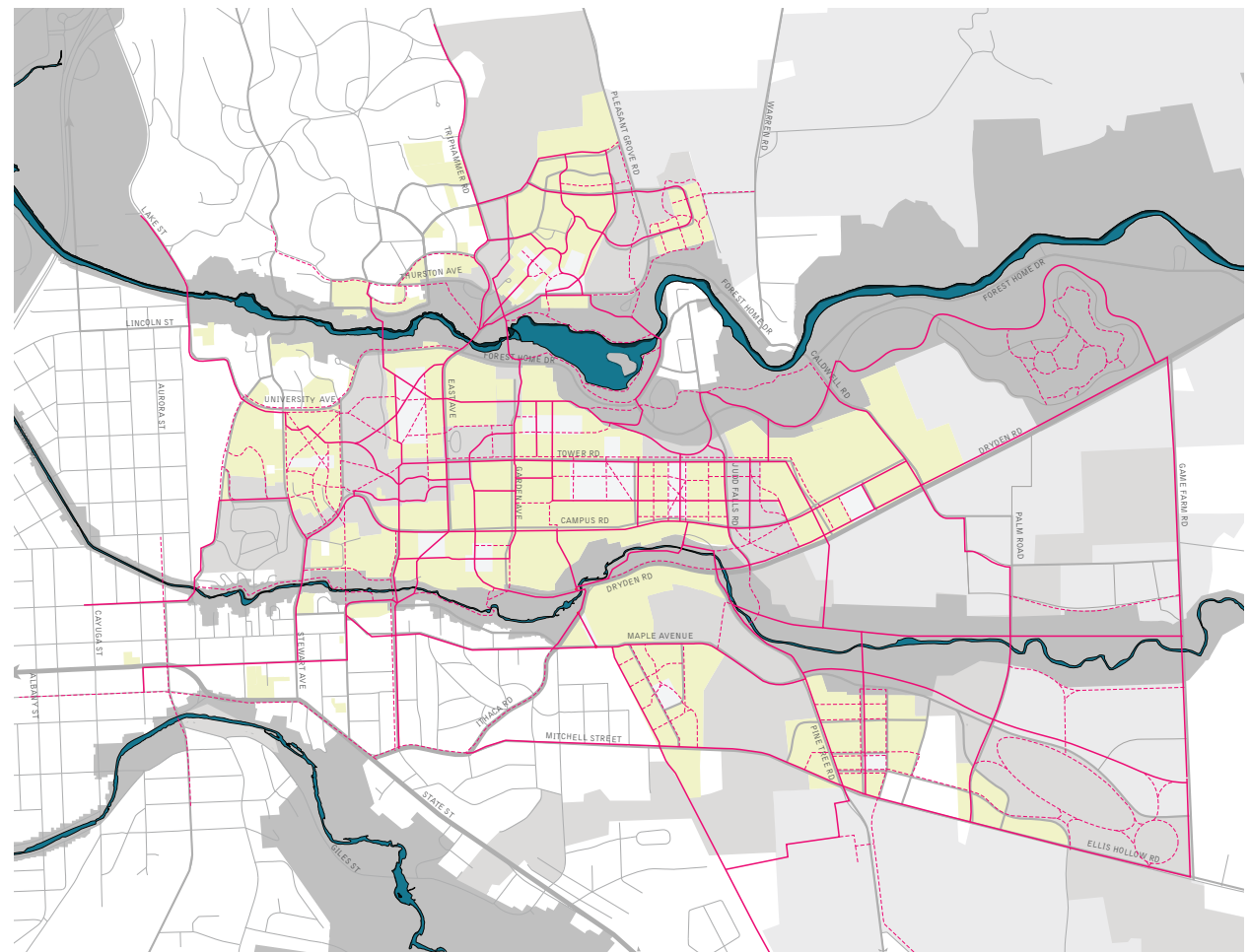


fig 36 – Primary pedestrian network

## Improve pedestrian safety

### Reduce pedestrian–vehicle conflicts

Interactions between pedestrians and vehicles on campus present the greatest threat to pedestrian safety. In order to increase pedestrian safety, all areas where large pedestrian volumes interact with vehicles should be highly visible. Crosswalks should be clearly defined, either by introducing a new material for crosswalks or by ensuring crosswalks are painted distinctly. Pedestrian signage should also be installed to warn motorists of high pedestrian crossing areas.

At the busiest pedestrian crossing points in Central Campus and North Campus, Cornell should investigate the installation of raised crosswalks. Raised crosswalks will help alert motorists that they are entering a high pedestrian area and will serve as a traffic calming measure to help reduce vehicle speeds. Intersections along East Avenue and Campus Road, which will need to continue to accommodate vehicles throughout the day, are prime

candidates for raised crosswalks. While East Avenue and Campus Road will remain important vehicular routes, Tower Road can function as a transit and pedestrian dominated corridor, with better sidewalks and more pedestrian and transit amenities. See Section 4.25 for a conceptual description and illustration of an improved Tower Road.

### Improve pedestrian lighting

Well-lighted streets and paths are critical to encouraging walking past daylight hours. Currently, most of the lighting along Cornell's active streets is highway-type lighting, which generally provides a low level of illumination for walkers. To ensure pedestrians feel safe traversing the campus, a higher level of lighting is recommended along major routes. A program of lighting improvements should be developed and implemented for all existing sidewalks and preferred mid-block routes linking residential areas and visitor parking to common destinations (libraries, athletic/performance venues, other social and cultural hubs).

As Cornell's pedestrian network expands, new pathways should include pedestrian-level lighting. New high-efficiency, LED-type fixtures being developed and soon-to-be available will ensure enhanced pedestrian lighting has a minimal impact on overall energy consumption.

As development occurs throughout campus, Cornell should establish guidelines for construction projects to minimize their impacts on pedestrians, bicycling, parking and vehicular circulation. They should include maximum parking space requirements for construction vehicles and limit encroachments onto sidewalks and roadways. To address parking demand greater than provided on-site, Cornell could require contractors to shuttle workers to remote parking areas.



Campus Road and East Avenue

## Encourage cycling

### Expand and improve the bicycle network

Cornell has a large bicycling community, and, although Ithaca's climate and topography do not make cycling easy for everyone, there are opportunities to make cycling a viable alternative to more people who now drive to and from campus. Regardless of the mode of commuting, bicycles should be available and encouraged for cross-campus trips. The completion, improvement and maintenance of the campus's bicycle network should be priorities.

