CITY OF URBANA, ILLINOIS
DEPARTMENT OF PUBLIC WORKS

ADMINISTRATION

MEMORANDUM

TO: **Bruce K. Walden, Chief Administrative Officer**

FROM: **William R. Gray, P. E., Public Works Director**

DATE: **September 22, 2005**

RE: **CAMPUS AREA TRANSPORTATION STUDY (CATS) PHASE II**

Introduction

The purpose of this report is to update the City Council on the status of the Phase II of the Campus Area Transportation Study (CATS) and to seek direction on the adoption of the recommendations.

Past Council Action

An Intergovernmental Agreement was approved in 2000 for the second phase of CATS to develop conceptual designs to implement the recommendations of CATS Phase I.

In a past City Council review and update of CATS, a Sense of the Council Motion was approved on April 19, 2004. Attached please find this motion. The attached CATS report respects this motion and is consistent with the motion.

Background

The Campus Area Transportation Study (Phase I) started in 1997 (as a result of a student fatality that occurred while crossing Green Street) and resulted in the development of a philosophical approach to promote pedestrian safety over vehicular convenience in the University District. There were also concerns about traffic congestion throughout the area and problems with commercial loading and unloading. CATS Phase I was a Planning Study that developed a philosophy and general recommendations for addressing identified transportation problems in the area.

Early on in the study process the following mission statement was developed for the study:

"To better accommodate pedestrian, bicycle, transit, and vehicle movements in a more user friendly environment."

The focus of the study was to define "accommodate" and "user friendly" for this area. It was recognized that for several reasons, significant gains to improved pedestrian safety and overall traffic circulation would require every mode of transportation to "give something up" in one part of the study area in order to gain in the area as a whole. This is true for several reasons:

- The number of modes of transportation (pedestrians, bicyclists, transit, vehicles) occurring in the area;
- The number of conflict points (intersections) between those modes;
- The high volumes of activity for all modes of transportation; and
- The limited space (right-of-way) to separate the modes of transportation.

Four goals were identified in the Phase I Study, including:

1. Improve safety for all transportation modes.
2. Create a transportation system compatible with the physical environment described in the City and Campus Master Plans.
3. Improve the operational efficiency and effectiveness of the transportation system in a cost-effective manner.
4. Enhance access to the core area of Campus and route through traffic to fringe streets.

To provide a basis for prioritizing modes of transportation in different locations in the study area, it was necessary to establish a framework for prioritizing the movements of the different modes of transportation. This was accomplished by dividing the area into three "transportation zones" as follows:

1. Zone One, Lessen Vehicular Traffic – In the core of the Campus area, closest to the quad, the pedestrian movement is prioritized along with bus and bicycle movements designed to bring pedestrians to the area.
2. Zone Two, Balance Modes – In the second zone, further out from the core area (e.g. Campustown), the study recommends improvements designed to allow pedestrians and vehicles to more safely mix in the same area. These improvements would include traffic calming improvements, intended to slow vehicles down and facilitate pedestrians crossing streets.
3. Zone Three, Encourage Vehicular Traffic – In the third zone, at the fringes of the study area, it is intended that vehicle movements would be prioritized and that improvements would be made to facilitate east-west travel between the communities in these areas. Fringe area streets were identified as University Avenue, Florida Avenue, Lincoln Avenue and Springfield Avenue.

The Phase II Study completed the following tasks:

1. Established a circulation plan for the University District that supported the modal priorities established by the Phase I Study.
2. Confirmed that each recommended change, when implemented, contributed to improved traffic circulation.
3. Confirmed the appropriate phasing of the recommendations.
4. Established design standards to ensure consistent designs of projects when they are implemented by different agencies.

5. Developed more accurate cost estimates, and proposed responsibility for implementation and cost sharing on each recommendation.

The Intergovernmental Agreement designated a "University District" within which the parties agreed to coordinate their efforts in the implementation of any recommendations of CATS including, but not limited to: information and regulatory signage, pavement markings, traffic calming, traffic management strategies and on-street parking. This area (University District) is the original CATS study area and is located generally south of University Avenue, west of Lincoln Avenue, north of St. Mary's Road and east of the CN/IC Railroad Tracks.

The CATS II recommendations can be divided into three areas including design guidelines, proposed street treatments and project implementation. The Executive Summary of CATS II is attached to this report, and includes a narrative summary of the recommendations. Also attached to this report are the 15 pages of geometric design recommendations for key streets in the University District. Following is a brief summary of each of the recommendation areas:

1. Design Criteria – Because of the unique character of the University District, and based on the goals of CATS, specific Project Design Criteria were developed to guide the geometric design of street treatments. The table below depicts these criteria.

