Parking System Operational Assessment

University of North Dakota

Twamley Hall 116B
264 Centennial Drive, Stop 8364
Grand Forks, ND 58202-8364

Prepared by:

3937 Globe Theatre Avenue
Boise, Idaho

February 2015

University of North Dakota

Grand Forks, ND

Parking System
Operational Assessment

Submitted to:

Ms. Peggy Lucke

University of North Dakota

Associate Vice President for Finance and Operations

UNIVERSITY OF
NORTH DAKOTA

February 2015

Table of Contents

I. Executive Summary

The University of North Dakota (UND) selected SP Plus Corporation in the fall of 2014 to conduct a comprehensive operational review of its parking program. SP+ teamed with The Solesbee Group (Consultants) to complete the study. As part of this review, the Consultants were asked to evaluate and make recommendations along the following operational areas:

- Parking allocation system and permitting practices

- Organizational structure

- Technology utilization

- Costs and fees assessment

- Enforcement culture

- Customer orientation and service culture

Two site visits were conducted as part of this review allowing the Consultants to meet with staff delivering or overseeing various aspects of the UND parking program, campus leaders, and numerous constituencies to understand more fully current services, service gaps, and attitudes and opinions from users of the UND parking program. The first visit occurred November 18-20 and the second, December 2-4, 2014. This parking system operational assessment is also based on the evaluation of documentation provided by UND, in-person interviews and observations and comparative analysis against selected peer institutions.

A comprehensive community engagement process was also a part of this effort where stakeholders were interviewed in a focus group setting, individually or by survey in an effort to further inform the study recommendations. The community engagement process is outlined in section III below.

A. Peer Institutions

Universities compare and exchange information with other institutions to inform themselves and their constituencies about the well-being of their institution and to identify areas in need of attention. As a result, the information collected through inter-institutional comparisons is widely used to inform strategic planning efforts and to fine-tune decision making.

Parking peers are institutions with comparable transportation systems. Factors taken into account when determining appropriate parking peers include: 1) size of campus, 2) enrollment, 3) adjacent land uses, 4) regional transportation system, 5) internal

transit/shuttle system, 6) development form (urban, suburban, small town), 7) topography, and 8) climate.

UND's Selected Peers

From a transportation perspective, not all academic peers are appropriate given differences in campus size, adjacent lands uses, topography and climate. As a result, some of UND's academic peers have been combined with non-academic peers in order to form a transportation oriented peer group.

UND Transportation Peers

Institution	Location (population)	Enrollment
University of Wisconsin – Lacrosse	Lacrosse, WI (51,522)	10,558
Montana State University	Bozeman, MT (39,860)	15,294
University of Wyoming	Cheyenne, WY (61,537)	13,992
Oregon State University	Corvallis, OR (55,298)	26,393
Boise State University	Boise, ID (214,237)	22,678
Washington State University	Pullman, WA (31,395)	19,446
Oklahoma State University	Stillwater, OK (45,688)	22,369
Colorado State University	Fort Collins, CO (152,061)	26,769

UND currently has an enrollment of 14,906, and Grand Fork's population is estimated to be 54,932.

Survey data existed or was collected for all selected peers for this study. While conditions are unique at UND, benchmarking various aspects of the parking and transportation system against peers is a useful exercise and can shed light on potential areas for improvement or confirmation that UND is on par with its peer organizations.

See Appendix A for peer organization information and data.

B. Characteristics Framework Assessment

Through extensive work with parking and transportation organizations, SP+ has developed a framework to evaluate program effectiveness, benchmark success and guide organizational improvement. The framework provides a rationalized and structured approach to program evaluation based on best practices characteristics which include:

1) Mission, vision and philosophy
2) Strategic planning

3) Organizational structure and human resources
4) Customer orientation
5) Permit allocation system and pricing
6) Parking enforcement program
7) Use of technology
8) Budget

C. Priority Recommendation Summary

The following is an outline of recommendations of critical importance that must be pursued immediately. Details and analysis of these recommendations follow, along with other recommendations of less pressing importance.

1. Mission, vision and strategic direction – In concert with the campus community, UND's Parking Services must go through a process of developing a new mission statement and departmental vision and establish a strategic direction that supports the university's overarching goals.

2. Organizational structure – UND is due an overhaul of the organizational structure used to oversee parking and transportation services.   It is recommended that all access management related services are consolidated into one unit. Further, that unit should be managed outside of public safety to stay in alignment with industry best practices. This will appropriately align the department to focus on customer service and provide public safety officials with relief in management of parking services so they may focus efforts on public safety matters important to the campus.

    As part of the restructuring, UND should look to adding much needed positions to the department and repurposing others.

3. Professional Development – parking and transportation programs and services are becoming increasingly complicated and innovative making it necessary for the professionals working in the field to invest in professional development. Several organizations exist that offer training, and networking and provide direct access to industry specific products and services. Investing in professional development will not only make existing employees better able to accomplish their mission, it will also improve employee retention.

4. Customer Focus – UND can better serve its parking and transportation users by adopting a customer-oriented philosophy and by directly engaging patrons through a parking and transportation advisory committee. UND should also regularly collect customer satisfaction information and communicate proactively with program and service users.

5. Permit Allocation System – UND's current parking permit allocation system is not adequate to meet the growing needs of the campus community. It is confusing to many and the hunting license approach creates frustration on the part of parkers who often cannot park in their preferred location. A tiered, demand-based system or hybrid system is recommended.

6. Parking Enforcement Program – In addition to bringing the parking enforcement program under Parking Services, it is recommended that the parking enforcement program is reconfigured into a parking ambassador program. Additional staff should be added to the program and some citation amounts need to be adjusted. UND should also consider a progressive fine structure in concert with a more educational mindset to enforcement to deal with chronic offenders.

7. Technology – Many technologies are available to UND to improve customer convenience, revenue control and promote efficiencies. Chief among these UND should pursue are credit card capable meters, license plate recognition and improved space availability and parking reservation systems.

8. Budget – UND should look to diversify parking revenue streams to relieve the burden on permit holders. Special event and short-term parking revenue can and should be grown. On the expense side, UND's parking program is underfunded from an operational standpoint and had too great of debt service burden on the expense side.

9. UND Ramp – UND's parking ramp is currently designed and operated in a manner that is less than optimal from a consumer standpoint. Reconfiguring the exit lane and replacing existing revenue control equipment will improve how the garage functions when combined with the tiered parking strategy identified above.

III. Existing Conditions

A. Mission, Vision, Philosophy

The mission of Parking Services is to facilitate the movement of people and vehicles throughout the campus in the safest possible manner, and to facilitate the efficient parking of these vehicles in appropriate areas on campus.

B. Strategic Planning

Neither Parking Services nor UND appear to have master plans, or written long-range plans that detail physical growth and development and requisite transportation and parking needs.

C. Organizational Structure and Human Resources

Parking Services is a part of the Division of Finance and Operations. The entire portfolio consists of seven units as follows:

- Finance and Operations
- Facilities
- Public Safety
- Special Projects

- Human Resources/Payroll Services
- Rates and Costing
- Budget Office

Parking Services is housed in Finance & Operations which also includes Transportation Services and the Controller's office. The parking enforcement section is currently managed by the Public Safety Division and includes a parking enforcement supervisor and student enforcement offices. The enforcement program is overseen by the Assistant Chief of Police for Operations.

Organizational charts for each unit responsible for some portion of parking and transportation at UND follow:

Parking and Transportation Organizational Charts

Parking Services

VP for Finance & Operations

AVP for Finance & Operations

PS Business Manager

- Customer Service/Communication Representative
- Operations Specialist
- Ramp/Event Operations Coordinator

Parking Enforcement

VP for Finance & Operations

Chief of Police

Assistant Chief of Police for Operations

Enforcement Supervisor

Student Enforcement Officers

Transportation Services

VP for Finance & Operations

AVP for Finance & Operations

TS Manager

- Shop Supervisor
  - Mechanic (2)
- Dispatcher
- Mass Transit Coordinator
  - Shuttle Driver (2)
  - Part-time Drivers

Full Time Positions

Of the three separate units, there are a total of thirteen full-time total positions consisting of the Parking Services Business Manager, Customer Service/Communications Coordinator, Operations Specialist, Ramp/Event Operations Coordinator, Transportation Services Manager, Shop Supervisor, two Mechanics, Dispatcher, Mass Transit Coordinator, two Shuttle Drivers and the Enforcement Supervisor.

Part Time Positions

There are several part-time student positions across the three units including shuttle drivers and enforcement officers.

D. Customer Orientation

University parking departments are typically oriented in one of two general ways. Traditional departments see their primary role as enforcing rules and regulations. Success is measured in terms of regulatory compliance often compelled through aggressive enforcement. This orientation can establish and reinforce an "us-versus-them" dynamic where customers are viewed as violators and parking staff are seen as enforcers. The mode of communications is primarily "tell and direct" and a one-way communication from the parking department to the user of parking facilities.

Contemporary parking departments see themselves as a service delivery organization where success is measured in terms of customer satisfaction. While parking rules and regulation compliance is important, the department takes on a problem-solving role with consumers and works to satisfy customer needs through less rigid enforcement. Education of the parking public is seen as critical to the success of the parking program and communication between staff and customers is open, collaborative and two-way in nature. Customer satisfaction is measured and goals are set to improve the parker's experience.

Parking Services is currently exhibiting characteristics of both orientations where the customer service offered by office staff is seen as helpful, flexible and reasonable and the enforcement program is viewed as overly aggressive, largely inflexible and less favorably by the campus community in general.   See Community Engagement Section for detail.

Parking Advisory Committee

In the past UND has had a parking advisory committee but that group was disbanded and one no longer exists. Some groups on campus including the faculty senate have or are considering a recommendation to form such a committee.

Website

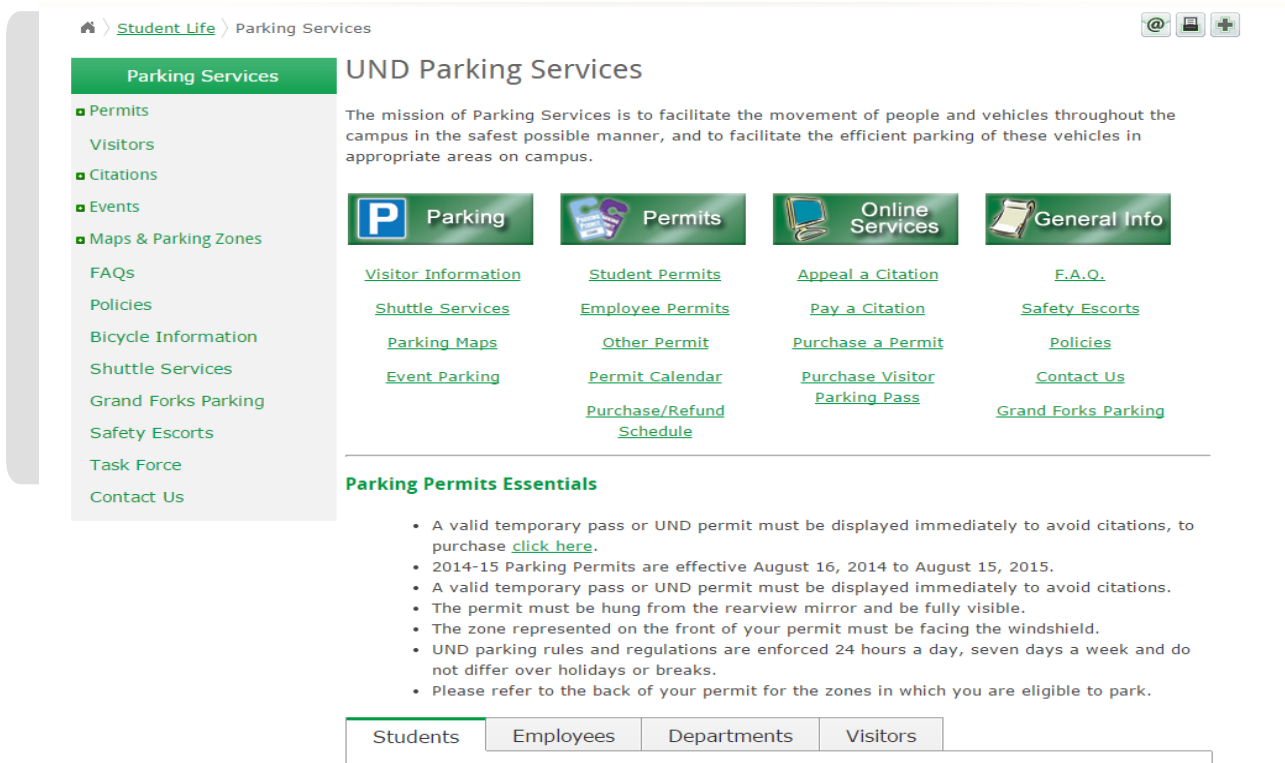A web search of "University of North Dakota parking" produces at the top of the choices a link to the Parking Services website with URL http://und.edu/student-life/parking/. From the UND website the same address comes up second among choices. This high

visibility may be compromised somewhat for non-students who don't expect to be looking for information on a page entitled "student-life".

The current Parking Services website seems to adequately inform parking customers about departmental programs and services. In addition to a simple header approach that includes main topical areas of information, there are also four main buttons directing patrons to "parking", "permits", "online services" and, "general information".

The website is fairly easy to navigate; it is not overly cluttered and presents services in an easy-to-find manner.

Parking Services Website

E. Permit Allocation System and Pricing

UND currently utilizes a simple "hunting license" system to allocate parking permits based on category of affiliation.   A parker may purchase a permit based on their affiliation, whether student, faculty or staff and park in any lot on campus matching their affiliation.

This approach has been commonly used in parking organizations where demand is relatively low and where parking management and systems have been less sophisticated

compared to today. In hunting license schemes it is also common for there to be no limit to the number of permits sold. In other words, a permit provides the opportunity to park but does not guarantee a space will be available. UND generally follows this approach with the exception being the parking ramp where reserved parking spaces are offered.

Permit parking is sold by affiliation and is organized by color-coded zone. Faculty and staff may purchase a red "A" permit, students living in University resident halls or Greek units may purchase a green "H" permit and commuting students a blue "S" permit. Commuting students and administrative faculty permit holders may park in any lot matching the color of their respective permits. University resident hall and Greek unit permit holders are limited to one of four areas (HJFS, H18, HMU, HPR). Overflow parking areas for all A, S and H are also provided.

UND also offers reserved parking permits in Gray zones including the parking ramp. These permits are limited in number and available to students as well as faculty and staff. Other reserved permits are available depending on position (president, vice presidents, associate vice presidents, and deans). Pink zone discounted remote or park and ride permits are also offered as is an evening permit for off-peak hour shift employees.

Faculty and Staff Permits

Type	Permit	Color	Annual Fee
Faculty/Staff	A	Red	$225
Residence Hall Directors	AHR	Red	$225
Deans & Associate Vice Presidents	AD	Red	$810
President & Vice Presidents	AVP	Red	$810
Evening Permit (for workshifts between 4pm and 12pm noon)	PMA	Orange	$65
Park & Ride	PR	Pink	$125
Parking Ramp Reserved	RCA	Grey	$400

Student Permits

Residence Hall	Permit	Color	Annual Fee
Johnstone, Fulton, Smith	HJFS	Green	$155
Selke, Brannon, McVey, Noren, West, U Place	H18	Green	$155
Swanson Hall, Conference Center, Greek Housing	HMU	Green	$155
Walsh, Bek, Hancock, Squires, Greek Housing	HPR	Green	$155

Other Student Permits

Type	Permit	Color	Annual Fee
Off-Campus Student Parking	S	Blue	$155
On-Campus Student Housing Apartments	HAPT	Green	$155
Evening Parking (4pm - 11pm)*	PM	Orange	$65
Park & Ride*	PR	Pink	$125
Parking Ramp Reserved	RCS	Grey	$300

UND Parking Locations
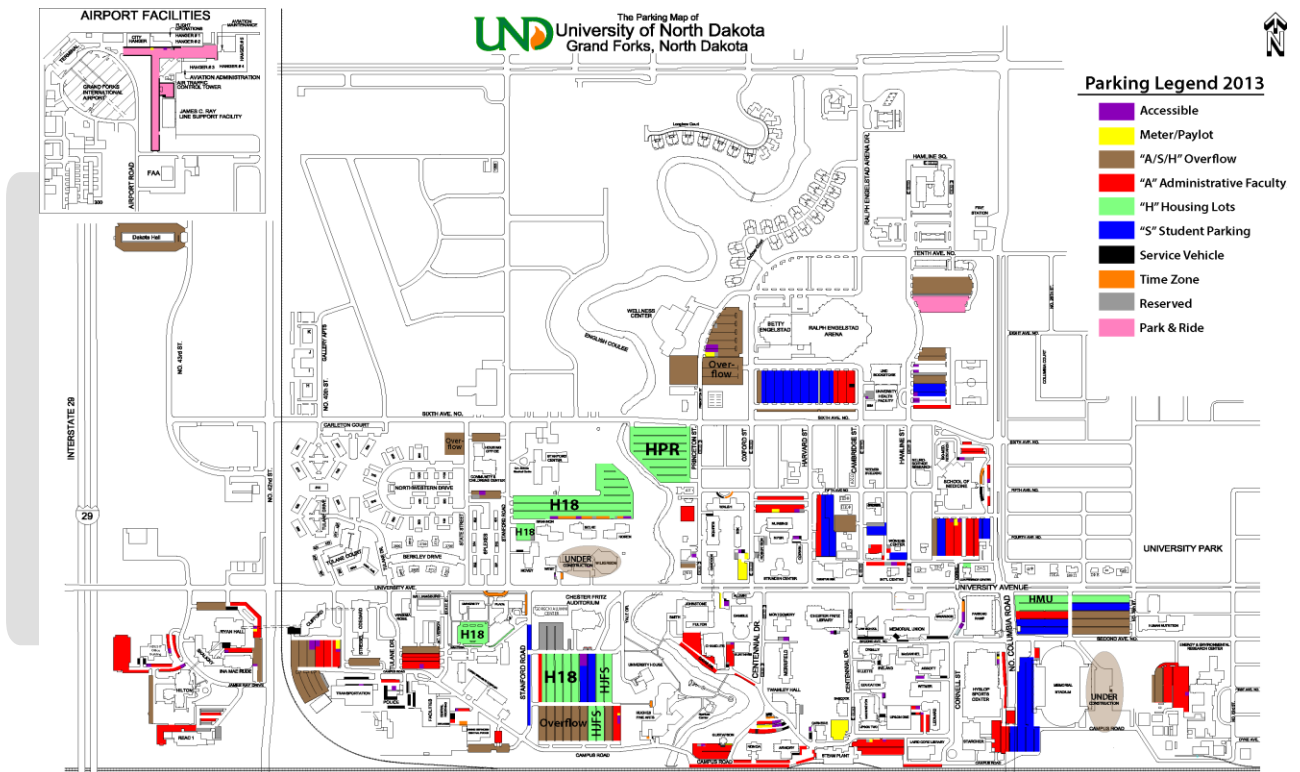
Daily Parking

Visitors to campus have several options for parking.

- Free, 30-minute parking is available at the Memorial Union Loop but is restricted to parking once every four hours.
- Pay-as-you-go, Ramp parking on levels 4 and 5 is offered at $1.50/hour for the first hour and $1/hour thereafter up to a maximum of $7.
- Pre-paid parking in the Visitor Lot on the south end of campus is offered at $1.50/hour for the first hour and $1/hour thereafter up to a maximum of $7.
- Various, time limited coin-operated meters ranging from 30 minutes to 4 hours with rates of $.05/2 minutes.

- Passes are available for parking in the A, S, and H Zones for $5/day, $15/weekend and $20/week.

F. Parking Enforcement Program

Staffing

Public Safety currently has four FTE of enforcement staff comprised of one full-time enforcement supervisor and three part-time enforcement officers. At an aggregate level, each FTE of enforcement staff at UND is responsible for approximately 2,926[1] parking spaces and there are 3,727[2] students for each parking enforcer.

