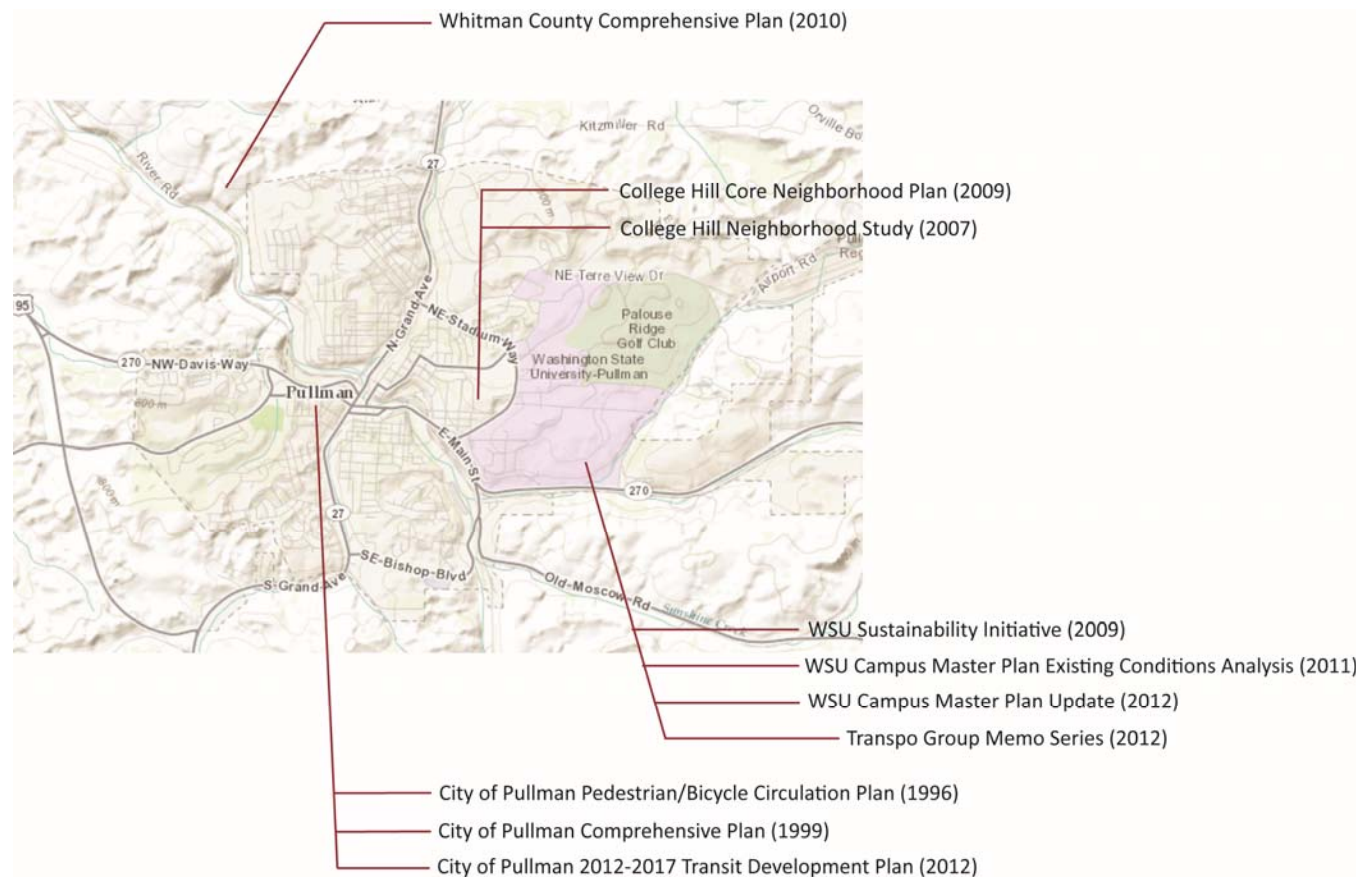


Appendix B: Plan and Policy Review

This working paper summarizes existing plans and policies from Washington State University, the City of Pullman, and Whitman County that are relevant to the Washington State University Bicycle and Pedestrian Plan.