The bicycle network will be comprised of on-street bike lanes, shared traffic lanes and off-road paths, with common signage prominently identifying primary routes. Paved routes should be well-maintained to ensure safe use by cyclists, and on-street bike lanes should be cleared of snow. The bike network should discourage cyclists from

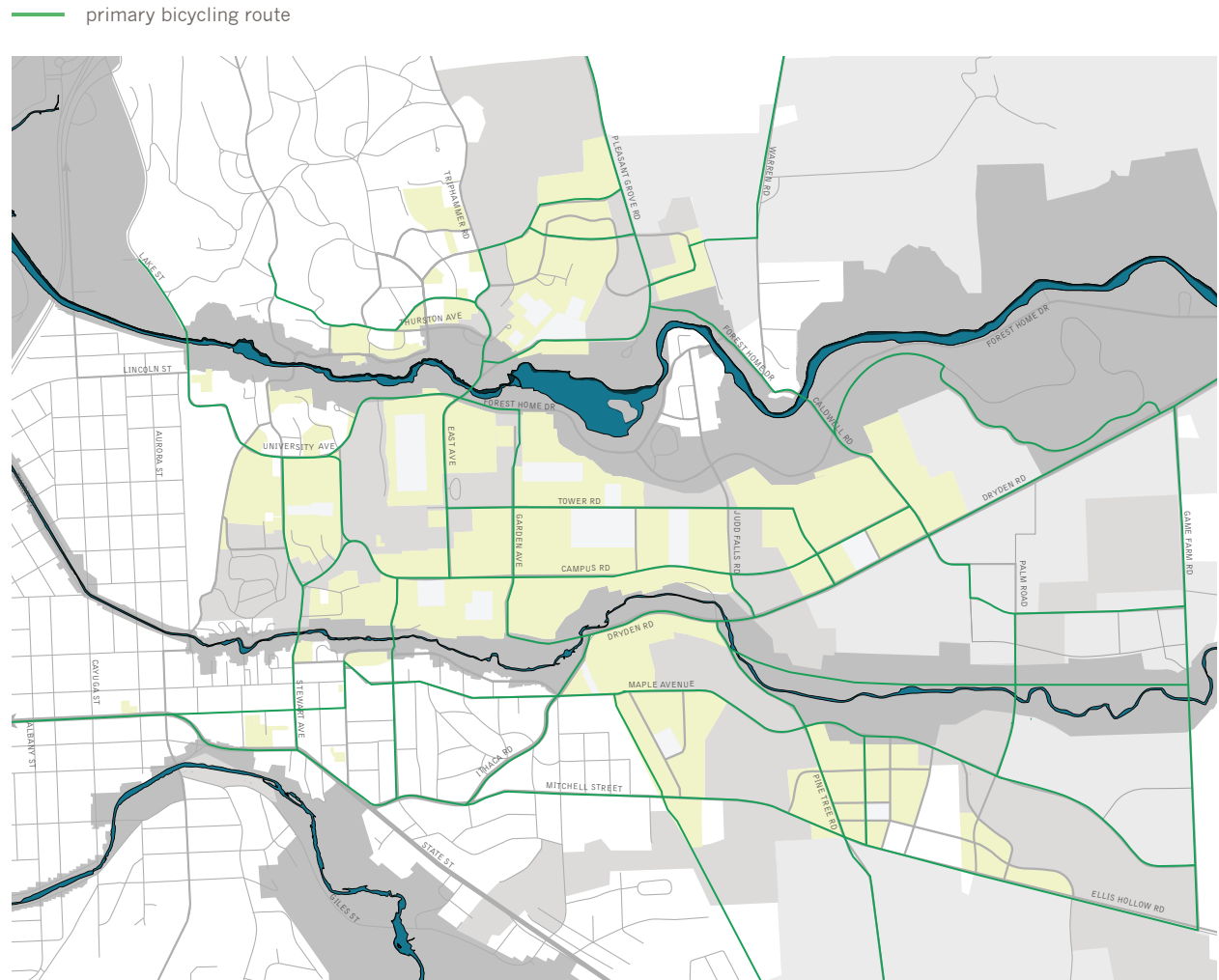


fig 37 – Primary bicycling network

using heavily-traveled pedestrian routes, and along shared paths and trails, signage should remind cyclists to look out for and give way to pedestrians.

### **Install bicycle amenities around campus**

Adding bicycle amenities around campus should go hand-in-hand with completing the bike network. Bike racks should be located outside of all buildings, with weather protection provided wherever possible. Most new buildings should include indoor bicycle storage facilities and change rooms. Also, Cornell should continue to work with TCAT to equip all buses with larger capacity bicycle racks.

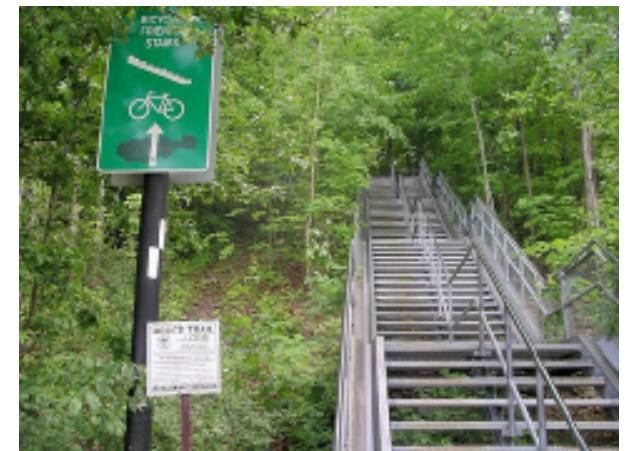
The steep grades in certain areas of campus deter high use of bicycles, and in some places walking your bike is the only choice. Cornell should install, wherever possible, bike stairs on all future stairways and retrofit existing stairways in these areas. Bike stairs simply include narrow ramps adjacent to the steps that allow bicyclists to roll their bicycle uphill.

### **Improve access to bicycles**

Cornell should also investigate programs to increase bicycling on campus, including a bike-share or bike rental program. A bike-share program would allow a member to pick up a bike at one location on campus and leave it at separate location, avoiding a long walk or short drive to a class, meeting or appointment. Also, bike rentals should be investigated, perhaps by partnering with the bike shop in Collegetown. Cornell should consider subsidizing bicycle rental costs for students or employees who wish to rent a bicycle for the semester instead of applying for a parking permit. Both of these programs would help increase cycling awareness and reduce the number of auto trips to and across campus.