Citation Amounts

The fines for parking infractions at UND range from $10 to $100. The violation earning the largest fine amount is for a copied, counterfeit, or stolen parking permit or for parking in an assessable parking space without proper credentials. The second highest fine is for parking in an accessible parking space without proper credentials.

FY14 UND Parking Fine Schedule

Violation	Fine		Violation	Fine	
Suspended Privileges	$	100	Boot/Immobilization	$	20
ADA	$	100	Decoy Citation	$	20
Counterfeit/Forged Permit	$	100	Beyond Row	$	20
Altered/Stolen	$	100	Other Than Assigned	$	20
No Permit/Receipt Displayed	$	20	False Registration	$	20
Hash Marks	$	20	Abandoned/Inoperable	$	20
Occupying Multiple Spaces	$	20	Failure to Register	$	20
Overnight	$	20	Failure to Comply	$	20
Service/Maintenance	$	20	Improper Display	$	10
Fire Lane	$	20	Overtime Meter	$	10
No Parking Zone	$	20	Loading Zone	$	10
Parking on Grass/Lawn/Sidewalk	$	20	Timed Zone	$	10

Frequent Citations and Locations

By a wide margin, the most frequently issued parking citation is for no permit/receipt displayed. For a 12-month period from October 2013 to September 2014 this type of violation accounted for nearly 48.6% of all citations written. This is followed by parking in an area other than assigned (21.1%), expired meter (15.3%) and exceeded time limit

---

[1] 11,702 parking spaces divided by 4 FTE parking enforcement officers.
[2] Total headcount enrollment of 14,906 divided by 4 FTE parking enforcement officers.

(10.4%). Combined, these four violation types accounted for all but 4% of the citations written over the year period.

The four areas on campus generating the most parking citations are Memorial Union Loop, Wellness Center, Cornell Street and Chester Fritz Auditorium. These four locations accounted for nearly two-thirds (66.1%) of all citations written for a single year.

Citations by Area (October 2013-September 2014)

Parking Area	Citations	%	Parking Area	Citations	%
MEMORIAL UNION LOOP	1,456	20.0%	AIRPORT	147	2.0%
WELLNESS CENTER	1,335	18.3%	TWAMLEY	96	1.3%
CORNELL STREET	1,038	14.3%	COLUMBIA LOT	65	0.9%
CHESTER FRITZ AUDITORIUM	986	13.5%	FAMILY MEDICAL CENTER	59	0.8%
GAMBLE	577	7.9%	CAS	55	0.8%
BEK	351	4.8%	TABULA LOT	53	0.7%
MEMORIAL STADIUM	312	4.3%	UPSON SOUTH	35	0.5%
WILKERSON COMPLEX	245	3.4%	BRONSON PROPERTY APTS	21	0.3%
MEDICAL SCHOOL	220	3.0%	HYSLOP	20	0.3%
VISITOR LOT	212	2.9%	TOTAL	7,283	100.0%

G.   Use of Technology

Parking Meters and Pay and Display Kiosks

UND currently uses a Digital Payment Technology Luke I Pay and Display kiosk in the Visitor Pay Lot adjacent to the Steam Plant.   Plans are underway to add a second machine in Chester Fritz Auditorium lot.

For nearly all other self-service short-term parking Parking Services offers mechanical parking meters that accept coins for payment.

Permit System and E-commerce

Parking Services currently uses T2 Systems for its back-of-house customer management system that manages permit sales and citation adjudication. This system allows for the sale of permits via the Internet thus responding to customer demand for systems that allow for self-service, personal management and that reduces the amount of time and frequency of in-person visits to the Parking Services office.

Affiliates of UND can purchase a permit or pay a citation on-line and visitors can purchase parking permits via the Internet.

Parking Ramp

UND's parking ramp is located at the intersection of University Avenue and Columbia Road. Entrance to the ramp is on 2nd Avenue North. The ramp offers various forms of technology for parking patrons including, pay on foot, RFID access card, and credit-card-in, credit-card-out.

UND also offers real time parking availability and pricing information via the third-party vender, ParkMe. Variable message signs are also used to provide information about space availability particularly for the parking structure.

Space Availability and Price App
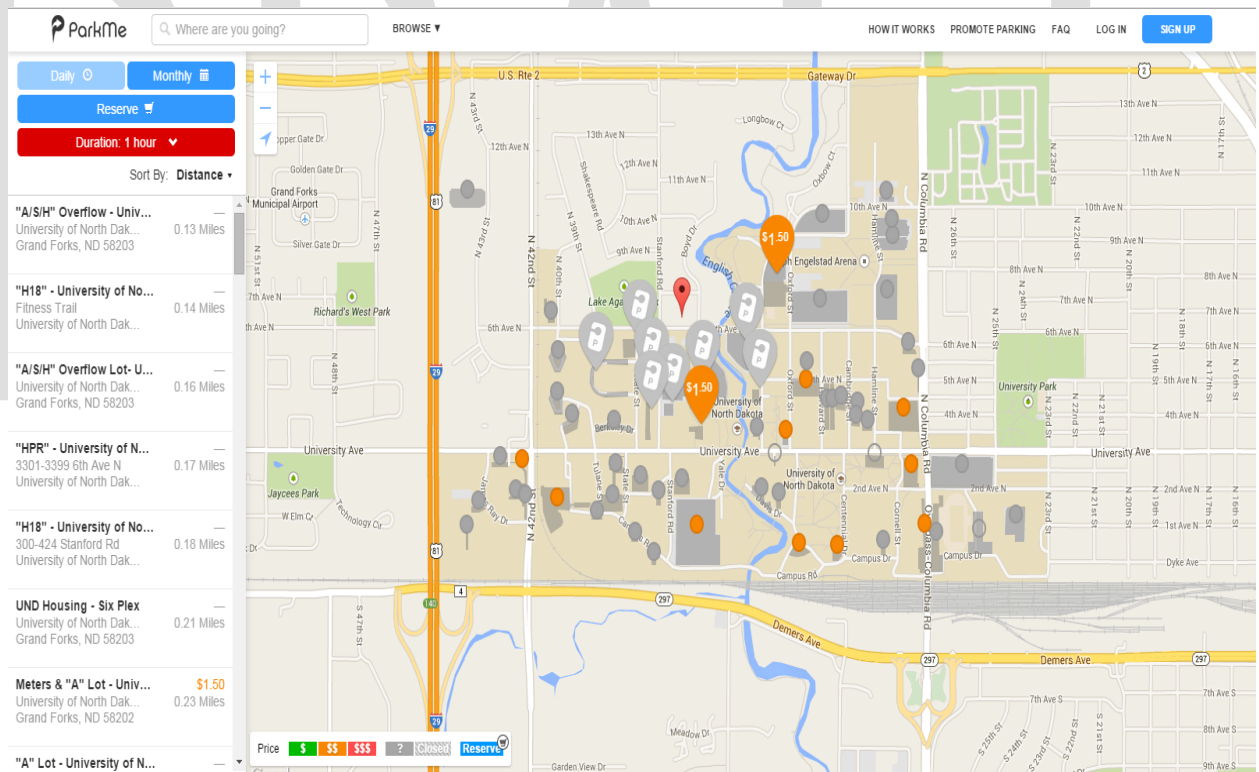
H. Budget

Parking Services is a self-supporting, business auxiliary which means that it receives no outside funding for the programs and services it provides. This is typical of most major university parking and transportation departments.

Annual Parking Services Revenue by Source

Revenue Source	Amount	% of Total
Parking Permits	$1,943,708	75%
Short-term Parking	$ 153,084	6%
Special Event Parking	$ 154,849	6%
Parking Fines	$ 329,334	13%
Total Program Revenue	$ 2,580,975	100%

Revenue

Of the $2.58 million in annual parking related revenue, 75% comes from permit sales. Parking fines make up a modest 13% of income with 6% coming from transient parkers and 6% from special events.

Expenses

Debt service at 67% makes up the largest expense type for Parking Services followed by 18% wages, salaries, and benefits and 15% for operating expenses.

Annual Parking & Transportation Services Expenses by Source

Expense Type	Amount	% of Total
Wages, Salaries & Benefits	$ 346,648	18%
Operating Expense	$ 286,362	15%
Debt Service	$1,290,713	67%
Total Program Expenses	$1,923,723	100%

IV. Community Engagement

After comprehensive review of current conditions on the UND campus and after several discussions with UND staff, a Campus Community Engagement Strategy was developed to support the University of North Dakota's Parking Enterprise Assessment.

The overall goals of the Campus Engagement Strategy were to:

◢ Place parking strategies, programs and policies within the context of UND's larger strategic goals;

◢ Provide insight into both real and perceived access and parking challenges, as well as areas of opportunity for future development;

◢ Engage key campus constituencies, both within the parking enterprise (i.e., student enforcement, office and event staff) and within key user groups (i.e., students, faculty, staff) in planning and development efforts from the beginning, laying the foundation for stakeholder buy-in of assessment recommendations.

The Campus Community Engagement Section is organized as follows:

A. Stakeholder Outreach Strategy
B. Survey Findings
C. Key Themes: Opportunities & Challenges
D. Conclusion: "Closing the Communication Loop"

A. Stakeholder Outreach Strategy

The overall engagement strategy for this project was carefully designed to provide an opportunity for campus stakeholders to share experiences, perceptions, ideas and concerns related to parking on the University of North Dakota campus in Grand Forks. The UND campus community was given multiple opportunities to provide feedback throughout the engagement process, including small group meetings, individual interviews and via online survey.

The UND Parking Enterprise Assessment's main stakeholder engagement site visit was conducted on campus December 2-3, 2014. Forty-five individuals participated in small group meetings and interviews, including representatives from the following UND constituencies:

- Finance and Operations
- Burtness Theatre
- North Dakota Museum of Art (NDMOA)
- Department of Music
- Department of Arts and Sciences
- Art Department
- Parking Services
  - o Former Parking Manager
  - o Student Event Lead
  - o Student Enforcement Officers
  - o Student Office Staff
- REAC / Tech Accelerator
- Center for Innovation
- Studio One
- Faculty Senate
- Staff Senate
- Association of Residence Halls
- Student Government President
- Wellness Center
- Equal Employment Opportunity/Affirmative Action
- Disability Services

The outline used to guide the small group meetings can be found in Appendix B.

B. Survey Findings

Feedback from **2,216** individuals was collected by survey which was available online from January 13 – February 6, 2015. UND staff and faculty assisted with promotion of the survey, which covered a wide range of topics including:

- ◢ Perceptions and habits

▲ Preferred methods of accessing campus and viable alternatives

▲ Perceived challenges and areas of opportunity

Please note that some questions received lower responses because respondents were not required to answer a question before proceeding to the next question.

The following sections are organized by:

▲ Respondent Demographics

▲ Commuter Behavior: Location, Frequency of Travel and Commute Times

▲ Commuter Behavior: Primary Method and Alternative Modes

1. Respondent Demographics

Survey respondents were majority female (55.1%), between the ages of 17 and 24 (45.4%), and nearly 66% reported living within 2-5 miles of campus.

Demographic Snapshot

55.1%	42.8%	45.4%	65.9%
of respondents were female	of respondents were male	between the ages of 17-24	reported living "less than 5 miles to campus"
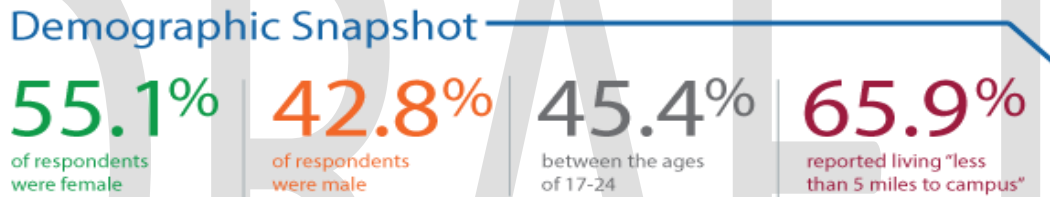
Undergraduate students made up the majority of survey respondents at 44.2%, followed by staff (30.4%) and faculty (17%).

Survey Demographics
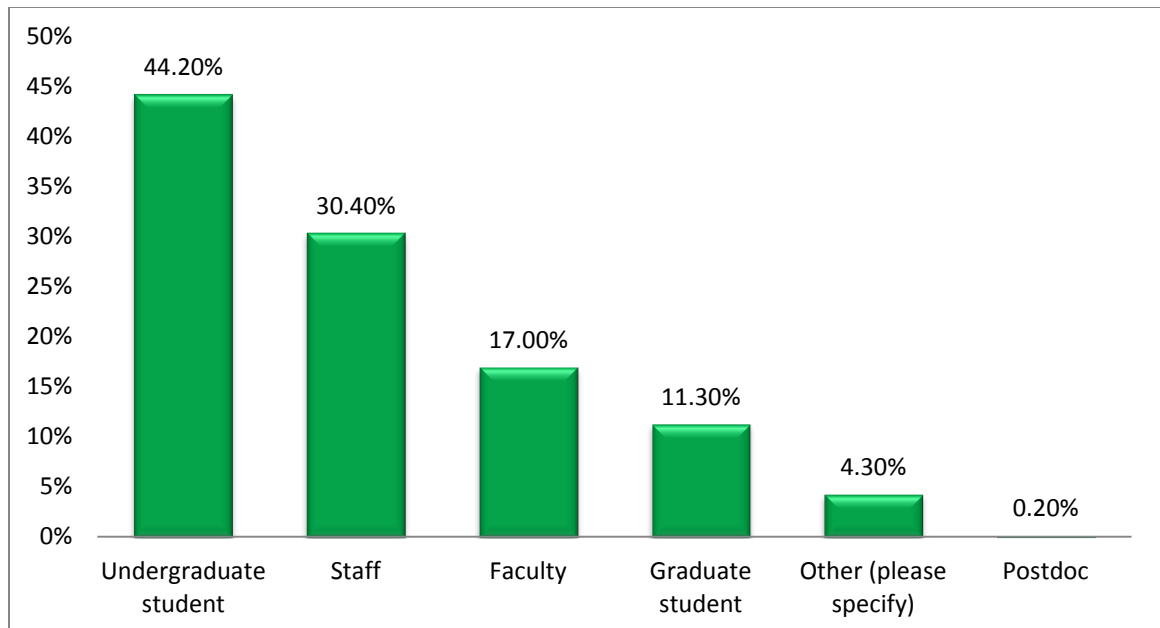
Answer Options	Response Percent	Response Count
Undergraduate student	44.2%	977
Graduate student	11.3%	249
Postdoc	0.2%	4
Faculty	17.0%	375
Staff	30.4%	671
Other (please specify)	4.3%	96
Answered question		**2208**
Skipped question		**8**

2. Commuter Behavior: Location, Frequency and Commute Times

The vast majority of survey respondents indicated that they either commuted to campus daily or lived on campus.

Commuting Behavior
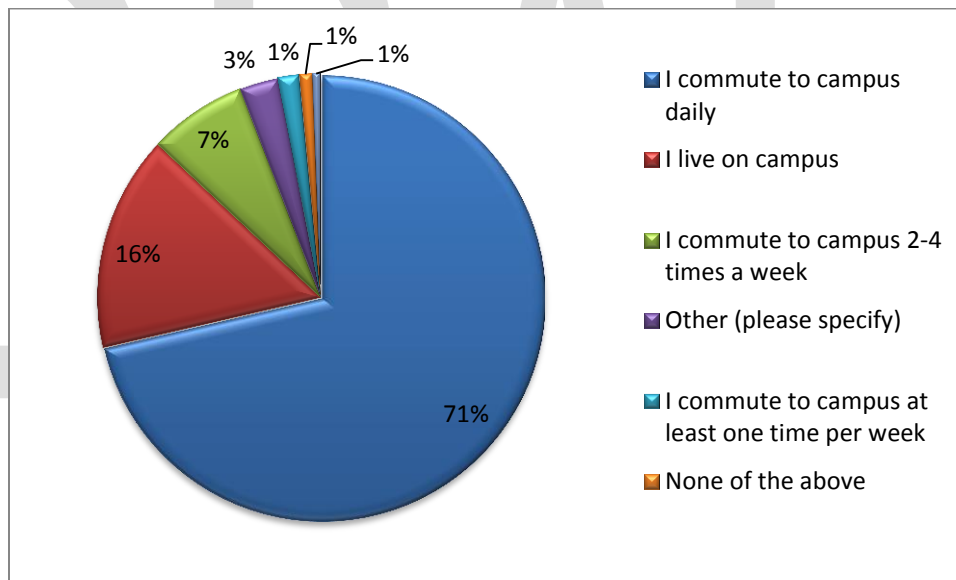
Answer Options	Response Percent	Response Count
I commute to campus daily	71.4%	1575
I commute to campus 2-4 times a week	7.2%	158
I commute to campus at least one time per week	1.5%	34
I live on campus	15.6%	344
I'm an online or remote student	0.5%	12
None of the above	1.0%	21
Other (please specify)	2.8%	62
Answered question		**2206**
Skipped question		**10**

Respondents were drawn primarily from the 58201 and 58203 zip codes in Grand Forks.

Respondent Zip Codes
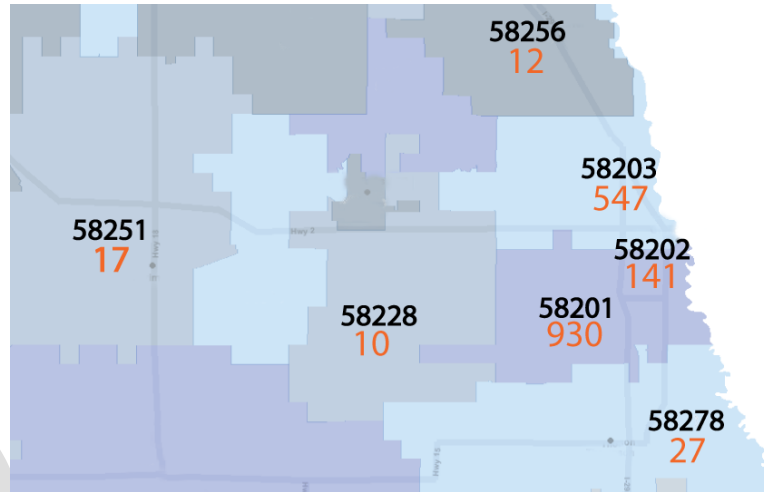
When asked about the length of their one-way commute in the morning, at midday and in the afternoon, responses clustered around 5-10 minutes for all three times of day.

Commute Length
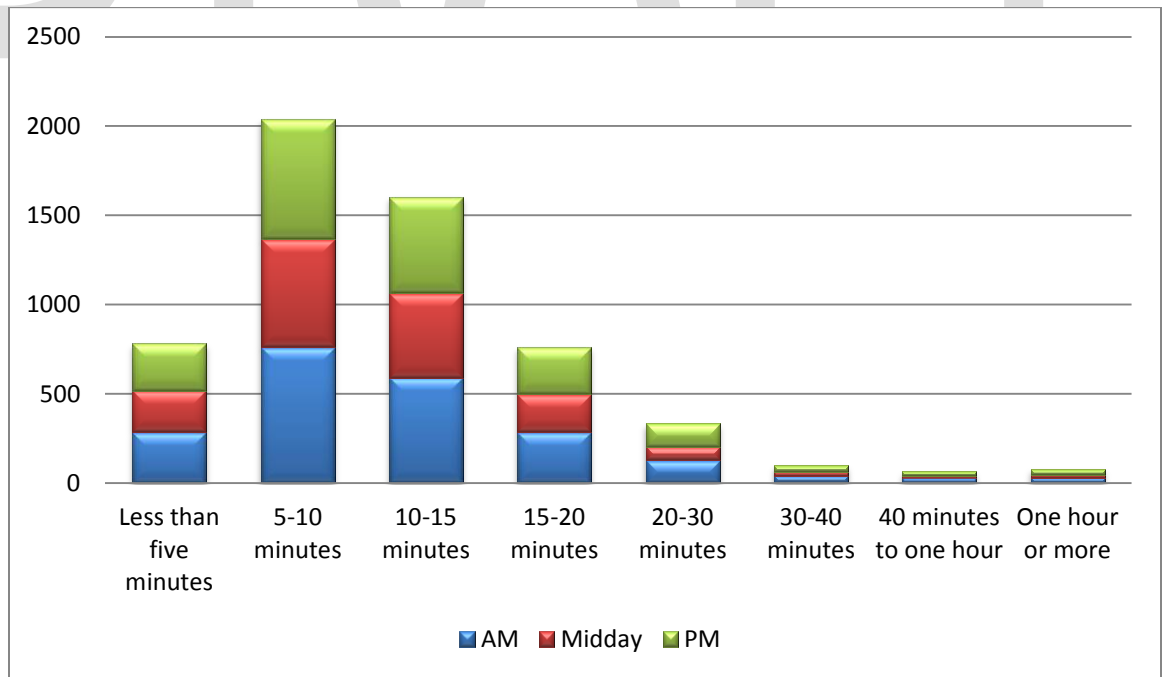
Answer Options	AM	Midday	PM	Response Count
Less than five minutes	285	232	263	358
5-10 minutes	763	604	670	944
10-15 minutes	592	473	537	827
15-20 minutes	286	213	262	446
20-30 minutes	129	75	129	189
30-40 minutes	41	23	35	54
40 minutes to one hour	29	9	26	35
One hour or more	32	15	31	37
			Answered question	**2136**
			Skipped question	**80**

When asked when they typically arrived on campus, responses were quite varied with the majority of participants indicating arrival times between 7:30-8:30 AM.

