

**COUNCIL ACTION FORM**

**SUBJECT: FOLLOW-UP REGARDING MULTI-MODAL TRANSPORTATION  
SAFETY IN CAMPUSTOWN**

**BACKGROUND:**

On April 22, 2014, City Council heard a staff presentation on possible projects from a task force established to investigate ways to reduce bicycle-car and bicycle-pedestrian collisions in Campustown. The task force recommended 11 projects for the City Council to consider; and the Council directed that these projects be returned to a future agenda for discussion.

**TASK FORCE PROJECTS:**

In the previous staff report, City staff organized the task force projects into three groups. Numbers beside each project indicate the task force's priority, with "1" being the most important. Details regarding each project can be found in the original staff report, which is attached. The projects are as follows:

**Non-Infrastructure and Minor Infrastructure Projects:** City staff believes there would be little or no opposition from businesses, pedestrians, or bicyclists to completing these projects. These projects could each help address transportation challenges in a unique way, and could likely be implemented within current budgeting and planning constraints or with minor amendments to the budget. These include the following projects:

2. Install Bike Detection at Lincoln Way Intersections and Include Bike/Ped Priority
3. Install Wayfinding Signage to Direct Users to Intermodal/Other Facilities
7. Education Campaign for ISU Students and Public on Rights/ Responsibilities of Roadway Users
8. Adjust Parking Fees
9. Coordinate Bike Parking
10. Coordinate Continuity of Routes with ISU

**Non-Incremental Infrastructure Projects:** Of the remaining projects, two require irreversible changes to infrastructure. After further study, the task force also determined that these two projects may have positive benefits, but would not substantially reduce conflicts between different modes of transportation. These projects are:

6. Remove Trees, Adjust Lighting along Welch and Lincoln Way
11. Make Lot X More Usable, More Attractive to Drivers

**Street Alteration Projects:** These final projects involve the key philosophical question of how to balance parking versus biking infrastructure in a finite space:

1. Install Bike Lanes on Chamberlain and Sharrows on North/South Roads
4. Install Sharrows/Bike Lanes along the 100 Block of Welch Avenue,
5. Install a Bike Lane along Lincoln Way

**STAFF COMMENTS:**

The City Council should note that the 2017/18 Capital Improvements Plan (CIP) has \$1,500,000 to replace utility infrastructure and reconstruct the 100 block of Welch Avenue. During that process, the City must decide what the streetscape elements will look like when the project is complete. It is possible to return the existing features (bump-outs with light poles, street trees), or to replace those features with new streetscaping such as planters, seating areas, or wider sidewalks. **Until that process occurs, now is a critical opportunity to test any projects the City Council might be interested in.**

The City Council will recall that in April, Kingland Systems asked the City Council to develop a streetscape vision sooner, so Kingland can incorporate those elements into its project at one time. City staff is not yet comfortable making recommendations about features such as permanent bike lanes. The projects that are being recommended by staff appear to be the best balance between the needs of the existing businesses, bicyclists, and the future needs of Kingland.

After reviewing the task force projects in relationship to ongoing and proposed projects in Campustown, City staff makes the following recommendations:



1. **Proceed with the non-infrastructure and minor infrastructure projects.** As noted in the original staff report, the bike detection project would cost \$18,500 per intersection, the coordination of bike racks would cost \$150 per bike rack installed, and the other projects in this category could be completed at no cost other than staff time. The bike detection project would be incorporated with the adoption of the 2015/16 to 2019/20 CIP. Therefore, the earliest that project could be implemented is in July 2015. The remaining projects in this group can be initiated immediately. The City has provided funding in FY 2013/14 for the CAA to develop and install a wayfinding system.
2. **Do not proceed with the project to modify Parking Lot X.** As the task force was completing its work it was determined that improvements to Lot X would not likely increase vehicle parking space inventory. Additionally, the capital investment for this project would be substantial.
3. **Develop a project to temporarily place a bike lane in the parking lane along the south side of Lincoln Way from Hayward Avenue to Lynn Avenue.** The previous staff report identified various methods to temporarily install biking



features. The project would be reversible if the sense of the community was that retaining the parking spaces is a greater priority.

The Kingland project has caused the sidewalk along one block of Lincoln Way to be placed in the parking lane. City staff proposes that as the Kingland project continues and the Lincoln Way sidewalk reopens to pedestrian use, the parking lane should remain closed to accommodate a bike lane. The parking along the adjacent west and east blocks would also be closed to accommodate a bike lane. **Campustown Action Association has indicated that parking along Lincoln Way is not compatible with different uses and encourages the City to remove the parking to accommodate bike safety, wider sidewalks, and sidewalk cafes.**

If directed to proceed, City staff would identify alternative methods to close the parking, costs, and a timetable for implementation. In this project, City staff would also evaluate the number of sidewalk cafes that could be accommodated with this project. As the previous staff report regarding sidewalk cafes has indicated, a buffer space such as a bike lane is important to the creation of sidewalk cafes.

The specific details regarding implementation would be returned to the City Council for final approval. The City Council may have to incorporate this project into the budgeting process, which would require the project to take place after July 2015 at the earliest. The project could not take place until after Kingland’s project has progressed enough to return pedestrians to the sidewalk along Lincoln Way. Examples of different methods to create a temporary bike lane are shown in the table below:

Example options to create a temporary three-block bike lane on Lincoln Way			
Example	Estimated Cost	Notes	
Striping	\$1,000	Low-cost option. Does not provide physical protection if a car enters the bike lane.	
Tubular Barrier	\$11,200	Low-cost option. Does not provide physical protection if a car enters the bike lane.	

Jersey Barrier	\$20,600	Provides physical separation of cars from bicyclists. Can be re-used elsewhere.	
Planters	\$50,850	More attractive, provides physical separation between cars and bicyclists for safety. Can be re-used elsewhere. Less cost savings compared to other options.	

4. **Develop a project to temporarily close parking along east side of the 100 and 200 blocks of Welch Avenue in order to widen the sidewalks and install a bike lane in those spaces.** This is anticipated to improve bicyclist safety because the major hazard of biking along these blocks of Welch Avenue is the danger of being struck by an opened car door, particularly when moving downhill. This would require no modifications to the streetlight bumpouts. There are 17 existing spaces on the east side of these two blocks, although depending on the final configuration of the Kingland project, as few as 12 spaces might exist when the Kingland project is complete.

Under this concept, the 200 block of Welch Avenue could simply be striped for a northbound bike lane, while the 100 block could utilize planters and small platforms to create the effect of widened sidewalks. This approach increases the pedestrian passing room and room for vendor lines, while adjacent businesses would have the ability to place sidewalk cafes in the newly created areas.



Example of closing parking spaces with planters for widened sidewalks, such as on east side of the 100 block of Welch Avenue

Staff estimates that striping the 200 block of Welch for a bike lane would cost less than \$500, while installing planters and ramps on the 100 block of Welch Avenue would cost up to \$10,000. The planters could be re-used on other projects in the future. Like the Lincoln Way project above, City staff would return specific concepts to the City Council for final approval. **If the City Council felt strongly, this project could be duplicated on the west side of Welch**

**Avenue. However, the priority for bike safety would be the east side of the street.**

The CAA has indicated that the on-street parking should be preserved every where possible, but not on Lincoln Way. The City Council can conclude that the CAA does not support the concept of a parking closure on Welch Avenue.

**ALTERNATIVES:**

1. a. Direct staff to prepare specific plans to install wayfinding signage, develop an education campaign for ISU students and the public on rights/responsibilities of roadway users, adjust parking fees, coordinate bike parking, and coordinate continuity of routes with ISU. Staff will return to the City Council for direction during the CIP process to prioritize the installation of bike detection equipment at two additional Campustown intersections.
- b. Direct staff to develop a project to temporarily place a bike lane in the parking along Lincoln Way from Hayward Avenue to Lynn Avenue. Project details would be returned to the City Council for approval prior to implementation.

Depending on which technique is selected, the City Council may have to incorporate this project into the budgeting process, which would require the project to take place after July 2015 at the earliest.

- c. Direct staff to develop a project to temporarily remove parking along one side of the 100 block of Welch Avenue for a widened sidewalk and remove parking along one side of the 200 block of Welch Avenue for a bike lane. Project details would be returned to the City Council for approval prior to implementation.

The City Council may have to incorporate this project into the budgeting process, which would require the project to take place after July 2015 at the earliest.

2. Direct staff to gather more information regarding strategies to address bicycling, parking, pedestrian uses, and sidewalk cafes.
3. Do nothing.

**MANAGER'S RECOMMENDED ACTION:**

In the discussions regarding this topic, it has been made clear that the current use of public space in Campustown does not provide for enough safety, freedom of movement, and outdoor vibrancy. Unfortunately, there is a finite space available to commit to uses

such as bicycling, walking, vehicles, street furniture, vendors, and other activities. The majority of public space in this area is currently dedicated to driving and parking.