Plans Reviewed



Whitman County Comprehensive Plan (2010)
Description
<p>The overall issues needing attention fell into three broad categories: (1) Land Use, (2) Transportation, and (3) Coordination and Implementation.</p> <p>TRANSPORTATION</p> <p>The need has been to provide a broad framework for allocating scarce local resources among growing demands for transportation improvements, while also insuring that improvements by all levels of government are consistent with local land use policies.</p>
Key Takeaways
<p>Goal 7</p> <p>PROVIDE MULTI-MODAL TRANSPORTATION FACILITIES DESIGNED TO REDUCE CONFLICTS AND HAZARDS WHERE BICYCLE, EQUESTRIAN AND PEDESTRIAN TRAFFIC USE MAJOR STATE AND COUNTY ROADWAYS.</p> <p>Implementing Policies</p> <ol style="list-style-type: none"> 1. Priority should be given to improvements on those routes where significant bicycle and other usage already exist and continue to exist. Support and encourage construction and/or non-motorized paths between communities and economic centers to provide alternative transportation routes. 2. Designs for road improvements shall be evaluated for their ability to decrease conflicts between transportation modes and hazards to travelers. 3. Encourage proposals eligible for state, federal and other funding sources. 4. Coordinate with the County Engineer, County Parks Director, other agencies, organizations, interested parties, and County Planning staff in reviewing needs and potential solutions. For example, the WSDOT has prepared a preliminary plan for modifications to SR 270. Coordination between State and local plans and policies will most effectively ensure safe traffic conditions along SR 270. 5. Roads within, connecting and accessing any economic development area should be designed to support economic development efforts and should include non-motorized transportation and access. 6. Establish development standards compatible with State plans for modification of state routes.

College Hill Neighborhood Study (2007)

Description

Both the City of Pullman and Washington State University (WSU) wish to collaborate in enhancing the College Hill living experience, but the institutions neither individually nor collectively have complete control over the means to accomplish it. This study was commissioned by the City and WSU to describe the problems that have arisen on College Hill, the approaches various actors have taken to resolve those problems, and possible new strategies the community may wish to employ in the near future.



College Hill Study Area

Key Takeaways

Traffic

Most of the vehicular issues in College Hill are related to parking and the compromised safety of pedestrians and bicyclists put at risk by drivers focused on finding places to park. Other traffic issues on the Hill, however, deal with the flow and control of cars at intersections. Traffic issues in College Hill are consistent with what would be expected in a residential area immediately adjacent to a major university campus. The streets can be busy, but speeds are slow.

Potential Actions – WSU Students

Auto dependence – Students want to have their cars where they live. College Hill is becoming increasingly congested with cars belonging to College Hill residents and cars belonging to commuter students and neighborhood visitors.

The streets and off-street parking facilities in the neighborhood cannot handle the demand.

Students may wish to encourage a less auto-dependent culture on campus, supporting shared use of autos among roommates, organizing carpools to academic, social, athletic or other events, or promoting other modes of travel for daily activities.

Successful reduction of auto dependence will involve many other actors than just the students.

Improvements to area lighting to ensure student safety, enhanced public transportation linking the university to shopping districts, and provision of multimodal facilities will require participation from the City, Pullman Transit, and the university.



This neighborhood urban design concept illustrates how mixed uses, a university district and a prominent of Greek Row can come together.

College Hill Core Neighborhood Plan (2009)
Description
<p>In the development of Pullman’s four major hills, College Hill has always been unique. When the decision was made by the state legislature in the early 1890’s to locate the Washington Agricultural College (now Washington State University [WSU]) on 160 acres of land to the northeast of the town center, this quadrant of Pullman was inexorably tied to the evolution of this educational institution.</p>
Key Takeaways
<p>Issues - Transportation / Parking</p> <p>With respect to pedestrian travel, residents in the area have noted sidewalk deficiencies (e.g., uneven sidewalk panels that could cause someone to trip), as well as gaps in the sidewalk network that interrupt continuity. Concerns have also been raised about providing sufficient markings for neighborhood crosswalks, including pavement identification and distinctive signage.</p> <p>A significant issue with respect to transportation on the hill relates to vehicular parking. The parking study concluded that, for some time, there has been a severe shortage of available on-street parking spaces within ¼-mile of the university campus. Peak occupancy rates in most areas occur between 7:00 a.m. and 10:00 a.m. On-street parking congestion causes motorists to park illegally throughout the neighborhood by parking on residential lawns and planting strips, across sidewalks and driveways, and in yellow curb zones near intersections.</p> <p>The congested parking situation can also result in reduced safety if motorists travel streets paying more attention to potential parking spots than to pedestrians and other vehicles, and if the illegal parking impairs visibility at intersections or forces pedestrians to walk in the street as they move around cars parked across a sidewalk.</p> <p>Goal 5: Provide and maintain superior infrastructure (e.g., roads, sidewalks, utilities, lighting), maintain exemplary public service, and facilitate connectivity in and out of the neighborhood.</p> <p>5A: Pursue a “complete streets” program for major roadways in the College Hill Core to ensure these streets are designed to be safe, attractive, and welcoming for all who use them (motorists, bicyclists, walkers, wheelchair users, bus riders, shopkeepers, residents, etc.). Coordinate with WSU to ensure these streets transition smoothly into the university campus.</p> <p>5B: Continue to address upkeep of infrastructure (streets, sidewalks, crosswalks, street signage, utilities) throughout the College Hill Core.</p> <p>5C: Monitor the adequacy of street lighting in the College Hill Core on an ongoing basis and act quickly to address deficiencies.</p> <p>5D: Reassess Pullman Transit operations annually to accommodate existing and forecasted conditions, and to minimize vehicle use in the neighborhood.</p> <p>5E: Construct sidewalks to fill in gaps in the network, and replace or add utility lines as prescribed in applicable plans (e.g., water system plan).</p> <p>5F: Review the transportation network in the College Hill Core for potential establishment of additional one-way streets to facilitate safe traffic flow.</p> <p>5G: Review the city’s adopted Pedestrian/Bicycle Circulation Plan for guidance regarding the establishment of bicycle lanes in the neighborhood.</p> <p>5H: Work with stakeholders to identify potentially problematic crosswalks for possible installation of signage and/or warning lights.</p> <p>5I: Coordinate as appropriate with WSU and other agencies on infrastructure improvements in the neighborhood.</p> <p>5J: Encourage neighborhood associations and other interested parties to seek outside funding for desired infrastructure improvements.</p>