Arrival Times
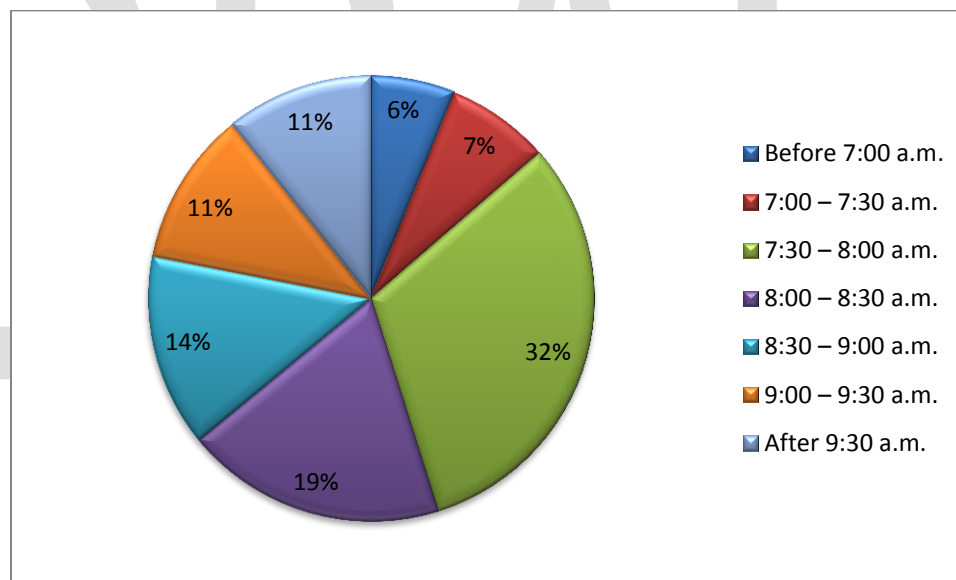
Answer Options	Response Percent	Response Count
Before 7:00 a.m.	6.1%	127
7:00 – 7:30 a.m.	7.5%	157
7:30 – 8:00 a.m.	31.5%	656
8:00 – 8:30 a.m.	18.9%	393
8:30 – 9:00 a.m.	14.0%	292
9:00 – 9:30 a.m.	11.2%	232
After 9:30 a.m.	10.7%	223
	Answered question	**2080**
	Skipped question	**136**

Campus departure time responses were also varied with the majority of survey respondents departing campus after 4:30 PM.

Departure Times
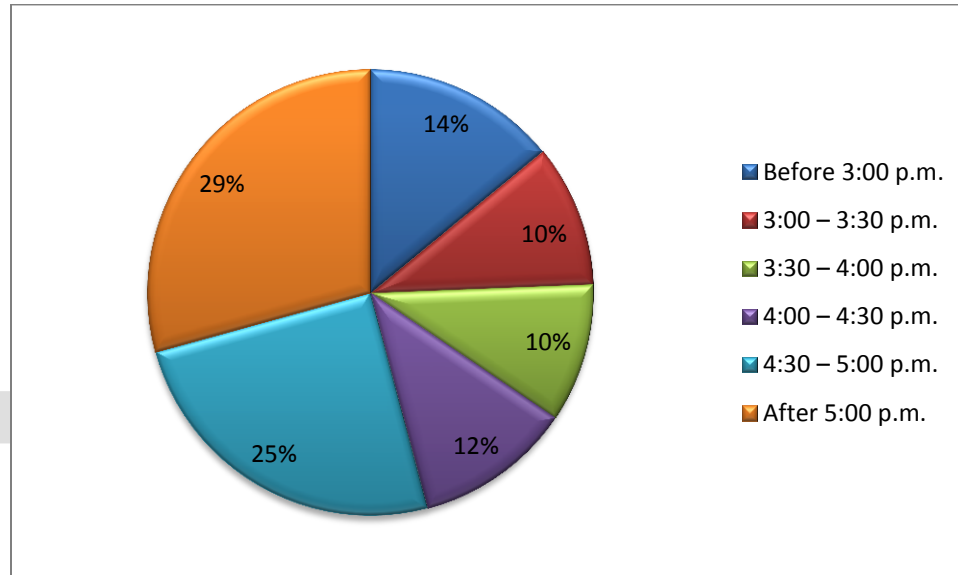
Answer Options	Response Percent	Response Count
Before 3:00 p.m.	14.1%	294
3:00 – 3:30 p.m.	10.3%	213
3:30 – 4:00 p.m.	10.1%	209
4:00 – 4:30 p.m.	11.4%	236
4:30 – 5:00 p.m.	24.9%	517
After 5:00 p.m.	29.3%	609
Answered question		**2078**
Skipped question		**138**

3. Commuting Behavior: Primary Methods and Alternative Modes
Not surprisingly, the overwhelming majority of respondents indicated that their primary method of transportation to and from campus was "driving alone".

Modal Preferences
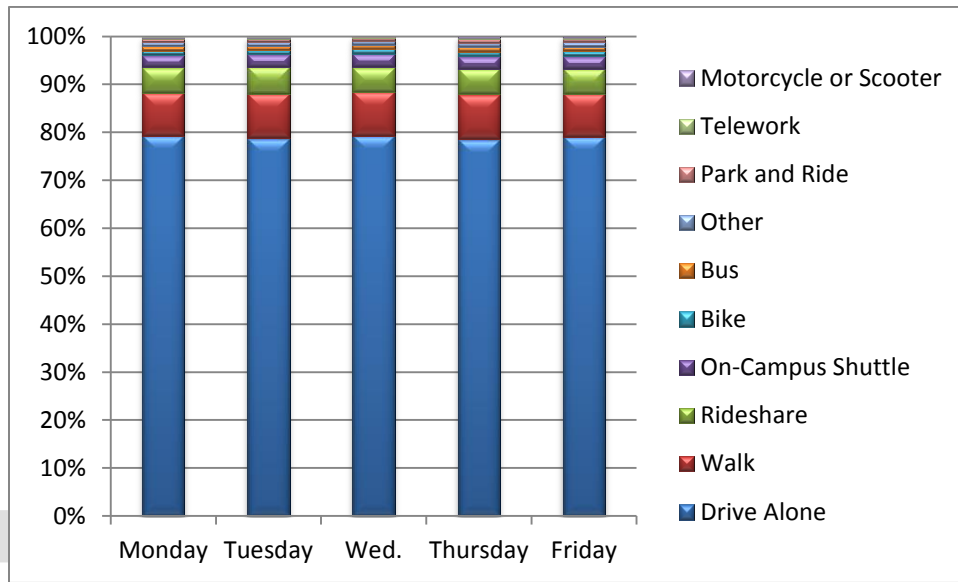
Answer Options	Drive Alone	Motorcycle or Scooter	On-Campus Shuttle	Walk	Bike	Bus	Park and Ride	Rideshare	Telework	Other	Response Count
Mon	1637	3	53	187	19	19	13	108	7	18	2064
Tues	1630	3	56	192	18	16	16	116	5	17	2069
Wed	1637	2	57	191	22	18	14	105	2	16	2064
Thu	1625	6	55	194	19	21	16	109	5	17	2067
Fri	1601	5	53	182	21	19	14	105	4	19	2023
										Answered question	**2106**
										Skipped question	**110**

However, it is significant to note that stakeholders reported very limited usage of alternative forms of transportation beyond driving alone. When asked what other modes of transportation they used throughout the year (including on a seasonal or part time basis), the majority of respondents indicated that they didn't vary from single occupancy vehicle; when they did, the top alternatives included biking and walking.

What other mode(s) do you use throughout the year (i.e., on a part-time or seasonal basis)? (Please select all that apply.)		
Answer Options	**Response Percent**	**Response Count**
None, I don't vary from my usual mode of transportation	51.0%	1077
Drive alone (including motorcycles and scooters)	20.6%	435
Bicycle	20.2%	427
On-campus shuttle	13.0%	275
Park and Ride	0.7%	14
Rideshare (i.e., carpool, Motor Pool)	11.0%	233
Telecommute	2.3%	49
Combination of modes (i.e., Bus to campus then bicycle around campus)	3.7%	79
Walk	20.8%	440
Other (please specify)	2.1%	45
	Answered question	**2112**
	Skipped question	**104**

Other Modes of Travel Used
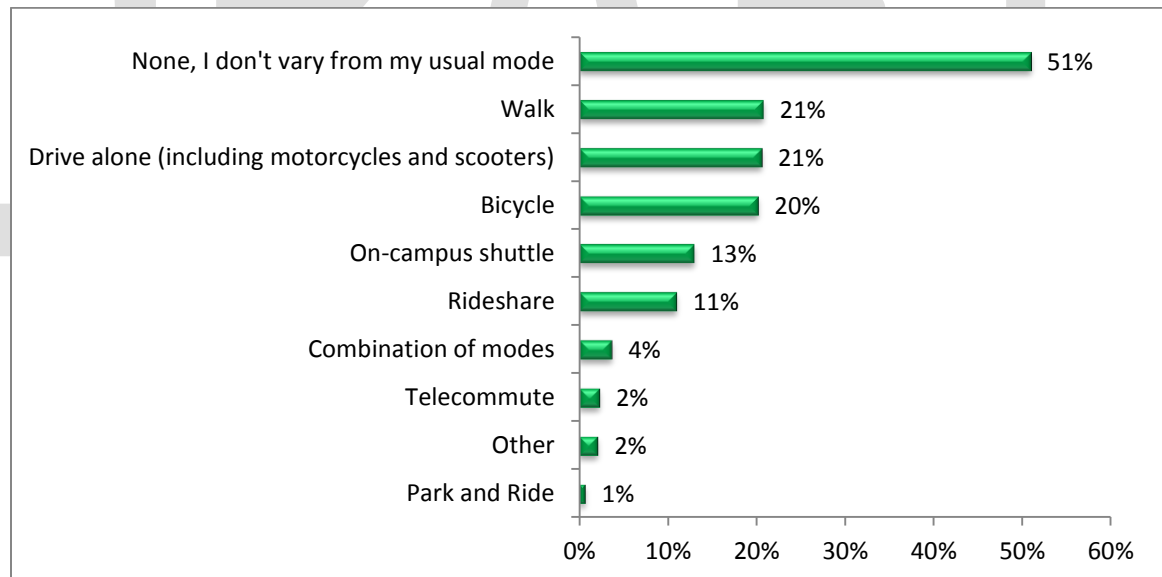
When asked what they considered "viable alternatives to driving alone", nearly 40% said that "nothing would alter their current driving habits", followed by "financial incentives" (25%).

Which of the following incentives, amenities and programs would encourage you to use alternative modes of transportation beyond driving alone? (Please select all that apply.)		
Answer Options	Response Percent	Response Count
Guaranteed emergency ride home	15.0%	307
Hourly vehicle rental/carsharing (i.e., Zipcar)	6.8%	140
Increased on-campus shuttle service	19.1%	392
Flexible work schedule	13.6%	279
Ability to telecommute	12.3%	251
Showers and lockers	7.7%	157
Secure, convenient bicycle parking	14.1%	289
Safe, convenient bike paths and routes	21.1%	432
Safer sidewalks and crosswalks	15.9%	326
Prize drawings for bicyclists, ridesharing commuters	8.8%	181
Financial incentives (i.e., "parking cash-out": a set monthly financial incentive that can be used to purchase parking, transit passes, invest in a bicycle, etc.)	25.8%	529
On-site services and amenities to reduce after-work and lunchtime errands	15.6%	319
Increased cost and/or inconvenience of driving (including parking)	10.9%	224
Bike Share	4.2%	85
More frequent on-campus shuttle service	15.6%	319
Nothing would alter my current driving habit	38.1%	779
Other (please specify)	9.7%	198
Answered question		**2047**
Skipped question		**169**

When asked to identify all the concerns respondents have about their current commute, a significant number selected permit price, difficulty locating a parking space and concerns about getting a parking ticket.

Commuting Concerns

Price of parking permit	71%
Finding a convenient parking space	64%
Finding a parking space	63%
Parking enforcement concerns	60%
Congestion and/or traffic on campus	36%
Concerns about bad weather	26%
Other (please specify)	14%
No access to type of permit needed	5%
I have no concerns	4%
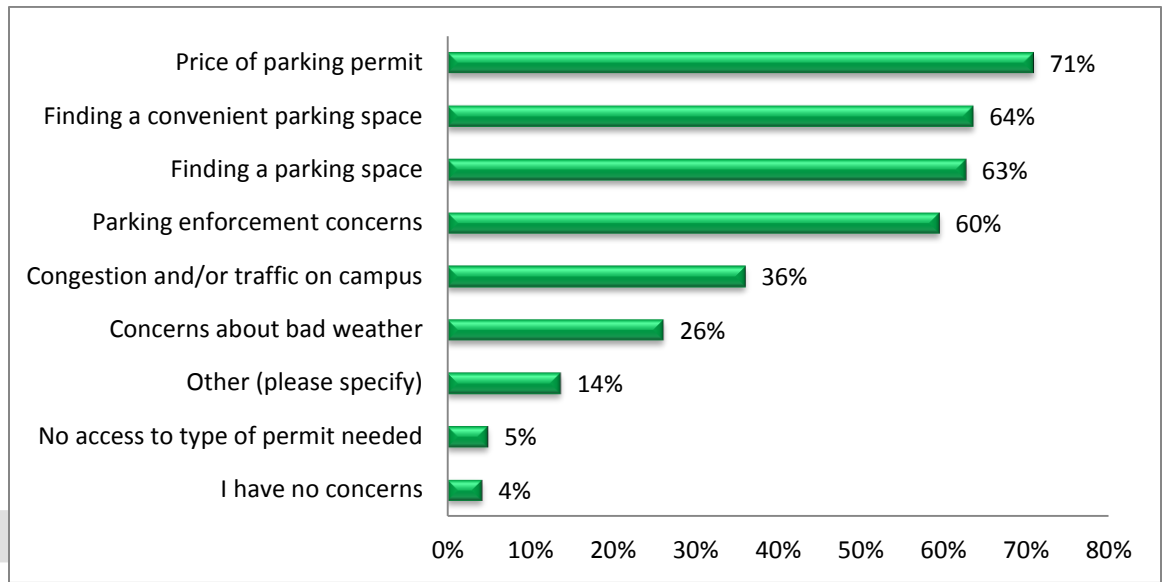
When respondents were forced to select one option for why they chose their current method of transportation, "convenience" and "no other viable" option far outweighed the selection of "cost".

Modal Choice Factors

Convenience — 58%
Cost — 4%
No other viable option — 31%
Other — 7%
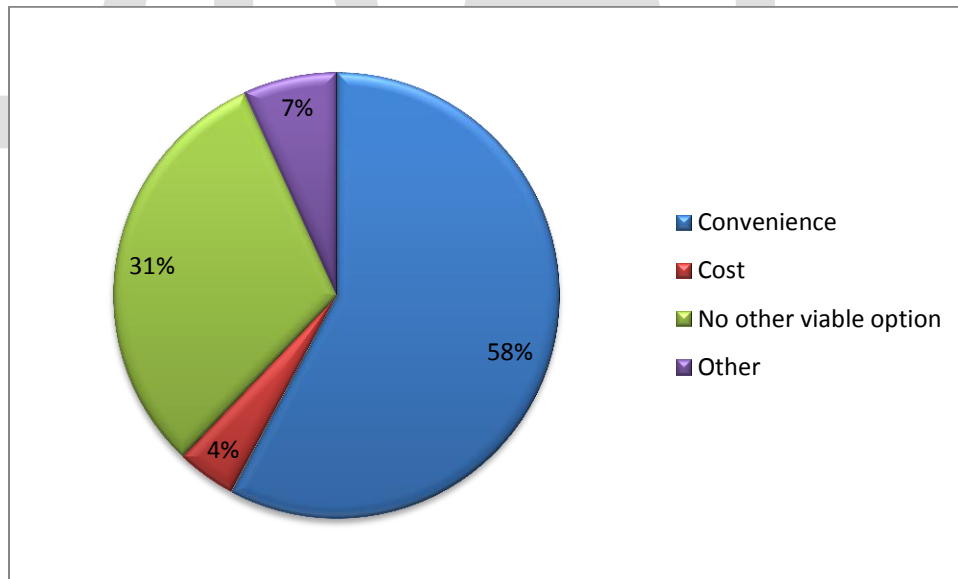
Answer Options	Response Percent	Response Count
Convenience	57.9%	1223
Cost	4.3%	90
No other viable option	31.1%	656
Other (please specify)	6.8%	143
Answered question		**2112**
Skipped question		**104**

The following section will detail key themes that emerged from both the online survey responses reviewed in this section and from stakeholder interviews that were done in person and over the phone. A copy of the survey tool can be found in Appendix B.

C. Key Themes: Opportunities & Challenges

Six key themes were identified throughout the campus community engagement process. While thousands of data points were considered as part of the community engagement analysis, the Key Theme section is meant to highlight the comments that were mentioned most frequently. In addition to the in-person interviews conducted December 2-3, 2014 and the open-ended response data collected via online survey, stakeholder feedback was provided to the consulting team in the following formats:

- Phone interviews conducted on January 13, 26 and February 18 (2015)
- Email feedback directly to The Solesbee Group
- Research collected by Student Body President Tanner Franklin, including:
    - "Tuesday Two's" survey response data from October 2014
    - Information on the enforcement practices of other educational institutions
    - Student Senate resolution supporting the removal of parking enforcement on nights, weekends and holidays
- Results of a 2013 Staff Senate "open comment period" regarding parking policy
- Written comments and suggestions provide by several Faculty Senate members during the in-person meeting on December 2, 2014

As often as possible, the actual words, phrases and descriptions provided by stakeholders will be used to provide evidence for each key theme.

> **Key Theme #1: The campus community would like to see UND Parking Services develop a clear vision, mission and operate more like a cohesive organizational system.**

One of the most striking comments heard repeatedly during the engagement process was that UND Parking Services lacks a clear organizational purpose, vision and identity. As one stakeholder eloquently put it, "We need to have a parking office [with] a mission that reflects the values of the faculty, staff and students, and tells us what [the department] is going to do and how it is going to serve our needs; we need a new age, a rebirth". Parking Services was described as a collection of incongruent policies and as "a patchwork of work-arounds, not a cohesive system". This widespread confusion about the overall strategic direction of the department was reflected by many internal staff with one member stating, "We are unsure about what the goal of our job is".