Project Design Criteria

Design Element	Criteria
Design Speed	25 m.p.h.
Maximum Intersection Delay	Two times the cycle length
Design Vehicle	B-40 on transit routes; SU-30 elsewhere (overall turning clearance with encroachment should accommodate a fire truck with aerial apparatus)
Minimum Through Lane Width	11'
Minimum Turn Lane Width	10'
Diagonal Parking Dimensions (60°)	19' depth (transverse to centerline from face of curb); 9' width
Parallel Parking Dimensions	22' depth (along centerline); 8' width (from face of curb)
Freight Loading Berth Dimensions	12.5' width (from face of curb); variable depth
Pedestrian Travel Time	4 feet/second

2. Proposed Street Treatments – The primary purpose of CATS was to redesign the University District to give priority to pedestrians, bicycles and transit, and to de-emphasize the efficient movement of vehicles in and about the core campus area. CATS II prepared conceptual designs, with a narrative description, aerial based plan view and typical sections for a number of streets in the area. Conceptual designs were prepared for the following Urbana street segments:

   - Green Street – Neil Street to Lincoln Avenue (Exhibit 2, Sheets 2, 3 & 4)

- Mathews Avenue – Springfield Avenue to Nevada Street (Exhibit 2, Sheet 6)
- Goodwin Avenue – Springfield Avenue to Gregory Drive (Exhibit 2, Sheets 7 & 8)
- Lincoln Avenue – Vermont Avenue to Oregon Street (Exhibit 2, Sheet 14)
- Nevada Avenue – Mathews Avenue to Goodwin Avenue (Exhibit Avenue 2, Sheet 15)

3. Project Implementation – The CATS II Report also identified estimated costs to implement all of the recommendations and a proposed schedule. Following is a table depicting those estimates in 2005 dollars. The estimated "total fee" includes the estimated cost of construction, a contingency of 15% of the project cost, and the cost of design and construction engineering at 10% and 9%, respectively, of the project cost.

Estimated Urbana Project Implementation Costs

Street	Opinion of Probable Cost	15% Contingency	Design Engineering. (10%)	Construction. Engineering (9%)	Total Fee
Mathews Avenue	$206,168	$30,925	$26,080	$21,338	$285,000
Goodwin Avenue	$733,365	$110,005	$92,771	$75,903	$1,015,000
Green Street (Wright to Lincoln)	$784,060	$117,609	$99,184	$81,150	$1,085,000
Lincoln Avenue	$965,690	$144,852	$122,159	$99,948	$1,335,000
TOTALS	**$2,689,283**	**$403,391**	**$340,194**	**$278,339**	**$3,720,000**

Fiscal Impacts

These projects would be the responsibility of multiple jurisdictions and will have to be phased in over many years. However, the purpose of this report is to guide the design of these streets as they are upgraded to achieve a unified approach towards University District traffic management. To that end, the report also includes commentary on sequencing of projects, and potential conflicts that could result as projects are undertaken independently. This will allow the jurisdictions to understand the potential implications each project may have on other parts of the study area as implementation progresses. The City does not have any specific revenue source for these projects. Each project would compete with other CIP projects and be reviewed and approved by the City Council. Prior to a project being considered by the City Council, the City and University staff may try low cost recommended geometric changes with the use of for example striping/marking pavements with paint and the use of new signage.

Future Action

Because the Campus Area Transportation Studies have both been undertaken as joint projects among Champaign, Urbana, the University of Illinois and the CUMTD, their successful implementation will continue to require a coordinated approach to implementation. The first step in this effort is for all

agencies to adopt the CATS II Report as the policy guide for future transportation improvements in the University District. A meeting of the CATS Policy Committee, which is made up of the Mayors and Chief Executive Officers of Champaign and Urbana, the Board Chair and Executive Director of the CUMTD, and the Chancellor and Executive Director of Facilities and Services Division of the University, was held on July 21, 2005. At that meeting, this joint body approved adoption of the CATS II final report. Since that action, it is now appropriate for the Urbana City Council to consider adoption of the CATS report.

Recommendation

Staff recommends that Council support and adopt by motion the CATS II Final Report.

Attachments: Sense of the Council Motion
CATS II Executive Summary
Geometric Design Recommendations

S E N S E O F T H E C O U N C I L M O T I O N
{Moved, Seconded, and Approved by Voice Vote on 4/19/04}

* * *

The Urbana City Council asks that the Campus Area Transportation Study include consideration of these concerns of the City Council regarding campus area streets in Urbana:

1. While pedestrian safety should be promoted, the health of our downtown could be negatively affected by limiting automobile traffic flow from Champaign to Urbana through the University District. University Avenue and Kirby/Florida Avenue are thoroughfares between the two Cities, the center of our downtown lies between Main and Green Streets. Attempts to ensure that automobile traffic can move efficiently from Champaign to Urbana, via Springfield Avenue and/or Green Street, should also be kept in mind.