The task force established by the City Council has outlined projects that may make the use of the public space in Campustown more efficient. City staff has further identified methods to test different configurations of the street to determine how the community will respond to actual changes. Testing is the only way to get an accurate picture of how the community will use different configurations of space available to them. The timing of these tests is ideal with the current redevelopment projects and anticipated street reconstruction in Campustown. These projects have been designed in a reversible fashion with little cost compared to a permanent capital project. The City Council will further have opportunities to discuss the specifics of the temporary parking closures before they would take place.

**It is important to emphasize that the staff has not verified that there is total support from the area business owners for the elimination of on-street parking. Assuming that the City Council is willing to test the elimination of on-street parking in return for increased bicyclist safety, pedestrian movement, and availability of sidewalk cafes, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 a-c as outlined above.**

## Staff Report

**MULTI-MODAL TRANSPORTATION SAFETY IN CAMPUSTOWN**

April 22, 2014

**BACKGROUND:**

In December 2012, the City Council directed staff to investigate ways to reduce bicycle-car and bicycle-pedestrian collisions in Campustown. The existing infrastructure for bicyclists in Campustown is limited, either because bicycling amenities were never installed or because increased concentrations of pedestrians and store entrances have caused a need to prohibit bicyclists on certain sidewalks.

After holding discussions with Campustown Action Association and conducting surveys of bicyclists and business owners, City staff presented a report to the City Council on August 13, 2013. This report determined that removing car parking to accommodate bicycling infrastructure was the most viable way to address car/bike/pedestrian conflicts. The City Council was asked to weigh the tradeoffs between car parking and bicycling. The Council directed staff to establish a task force to identify creative solutions to satisfy both the parking and bicycling needs.

**PROCESS:**

City staff assembled a task force consisting of representatives from Campustown Action Association, the Iowa State University (ISU) student body, the Campustown business community, and the Ames Bicycle Coalition. The group met in November 2013 to brainstorm potential solutions. City staff developed basic visualizations and preliminary comments for each proposal. The task force met to review the staff comments and prioritize the projects in January 2014.

The task force report was discussed by Campustown Action Association at its January Membership Social. In April, CAA submitted a formal response letter to the report, which is attached. City staff reviewed the report with a subcommittee of the Student Experience Enhancement Council (SEEC) at ISU. This group was established in 2012 to address academic and quality-of-life challenges posed by ISU's record growth in enrollment. The subcommittee indicated that the recommendations would not pose any challenges to that group's efforts, and that any projects undertaken by the City may also be evaluated for use on campus. Finally, a copy of the report was provided to representatives from Kingland Systems, the Opus Group, and Gilbane, Inc., for their comments. These companies are presently involved in the three largest redevelopment projects in Campustown.

## **PROPOSALS:**

The task force ranked and evaluated 11 potential projects, which are detailed in the attached report. Several of the proposals were intended to be implemented in combination. For example, the project to address City Parking Lot X would have little direct benefit to cyclists and pedestrians, but it may be a necessary tradeoff for businesses if one of the projects that removes parking elsewhere was implemented. The projects (from highest to lowest priority) are as follows:

**1. Install Bike Lanes or Cycle Track on Chamberlain Street and Sharrows on North-South Roads** – This project would remove the parking on one side of Chamberlain Street to create dual bike lanes or a cycle track (see definitions on page 7). Hayward, Welch, Stanton, Lynn, and/or Ash Avenues would receive sharrows. This project would have costs of approximately \$200 to restripe Chamberlain and the sharrows could cost up to \$76,000 if all the proposed streets are marked and heavy-duty markings are used. Heavy duty tape markings provide better visibility and are expected to last two to ten years. A lower-cost option could be to paint the sharrows, which would only last one to two years and would cost approximately \$5,400.

**2. Install Bike Detection at Lincoln Way Intersections and Include Bike/Ped Priority** – This project would replace older in-ground inductive loop vehicle detectors with newer radar units that can also detect bicycles. These detectors are becoming a standard intersection installation component due to their improved reliability and lower long-term cost. This project would prioritize the installation of these detectors at three Campustown intersections (Lincoln/Welch, Lincoln/Hayward, Lincoln/Lynn). Additionally, these intersections may be programmed to provide a dedicated bike/pedestrian movement prior to vehicle movements. Installing new radar units would cost \$18,500 for each full intersection. The intersection at Hayward Avenue and Lincoln Way is scheduled to be upgraded this summer.

**3. Install Wayfinding Signage to Direct Users to Intermodal/Other Facilities** – Campustown Action Association has already initiated plans to develop a wayfinding signage program for Campustown. This program would be helpful to encourage motorists to park at area parking facilities on the edges of the district rather than drive through the district to search for parking. This would help reduce vehicle congestion and conflicts in the center of Campustown. This project has been discussed and supported by the Campustown Action Association. Costs cannot be determined at this time due to the fact that no branding has been finalized. Depending on complexity of signs, they could potentially be made by City staff.

**4. Install Sharrows/Bike Lane(s) Along the 100 Block of Welch Avenue** – This project would remove or adjust the bump-out light fixtures from Welch Avenue and eliminate parking on one side of the block. This would provide space for installation of dual bike lanes. This project would also reduce operational challenges the City faces with maintaining the Welch Avenue roadway. It would cost approximately \$2,600 to



remove the bump outs on Welch Avenue and approximately \$15,000 to move the street lights. Painting would cost approximately \$100 for the restriping of Welch Avenue.

**5. Install a Bike Lane Along Lincoln Way** – This project would remove the parking along the south side of Lincoln Way from Hayward to Lynn and install an eastbound bike lane. The remaining space from the removal of the parking could be repurposed to allow for wider sidewalks, parklets, and/or sidewalk cafes in the future. It would cost approximately \$17,000 to move intakes and remove bump outs at the intersections. The cost could potentially be higher due to the amount of utilities in this corridor. One streetlights at the corner of Stanton Ave. and Lincoln Way would need to be relocated at a cost of approximately \$5,000.

**6. Remove Trees, Adjust Lighting Along Welch and Lincoln Way** – This project would remove the trees primarily along Welch Avenue and Lincoln Way, and would move streetlights out of the roadway. Without the trees, lighting would provide for safer cycling and pedestrian activities. Additionally, the trees currently pose obstacles to sidewalk users. The trees could be replaced with planters situated more strategically so as to not create obstacles. Removal of the trees also eliminates maintenance and public health challenges for the City. The trees along Lincoln Way and Welch Avenue abutting the Kingland property were recently approved for removal by City Council. A new landscaping plan for this area has not been submitted. The cost of removing the trees, if done by a contractor, could potentially cost approximately \$24,000. The cost of upgrading lighting is undetermined as a style and make of light would largely influence the cost.

**7. Education Campaign for ISU Students and Public on Rights/Responsibilities of Roadway Users** – This project would involve working with ISU and other partners to develop educational materials for new students, residents, and others to be aware of the rights and responsibilities of different user groups.

**8. Adjust Parking Fees** – This project would analyze the parking rates and timing of meters and area parking facilities. Rates and times could be adjusted to encourage motorists to park in facilities with ample parking on the edges of the district and walk into Campustown rather than to drive through Campustown to park.

**9. Coordinate Bike Parking** – The City has placed several bike racks throughout Campustown. This project would involve evaluating those locations and removing, moving, or adding bike racks in a way that reduces obstacles to users. New U-shaped bike racks cost approximately \$150 each and staff believes that 4-6 more could be placed in the Campustown area.

**10. Coordinate Continuity of Routes with ISU** – This project would involve City staff coordinating with ISU to identify key bike routes onto and off of campus, and developing plans to support those interfaces.

**11. Make Lot X More Usable, More Attractive to Drivers** – This project would involve upgrading infrastructure and beautifying Lot X to encourage motorists to park in it rather than looking for on-street parking. This would have indirect effects in reducing congestion through the center of Campustown. Other projects that may reduce on-street parking may be combined with this proposal as a way to address business owner concerns over parking losses. This project would need to be studied more to determine costs. Depending on the extent of the renovation, costs could easily reach into hundreds of thousands to address lighting, paving, utilities, and other amenities.

### **STAFF COMMENTS:**

After reviewing the task force's projects in detail, City staff believes the projects fall into three general groups:

Non-Infrastructure and Minor Infrastructure Projects: City staff believes there would be little or no opposition from businesses, pedestrians, or bicyclists to completing these projects. These projects could each help address transportation challenges in a unique way, and could likely be implemented within current budgeting and planning constraints or with minor amendments to the budget. These include the following projects:

2. Install Bike Detection at Lincoln Way Intersections and Include Bike/Ped Priority
3. Install Wayfinding Signage to Direct Users to Intermodal/Other Facilities
7. Education Campaign for ISU Students and Public on Rights/ Responsibilities of Roadway Users
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Non-Incremental Infrastructure Projects: Of the remaining projects, two require irreversible changes to infrastructure. After further study, the task force also determined that these two projects may have positive benefits, but would not substantially reduce conflicts between different modes of transportation. These projects are:

6. Remove Trees, Adjust Lighting along Welch and Lincoln Way
11. Make Lot X More Usable, More Attractive to Drivers

Street Alteration Projects: These final projects again involve the key philosophical question of how to balance parking versus biking infrastructure in a finite space:

1. Install Bike Lanes on Chamberlain and Sharrows on North/South Roads
4. Install Sharrows/Bike Lanes along the 100 Block of Welch Avenue,
5. Install a Bike Lane along Lincoln Way

## **OPTIONS:**

The following options available to the City Council may be combined based upon the Council's interests:

1. **Direct staff to pursue the non-infrastructure projects and minor infrastructure projects (projects 2, 3, 7, 8, 9, and 10).** These projects can be completed within current budget and planning constraints or with few modifications. Staff would report back to the City Council with any budget amendments needed as appropriate.
- 2a. **Direct staff to pursue the street alteration projects (projects 1, 4, and 5) as recommended by the task force.** These projects are permanent alterations to the parking and biking infrastructure. City staff would have to report back to the Council with budget estimates for design and construction costs, and the projects would be incorporated into the Capital Improvements Plan.