It is strongly recommended that UND Parking Services undergo a strategic visioning session to identify the department's vision, mission and core values. This visioning session should include the entire team – leadership from Finance, Parking Services, and Public Safety, as well as student enforcement, office and events staff. This exercise will lay the foundation for creation of a departmental Brand Position, which is a simple statement that conveys the essence of an organization and provides a promise to patrons about type of interaction they can routinely expect. A Brand Position also sets the tone for the development of the actual brand, which will only resonate with UND Parking Services patrons" if it reflects the true character of the organization it represents.

A brand goes beyond an organization's name, logo and visual identity. A brand represents an unspoken promise, or commitment – of quality, value, professionalism and financial stewardship. Over time, a brand becomes synonymous with an organization. When students, faculty, staff and visitors see UND parking signage, communication pieces or uniforms, an emotional connection is created that evokes the memories and feelings that a person associates with a particular organization. The key pieces of establishing an organizational brand identity include: 1) creating a vision and mission statement; 2) developing key messaging; and 3) identifying the organization's target audiences. Here is a helpful way to think about how each of these pieces – organizational mission, vision, audiences and messaging – all fit together to create one cohesive brand position:

BRAND POSITION:

To (Target Audiences):

We are (Unique Identifier):

That (Provides "X" to the customer):

By (Details that support "X"):

VISION:

- How would you define your ultimate point of success?
- What umbrella task/goal do you possess that will be worked on indefinitely?

MISSION:

- What will you do to continuously work towards your vision?
- What markets are you serving and what benefit do you offer them by working towards your vision?

Questions to identify key words in a statement that presents the means in which your organization will work towards the vision:

1. What perceptions, habits, or beliefs do we need to work on or develop in order to grow?

2. What are we "selling"?

3. Who do we benefit?

4. What's in our toolbox (i.e., what resources do we provide)?

> *Key Theme #2: UND is an integral part of the Grand Forks community, but we don't do a good job of welcoming people to campus and guiding them where they want to go.*

Every stakeholder group – students, faculty and staff – reported significant concerns about how visitors/guests were being welcomed to campus. Top concerns included:

- The need for more clearly marked visitor parking

- Lack of short-term, transient parking (i.e., to drop books off at the library, run in to drop something off for class)

- Ineffectiveness of existing parking and wayfinding signage (i.e., font is too small, there is too much information to read while driving)

- Inconsistent and often unreliable event parking experience

- Confusing parking and transportation map(s)

▲ Increasing number of service / "special permit" vehicle spaces that are taking away limited permit spaces in core areas

Several departments that regularly host events dependent on the support and engagement of the Grand Forks community commented: "people don't come to campus anymore because of parking". The experience of a UND visitor, customer or even new student, faculty or staff member begins the moment they think about planning a trip to campus. It is important to think strategically about how UND's existing messaging or lack thereof (i.e., absence of clear directional signage, inconsistent event parking experience) sets the tone for someone's entire experience on campus. As one stakeholder so succinctly put it "we really need to take the guess work out of coming to campus".

Key Theme #3: It's important to balance the need for reliable, consistent parking policies with the practical reality that customized solutions can help serve the campus's diverse needs.

As is common on university campuses, the diverse and sometimes competing campus access needs of different user groups can create a significant challenge for a department that manages parking and transportation. Like many of its peers, UND Parking Services is challenged on a daily basis to balance providing fair and consistent service to all parking patrons while also being flexible enough to create customized solutions when needed. If not managed actively and strategically, this balancing act can quickly slide down the slippery slope into "handshake" deals and unwritten concessions that cause frustration and angst for both parking managers and their customers when circumstances change.

After only a few meetings with stakeholders, it quickly became apparent that many such unwritten "handshake" deals exist on the UND campus. These deals seem to have developed under the best of intentions, with stakeholders indicating that Parking Services staff has been more willing to customize solutions than in past years. However, this is more of a case-by-case "band-aid" approach rather than a comprehensive strategy for identifying and better serving customer needs.

One potential strategy for creating a more comprehensive approach to campus stakeholder outreach is by developing a departmental or college-based "Parking Liaison" program. Under this strategy, each department or college would have a designated Parking Liaison that could work directly with UND Parking Services to identify the unique parking challenges that the business unit faced. The Parking Liaison could

provide a centralized point of contact for both departmental/college staff to renew and purchase permits, access visitor passes, set up event requests and notify Parking Services when a service or maintenance issue arises.

Key Theme #4: There is widespread perception that UND has an "aggressive" and "punitive" enforcement culture.

Parking enforcement is a management tool that should be used to maintain order, keep the most convenient parking spaces open for visitors/short term parkers and ensure the safety of parking patrons. However, the very act of enforcement (not to mention the terminology itself) creates an "us versus them" mentality right from the start. Parking patrons often feel like they are being targeted and enforcement officers often feel, as one of the student enforcement officers said "as the most hated people on campus". This inevitable tension was reflected in every stakeholder interview; the perception UND parking enforcement is "aggressive", "predatory" and motivated by "ticket quotas" is a sentiment shared by many campus groups.

The frequency with which the topic was mentioned indicates that there is an issue with the current "enforcement-focused culture" on the UND campus, likely in both perception and reality. While this issue will be addressed more fully in the operational analysis of this Parking Enterprise Assessment – especially in regards to specific policy decisions about enforcing in the evenings and on weekends holidays – it is worth mentioning here as well because perception can often be just as strong as reality.

Key Theme #5: With visibly deteriorating infrastructure, stakeholders are challenged to identify where parking revenues are going.

Something as simple as the new vehicle art that read "Parking Enforcement" in oversized letters instead of something like "Parking Services" instantly sends a negative, and potential confrontational, message to campus stakeholders that they are scofflaws in need of enforcement.

The undergraduate student population mentioned the deteriorating parking infrastructure most often, in both in-person interviews and in the online survey. Multiple maintenance and safety issues were raised during the interview with the Association of Residence Halls, including:

- ◢ The need for additional emergency blue lights

- ◢ Significant amount of theft and vandalism in UND parking lots (i.e., cars have been hit, damaged and several windows were shot out)

Additionally, when asked in an open-ended survey questions about both "what concerns you most about your current commute and "name three things that UND parking services could do to improve your commute", issues related to maintenance (i.e., paving or re-paving crumbling lots, increased lighting, prevalence of significant pot holes), safety (i.e., better plowing of lots) and financial transparency were most frequently mentioned (with regard to the new parking structure).

Faculty and staff were both equally frustrated by what they perceive is a lack of "transparency" and "honesty" with regards to the new parking structure. There is a strong perception that the parking ramp is not being managed in the way that it was "sold" to the campus community. The combination of the widespread belief that parking enforcement officers work "on commission" or under strict quotas plus the lack of visible investment in parking infrastructure has created the "perfect storm" mistrust management of the parking enterprise.

The importance of frequent communication with stakeholders – both in terms of telling them what changes are underway on campus but in terms of regular customer service surveys – cannot be overstated. In the absence of information, people will make up their own answers and/or rumors will be given more "legs" than when an organization is proactively pushing out their desired message.

Relationship and trust building can be slow, however people and organizations often stop communicating during times of transition (i.e., construction of a new facility, program re-structuring, and leadership transition) because they feel that they "aren't there yet" and need to have everything completed before bringing their constituencies along. This is exactly the opposite of what should be done; parking and transportation changes and/or "inconveniences" can lead to intense frustration and fuel complaint volumes.

During times of transition, communication should be:
- ◢ Clear and understandable

- ◢ Tailored to key audiences

- ◢ Repetitive and simple

Key Theme #6: To be seen as a viable alternative to driving alone, transit must be reliable and convenient.

As was strongly indicated by the online survey responses, parking is "king" on the UND campus. While student groups reported that the campus "shuttle is packed during the winter", there was prevalent agreement that the current transit system did not offer a viable alternative to driving alone. While many stakeholder groups reported difficulty finding parking on campus and expressed frustration for having to "drive around for 15-20 minutes" to find a parking space before class, when asked to differentiate whether there wasn't enough parking on campus or if, actually, there was enough parking on campus, it just wasn't in the right spot, it was often the latter.

A reliable on campus shuttle that runs frequently enough to allow for timely transition between classes, has stops with shelters to shield riders from inclement conditions and that could be tracked via mobile device could help alleviate some parking pressure in the center of campus and drive parkers out into lots with excess capacity like the overflow lots near the UND Wellness Center. While it is important to recognize that the climate in North Dakota presents more challenges for alternate modes like walking and biking, many cold weather climates schools like the University of Iowa have heavily used campus transit systems.

Additionally, parking in North Dakota is largely free due to legislative regulation, which makes shifting more students, faculty and staff to alternate modes even more challenging. And similarly to "western" campuses like University of North Dakota, having one's car is just part of the cultural fabric and the desire to have quick and convenient access to one's vehicle isn't likely to change any time soon.

D. Community Engagement Conclusions: "Closing the Communication Loop"

When universities and colleges undertake a planning or study process like this one, communication with stakeholders about how their feedback was used to develop study or plan recommendations is commonly missing. After spending hours of time attending meetings, taking surveys and engaging in discussion, stakeholders can feel disenchanted with the process because they can't see their "fingerprints" when it comes time for recommendations on policies and programming to be made. Often, engagement grinds to a halt when the study is complete or the consultant leaves campus, and stakeholders

don't hear from their campus parking and transportation liaisons again until it is time for a new round of public meetings.

The University of North Dakota should be commended for their decision to include the campus community in this analysis. Several stakeholders commented that they "appreciated being asked their opinion" during this phase of the Parking Enterprise Assessment with one department director commenting that she couldn't remember ever being included to this level in past conversations about parking planning. Outreach to UND's diverse constituencies, while not without its challenges and varied opinions, provides important insight into the experience that students, faculty and staff have when parking on and moving around the UND campus. Therefore, it is important to continue regular stakeholder communication and education throughout implementation of this project's recommendations, giving the campus community an avenue to provide ongoing feedback that could help refine the implementation process. This activity – "Closing the Communication Loop" – also helps build trust and confidence that feedback given during the community engagement process was both heard and incorporated into the final recommendations.

Campus engagement efforts can also play an important role in uncovering and promoting a shared vision for the future of parking and transportation on a university campus. Creating a balanced engagement strategy that identifies the current parking and access landscape – in the opinion of those who participate – and starts to build a shared vision for the future, is vital to success of any planning effort long-term. A plan without a vision or shared campus narrative is less likely to be successfully adopted, championed and ultimately implemented.

It is the hope of the consultant team that stakeholders will see their words and thoughts reflected in the community engagement chapter of the UND Parking Enterprise Assessment.

V. Recommendations

A. Mission, Vision, Philosophy
As has been noted, Parking Services currently has a mission statement. As written, this mission statement does not appear incongruent with the mission of contemporary university parking departments.   However, it does not appear that the policies, procedures and operation of parking services is perceived by the campus community as matching the written mission statement. What's more, given that Parking Services and

parking enforcement function as separate units, it is possible that there are philosophical differences between the two groups that make achieving a common, shared mission difficult.

It is strongly recommended that UND Parking Services undergo a strategic visioning session to identify the department's vision, mission and core values. This visioning session should include the entire team – leadership from Finance, Parking Services, and Public Safety, as well as student enforcement, office and events staff. This exercise will lay the foundation for creation of a departmental Brand Position, which is a simple statement that conveys the essence of an organization and provides a promise to patrons about type of interaction they can routinely expect. A Brand Position also sets the tone for the development of the actual brand, which will only resonate with UND Parking Services patrons if it reflects the true character of the organization it represents. (See Community Engagement Section for further detail).

B. Strategic Planning

UND lacks a cohesive strategic direction for its parking program that is well understood by the campus community and supported. A strategic planning process will establish the direction for the department, address major challenges, and leverage opportunities. The best strategic plans identify and utilize key performance indicators to ensure that implementation of the plan is having the desired effect and guide decision-making. See Appendix D for sample strategic plan.

What is a Parking Strategic Plan? A strategic plan for parking provides for a big-picture plan for parking. It dovetails with existing campus strategic planning efforts to provide parking and access resources, services and programs that facilitate planned campus growth.

What it does:

- Builds Community
- Elevates an Appreciation of Parking
- Creates Enhanced Expectations
- Challenges Parking Professionals
- Provides Opportunities
- Stimulates Investment
- Advances the Industry

What it means:

- Parking has earned its seat at the community planning table
- Parking is better integrated in community development
- Parking professionals are challenged and growing
- New investment leads to improved services and facilities
- Community partnerships are enhanced

How it works:

- Success breeds confidence
- New knowledge opens doors
- New programs lead to new relationships
- New relationships create new connections
- New connections broaden our perspectives and reach
- Creative interaction with related disciplines leads to synergistic opportunities

What you learn:

- Every community is the same
- Every community is unique
- Understanding a community takes time and effort
- There is an evolutionary spectrum that must be understood
- There is always a tension of opposing forces
- Process is important – Communications is key
- Knowing the answers isn't always enough
- Success is often about setting the stage
- A good plan builds community champions
- A plan is important, but implementation is more important
- There is value in perspective
- Patience and persistence are dual requirements
- Maintaining a positive posture is important (but not always easy)

Parking Strategic Plan Framework

1. Vision/Mission/Objective Statements

2. Guiding Principles
   a) Organizational Leadership
   b) Customer Service
   c) Planning/Urban Design/Policy
   d) Effective Management
   e) Leveraging Technology
   f) Communications/Marketing/Promotion
   g) Accountability/Financial Management
   h) Integrated Access/Mobility Management

3. Core Strategies
   a) Organization/Leadership
   b) Urban Design/Planning
   c) Leveraging Technology
   d) Customer Service/Effective Management

4. Primary Action Items
   a) Parking System Management Reorganization
   b) Parking Access and Revenue Control System Replacement
   c) On-Street Parking Program Adjustments & Upgrades
   d) Off-Street Parking Pricing Structure Adjustments
   e) Parking Facility Refurbishment

5. Secondary Action Items

6. Key Performance Indicators

7. Implementation Tools and Supplemental Materials

C. Organizational Structure/Human Resources

Parking Services Restructuring

Parking Services, Parking Enforcement and Transportation Services should be combined into one cohesive unit under the direction of the Vice President for Finance and Operations. The current configuration is resulting in confusion and dissatisfaction on the part of the campus community and frustration, inefficiency and turnover on the part of the staff responsible for delivering much needed services and programs to UND.

Proposed Organizational Chart
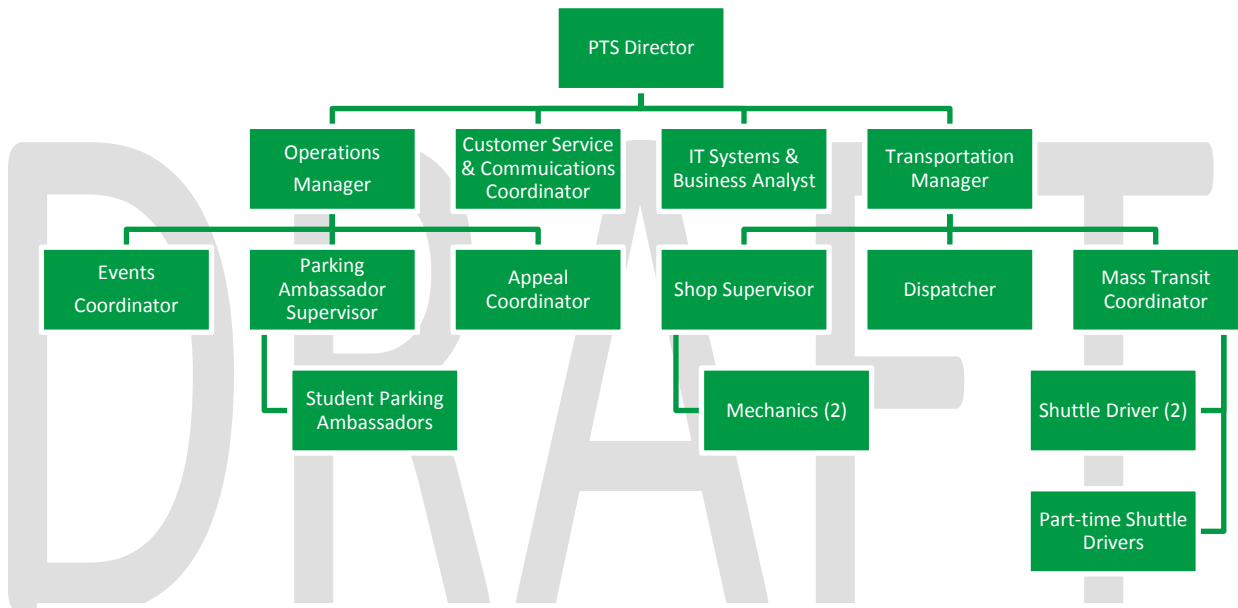
The following outline represents immediate recommended steps in the restructuring of parking and transportation services at UND. Note that parking enforcement staffing recommendations are included below in the Parking Enforcement section of this report.

1. Parking enforcement moves from public safety to the new department of Parking and Transportation services. This will allow a singular focus, clean up reporting challenges and free campus public safety officials up of valuable time to focus on public safety duties. There certainly will be some collaboration between the units with special events in particular but this organizational shift will not limit overall program effectiveness.

2. The shuttle operation moves under the new department of parking and transportation services. The garage operation remains with facilities and a contractor arrangement between facilities and PTS is crafted so that equipment can be properly maintained.   This change will allow the transportation manager to focus on driver training, departmental adherence to DOT requirements and in partnership with the PTS director coordination with overall campus access management in

addition to resource assembly (grants) for shuttle, shuttle stop and facility improvements.

3. The parking enforcement program is reconstituted as the parking ambassador program. This will require training, adjustment of job descriptions and closer coordination and communication with those responsible for citation appeals and customer service.

4. A new position, Operations Manager, is created. This position oversees events, the parking ambassador program and the appeals process. This assumes that existing revenue control equipment is removed from the garage and the overall approach to parking in the garage changes.

5. A new Appeals Coordinator is added and will report to the Operations Manager. This will allow focus for the current customer service and communications position.

6. A new Events Coordinator is added. This will allow for more proactive management of special events on campus and improved customer service. This should also allow for improved financial performance for special event parking.

7. The existing business analyst position is expanded slightly to include oversight of parking and transportation IT systems. This is not a desktop support function but rather an in-house expert in parking technology.

8. The Parking Services Business Manager changes to a Parking and Transportation Services director. An adjustment in salary will be required to attract a candidate with experience and background to succeed at UND.

9. PTS reports through the AVP of Finance and Operations to the VP for Finance and Operations.

This organizational structure compares favorably to the University of Wyoming, the peer school that is likely to have more in common with UND than any other school. Of course, some positions would not apply to UND but the comparison is useful nonetheless.

Beyond what is recommended immediately, additional skillsets should also be considered.

Communications Coordinator
UND would be well served to acquire communications expertise dedicated to Parking and Transportation Services and as a first step a communications plan must be

developed that outlines communications goals, objectives, strategies, tactics, target audiences and measurable outcomes.

Further progress can be made in terms of customer service through the following efforts:

1) Conduct annual customer service survey and develop measurable goals and objectives focused on improving customer satisfaction.
2) Offer feedback mechanisms offered in a variety of mediums for all programs and services especially new offerings. Customers appreciate being asked their opinion and customer oriented organizations ask for feedback and act on it.
3) Evaluate enforcement practices to ensure that enforcement activities support customer service goals.

Alternative Transportation Coordinator

Improvement in non-single occupancy vehicle driving to and from campus must be achieved in order for UND to realize its long-term growth plans and survey results indicated that some modal shift is possible. This can be achieved through a programmatic consolidation of campus transportation demand management functions and it is logical that Parking and Transportation Services assume a greater role in promoting alternatives to driving. This is not to say that students and others cannot be involved, but that accountability and strategic action are less possible under a fragmented system where confusion, inefficiency and competing interests are more likely. What's more, Parking and Transportation Services needs additional human and capital resources to grow the non-driving campus mode share. A student transportation fee may more equitably distribute the burden of needed alternative transportation programs and services.