2. Pedestrian crossing of Lincoln Avenue is very difficult at intersections that have no traffic control signals, especially where no median exists to serve as a safe haven for people crossing the street. Traffic signals should include pedestrian countdown signals, and narrowing the width of Lincoln Avenue in the University District should be explored.

3. Metered spaces on Mathews Avenue are used by many visitors to the University of Illinois buildings on Mathews Avenue and the Quad. They also provide customer parking for visitors to the commercial establishments nearby. Eight businesses that serve food are located in the Illini Union and a restaurant is located in the Channing-Murray Foundation. While these establishments enjoy a good deal of pedestrian traffic, non-University customers drive to campus to meet University staff and students for lunch or coffee at these businesses. The metered parking spaces on Mathews Avenue serve an important purpose. Keeping them, rather than replacing them with leased spaces, would be consistent with the philosophy that customers park close and employees park remote.

4. If the study will include potential routes for a tram, we encourage exploration of all possible east-west routes that may be viable in Urbana, including both Green Street and Springfield Avenue between Lincoln Avenue and downtown. Any accompanying analysis regarding the potential impacts to traffic as well as economic development will help Urbana make the best and most sensible decision regarding this project.

CAMPUS AREA TRANSPORTATION STUDY PHASE II EXECUTIVE SUMMARY

University of Illinois
Champaign-Urbana
Champaign County, Illinois

Prepared by:
Clark-Dietz, Inc.
July 2005

Clark Dietz
ENGINEERS

INTRODUCTION

In a collective effort with the Champaign-Urbana Urbanized Area Transportation Study (CUUATS), the City of Champaign, along with the City of Urbana, the University of Illinois, the Illinois Department of Transportation, Campustown 2000, and the Champaign-Urbana Mass Transit District (MTD) initiated a Campus Area Transportation Study (CATS) to address the issues of pedestrian safety, community traffic flow needs, university oriented traffic, interaction among travel modes, with a level of emphasis given to non-auto travel modes including pedestrian, bus, bike, and travel by persons with disabilities.

The first phase of the CATS emphasized a focus on problem locations for transportation circulation and a development of solutions, or strategies, to address these problems. The findings of the first phase of CATS are contained in a study by the Bucher, Willis & Ratliff (BWR) Corporation in June of 1999.

The recommendations of CATS Phase I where aimed at minimizing the modal conflicts currently experienced on campus. The recommendations were founded on the CATS mission statement of:

> **"To better accommodate pedestrian, transit, bicycle and vehicle movements in a more user-friendly environment."**

Inherent in this mission statement is a prioritization of travel modes. The most significant goal of CATS is to enhance pedestrian safety and mobility within a campus environment which accommodates walking as an essential mode of travel and which recognizes the vulnerabilities of the pedestrian when placed in conflict with other modes of travel. Accordingly, CATS is not a transportation study that would typically focus on the accommodation of vehicular volumes by increasing vehicle efficiency and minimizing vehicle delays.

Study Area

The CATS study area, or University District area, is bounded by University Avenue to the north, St. Mary's Road to the south, Neil Street (U.S. 45) to the west, and Lincoln Avenue to the east. Please refer to *Study Area Limits* on the following page for a graphical depiction of the study area.

