chapter 4

If you want to succeed you should strike out on new paths, rather than travel on worn paths of accepted success.

JOHN D. ROCKEFELLER
Transportation and parking provide connectivity between campus uses and open spaces. Transportation includes all aspects of circulation including a range of facilities to accommodate the full spectrum of mode choices. Parking facilities include automobile and bicycle end-of-trip facilities. Included in this chapter is a description of the existing transportation system, as well as a discussion of proposed improvements. Also highlighted are the physical characteristics and performance of the existing transportation system, as well as a summary of impacts of proposed changes to the system.
Planning Context
Situated east of and adjacent to Downtown Laramie, the University of Wyoming is bounded by established residential neighborhoods. Thus, campus mobility relies upon both the internal connections as well as linkages to the surrounding area and the regional roadway network. City-wide and regional connections serve an important role in campus access, with more than two-thirds of the students and the campus employees commuting from off-campus locations and with 80% of students living off campus.

A recent transportation survey of commuting patterns showed that approximately 66% of students and employees commute in a personal vehicle and that nearly 25% of all commuters walk or bike to campus, especially in warmer months. In the winter months, colder weather reduces the distance students, staff, and visitors are willing to walk and bike to reach their destinations.
The existing transportation system is supported by a network of local streets, pedestrian and bicycle ways, and surface parking. Several major streets bisect campus, including 15th and 22nd streets. Walks and pathways are more developed in West Campus, while Central and East Campus lack significant transportation routes, including routes for bicyclists and pedestrians. The campus promenade currently encircles Prexy’s Pasture, continuing south and east along Ivinson, terminating at 19th Street. Campus transit provides access to each campus area, including city-wide connections.
Map 4A Existing Transportation System

- Promenade
- Walks and Pathways
- Transit and Pathways
- Transit Route
- Community Bike Route Connections
- Off Campus Shuttle
- Parking
- Bike Rack
- Major Road
- Minor Road
- Campus Boundary

Source: University of Wyoming
RELATED PLANS AND POLICIES

There are multiple related plans and policies for transportation, with significant data and analysis already assembled to inform the Long Range Development Plan.

Transportation and Parking Master Plan (May 19, 2008)

This plan was developed in conjunction with the University of Wyoming (UW), the Wyoming Department of Transportation (WYDOT), and the City of Laramie. The purpose was to manage parking demands, integrate transit systems and implement programs to improve local connectivity, mobility and safety on campus and in the adjacent community for vehicles, pedestrians and bicyclists. The plan includes recommendations for Transportation Demand Management (TDM) programs to meet these objectives.

City of Laramie Comprehensive Plan (2007)

Completed as a “blueprint” for growth over 20-years, this plan emphasizes preservation of Laramie’s western, small-town character as future growth and improvements occur. Transportation improvement needs include an expanded pedestrian infrastructure. Pedestrians need: better sidewalks; safer and more crosswalks; more connectivity; better winter maintenance; and traffic calming. Specific improvement options included: pedestrian actuated signals; signage at crosswalks, better pavement marking; speed tables or raised crosswalks; curb cuts; boulevards; reduced speeds; handicap ramps; and median refuges. The City’s Comprehensive Plan also includes a Major Street Plan with street designations and a Bicycle and Trails Master Plan that considers campus roadways and trails.

University of Wyoming Parking Needs Analysis (March 2006)

Commissioned in part to address perceptions of parking shortages, this study examined both the existing and the forecasted parking supply and demand. The study concluded that adequate parking supply existed on campus overall and that localized deficiencies were present.
and forecast for the West Campus area. Recommendations included a new parking structure near the Ivinson Building, enhancing the transit service, increasing fees and fines and improving the residential permit system.

**Campus Parking and Transportation Plan (2001, revised May 2002)**

Working with the community, the University developed recommendations to address a wide range of parking supply, location and management issues related to campus parking. Notable outcomes included new approaches to parking pricing, the closure of Prexy’s Pasture to auto traffic and provision of new parking lots served with shuttle service.

**PROPOSED CIRCULATION FRAMEWORK**

There are several distinctive route types that will create a functional and safe circulation system on the UW campus. While some of these typologies currently exist, others will be created or reconfigured during future development opportunities. The proposed circulation framework establishes a well integrated network of transportation routes. The map also shows conceptual locations of parking areas and bicycle racks. The exact location of these facilities will require additional consideration based on future development. Overall, public vehicular access will be most restricted in an effort to create a well connected, walkable and bikeable campus. Pedestrians and bicyclists will therefore be accommodated throughout campus as well as existing and future community bike route connections. All circulation routes that can accommodate motor vehicles will allow for service and maintenance vehicle access. The promenade system will connect opposite ends of campus with a series of major campus routes that link key campus destinations to other portions of campus, as well as to surrounding uses. Promenades will provide an east/west connection between West Campus and 9th Street with East Campus and 30th Street, as well as a north/south connection between Harney Street and Grand Avenue. Walks and pathways will branch from the promenade and provide

**LEFT:**
Prexy’s Pasture

**RIGHT:**
Greenhill Cemetery
Public interface streets will be redesigned along the periphery of campus, as well as in the interior of the campus including portions of 15th Street and 22nd Street. Promenades will provide an east-west connection between West Campus and 9th Street with East Campus and 30th Street, as well as a north-south connection to Harney Street and Grand Avenue. Walks and pathways will branch from the promenade and provide additional access to other areas of campus that may receive less traffic. The proposed transit system will form a loop through campus, with designated sections of transit mall that limit privately-owned vehicle access. Service roads will provide access to critical service and maintenance functions.

Map 4B Proposed Circulation Typologies
Map 4B  Proposed Circulation Typologies

- Promenade
- Walks and Pathways
- Transit Route
- Transit Mall
- Parking Access Road
- Service Road

- Public Interface
- Existing/Potential Campus Building
- Major Road
- Minor Road
- Campus Boundary

Source: University of Wyoming
additional access to other areas of campus that may receive less traffic. Service vehicles will require somewhat unlimited access throughout campus, with service routes that have access to maintained portions of campus. The proposed transit system will form a loop through campus, providing service at designated locations and connections to surrounding neighborhoods. Finally, privately-owned vehicle access will be limited to designated streets that provide on-street parking, or lead to surface parking lots, while creating minimal interference with other transportation routes.

Based on an evaluation of the existing circulation system, there are six types of circulation typologies recommended for the UW campus. Map 4B (Proposed Circulation Typologies) shows the location of these typologies, illustrating how each one will interact with one another. This section presents typical design cross sections of these typologies and shows differences between local and regional access street design.

Public Interface
The public interface is primarily designed to accommodate pedestrians, public transit, and public vehicles, but also allows for bicyclists and service and emergency vehicles. The intent of the public interface is to promote a distinctive visual cue for the public entrance of campus. The public interface will also feature two major entries on Grand Avenue: 13th and 22nd Street. The western campus’ frontage along 9th Street is a good example of an existing public interface. Other public interface streets include Grand Avenue to the south and 19th and 22nd Streets through the center of campus.

Transit Mall
The transit mall will provide convenient and safe access for pedestrians, bicyclists and public transit, while prohibiting privately-owned vehicles. When complete, the transit mall will follow a looped route through campus, allowing for convenient shuttle and transit service and service and emergency vehicle access. With ample width for bicyclists and transit vehicles,
the transit mall will also accommodate pedestrians on a setback sidewalk. There are no current examples of the transit mall on the UW campus.

Promenades
Promenades are intended for the exclusive use of pedestrians and bicyclists; with the exception of service and emergency vehicles, no motorized vehicles are permitted. Promenades will provide campus-wide connectivity, and be of sufficient width to accommodate busy crowds. These routes will connect the ends of campus, as well as to buildings, open spaces, and other land uses. The popular walk-
Way around the perimeter of Prexy’s Pasture is a good example of the promenade typology.