In increasing numbers, colleges and universities are investing significantly in alternative transportation programs. This is no longer a phenomenon found only at large, urban, East Coast schools but is now prevailing on campuses of all sizes in all climates and all socio-economic demographic. Not only does the promotion of alternatives to driving save financial resources by deferring or reducing the demand to build parking

structures, but is consistent with the preferences of many college students. Alternative transportation programs often include:

- Car share
- Rideshare matching
- Public transportation and universal bus pass
- Telecommuting and compressed workweek
- Emergency ride home

- Carpool/vanpool support
- Pedestrian supportive planning
- Bicycle infrastructure and support
- Motor pool

1. **Alternative Transportation Plan** – UND should undertake the development of a plan to promote the use of alternative transportation. The goal of this plan would be to develop implementation schedules, budgets and responsibilities for strategies aimed at reducing drive alone commuting and travel to the UND campus via more financially and environmentally sustainable means such as walking, biking, taking transit or carpooling.

2. **Consolidate Alternative Transportation programs** – A fragmented approach to promoting alternative transportation is likely to contribute to a less than ideal level of awareness among the campus community regarding alternative transportation programs and offerings and likely contributes to inefficiencies that could be avoided if some programmatic consolidation were to occur.

   UND may consider funding an associate director level alternative transportation position within Parking Services. This position would work toward consolidating campus alternative transportation programs and services under one (or fewer) departments. At the same time, the university can clarify roles and responsibilities so that collaboration, efficiency and effectiveness are enhanced and confusion, overlap and competition are minimized. Consolidating alternative transportation programs into one department, such as Parking Services would provide broad benefit to UND by providing:

   - **Special event Alternative Transportation plans** – Implementing alternative transportation measures can reduce parking demand for special event venues and mitigate access and egress issues often associated with special events. Planning for the influx and outflow may include coordination with a local or private transit agency to provide additional transit service such as a special event route or shuttle, as well as promoting ridesharing, walking or biking to the event.

   - **Emergency and/or poor-weather TDM planning** – Preparing for alternative work arrangements can mitigate some of the time lost to weather-related and

emergency situations. For example, teleworking can allow business to proceed as usual, even if the office is difficult to access.

- **Construction TDM** – While it is unlikely that the entire workplace/student population will be affected by construction, employers/universities can work with those whose commutes will be most affected to determine if telework, alternative work schedules, using transit, carpooling, walking or biking may be viable options.

3. **Identify funding** – Many universities that have advanced alternative transportation services use a combination of resources to support their programs.   Typically residual revenue from the parking fund is coupled with student based transportation fees to provide the necessary funding. In California, for example, parking citation revenue is dedicated, by law, to alternative transportation programs.   UND may consider instituting a credit-hour based student transportation fee to support programs and services that students typically receive direct benefit such as:

- Campus shuttle
- Bicycle program
- Carshare program

- Universal bus pass
- Pedestrian infrastructure improvement
- Emergency ride home

Some institutions are exploring how they may further fund alternative transportation programs by assessing faculty and staff (or departments) in a manner similar to the student transportation fee. Because university employees also receive direct benefit from such programs this is seen as equitable by many.

4. **Marketing and communications** – Marketing and communications are essential to the success of any alternative transportation program. This is especially important when an institution hopes to move people from the comfort of their personal vehicle to another mode of conveyance that is perceived as less convenient, safe or certain. UND can further its alternative transportation programs by investing in marketing and communications professional expertise and preferably with an alternative transportation background. The identified leader must also possess specific expertise in communicating with college-age students.

5. **Transportation coordinators** – Another human resource often found in the most successful alternative transportation programs is a transportation coordinator. Transportation coordinators provide personalized assistance to commuters and help them understand fully what mode choices are available.   Transportation coordinators' work is labor intensive and often includes coordinating alternative

transportation fairs, providing new faculty and student orientations and promoting special events aimed at gaining awareness of alternatives to driving and promoting mode shifts.

6. **Public awareness and promotions** – Promotions and public awareness campaigns can be designed to provide commuters with incentives to experiment with alternative transportation options through giveaways and raffles. UND may organize alternative transportation fair, or similar educational and promotional outreach activity. Free transit day-passes, Vehicle miles traveled reduction challenges across offices or divisions, Dump the Pump challenge, or a Bike to Work Week Challenge could all be great ways to entice employees/students to try an alternative commute.

Education is the first step. If employees/students and employers/universities do not know about commute options or how alternative transportation can benefit them, they will be utterly unable to take advantage of programs, incentives, and opportunities that they are unaware of. From there, persuading employees/students to choose transportation alternatives requires a few conditions to ensure success:

o Employees/students must be convinced of the inherent value of changing their behavior;
o They also must have access to information that helps them to understand their options, which also may include simply awareness that their employer offers particular options;
o Employees/students must be motivated to test and ultimately continue using the recommended options.[3]

Marketing and promotion play a huge role in the success of alternative transportation programs. The following strategies note some best practices for promoting alternative transportation programs.

7. **Develop a recognizable transportation options brand** – A well-known and recognized brand, particularly if TDM strategies and programs are housed under the same department or as part of a collaborative, can heighten awareness and provide opportunities to educate residents and commuters about travel options.[4]

---

3 TCRP Report 95, Chapter 19, p. 19-22.
4 Lincoln TDM Strategy, http://www.lincoln.ne.gov/city/plan/mpo/mporpts/tdm/bestpractices.pdf.

Washington State University recently rebranded their alternative transportation program as "*Go Cougs: Parking Is Just One Option"* and included a new logo to support the effort.   Colorado State University did something similar and also established an assistant director level position focused on promoting alternatives to driving alone.

8. **Bicycle program** – UND appears presently to offer little in the way of bicycle programs. Those that exist are student-driven and may lack the financial and human capital in order to be sustained over time. Basic offerings should include bicycle rentals, lockers and racks, do it yourself bicycle service and educational programming. As the program matures it may develop dedicated funding for short- and long-term bicycle parking along with end-trip facilities and bicycle path infrastructure and codify inclusion of bicycle facilities in the University's planning process. Advanced bicycle share programs, long-term bicycle rentals and retail and service facilities are also found on many university campuses that heavily promote bicycle use.

Professional Development

Given the ever-changing nature of the parking and transportation sector, it is critical that Parking Services invest in professional development activities at every level of the organization. Parking Services leadership must ensure that staff, regardless of function, builds an external peer network to keep current on best practices, have problem-solving resources readily available and keep an outside orientation to avoid stagnation and foster innovation and creativity.

In the near term, Parking Services staff should reinforce their existing skill base by receiving training in the following areas:

1) Customer service for parking and transportation organizations
2) Active transportation
3) Transportation demand management
4) Payment card industry standards
5) Incident command system/special event management
6) Sustainability for parking and transportation organizations
7) Parking technology, data collection and utilization

Training in these and many other industry specific topics is offered through organizations like the International Parking Institute (IPI), the Association for Commuter Transportation and Community Transportation Association of America. UND must invest in conferences, webinars and other educational offerings so that the parking and transportation staff can stay abreast of changes in the industry and new advancements, innovations and best practices. North Dakota does not currently have an active parking association like other states but a modest investment in national and international associations is wise. Further, on-line learning opportunities are common keeping costs to a minimum.

Additionally, as UND prepares for hiring its next parking director, it is recommended that candidates who have earned the Certified Administrator of Public Parking (CAPP) designation.

CAPP is respected worldwide as the leading credential in parking. CAPPs represent the best of the industry, leading with innovation, professionalism, and expertise; providing service; and demonstrating competence as they advance the parking profession. CAPP designation is meant to assure stakeholders (employers, regulators, consumers, and the public) that the credentialed parking professional has demonstrated an established level of competence in the field.

The CAPP credential is a program of the IPI and is administered through the independent CAPP Certification Board of IPI in cooperation with the University of Virginia.

D. Customer Orientation

Parking and Transportation Advisory Committee

As noted above, UND does not presently have a parking advisory committee and it is recommended that such a committee is formed. What's more, several affiliate groups are taking steps or have already formally recommended that a committee is formed in an attempt to remedy perceived deficiencies in the parking program.

There are three main considerations with respect to parking and transportation advisory bodies: 1) responsibilities; 2) composition; and 3) reporting structure.

Broad responsibilities for advisory committees typically include the following:
- Review/input of departmental budget
- Review/input of parking fee/fine review and approval
- Review/input of administrative policies, procedures, and regulations
- Liaison/representation of campus stakeholder groups
- Review/input of long-range parking and transportation planning efforts

Less common duties found on other campuses include:
- Review/recommend site locations for new parking facilities and parking lot enhancements
- Assisting the Department of Parking & Transportation Services with public relations programs and promoting community interaction through informational exchanges
- Support of the Parking and Traffic Appeals Committee that reviews and acts upon appeals of parking citations from students, faculty, staff and visitors
- Review transit agreements and make recommendations for continuation, costs and possible routes
- Interpret policies related to transportation and parking adopted by governance bodies
- Ensures appropriate consultation of governance bodies regarding proposed changes in any policies

With respect to duties, the most successful advisory bodies have a broad understanding of the programs and services delivered by the parking and transportation department and have a grasp of the challenges the department faces. It is not enough to meet yearly to review parking permit rates. Instead, the complexities of the department must be understood so that informed recommendations can be made.

Effective advisory bodies also understand and accept their role as liaison between the parking and transportation department and the campus community. These bodies must be representative of the campus community and it is reasonable to expect members of the committee to reach out to their constituent groups in order for effective communication to occur.

Much like a board of directors within a corporation, it is best for the advisory group to operate within the strategic realm. Operational issues should be left to parking and

transportation program administrators.   In summary, the most successful parking advisory committees:

- Serve like corporate boards of directors
- Have well-constructed and university understood purposes
- Look at the big picture, not just their area of expertise or gripe
- Focus on strategic issues
- Invest in understanding contemporary parking management strategies
- Have a well-constructed action plan and use it
- Understand the need for and support parking management strategies
- Are constituted thoughtfully
- Have an informed and active chair
- Have a succession plan and staggered terms
- Are viewed as integral to the university's success

Sample parking advisory mission statement

The purpose of the Parking Advisory Committee is to assist the Vice President for Finance and Operations in the formulation of policies and procedures related to overall transportation and parking programs at the University and all its facilities. This includes, but is not limited to, vehicles, bicycles, pedestrian traffic, as well as the operations and services provided by local public transportation providers directly impacting the campus and its constituents; to provide a communication link between users of the University's parking and transportation programs and services and those responsible for providing such programs and enforcing the regulations governing them.
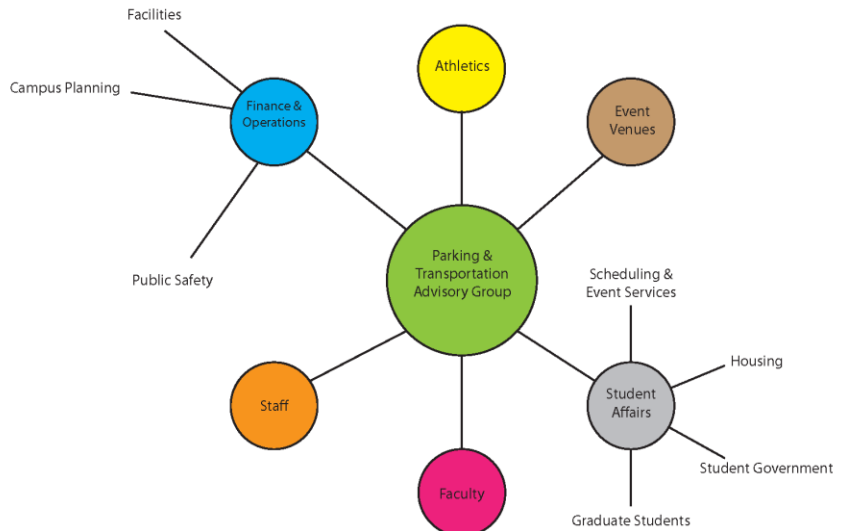
Parking & Transportation Advisory Group Relationship Diagram

UNIVERSITY OF NORTH DAKOTA
Membership Diagram of Parking & Transporation Advisory Group

PTAG:
Parking & Transportation Advisory Group

Purpose: To assist the Vice President for Finance and Operations in the formulation of policies and procedures related to the overall transportation and parking program at the University of North Dakota and all of its facilities. This includes, but is not limited to, vehicles, bicycles, pedestrian traffic, as well as the operations and services the City of Grand Forks directly impacting the campus and its constituents; to provide a communication link between the users of the parking and transportation programs and those responsible for providing such programs and enforcing the regulations governing them.

Facilities

Campus Planning

Finance & Operations

Athletics

Event Venues

Public Safety

Parking & Transportation Advisory Group

Scheduling & Event Services

Housing

Staff

Student Affairs

Student Government

Faculty

Graduate Students

Faculty/Staff Membership (total of 8)

1   Faculty Representative
1   Classified Staff Representative
1   Campus Planning Representative
1   Campus Operations Representative
2   Events Representatives
1   Housing Representative
1   Scheduling & Events Representative

Student Membership (total of 4)

1   Student Governemnt Representative
1   Graduate Student Representative
1   At-Large Undergraduate Representative
1   At-Large Graduate Representative

Ex-Officio Membership (total of 3)

1   Public Safety Representative
1   PTSDirector
1   City of Grand Forks Representative

E.   Permit Allocation System and Pricing

As previously noted, UND currently utilizes a simple "hunting license" system based on category of affiliation to allocate parking permits.   A parker may purchase a permit based on their affiliation, whether student, faculty or staff and park in any lot on campus matching their affiliation. The hunting license approach has advantages and disadvantages.

Hunting License Advantages

- Relatively simple to understand once a parker learns where their lots are located.
- Often allows for multiple parking options. A person can park in one lot in the morning and then move in the afternoon using the same permit.
- Relatively easy to use with a color coded system. Permit colors match lot colors.
- When demand is relatively low, this approach is easy to administer and does not require facility specific demand and occupancy information.

Hunting License Disadvantages

- Relatively inefficient because parkers can and typically do use more than one space per day.
- As demand for parking increases the competition for a parking space increases.
- Increases in congestion and driving on campus can result as parkers hunt for open spaces. This "cruising for an open space" increases pollution and unnecessary vehicle miles traveled.[5]
- Customer satisfaction suffers as parkers become increasingly frustrated when demand for parking increases.

Tiered Parking

Contemporary, high-demand parking programs at universities require a more sophisticated system of allocating scarce parking resources. This system is grounded in supply/demand economics that utilizes pricing strategies that help consumers with convenience/cost tradeoffs.

In a tiered parking scheme parking lots and garages are typically treated as discrete facilities. A finite number of parking permits are sold for the facility with an established oversell ratio based on documented occupancy data for the facility.

Parking facilities can be designated for a particular user or affiliate group, or there can be no restriction placed on who can park where. A variation of this approach is to provide a portion of the permits for particular lot to students and the remaining portion for faculty and staff.

Sample Permit Allocation System

Lot	Spaces	Oversell	Permits	% F/S	% Students	F/S Permits	Student Permits
A	150	2	300	100%	0%	300	0
B	200	1.5	300	90%	10%	270	30
C	350	1.9	665	75%	25%	499	166
D	75	1.2	90	50%	50%	45	45

Parkers do not hunt for parking spaces between lots but are assigned to specific facilities. Cross-parking, or allowing parkers with one permit type to park in another parking area, is often a part of this allocation scheme so that after a certain time (low demand) or on weekends more parking flexibility is provided.

---

[5] Donald Shoup, "Cruising for Parking." *Access*, No. 30, Spring 2007.

Typically, faculty and staff are assigned to core parking areas of high demand and commuter students are provided accommodations in perimeter parking facilities. Resident students often park near residence halls but if these are in the core of campus storage parking can be provided in remote or peripheral parking areas so that high demand parking areas are available for short-term parkers.

Graduate students may be provided similar access compared to faculty and staff or they may be included in the commuter student group depending on demand. Perimeter parking typically requires shuttle services depending on the size of campus and class change time allowances. Coordination between parking and shuttle operations is critical.

There are three general approaches to determining how permits are distributed: the egalitarian model, the first come, first served model and the seniority model.

Egalitarian model: In the egalitarian model a portion of each lot is set aside for each affiliate group. While the percent of each lot set aside for each group may differ, everyone has a reasonable chance of gaining access to each lot. This provides for a measure of choice for everyone and promotes a sense of equity.

First Come, First Served model: This model follows a similar system compared to the sale of other goods and services where the early bird gets the worm. The permit sale opens and permits are sold in order regardless of the status of the purchaser. When the permit limit is reached the sale for that lot closes.

Seniority model: Under this model faculty and staff typically receive priority over students and upper classmen receive priority over under classman or priority is given to full-time over part-time students. If parking demand is high enough, freshman, for example, may not be allowed to purchase a permit. In some cases permits are not allowed for students living within a given distance to the campus.

Normally price is based on proximity to the campus core or convenience to the primary demand generator. This provides a mechanism to push demand away from the campus core and to more evenly distribute parking utilization.

A relatively simple way to determine which parking facilities should be priced highest is to use peak occupancy with the highest peak occupancy facilities having the highest value and the highest permit price.

Utilization and Price Under Price-Based Model

Utilization		Price
85%-100%	High	High
50%-84%	Medium	Medium
Below 50%	Low	Low

On an annual basis peak occupancy data are updated and lots are moved from one demand group to another if necessary. This establishes a dynamic and responsive way to allocate parking permits based on the changing nature of the campus.

Another feature of this model also considered a best practice is that all parking is assigned a value and therefore carries a fee for use. Higher demand areas require more management and also require more frequent maintenance which justifies the higher price. If UND were to adopt this model it is recommended that no-charge parking, (i.e. Hamline Square), discontinue. This is called unbundling parking and housing.

Parking is often "bundled" with building costs, which means that a certain number of spaces are automatically included with building purchases or leases. *Unbundling Parking* means that parking is sold or rented separately. For example, rather than renting an apartment for $1,000 per month with two parking spaces at no extra cost, each apartment can be rented for $850 per month, plus $75 per month for each parking space. Occupants only pay for the parking spaces they actually need. This is more efficient and fair, since occupants save money when they reduce parking demand, are not forced to pay for parking they do not need, and can adjust their parking supply as their needs change.[6]

The base tiered parking system can offer features that expand customer convenience and facility efficiency based on the university's needs. These include:

▲ The ability for parkers to purchase additional convenience.

▲ To maximize facility utilization and offer additional convenience parkers can be allowed to "park down" meaning that higher priced permits are allowed to park in lower demand parking areas as well as the higher-demand lot they paid for.

▲ Parking related to official business can be accommodated with a companion permit. Under this arrangement a parker must have a business related need based on criteria the university determines. The parker must typically also possess a permit

---

[6] Victoria Transport Policy Institute, "Parking Management." *Vtpi.com,* September 10, 2012, http://vtpi.org/tdm/tdm28.htm#_Toc128220488 (Cited May 5, 2013).

purchased with personal funds. The two permits are then used in combination for certain parking access. This may be time and location limited.

◤ Parkers with accessibility needs can be accommodated easily and in a manner that offers convenience and price choice. For example, accessibility parkers may wish to purchase a low cost permit and this allows them to park in a low cost lot or lots in any space including accessible parking spaces. They may also park in any accessible space in any priced lot without an additional charge on a space available basis.

◤ Service vehicles can be accommodated in a tiered reserved system in dedicated spaces, they may be allowed to park in any lot or they may be restricted to certain lots. Normally service vehicles are prohibited from parking at meters.

◤ Contractor permits work in a similar manner as service vehicles with the exception that there would not normally be dedicated spaces provided for this group of parkers and that special accommodations even in the highest demand areas, may be required to support certain projects. Normally, contractors would be restricted to certain lots. In all cases the contractor should have a permit.

◤ Vendors are also required to have permits but since they normally do not occupy a space as long as a contractor they may be allowed access to parking meters. They may also use service spaces designated for university vehicles given their short stay durations.

◤ While salary-based pricing is not recommended, some exceptions may be warranted. At some universities the lowest paid employees are offered discounted parking permits but in peripheral parking facilities including in underutilized upper levels of parking garages. This offers price sensitive access but without jeopardizing the entire system.