Bikeshare facilities, Stockholm



Bike stairs

## Simplify the transit system

Public transit is a critical and well-used component of Cornell's overall movement network. The current system of TCAT bus routes provides service to many locations in the county, but routes are sometimes circuitous and service decreases substantially after 7:00 p.m. on most routes. To better connect all active parts of campus to one another, and further discourage driving to and on campus, the transit option must be more convenient, understandable and attractive.

### Work with TCAT to optimize the bus network

An important first step is to work with TCAT to optimize and simplify the transit system. TCAT's extensive bus network results in almost 550 buses per day traveling on Tower Road, 300 buses per day on East Avenue and 275 buses per day on College Avenue. The sheer number of buses on campus and the number of routes they serve causes confusion for prospective riders and those

who want to use transit to reach different destinations. Optimizing the bus network should significantly reduce bus traffic through campus, which will help to reduce pollution and noise and create a more pleasant walking environment. Not all existing routes will need to be modified, and overall ridership levels should not be compromised. By optimizing the overall network and simplifying service, TCAT could reduce overall door-to-door travel time and increase individual bus loadings.

### Establish transit hubs and kiosks

One possible strategy for Cornell to explore with TCAT would be to end some routes from outside the campus at the periphery of campus or at transit hubs located at each end of Tower Road, where users could easily transfer onto campus circulator, described below.

At the transit hubs, as well as strategically located transit kiosks, users will have access to easy-to-understand information about routes, schedules and next-bus arrival times. Monitors in the hubs and kiosks could display arrival times for approaching buses. As a long-term goal, Cornell should encourage TCAT to install GPS tracking devices that would allow users to receive instant e-mail or text message updates as to their desired bus's location and scheduled arrival time.



The heavy vehicle presence on Tower Road creates conflicts with pedestrians and cyclists.

4.31

## Develop a campus circulator

In partnership with TCAT, Cornell should formalize and phase in a campus circulator to provide high-frequency transit service within the campus. The intent of the campus circulator would be to:

- make it fast and easy for students, faculty and staff to traverse the campus anytime;
- facilitate and encourage parking at the periphery of Core Campus;
- provide visitors easy access to most parts of campus;
- Reduce the number of TCAT buses that travel through Core Campus, particularly during low ridership hours; and
- Generally make the campus more accessible for those with disabilities.







The campus circulator should be a smaller shuttle than the current TCAT buses. The buses should be low-floor to ensure disabled users, including those who are in a wheelchair, can board and exit easily. In addition to

having a lower seating capacity, the shuttle should use environmentally-friendly fuels to minimize pollutants and emissions. Smaller buses should help minimize noise impacts on campus, allow for low headway between buses on the circulator loops, and be able to navigate Cornell's unique landscape and historic areas most effectively.

In order to achieve a high ride-share, the campus circulator must be frequent and provide fast, efficient service to desirable locations. Ideally, the campus circulator would operate 18-20 hours a day, providing a transit option for users working on campus late at night. TCAT service is reduced dramatically after 7:00 p.m., forcing many potential riders working or studying on campus late to drive their cars. Also, in order to provide efficient service, the campus circulator should operate bi-directionally, allowing riders to board the shuttle that will get them to their destination most directly.

Stops for the campus circulator should be located next to heavily used academic and administrative buildings and large parking facilities. This will functionally equalize parking spaces on the campus's periphery with those in the center of campus, some of which will be the first development sites. Transit stops should be designed as focal points for the campus and could become iconic locations that contribute to placemaking through streetscaping and incorporation of stops into adjacent buildings. In order to maximize ridership, transit stop locations should be spaced evenly on both Tower Road and Campus Road so that users in the Core Campus are never more than a 2 to 3 minute walk from a bus stop. During sporting and special events, additional temporary stops can be added in front of the venue. It is expected that the university will need to subsidize the costs of operating the campus circulator, particularly in the early stages of implementation, as the focus should be on changing transportation habits by encouraging its use.



-  campus circulator route and stops
-  campus circulator extensions
-  transit hub
-  primary campus approaches
-  road network
-  large parking facilities (400+ spaces)

The campus circulator should ultimately include at least the four interconnected routes described below.

**Loop A - Central Campus to/from B Lot**

Phase one of the campus circulator should be a loop stretching from the heart of Central Campus to B Lot, running along Tower Road, Campus Road and East Avenue. In the short-term, this loop would primarily serve commuters and others parking in B Lot or one of the other parking facilities along Campus Road, functionally equalizing parking spaces at the periphery of the core. As development in East Campus intensifies, it will be used increasingly for cross-campus trips throughout the day.

**Loop B - Central Campus to/from A Lot**

Loop B should provide frequent, quick and efficient transit service between Central Campus and A Lot in North Campus via Jessup Road, Triphammer Road and Thurston Avenue. Like Loop A, this portion of the campus circulator will also help to reduce the number of vehicles in Core Campus by encouraging remote parking. Loop B will connect to the heart of Central Campus.

Loop A and Loop B essentially would replace TCAT’s Route 81, their second most popular route. However, the campus circulator’s shorter routes allow for more efficient service, and Loop A provides service to significantly more parking facilities.