Study Area Limits

Goals and Objectives

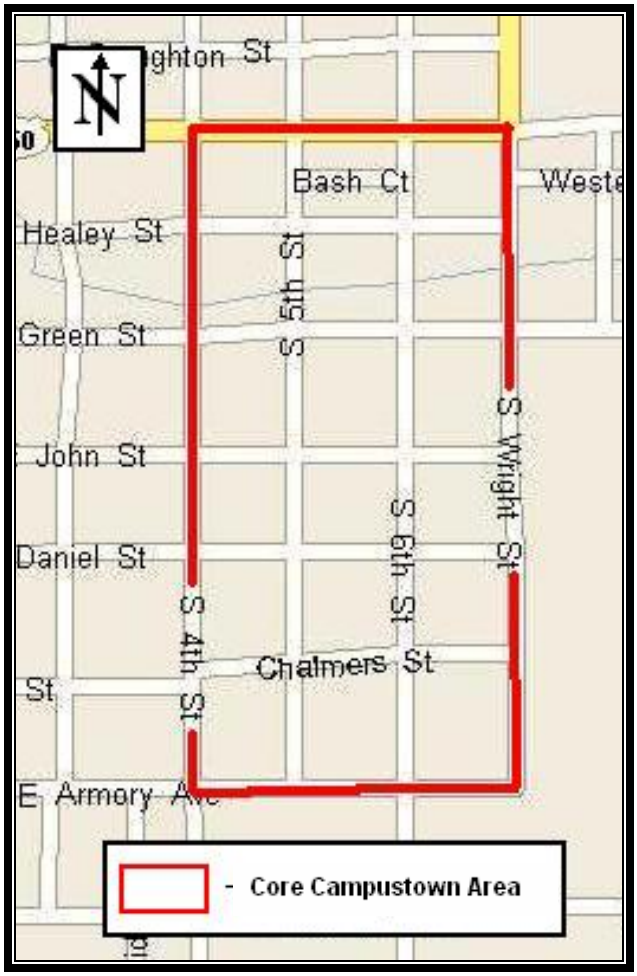
The primary goal of CATS Phase II is the preparation of preliminary concepts and workable geometric designs for the proposed improvements with the understanding that the University District is intended to be a special traffic area where priority is given to pedestrians, transit and bicycles. Automobile traffic to parking sites within the District is encouraged, while automobile travel through the District to other destinations outside the District boundaries or within the District between parking sites is intended to be discouraged. The utilization of Green Street as a means of travel between Champaign and Urbana is primarily discouraged.

PLAN DEVELOPMENT

Determination of Campustown Circulation Plan

As identified in the previous sections, several unresolved issues from the first phase of CATS related to treatments of street components within the study area remained. Two of these streets, Green Street and Sixth Street, and an additional street requiring further analysis as a component of this study, Wright Street, are key elements of the transportation network located in the core campustown area. The core campustown area is defined as an area bordered by Armory Avenue, Wright Street, Springfield Avenue, and Fourth Street. Please refer to *Core Campustown Area* for a graphical depiction of the core campustown area.

Core Campustown Area



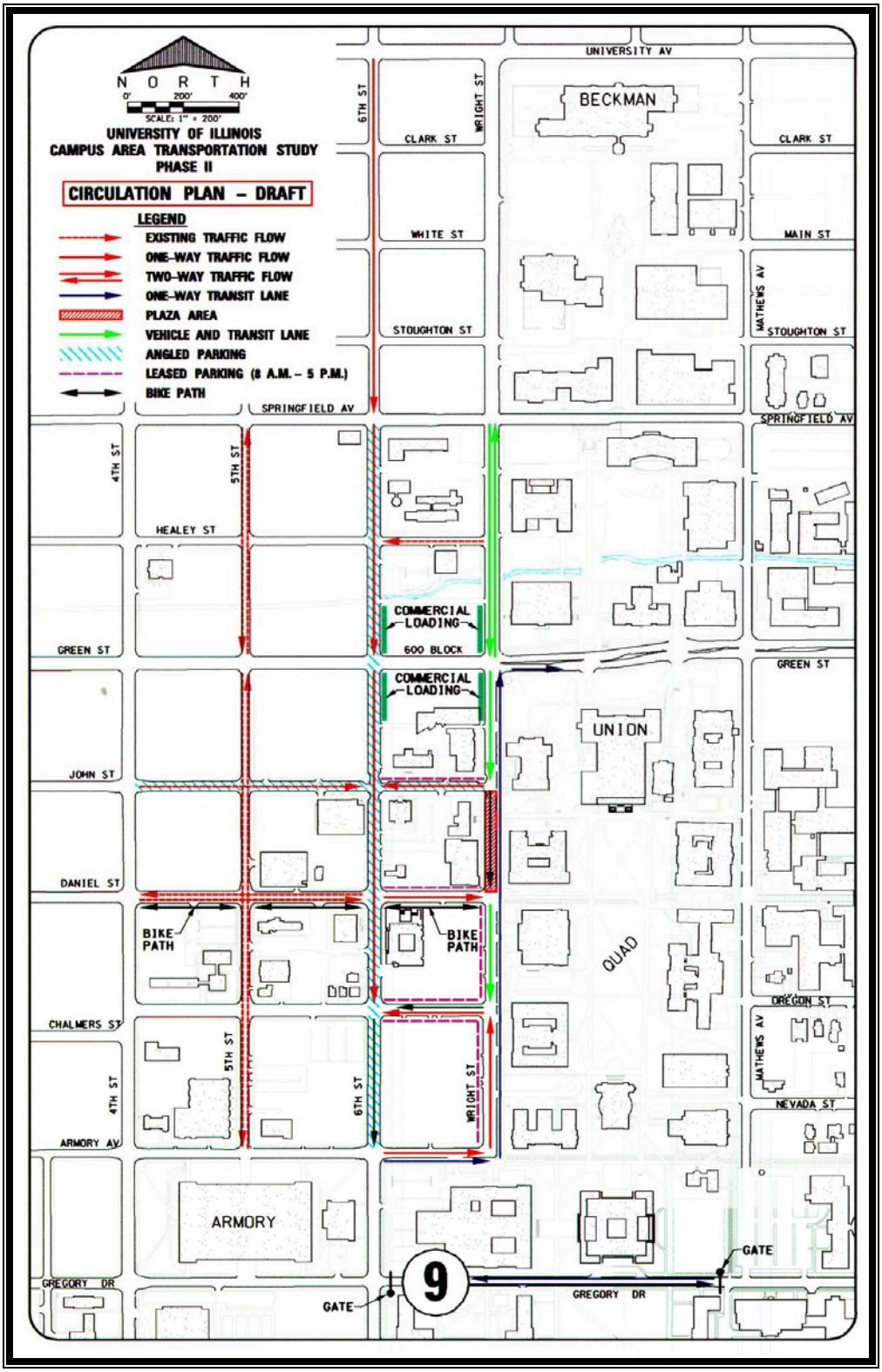
These unresolved issues from the first study prompted reinvestigation into traffic flow within the core campustown area as it related to the goals and objectives of CATS Phase II. It was determined by direction of the Technical Advisory Committee that resolution of traffic patterns within the core campustown area was needed before the specific dynamics of the streets and intersections could be developed for implementation.