After further discussion regarding this option, City staff believes that the areas identified in projects 1, 4, and 5 are critical to addressing bike/car/pedestrian conflicts. However, staff believes that the specific strategies (sharrows/bike lanes/cycle track) proposed during the task force discussions may require adjustment. Therefore, City Council may wish to consider option 2b, which allows for staff to test temporary strategies rather than immediately modifying the streetscape.

- 2b. **Direct staff to pursue the street alteration projects (projects 1, 4, and 5) using the NACTO interim strategies in lieu of permanent alterations.** Staff would need direction on the scope of alterations that would be acceptable to the Council for interim projects. After a trial period, staff would report back to the Council regarding the effectiveness of the interim strategies and recommend next steps.

The *National Association of City Transportation Officials (NACTO) Urban Street Design Guide* provides interim strategies to address conflict-prone areas like Campustown. These strategies use signs, roadway markings, paint, planters, trees, benches, and other temporary objects to shape the space rather than permanently re-constructing the streetscape. For example, instead of pouring concrete to establish a curb-separated cycle track, the NACTO guide might suggest using removable plastic bollards to create a separation. These strategies allow for cost-effective experimentation. Then, after a successful interim solution is found and has gained community support, a capital improvement can be undertaken to make the changes permanent.

Some of the possible temporary strategies from this guide are indicated in the table below. Not all strategies are appropriate for each of the areas. Potential

strategies that may be appropriate to address the four identified areas include the following:

Area	Temporary to Permanent Strategies						
	Less Intensive			More Intensive			
	Sharrows	Painted Bike Lane	Painted Cycle Track	Removable Bike lane	Interim Sidewalk Widening	Bike Corral/ Parking	Parklets
Chamberlain	X	X	X			X	
North/South Routes	X	X			X	X	X
100 Block of Welch	X	X		X	X		X
Lincoln Way		X		X	X	X	X

**If the City Council chose to proceed with addressing these areas, City staff would request direction from Council regarding which of the four areas above should receive temporary alteration, and whether staff may consider all or only some of the potential strategies. City staff would report back with recommendations for further steps, if any, after the strategies have been tested.**

3. **Direct staff to pursue the non-incremental infrastructure projects (projects 6 and 11).** These projects are permanent alterations to the streetscape and Parking Lot X. City staff would have to report back to the Council with budget estimates for design and construction costs, and the projects would be incorporated into the Capital Improvements Plan.

Staff realizes that the challenges addressed in this report may be new to some members of the City Council. Further, a separate group has also been tasked with addressing space issues related to sidewalk cafes and food vendors. Council may choose to take this current report under advisement until the report is received from that second working group. That could allow Council to make more comprehensive and cost-effective decisions regarding all of the related needs and opportunities in Campustown.

## Strategy Descriptions:

**Sharrows** – A pavement marking used to encourage bicyclist positioning to reduce the chances of impacting the open door of a parked vehicle, alert road users that bicyclists may be in the lane, and to reduce the incidence of wrong-way bicycling.



**Bike Lane** – A lane restricted to bicycles only, 4-5 feet in width and is designated for one-way travel. Roadways may have a bike lane in one direction, bike lanes in both directions, or a bike lane in one direction and a sharrow in the opposite direction.



**Cycle Track** – A two-way area designated for bicycles only. This lane typically has bollards or a raised curb to separate bicyclists from vehicle traffic. The separation greatly reduces the chances of a bicyclist striking the opening door of a parked car.



**Sidewalk Widening** – Using planters, bollards, art, or other objects to temporarily create a larger space for walking, sidewalk cafes, or biking on the sidewalk. An elevated platform can be placed in the street to extend the sidewalk.



**Bike Corral** – A bike rack for 15-30 bicycles, placed on the street in a standard parking space. These structures could be placed seasonally or permanently. Placing a large bike corral on the street instead of several smaller racks can reduce streetscape clutter, but may be less convenient for bicyclists.



**Parklet** – A temporary structure for seating, gathering, or other activities, built to take up a standard parking stall. These can be used to free space on the existing sidewalks.





campustown  
action  
association

Honorable Mayor Campbell and City Council  
Ames City Hall  
515 Clark Avenue  
Ames, IA 50010

April 16, 2014

RE: Campustown Transportation Alternatives Report

Dear Honorable Mayor Campbell and City Council,

Campustown Action Association (CAA) was pleased to receive the Campustown Transportation Alternatives Report, compiled by City of Ames staff. One of the six goals of CAA's Five Year Strategic Plan (2012-2017) is to increase the strength of all modes of transportation through Campustown and this work done by the Transportation Task Force, in which CAA also participated, will be another step forward in achieving this goal.

**Campustown Action Association endorses the priorities outlined within the report, but encourage City Council to save parking wherever possible EXCEPT on Lincoln Way where we feel that parking is not compatible with bike and multimodal usage.** We encourage the City to move to remove parking along Lincoln Way from Hayward Street to Lynn Avenue as a way to create wider sidewalks for outdoor cafes and other activities and a bicycle lane for cyclists to safely bike from West Ames to the Iowa State campus. Several of the priorities highlight ways to showcase our other parking alternatives, including new signage at our four surface parking lots and the Ames Intermodal Facility, which all include public parking options. We support sharrows on Welch Avenue and Chamberlain Street.

We also encourage City Council to look at the Lincoln Way bicycle lanes as part of a larger goal in creating bike lanes throughout Ames to connect West Ames to Campustown, the Iowa State Center, and farther east to the Ames Main Street Cultural District.

We thank the City of Ames and the staff involved in working with the Transportation Task Force to create these eleven priorities for our business district as we continue our common goal of making Campustown a fun and safe business district for customers of all ages.