The Hybrid Model

In most cases when universities are considering moving from hunting to tiered parking systems demand is not high enough across the entire parking system to warrant a wholesale change. Instead, it is possible to marry the two systems and realize the advantages of both systems simultaneously. Under this arrangement medium and high demand lots are moved to the tiered, reserved system while low demand lots are offered under the hunting license system.   Only when demand grows beyond a predetermined threshold are lots moved from hunting to tier reserved parking.

At some institutions permit prices are based on salaries so that those who make more pay more. This system is not recommended because it is not typically how goods and services are priced. This may also force those who have higher means to subsidize parking for those of lesser means and may inadvertently deter more price sensitive customers from using less expensive alternatives to driving alone.

A Path Forward for UND

The following steps may help UND move from its current system to one that is more responsive to its contemporary needs and more able to meet future needs.

1. Determine peak occupancy levels for all parking facilities on campus. Break these facilities into groups of high, medium and low occupancy with the key break between high and medium being somewhere between 80-90%.

2. Establish price groupings based on department revenue needs, market and peer pricing and local price sensitivity. National research from the Transportation Research Board, the national academic authority on transportation research, identifies in a manual on transportation elasticities a national "meta-elasticity" for parking price between -.1 and -.3.[7] This means that for every 1% increase in permit price, demand should reduce by between .1-.3%.

3. For medium and high-demand parking facilities establish lot-specific oversell ratios. This is done making daily and sometimes hourly observations of facility occupancy around the highest demand times of the year – typically within the first weeks of the fall semester.

4. Determine if a hybrid model is appropriate for UND. If so, identify lots that will be offered with a hunting license.

5. Develop a communications and marketing plan to implement the new system.

6. Make necessary adjustments to the parking management system.

7. Develop new signage.

8. Introduce new system following extensive communication to the campus community.

9. Staff lots at implementation to help parkers adjust.

10. Implement a long grace period for possible infractions. Full implementation may take an entire semester or longer.

11. Collaborate with the City to monitor impact on adjacent neighborhoods and make necessary adjustments to neighborhood parking permit program.

Permit Pricing

In a demand based system, the fee charged for a permit is set to establish an established peak occupancy rate. If occupancy and demand is too low, the fee should be reduced. If occupancy and demand is too high, the fee should be increased until the desired occupancy is established. Typically, this is done annually.

---

[7] Vaca, E. and Kuzmyak, J.R. Chapter 13—Parking Pricing and Fees. In, *TCRP Report 95 Traveler Response to Transportation System Changes*. Washington, D.C.: Transit Cooperative Research Program, Transportation Research Board. Retrieved May 1, 2013: http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_95c13.pdf.

If UND uses a demand based system but is interested in staying close to its current price ranges, comparing the current parking permit rates to the peer group suggests that UND is presently in range with the average offered among the group. Compared to the group, UND offers faculty and staff permits at a rate slightly higher than the average; resident students pay a little less than the average and commuting students pay about the average.

Annual Permit Prices – High and Low[8]

Institution	Faculty & Staff		Resident Students		Commuter Students	
	High	Low	High	Low	High	Low
OKST	$300	$60	$100	$100	$300	$60
CSU	$317	$317	$354	$100	$292	$292
WSU	$644	$123	$227	$123	$644	$123
OSU	$495	$95	$330	$95	$495	$95
BSU	$377	$174	$278	$61	$320	$118
WYO	$196	$196	$131	$131	$131	$131
MSU	$169	$70	$169	$70	$169	$70
UWL	$194	$194	$244	$244	$194	$194
UND	**$400**	**$225**	**$155**	**$155**	**$300**	**$155**
Average	**$344**	**$162**	**$221**	**$120**	**$316**	**$138**

Faculty & Staff Permit – High Permit Price

---
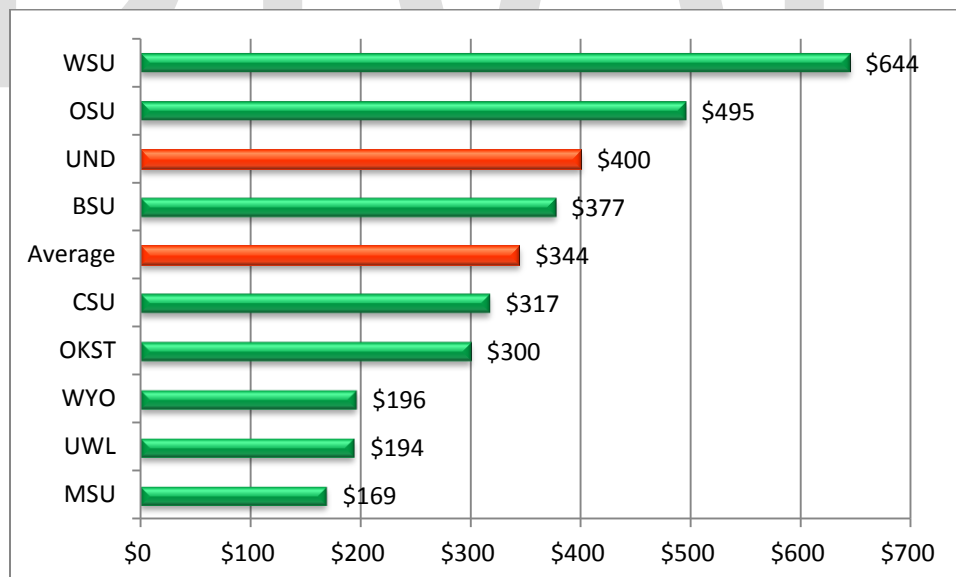
[8] Standard annual parking permits - does not include designated reserved permits or PM permits

Resident Student – High Permit Price

University	Price
CSU	$354
OSU	$330
BSU	$278
UWL	$244
WSU	$227
Average	$221
MSU	$169
UND	$155
WYO	$131
OKST	$100
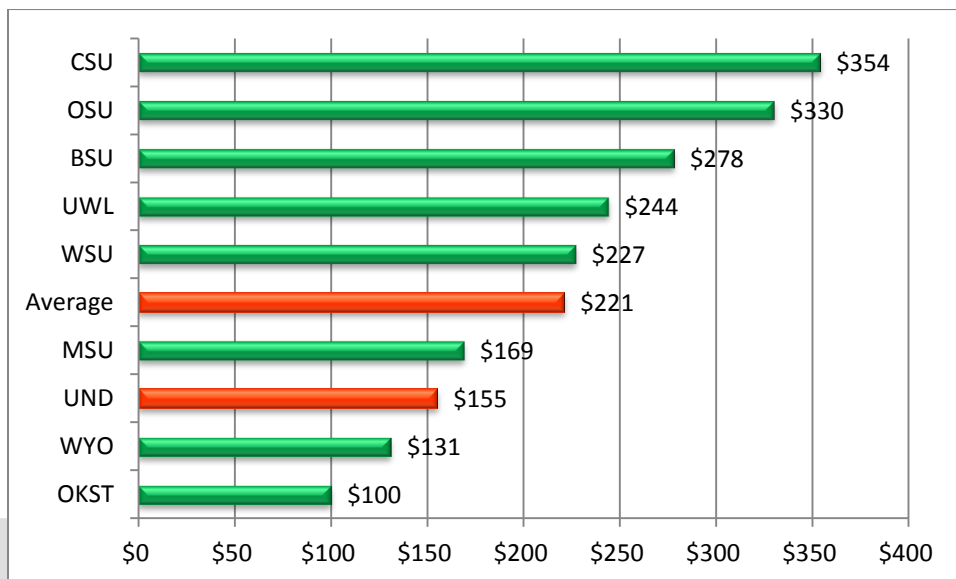
Commuting Student – High Permit Price

University	Price
WSU	$644
OSU	$495
BSU	$320
Average	$316
UND	$300
OKST	$300
CSU	$292
UWL	$194
MSU	$169
WYO	$131
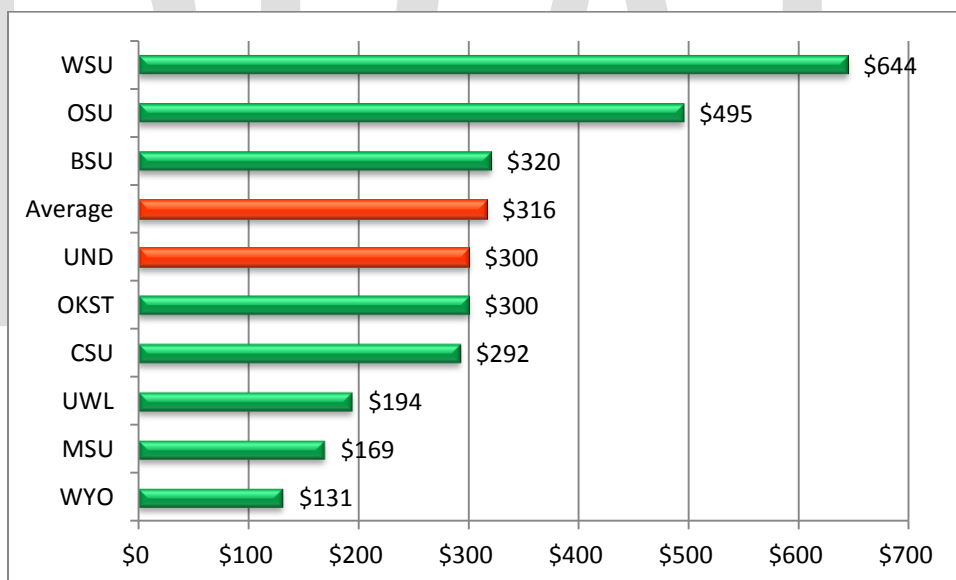
F. Parking Enforcement Program

Parking Ambassador Program

It is recommended that UND transform its parking enforcement program to a parking ambassador focus. The parking ambassador approach is based on delivering excellent customer service by maximizing patron interaction. Traditional enforcement programs often focus on citation productivity whereas the ambassador model's aim is to provide information, aid, and general hospitality services and information. The primary goals of an ambassador program are to help make the university a better, safer, and more

enjoyable place to live, work and visit and to educate parking users about how to use parking facilities without violating UND's policies, rules and regulations.

A parking ambassador is a specially trained employee who knows the entire campus, including buildings and parking lots that assists visitors, students, faculty and staff ensuring their experience on the UND campus is enjoyable from the moment they arrive.

Parking Ambassadors:

- welcome all people to campus

- offer assurance, experience, information, and a friendly face to the campus through parking and Parking & Transportation Services

- have a full knowledge of all events being held on campus, locations, times, special arrangements, and parking details

- help passengers who have questions about using campus shuttles and public transportation, encouraging alternative transportation

- are fully knowledgeable of bike storage locations and can make bicycle safety recommendations

- perform all parking enforcement functions

- provide motorist assistance

- can administer first aid, CPR, and emergency response, when necessary

The parking ambassador duties also include parking enforcement but should focus on access management first. This may mean that the discretion available to the parking ambassador expands such that field problem-solving becomes the general approach rather than rote application of parking regulations. Very likely this will mean few citations are written but should not result in lower compliance levels and inefficient parking resource usage.

Any meaningful shift from the traditional enforcement model to the ambassador approach requires a comprehensive training program, rewritten job descriptions and a shift in the skills sought throughout hiring efforts. Prospective applicants are hired based on their customer service and problem-solving skills.

Training elements for parking ambassadors include:

- Tactical communications
- Customer service
- CPR
- Bike safety

▲ Motorist assistance
▲ Campus tours

▲ First Observer Training
▲ Community Emergency Response
   Team (CERT)

As part of the shift to a more customer-oriented parking enforcement program, it is recommended that UND replace its current fleet of enforcement vehicles with more approachable and less law enforcement type vehicles. Vehicles currently in use have an aggressive and unapproachable appearance that may be inconsistent with a shift to a more ambassadorial role.

UND Parking Enforcement Vehicle

Further, parking ambassadors should deploy on foot or bicycle as much as possible so as to improve the likelihood of customer interactions.

Staffing

As a general rule, most modern university parking enforcement programs using contemporary equipment can function adequately at a ratio of one full time enforcement officer per 1,400 parking spaces. With 11,702 parking spaces UND should have approximately 8 FTE enforcement officers. This staffing level covers day, evening and some weekend enforcement, which may or not be necessary based on special event parking demand and the need to manage some parking areas on a more continuous basis. Presently, there are 4 FTE of enforcement staff.

Parking Citations

Citations written on university campuses fall in four major categories: ADA, Theft of Services, Safety, and Space Management. Generally, similar types of violations should receive similar fine amounts.

UND Violations By Type and Amount

Space Management $20	Space Management $10	Theft of Services $20
Hash Marks	Improper Display	No Permit/Receipt Displayed
Occupying Multiple Spaces	Loading Zone	Boot/Immobilization
Overnight		Decoy Citation
Service/Maintenance	Safety $20	False Registration
Grass/Lawn/Sidewalk	Fire Lane	Failure to Register
Beyond Row	No Parking Zone	
Other Than Assigned		Theft of Services $10
Abandoned/Inoperable	ADA $100	Overtime Meter
Failure to Comply		Timed Zone

Theft of Services $100
Suspended Privileges
Counterfeit/Forged Permit
Altered/Stolen Permit

It is recommended that UND adjust some of its fines so that similar infractions receive a similar penalty. This promotes consistency and helps avoid sending mixed and confusing messages to parking patrons. For example, UND assesses a fine of $20 for a citation decoy (placing a false citation on their vehicles in an attempt to park without paying). Altered or stolen permits earn a $100 fine. Since both are theft of services, it is recommended that the fine amounts are closer to the same. Minor theft of services infractions such as overtime meters should carry a lower fine amount.

Recommended Changes in Citation Amounts

Violation	Current	Recommended	Type
Fire Lane	$ 20	$ 100	Fire, Life, Safety
No Parking Zone[9]	$ 20	$ 100	Fire, Life, Safety
Decoy Citation	$ 20	$ 100	Theft of Services (major)
False Registration	$ 20	$ 100	Theft of Services (major)
Overtime Meter	$ 10	$ 20	Theft of Services (minor)
Timed Zone	$ 10	$ 20	Theft of Services (minor)

---

[9] A major "no parking zone" violation is one involving blocking a roadway, travel lane, sidewalk or similar. Minor "no parking zone" infractions include parking in areas marked as no parking but in a manner that does not present a hazard.

Between October 2013 and September 2014, UND wrote nearly 24,000 citations, slightly more than the peer group average.

The number of citations written is but one way of viewing parking enforcement. There are several other metrics to measure a university parking enforcement program, all of which have merits as well as provide unique information and perspective. The first two relate to enforcement production, or the number of parking citations written compared to a given variable. This produces a ratio that can then be used to evaluate one program against another.

Citations per person on campus[10] and citations per parking space give a sense of the enforcement production on a campus. Compared to its peers, UND is higher than all others in terms of citations per person on campus and somewhat below average for citations per parking space.

Citations Per Person On Campus[11]

MSU	0.47
OSU	0.67
BSU	0.71
WYO	0.80
Average	**0.93**
WSU	1.10
CSU	1.13
OKST	1.21
UND	**1.35**

Citations Per Parking Space

MSU	1.45
UWL	1.66
UND	**2.06**
BSU	2.24
Average	**2.49**
OKST	2.60
WSU	2.69
WYO	2.90
OSU	2.96
CSU	3.81

Among its peers, UND has more parking spaces per person on campus which may mask some of the effect on citations per parking space, resulting in a relatively low appearing figure.

---

[10] Students+faculty+staff = total headcount
[11] The University of Wisconsin Lacrosse did not report number of staff and is excluded from this data set.

Parking Spaces Per Person on Campus

OSU	0.23
UWL	0.23
WYO	0.28
CSU	0.30
BSU	0.32
MSU	0.32
Average	**0.36**
WSU	0.41
OKST	0.47
UND	**0.66**

These ratios and feedback received through the community engagement process indicate that an overly aggressive enforcement posture exists at UND.

How a parking program deals with appeals can be an indication of their philosophical underpinnings. A high appeal rate can indicate an overly regulatory environment whereas a low appeal rate can suggest a more customer-center approach.

The final key enforcement measure is void rate. This is a percent of citations appealed that are waived, reduced or voided. A very high percentage likely indicates that the parking program is willing to use the process of the appeal rather than a fine alone to encourage a change in behavior. In this way a parking program uses an educational process rather than a punitive one to gain compliance with parking regulations. A low void rate may suggest the opposite.

UND has a lower than average appeal rate among the peer group yet the number of citations waived, reduced or voided at 67%. This indicates a positive appeal philosophy is in place being neither too lenient nor too inflexible compared to the peer group.

Citation Appeal Rate[12]	
CSU	1.9%
UWL	4.0%
OKST	4.5%
WYO	7.2%
UND	**8.0%**
WSU	12.0%
Average	12.2%
BSU	13.2%
MSU	46.4%

Citations Reduced, Waived or Voided[12]	
WYO	44.5%
OKST	50.6%
BSU	57.4%
AVE	**66.7%**
UND	**67.0%**
WSU	69.5%
CSU	74.6%
MSU	84.7%
UWL	85.7%

Too few of appeals may be an indication that parking patrons feel that their chances for being granted any reprieve are poor, so much so that appealing is seen as a waste of time. The process of appealing a citation may also seem onerous or the fine amounts may not be meaningful enough such that parkers risk receiving a citation and do not appeal simply because the cost of paying the fine is too low. In UND's case, because appeals can be completed on-line it is likely that the low fine amounts for common violations are an influencing factor.

A high appeal void rate can also mean that a large number of "bad" citations are being written. Bad citations occur when enforcement staff do not apply the parking rules appropriately and issue citations that should not have been written.

By a wide margin, the most frequently issued parking citation is for no permit/receipt displayed. For a 12-month period from October 2013 to September 2014 this type of violation accounted for nearly 48.6% of all citations written. This is followed by parking in an area other than assigned (21.1%), expired meter (15.3%) and exceeded time limit (10.4%). Combined, these four violation types accounted for all but 4% of the citations written over the year period.

Of the four most common citations, the difference in the fine amount and the charge for daily parking may only be $13 or $3 (all day parking is $7 and expired meter and exceeded time limit are $10; no permit displayed and parking in an area other than assigned is $20). This small difference may be enough to incentivize parkers to chance receiving a parking ticket.

---

[12] Oregon State University did not report number of citations appealed and is excluded from the data set.

Most Common Citations
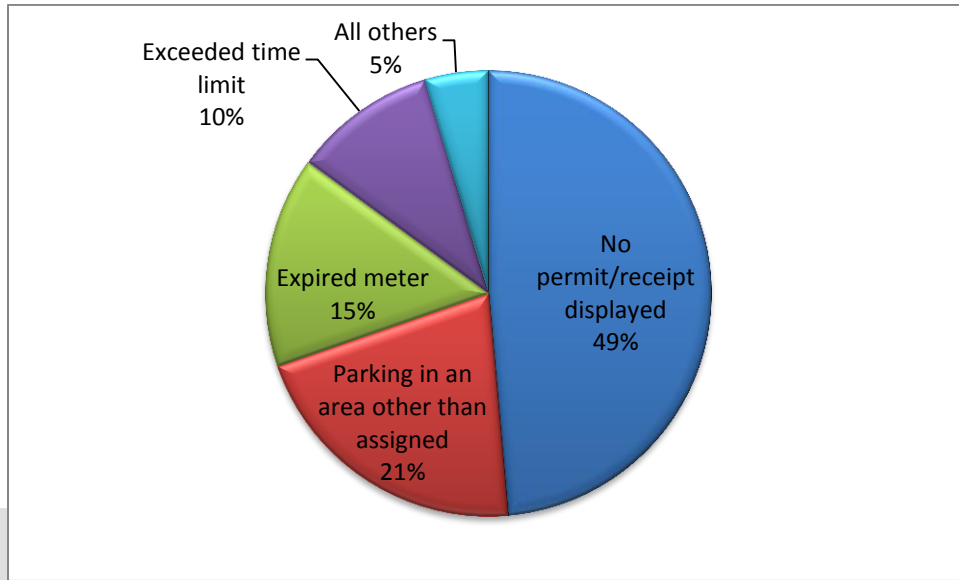
Progressive Fine Program

To address habitual parking offenders, UND should consider instituting a progressive fine structure. This type of program offers generous leniency to those who receive their first citation and focuses on parkers who earn excessive numbers of citation.