City of Pullman Pedestrian/Bicycle Circulation Plan (1996)

Description

Over time, community members in Pullman developed a strong interest in improving the pedestrian and bicycle transportation system throughout the city. This plan was prepared, and organized into three sections: "Findings", "Goals and Policies", and "Pedestrian/Bicycle Network".

Key Takeaways

Findings

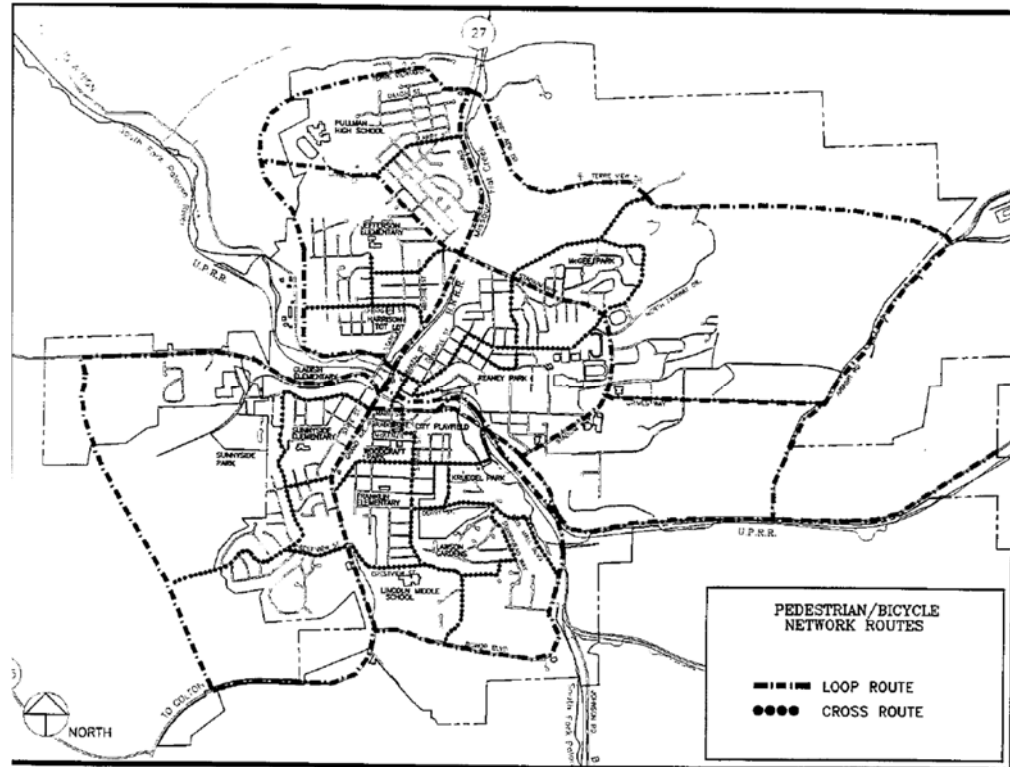
Most streets in the city have sidewalks on one or both sides of the roadway.
 Some were poorly maintained (uneven surfaces, overgrown vegetation, or seasonal accumulation of snow or gravel), or were discontinuous.
 General deficiencies of existing bikeways included: narrow travel lane, excessive grades, poor maintenance, inadequate measures to avoid vehicular conflicts (particularly at intersections)

Goals and Policies

Goal 1: Encourage and facilitate the use of non-motorized transportation methods.
 Goal 2: Enhance and expand the existing non-motorized transportation system in a manner which benefits the community.
 Goal 3: Ensure that non-motorized routes in the city are well maintained.
 Goal 4: Promote safety and security with regard to non-motorized transportation.
 Accompanying policies and implementation strategies can be found on pages 28-35 of the plan (Pedestrian/Bicycle Circulation Plan).