Sincerely,

Anne Taylor

CAA Board President

Kim Hanna

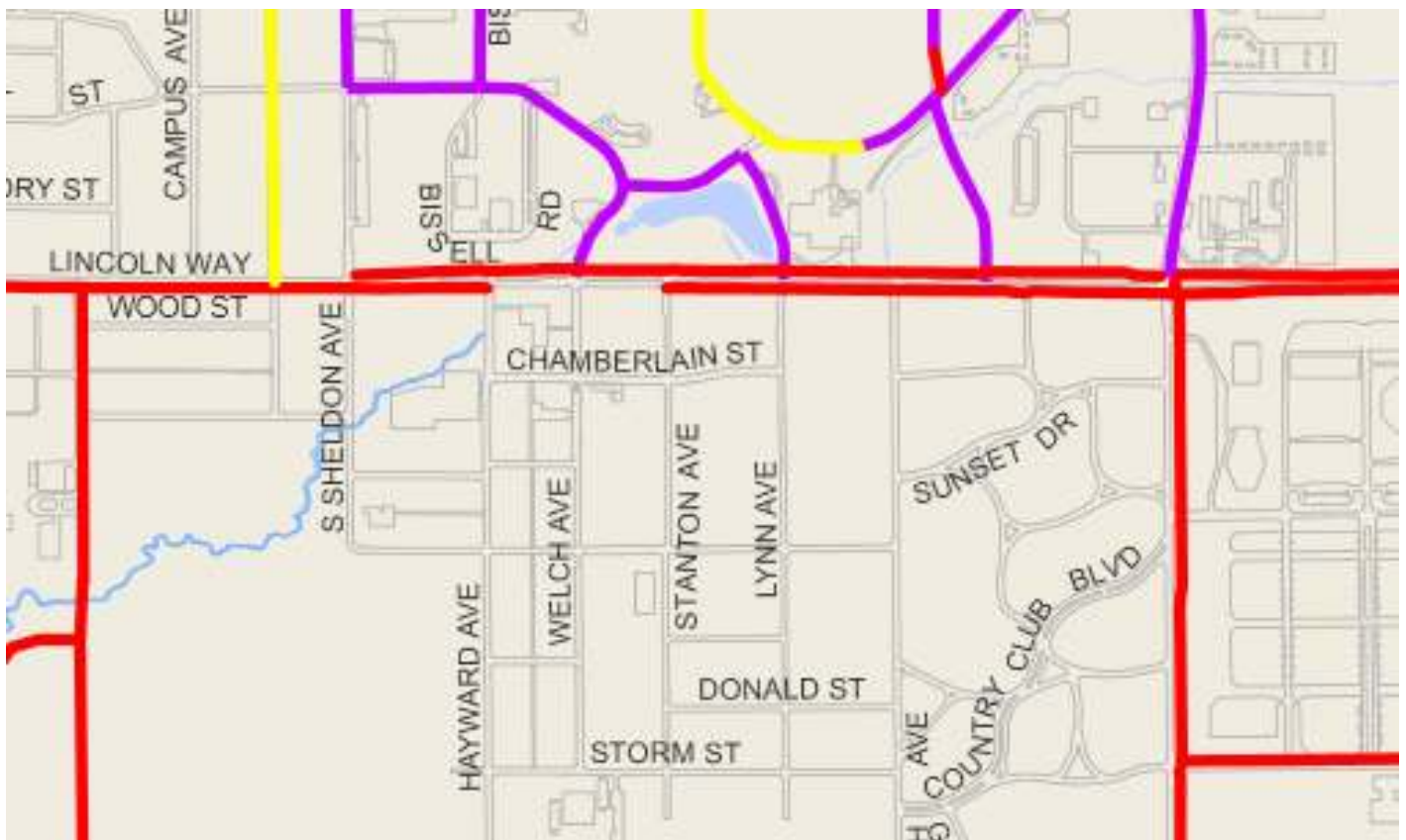
CAA Director



# Campustown Transportation Alternatives Task Force

## Final Report

January 2014



### Task Force Members:

Sarah Olson, Government of the Student Body  
Doug Ziminski, Campustown Business Owner  
Claudio Gianello, Campustown Business Owner  
Paul Doffing, Ames Bicycle Coalition  
Mitchell Kenne, Iowa State University Student  
Father Al Aiton, St. John's by the Campus  
Kim Hanna, Campustown Action Association  
Trevin Ward, Campustown Action Association  
Barry Snell, Government of the Student Body

### City of Ames:

Damion Pregitzer, Traffic Engineer  
Corey Mellies, Public Works Operations Superintendent  
Brian Phillips, Management Analyst

## Purpose and Background

In August 2013, the City Council directed City staff to establish a task force to identify creative solutions to address bicycle-car and bicycle pedestrian collisions in Campustown. Over the span of two meetings, this task force developed criteria to measure potential solutions, brainstormed projects, and prioritized projects based on descriptions prepared by City staff.

The projects that were pursued and included in this report were considered against the following criteria:

1. Safety/security
2. Maintenance/quality
3. Multi-modal design (user groups and purposes)
4. Support business climate
5. Align with natural flow/use
6. Cost
7. Effect on parking
8. User fees

Comments for each project were received in each criterion from City staff and members of the task force. Scores from 1-4 were assigned to each criterion, with 1 being characteristics that are least challenging/most desirable and 4 being those characteristics that are most challenging/least desirable. With regard to the “Cost” criterion, the scoring is as follows:

1. Can be absorbed in existing operating budget
2. A single-year CIP project
3. A multi-year CIP project
4. A project that would require a multi-year master plan

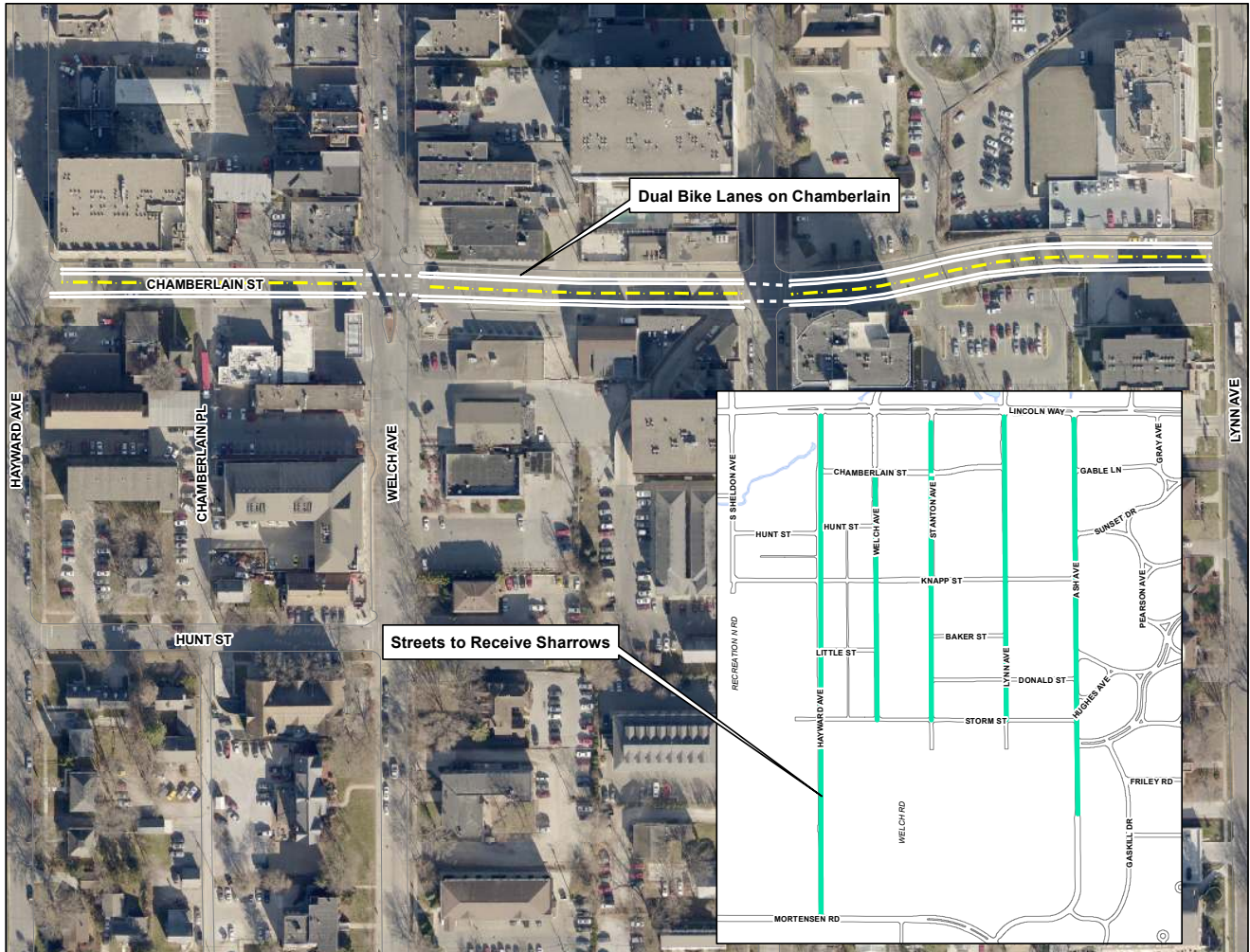
The projects that follow are presented in their priority order, with the first project shown being the highest priority of the task force and the last project being the lowest priority.

For reference, the following projects were identified in the brainstorming session, but were **NOT** pursued by this task force:

1. Integrate bike improvements used in Campustown into the City-wide biking infrastructure
2. Move parking to the north side of Lincoln Way/improve the north side of Lincoln Way
3. Use project suggestions from the NACTO Interim Guide
4. Install signage to warn bicyclists and drivers to be careful around opening car doors
5. Convert 100 block of Welch Avenue to a pedestrian mall
6. Install retractable bollards on the 100 block of Welch Avenue to create a weekend bike/ped space
7. Reduce lanes of travel on Lincoln Way to accommodate biking and pedestrian uses
8. Implement traffic calming on Lincoln Way (such as a raised intersection)
9. Install textured sidewalk to encourage walking closer to businesses and biking near the curb.
10. Install signage encouraging bicyclists to slow down
11. Install a bike lane next to the parallel parking on Lincoln Way