**Walks and Pathways**
Walks and pathways are similar to promenades and can be found throughout campus. These routes are smaller in scale with a narrower width, and are more suitable for accommodating routes with less traffic. Like promenades, this typology is designed exclusively for pedestrians and those walking bicycles, providing connections to buildings and land uses.

**Parking/Access**
Parking and access routes are designed to serve both pedestrians and public vehicles, while still allowing bicyclists, public transit, and service and emergency vehicles. This typology is designed for on-street diagonal or parallel parking, and may include a landscaped median to separate vehicle lanes or provide pedestrian refuge. Other design elements include sidewalks set back from roads by planting strips and street and pedestrian lighting. An example of an existing parking/access typology on the UW campus is along 13th Street.

**Service**
The service typology is designed to provide service vehicles with access throughout the campus, while preventing potential safety conflicts by restricting public vehicle access. Service routes allow bicycle access, while also permitting limited pedestrian, transit, and in some cases vehicle access. Service routes are especially important as they can accommodate emergency vehicle access when necessary.
Roadway System
The supporting campus roadway system consists of state and local roadways that have little or no change in character as they approach, travel along, or even travel through campus. The LRDP proposes improvements to create a sense of place on and adjacent to the campus and to promote safe and comfortable travel for all modes of transportation. This section provides an overview of existing roadway conditions and proposed design treatments for campus roadways and adjacent roadways. The proposed roadway access modifications and associated analysis did not identify any changes to vehicular access to the Greenhill Cemetery.

CAMPAUS ROADWAYS
There are eight primary roadways on campus: Lewis Street, 15th Street, Willett Drive, Fraternity Row, Sorority Row, King Row, 22nd Street and Ivinson Street.

Lewis Street
Lewis Street is identified as a Local Street between 9th and 15th Street. Serving as the north edge of campus between 9th Street and 15th Street, the posted speed is 20 miles per hour with one lane in each direction. Sidewalks and bike lanes are present on both sides of the street. The adjacent land use is a mix of residential and campus uses.

Existing Conditions
Lewis Street is challenged by an eclectic mix of uses and a sense of neglect or disrepair. The street edge varies, with few buildings fronting on the street and multiple parking lots and under-used parcels. Since the roadway does not continue east of 15th Street or provide an important through connection, the street may function better as a destination or a continuation of the campus. In its existing condition, it suffers from a lack of strong destinations and limited use.

Lewis Street is the main access for vehicles on the north side of the campus. Traffic counts recorded at the campus drives on the south side of Lewis Street show approximately 75% of the traffic on Lewiscontinued on page 95
The proposed transportation system will include an expanded promenade system, new walks and pathways, and reconfigured campus streets. The campus promenade will allow non-vehicular users to safely and conveniently access all ends of campus, with connections to new walks and pathways. A new transit mall will provide efficient campus transit service, while accommodating bicyclists and pedestrians. Some streets such as Willet Drive, Fraternity Row, and Lewis Street will be redesigned to accommodate development of the transit mall, with the addition of several new off-campus shuttle routes and stops. Parking areas will also be relocated to consider new campus buildings, while two major campus entries will be emphasized at 13th and 22nd Streets.
Map 4C Proposed Transportation System

- Promenade
- Walks and Pathways
- Campus Transit Pathways
- City Transit Route
- Community Bike Route Connections
- Shuttle Stop
- Campus Transit Mall
- Parking Access Road
- Service Road

- Major Entry
- Parking
- Bike Rack
- Existing/Planned Campus Building
- Potential Campus Building
- Major Road
- Minor Road
- Campus Boundary

Source: University of Wyoming
Street is campus bound. These trips are using: the education building access between 14th and 15th Streets; the agriculture building access at 12th Street; the engineering building access at 11th Street; and the access between 9th and 10th Streets.

Lewis Street is also a high activity pedestrian area on the campus. During peak periods more than 100 pedestrians cross Lewis Street at 10th, 11th, and 12th Streets. As the campus expands north, pedestrian activity is expected to increase, and the potential for conflict between pedestrians and motorists at those locations will increase as well.

**Design Objectives**

The redesign of the street into a transit mall achieves a variety of design objectives. Because of its position as the northern vehicular edge of the campus, Lewis Street creates a barrier to the northerly expansion of the University. The proposed reconfiguration allows enhanced pedestrian and bicycle safety and increased connectivity between campus uses north and south of Lewis Street establishing a high quality pedestrian environment. Transit shuttles and service vehicles will also be given priority on the road.

**Proposed Design**

The proposed redesign of Lewis Street would create a transit mall between 10th and 14th Streets. However, access to parking facilities would be maintained between 9th and 10th Streets and between 14th and 15th Streets. The redesign reduces the potential for conflict between pedestrians, bicycles, and vehicles in an area that the Transportation and Parking Master Plan identified as a critical area to address safety concerns.
In addition to changing access on Lewis Street, the proposed design realigns the roadway. New curves in the roadway would create a visual cue for automobile traffic that Lewis Street does not provide through access. The design also pulls the roadway out of the shadow of the Engineering Building, allowing solar gain.

**Traffic Impacts**

The proposed design of Lewis Street will change vehicular travel patterns. The cre-
Rerouting of a transit mall will reroute vehicle traffic currently using Lewis Street. Regional impacts of the restriction were found to be minimal. Analysis did not show significant impact to any parallel roadways when Lewis Street traffic is rerouted. Local impacts were also found to be minimal. Based on peak hour turning movement analysis, no geometric or signal improvements would be required on 9th or 15th Streets. At all intersections that were evaluated, adequate intersection capacity exists to accommodate diverted traffic from Lewis Street.

As a precautionary measure it is recommended that curb extensions be installed across Bradley Street, Flint Street, and Gibbon Street at 9th and 15th Streets to limit cut-through traffic and encourage vehicles to use Harney Street. The curb extensions should be installed on the campus side of the intersection (on the east side of the intersections at 9th Street and the west side of the street at 15th Street).

Additionally, the signal at 9th Street and Lewis Streets should be monitored. When Lewis Street is rerouted this signal may no longer be necessary at the intersection. The intersection of Clark Street and 9th Street should also be monitored as Clark Street may become a more important connection between downtown Laramie and the campus. Clark Street provides a more direct connection as it currently connects over the railroad tracks west of downtown. If the 9th Street and Lewis Street connection signal demand decreases and the intersection demand at 9th Street and Clark Street increases, the signal could be relocated.

15th Street
The City’s Major Street Plan identifies 15th Street as a Minor Arterial. The posted speed is 20 miles per hour from Lewis Street to Grand Avenue with two lanes in each direction, and sidewalks on both sides of the street. The street has been identified as a significant barrier to pedestrian travel in previous studies. Fifteenth Street currently carries approximately 13,000 vehicles per day; a level of traffic almost as high as 3rd Street in downtown Laramie. Traffic counts taken during the AM and PM peak hours showed that approxi-
Almost 35-40% of traffic is through traffic, while 60-65% of the traffic on 15th Street is destined for campus.

**Existing Conditions**

Fifteenth Street changes in character from a residential street south of Grand Avenue to a cross section through campus that prioritizes vehicle access, with parking lots and open spaces adjacent to the roadway. With a relatively short ¼-mile segment between Grand Avenue and Willett Drive and few campus landmarks along the way before reaching the Cemetery, drivers experience few roadway design changes.

The intersection of 15th Street and Ivinson Street/King Row has over 800 pedestrian crossings during the busiest hour of the day. Most of this pedestrian traffic heads to the main campus from the residence halls along King Row. Other campus intersections on 15th Street have high pedestrian traffic as well. While the crossings along 15th Street are among the highest volume pedestrian locations on campus, markings and roadway treatments are relatively standard, giving the impression that this street is just like any other.

**Design Objectives**

The proposed redesign of 15th Street achieves a variety of design objectives. The redesign increases connectivity between the established West Campus and the growing Central and East Campuses by addressing safety issues for pedestrians crossing 15th Street and enhancing the quality of the Fraternity Mall. Vehicle access to campus is permitted on 15th Street.