Pedestrian/Bicycle Network

The proposed pedestrian/bicycle network sets out a coordinated system of routes linking major activity areas while also addressing recreational cyclists needs. Major bicycle and pedestrian improvements are identified on page v and vi and pages 40-55 of the Pedestrian/Bicycle Circulation Plan).



<p>City of Pullman Comprehensive Plan (1999)</p>
<p>Description</p>
<p>This Comprehensive Plan revision has been prepared to articulate community members’ collective vision for the future of Pullman and to describe the means by which the community will realize that vision.</p>
<p>Key Takeaways</p>
<p>Existing Conditions</p> <p>The vehicular transportation system in Pullman is dominated by trips to and from the university and the downtown.</p> <p>The street network includes many small grid systems with limited continuity between grids. The city’s hills, rivers, and railroads restrict the continuity of streets between grid patterns.</p> <p>Downtown Pullman is the area where the greatest investment in infrastructure has occurred.</p> <p>The pedestrian/bicycle plan includes policies and standards related to improving non-motorized circulation. The plan also proposes a network of pedestrian/bicycle routes throughout the city. A more thorough explanation of this plan, and a depiction of the Pedestrian/Bicycle Circulation Plan Map, is incorporated herein as part of the "Transportation Plan" section of Chapter 7.</p> <p>Pullman Transit is a city-owned transportation system. Pullman Transit provides fixed route service throughout the city. It also offers complimentary accessible Dial-A-Ride service, limited to senior citizens and persons with disabilities only.</p> <p>Vision</p> <p>Basic commercial services, transit stops, and parks are all located within walking distance of each residence, and a network of sidewalks and bicycle trails ensures that residents can reach services without getting into their cars. Open space is provided through a variety of means within each neighborhood: paths, greenways, parks, and private land held in trust.</p> <p>Paths, sidewalks, and bikeways link residents with all major destination points in the city: WSU, downtown, outlying commercial areas, schools, parks, community centers, institutions, industrial districts, and neighboring cities. The city transit service is convenient, affordable, safe, and heavily used.</p> <p>Transportation Element</p> <p>The transportation network should include sidewalks and pathways that are safe and pleasant for pedestrians to use; safe and efficient bicycle routes; Encouraging people to use alternative ways of getting around will become more and more important as the city grows and the traffic increases.</p> <p>The city’s transportation planning efforts should strive for a greater balance among different modes of transportation. The pedestrian/bicycle plan previously approved by the city can be an important tool in promoting non-motorized forms of transportation. The city should continue its efforts to provide pedestrian and bicycle routes that are well maintained and safe. A key element in promoting greater bicycle and pedestrian activity is public education. The city’s system of trails should be publicized, and efforts to expand the system should be explored through a variety of methods. Maintenance of the system should also be a high priority.</p> <p>GOAL T2: Maintain and enhance the non-motorized transportation system consistent with the city’s approved pedestrian/bicycle circulation plan.</p>

City of Pullman 2012-2017 Transit Development Plan (2012)

Description

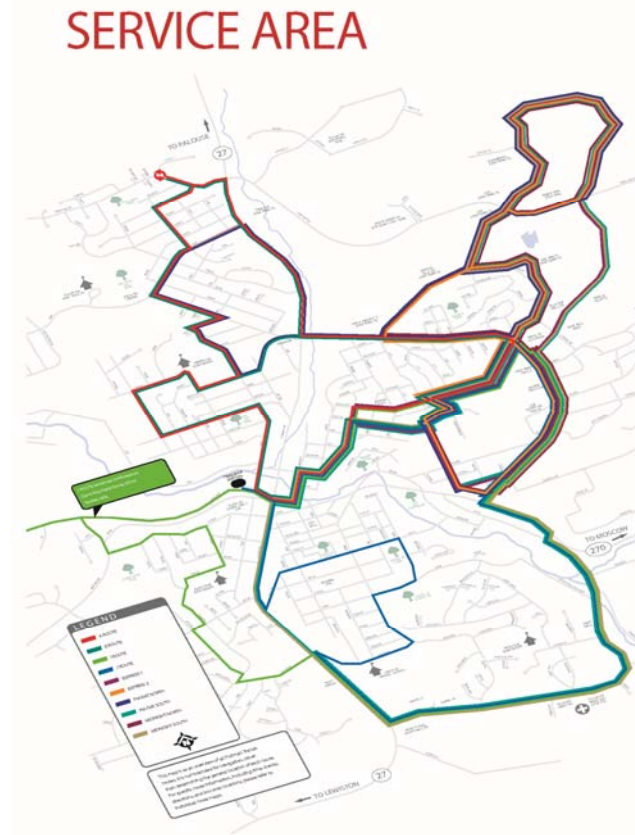
Pullman Transit is a city-owned public transportation service, authorized in Chapter 36.57A RCW, located in the city of Pullman, Washington. Pullman Transit's main governing body is the Pullman City Council.

