

Changing Campus Culture: Making the Bus “Cool”

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Abstract

Most colleges and universities are trying to solve parking problems these days. People want to park near their destinations. Parking supplies never seem to be large enough, and providing more parking brings more cars into the high pedestrian environment. Faced with building huge parking structures on campus, the University of Wyoming has instead begun to shift its culture from single occupancy vehicles to transit/park-n-ride. Starting with *University of Wyoming Transportation and Parking Master Plan*¹, the university was able to employ various methods to successfully get people to leave their cars and hop on buses.

This paper presents a history of travel and parking on the University of Wyoming campus, including recent proposals for parking garages on central campus. The Transportation and Parking Master Plan is discussed, including the goals, objectives, and process for the study; public involvement process; options for decreasing parking demand and increasing transit ridership; recommendations for transit; and techniques used to promote transit, shift the culture, and gain momentum for bus use, including using student activism, media and technology to quickly gain widespread support. Finally, statistics and testimonials that demonstrate the success of the program in its first year, the extensive plans for future system expansion, and examples of the support received for the recommendations are presented.

It is hoped that the lessons learned can provide support for other colleges and universities that transit can help solve long-standing parking problems. Municipalities can also benefit from the techniques applied to this project.

Introduction

The old western culture, where cowboys tied their horses to a hitching post in front of a saloon, lives on today at many universities. People want to park near their destinations. Many colleges experience the pain of too many cars and not enough parking. In the process of developing the *University of Wyoming Transportation and Parking Master Plan*¹ in 2008, the University and greater Laramie communities concluded that getting people out of cars and onto buses would be a much more cost-effective and sustainable solution to the parking problems than building huge and expensive parking structures on campus. Shifting the long-standing culture from single occupancy vehicles to transit/park-n-ride would not be easy, but results in the first year of implementation of the Master Plan recommendations¹ have already demonstrated success in getting people to leave their cars and hop on buses.



Campus Culture

According to former University of Wyoming President Philip L. Dubois, “Parking has been an issue in Laramie for a long, long time.²” This issue is common to college and university campuses that draw commuter traffic from the adjacent communities and have limited transit service. Past student surveys have indicated that this is a persistent problem for students that continue to grow as the student population increases and campus construction progresses³. Being located adjacent to downtown Laramie, the parking problems affect not only people associated with the University, but also local residents and businesses. According to the data collected for the *University of Wyoming Transportation and Parking Master Plan*¹:

- Over two-thirds of the students, faculty and staff (resulting in approximately 6,888 person-round trips per day) commute, creating definitive congestion during morning and evening peaks. This creates a parking demand that spills over into adjacent neighborhoods.
- Motorists (as many as 30% of commuters) take multiple trips to and from campus throughout the day, creating additional parking and circulation issues. High parking turnover creates congestion as drivers search for that “perfect spot” close to their campus destination.

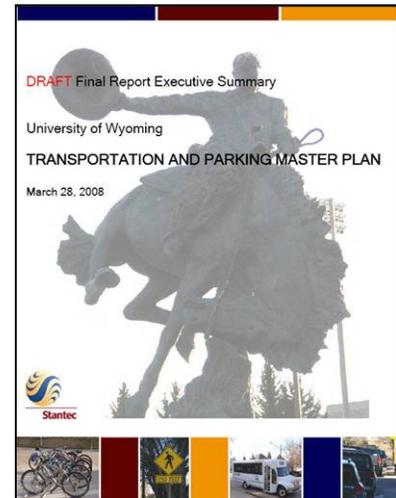
In 2005, the *University of Wyoming Parking Needs Analysis*⁴ was prepared for the Wyoming Legislative Session. The study concluded that there actually was not a shortage of parking spaces on campus for the existing conditions. A perception of a parking shortage existed due to the desire to park as close to the center of campus as possible. There were plenty of remote spaces available. However, it was determined that by 2010, there would be an overall parking deficiency due to population growth, loss of neighborhood spaces, and construction. It was estimated that the deficiency would be 217 parking spaces in 2010 and 748 spaces by 2015. Recommendations made included building a parking deck on campus.