**Proposed Design**

There are three proposed scenarios to address the design objectives for 15th Street. The intent of the scenarios is to phase street redevelopment over time. As each scenario is implemented, the design objectives are achieved to a greater degree.

**Scenario I: Chicane Application**  
Scenario I would realign 15th Street between

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**Figure 4.1** Peak Hour Traffic on 15th Street

![Figure 4.1](image-url)
Fraternity Row and Sorority Row using a chicane to shift the roadway to the west. This creates a curve in the road as well as a visual cue that 15th Street is not a main access through campus. The scenario also begins to enhance the Fraternity Mall by extending it into the former 15th Street alignment. The lane configuration is also cleaned up and clarified.

**Scenario II: 15th and Grand Realignment** – Scenario II would realign 15th Street at Grand Avenue. The roadway would remove the skewed intersections on 15th Street at Ivinson Street/King Row and Grand Avenue. Traffic would no longer be able to make a through movement at the intersection of Grand Avenue and 15th Street, which would further deter traffic from using 15th Street as a through connection.

**Scenario III: Fraternity Mall Extension and Closure at Grand Avenue** – Scenario III extends the Fraternity Mall across 15th Street and provides a plaza and a small signature building to the west of 15th Street. Parking will be relocated from the Union parking lot to a new parking structure constructed where the Half Acre Lot is currently located. Pedestrian access would be allowed mid-block between Fraternity and Sorority Rows. The segment of 15th Street between Grand Avenue and Ivinson Street/King Row is completely closed in this scenario. Pathways are designed to maintain emergency access.

**Traffic Impacts**

Scenario I: The visual deterrent from the chicane may cause some additional through traffic to divert to parallel roadways, however there would still be adequate capacity on those roadways to accommodate the rerouted traffic.
Scenario II: The realignment of 15th Street between Ivinson Street/King Row and Grand Avenue in Scenario II would require access control to prevent excessive delay caused by people trying to make the offset through movement on 15th Street. The north leg of 15th Street would need to be right-in/right-out access only and controlled by a median on Grand Avenue. The south leg of 15th Street would still be controlled by a signal. However, the westbound left turn would no longer be permitted. By limiting the turning movements that are allowed at the realigned 15th Street and Grand Avenue intersection, most through traffic would likely choose to use an alternative north-south street. In addition, some campus-bound traffic would likely access 15th Street from alternate routes as well. The diversion of
some campus-bound traffic would further reduce the potential for conflict between pedestrian and automobile traffic on 15th Street. When the realignment is completed, traffic signals in the campus area should be monitored for excessive delay.

Scenario III: The changes in Scenario III have the greatest impact on the overall transportation system, but also provide the greatest benefit to campus users.

**Willett Drive**

Willett Drive is identified as a Collector in the City’s Major Street Plan and serves as an important east/west connecting roadway between the East, Central and West Campuses. The posted speed is 30 miles per hour with one lane in each direction. Sidewalks are present on both sides of the street.

**Existing Conditions**

While Willett Drive is a logical and criti-
cal connecting roadway between the two campuses, it suffers from open edges along the Cemetery, parking lots, and uses set back from the street edge. The lack of trees or other protection from the wind and elements also adds to the sense of distance, with few points of visual interest or activity nodes to serve pedestrians and bicyclists along the way. The street also functions as a utilitarian commuting corridor east of 22nd Street, where it provides transit and bicycle facilities, but few other activities or destinations are present along the street. The south side of the Willett Drive is a major utility corridor for the University.

Design Objectives
The realignment and reconfiguration of Willett Drive will achieve a variety of design objectives. The reconfiguration will improve use of land along the cemetery edge and maximize parking potential. The realignment of Willett Drive between 19th and 15th Streets will enhance the quality of the Fraternity Mall and set the stage for future new buildings at the Willett bungalow site. The conversion of Willett Drive to a transit mall will also reduce conflict among pedestrian, bicyclists, autos, and transit vehicles, improve transit operations and accessibility, and maintain vehicular access for move-in/move-out, special events, and service.

Proposed Design
The proposed reconfiguration of Willett Drive between 15th and 19th Streets would convert the existing right-of-way into a parking lot with approximately 525 spaces. Additionally, the roadway would be realigned to the south to connect into Fraternity Row. The segment of Willett Drive just west of the Arena Auditorium to 15th Street would be converted into a transit mall with limited vehicular access to parking facilities. Service and emergency vehicles would still be able to use Willett Drive to access campus destinations along the street.

Traffic Impacts
The reconfiguration of Willett Drive into a
Parking lot will mitigate the loss of parking that will result from the reconfiguration of Fraternity and Sorority Rows. Fraternity and Sorority Row currently have combined parking of just under 500 spaces. The new parking lot would have approximately 525 parking spaces.

Converting Willett Drive into a transit mall will cause the rerouting of traffic that currently uses Willett Drive to access campus destinations. Approximately two-thirds of traffic is expected to reroute to Grand Avenue, and approximately one-third of traffic is expected to reroute to Harney Street. Both of these streets have adequate capacity to accommodate the additional vehicular traffic. Willett Drive will still be able to accommodate bicycle and pedestrian traffic, and will create a more comfortable environment for alternative modes of transportation as the potential for conflict with vehicles will be removed.

Fraternity Row
Fraternity Row is a one-way campus street that provides access to the southern entrances of campus fraternities and the Fine Arts Center from 15th Street. The street runs along the northern edge of Fraternity Mall, connecting to Sorority Row...
to the south as a loop. There is also a mid-way, north-south connector street that links Fraternity Row with Sorority Row. There is a sidewalk and diagonal parking on the north side of the street.

**Existing Conditions**

Along with Sorority Row to the south, Fraternity Row primarily serves as on-street parking. As designed, there is limited need for vehicle access. The service entrances to fraternities, along with additional parking, are on the opposite side of the buildings along Willett Drive. The existing street design also impedes pedestrian and bicycle access through the lack of a sidewalk along Fraternity Mall. This also creates conflicts with parking vehicles. The mid-way connector street serves as a barrier, as it separates the east and west ends of Fraternity Mall. In addition, there are no pathways that connect between Willett Drive and Fraternity Row. Thus, the existing street design also detracts from the full potential of Fraternity Mall by discouraging safe and convenient pedestrian access.

**Design Objectives**

The design objectives for Fraternity Row are to enhance the presence of Fraternity Mall as a major campus open space, and to create more efficient use of space by creating a two-way street that connects with Willett Drive to the north. The presence of Fraternity Mall will be enhanced by reducing barriers along Fraternity Row, including the relocation of parking to a lot north of Willett Drive. This will also improve vehicle circulation while reducing multiple east-west streets.
Proposed Design
The redesign of Fraternity Row would convert the existing one-way loop into a two-way street that links with Willett Drive near its present frontage alongside the Law Building. To make the connection to Willett Drive, the street redesign would require the removal of the Beta House and Willett and Wainwright Bungalows from their current location. New setback sidewalks along both sides of the street and the redevelopment of Sorority Row as a segment of the campus promenade will improve pedestrian and bicycle access. The redevelopment of the mid-way connector street into a pedestrian pathway will improve the design and safe access of Fraternity Mall. The addition of a vegetated buffer between the north entrances of the fraternities and the proposed Willett Drive parking lot will improve privacy for residents, while enhancing the appearance of the rear building facades from the new parking area. The western entrance to the Fine Arts Center will also be redeveloped as a plaza, and the existing street segment will be redeveloped as a pedestrian pathway. Vehicle access to the building will be relocated to a new street stub that connects to Willett Drive west of the Law Building.

Sorority Row
Sorority Row forms the southern segment of the Fraternity Mall one-way street loop. The street provides access to the fronts of campus sororities and exits onto 15th Street. There is a setback sidewalk and
diagonal parking on the south side of the street.