## Install Bike Lanes or Cycle Track on Chamberlain and Sharrows on North/South Roads

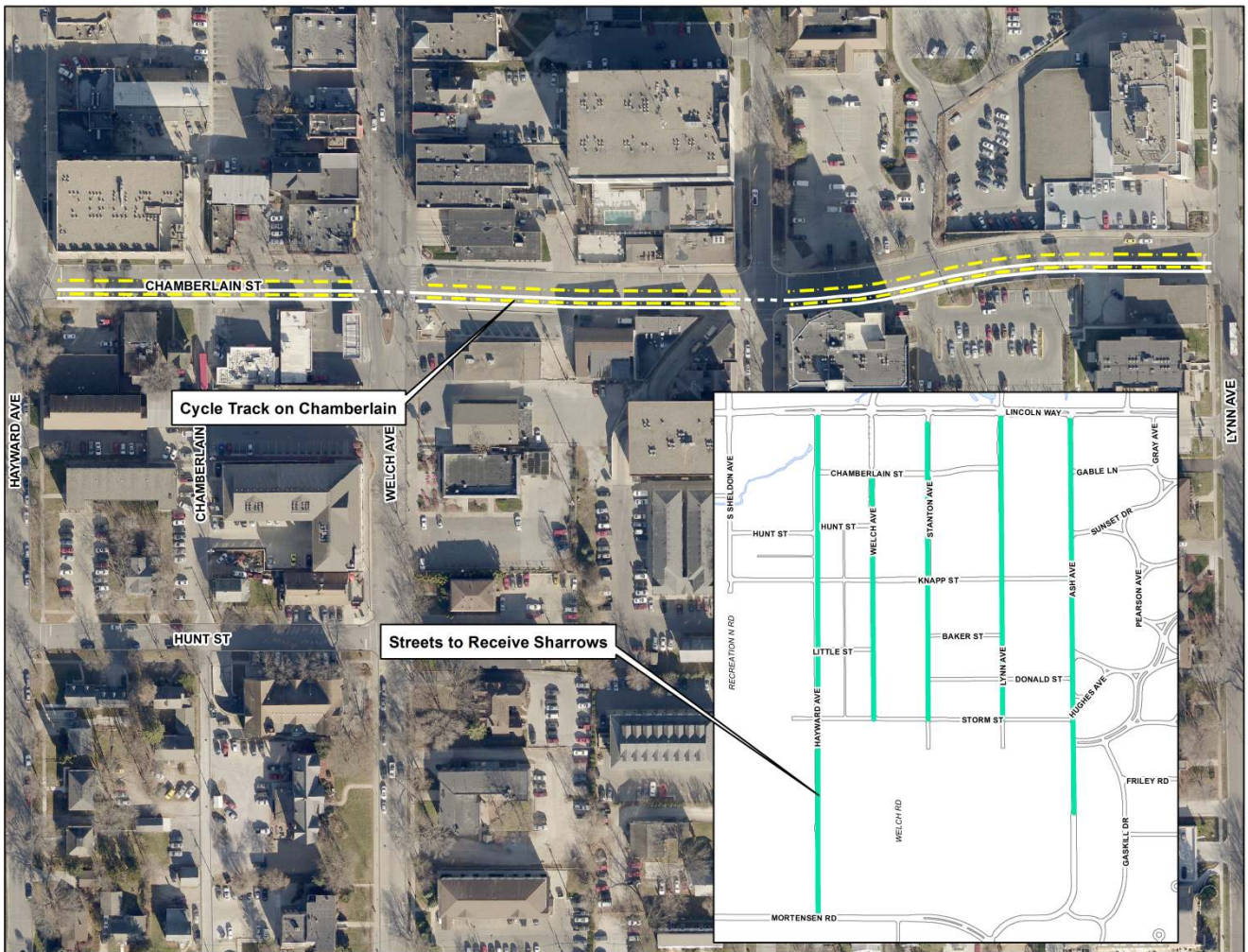


### Description:

Chamberlain currently consists of a 41-foot wide pavement with two 9-foot parking areas provided on the north and south. There are currently 60 total spaces from Hayward Ave. to Lynn Ave. with 35 on the north side and 25 on the south side. Two five-foot bike lanes would be added by removing parking along the south side of the street. To avoid any conflict with cars it may also be feasible to install a dedicated cycle track on the south side of Chamberlain (see illustration on next page). North/south route sharrows would be installed on Hayward Ave. from Lincoln Way to Mortensen Road, Welch Ave. from Chamberlain to Storm St., Stanton Ave. from Lincoln Way to Storm St., Lynn Ave. from Lincoln Way to Storm St. and Ash Ave. from Lincoln Way to the existing cycle track.

(continued)

Graphic indicating an alternative, with a dedicated cycle track on Chamberlain Avenue and sharrows on north/south routes:





**Safety/Security** **Score: 2**Comments:

This project would reduce bicycle and car interactions by providing a dedicated space for cyclists in the bike lanes and by increasing motorist awareness of cyclists on the sharrow routes. This area has a history of prior bicycle and car collisions. Installation of bike lanes on both sides of the road would be safer than on a single side because with a bike lane on just one side, bike traffic must cross car traffic on the street at some point.

**Maintenance/Quality** **Score: 2**Comments:

This project would only require maintenance of the pavement markings and signs, which would be minimal. The street would be easier to remove snow from with fewer cars. This project would also result in fewer parking meters to maintain.

**Multi-modal Design (user groups and purposes)** **Score: 2**Comments:

There is no pedestrian or transit coordination benefit to this project. This project would extend biking routes from the intermodal facility. It would address both destination and pass-through traffic.

**Support Business Climate** **Score: 3**Comments:

Businesses may be concerned with the removal of parking. However, this project would make possible a higher density of users by replacing lost vehicle parking capacity with substantially greater pedestrian and bicyclist capacity.

**Align with Natural Flow/Use** **Score: 2**Comments:

A connection to the intermodal was requested by direct user feedback. This project would connect the Campustown business district core with west Ames and residences to the south and east. Chamberlain is an east-west alternative to Lincoln Way.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget. This east-west connection would be a lower cost alternative than modifying Lincoln Way.

**Effect on Parking** **Score: 3**Comments:

There is a net loss of 25 metered parking spaces and non-metered on-street parking with this project. The loss of metered parking may be absorbed by area parking facilities. The loss of parking further east near the Greek community may be more problematic because there are fewer parking alternatives available.

**User Fees** **Score: 3**Comments:

This project would result in a loss of parking revenue.

## Install Bike Detection at Lincoln Way Intersections and/or Include Bike/Ped Priority



### Description:

This project would install radar detection units capable of detecting bicyclists at the intersections of Lincoln Way and Hayward Avenue, Lincoln Way and Welch Avenue, and Lincoln Way and Lynn Avenue. The traffic signals would be programmed to provide dedicated walk/bike movements prior to vehicular traffic movements. This type of signal detection does not impede emergency response exceptions.

**Safety/Security** **Score: 2**Comments:

This project does not provide physical protection. However, it does protect bicyclists by reducing the need to travel in and out of the sidewalk area to press the pedestrian push button. It also protects bicyclists who would cross against the signal rather than waiting for a vehicle to trip the traffic signal. This feature may be accompanied by a painted symbol in an area near the stop bar that indicates where bicycles should stop to be detected.

**Maintenance/Quality** **Score: 1**Comments:

This type of detection is more reliable than traditional inductive-loop traffic detectors. It has become a standard feature of new traffic signal installations.

**Multi-modal Design (user groups and purposes)** **Score: 2**Comments:

Bicyclists will see improvement for both destination and pass-through traffic, although if this encourages more bicyclists to be on the road additional space may become available on the sidewalk for pedestrians. This project does not improve transit or vehicular traffic.

**Support Business Climate** **Score: 1**Comments:

Bicyclists would be accommodated on the street instead of on the sidewalk, which may improve the traffic flow in front of businesses.

**Align with Natural Flow/Use** **Score: 1**Comments:

These intersections are heavily used by bicyclists.

**Cost** **Score: 2**Comments:

This project would require incorporation into the City Budget or Capital Improvements Plan. Over time, intersections across the City will have this type of detection. However, Campustown intersections could be prioritized for installation in the next few years.

**Effect on Parking** **Score: 1**Comments:

No comments

**User Fees** **Score: 1**Comments:

No comments

## Install Wayfinding Signage to Direct Users to Intermodal/Other Facilities

### Sign Family Overview



### Description:

Currently there is no unified system to direct motorists to public parking facilities in Campustown. This project would develop a program for wayfinding signage in Campustown that directs motorists to the Intermodal Facility, the Memorial Union Parking Ramp, and/or other area parking facilities.

**Safety/Security** **Score: 1**Comments:

A wayfinding system would more efficiently direct motorists to their desired destinations, reducing the traffic from drivers who are looking for parking or other facilities. However, this does not provide any physical barrier or protection.

**Maintenance/Quality** **Score: 1**Comments:

Standard sign maintenance can be absorbed into City maintenance budget. Specialty signage may increase maintenance costs.

**Multi-modal Design (user groups and purposes)** **Score: 1**Comments:

This project would address a variety of users and both destination and pass-through traffic. Parking at area facilities and walking also aligns with the goals of the Smart 150 Challenge to support more sustainable transportation alternatives.

**Support Business Climate** **Score: 1**Comments:

Helping users identify and use parking facilities and other points of interest should help shoppers stay in the Campustown area.

**Align with Natural Flow/Use** **Score: 1**Comments:

This project would guide people to the parking and destinations they seek.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget. Standard signs can be absorbed into the existing City budget. Specialty signage may increase costs.

**Effect on Parking** **Score: 1**Comments:

Better signage may guide more motorists to parking ramps and create less dependence on on-street parking.

**User Fees** **Score: 1**Comments:

More parking in the ramps could improve revenues, which would mitigate parking rate increases in the future.



## Install Sharrows/Bike Lane(s) Along the 100 Block of Welch Avenue



### Description:

Welch Ave. currently consists of a 41-foot wide pavement with two 9-foot parking lanes on the east and west with bump-outs that currently have street lights installed in them. This project would remove 11 spaces on the east side that would allow for the installation of two 5-foot bike lanes. This project would require the relocation of the lights on the east side, removal of the bump outs, and intersection work at Lincoln Way and Welch and Chamberlain and Welch. There could be a safety concern at times with pedestrians and delivery vehicles occupying the bike lane space.