While a parking structure would provide some of the needed parking, a segment of the university population, and members of the State Legislature, did not feel that this was the most cost-effective solution. It would further increase traffic in areas of campus with high pedestrian volumes, would be very costly, and would only benefit a small segment of the community. In a state and community where horses are still a more popular transportation mode than buses, changing the culture away from supplying more parking would be a big challenge. Before approving funding for a new parking structure, the State Legislature took an important step and requested that this more comprehensive and inclusive *Transportation and Parking Master Plan*¹ study be undertaken to see if there were any other viable, more cost-effective and sustainable options available.

Transportation and Parking Study

The main purposes of the *Transportation and Parking Master Plan*¹ were to identify needs and recommend solutions to transportation deficiencies on and around campus, find alternative ways to address the parking problems, improve mobility and safety on campus and in the adjacent community for vehicles, pedestrians, and bicyclists, and to find ways to improve transportation connectivity throughout the Laramie area. Specifically relating to parking, the plan examined solutions that are less capital-intensive than a parking structure, specifically, trying to decrease parking demand through expanding and promoting transit, rather than increasing the parking supply.



Just how bad was the parking situation at the University of Wyoming? Recent surveys and studies clearly proved that parking continues to be the number one transportation concern for University personnel and City residents.

UW parking and transit is maintained and operated by TransPark Transit and Parking Services Department. On campus, there are 48 parking lots provided for resident and commuting students, faculty/staff, visitors, handicapped drivers, vendors, motorcycle riders, and UW or government vehicles. There are also metered parking spaces, paid day permit spaces, and a free shuttle lot, with a total of 5,648 spaces. Table 1 shows the total available parking spaces on campus. Three permit types comprise 54% of the spaces and 82% of the permits. “A” permits are for faculty and staff. “C” permits are for commuting students living off-campus. “R” permits are for residential students living on-campus.

Twelve lots were chosen and parking counts were conducted to estimate current parking utilization. The parking lots chosen were spread throughout the campus, each including different permit types.

The utilization rates found are summarized in Table 2. Most of the ‘A’ parking lots have a utilization rate above 80% throughout the day. The peak time for the ‘A’ parking lots is in the morning and the utilization decreases throughout the day. The two ‘A & C’ parking lots near the central campus are generally above 70% full, however, they are not 100% full at any time during the day. It is important to note that the Free Shuttle Lot had a maximum utilization of 61% in the morning. All of the ‘R’ permit lots were above 97% utilized throughout the day.

**Table 1:
Total Available Parking Spaces**

Type of Parking Space	Parking Spaces
A Permit	1,141
C Permit	649
R Permit	1,284
D Permit	147
M Permit	19
U Permit	60
Metered	197
Disabled Metered	8
All Paid Permit	300
Load/Unload	60
Univ/State/Fed Only	48
Free	1326
Fee - Day Lot / Meters	325
Other Specific	84

When examining the parking utilization numbers, it is evident that there is a shortage 'R' permits parking spaces, as compared to the current demand. More permits are consistently being sold than spaces available. In

Table 2: Parking Supply verses Demand

<i>Permit Type</i>	<i>Actual Population (2007)</i>	<i>Percentage of Population</i>	<i>Available Parking Spaces</i>	<i>Supply vs. Population Percentage</i>
A	2,445	20%	1,141	47%
C	7,929	64%	649	8%
R	2,053	16%	1,284	63%

2007, there were 748 more 'A' permits sold than available spaces (65% more permits than spaces available). There were 140 more 'R' permits sold than available spaces (11% more permits than spaces).

Review of the utilization statistics might lead one to conclude that there are more than enough spaces available to meet the demand. The allocation between permit types may not be optimal, but the total amount appears sufficient. However, input from City residents, through the Transportation and Parking Survey¹ conducted as part of the study, and public meetings, clearly indicate a high percentage of commuters parking in the residential areas, which has created a growing conflict between the residents of Laramie and University. The Survey revealed that as much as 48% of commuters (over 3,000 individuals) do not have a parking permit, and either pay daily to park, or park in the residential neighborhoods. Faculty, staff and commuting students have also expressed their concern that finding a parking space close to campus is extremely difficult. The problems are not having enough parking close to campus, and people parking in neighborhoods for free instead of purchasing a parking permit - not total spaces.