Existing Conditions
Like Fraternity Row to the north, Sorority Row primarily serves as on-street parking. Pedestrian and bicyclist access is limited due to conflicts with parking vehicles, and there are no sidewalks on the north side of the street. The lack of a sidewalk or buffer between the street and Fraternity Mall also de-emphasizes the importance of the open space. Additional access and parking is located to the south of the sororities along King Row. Unlike Fraternity Row, there is an existing setback sidewalk on the south side of the street.

Design Objectives
The design objectives for Sorority Row are to enhance the presence of Fraternity Mall as a major campus open space, and to create more efficient use of space by redesigning the street as part of the campus promenade system. With the redevelopment of Fraternity Row as a two-way

TOP:
Fraternity Row existing

BOTTOM:
Fraternity Row proposed
street, as well as existing access and parking along King Row to the south, there is no need for vehicular access on the north side of the sororities. Redeveloping Sorority Row into a segment of the campus promenade system also improves pedestrian and bicycle access.

**Proposed Design**
The redesign of Sorority Row would convert the existing one-way street loop into a pedestrian and bicycle promenade. Vehicle access and parking will be provided along King Row. The new promenade will link the redeveloped pathway that bisects Fraternity Mall, as well as the plaza at the western entrance of the Fine Arts Center. A north-south segment of the promenade will also extend south across King Row, linking a new open space to the south with Fraternity Mall.

**King Row**
King Row extends from the eastern terminus of Ivinson Street where it would cross 15th Street. King Row is currently one-way eastbound between 15th Street and 17th Street. The lanes are not well delineated, but there is one wide lane between 15th Street and 17th Street and two lanes between 17th Street and 19th Street.

**Existing Conditions**
King Row serves a multitude of functions and users in a relatively constrained right-of-way. The sorority houses situated between Sorority Row and King Row use King Row for parking and service access. On the south side of the roadway, the dormitories provide thousands of users every day. Students use King Row as a primary route to the West Campus and typically travel by bike or on foot. Those working in the dormitories use diagonal parking on the south side of King Row for short-term
and long-term parking. Delivery trucks also use King Row to service the IT Facility and the Washakie Center. Ingress and egress along King Row and at its east end are through dormitory parking lots. The access point at 17th Street and Grand Avenue is signalized while the primary east access to King Row at 19th Street and Grand Avenue is not.

Design Objectives
The design objectives for King Row are to provide clarity for all users; improve safety (especially for pedestrians and bicyclists); maintain service and delivery access; improve overall aesthetics; and accommodate the campus shuttle. While King Row has perhaps the highest pedestrian traffic volumes on the entire campus, it is currently designed as a service and parking street. A more strategic approach to parking and access and clearly delineated spaces for the wide range of users can improve the safety and visual appeal of King Row.

Proposed Design
The redesign of King Row includes realignment, reconfiguration and enhanced traffic control. The Crane-Hill dormitory complex will likely be redeveloped in the medium to long-term. At this point in time, King Row should be realigned so that the roadway is a straight continuation of Ivinson Street and the western alignment of King Row. King Row should be converted
to two-way traffic along its entire alignment, with sidewalks and landscaped buffers on the north and south sides of the roadway. The roadway should be expanded near the loading area at the Washakie Center to accommodate the turning radii and unloading of the largest delivery trucks. Parking along King Row should be limited to parallel parking spaces with replacement parking provided in the Willett Drive parking lot and a new parking structure immediately east of the IT Facility. Finally, the intersections at 19th Street and 15th Street should be signalized.

Ivinson Street
The City’s Major Street Plan identifies Ivinson Street as a Local Street. Ivinson Street serves as an important east/west parallel roadway to Grand Avenue in the area of campus now referred to as West Campus. The posted speed is 20 miles per hour with one lane in each direction and sidewalks on both sides of the street.

Existing Conditions
With detached sidewalks, mature street trees, historic campus buildings and open spaces along the street, Ivinson Street is one of the most likely streets to be associated with an on campus experience. The street has a mix of pedestrian, bicycle and vehicular traffic. Challenges include faded or absent crosswalk markings and conflicts between travel modes.
Proposed Design
The proposed design for Ivinson Street is a transit mall between 9th and 15th Streets. Alternative transportation modes become the mobility and access focus on Ivinson Street. The transit mall design enhances transit, bicycle and pedestrian access by limiting potential conflict with vehicles. Automobile access is therefore limited to access parking lots. Service and emergency vehicles will still be able to use Ivinson Street to access campus destinations along the street.

Traffic Impacts
The implementation of a transit mall on Ivinson Street would likely push existing vehicle traffic south one block to Grand Avenue. However, Grand Avenue would have adequate capacity to accommodate this additional traffic. When the transit mall design is implemented, the intersection of Grand Avenue and 9th Street should be monitored for excessive delay.

22nd Street
The City’s Major Street Plan identifies
22nd Street as a Collector. The posted speed is 30 miles per hour with one lane in each direction. Sidewalks, on-street parking and bike lanes are present on both sides of the street. Adjacent land uses include parking, residential and undeveloped areas.

**Existing Conditions**
With little or no developed uses along the street, the character of 22nd has yet to emerge. The roadway has a sense of quality in the traveled area and detached sidewalks and street trees set the stage for what may come in the future. With relatively low volumes of traffic today, crossings do not present major challenges. However, as new land uses develop, these needs will change, requiring consideration of safe pedestrian crossing.

**Proposed Design**
As the campus grows to the east and 15th Street is narrowed, 22nd Street will likely become a more heavily traveled roadway. As such, 22nd Street has been designed with two travel lanes in each direction. This design will allow the roadway to carry more vehicular traffic than it can today. Bicycle and pedestrian traffic will be accommodated on a setback sidewalk and pathway, separated from the street by a wide landscape area.

**PERIPHERY ROADWAYS**
There are four primary roadways adjacent to campus: 9th Street, Harney Street, 30th Street and Grand Avenue.

**9th Street**
The City’s Major Street Plan identifies 9th Street as a Collector. Serving as the west edge of campus, the posted speed is 20 miles per hour from Lewis Street to Grand Avenue with one lane in each direction and sidewalks and bike lanes on both sides of the street. The adjacent land use is residential.

**Existing Conditions**
9th Street maintains much of the character of neighborhood Laramie streets, with detached walks, mature trees and a cross section that facilitates pedestrian crossing.
Challenges include faded or absent crosswalk markings and narrow sidewalks.

**Proposed Design**

While 9th is not slated for a major redesign, the changes proposed to 15th Street will reroute traffic to parallel roadways. 9th Street will likely be one of the parallel roadways to accept rerouted traffic from 15th Street as it is the first north-south connection west of 15th Street. Due to its location as the western boundary of the campus, 9th Street has a high volume of pedestrian traffic crossing to and from the campus. A large increase in traffic could increase the potential for conflicts between pedestrians, cyclists and motorists.

Through the planning process several configurations for 9th Street were considered. One option included angled parking on the east side of the street as a way to increase the amount of parking adjacent to campus. This alternative is not recom-
mended as it would increase the potential for conflicts between vehicles backing out from the angled parking and cyclists using the bike lane. Also, the reconfigured parking would require additional right-of-way from the University and change the campus edge. Another enhancement considered for 9th Street includes mid-block crossings. However, the low volume of pedestrians crossing 9th Street does not warrant this treatment and it will be safer to direct pedestrians to clearly marked crossings at intersections.

In order to enhance pedestrian safety along 9th Street, curb extensions and high visibility crosswalks are recommended for all intersections from Grand Avenue to Flint Street. Additionally, the bike lane should be restriped and maintained.

**Harney Street**

The City’s Major Street Plan identifies Harney Street as a Collector. Serving as the north edge of campus between 15th and 30th Street, the posted speed is 30 miles per hour with one lane in each direction. Sidewalks and bike lanes are present on both sides of the street, serving the adjacent residential land uses east of 15th Street. Between 15th Street and 30th Street, adjacent land use is largely undeveloped with the exception of the campus uses.