A matrix analysis was developed to review various circulation schemes in the area and form a hierarchical listing of these schemes based upon established criteria.

The criteria used to evaluate the circulation schemes are founded on the hierarchy of travel modes as outlined in the mission statement of the project. Accommodation of travel by foot is more important than travel by bus, bicycle or car within the campus environment. Criteria were developed to measure the adequacy of a circulation scheme with respect to meeting the goals and objectives of the project, which is primarily the enhancement of pedestrian safety. The criteria were segregated to match the pieces of the circulation puzzle by the establishment of criteria for the evaluation of street segments and intersection nodes independent of a designated circulation plan. Criteria were also established to evaluate any circulation plan as a whole with respect to the goals of the project.

Elements of the final circulation plan include a three-lane Green Street, a one-lane, one-way southbound Sixth Street, and a Wright Street proposal which promotes transit use and discourages vehicle use.

Approved Campustown Circulation Plan



PROPOSED STREET TREATMENTS

As identified in the mission statement, the primary purpose of the CATS is development of a University District where priority is given to pedestrians, transit and bicycles; de-emphasizing efficient movement of vehicles through the area. For the street corridors identified below, please refer to the exhibit documents (under separate binding) for a graphical depiction of aerial-based plan view and typical section.

GREEN STREET (Exhibit Sheets 2-4)

Neil Street to Wright Street

Under the proposed plan, this portion of Green Street would be narrowed from the existing four-lane configuration (two lanes in each direction) to a three-lane alignment (one lane in each direction with a center two-way left turn-lane).

West of Locust Street, Green Street would taper down to one lane in each direction with a center lane transitioned to a two-foot flush median under the railroad grade-separation structure. This transverse width reduction is necessary to pass under the ICRR overpass. Under such a design, adequate additional width is provided beyond the back of curb for sidewalk and bikeway development.

One reason for the narrowing of Green Street is the promotion of pedestrian and streetscape area. Green Street, specifically the 600 block between Sixth and Wright Streets experiences high volumes of pedestrian traffic. A second reason for the narrowing of Green Street involves existing capacity of the street. The existing four-lane configuration experienced a high number of left–turning vehicles on the inside lane both at the intersections and at mid-block entrances. The three-lane proposal clearly separates the through vehicles from the left-turning vehicles.

Wright Street to Mathews Avenue

This portion of Green Street, specifically in front of the Illini Union poses specific problems with modal conflicts as it is a high vehicle use location, a high transit use location, and a primary pedestrian crossing. Several different treatments were considered to promote pedestrian safety.

First, the possibility of pedestrian signal placement was investigated. The signal location would be placed at the west Union entrance as this point experiences the greatest number of pedestrians crossing Green Street. Capacity analysis indicated that the proximity of this crossing to the Green St./Wright St. intersection, measuring 250’ from each other, would result in vehicle queues backing up beyond the pedestrian crossing location. Pedestrian signal coordination would not be possible, and vehicles would likely ignore the crossing while waiting for a green light at the Green St./Wright St. intersection.