Key Takeaways

As of December 2011, Pullman Transit operated eight fixed routes, Monday through Friday, 6:50 a.m. – 12:30 a.m. During the school year, fixed-route service to the University from an area north of the campus (a highly developed area with apartment complexes populated with students) between 7:00 a.m. and 7:15 p.m. was operated with six buses on 24-minute headways. In addition to the six buses operated in this high density area, several additional bus trips (the Express Shuttle) were provided from 8:40 a.m. to 10:15 a.m. to meet the high demand when school starts.

Starting at 5:30 p.m., the PM North and South routes were operated until 12:30 a.m. (Monday through Thursday) and until 3:00 a.m. on Fridays to the high-student-population areas, downtown, and to outlying retail areas on 30-minute headways. All community routes provided service to and from the WSU campus.

During the WSU school year, two routes, Saturday North and Saturday South, were operated on Saturdays. One route served the north side of Pullman and the other the south side. Both routes operated from 9:00 a.m. to 3:00 a.m. on 30-minute headway. During WSU breaks and the summer, the Saturday routes operated from 10:30 a.m. to 6:00 p.m.



WSU Sustainability Initiative (2009)
Description
Washington State University is committed to improve its performance in sustainability in all areas of operations to meet the needs of current generations without impairing the ability to meet the needs of future generations. Washington State University will develop appropriate systems for managing environmental, social, and economic sustainability programs with specific goals, objectives, priorities, and processes.
Key Takeaways
<p>WSU Strategic Plan goals</p> <p>Goal 1 Achieve national and international preeminence in innovation, discovery, and creativity.</p> <p>Goal 2 Provide a premier education and transformative experience that prepares students to excel in a global society.</p> <p>Goal 3 Lead in relevant local, national, and global outreach and engagement.</p> <p>Goal 4 Embrace an environment of diversity, integrity, and transparency.</p> <p>Implementation To realize the maximum potential to Washington State University, administrators, faculty, staff, students, and other stakeholders will form a collaborative team to develop the sustainability programs.</p>

WSU Campus Master Plan Existing Conditions Analysis (2011)

Description

With awareness that aggressive pursuit of excellence is the best way to confront present challenges and future opportunities, the WSU 2008-2013 Strategic Plan reaffirms the Vision and Mission of the University:

Vision: Washington State University will be recognized as one of the nation’s leading land-grant research universities.

Key Takeaways

Climate Action Plan

WSU is a signatory of the American College and University President’s Climate Commitment (ACUPCC). This pledge to reduce greenhouse emissions, integrate sustainability into the curriculum, and promote environmental awareness has become part of the educational experience at WSU.

Campus Character

WSU Pullman has been described as a “campus of stairs, bridges, stairs leading to bridges, and bridges leading to stairs,” and this verticality is the campus’ most striking aspect. A 10-minute walk can entail a 200-foot rise in elevation. This topography creates a campus that is both scenic and physically demanding.

Pedestrians use markers (buildings, sculptures, etc.) to orient themselves as they move about campus. This informal wayfinding system is especially important in the campus core, where building densities and architectural similarities create confusion for new visitors.

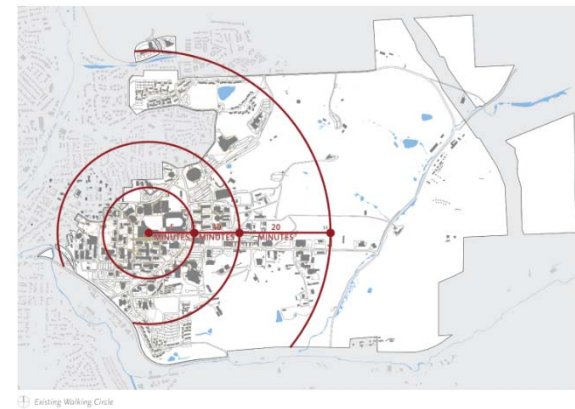
Campus Circulation

Academic facilities have spread beyond the distance that can be covered on foot during a 10-minute class change, particularly when much of the walk involves uphill travel. Building placements often force students out of a direct line of travel or to cut through buildings, creating congestion.

Wayfinding is challenged by two aspects of the WSU campus: density and sprawl. In the campus core, the density and architectural uniformity of buildings make it difficult to maintain orientation. To the east of Stadium Way, buildings sprawl in an unorganized fashion, and the hilliness of the site often obscures destination views. Noteworthy is the heavy foot traffic on Terrell Mall, which testifies to the Mall’s importance in daily student life. Of note, too, are heavily traveled diagonal paths from the western end of Terrell Mall, running northwest toward College Hill and southwest toward the engineering and architecture buildings.