**Safety/Security** **Score: 2**Comments:

This project would reduce bicycle and car interactions by providing a dedicating bicycling lane. Signage and road markings would increase motorist awareness of bicycles and increase bicyclist confidence. This area has a history of prior bicycle and car collisions. However, this project would not address some conflicts between bikes, pedestrians, food carts, and driveways along Welch Avenue.

**Maintenance/Quality** **Score: 1**Comments:

The street would be easier to remove snow from with fewer cars and with the removal of the bump-outs on Welch Avenue. This project would also result in fewer parking meters to maintain.

**Multi-modal Design (user groups and purposes)** **Score: 2**Comments:

There is no pedestrian or transit coordination benefit to this project. This project would extend biking routes from the intermodal facility. It would address both destination and pass-through traffic.

**Support Business Climate** **Score: 3**Comments:

Businesses may be concerned with the removal of parking. However, this project would make possible a higher density of users by replacing lost vehicle parking capacity with substantially greater bicyclist capacity.

**Align with Natural Flow/Use** **Score: 2**Comments:

A connection to the intermodal was requested by direct user feedback. This project would connect the Campustown business district core with west Ames and residences to the south and east.

**Cost** **Score: 2**Comments:

This project would require incorporation into the City Budget or Capital Improvements Plan.

**Effect on Parking** **Score: 3**Comments:

There is a net loss of 11 metered parking spaces. The loss of metered parking may be absorbed by area parking facilities.

**User Fees** **Score: 3**Comments:

This project would result in a loss of parking revenue.

## Install a Bike Lane Along Lincoln Way



### Description:

This project would install a bike lane along the south side of Lincoln Way. The removal of parking on Lincoln Way from Hayward Ave. to Lynn Ave. would result in the loss of 36 parking spaces. The existing parking lane is nine feet wide; five feet would be needed for a bike lane. The remaining space could be used as an interim parklet space to effectively widen the sidewalk in this area. This would require some intersection work and potentially moving light poles to accommodate the bike lane. No bike lane would be installed on the north side of Lincoln Way because that side has an existing, adequate width shared-use path.

**Safety/Security** **Score: 2**Comments:

This project would eliminate conflicts between vehicles attempting to parallel park and traffic continuing through on Lincoln Way. This project would reduce bicycle and car interactions by providing a dedicated space for cyclists in the bike lanes. Signage and road markings would increase motorist awareness of bicycles. This area has a history of prior bicycle and car collisions. There is potential for increased space for pedestrians on widened sidewalks.

**Maintenance/Quality** **Score: 1**Comments:

The street would be easier to remove snow from with fewer cars. This project would also result in fewer parking meters to maintain.

**Multi-modal Design (user groups and purposes)** **Score: 1**Comments:

This project would make it easier for cars, pedestrians, bicyclists, and transit buses to navigate the Lincoln Way corridor. The project would create enhancements for both pass through and destination traffic.

**Support Business Climate** **Score: 4**Comments:

Businesses may be concerned with the removal of parking. However, this project would make possible a higher density of users by replacing lost vehicle parking capacity with substantially greater pedestrian and bicyclist capacity. This project also might create the opportunity for sidewalk cafes or other new activities on newly widened sidewalks.

**Align with Natural Flow/Use** **Score: 1**Comments:

This is the highest traffic corridor for cars, pedestrians, bicyclists, and transit buses in the Campustown area. The area between Lynn Avenue and Beach Avenue does not have space for bike lanes and does not have shared-use paths. Therefore, future projects might be needed to extend bicycle routes to the east.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget. A lower cost interim solution could create bike lanes and widen the sidewalks with narrow parklets. A permanent solution would score as more intensive due to the need to install new sidewalk, curb, storm sewer, etc.

**Effect on Parking** **Score: 4**Comments:

There is a net loss of 36 metered parking spaces. The loss of metered parking may be absorbed by area parking facilities.

**User Fees** **Score: 3**Comments:

This project would result in a loss of parking revenue.



## Remove Trees, Adjust Lighting Along Welch and Lincoln Way



### Description:

This project would remove trees on Lincoln Way from Hayward Ave. to Stanton Ave. and on Welch Ave. from Lincoln Way to Chamberlain St. In total, 45 trees would be removed. This would also allow for lighting upgrades and provide more light to this area for pedestrians and vehicles as not having tree canopy affects the lights. Planters may be installed as an alternative, situated more strategically than the existing trees. This project would improve night-time bicycling safety and reduce the obstacles for bicyclists in the Campustown area.

**Safety/Security** **Score: 1**Comments:

This project would improve visibility for pedestrians and bicyclists, particularly at night. It would also improve security. A larger space would be created for pedestrian movement. The removal of trees would also reduce hygienic concerns from crow feces. This project may improve visibility for vehicles entering parking and the fire station.

**Maintenance/Quality** **Score: 1**Comments:

Assuming the lights are moved out of the street, snow removal would be substantially easier. Removal of the trees would reduce the amount of sidewalk clean up required to address crow feces. Trees would no longer need to be pruned. Tree grates would no longer need to be maintained and cleaned, and sidewalks would require less maintenance.

**Multi-modal Design (user groups and purposes)** **Score: 2**Comments:

Removing obstacles on the sidewalks could potentially create enough space to allow for bicycle use on the sidewalk. However, this project would primarily benefit pedestrians, and only somewhat affect bicyclists.

**Support Business Climate** **Score: 1**Comments:

Although CAA supports their removal, trees may be desirable to some businesses. Removal of the trees increases visibility for storefronts and signage, and provides more space for customers on sidewalk. This project would also create a more welcoming environment by reducing hygienic issues from crows.

**Align with Natural Flow/Use** **Score: 1**Comments:

This project would address the most heavily used streets in Campustown.

**Cost** **Score: 2**Comments:

This project would require incorporation into the City Budget or Capital Improvements Plan.

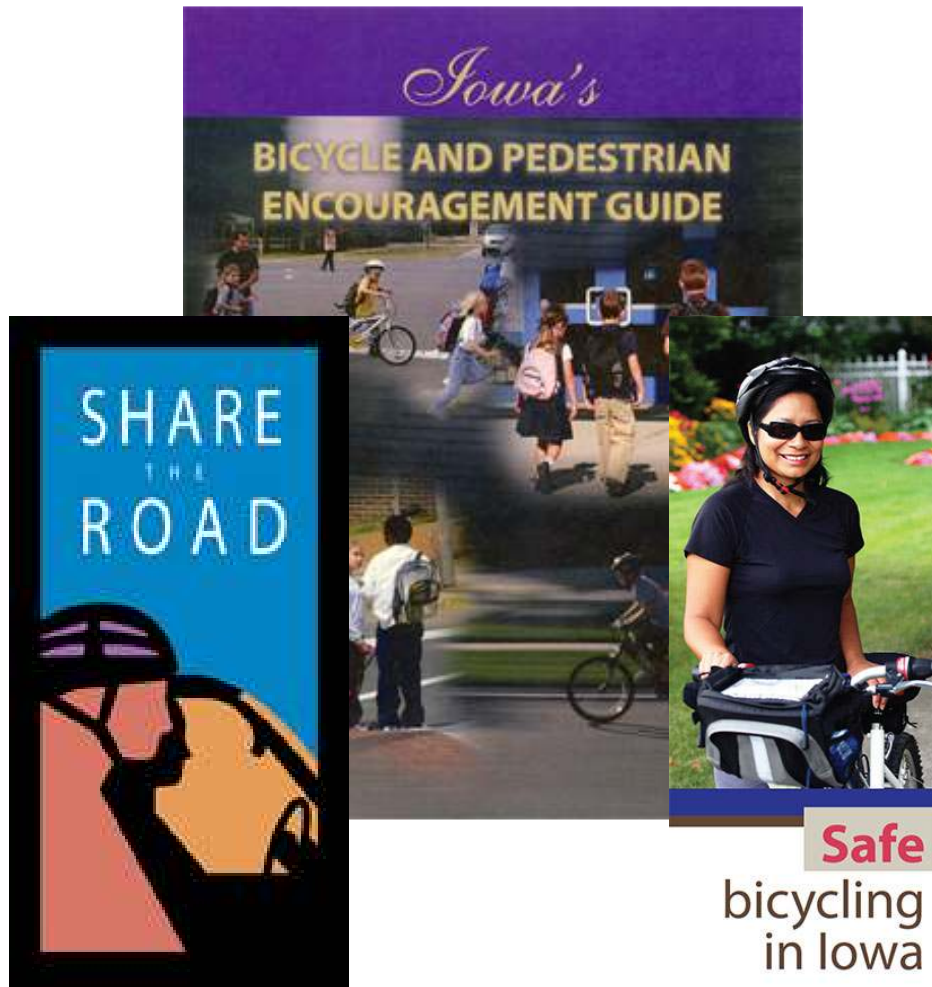
**Effect on Parking** **Score: 1**Comments:

No comments

**User Fees** **Score: 1**Comments:

No comments

## Education Campaign for ISU Students and Public on Rights/Responsibilities of Roadway Users



### Description:

Work with incoming ISU students through orientation and Destination Iowa State to educate them on the rights and responsibilities of both motorists and bicyclists in the Campustown area. Should include and be coordinated with the University, ISU Police Department, and Ames Police.