A second treatment was investigated to more clearly separate modal conflict types. Under this treatment, the existing four-lane section of pavement would be redefined to carry only busses in the outside lanes and only vehicles in the inside lanes. The inner vehicle lanes (one lane in each direction) would match the number of lanes on the west side of the Green St./Wright St. intersection. In doing this, the opportunity for vehicles weaving between lanes is minimized and, as such, the information presented to a pedestrian with regards to potential conflicts is simpler to comprehend.

To further emphasize pedestrian safety, left turn-lane channelization which is no longer functional due to the elimination of Burrill Avenue and Kings Highway north of Green Street will be removed, providing greater pedestrian refuge. Additionally, a recommendation of moving the westbound MTD drop-off point farther west is proposed in order to eliminate the two crosswalks in close proximity.

Mathews Street to Lincoln Avenue

A significant number of MTD routes on Green Street utilize either Mathews Avenue or Goodwin Avenue. As a result, this plan proposes dropping the bus lanes explained in the previous section at the Goodwin Avenue intersection. East of this point Green Street will be a four-lane arterial carrying two lanes of traffic in each direction.

East of Goodwin Avenue, however, there are several points at which pedestrians cross Green Street. The TAC recommendation to improve safety for the pedestrians would be to concentrate pedestrians to one crossing point, signalize the crossing, and place a vegetative barrier along the median to discourage pedestrians from crossing at any other point. To avoid any sight-distance problems for left-turning vehicles created by the vegetative barrier, the median opening at Green Street and Gregory Street would be closed. The roadway cross section will remain as it currently exists.

SPRINGFIELD AVENUE (No Exhibit Sheets)

Neil Street to Wright Street

In narrowing Green Street from four lanes down to three lanes, greater delays are expected at the signalized intersections by design. The intent is to move traffic from the core of campus and encourage them to use the periphery of the University District to move across Champaign and Urbana.

One alternate route for Green Street traffic would be Springfield Avenue two blocks to the north. To promote the use of Springfield Avenue as an alternative east/west route, improvements to capacity should be made. Capacity improvements are made primarily at the signalized intersections since the prospect of widening Springfield Avenue to add more lanes would be significantly cost-prohibitive.

A preliminary analysis of the Springfield Avenue signalized intersections indicates that good progression appears possible when maximizing the eastbound/westbound movements, or extending the length of green signal time for these movements. When continuous movement is maintained, vehicle delays are minimized and capacity is improved.

Wright Street to Lincoln Avenue

The classification and character of Springfield Avenue differs on each side of Wright Street. West of Wright Street Springfield Avenue is classified as a major arterial carrying U.S. Routes 45 and 150. At Wright Street, Routes 45 and 150 follow the north leg of the intersection. Springfield Avenue west of Wright Street measures 36' edge-to-edge of pavement, facilitating one lane in each direction and a center two-way left turn-lane. East of Wright Street, Springfield Avenue is classified as a minor arterial measuring 36' from face-to-face of barrier curb. It facilitates two-way traffic with parallel parking on one side or both sides. Between Goodwin Avenue and Gregory Street parallel parking is located on both sides of the street. With 8' parking stall widths, this equates to 10'-wide lanes in each direction – the narrowest arterial through-lanes in the campus area.

While moving through-traffic to the periphery of the University District is an objective of the CATS plan, it is acknowledged that all traffic will not do this. As stated above, Springfield Avenue is one alternate route for previous users of Green Street. However, the objective in its use would be for motorists to follow the U.S. Routes. As such, it is not desirable for motorists to use Springfield Avenue for a through-route east of Wright Street, primarily due to the number of pedestrians that cross Springfield Avenue in this area. Pedestrians in this area consist primarily of University of Illinois students *and* University High School students.

A means of discouraging through-traffic is to reduce vehicle speed. Several measures have been taken, or already exist, which discourage excessive vehicle speed. One component is the adjacent parallel parking identified above. The parallel parking along with the reduced lane widths result in a "shy zone" which forces vehicles to move slower. A second component to reduce speed and improve pedestrian safety is the lighted pedestrian crossing north of the Grainger Engineering Library. Whenever pedestrian enter the zone of influence for the crossing illuminated signals within the pavement signal motorists to yield to pedestrians. This has had a significant impact on slowing or stopping vehicles along Springfield Avenue.