Certain campus locations bring pedestrians and vehicles into frequent conflict. Stadium Way offers a convenient cut-through to neighborhoods south and north of the campus, and is used heavily by city residents, as well as by the university population. Vehicles also intrude into mainly pedestrian areas of campus. The Terrell and Library Malls are primarily meant for pedestrians, but are accessible to service and delivery vehicles.

WSU and the City of Pullman have taken steps to accommodate the needs of cyclists and pedestrians by installing a network of bike paths, bike lanes, and sidewalks. In addition to physical transportation infrastructure, WSU has done a good job of accommodating the cycling community, most notably through an on-campus bike shop, located in the Hollingberry Fieldhouse Annex, and the WSU Green Bike Program, an automated on-campus bike-share service with three campus locations.



WSU Campus Master Plan Update (2012)

Description

In response to the goals and planning drivers, the master plan update proposes four primary actions, three relevant ones:

2: **CAMPUS SENSE OF PLACE** Reinforce the existing campus core as the academic nucleus for undergraduate programs. Improve the campus’ sense of place by enhancing outdoor spaces as part of a campus-wide network of open space. Enhance pedestrian and bicycle connections to the downtown.

3: **PEDESTRIAN FOCUS** Create a pedestrian mall on Stadium Way between North Fairway Road and Grimes Way to enhance pedestrian connectivity between the graduate and undergraduate campus areas.

4: **LEADERSHIP IN SUSTAINABILITY** Implement the above actions in a manner that embraces and teaches about environmental sustainability. Strategies include a multi-modal approach to transportation.

Key Takeaways

Campus Character

- Goal 1 establish a network of formal and informal open spaces
- Goal 2 create a signature open space at the corner of grimes way and stadium way
- Goal 3 create a pedestrian mall on stadium way
- Goal 4 create a network of pedestrian pathways

Transportation, Access and Parking

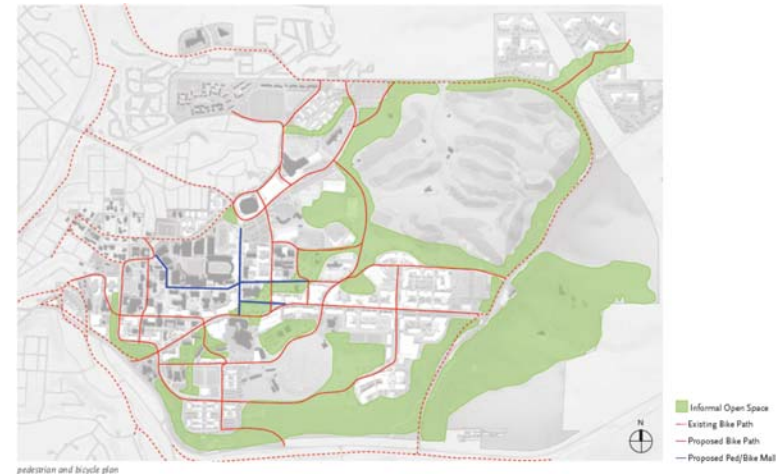
This plan makes the bold, long-term suggestion that Stadium Way serve as an access point rather than a thoroughfare. Important to its closure will be the creation of alternative routes to ensure continued access for vehicles and transit to all parts of campus.

To meet the transportation needs of the growing campus, it will be necessary to reduce reliance on the single occupant vehicle (SOV). TDM measures would include enhanced promotion of the Pullman Transit system, as well as measures to support walking and bicycling to campus.

Improved pedestrian circulation is at the core of the plan. The “pedestrianization” of the campus core recognizes the importance of pedestrian travel in campus daily activities. In areas where vehicles will remain, the plan envisions more pedestrian-scale streets with narrower streets and elimination of on-street parking.

While bicycles currently are not a dominant mode of transportation, their use is anticipated to increase. The Green Bike program has met with great success, and there are plans to continue the addition of bikes and stations.

One of the best ways to increase bicycle use is to adopt bicycle-friendly policies. Requirements such as showers in new buildings, in addition to the provision of secure covered bicycle storage, are important. Similarly, policies to guide roadway design will ensure that future campus streets and upgrades will accommodate bicycles through bike lanes or other design elements.



WSU Campus-wide Speed Safety Study (2012)

Description

At the request of Washington State University (WSU) staff, an evaluation of vehicle speeds throughout the WSU campus and nearby City of Pullman streets was conducted. The purpose of this evaluation was to assess the current compliance with posted speed limits, identify locations where a posted speed limit may not be provided, and where appropriate, recommend modifications.