**Safety/Security** **Score: 1**Comments:

An education campaign could build awareness and develop a culture of educated cyclists, motorists, and pedestrians.

**Maintenance/Quality** **Score: 1**Comments:

No comments

**Multi-modal Design (user groups and purposes)** **Score: 1**Comments:

This project would address users of all modes of transportation.

**Support Business Climate** **Score: 1**Comments:

No comments

**Align with Natural Flow/Use** **Score: 1**Comments:

No comments

**Cost** **Score: 2**Comments:

This project would require incorporation into the City Budget or Capital Improvements Plan. The cost is dependent on the duration and extent of the campaign.

**Effect on Parking** **Score: 1**Comments:

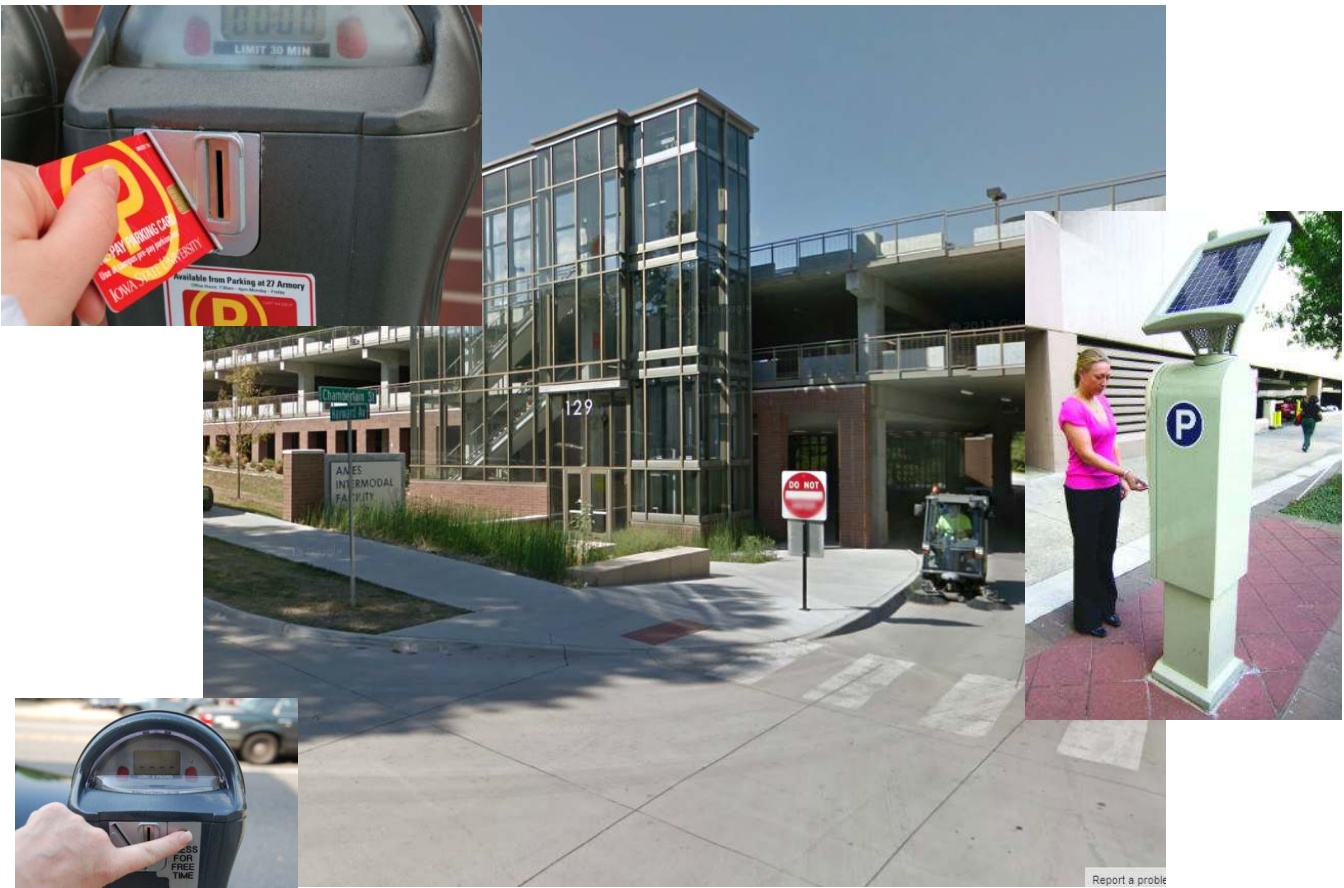
No comments

**User Fees** **Score: 1**Comments:

No comments



## Adjust Parking Fees



### Description:

Evaluate fees to park in the Intermodal facility and at meters in Campustown and determine if they can be adjusted to encourage a more efficient balance of parking between ramps and on streets.



**Safety/Security** **Score: 1**Comments:

Adjusting user fees might encourage motorists to move into designated parking areas more quickly rather than creating traffic by attempting to locate parking on streets. This would reduce congestion on roads with on-street parking.

**Maintenance/Quality** **Score: 1**Comments:

No comments

**Multi-modal Design (user groups and purposes)** **Score: 3**Comments:

This project primarily affects car traffic, but bicyclists and pedestrians might benefit from reduced car traffic.

**Support Business Climate** **Score: 2**Comments:

This project would likely result in increased fees to park directly in front of businesses in order to encourage parking in area parking facilities instead. However, parking lengths could be adjusted based on business feedback.

**Align with Natural Flow/Use** **Score: 2**Comments:

This would likely shift parking from local streets to nearby parking facilities.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget.

**Effect on Parking** **Score: 2**Comments:

This project would not reduce the number of parking spaces, but it might make on-street parking more or less desirable to motorists in certain places.

**User Fees** **Score: 3**Comments:

This project would directly affect user fees. Study would be required to determine how fees and time lengths would change.

## Coordinate Bike Parking



### **Description:**

Increasing the bike parking in Campustown could be done by the strategic placement of several small racks that are placed to avoid conflicts with vending and other uses of public space. An ordinance change could also allow bike parking to temporarily replace vehicle spaces next to businesses. A policy could also be developed to require new developments to participate in financing bike racks or other improvements.

**Safety/Security** **Score: 2**Comments:

Additional bicycle parking would improve the security of personal property. More strategic placement of bicycle racks would reduce clutter on the sidewalks. There is little benefit for public safety.

**Maintenance/Quality** **Score: 1**Comments:

It would require minimal maintenance to add more bicycle racks or alter existing bike rack locations.

**Multi-modal Design (user groups and purposes)** **Score: 4**Comments:

This project would primarily affect bicyclists whose destination is Campustown.

**Support Business Climate** **Score: 2**Comments:

This project would encourage more bicyclists to stop in Campustown, but it may remove available sidewalk space. Additional bicycle racks might affect vending options.

**Align with Natural Flow/Use** **Score: 2**Comments:

Placing more bicycle racks would align better with where bicyclists want to park, but there are limits to how close racks can be to all businesses.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget.