WRIGHT STREET (Exhibit Sheet 9)

One component of the core campustown circulation plan involves modification to existing MTD transit routes. During the course of this study, the MTD indicated they could establish more efficient routing if they could operate with two-way transit on Wright Street from Armory Avenue to Springfield Avenue. In doing this, the MTD could remove all transit routes from Sixth Street and Springfield Avenue, and all transit routes

with the exception of the Green Line from Green Street. Under the proposed plan, Wright Street becomes a two-way street for its entire length north of Chalmers Street.

Armory Avenue to Green Street

As stated above, this section of Wright Street is proposed as a transit corridor providing two-way bus flow in each direction. Proposed prohibitive signage will prevent vehicles from using lanes of Wright Street dedicated exclusively to transit. To make this workable with the intersecting side streets (John Street, Daniel Street, and Chalmers Street) some vehicular traffic flow has to be provided for on Wright Street. As seen in the Approved Campustown Circulation Plan (Figure 3.2), single direction vehicular traffic flow, in addition to transit flow, is provided in the southbound direction only between Green Street and John Street; in the southbound direction only between Daniel Street and Chalmers Street; and in the northbound direction only between Armory Avenue and Chalmers Street. The proposed cross-section components of Wright Street will consist of one lane in each direction, an parallel parking lane along the west side where workable, a flush (painted) median along the east side of the alignment separating vehicular traffic from a two-way bike path.

Wright Street experiences a heavy pedestrian flow across the pavement at several intersections within this portion of the street. By creating the transit corridor and prohibiting through vehicles from using Wright Street, traffic volumes are expected to decrease approximately 60% to 80%. This will greatly improve pedestrian safety as students cross Wright Street to and from classes.

Green Street to Springfield Avenue

The proposed dimensions will consist of one lane in each direction with diagonal parking stall along a portion of the west side. Similar to Wright Street south of Green Street, a flush median along the east side of the alignment will separate vehicular traffic from a two-way bike path. The median will transition to a transit plaza in the Healey Street area. This bike path and transit plaza will require additional roadway width. Preliminary field measurements indicate that this is workable with some reconstruction of the Wright Street entrance steps to Everitt Lab. Some tree removal will also be required.

Springfield Avenue to University Avenue

This section of Wright Street is under IDOT jurisdiction carrying U.S. 45/U.S. 150. The proposed plan for this portion of Wright Street replicates its existing typical section – two-way, two-lane traffic with parallel parking on each side. Reconstruction of the section is not anticipated.

SIXTH STREET (Exhibit Sheet 5)

The circulation plan adopted by the Technical Advisory Committee maintains the one-way southbound direction, however, the proposed plan narrows Sixth Street from a two-lane street to a single lane.

University Avenue to Healey Street

This section of Sixth Street represents the transition into the core Campustown area. From University Avenue to Springfield Avenue the circulation plan proposes maintaining the existing two-lane southbound with parallel parking. From Springfield Avenue to Healey Street the typical section will be transitioned to a one-lane, one-way southbound with diagonal parking on the west side of the street and parallel parking on the east side.

Healey Street to Chalmers Street

Parallel parking on both sides of the Sixth Street for this section will be converted to diagonal parking on the west side of the alignment.

The proposed cross-section will consist of a single southbound lanes with diagonal parking stall on the west side and a loading zone on the east side. Proposed mid-block neck downs of the parking will provide small plaza areas for pedestrians and will promote safety by minimizing the crosswalk distance for those pedestrians desiring to cross Sixth Street at midblock.

Chalmers Street to Armory Avenue

Between Chalmers Street and Armory Avenue two southbound lanes are proposed with parallel parking on both sides – similar to the current configuration. Two lanes are provided for this single block to accommodate vehicle queues resulting from the Sixth Street/Armory Avenue traffic signal, and to circumvent weaving conflicts for vehicles with either a westbound, eastbound or southbound destination when entering the subject intersection from the north.

Armory Street to Pennsylvania Avenue

The proposed plan for this portion of Wright Street replicates its existing typical section – two-way, two-lane traffic with parallel parking on each side.

FIFTH STREET (No Exhibit Sheet)

Traffic flow direction of Fifth Street was examined during the Core Campustown Traffic Circulation study as a component of coupling with a one-way Sixth Street. Fifth Street currently exhibits a low ADT (less than 2,500 vpd). It is a two-way street measuring 22 feet from face-to-face of curb. Parallel parking is permitted at some locations on the west side resulting in a transverse dimension which does not permit the safe passage of vehicles in both directions at the same time. This condition severely limits the capacity

of Fifth Street resulting in an operation more typical of a secondary street then that of a collector.

Possible future traffic volume increases on Fifth Street could warrant two types of improvements. First, an increase in vehicular volume could warrant the need to signalize the Green Street/Fifth Street intersection. The second improvement that may be warranted under possible future increased vehicle volumes on Fifth Street would be a widening of the street to improve capacity.