**Existing Conditions**

Harney Street is relatively undeveloped along the campus edge. The street frontage of campus is a series of driveways rather than buildings or a distinct campus edge. The street serves primarily as an east/west through connection in the vicinity of campus. The street receives higher vehicular speeds and a sense of exposure and openness which create a challenging environment for pedestrians and bicyclists.

**Proposed Design**

To the west of campus, the City of Laramie proposes realigning a major east/west connection and railroad overpass from its current location along Clark Street, to a new overpass on Harney Street further...
north. As a result, a higher volume of traffic will be using Harney Street in the future as the primary east/west thoroughfare. To accommodate increased traffic, the proposed design for Harney Street includes street widening to accommodate four lanes. As a public interface street, appropriate design treatment will be critical to create a definable campus edge. Similar to the design of 22nd Street, bicyclists will be accommodated on-street, as well as a separated bike path adjacent to the street. Lighting would be added to the street and a landscaped setback would be planted to enhance the campus edge.

30th Street
The City’s Major Street Plan identifies 30th Street as a Collector. The posted speed is 30 miles per hour with one lane in each direction. Bicycle lanes and sidewalks are present on both sides of the street. Adjacent land uses include the golf course and recreation uses north of Willett Drive, 30th Street functions similar to Harney Street as a through connection with little or no relationship to the adjacent land uses. Residential uses south of Willett Drive along 30th and limited signalized crossing locations make crossing a challenge for pedestrians.

Proposed Design
No design changes on 30th Street are proposed as part of the Long Range Development Plan.

Grand Avenue (US 30)
Grand Avenue is identified as a Major Arterial in the City’s Major Street Plan. This is the only WYDOT facility proximate to the campus. Posted speed is 30 miles per hour with two vehicle travel lanes in each direction. The land use context changes from primarily residential along the West Campus edge to primarily commercial uses east of 22nd Street.

Existing Conditions
The cross section of Grand Avenue varies throughout the corridor. Between 9th

ABOVE:
9th Street looking north toward Lewis Street
and 16th Streets, Grand Avenue has a two lane cross section with turn lanes at major intersections and on-street parking on the south side of the street. Sidewalks are generally separated from the street by a landscaped lawn with street trees.

Between 16th and 21st Streets the cross section is also two lanes in each direction with turn lanes at major intersections. However, the sidewalks along this segment are curb-tight (abut the street). From 21st to 30th Streets, Grand Avenue has two lanes in each direction and a continuous center left turn lane. The sidewalks are curb-tight and there is no on-street parking.

While Grand Avenue is well used, the roadway does not create a sense of arrival or signal to visitors that they are approaching campus. It is a challenging street to cross for pedestrians. In West Campus, the street environment is more inviting to pedestrians and more consistent with the character of Downtown Laramie. However, this section of Grand Avenue does not distinctively change to reflect the presence of campus. Along the Central and East Campus frontages, this character is even less inviting, with curb-tight sidewalks, few mature trees and parking lots separating buildings from the street. This design creates a sense of exposure and openness which allows for higher vehicle speeds. The existing land uses surrounding campus suggest that Grand Avenue operates as a commercial arterial roadway prioritizing vehicle access to the commercial land uses.

Potential Design

WYDOT has proposed preliminary conceptual designs for Grand Avenue between 9th and 21st Streets. The cross section is very similar to the section that exists between 21st and 30th Streets. The proposed section dedicates almost the entire right-of-way to automobile traffic and makes only minimal pedestrian accommodations. The proximity of Grand Avenue to the University campus warrants greater attention to pedestrian amenities. The planning process developed several
potential alternatives to the preliminary WYDOT cross sections. These cross sections are intended to be preliminary, requiring further discussion with WYDOT so that the best possible cross section can be implemented when Grand Avenue is reconstructed.

9th to 16th Streets – Between 9th and 15th Streets, Grand Avenue is lined with trees. In an effort to preserve the tree canopy that has developed on this section of Grand Avenue, the curb line in the proposed cross section does not change. Rather, the on-street parking would be relocated with medians to manage access. Full movement intersections would remain at 9th, 11th and 13th Streets. Right-in/right-out access would be maintained at 10th, 12th and 14th Streets. As access along the corridor is restricted, it will be important to monitor 11th Street to determine if a signal is warranted.

16th to 21st Streets – Between 16th and 21st Streets, the alternative cross section would separate the sidewalk from the street and include a center median. On the north side of the street where Grand Avenue is adjacent to the University campus, the pedestrian environment is expanded to provide a wider landscape area and sidewalk. This would require additional right-of-way to be dedicated to WYDOT by the University. On the south side of the street, on-street parking could be provided in place of landscaping. If parking is installed, curb extensions should be used at intersections to shorten crossing distances for pedestrians as well as throughout the parking lane to create a tree canopy and landscaped environment.

21st to 30th Streets – The segment of Grand between 21st and 30th Streets has been reconstructed to WYDOT’s typical Grand Avenue section. It is not likely that the sidewalks will be reconstructed in the near future to incorporate landscaping. However, it may be possible to add a center median, depending on the location of commercial driveways. Installation of a landscaped center median would help to break up the wide roadway and provide
greenery to a predominantly concrete environment.

ROADWAY OPERATIONS AND MANAGEMENT
The proposed roadway reconfigurations will change some of the operations and maintenance strategies on the campus. Ivinson Street, Willett Drive, 15th Street and 9th Street will be managed for pedestrian and bicycle safety. Improvements to the pedestrian, bicycle and transit safety may result in higher levels of vehicle delay on these corridors.

Ivinson Street and Willett Drive will be managed to minimize vehicle access on segments of the roadway. Roadway segments that have limited vehicle access will still be open to emergency and service vehicles. It is important that these vehicles still have access to and parking near all campus buildings. In addition, roadways planned to be converted to bicycle and pedestrian paths may still be opened to vehicle access on days when students are moving into or out of on-campus housing.

As roadway reconfigurations are designed and implemented, it will be important that changes to the roadway do not impact snow removal and storage. Designs should maintain or enhance existing strategies for snow removal and storage.

Bicycle System
The campus bicycle system has the potential to connect West, Central and East Campuses and overcome longer walking distances. This section provides an overview of the existing campus bicycle facilities and proposes enhancements to encourage bicycle use.

EXISTING FACILITIES
Bicycle facilities on campus include routes designated with signage, striped bicycle lanes with signage and off-street multipurpose trails. Compared to campuses of a similar size, the UW campus has fewer bicycle facilities.

Bicycle parking is interspersed throughout campus near both classroom and laboratory destinations and residential locations. Most parking is provided outside of buildings and is not covered or protected from the elements. Bicycle parking is not well integrated into the built environment, often appearing as an afterthought. The Campus Bicycle Transportation Plan provides a map of the existing campus bicycle parking facilities and dismount zones. The map is available on the University of Wyoming website: http://www.uwyo.edu/sustainability/bike.asp.

Bicycle routes with high volumes of bicyclists were observed on streets that connect residential areas to the academic core. Examples include:
• King Row;
• Willett Drive;
• Ivinson Street; and
• Armory Drive and the path connecting to Willett Drive.

Bicycle lanes are present along some of the high volume routes, but coverage is inconsistent throughout campus roadways. Striped bicycle lanes are present on segments of the following campus and edge roadways:

• Harney Street;
• 30th Street;
• 22nd Street;
• 9th Street;
• Lewis Street; and
• Ivinson Street.

Multipurpose sidewalks (separated from any roadway) are present in West Campus. These routes have adequate width in most locations to accommodate both pedestrian and bicyclists. Conflicts between pedestrians and bicyclists have led to the creation of dismount zones and installation of signage in problem areas.

**BICYCLIST VOLUMES**

The UW student chapter of the Institute of Transportation Engineers (ITE) conducted mid-block bicycle counts in early December 2007. Field observations indicate high volumes crossing 15th Street and approaching Prexy’s Pasture from 13th Street. New counts in warmer months may also be needed.