**Effect on Parking** **Score: 2**Comments:

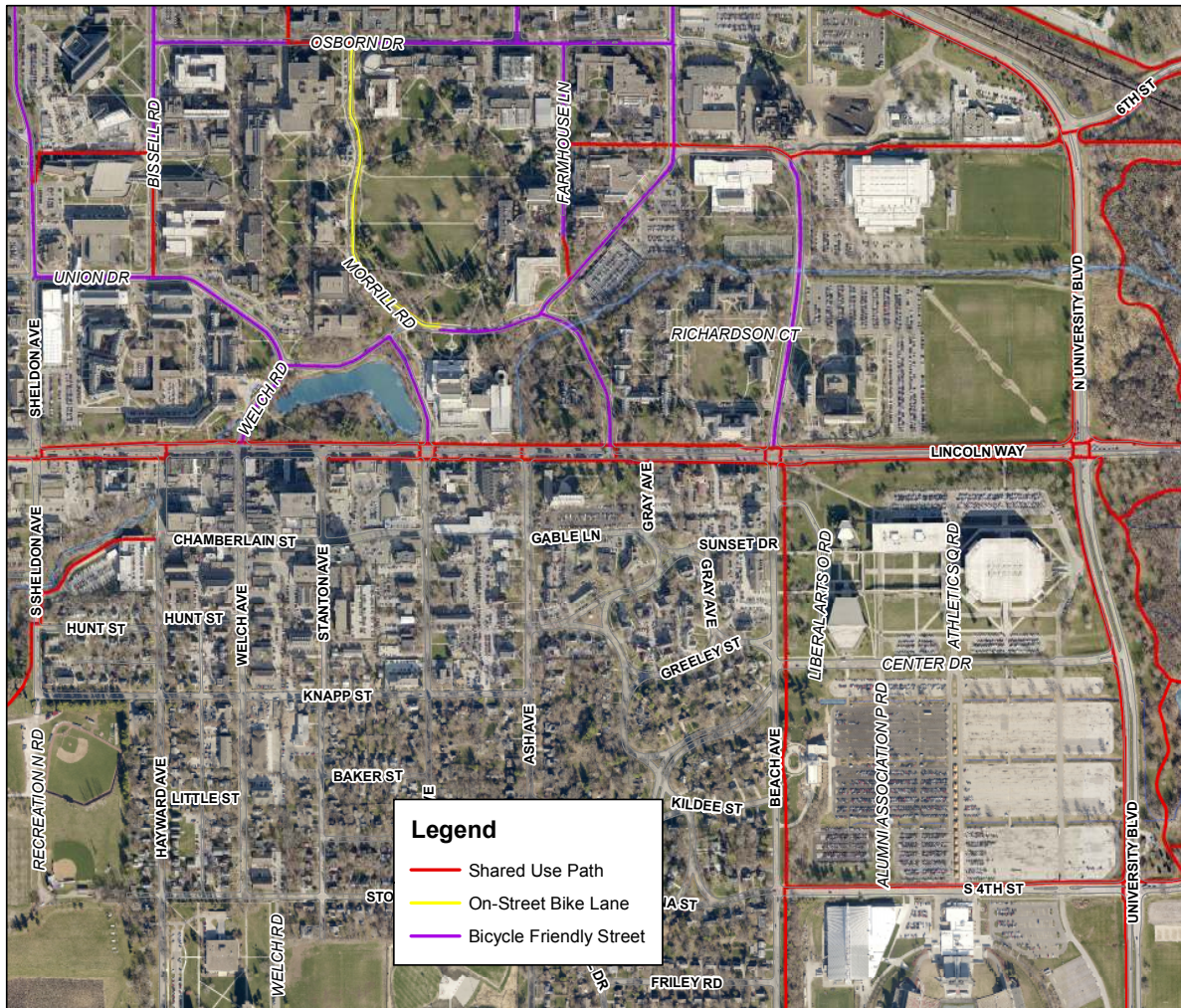
This project could include an option to remove a car parking space for bike parking on a seasonal basis. In the summer, when a bicycle rack might be placed in a car parking space, there is less motor vehicle traffic to Campustown. This service may be effective in spring and fall as well.

**User Fees** **Score: 1**Comments:

No comments



## Coordinate Continuity of Routes with ISU



### Description:

Communicate with Facilities Planning and Management (FP&M) at ISU to determine where bike routes may connect most effectively at the transition from City to campus.

**Safety/Security** **Score: 1**Comments:

This project would reduce dead-ends coming off or going into campus, and would improve connections with lower levels of service. The project would create more consistent student traffic patterns crossing Lincoln Way.

**Maintenance/Quality** **Score: 1**Comments:

No comments

**Multi-modal Design (user groups and purposes)** **Score: 2**Comments:

This project would primarily affect bicyclists.

**Support Business Climate** **Score: 1**Comments:

No comments

**Align with Natural Flow/Use** **Score: 1**Comments:

The intent of this project would be to align existing connections on and off campus more effectively.

**Cost** **Score: 1**Comments:

This project could be accommodated within the existing operating budget.

**Effect on Parking** **Score: 1**Comments:

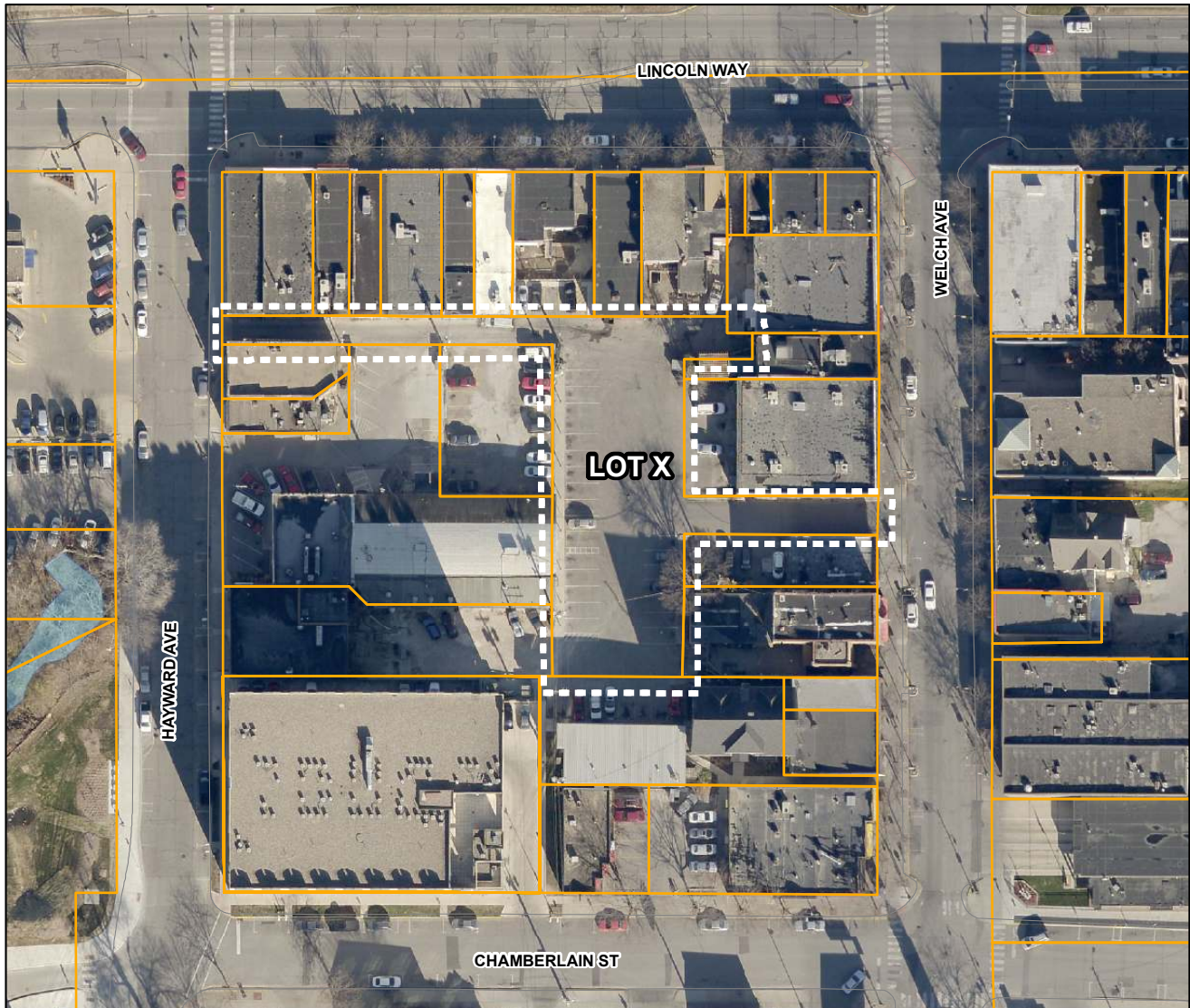
No comments

**User Fees** **Score: 1**Comments:

No comments



## Make Lot X More Usable, More Attractive to Drivers



### Description:

Lot X currently has 24 spaces. Due to the configuration of the lot and the access that must be provided to individual properties there appears to be limited options to increase parking in the area without acquiring more property. Repaving the lot may make it more attractive and noticeable as public parking. It might be possible to place some of the electric equipment underground to reduce obstructions and improve aesthetics in the lot. Lighting would be upgraded with this project.

**Safety/Security** **Score: 1**Comments:

Lot X currently has many obstructions, hazards, and dark alcoves that may be addressed by this project. Improvements to lighting could make it easier to monitor for safety. Improvements to the grading and eliminating obstructions could reduce safety hazards to bicyclists and pedestrians, and make it more attractive for motorists to park in the lot rather than on streets.

**Maintenance/Quality** **Score: 1**Comments:

This space would be easier to maintain with better lighting and fewer obstructions. Improved appearance may make it more attractive to users.

**Multi-modal Design (user groups and purposes)** **Score: 3**Comments:

This project would primarily address the needs of pedestrians and motorists. However, it may be beneficial if tied into another project, particularly to offset the loss of parking in other proposals.

**Support Business Climate** **Score: 1**Comments:

A renewed parking space would be more inviting for business patrons and would create more usable parking.

**Align with Natural Flow/Use** **Score: 2**Comments:

This project would highlight and enhance the existing parking to make it more used.

**Cost** **Score: 3**Comments:

This project would require programming into the City's CIP as a multi-year Capital Improvement Project.

**Effect on Parking** **Score: 1**Comments:

It is anticipated that this project would create more use of the existing capacity, but not generate much more additional parking space.

**User Fees** **Score: 4**Comments:

A large investment in this parking area could lead to user fee increases.