The plan made the following conclusions regarding parking deficiencies:

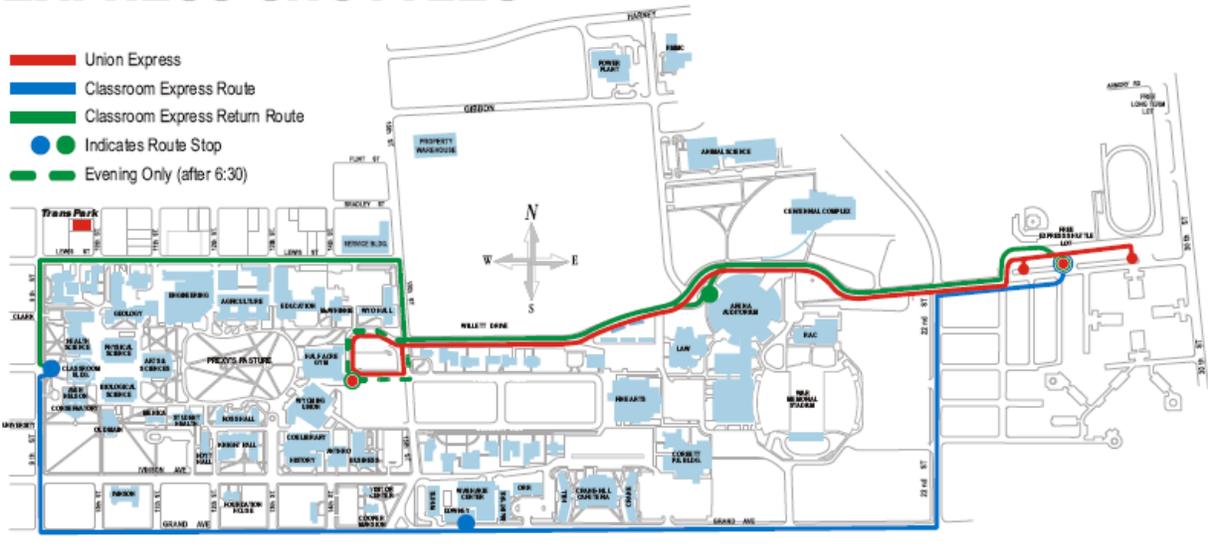
- Shortages of "R" permit parking spaces
- Mismatch of permits sales to spaces available
- Many commuters are parking in residential neighborhoods rather than purchasing parking permits
- Although there is additional parking available on East campus, many people currently do not use this, due to a real or perceived lack of convenience
- No available alternative transportation modes for most locations in the greater Laramie area



TransPark provides free bus shuttle services with three distinct shuttle routes and free paratransit service. The three shuttle routes are (1) Union Express, (2) Classroom Shuttle, and (3) Campus Shuttle. The shuttle service is limited to the campus area and does not extend into adjacent residential areas, nor does it provide access to key destinations in the City of Laramie. The bus shuttle services are generally available between 7:00 am and 7:00 pm on business days with headways ranging from five minutes for the Union Express to 24 minutes for the Campus Shuttle.