The basic parameters of a progressive fine program are:

1. First citation is a warning unless it is a meter, fire, life or safety citation.
2. All citations can be appealed. The first appeal may be excused or modified unless it is a fire, life or safety citation.
3. Initiate an incentive program for paying a citation within 10 days. For example if the citation is $25 and paid within 10 days, the citation will be lowered to $15. This should help reduce the number of holds put on accounts and the amount of impounds (a car is impounded when it has 5 or more outstanding citations).
4. Following the third citation in one year, each citation thereafter would double, i.e. $15, $30, $60, $120...

When to Enforce?

During site visits, parking enforcement staff were observed enforcing areas that were clearly low demand parking facilities. While random parking enforcement should be part of an overall enforcement strategy, time and attention should be focused on high demand areas.

Some campus constituencies have recommended the establishment of policies that limit parking enforcement during certain hours. In other words, during off-peak times, parking would be open, or un-regulated. Contemporary best practices for university parking programs suggest that such an approach is ill-advised. However, this is not to say that UND might not manage some parking facilities with signs indicating that payment or permit is required only during certain hours. This approach provides the relief requested without legislating a change that might be difficult to undo.

G. Use of Technology

Over the past decade technology has been introduced into the parking industry to advance revenue control, customer service and data collection analysis objectives not possible before. Technology is not pursued for technology's sake, rather it should be viewed as a means to a strategic end such as to improve customer service, reduce operational costs or improve revenue generation. Technology improvements in parking and transportation are also expensive and can require significant capital in reserve in order to implement. Therefore, a long-term plan is important for an organization to develop to plan for and implement the right kinds of technology. Such a plan would allow UND to consider the following technologies to improve customer convenience enhance revenue security and provide for reductions in operating expenses.

1. Advanced single head parking meters
2. Mobile License Plate Recognition
3. Pay-By-Cell parking
4. Space availability systems

Advance single head meters

New single head parking meters are offering high levels of convenience and operational efficiencies, similar to that found with multi-space meters. They also accept multiple forms of payment and provide alarm communications to parking departments. Some also include a sensor that can be imbedded into the parking space that senses when a vehicle is parked in the space. This information can be provided to the parking public so that they have real time information about space availability. Typical cost: $500 per meter plus operating costs ranging from $10-$15/month depending on credit card usage.

Mobile License Plate Recognition

Mobile License Plate Recognition (LPR) systems are comprised of a vehicle mounted camera system and on-board computer that scans and records license plate numbers and matches unique license plate numbers against allowed plate numbers. In this way, LPR can be used to manage permit parking where a hang-tag, sticker or decal is currently used. Permit-less parking is seen by many as superior to systems that rely on hang-tag/decal credentials and eliminates the need for the patron to obtain a physical credential.

LPR is also used to efficiently identify and resolve citation issues with repeat violators. Scofflaw lists are loaded into the LPR on-board database and the driver is notified when a license plate on the list is located. The enforcement officer then follows the established department protocol in dealing with the violation.

LPR effectively collects occupancy data while simultaneously conducting enforcement operations. As pictures of registration plates are taken, the photo is location and time

stamped, allowing for improved asset utilization, reduced costs over typical enforcement and greater data accuracy.
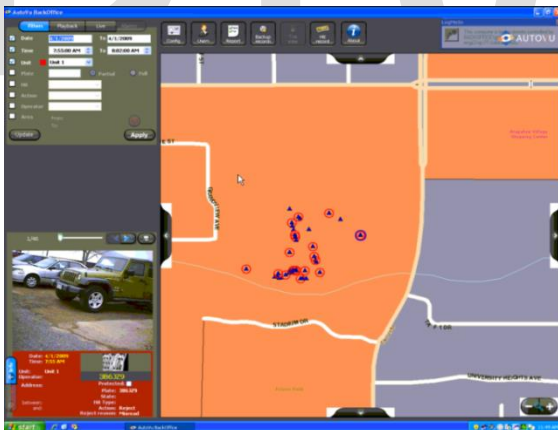
If parking departments do not sensor all of their parking spaces, occupancy count information from LPR and other sources can be used to develop sophisticated analytics and predictive modeling that provides parking consumers information about where they might reasonably find an open parking space at any given hour of the day. LPR may be an acceptable alternative to installing sensors to all parking spaces since adding hundreds of sensors may be cost prohibitive. Typical cost: $100,000 for the LPR computer, cameras and software plus vehicle and special equipment needed for the vehicle such as light bar.

Pay by phone

Consumers want various ways to pay for parking. Traditionally, parking meters have only been able to accept coins and this has caused considerable dissatisfaction as consumers are often forced to look in the seats of their cars to find change to pay for a parking session.

Parking kiosks accept coin, cash, credit/debit, parker loyalty card and validation coupon. Recently, pay by cellular phone, or pay by cell has been introduced as an additional form of payment.

In typical applications, parkers are required to become members of a third party vendor that the university has entered into agreement with. This can be done before a parking session or at the time the parking session begins by calling a number located near or on the parking meter. Quick response codes (commonly referred to as QR codes) are also used to guide parkers to a sign-in or sign-up page. The patron enters some basic contact information, their vehicle license plate number and a credit or debit card for billing.

Once a patron has become a member and they're ready to begin their parking session, they simply enter the parking area they have parked in and how long they wish to stay. Near the end of the parking session the system will send an SMS message to the parker informing them that their session is about to expire. If additional time is allowed, the parker will be asked if they wish to extend their stay and for how long. A convenience charge typically $.25-$.40 is charged for each parking session. Pay by phone systems are typically offered with smart phone applications that make profile management, including vehicle information, payment information and extending, time particularly convenient for parkers. Typical cost: No upfront costs, but credit card charges apply above the convenience charge typically paid by the parker.

Space availability system

UND currently offers some space availability information but additional improvements may be warranted. It is especially frustrating for parkers, especially visitors, to not know if parking is available at their parking destination. Fortunately, many options now exist so that parkers can access real time information about available spaces or be guided directly to spaces reserved for them. These systems take a variety of forms.

Some parking meters can be paired with in-ground mounted sensors that communicate with the meter to indicate if a space is open or occupied. This information is then relayed from the meter to any mobile device (with the appropriate app) or computer. Parking facilities use the revenue and access control systems to determine space availability and then provide this information externally or signs can be mounted on the exterior of the facility to indicate space availability.
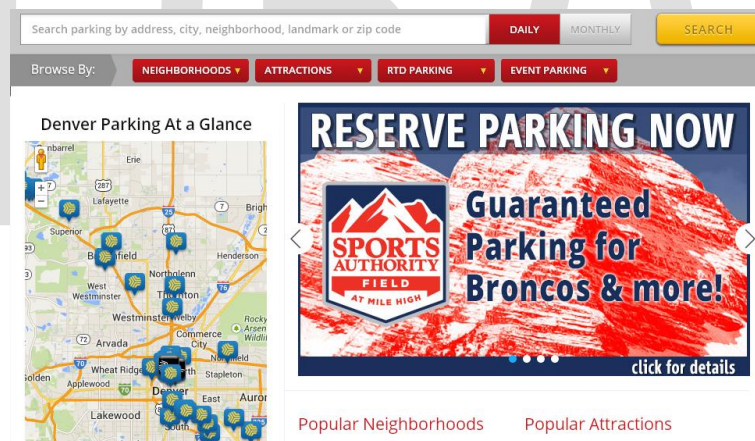
A form of space availability systems specifically tailored for visitors and special event attendees allows visitors coming to a parking facility to pre-purchase parking permits online. Along with the permit, the customer receives customized directions showing what route to take, where to enter the facility and how to find their designated parking area. For major events, when the number of cars assigned to a road reaches its engineered capacity, some systems can automatically assign the next cars to a different road to avoid traffic jams and minimize travel times. This reduces parking hassle and helps people arrive on time and refreshed. Typical cost: Varies significantly

H. Budget

Revenue

UND is higher than the peer average for its major revenue source, parking permits though it's important to note that UND combines parking and below the group average

for short-term parking. UND is at average for parking fines, the group's third highest revenue source. This suggests that UND can increase the percent of revenue earned through short-term parking thereby relieving some pressure on long-term permit parking. This can be accomplished not by increasing short-term rates but by providing more opportunities for patrons to pay for short-term parking. Improved technology and re-distribution of short-term parking facilities will help.

Revenue Sources UND vs. Peers

Revenue Source	OKST	CSU	BSU	OSU	WSU	WYO	UWL	MSU	UND	AVE
Parking Permits	56.0%	65.0%	55.1%	81.7%	53.7%	15.8%	69.6%	77.5%	75.3%	61.1%
Short-term Parking	4.9%	19.1%	23.8%	5.0%	28.2%	5.0%	12.7%	14.7%	5.9%	13.3%
Special Event Parking	4.7%	0.0%	14.2%	0.3%	3.8%	0.0%	3.9%	0.0%	6.0%	3.7%
Parking Fines	29.6%	12.4%	4.9%	12.3%	13.9%	6.0%	13.6%	7.8%	12.8%	12.6%
Other Revenue	4.8%	3.5%	2.0%	0.7%	0.4%	73.2%	0.3%	0.0%	0.0%	9.4%

While UND is above the group average in terms of special event revenue, more revenue in this area is possible and should be pursued, again to relieve pressure on permit holders and further diversity funding sources.

Expenses
Two major concerns stand out when comparing UND's expenses to its peers. First, 67% of UND's expenses are comprised of debt service and only 18% comprise wages, salaries and benefits. To maintain an appropriate debt/income ratio, either some debt must be retired, revenue increased or both.

Lower than average wage, salaries and benefits percent of expenses for UND may mean that the department is not adequately staffed to fulfill its purpose on campus (see human resources recommendations above).

Expense Sources UND vs. Peers

Expense Category	OKST	CSU	BSU	OSU	WSU
Wages, Salaries & Benefits	17.6%	31.3%	39.2%	49.6%	22.9%
Operating Expense	6.0%	16.6%	25.6%	26.7%	19.9%
Capital/Equipment	0.4%	2.6%	5.8%	2.4%	15.6%
Administrative Fee	29.7%	10.5%	3.5%	4.5%	12.9%
Debt Service	43.5%	34.1%	13.4%	16.8%	15.7%
Lot development	2.7%	0.0%	11.7%	0.0%	0.0%
Maintenance Reserve[13]	0.0%	4.9%	0.0%	0.0%	5.9%
Construction Reserve[13]	0.0%	0.0%	0.0%	0.0%	0.0%
Alternative Trans Programs	0.0%	0.0%	0.8%	0.0%	7.1%

Expense Category	WYO	UWL	MSU	UND	AVE
Wages, Salaries & Benefits	6.5%	41.9%	59.0%	18.0%	31.8%
Operating Expense	7.5%	50.0%	30.0%	14.9%	21.9%
Capital/Equipment	0.7%	0.0%	0.0%	0.0%	3.1%
Administrative Fee	0.0%	0.0%	2.8%	0.7%	7.2%
Debt Service	0.0%	8.1%	2.6%	67.1%	22.4%
Lot development	0.6%	0.0%	5.5%	0.0%	2.3%
Maintenance Reserve[13]	0.0%	0.0%	0.0%	0.0%	1.2%
Construction Reserve[13]	3.6%	0.0%	0.0%	0.0%	0.4%
Alternative Trans Programs	81.2%	0.0%	0.0%	0.0%	9.9%

Capital and operational reserves

UND does have capital reserves for the parking and transportation programs and funds reserves by carrying forward net revenue each year. Given the cost of typical parking facility repairs and the certainty that repairs will be needed, it is prudent to budget for and grow a capital reserve fund over time. What's more, the cost of new parking facility construction is significant and it is difficult to fund new parking garages and surface parking facilities without adequate up-front resources even though the typical method of paying for new facilities is through issuing revenue backed bond debt. This is because the pledge for repayment of this type of debt comes from permit fees and fines. If an institution were to build new parking facilities without some amount of down payment (from reserves), the cost increase to permit holders – who represent the largest portion of university parking shareholders – is likely to be significant. That said, a more deliberate and rationalized approach to building both operational and capital reserves is recommended.

---

[13] Annual reserve contribution, not total reserve amount.

An operational reserve should be established in order to provide for business continuity over a period of time. Many institutions establish this figure at a portion of operating costs to cover a particular timeframe. Some, like Boise State, have established and maintain a six-month reserve, or 50% of annual operating costs for the department are set aside in reserve. For UND it may be more reasonable to start with 25%.

Sample Reserve Calculation for Parking Equipment and Facilities

		Surface Parking	Structure Parking
Number of Spaces		7,246	2,404
Replacement Cost/Space		$ 2,000	$ 12,500
Replacement Rate:	5%	$ 905,875	$ 1,502,500
Facility Reserve Requirement			$ 2,408,375

		Meters	Kiosks
Initial Unit Cost		$550	6,500
Number of Pieces		100	5
Replacement Rate:	15%	$ 8,250	$ 4,875
Annual Equipment Reserve Requirement			$ 13,125

Total Annual Reserve:			$ 2,421,500

Capital improvement plan
In addition to having the resources for needed capital improvements, the development of a 15-year capital improvement plan is also recommended. Such a plan would include cost estimates for every capital item related the parking program along with an estimated timeline for when each capital item will be implemented.

Sample Capital Improvement Plan Summary

Class		FY14	FY15	FY16	FY17
	Beginning Fund Balance	2,347,386	1,314,874	(689,579)	(2,183,496)
A	MIS	160,000	-	-	200,000
B	Construction/FF&E	455,872	1,550,000	-	-
C	Architectural/Design Fees	-	-	-	-
D	Roofs	-	-	-	-
E	Land Acquisition	-	-	-	-
F	Mechanicals/Utilities/HVAC	-	-	20,000	-
G	Remodel/Replacement FF&E	238,940	304,453	1,373,917	490,309
H	Vehicles	177,700	150,000	100,000	60,000
	Fiscal Year Summary	1,032,512	2,004,453	1,493,917	750,309
	Planned Return to Reserves	-	-	-	-
	End Fund Balance	1,314,874	(689,579)	(2,183,496)	(2,933,805)
	Fund Balance Carry forward	$ 1,314,874	$ (689,579)	$ (2,183,496)	$ (2,933,805)

Sample Capital Improvement Plan Class Detail

Class B - Construction/FF&E

Name/Description	FY14	FY15
Bicycle Infrastructure Improvements	50,000	50,000
Park N Ride Construction (Match Portion)	330,872	
Parking Structure 3		1,500,000
Payment Stations: 5 new units	75,000	
Totals Class B - Construction/FF&E	**455,872**	**1,550,000**

I. UND Ramp

As configured, equipped and operated, the UND Ramp is a source of frustration for many of the patrons who use the garage.

Entry/Exit Design

As situated, the garage exit and entry plazas are both located on 2nd Avenue N. The two entry lanes are to the east and the two exit lanes are to the west. Presently, those exiting can turn east to N. Columbia Road or west toward Centennial Drive. A detailed traffic study was not a part of this scope of work but on-site observations and discussion with Parking Services staff suggest that this configuration slows the egress when exiting traffic is attempting to turn east out of the garage when traffic is already heavy on 2nd Avenue N. This results in long lines inside the garage waiting to exit and potential vehicular conflicts outside of the garage on 2nd Avenue N. between eastbound and exiting traffic.

UND Ramp – Existing

To remedy this situation, UND may consider extending the existing traffic island eastward to prevent left hand turning movements out of the garage.

UND Ramp – Proposed

Extended Traffic Island

While this configuration may require more turning movements for exiting traffic, it is likely to improve overall egress and result in fewer conflicts on the exit of the garage and improved customer satisfaction.

Facility Operation

As has been noted previously, there are multiple revenue collection methods[14] available at the UND Ramp. Permit parkers can purchase a parking pass specifically for the Ramp and there are 230 student spaces available in the UND Parking Ramp for "S" permit holders. It is open to anyone for pay-as-you-go parking 24 hours a day. The garage is presently accommodating reserved permits, hunting license "S" permits, short-term parking and special event parking. It also appears that the garage is in relatively high demand such that "S" permit holders often seek to park in the garage but cannot because their allotment of spaces are occupied. Overall, the combination of multiple revenue control methods and parking groups and credentials makes this an especially frustrating parking facility for its patrons. A simplification of equipment and operation are recommended.

In order to simplify and improve the ramp operation, two recommendations previously made in this report are necessary. First, UND will need to invest in mobile License Plate Recognition. Second, UND will need to adopt a demand-based reserved permit system. With these two improvements, the current garage equipment can be removed. Additionally, a number of parking kiosks[15], identical to equipment UND already has could be installed for short-term parking. On occasion, under this system, special event patrons would be accommodated using handheld devices that accept payment for parking.

Group	*Method*
Permit Parkers	Purchase a permit for the garage under the demand-based system. The number of permits sold for the garage is capped so as to manage access to the facility and provide a level of certainty that a patron who has purchased a permit to park will be able to use the facility. License plate numbers, entered through T2 are read by License Plate Recognition (LPR) System to verify valid parkers.

---

[14] In-lane attended, credit card in-credit card out, pay on foot, and RFID swipe card
[15] Digital Payment Technology Luke Multi-Space Parking Machine

Group	Method
Short-term Parkers	Short-term parkers pay at Luke Payment stations located at the lobby level near elevator/stair towers. Patrons enter their vehicle license plate number or pay by cell phone. The LPR system verifies valid parkers.
Special Event Parkers	For small events, special event parkers can use the Luke Payment stations just as short-term parkers do. Validations codes can be provided that either pay for or reduce the amount to be paid. For large events, attendants may be needed to accept cash or credit card payments for parking. Typically this is done by charging a flat fee upon entry.

UND may wish to limit parking on the first level to one hour but elsewhere it is acceptable to mix permit and transient parkers. Additionally, the number of permits sold in the garage would be such that a number of short-term spaces were always available. It may also be desirable to charge different permit rates for the upper level or levels depending on utilization but if all levels see similar utilization the same fee should be applied. Finally, real-time space availability information will be important to provide especially if the garage remains in high demand for both permit and transient parkers and if there are times when portions of the garage are dedicated to special event parkers.

The advantages of this system over the current configuration are:

1. Reduced confusion by eliminating multiple, redundant revenue control systems.
2. Improved customer satisfaction by capping the number of permits sold in the facility.
3. Reduced ingress and egress times due to removal of entry/exit gates and equipment.
4. Efficient enforcement of the garage using LPR.
5. Less equipment to manage and maintain.
6. Eliminate frustration on the part of current "S" permit holders who wish to park in the facility. These patrons will either be able to purchase a permit for the garage with a high degree of certainty they'll be able to find parking there or they will purchase short-term parking using a multi-space machine if short-term parking is available.

If UND elects to delay or forgo implementation of License Plate Recognition enforcement, improvement of the ramp operation is still possible under the tiered-permit system. Patrons who purchase permits for the garage would be provided access cards – as they are today – and visitors would use the pay on foot or credit-card-in-credit-card out system.