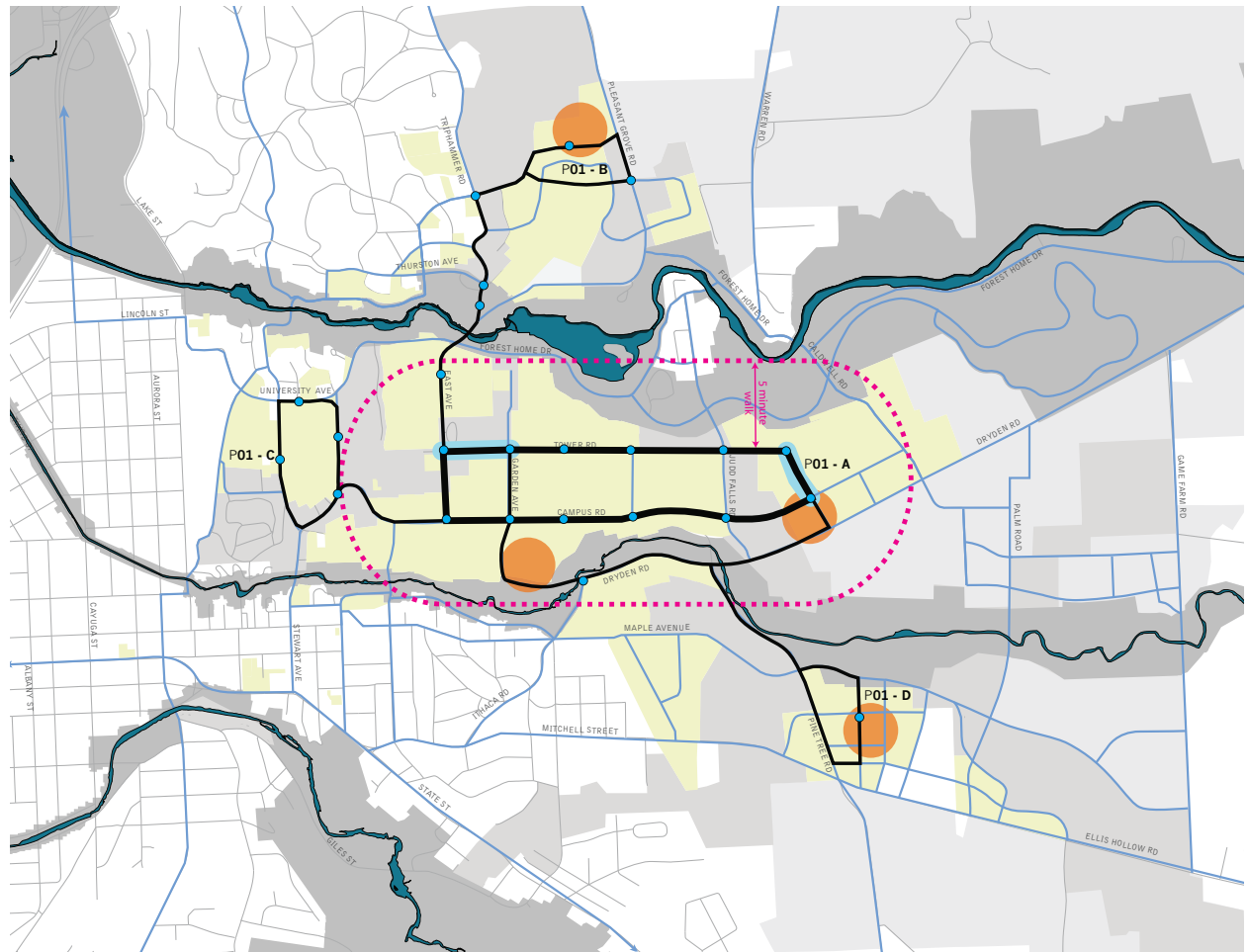


fig 38 – Campus circulator system

### Loop C - West Campus

Loop C would link Loop A and Central Campus to West Campus and potentially Collegetown, effectively ensuring high-frequency transit service from West Campus to all parts of the core, all day and all evening. Loop C would circulate around the residential area of West Campus, using Stewart Avenue and West Avenue. Loop C would then connect to the other loops via East Avenue in the Core Campus. An additional loop down College Avenue to and from the Schwartz Center could also be added.

### Loop D - Core Campus to East Hill Village

The existing bus shuttle service between Day Hall and the East Hill Office Building is essentially the precursor to this critical link between Core Campus and evolving East Hill Village. It will ultimately be replaced by it. The routing and frequency of Loop D should respond to the locations of activity centers and ridership demand, with service becoming more frequent as both the core and the Village grow. With this loop, there is the opportunity to integrate a park-and-ride facility at East Hill Village, taking advantage of parking spaces not otherwise needed during the day, which would reduce the requirement for commuter parking in the core. With the establishment of East Center and further increases in academic and social activity in East Campus, it may be most efficient to terminate Loop D at the eastern transit hub, where riders could transfer to Loop A to reach any part of the core.

### Athletics Loop

There is the potential for the Ellis Hollow Athletic Complex and/or Pine Tree Road Athletic Complex to be significantly enhanced with the relocation of existing facilities now in Core Campus. It may become necessary to establish an additional campus circulator Loop between Central Campus and these areas that operates during peak practice times and athletic events, to ensure participants and spectators can access them easily without a car.

With all four loops of the campus circulator in place, the campus will be more integrated, the number of buses in the core could be reduced substantially, peripheral parking will be more convenient, and travel generally within the campus will become much easier.



Examples of smaller, low-floor buses.

## Make strategic improvements to the road network

From the standpoint of traffic volumes and travel times, the existing campus road network generally functions well. However, there are several improvements Cornell should pursue that will have a significant benefit for not only drivers and transit, but also for pedestrians and cyclists.

### **Hoy Road realignment**

To improve traffic circulation in Core Campus and create a larger car-free zone around the College of Engineering, Hoy Road should be realigned if and when Hoy Field is relocated to accommodate development. The new road would connect to the existing intersection of Campus Road and Garden Avenue. Currently, Hoy Road intersects with Campus Road and the driveway to the Statler Hotel. This creates an intersection in close proximity to the busy intersection of Campus Road and East Avenue. Besides helping to create a development parcel contiguous to the

Engineering Quad, realigning Hoy Road improves traffic circulation along Campus Road and eliminates congestion caused by the closeness of the two existing intersections.

### **Pine Tree and Dryden Intersection**

The Pine Tree Road at Dryden Road (Route 366) intersection, currently controlled with stop signs on all approaches, operates poorly during the morning and afternoon peak commuter hours. Cornell should study this intersection to see if a traffic signal or a traffic circle could improve operations. These studies should also investigate providing additional width to the Pine Tree Road approach. Signalizing the intersection should drastically improve vehicular operations at this critical approach to Core Campus.

### **North Campus improvements**

A significant portion of Cornell's student population resides on North Campus, and nearly all of the students do most of their daily traveling by foot. At the same time, many commuters and visitors from the north use the roads through North Campus to reach the core, making pedestrian-vehicle conflicts an ongoing issue.

Interaction between pedestrians and vehicles along Thurston Avenue near the Thurston Avenue Bridge is a

concern. As vehicles travel north on Thurston, they are required to make a sharp right turn onto Wait Avenue. A majority of vehicles slow down as little as possible to make the turn, putting pedestrians at risk. Cornell should implement the recommendation of the North Campus Gateway Committee (NCGC) and straighten this segment of Thurston to Wait Avenue, creating a smoother route, while adding more visible crosswalks.