**OPERATING CONDITIONS**

The Transportation and Parking Master Plan identified consistency issues in application of bicycle amenities, problems with visibility of pavement striping and conflicts at high volume intersections. In addition to facility gaps, a cohesive network with clear signage, marking and parking is lacking.

**POKES’ SPOKES BIKE LIBRARY**

Initially created by the Associated Students of the University of Wyoming (ASUW), the bike library is now run by the UW Outdoor Program. The bike library’s

continued on page 123
The proposed bicycle network includes off-street paths, separated bike lanes, shared routes and dismount zones. Connectivity throughout campus and to the City's bike network are critical to making biking a desirable mode of transportation on campus.
Map 4D Proposed Bicycle Network

- Off Street Path
- Separated Bike Lane
- On-Street Shared Route
- Dismount Zone
- City-Designated Bike Route
- Existing/Planned Campus Building
- Potential Campus Building
- Campus Open Space
- Campus Boundary

Source: University of Wyoming
mission is to encourage alternative means of transportation on the UW campus and in the Laramie community. Bikes are rented by the semester for a nominal fee and minimal deposit, with routine maintenance provided by the outdoor program. While UW students have priority for renting the bikes, faculty and staff are eligible to rent bikes after the second week of the semester. The program has been well received and successful since its implementation in 2006. The university should continue supporting the bike library.

RECOMMENDATIONS
The Long Range Development Plan proposes a promenade system that is designed specifically for pedestrian and bicycle circulation throughout the campus. All existing bicycle parking should be evaluated to ensure that it is easily accessible from the promenade system. New bicycle parking installed on the campus should be integrated into the promenade system and conveniently located for access into buildings and other campus destinations. Additionally, a consistent and cohesive system of markings and signs should be implemented throughout the promenade system to avoid conflicts between bicycles and pedestrians.

Bike lanes currently exist on 9th, 22nd, 30th and Harney Streets. These bike lanes should be clearly marked and monitored to ensure that they are visible. The promenade system should be integrated with the existing bike lane system to provide smooth transitions between the on-street bike network and campus bike facilities. In addition, bicycle improvements should be coordinated with the City of Laramie Comprehensive Plan Bicycle and Trails Master Plan Map to ensure that bicycle improvements on the campus work well with improvements planned throughout Laramie.

As new buildings on the campus are designed, it will be important to incorporate bicycle facilities into the design. Bicycle facilities need to be discussed and incorporated throughout the building design process so they are well integrated. High quality bicycle parking should be located inside new buildings or designed as outdoor parking that is conveniently located near the access points of the building.

Bicycle parking should be well lit, clearly signed and covered and protected from the elements.

Pedestrian System
The pedestrian system contributes to the sense of separation between West Campus and the Central and East Campuses. The existing system creates a sense of quality and comfort in West Campus and utility and exposure in Central and East Campus. This section provides an overview of the existing campus pedestrian system as well as recommendations for improvement.
EXISTING FACILITIES

Sidewalks are present along nearly all roadways in and around campus and pedestrian paths connect many of the destinations throughout West Campus. Width, material and condition vary widely across campus. The majority of campus is accessible and meets universal design objectives. However, some street crossing locations do not have curb ramps. National standards and guidelines for pedestrian facility design allow for flexibility once minimum widths are provided. Without well-defined City or Campus guidelines for path design, this variability may continue. Lighting is present in some areas, but it is not provided consistently for all pedestrian facilities.

Roadway crossing treatments include raised crosswalks, special paving or high visibility markings, compact intersection design, roadway narrowing and in some cases, pedestrian signals and push buttons. Crossing treatments should meet minimum traffic engineering requirements. Currently, the campus lacks enhanced pedestrian crossing treatments. A consistent approach to these elements presents an opportunity to ensure universal accessibility, create campus identity and provide maintenance efficiencies for snow clearing.

PEDESTRIAN VOLUMES

Pedestrian counts were collected for the Transportation and Parking Master Plan between November 26th and December 7th, 2007. Counts were collected between 8:00-10:00 am and 2:30-4:30 pm. It should be noted that 8:00-10:00 am is “Academic Rush Hour” while 2:30-4:30 pm is after many students have completed classes and certain labs. Volumes were typically under 100 pedestrians per hour at the study intersections and often less than 50. Corresponding to the concentration of on-campus student housing, the intersection of Ivinson Street and 15th Street was the highest volume location. This intersection had 883 pedestrians crossing from the southeast to the northwest in the morning peak hour and 518 pedestrians crossing in the evening peak. In this particular location, the volume of pedestrians actually exceeds the north-south traffic volume in the morning peak hour.

Mid-block crossings along Ivinson Street, 9th Street and Lewis Street that connect to the campus sidewalk system were also observed to have high volumes of pedestrians in the morning peak as students arrive for classes.
The proposed promenade network establishes the main arteries for pedestrian traffic on the UW campus. The promenades connect the major green spaces and various areas of campus to one another. The system is primarily composed of a major east-west promenade and a major north-south promenade.
Map 4E Proposed Promenade Network

Source: University of Wyoming
OPERATING CONDITIONS

Portions of West Campus have the type of internal pedestrian network and level of operating quality expected in a campus setting. Since much of the parking and residential origination points for pedestrians require crossing collector and arterial roadways, the potential for conflicts between vehicles and pedestrians has been identified as a key concern. Specific locations of concern previously identified as critical include:

- Grand Avenue from 9th Street to 19th Street;
- Ivinson Street from 9th Street to 15th Street;
- 13th Street from Grand Avenue to the turnaround;
- 15th Street from Grand Avenue to Willett Drive;
- Lewis Street from 9th Street to 15th Street; and
- 9th Street from Lewis Street to Ivinson Street.

In addition to these corridors, the following key internal intersections will be critical to enhancing the pedestrian system:

- 15th Street and Ivinson Street;
- 15th Street and Fraternity and Sorority Row;
- 15th Street and Willett Drive;
- Ivinson Street and 13th Street;
- 22nd Street and Willett Drive; and
- 22nd Street and future intersections.

RECOMMENDATIONS

The Long Range Development Plan proposes a promenade walkway through campus to assist in bicycle and pedestrian circulation. Locations where the promenade crosses streets on campus should be clearly marked with high quality crosswalks and pedestrian signals and signage.

The redesign of several campus streets is intended to increase pedestrian safety and mobility on campus. The restriction of vehicle access on Lewis Street and the reconstruction of the roadway to a high quality transit mall will help create an inviting pedestrian environment and begin to soften the barrier that currently exists between Central Campus and campus buildings north of Lewis Street.

The narrowing of 15th Street to one travel lane in each direction and addition of parallel parking allows curb extensions to be built at intersections. The curb extensions decrease the crossing distance for people crossing 15th Street and, when combined with high quality crosswalk markings, create a safe and comfortable crossing environment. Similar intersection treatments will be used on 9th Street to enhance the pedestrian access to campus.

All pedestrian crossing locations in and around the campus should be clearly marked. The University should coordinate with the City of Laramie to ensure that
crossing locations are regularly maintained and that they are clearly marked and visible.

Transit System
The existing campus transit system has a number of different services that link major activity centers and parking locations. Transit also offers reliable and affordable transportation options to connect the campus to destinations around Laramie. This section provides an overview of the University’s existing transit service and current ridership numbers and discusses recommendations for improving the system.

FACILITIES AND SERVICE
Transit service is provided on campus by TransPark with both shuttle routes and paratransit service. TransPark’s route coverage is focused on campus circulation. With the exception of the South Express Lot, no connections to Downtown or other off-campus destinations are provided by TransPark. TransPark services include:

- Union Express;
- Classroom Shuttle;
- Campus Shuttle;
- Resident Park ‘N Ride;
- Night Owl Express;
- South Express; and
- Paratransit (provides ADA service to all community locations).

TransPark implemented a fee schedule for transit service beginning Fall 2009. Students will be able to use their WyoOne card to ride transit as the fees are incorporated into student fees. Faculty and staff as well as the general public will have fees associated with both the fixed route system and the paratransit system. Rates for all transit services can be found on the TransPark website. The Night Owl Express will continue to be a free service.