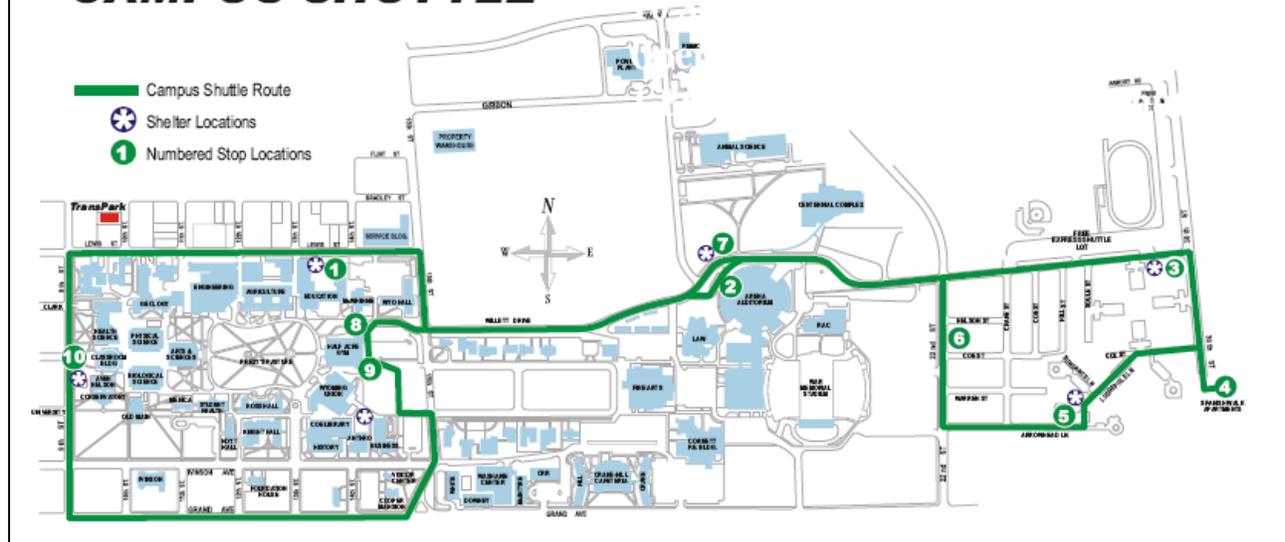
Union and Classroom Express Routes

EXPRESS SHUTTLES



Campus Shuttle Route and Stops

CAMPUS SHUTTLE



As shown in Table 3, the overall ridership of the shuttle service was consistent at approximately 2,000 passengers per day through 2006 and 2007. The ridership for the Union Express and Classroom Express has increased each semester. The Classroom Express Evening service began in the Fall of 2007 and replaced the Campus Shuttle Evening service. The Campus Shuttle experienced a significant decrease in ridership in the Fall of 2007, which could be due to the change in route and number or location of available stops, plus campus construction projects.

The University also provides a free paratransit service as transportation to and from work, school, appointments, meetings, social and recreational needs, and other person needs. The boundaries are limited to the Laramie city limits and adjacent areas within two miles of the City limits. This service is available for anyone with a permanent or temporary disability and is open to people associated with the University and the general public. Persons who are not disabled and associated with the University are required to request a ride from the Senior Center service before requesting from the TransPark Paratransit service.

Table 3: Average Daily Ridership for Shuttle Services

Shuttle Service	Average Daily Ridership		
	Aug – Oct 2006	Feb – April 2007	Aug – Oct 2007
Union Express	1,425	1,457	1,513
Classroom Express	101	114	159
Classroom Express (Evening)	N/A	N/A	89
Campus	322	373	170
Campus (Evening)	71	87	N/A
Total	1,919	2,031	1,932

In 2001, the Safe Ride van program was developed by the Associated Students of the University of Wyoming (ASUW). This program is a free public transportation system with the goal of providing safe and reliable transportation within the Laramie city limits. This service is available Thursday night through Saturday night and only when the University is in session. The fixed route of Safe Ride runs from 7:00 to 10:00 pm and has designated stops. The ASUW developed this program to reduce drinking and driving and also to assist those without transportation to get to businesses throughout the City. Safe Ride's ridership has averaged more than 10,000 riders a semester for the past three years.