Cornell should also reconfigure the intersection of Cradit Farm Drive at Pleasant Grove Road to create a natural movement onto campus, especially for visitors, and discourage drivers from accessing the campus through Forest Home. With the reconfiguration, vehicles traveling southbound along Pleasant Grove Road would travel straight onto Cradit Farm Drive instead of having to make a right turn. The increase in traffic on Cradit Farm Drive resulting from this reconfiguration should not be significant. However, due to the substantial number of students routinely crossing Cradit Farm, concurrent improvements to the roadway should be investigated to ensure pedestrian safety is maintained. Major pedestrian crossings should be highly visible, perhaps with raised crosswalks. Signage should alert vehicular traffic that they are entering a high pedestrian traffic area.

There is also the long-term potential to create a new road link from Warren Road to Pleasant Grove, north of the Robert Trent Jones Golf Course, to more clearly divert Cornell-bound traffic heading south on Warren to Pleasant Grove. This new road would reduce Cornell-related traffic on Hanshaw Road and help to ease congestion at the Hanshaw and Pleasant Grove intersections.

### South Campus improvements

Development in East Hill Village will be supported by an open grid of streets that promote connectivity, define urban development blocks and support a strong pedestrian realm. The conceptual street network illustrated here may be refined through more-detailed study.

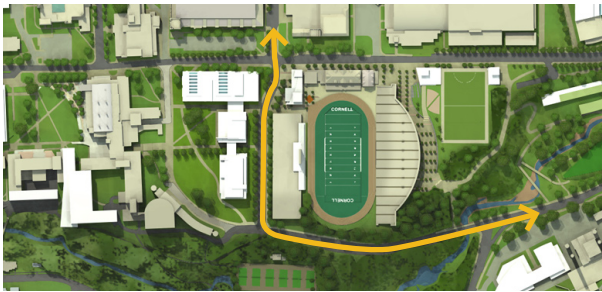


Illustration of Hoy Road realignment.

- █ state road
- ▬ collector road
- ▬ local road
- - - rural road
- - - road network improvements
- intersection improvements

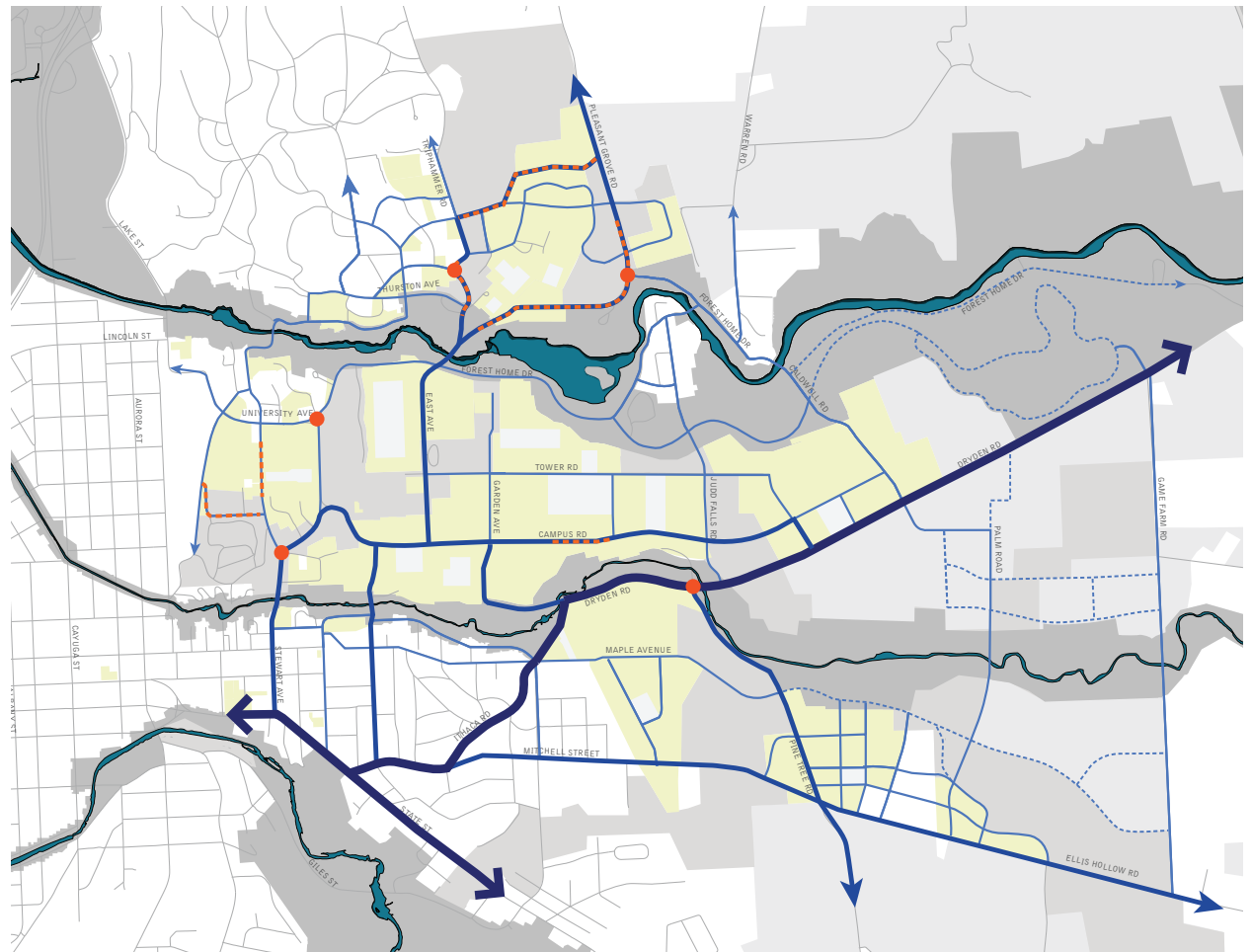









fig 39 – Campus road network

4.33

## Maintain or reduce the supply of commuter parking on campus

Cornell's successful travel demand management (TDM) strategies have become a model for other universities looking to reduce automobile usage on their campuses. Among students alone, transit ridership has increased significantly in the past decade and the number of parking permits issued was reduced by almost half between 2002 and 2007, from almost 2,800 to less than 1,500. By complementing its TDM programs with the proposed Transportation Impact Mitigation Strategies (TIMS) and helping to improve transit service as discussed above, Cornell should be able to grow its population without increasing its overall supply of commuter parking. The university's goal, indeed, should be to reduce the supply by not always replacing every space that is lost when a parking lot is redeveloped.