Key Takeaways

The analysis identified several issues to address regarding vehicle speeds on the WSU campus and adjacent City streets:

- Lack of speed limit signs along Stadium Way between College Avenue and Beasley Coliseum, and other roadway segments
- Some existing regulatory signs are not compliant with the Manual on Uniform Traffic Control Devices, and
- Vehicle speeds are typically greater than the posted speed limit at several locations throughout the campus.

Several measures were identified to better inform drivers of the posted speed limits and improve driver compliance with the speed limits.

1. Install additional speed limit signs along Stadium Way from College Avenue to Beasley Coliseum. Signs are recommended on Stadium Way at the following locations:
 - Southbound – south of Grimes Way and south of Ferdinand’s Lane
 - Northbound – north of Wilson Road
2. Install an additional speed limit sign along Southbound Spokane Street south of Washington Street where no speed limit is currently indicated.
3. Request that the City of Pullman install additional speed limit signs along roadways near the campus where no speed limit is currently indicated. This includes:
 - Northbound Orchard Drive east of Stadium Way and east of Fairway Lane
 - Westbound Valley Road west of Orchard Drive
 - Eastbound Terre View Drive east of Merman Drive
4. Maintenance personnel should replace all “Not Compliant” speed limit signs identified in Attachment 1b of the memo with MUTCD compliant signs. Signs shown as “Partially Compliant” should be further inspected for compliance.
5. Increase enforcement of speed limits near locations where speeding is an issue. One method for prioritizing locations for increased enforcement is to focus on locations with the greatest number vehicles traveling greater than 5 mph above the posted speed limit.
6. Installation of seasonal warning signs near locations with multiple collisions involving “excessive speed” during snowy or icy conditions may reduce the likelihood of such collisions. Folding warning signs could be permanently installed but opened during fall, winter, or spring months when slippery conditions are most likely to occur.

<p>WSU Stadium Way Lighting (2012)</p>
<p>Description</p>
<p>At the request of Washington State University (WSU) staff, an initial evaluation of existing street lighting levels along Stadium Way to identify next-steps for improving pedestrian safety along the corridor was conducted. This evaluation included field measurement of light levels, a comparison to designed values, and identification of potential measures to address poorly illuminated areas and increase pedestrian safety. In general, light levels throughout the corridor are below the target average and uniformity. Possible reasons for these low levels, measures to confirm consistency with the original design, and next-steps to increase pedestrian safety were identified.</p>
<p>Key Takeaways</p>
<p>Based on the preliminary analysis conducted in this study, further engineering studies of the existing mid-block crossings should include:</p> <ul style="list-style-type: none"> • Verification of light measurements at mid-crossings after recent installation of new bulbs. • Trim or remove vegetation and landscaping in the vicinity of pedestrian crossings. This could include pruning trees or branches, or removing planted trees located in the planted median. <p>Conduct further engineering studies of existing pedestrian crossings including:</p> <ul style="list-style-type: none"> • Upgrade lighting at pedestrian crossing locations. This could include changing the types of lamps used in existing luminaires, replacing luminaire lenses, or evaluating alternative luminaire distribution patterns to replace the existing luminaires, or add supplemental lighting targeting “dark” spots along the corridor. • Install pedestrian crossing warning devices. These devices could include replacing the existing illuminated bollards with reflective crossing signs or installing rectangular rapid flashing beacons (RRFBs) with pedestrian pushbuttons. <p>Long-Term Recommendations:</p> <p>Conduct a comprehensive corridor lighting study from SR 217 to Orchard Street. This study would consider current lighting technologies, standards and analysis methodologies. All roadway users, including passenger cars, trucks, bicycles and pedestrian should be considered in any analysis or future designs.</p>

WSU Grimes Way & Wilson Road Pedestrian Evaluation (2012)

Description

At the request of Washington State University (WSU) staff, an evaluation of implementing a leading pedestrian signal phase or pedestrian-scramble signal phase (aka ped-scramble) at the intersections of Stadium Way with Wilson Road and Grimes Way was evaluated. This evaluation considered the operational and safety impacts of the leading pedestrian phase and ped-scramble, and provides our recommendations regarding implementation.

Key Takeaways

When comparing the relative benefit of a ped-scramble signal phase to pedestrians and the impacts to vehicular traffic, the greatest benefit occurs during the mid-day peak based on the large number of pedestrians that travel through these intersections. In addition, based on the relative pedestrian volumes at both intersections, the Wilson Road intersection would experience a much greater benefit than the Grimes Way intersection.

Operating the traffic signals with a leading pedestrian phase would have minor impacts to vehicular and pedestrian operations. The primary benefit of a leading pedestrian phase is reducing the amount of time that pedestrians and vehicles can be in conflict with one another.