The University transit services focus only on the shuttle service on campus and the Safe Ride's van program. Given that, the following deficiencies are noted:

- Lack of transit service connecting the campus with downtown Laramie, the Grand Avenue retail corridor, UW Plaza (convention Center), and other key destinations
- Lack of commuter services from residential locations throughout greater Laramie to key locations on campus
- Limited operating hours, stops, and amenities for on campus shuttle routes



Parking Recommendations Supported By New Mode Choices

The plan investigated three general ways to solve the parking problems:

- Use existing parking more efficiently
- Increase the supply of parking
- Reduce the demand for parking

Reallocating parking lots between the various permit types will help a little, but will not solve the underlying problems, particularly in the long-term. Construction of a parking structure would increase the supply of parking, but only to a limited degree and a high cost. It would also increase traffic around the location of structure. A reduction in parking demand is the best long-term, sustainable solution. This can best be accomplished through the introduction of improved or new mode choices.

Plan recommendations regarding mode choices included:

- Improve dependability of service
- Provide regular and frequent headways
- Extend service hours
- Consider extension of existing routes
- Identify and implement new routes
- Create a transit system throughout the Laramie community, connecting major origin and destination points
- Upgrade/create transit hubs and shelters (bike lockers, climate control, real time schedules/headway communication, news, transit supported development – coffee shops)
- Install front load bike carriers on the bus fleet
- Work towards having new bus stock to be “clean” vehicles, which run on alternative fuels, generate cleaner emissions, and run quieter.
- Form a Laramie Transit Authority to help fund the transit program
- Construct the transit hub on or near central campus to include higher-end amenities, a transit/parking control and communications center, and TransPark administrative offices.
- Construct remote park-n-ride lots and facilities (north, south and west side of the Laramie area - locations to be determined during a detailed feasibility study, and based on population and destination data), plus improved bus stops
- Construct a new bus maintenance facility
- Implement a shrink-wrap theme for the bus system to help promote it
- Develop special route and headway plans for special events

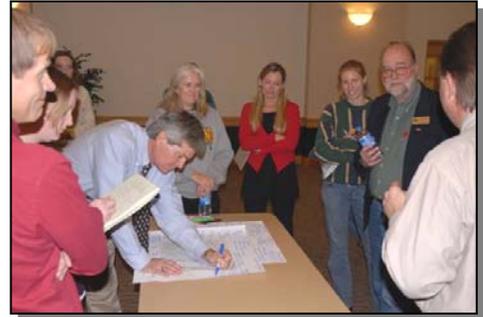


Changing the Culture

While parking and mode choice improvements would provide more convenient choices, they will not be successful if people do not choose to take these alternate modes. In a single-occupancy auto culture and a community with little traffic congestion, getting people to take a bus instead is not as simple as “if you provide it, they will come.” People must have some incentives to change.

A major recommendation of the *University of Wyoming Transportation and Parking Master Plan*¹ was to use student activism, media and technology to quickly gain widespread support for transit, shift the culture, and gain momentum for bus use. The University of Wyoming administration was clearly behind the change in direction, as evidenced by University President Tom Buchanan taking the new South Express bus on its launch date. Students, however, were the key to success.

Laramie has the advantage of being largely a college town, with students that are typically more open to new ideas, and energy and passion to quickly start a movement to change to the bus. A Student Advisory Committee was actively involved in the development of the Master Plan, and a campus sustainability committee was also behind the recommendations, so there were already student advocacy groups in-place to help “sell” the transit recommendations. Members of the University of Wyoming ITE Student Chapter, led by Professor Rhonda Young, assisted with the plan data collection. The student government (ASUW) officially endorsed the transit recommendations. The word spread quickly and using students, the bus quickly became “cool.”



In order for transit to enjoy long-term success, taking the bus also needed to have support from the city and state levels as well. Extension into other parts of Laramie is needed to achieve the goal of better community connectivity, and state support is needed for funding, at least until a transit authority is established. The City of Laramie took important steps, including Mayor Klaus Hanson riding the bus as well, and the City of Laramie Council passing a resolution supporting the Transportation Master Plan recommendations⁷. Wyoming Department of Transportation was involved in the planning process from the beginning and expressed support of the transit recommendations, as did WYTRANS – a non-profit group formed to promote transit in the State of Wyoming.

Implementation

In order to take advantage of the positive energy and momentum already generated through the plan development process, it was critical to start implementation as soon as possible. Over the summer of 2008, Mark Collins, Vice President of Administration, and Greg Jordan, Transit and Parking Service Manager, led the charge to get things rolling.