-  campus circulator route and stops
-  campus circulator extensions
-  transit hub
-  parking lot >400 spaces
-  parking lot 100 – 400 spaces
-  parking lot <100 spaces
-  visitor parking lot

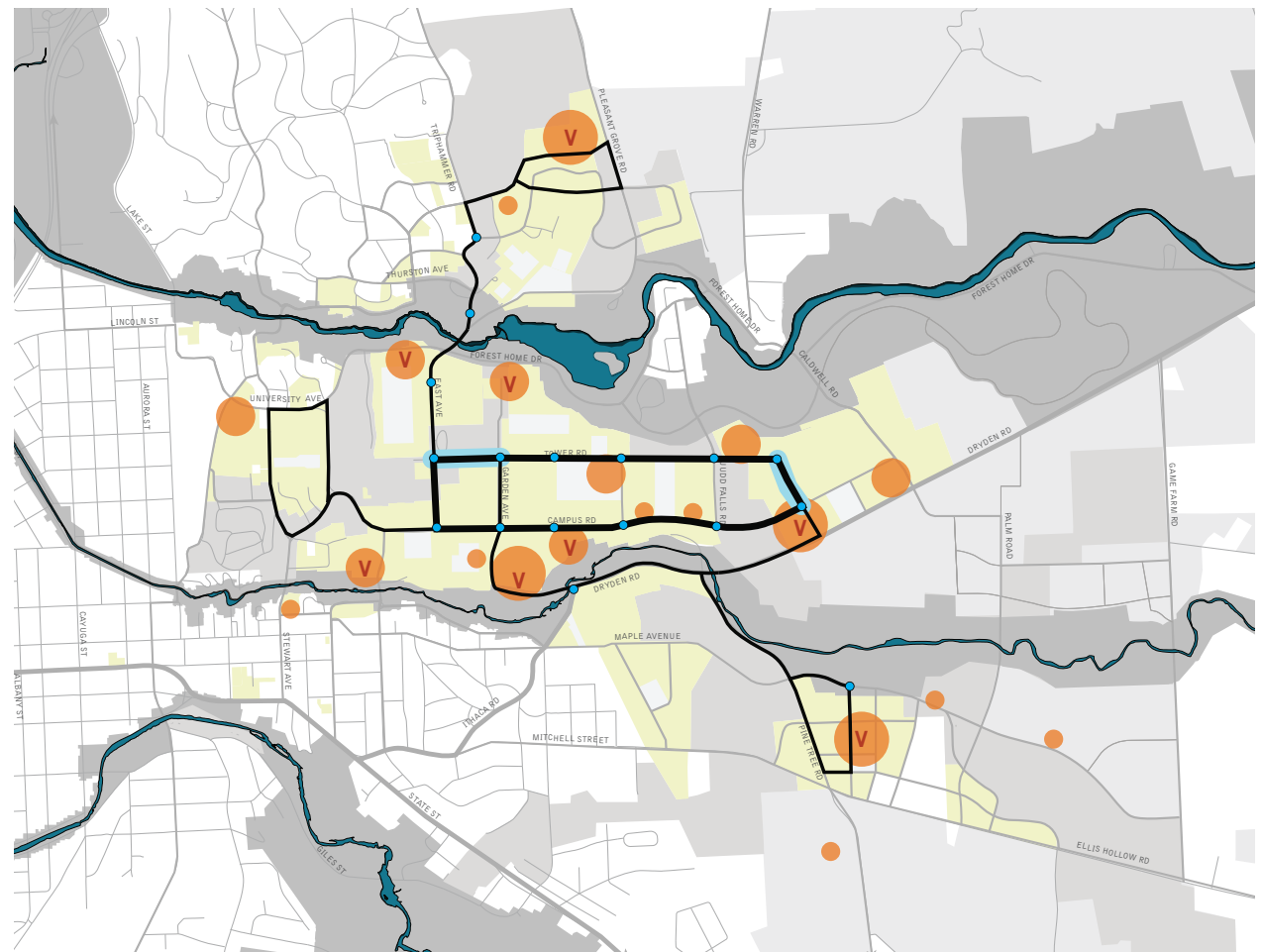


fig 40 – Campus transit system and parking distribution

4.34

## Redistribute parking to the periphery of Core Campus

Although Cornell's parking supply is sufficient to handle the current and projected future parking demand, the location of parking is an issue for many. In general terms, it is perceived that there is not enough parking close to Central Campus, where so many faculty, employees and visitors are destined. Shifting the focus of future academic and administrative development to East Campus and, to a lesser extent, East Hill Village will alleviate but not eliminate this problem.

To generally improve access to parking but also facilitate the development of a compact, unified campus, a strategy of consolidation and redistribution is required. As Core Campus evolves, surface parking should be consolidated in new parking structures located below or above ground, generally along the periphery of Core Campus. Two new parking structures, one under the North Martha Van Rensselaer Building and one behind Sibley Hall, are



currently planned and a third, adjacent to the Law School, is proposed. In addition to these, one level of underground parking should be included in the redevelopment of Hoy Field, Kite Hill (for athletic facilities), sites in East Center adjacent to Campus Road and the lab/greenhouse complex on Tower Road. There is also the potential to build a level of parking under the future Alumni Quad. The redevelopment of portions of B Lot adjacent to Tower Road should include underground parking and/or above-ground parking incorporated into the design of academic buildings.











The campus circulator and a fine-grained path network will connect each of these structures to all parts of the core. By locating parking at the edges, the number of vehicles driving through the core will be reduced, the walking experience will be enhanced, and land will be made available for development and open space improvements.

4.35

## Improve the visitor experience

With visitors arriving from north, south, east and west, there are multiple gateways and no main approach or entrance to campus. Finding few clear signs of any kind as they approach, many visitors accidentally discover they are on campus. There are three challenges to be addressed: providing greater clarity regarding how best to arrive at campus; providing better information once one arrives at the thresholds of campus; and providing a positive experience for visitors as they arrive and once they are on campus.