In addition to transit service managed by TransPark, the Associated Students for the University of Wyoming (ASUW) support a Safe Ride service that is available between 7:00 pm and 2:00 am on Thursday, Friday and Saturday nights only.

ABOVE:
On-campus shuttle service
Safe Ride provides service on two fixed routes, the East Route and the Cross Town Route. These routes operate between 7:00 pm and 10:00 pm. Safe Ride also provides on-call service to students for pick-up and drop-off to any location in Laramie between 10:00 pm and 2:00 am.

Surveys indicate that campus transit service is reliable and functional in terms of headways and coverage. New service to the South Express Lot has been well received. Challenges are primarily related to transit stop and shelter amenities and the environmental impacts stemming from the diesel powered bus fleet.

Transit shelters provide signage and limited amenities and should be visible and safe. Their placement at edges of parking lots and behind buildings makes them undesirable locations to wait for the bus. Relationship to or integration with an active edge would increase a sense of quality as well as safety and security. Stops along routes could also benefit from improved signage that is integrated into a larger campus way finding and signage system.

**Union Express and South Express**
The Union Express operates on five minute headways from 7:00 am to 6:00 pm on University business days using two
shuttles. Three bus shelters are located in the Express lot where the route originates. The main shelter is heated, lighted and equipped with an emergency phone. After 6:00 pm, the route is served by the Classroom Express.

The South Express operates on five minute headways from 7:00 am to 6:00 pm on University business days using two shuttles. The route connects the Union to the new South Express Lot, located south of campus at 15th Street and Spring Creek.

Bus shelters are provided in the South Express Lot.

**Classroom Express**

The Classroom Express operates on 10 minute headways from 6:30 am to 6:00 pm using two shuttles and then on 20 minute headways from 6:10 pm to 10:30 pm using one shuttle on University business days. Three bus shelters are located in the Express lot where the route originates. The main shelter is heated, lighted and equipped with an emergency phone.

**East Route**

Every 30 minutes

1. 14th and Lewis
2. Half Acre Gym
3. McIntyre Hall
4. Fox Theatre
5. Albertson’s
6. Walmart
7. Spanish Walk Apts.
8. University Laundromat

**Cross Town Route**

ABOVE:
UW Safe Ride Routes
http://uwadmnweb.uwyo.edu/saferide/info.asp?p=4840
Campus Shuttle
The Campus Shuttle serves the perimeter of the campus on 24 minute headways from 6:56 am to 6:21 pm on University business days using one shuttle. This route provides access to buildings located on the main core of campus.

Resident Park ‘N Ride
The Resident Park ‘N Ride bus operates on 10 minute headways from 6:00 am to 10:00 pm on University business days using one shuttle. This route connects campus housing in the East Campus to Crane/Hill Cafeteria, Downey Hall and Willett Drive near Beta House. No stops are present at the athletic facilities.

Night Owl Express
The Night Owl Express operates on-call from 10:00 pm to 6:00 am on University business days and 24 hours a day on weekends. Service is provided between the residence halls and any point on campus through request or the local line at one of the shelters.
TABLE 4.1 TransPark Ridership

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>RIDERSHIP</th>
<th>2008</th>
<th>2007</th>
<th>% CHANGE FROM 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WEEK OF 8/30</td>
<td>WEEK OF 9/7</td>
<td>WEEK OF 9/14</td>
<td>WEEK OF 9/21</td>
</tr>
<tr>
<td>Union Express</td>
<td>7,416</td>
<td>9,021</td>
<td>8,290</td>
<td>8,477</td>
</tr>
<tr>
<td>South Express</td>
<td>3,662</td>
<td>4,460</td>
<td>4,148</td>
<td>4,131</td>
</tr>
<tr>
<td>Classroom Express</td>
<td>2,291</td>
<td>3,365</td>
<td>3,251</td>
<td>3,044</td>
</tr>
<tr>
<td>Campus Shuttle</td>
<td>1,148</td>
<td>1,220</td>
<td>1,063</td>
<td>1,234</td>
</tr>
<tr>
<td>Resident Park n Ride</td>
<td>607</td>
<td>605</td>
<td>567</td>
<td>597</td>
</tr>
<tr>
<td>Night Owl Express</td>
<td>198</td>
<td>421</td>
<td>509</td>
<td>583</td>
</tr>
<tr>
<td>Paratransit</td>
<td>236</td>
<td>294</td>
<td>292</td>
<td>315</td>
</tr>
<tr>
<td>Grand Total</td>
<td>15,322</td>
<td>19,092</td>
<td>17,828</td>
<td>18,066</td>
</tr>
</tbody>
</table>

RIDERSHIP
Ridership has grown significantly between 2007 and 2008. TransPark data from September 2008 shows an average of 3,670 daily riders. The above table shows the ridership by route.

MANAGEMENT
Transit and parking services on campus are managed by TransPark, which is staffed and funded through the University. TransPark’s objective is to “provide a safe, efficient and integrated transportation and parking system.”

RECOMMENDATIONS
As the campus grows to the east, the connection between West Campus and destinations in Central and East campus will need to be better connected. The UW class schedule is set up with 10 minutes between classes. With widespread campus destinations, it is difficult to make a connection between classes in 10 minutes.

In order to increase the efficiency and convenience of the UW transit service, the LRDP recommends a reconfiguration of existing shuttle routes. The reconfiguration would combine the Union Express, Classroom Express, Campus Shuttle and Resident Park ‘N Ride into one two-way (or bi-directional) campus circulator. The reconfiguration would not affect the South Express. This service would continue to be provided with the same headways and service hours.

The reconfigured shuttle service would eliminate system redundancy found in the existing system and could provide 10 minute headways with the six shuttles that are currently used to service the four existing shuttle routes. Rather than having four different shuttle routes serving a

continued on page 139
Map 4F Proposed Shuttle System

The proposed campus shuttle system forms a loop that accesses West, Central, and East Campus. In total, the transit route will include 14 transit stops. The transit route will follow sections of local streets, as well as sections of transit mall that restrict public vehicle access. The shuttle system will include off-campus shuttle routes along Ivinson Street to the west, 15th Street to the south, and north along 22nd Street.
Map 4F Proposed Shuttle System

Source: University of Wyoming
variety of campus destinations, the proposed reconfiguration would provide one route that serves all campus destinations. The reconfigured shuttle route can enhance the connection between the traditional main campus west of 15th Street and the continued expansion of the campus to the east. It will provide the rapid connection needed between campus destinations.

In addition to the reconfiguration of the campus shuttles, the LRDP encourages the implementation of off-campus shuttle routes similar to the South Express, to provide access to off-campus parking and select off-campus destinations. The first planned shuttle will be a West Express. This shuttle will provide access to off-campus parking west of the campus. In addition, this shuttle gives the opportunity to provide shuttle access to downtown Laramie. A single stop in downtown Laramie would not significantly impede the shuttle speed and would enhance the accessibility for people that rely on transit.

An additional off-campus shuttle would be a North Express. This shuttle could provide access to parking north of the campus. Additionally, this service could provide access to new campus development that is planned north of Willett Drive between 22nd and 19th Streets.

Parking
As a commuter-oriented campus with limited transit options and high expectations for convenience, parking continues to compete for valuable campus real estate. The following provides an overview of existing parking on campus and outlines recommendations for future improvements.

SUPPLY
Parking supply on campus is provided in 48 distinct parking lots, each designated
for specific permit types. A total of 4,557 spaces are provided, including 640 free spaces and a variety of restricted or permit managed spaces. Map 4G shows the current parking lot locations and number of spaces. In addition to formal campus parking, the map also shows service and maintenance lots, as well as private parking.