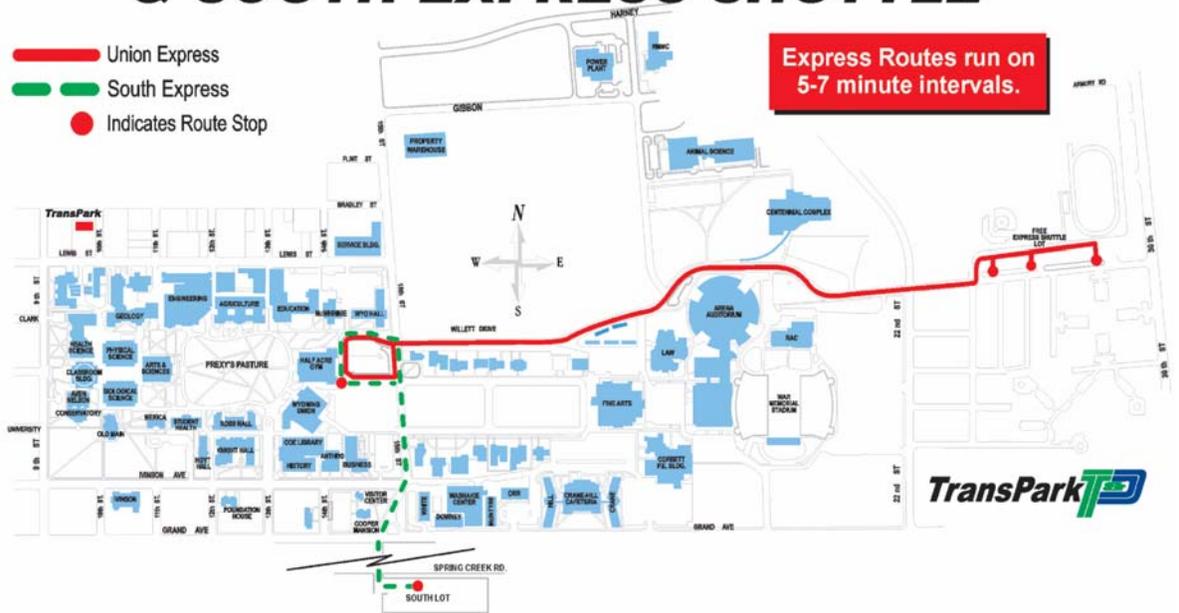
The first major implementation was the addition of a new South Express Shuttle, which serves residential areas to the south of campus. Six additional buses were leased for the route. A park-n-ride lot was established at a closed shopping center, bike racks were installed there, and buses starting running at 5-7 minute intervals. The University promoted the new route heavily through radio messages and asking students to spread the word, giving away prizes, and the UW President Buchanan/Laramie Mayor Hanson bus ride.

New South Express Bus Route

UNION EXPRESS SHUTTLE & SOUTH EXPRESS SHUTTLE

-  Union Express
-  South Express
-  Indicates Route Stop

Express Routes run on
5-7 minute intervals.



Other steps taken include installing bike racks on more buses, implementing some pedestrian and bicycle improvements, and raising parking fees. A fueling facility is being constructed to enable fueling buses with biodiesel. A bike library was instituted where bikes are loaned to students for a nominal fee. Two other important routes were also instituted – a Resident Park 'N Ride (serving residence halls from 6 am – 10 pm), and the Night Owl Express (after hours and weekend on-campus).

If the new routes are successful, a community-wide bus system will be planned further, including possible establishment of a transit authority to fund the system. The University is seeking funding for the transit hub/parking structure adjacent to campus, which would serve as the cornerstone of the entire bus system.