DRAFT

Appendix A

Peer Data

Peer Institutions	Oklahoma State	Colorado State	Boise State	Oregon State	Washington State	Wyoming	UW Lacrosse	Montana State	UND
General									
Student Enrollment	22,369	26,769	22,678	26,393	19,446	13,992	10,558	15,294	14,906
Faculty+Staff	11,058	6,475	3,269	5,512	4,114	2,997	572	3,054	2,874
Total Head Count	33,427	33,244	25,947	31,905	23,560	16,989	11,130	18,348	17,780
Total # of Parking Spaces	15,583	9,879	8,271	7,234	9,610	4,687	2,601	5,959	11,702
Parking Spaces/Headcount	0.47	0.30	0.32	0.23	0.41	0.28	0.23	0.32	0.66
Enforcement /Citations									
Total Citations	40,534	37,687	18,509	21,402	25,894	13,598	4,325	8,623	24,070
Uncontested	32,995	28,849	1,358		21,176	9,434	4,150	4,623	22,141
Warnings	5,702	8,107	14,714		1,621	4,164			2,145
Appealed	1,837	731	2,437		3,097	984	175	4,000	1,929
Total Appeals	1,837	731	2,437		3,097	984	175	4,000	1,929
Waived/Cancelled/Reduced	930	545	1,398		2,153	438	150	3,388	1,292
Upheld	907	186	1,039		944	546	25	612	637
Citations/Enrolled Student	1.81	1.41	0.82	0.81	1.33	0.97	0.41	0.56	1.61
Citations/Parking Space	2.60	3.81	2.24	2.96	2.69	2.90	1.66	1.45	2.06
Parking Spaces/Enrolled Student	0.70	0.37	0.36	0.27	0.49	0.33	0.25	0.39	0.79

Peer Institutions	Oklahoma State	Colorado State	Boise State	Oregon State	Washington State	Wyoming	UW Lacrosse	Montana State	UND
Budget Comparisons									
Program Revenues by Type	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount
Parking Permits	1,386,805	3,176,640	2,553,089	1,700,451	2,234,047	527,500	610,702	1,670,419	1,943,708
Short-term Parking	122,405	936,397	1,100,741	104,350	1,173,669	165,000	111,061	317,023	153,084
Special Event Parking	116,626		657,118	6,218	160,000		34,051		154,849
Parking Fines	731,820	607,821	225,861	257,003	580,182	200,000	119,328	168,485	329,334
Other Revenue	118,567	169,731	93,684	14,418	15,669	2,440,218	2,411	576	
Total Program Revenue	$2,476,223	4,890,589	4,630,493	2,082,440	4,163,567	3,332,718	877,553	2,156,503	2,580,975
Program Expenses by Type	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount	$ Amount
Wages, Salaries & Benefits	391,444	1,263,749	2,073,323	591,429	1,127,765	228,150	248,186	1,218,112	346,648
Operating Expense	134,440	669,235	1,357,942	317,698	983,149	262,500	296,203	619,706	286,362
Capital/Equipment	8,708	104,451	307,200	28,403	768,550	25,000			
Administrative Fee/Transfer Out	660,937	425,551	185,514	53,691	636,356			58,744	12,748
Debt Service	967,266	1,380,191	711,054	200,465	773,546		48,198	54,275	1,290,713
Lot development	60,469		619,812			20,000		113,019	
Maintenance Reserve		200,000			292,684				
New Construction Reserve						125,000			
Alternative Trans Programs			40,973		350,067	2,852,430			
Total Program Expenses	$2,223,264	$4,043,177	$5,295,818	$1,191,686	$4,932,117	$3,513,080	$592,587	$2,063,857	$1,923,723

Appendix B
Stakeholder Meeting Outline
December 2-3, 2014

INTRODUCTIONS & PROJECT OVERVIEW

- Welcome, please sign in and introductions

- The University of North Dakota (UND) contracted with SP+ University Services to do an assessment of the parking enterprise this fall/winter.

- The study will review current programs, services, procedures and policies from an operational perspective and make recommendations based on industry best practices, identified peer institutions and the special needs, objectives, resources and operating environment of UND.

- The main areas of focus for the study include:
  - Parking allocation system and permitting practices
  - Organizational structure
  - Technology utilization
  - Costs and fees assessment
  - Enforcement culture
  - Customer orientation and service culture

- The purpose of this meeting is to provide the University of North Dakota campus community with an opportunity to share experiences, perceptions, ideas and concerns related to accessing campus.

- We would like for this to be an interactive process – your thoughts and opinions are very valuable. Please be considerate of other's contributions, even if they don't align to your own thoughts/opinions.

  - Saying "I don't know" or "I'm not sure" are absolutely acceptable. Sometimes what you don't know is just as valuable of what you do.

  - Please feel free to stop me or ask for clarification at any time if something isn't clear.

  - If there is something that you don't feel comfortable sharing in a big group, we will be available for a few minutes after the meeting for one on one conversations.

QUESTIONS

1. How do you commute to campus currently on a typical day?

2. What word/words would you use to describe your experience accessing campus today? (i.e., driving and parking; walking; public transportation)

3. What word/words would you like to use describe your experience accessing campus in the future (3-5 years for faculty and staff; during the remainder of your time on campus for students)?

4. What challenges do you see to achieving the future vision that you just described?

5. Thinking beyond your typical method of accessing campus, do you use any transportation alternatives at least once a week? (i.e., bus, bicycle, walk, carpool)

    • What other transportation alternatives would you seriously consider using?

    • Ask about perceived barriers to using alternative modes.

6. What services, programs or amenities that are currently provided by UND Parking Services do you value and find most useful?

    • Is there anything that they could do better?

7. What incentives, amenities or programs would encourage you to use alternate forms of transportation to campus other than driving alone?

8. Other than free parking, if you were given the opportunity to make one improvement to the parking and transportation experience at UND, what would you choose to do?

9. Where do you go to get news and information about parking on the UND campus?

10. Do you have any questions for us? Are there any questions that we should be asking but haven't?

Wrap-up

    o Thank you and information about where participants can find additional information on the project as it progresses.

    o Provide information about the online survey and where a link can be found.

Appendix C
Community Engagement Survey

University of North Dakota Campus Parking Survey

Introduction

In October 2014, the University of North Dakota (UND) contracted with SP+ University Services to do an assessment of parking on campus. The study will review current programs, services, procedures and policies from an operational perspective and make recommendations based on industry best practices, identified peer institutions and the special needs, objectives, resources and operating environment of UND.

The consultant's report will focus on:
• Parking allocation system and permitting practices
• Organizational structure
• Technology utilization
• Costs and fees assessment
• Enforcement culture
• Customer orientation and service culture

The purpose of this brief questionnaire is to provide the University of North Dakota campus community with an opportunity to share experiences, perceptions, ideas and concerns related to accessing campus.

Feedback collected through this questionnaire, and through a series of campus stakeholder meetings, will be used to develop recommendations that are sustainable, user-focused and that meet the parking and campus access needs of the university. The questionnaire should take less than 10 minutes to complete, and all information collected will be kept confidential and reported only in aggregate.

Thank you in advance for sharing your valuable time with us. Questions about this questionnaire and/or University of North Dakota's parking study can be directed to Peggy Lucke, Associate Vice President for Finance and Operations at peggy.lucke@und.edu or 701.777.2182.

Page 1

University of North Dakota Campus Parking Survey

About You

In this section, you will be asked to answer questions about you and your affiliation with the University of North Dakota.

1. Please select the answer that most accurately describes you:

- ○ I commute to campus daily
- ○ I commute to campus 2-4 times a week
- ○ I commute to campus at least one time per week
- ○ I live on campus
- ○ I'm an online or remote student
- ○ None of the above
- ○ Other (please specify)

2. What is your current affiliation with the University of North Dakota? (Please select all that apply.)

- ☐ Undergraduate student
- ☐ Graduate student
- ☐ Postdoc
- ☐ Faculty
- ☐ Staff
- ☐ Other (please specify)

Page 2

University of North Dakota Campus Parking Survey

3. Which of the following best describes you?

- ◯ Male
- ◯ Female
- ◯ Transgender
- ◯ I prefer not to answer

4. Which of the following best represents your age?

- ◯ Under 17
- ◯ 17-24
- ◯ 25-30
- ◯ 31-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60-69
- ◯ 70 and Older

Page 3

University of North Dakota Campus Parking Survey

Your Current Commute

In this section, you will be asked questions about your commute and the mode(s) of transportation that you use most frequently when traveling to and from the University of North Dakota for class or work.

5. How far do you live from campus/work?

○ I live on campus (in the 58202 ZIP code)

○ 2 miles or less

○ 3-5 miles

○ 6-10 miles

○ 11-19 miles

○ 20-29 miles

○ 30-39 miles

○ 40-49 miles

○ 50 miles or more

6. What is the U.S. Postal ZIP Code from which you commute most often?

7. How long is your typical one-way commute (door-to-door)?

	AM	Midday	PM
Less than five minutes	☐	☐	☐
5-10 minutes	☐	☐	☐
10-15 minutes	☐	☐	☐
15-20 minutes	☐	☐	☐
20-30 minutes	☐	☐	☐
30-40 minutes	☐	☐	☐
40 minutes to one hour	☐	☐	☐
One hour or more	☐	☐	☐

Page 4

University of North Dakota Campus Parking Survey

Your Current Commute

8. When do you usually arrive on campus in the morning?

- ○ Before 7:00 a.m.
- ○ 7:00 – 7:30 a.m.
- ○ 7:30 – 8:00 a.m.
- ○ 8:00 – 8:30 a.m.
- ○ 8:30 – 9:00 a.m.
- ○ 9:00 – 9:30 a.m.
- ○ After 9:30 a.m.

9. When do you usually depart campus in the afternoon?

- ○ Before 3:00 p.m.
- ○ 3:00 – 3:30 p.m.
- ○ 3:30 – 4:00 p.m.
- ○ 4:00 – 4:30 p.m.
- ○ 4:30 – 5:00 p.m.
- ○ After 5:00 p.m.

10. How do you usually commute to campus/work? Please indicate your PRIMARY commute mode (the way you commute most often).

	Drive Alone	Motorcycle or Scooter	On-Campus Shuttle	Walk	Bicycle	Bus	Park and Ride	Rideshare (i.e., carpool, motor pool)	Telework	Other
Monday	○	○	○	○	○	○	○	○	○	○
Tuesday	○	○	○	○	○	○	○	○	○	○
Wednesday	○	○	○	○	○	○	○	○	○	○
Thursday	○	○	○	○	○	○	○	○	○	○
Friday	○	○	○	○	○	○	○	○	○	○

University of North Dakota Campus Parking Survey

Your Current Commute

11. Why have you chosen your current method of transportation to and from campus?

◯ Convenience

◯ Cost

◯ No other viable option

◯ Other (please specify)

[   ]

12. What other mode(s) do you use throughout the year (i.e., on a part-time or seasonal basis)? (Please select all that apply.)

☐ None, I don't vary from my usual mode of transportation

☐ Drive alone (including motorcycles and scooters)

☐ Bicycle

☐ On-campus shuttle

☐ Park and Ride

☐ Rideshare (i.e., carpool, Motor Pool)

☐ Telecommute

☐ Combination of modes (i.e., Bus to campus then bicycle around campus)

☐ Walk

☐ Other (please specify)

[   ]

Page 6

University of North Dakota Campus Parking Survey

Your Current Commute

13. Which of the following incentives, amenities and programs would encourage you to use alternative modes of transportation beyond driving alone? (Please select all that apply.)

- ☐ Guaranteed emergency ride home
- ☐ Hourly vehicle rental/carsharing (i.e., Zipcar)
- ☐ Increased on-campus shuttle service
- ☐ Flexible work schedule
- ☐ Ability to telecommute
- ☐ Showers and lockers
- ☐ Secure, convenient bicycle parking
- ☐ Safe, convenient bike paths and routes
- ☐ Safer sidewalks and crosswalks
- ☐ Prize drawings for bicyclists, ridesharing commuters
- ☐ Financial incentives (i.e., "parking cash-out": a set monthly financial incentive that can be used to purchase parking, transit passes, invest in a bicycle, etc.)
- ☐ On-site services and amenities to reduce after-work and lunchtime errands
- ☐ Increased cost and/or inconvenience of driving (including parking)
- ☐ Bike Share
- ☐ More frequent on-campus shuttle service
- ☐ Nothing would alter my current driving habit
- ☐ Other (please specify)

Page 7

University of North Dakota Campus Parking Survey

14. What concerns you most about your parking experience on the University of North Dakota campus? (Please select all that apply.)

- [ ] Finding a parking space
- [ ] Finding a convenient parking space
- [ ] Price of parking permit
- [ ] I don't have access to the type of permit I need
- [ ] I don't know where I can park legally
- [ ] Concerns about parking enforcement, i.e., getting a ticket
- [ ] Congestion and/or traffic on campus
- [ ] Concerns about bad weather
- [ ] I have no concerns
- [ ] Other (please specify)

University of North Dakota Campus Parking Survey

Your Preferences

In this final section, you will be asked questions about your personal opinion and preferences with relation to your parking and transportation experiences at the University of North Dakota. For this section, please only think about your own personal opinions and not about the opinions or thoughts of others.

15. What services, programs or amenities that are currently provided by the University of North Dakota Parking Services do you value and find most useful? (Please select all that apply.)

☐ Friendly, helpful staff

☐ Variety of parking options

☐ On-campus shuttle service

☐ Availability of the Motor Pool

☐ Safe and convenient bicycle parking

☐ Safe and convenient access to public transportation

☐ General information and payment options are available online

☐ Safe and convenient pedestrian options

☐ Range of parking price points

☐ Other (please specify)

[   ]

University of North Dakota Campus Parking Survey

Your Preferences

16. Please provide three things that, in your personal opinion, the University of North Dakota Parking Services could do to improve how you access campus using your preferred method of transportation (i.e., personal vehicle, bicycle, bus).

1)
2)
3)

17. Other than free parking, if you were given the opportunity to make one improvement to the parking and transportation experience at the University of North Dakota, what would you choose to do?

18. Please indicate your preferred method(s) of accessing information about parking and transportation news and/or programs.

☐ Parking Services website

☐ UND Social Media sites

☐ UND Campus email

☐ Flyer or handout

☐ Other (please specify)

University of North Dakota Campus Parking Survey

Thank You!

We sincerely appreciate your participation in the University of North Dakota Commuter Behavior and User Perception Survey. Results from this survey will be used to develop creative campus access strategies that are innovative, user-focused and able to meet your daily campus commuting needs.

Appendix D

Sample Parking Strategic Plan

Texas Tech University Parking Services Strategic Plan

Goal 1 – Parking Supply: Plan, develop and maintain a parking inventory that meets the daily needs of the campus community.

Benchmarks:
- Maintain utilization rates of 95% for faculty/staff parking, 90% for commuter student parking, 95% for resident student parking and 90% for visitor parking.
- Achieve a positive parking adequacy for each quadrant of campus.
- Increase annually the percentage of faculty/staff parking spaces designated as area reserved to achieve the greatest utilization of existing facilities and resources.

Objectives:
Objective 1.1: Increase the percentage of area reserved parking in each lot.
Strategies:
- Evaluate utilization and demand for reserved spaces in each lot.
- Change reserved spaces to area reserved as possible.
- Offer reserved space permit holders the opportunity to change to area reserved at permit renewal time.

Objective 1.2: Maximize utilization in all lots.
Strategies:
- Routinely study parking occupancy in all lots.
- Move individuals into the lots from waiting lists as occupancy counts allow.
- Routinely refresh waiting lists to ensure that those who are on the lists still wish to be there.

Objective 1.3: Strive to reach a positive parking adequacy statistic for each quadrant of campus.
Strategies:
- Conduct an annual assessment of the parking supply and demand for the campus.
- Identify areas and types of inadequate parking supply for a current year design day as well as a design day five years into the future.
- To the extent possible, apply the resources and planning necessary to remedy the inadequacy.

Goal 2 – Transportation Demand Management: Encourage use of alternative transportation methods to reduce the demand for increased parking on campus.

Benchmarks:
- 25 employee parking permit holders on campus are members of a registered carpool in the pilot program.
- Retain 80% or greater of carpool participants through the first year.

Objectives:

Objective 2.1: Provide an employee carpool program that meets the needs of employees.
Strategies:
- Develop and implement a pilot employee carpool program to coincide with permit renewals.
- Offer incentives such as cost-sharing, convenient parking or others to encourage participation.
- Identify and evaluate on-line carpool matching services.

Goal 3 – Human Resources: Recruit and retain the quality staff necessary to achieve our mission.

Benchmarks:
- Achieve an accident rate of 0 accidents per year.
- Maintain an on-time training completion rate of 100% for all areas.
- Maintain an employee to parking space ratio of 1:440 or lower.
- Hold employee turnover to less than 10% annually.

Objectives:

Objective 3.1: Improve safety on the job and target an accident rate of 0.
Strategies:
- Conduct training classes for all new employees.
- Conduct annual refresher courses for established employees.
- Include safety tips appropriate to the weather and current activities in each staff meeting.

Objective 3.2: Maintain an industry-recognized staffing level proportional to the size of the parking system.
Strategies:
- Prior to the budget process, determine the current employee to space ratio for the parking system and adjust staffing requests accordingly.

Objective 3.3: Focus on the training and development of all employees.
Strategies:
- Ensure that all new employees are properly oriented to Texas Tech and complete all required training promptly.
- Frequently assess each new employee's knowledge throughout the training program to identify areas which may require additional attention.
- Work with each employee to identify areas of needed job skill improvement or areas of interest for personal or professional growth.
- Provide unique and effective learning opportunities at the annual staff development event that allow employees increase their ownership within the organization and grow professionally.
- Encourage employees who are interested to take advantage of the University's tuition waiver for staff by taking classes and work toward a degree.

Goal 4 – Customer Service: Provide exceptional customer service in all aspects of our operation.

Benchmarks:
- Achieve a 3.5 or better rating on customer satisfaction in all areas.
- 10 public relations events completed annually.
- 100% participation in the Parking Coordinators Network.
- 3,000 public contacts made annually.
- 400 Motorist Assistance Program calls answered each month.

Objectives:

Objective 4.1: Provide quality service to all customers and guests.
  Strategies:
  - Design and implement departmental customer service training program designed to meet specific needs of our staff.
  - Implement Gold Key Training program for Entry Station Personnel to enhance customer service by partnering with other departments and programs on campus.

Objective 4.2: Promote the values of University Parking Services by hosting/partnering in special events on campus.
  Strategies:
  - Host semiannual car clinics.
  - Continue to be a participating vendor in New Employee Orientation.

Objective 4.3: Maximize availability of information and resources.
  Strategies:
  - Personally contact each campus department within the year.
  - Send quarterly newsletter to all departments regarding updates and new information.
  - Host annual Parking Coordinators Luncheon.

Objective 4.4: Promote programs and initiatives in innovative ways.
  Strategies:
  - Provide each permit holder with promotional MAP windshield decal.
  - Advertise programs with student organizations, in student media, etc.
  - Implement advertising in campus buses.
  - Develop a marketing, promotions and public relations plan annually.

Goal 5 – Parking Education: Seize opportunities to educate patrons proactively about parking on campus.

Benchmarks:
- Discuss parking behaviors with 30% of repeat parking violators each semester.
- 25% participation by invitees in the Defensive Parking Class.
- 1% or less of repeat violators achieving greater than 12 citations each semester.

Objectives:

Objective 5.1: Promote safe and equitable parking practices.
  Strategies:

- Request meeting repeat violators after 6th offense, students and employee alike.
- Provide online educational opportunity for first ticket dismissal.
- Continue progressive educational opportunities up to and including community service opportunities within the department.

Goal 6 – Academics: Support the academic efforts of the University.

Benchmarks:
- Provide opportunities for two internships annually.
- Provide opportunities for six class projects annually.
- Employ two or more work-study students annually.

Objectives:

Objective 6.1: Provide hands-on learning opportunities for students.
Strategies:
- Contact deans for promotional assistance in locating eligible students in marketing, business, and other areas as available.
- Develop initiatives with programs to become a more environmentally friendly operation.
- Continue partnership with Interior Design Program to develop new look for office.

Goal 7 – Leadership: Develop programs and staff that contribute to the collaborative efforts and expansion of knowledge within the University and the parking industry.

Benchmarks:
- Two or more staff participating in University committees, task forces, senates or other efforts to improve the University.
- Participation by 100% of peers involved in data collection effort.
- One or more presentations by our staff at professional association conferences.
- One or more appointments to boards, committees or task forces of professional associations.

Objectives:

Objective 7.1: Empower and inform employees about service opportunities.
Strategies:
- Create a catalogue of possible committees and appointments.
- Communicate with eligible staff via e-mail regarding pending opportunities.
- Encourage staff to attend additional trainings on and off campus by offering a graduated scale of incentives.

Objective 7.2: Maintain industry recognized standards and provide cutting-edge programs.
Strategies:
- Empower employees through training and sharing.
- Encourage out of the box ideas by providing idea sharing forums within and without the department.