**UTILIZATION**

The Parking Needs Analysis provided a full assessment of utilization in each lot, verified with a sampling of locations in the Transportation and Parking Master Plan. Both studies indicated that most “A,” “R,” and metered parking spaces were highly utilized, while the “A&C” and free spaces were underutilized. Parking utilization is affected by the percentage of students living on campus and the geographic location of students and staff living off-campus. With most commuters living west of 15th Street, the Express Lot in East Campus requires commuters to travel past their destination and then backtrack on transit. The Transportation and Parking Master Plan and sales of both permit types in 2008 identified shortages in the supply of “A” and “R” parking spaces. Sales data pointed to a 13 to 36% decrease from 2007 numbers. **Table 4.2**  

**Table 4.2: Campus Parking Summary**

<table>
<thead>
<tr>
<th>Parking Space Type</th>
<th>Total Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Permit</td>
<td>1,165</td>
</tr>
<tr>
<td>A &amp; C Permit</td>
<td>649</td>
</tr>
<tr>
<td>R Permit</td>
<td>1,052</td>
</tr>
<tr>
<td>D Permit</td>
<td>150</td>
</tr>
<tr>
<td>M Permit</td>
<td>10</td>
</tr>
<tr>
<td>U Permit</td>
<td>60</td>
</tr>
<tr>
<td>Metered</td>
<td>201</td>
</tr>
<tr>
<td>Disabled Metered</td>
<td>8</td>
</tr>
<tr>
<td>All Paid Permit</td>
<td>300</td>
</tr>
<tr>
<td>Load/Unload</td>
<td>42</td>
</tr>
<tr>
<td>Univ./State/Fed. Only</td>
<td>48</td>
</tr>
<tr>
<td>Free</td>
<td>504</td>
</tr>
<tr>
<td>Free (Day Lot and Meters)</td>
<td>136</td>
</tr>
<tr>
<td>Other Specific</td>
<td>232</td>
</tr>
<tr>
<td>Total</td>
<td>4,557</td>
</tr>
</tbody>
</table>

**ABOVE LEFT:**

Parking at UW Plaza
Map 4G Existing Parking
Map 4G **Existing Parking**

- **Existing Campus Surface Parking**
- **Campus Open Space**
- **Non-Campus Open Space**
- **Unused Campus Open Space**
- **Campus Boundary**

**Source:** University of Wyoming
Neighborhood parking issues have also received significant attention in previous studies. Studies showed that a high percentage of commuters are parking in the surrounding neighborhoods near West Campus.

**MANAGEMENT**

Management of campus parking resources is the responsibility of the TransPark transit and Parking Services Department. A permit system is the primary mechanism, coupled with metered spaces, paid day permits and a free lot served by shuttle service. Permits are sold annually and by semester through TransPark. Permit fees are $60 per semester for most student parking and $90 per semester for faculty and staff. Enforcement is performed by TransPark and the University Police Department with fines ranging from $15–$175 depending on the infraction.

Neighborhood parking management is provided under the jurisdiction of the City of Laramie Police Department. In response to community concerns, a neighborhood parking permit system has been instituted. The program includes a three block buffer around the north, south and west side of campus. Participation requires support in the form of signatures from 60% of owners and residents. Offending parkers are subject to a $50 fine.

**RECOMMENDATIONS**

As a result of roadway reconfiguration, proposed new buildings and general campus growth, parking on the University campus is expected to change over the next 15 to 20 years.
Several parking structures are proposed in areas of high parking demand. The Half Acre surface parking lot will be converted into a parking structure to ensure that parking near the main campus is maintained when new buildings are constructed. Additionally, a parking structure is proposed just north of King Row near the Performing Arts Center and residence halls. The third and largest parking structure is proposed just east of War Memorial Stadium. This structure will provide parking during events on the campus. Additionally, this structure will likely become the main park-n-ride parking lot for people choosing not to purchase a parking permit but still driving to campus. This structure will have a transit stop located near it for access to the main campus.

Concern was expressed about loss of parking on the campus, particularly near the main campus. Consequently, concerted effort was made to ensure that any parking that was relocated was replaced in a lot nearby. When new parking lots are constructed they should be permitted similarly to the parking lots that they replace. The Transportation and Parking Master Plan identified a need for additional “R” and “C” parking spaces. These increases can be implemented as new parking facilities are constructed.

In order to increase efficiency in main campus parking facilities, the University could implement a Monday-Wednesday-Friday and Tuesday-Thursday permit program. These permits would only be effective on the stated days. Many people do not need to park close to the main campus every day but will have the option to pay for a nearby space if needed. On days that are more flexible for motorists, they may park further away and take a shuttle. As with any new program, if a multiple day permit system is implemented, the results should be monitored to determine the success of the program.
Parking supply on campus is currently provided in 48 distinct parking lots throughout campus. Parking is also a dominant land use along one of the campus’ public interface streets: Grand Avenue. On West Campus, parking is available near the cluster of buildings surrounding Prexy’s Pasture. Several of the spaces between buildings to the north of West Campus are primarily used for parking. Central Campus contains the largest parking lots to accommodate visitors to the Fine Arts Center and sporting venues. Parking is also provided around Fraternity Mall and on opposite sides of Greek housing. Large parking areas are also present on East Campus near student housing, and to the north near the athletic fields.
Map 4H Proposed Parking

Source: University of Wyoming
Event Management

Special events draw large crowds to the University, which can cause increased vehicular delay. The Long Range Development Plan provides strategies to encourage event attendees to change the route that they take to get to events on-campus and encourages off-campus parking. Providing people with alternative driving routes to on-campus parking may help distribute event day traffic. Additionally, providing off-campus parking may limit the amount of vehicles driving to the campus on event days.

Currently, all directions to events at the University direct drivers to Grand Avenue and 22nd Street. This delivers a large number of drivers to one intersection in a small window of time. To help distribute event day vehicle traffic, “best route directions” that provide alternate route information should be provided with season parking passes. Additionally, location
maps and directions should be provided to free parking with event ticket purchases. All alternative route information should also be posted on the University’s website. On event days, temporary signs should be provided away from campus to direct people to free parking via alternate routes. The Campus Event Parking Map shows which parking lots will be open on event days as well as the roadways that will be open to vehicle access on event days.

The University does not currently provide off-campus parking for events, so everyone arriving to the event in a car is destined for the campus. Designating off-campus parking lot locations and providing transit service between the remote parking lot and event destination could limit the amount of traffic that is generated on-campus on event days.

TransPark does not operate transit service on event days. While a bi-directional campus shuttle service would not be practical during weekend events, using the shuttles to provide access to free, off-campus parking could help decrease the amount of traffic on the campus during events. The Satellite Event Parking Map shows possible off-campus parking lot locations and the shuttle service routes that could serve those lots. Off-campus parking allows for easy parking and minimizes circling and hunting for parking on campus. Additionally, shuttle service provides door to door service.

For people who do park on campus or choose to take a bike to an event, pedestrian and bicycle routes and crossing locations should be clearly designated by signs or campus event staff. Providing designated crossing locations and directing people to those locations may help limit the potential for conflicts with vehicles.
Many of the existing parking areas will need to be relocated to accommodate new development. Several parking structures are proposed in areas of high parking demand. The Half Acre surface parking lot will be converted into a parking structure to ensure that parking near the main campus is maintained when new buildings are constructed. Additionally, a parking structure is proposed just north of King Row near the Performing Arts Center and residence halls. The third and largest parking structure is proposed just east of War Memorial Stadium. Existing parking along Fraternity Mall will be relocated to a surface lot north of Willet Drive. Event parking and circulation are critical to the overall perception and function of campus.
Map 4I Event Parking

- **Priority Event Surface Parking**
- **Priority Event Parking Structure**
- **Existing Campus Surface Parking**
- **Proposed Campus Surface Parking**
- **Proposed Campus Parking Structure**
- **Promenade**
- **Transit Route/Mall**
- **Off Campus Shuttle**
- **Existing/Potential Campus Building**
- **Campus Open Space**
- **Major Road**
- **Minor Road**
- **Campus Boundary**

*Source: University of Wyoming*