A program of streetscape and signage enhancements along each of the primary approaches would significantly improve the arrival experience and overall image of the campus. From the north, the primary approach should be Pleasant Grove Road, the planned road immediately south of A Lot and Jessup Road. From the south, the primary approach is Pine Tree Road. From Downtown Ithaca and points west,

-  campus circulator route and stops
-  campus circulator extensions
-  primary campus approaches
-  visitor information stations
-  information kiosks
-  potential welcome center sites
-  parking lot >400 spaces
-  parking lot 100 – 400 spaces
-  parking lot <100 spaces
-  visitor parking lot

the primary approach should be Route 79 and Stewart Avenue. Route 366 is also an important approach route from the east.

At the edges of campus, along the primary approach routes, well-designed information stations or kiosks should be established where visitors can view and pick up a campus map and get a parking permit. The visitor information stations along the main approaches from the north, south and west should be staffed by someone who can answer general questions about the campus and direct visitors. These stations should have a small supply of visitor parking for those who wish to access the core from these points via the campus circulator. Visitor parking in the core should also be convenient to the Circulator.

Cornell has long discussed the concept of a welcome center, a place of information about Cornell but also a meeting and event space and point of departure for tours of the campus. The future welcome center should be located close to Cornell’s ceremonial spaces, visitor parking and the proposed campus circulator, so visitors can see and easily access all parts of Core Campus. It should be designed as part of a mixed-use building containing other social space and amenities. Possible sites include the south side of Campus Road, west of the Hoy Garage; the north side of Tower Road, between Kennedy

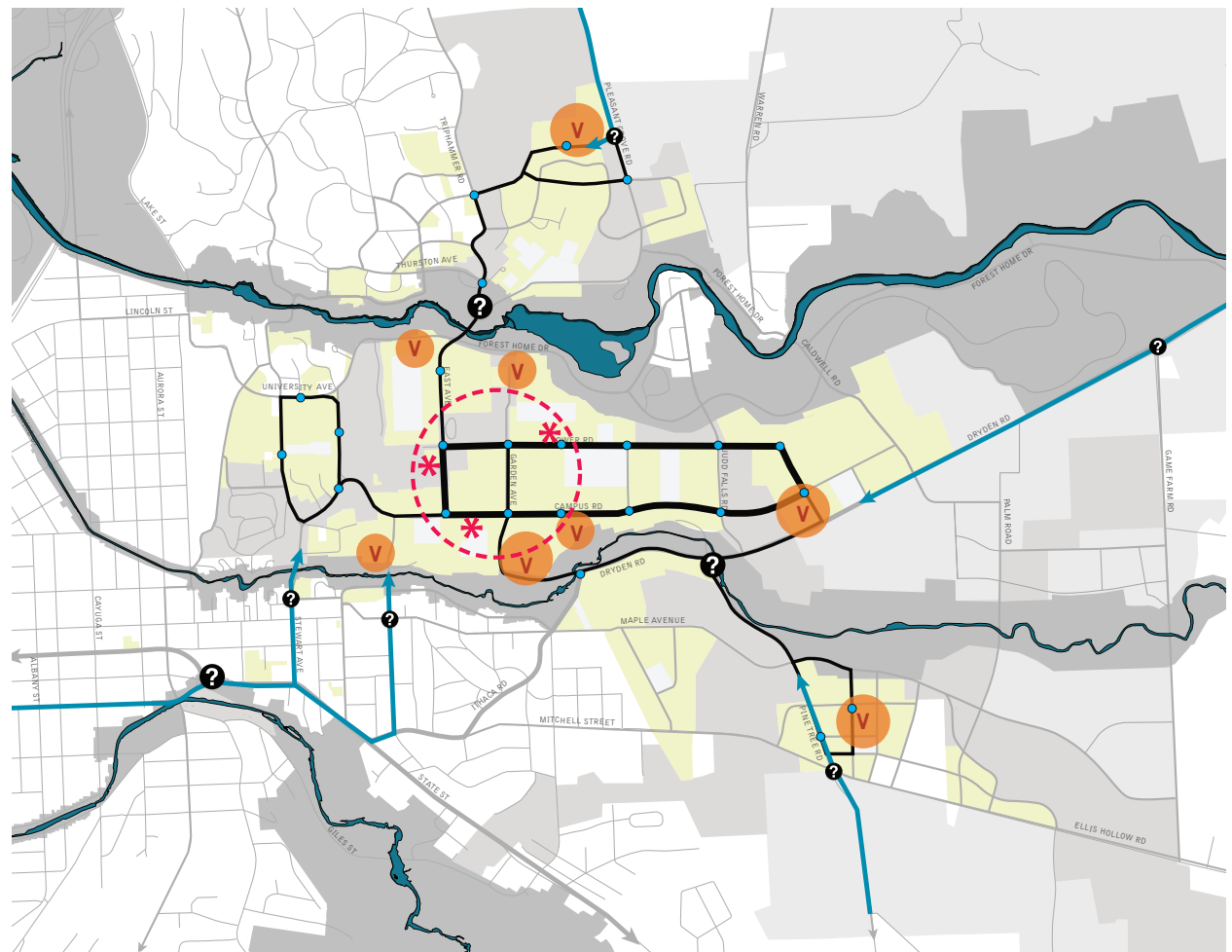


fig 41 – Campus visitor amenities



Hall and the Plant Sciences Building; and the Day Hall site. On any of these sites, a welcome center would be designed as part of a mixed-use building containing other social space and amenities.

It is not just out-of-towners who need to feel welcome at Cornell. Local residents need to have good access to the many cultural, recreational and open space attractions intended for public enjoyment — the Johnson Museum, the Schwartz Center, Bailey Hall, Lynah Rink and the Plantations to name a few of the most popular. Optimizing TCAT bus routing, together with the campus circulator, will make access to the campus easier for everyone, day and night. By redistributing parking over time to the periphery of Core Campus, there will be more parking close to existing destinations. Future on-campus cultural attractions should be located on the campus circulator route.

4.36

## Establish a central receiving facility

Currently, no system exists that comprehensively deals with deliveries on campus. Most buildings have at least one coordinator who is responsible for addressing delivery needs. Most deliveries, however, do not arrive on a schedule. This makes the delivery acceptance process difficult. Drivers of large trucks, searching for their destination, routinely find themselves in locations where the roadway network cannot accommodate them.