Overall, the implementation of a pedestrian-scramble at the Grimes Way/Stadium Way and Wilson Road/Stadium Way intersection would provide the maximum benefit to pedestrian safety through these intersections. If the increased delay along Stadium Way is not acceptable to the University, a leading pedestrian phase, along with a right turn on red restriction could be implemented as a first phase.

A ped-scramble would provide less benefit at the Grimes Way intersection since pedestrian volumes are not significantly high. However, if a ped-scramble is operated at the Wilson Road intersection, we recommend also running a ped-scramble phase at Grimes Way to provide a consistent pedestrian and driver experience at both of these intersections.

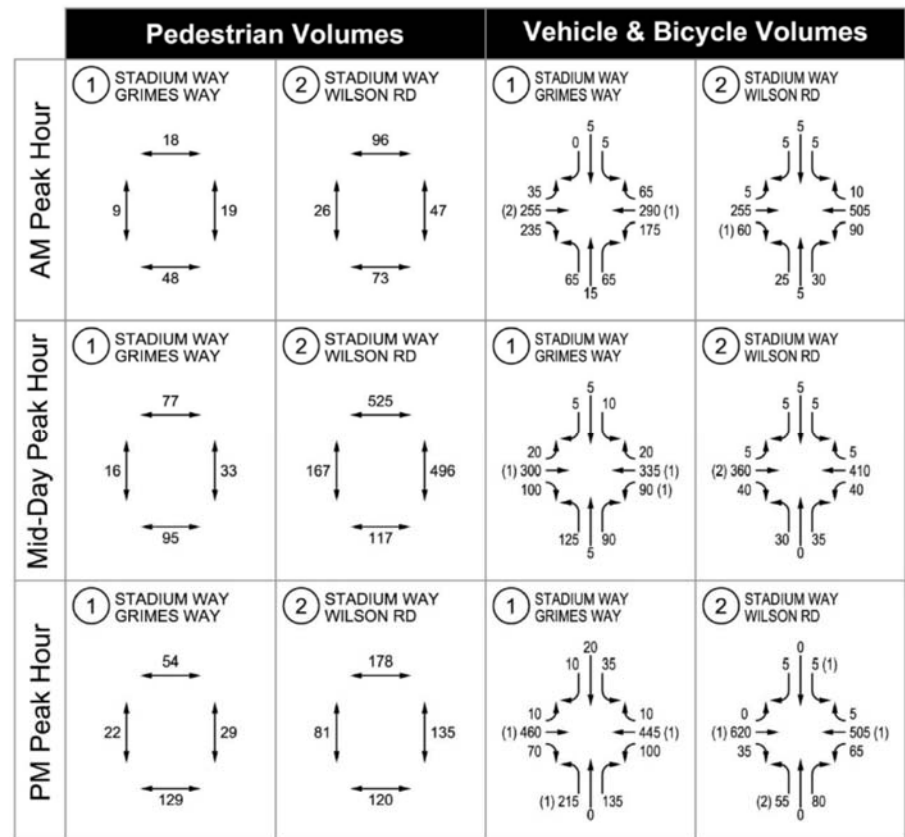


Figure 1 - 2012 Peak Hour Traffic Volumes

WSU Spokane Street Speed & Safety Study (2012)

Description

At the request of Washington State University (WSU) staff, an evaluation of vehicle speeds and pedestrian safety along Spokane Street was conducted. The purpose of this evaluation is to identify measures to improve pedestrian safety and reduce vehicle speeds along the Spokane Street corridor.

Key Takeaways

The following bullets summarize the key findings and observations from the study:

- Parking along the west side of the roadway obstructs driver visibility of pedestrians waiting to cross at mid-block cross-walks, or pedestrian visibility of vehicles traveling along Spokane Street.
- The straight roadway and downhill slope north of College Avenue promotes or increases the perception of higher vehicle speeds.
- Drivers can become frustrated by buses blocking the southbound travel lane while expecting buses to pull completely out of the travel lane when picking up riders at Dana Hall. Drivers were observed turning into the northbound through lane to pass the stopped bus.
- Observed vehicle speeds on Spokane Street (median speeds) are slightly higher than recommended.

Based on the observations, several recommendations are identified to improve pedestrian safety and reduce the likelihood of vehicular collisions. These include:

1. Remove and reinstall the speed limit sign for southbound Spokane Street traffic (~ 200 feet south of Campus Street) to comply with MUTCD requirements. This sign should be located 2 feet from the roadside curb at a minimum height of 7 feet to the bottom of the sign from the elevation of the adjacent roadway.
2. Implement one of three improvement concepts to encourage lower vehicle speeds, improve pedestrian visibility, and reduce the likelihood of vehicles passing buses that block through traffic.