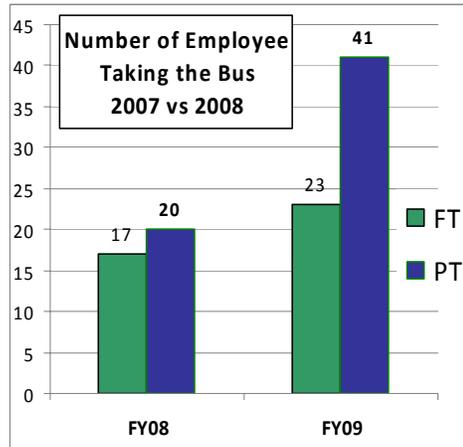
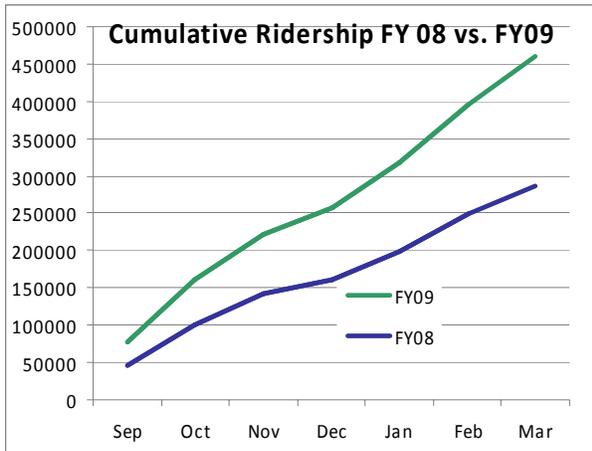
On the first day of service, August 26, 2008, transit ridership increased from the approximately 3,000 daily ridership of the previous semester, to 4,200. On the first two days of classes, about 900 people rode the new South Express Shuttle route⁵. "A" parking permit sales (employees) were down 20% from the previous year. Other parking permit sales were down as well.



A true test of the improvements, however, would be during the winter months, where cold and snow tend to drive people back to their cars. As seen in Table 4, March 2009 ridership is up 75% over March 2008. The graphs below show other positive trends. Cumulative ridership in 2009 continues to grow at a faster rate than 2008. It is not only students that are taking the bus. More employees are taking the bus as well – especially part-time employees, which when they drive, tend to have to search for vacant spaces close to their destinations. Now, by taking the bus, traffic close to campus is reduced. The resulting reduction in potential vehicle/pedestrian conflicts is an added success.

Table 4: Average Daily Ridership for Shuttle Services – March Only

Shuttle Service	Average Daily Ridership		
	2007 - 2008	2008 - 2009	% Change
Union Express	1,269	1,147	-10%
Classroom Express	256	760	+197%
Campus Shuttle	153	162	+6%
South Express	N/A	715	N/A
Resident Park 'N Ride	N/A	98	N/A
Night Owl Express	N/A	70	N/A
Paratransit	39	59	+ 53%
Total	1,717	3,010	+75%



Conclusions

Feedback from students and employees has been generally positive. While there is an initial effort to get used to the change, the general consensus is that taking the bus does not result in a significant increase in time to get to class and is actually more convenient. Taking the time to change the mindset of people is often an important step in establishing a bus system.

Is the switch to transit helping the university to become more “green” and sustainable? According to the Sustainable Endowments Institute, the answer is yes. In 2008, the institute gave transportation at the University of Wyoming a grade of “D”. In 2009, after implementation of the initial Master Plan recommendations, the grade was raised to “C”⁶. Reasons for the raised grade included the leasing of buses for expanded and new routes, construction of the biodiesel fuel facility, and the bike library program. Further improvement and expansion of the transit system will lead to an even higher grade.

There are still horses in Laramie, as well as many cars. However, buses no longer appear alien. Thanks largely to students, bus travel is now a viable transportation alternative. If properly planned, adequately funded, and successfully marketed, an expanded bus system has the potential to reduce traffic, plus improve connectivity, safety, and quality of life in Laramie.

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Endnotes

1. Stantec Consulting, Inc. "University of Wyoming Transportation and Parking Master Plan," The University of Wyoming, May, 2008.
2. Press Release, The University of Wyoming, October 15, 2003.
3. The University of Wyoming. Various Survey Results and Data. 2005 – 2009.
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