Cornell should strive to minimize the number of trucks that travel onto campus and establish time windows for the delivery of large, bulky items. One way to achieve this goal is to establish a central receiving facility off Core Campus, where larger vehicles could off-load their deliveries onto smaller trucks and consolidate other deliveries at the same time. Alternatively, or as a precursor to such a facility, a check-in facility could be established to better manage



the routing and timing of deliveries. The most appropriate location for either a central receiving or check-in facility is the Palm Road Complex.

While it is not practicable to handle all deliveries centrally, certain products or even buildings can be assigned to the central facility. By requiring deliveries to use this facility, Cornell could control not only the size of vehicles on campus but also the delivery time. Controlling the delivery time will help minimize the number of trucks on campus during times of high pedestrian traffic, such as when class changes occur. Limiting the number of trucks will create a more pedestrian-friendly campus and increase pedestrian safety.



# Summary of key movement strategies and initiatives

## Pedestrian Network

- Improve pedestrian connections between Core Campus and East Hill Village.
- Phase in Mid-Campus Walk.
- Repair damaged or sub-standard sidewalks and pathways.
- Require pedestrian and bicycle access plans for all major construction projects.
- Install raised crosswalks at busiest pedestrian street crossings.
- Improve Tower Road for pedestrians, bicyclists and transit.
- Develop and implement a program of pedestrian lighting improvements along primary routes through campus.

## Cycling

- Identify and sign primary bike routes to and through campus.
- Require bike racks, indoor bike storage facilities and change rooms in major new buildings.
- Develop and implement an effective bike share program.
- Install bike stairs where primary cycling routes to campus cross the gorges.

## Transit

- Work with TCAT to optimize and simplify the transit system.
- Introduce and formalize a campus circulator.
- Install transit information kiosks at strategic locations around campus.

## Roads

- Improve the intersection of Pine Tree Road and Route 366 for drivers, transit, pedestrians and cyclists.
- Implement the modified North Campus Gateway improvements.
- Reconfigure the intersection of Pleasant Grove Road and Credit Farm Drive.

## Parking

- Incrementally redistribute surface parking in Core Campus to parking structures on campus circulator routes.

## Approaches and Arrival

- Improve signage and streetscaping along primary approaches to campus.
- Build visitor information stations along the primary approaches to campus.
- Build a welcome center in Core Campus.

## Deliveries

- Establish a central check-in or receiving facility in the Palm Road Complex.

# Movement Plan

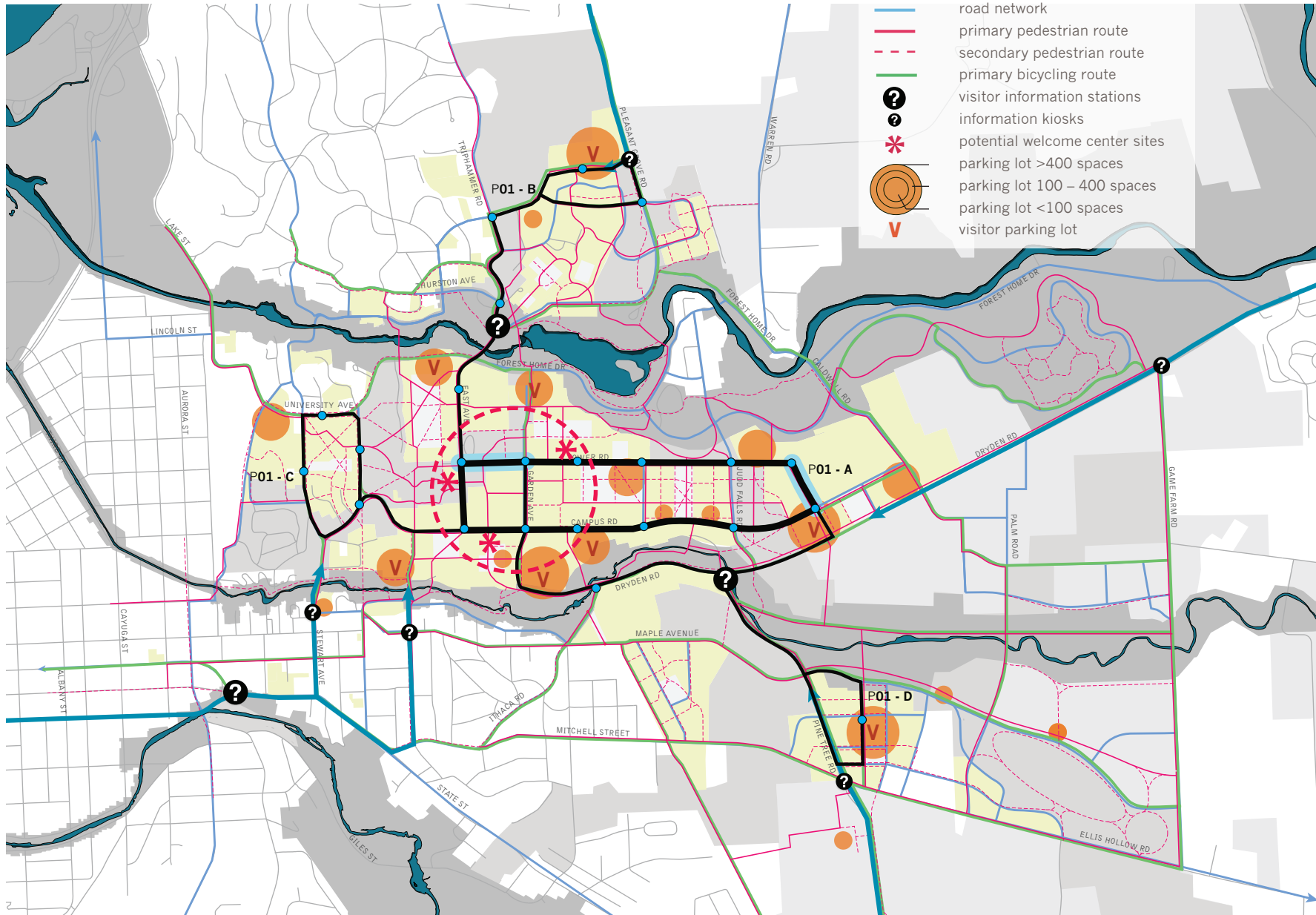


fig 42 – An extended path network, the campus circulator and peripheral parking, much of it in structures, will make the campus more pedestrian friendly.