Both of these conditions stated above will be monitored upon implementation of the adopted circulation plan.

FOURTH STREET (Exhibit Sheet 12)

Fourth Street is a two-lane, two-way arterial running north/south through the heart of campus. Parallel parking is allowed on both sides of the street. To provide protection for the pedestrians while maintaining two-way vehicular traffic flow, several modifications are proposed.

First, the existing typical section promotes high vehicle speeds with expanded lane dimensions. Between intersections, the typical section exhibits 14-foot lanes in each direction - the widest vehicle lanes for a two-way street in the campus area. The proposed plan for Fourth Street narrows these lanes to 11 feet and proposes a 6-foot flush median in the center. This 6-foot width provides refuge for pedestrians and is of a width that permits the transverse storage of a bicycle or an adult with a stroller.

The intersection(s) of Chalmers Street with Fourth Street is offset by approximately 80 feet. This offset presents problems for pedestrians crossing in this area as they have numerous decisions to make regarding vehicles turning onto and off of Fourth Street from various directions. A means of reducing turning movements would be the incorporation of a 6-foot raised median down the center of Fourth Street in the vicinity of the Chalmers Street intersections. This would prevent left turns from being made across the centerline, thereby, simplifying decisions made by pedestrians crossing Fourth Street.

An additional proposed modification involves traffic control at the Fourth Street/Armory Avenue intersection. This intersection is currently stop-controlled. A future parking structure near the Fifth Street/Chalmers Street intersection could greatly increase vehicular traffic at the Fourth Street/Armory Avenue intersection. To meet this additional traffic demand a traffic signal is proposed at this intersection.

FIRST STREET (Exhibit Sheet 13)

First Street is a two-lane, two-way arterial running north/south along the west side of campus. Parallel parking is currently allowed on the east side of the existing alignment.

This face-to-face width would adequately facilitate parallel parking on both sides of the street while maintaining a single 12-foot lane in both the northbound and southbound direction. The reason parallel parking exists only on one side of the alignment involves traffic control on football weekends. After football games, First Street becomes a one-way northbound from Kirby Avenue to Green Street. Because southbound parallel parked vehicles would become trapped under this condition the City of Champaign removed parallel parking from the west side. The proposed plan reinstates parallel parking on the west side with the recommendation that signs be installed prohibiting parking on the days in which football games are played at Memorial Stadium.

The CATS Phase I report identifies a need to establish a north/south arterial that is removed from the core of the campus area. In doing this, vehicles are given a preference over the pedestrians, however, such a scheme is only workable where pedestrian volumes are reduced. First Street is identified as the likely arterial. In establishing such a classification for First Street, stop-controlled intersections which impede north/south progression should be removed. This study recommends the conversion of the First Street/Gregory Street from a stop-controlled intersection to a signalized intersection.

JOHN STREET (Exhibit Sheet 10)

First Street to Fourth Street

The proposed plan for this portion of John Street replicates its existing typical section – one-way eastbound traffic with parallel parking on each side. Reconstruction of this section of John Street is not anticipated.

Fourth Street to Sixth Street

Parallel parking on both sides of the John Street for this section is converted to diagonal parking on the north side to better serve commercial properties in the 500 block between Fifth and Sixth Streets. The John Street traffic lane will be narrowed to a single lane. This typical section will replicate the section of John Street on the 600 block east of Sixth Street completed in 1998 as a precursor to this project. Proposed mid-block neck downs will provide small plaza areas for pedestrians and will promote safety by minimizing the crosswalk distance for those pedestrians desiring to cross Sixth Street at midblock.

Sixth Street to Wright Street

Transverse dimensions for this block of John Street will remain identical to the existing configuration, however, the direction of one-way traffic will change to the westbound direction. This change in direction is in adherence to the adopted circulation plan and will require only a re-striping of the existing pavement and parking stalls.

DANIEL STREET (Exhibit Sheet 10)

Of special consideration on Daniel Street is the incorporation of an east/west bike path within the roadway corridor. As identified in the Approved Campustown Circulation Plan, Daniel Street will operate as a one-way eastbound between Sixth Street and Wright Street. With a slight widening of the street, the existing width would accommodate 60^{o} angled parking, a single 12' eastbound lane, and a 10' two-way bike path.

Ideally, the Daniel Street bike path would connect Wright Street to the east with Locust Street to the west. This component of the University of Illinois Bike Master Plan has not been finalized. To continue the bike path within the Daniel Street corridor west of Sixth Street, options to incorporate the bike path within the roadway should be investigated.

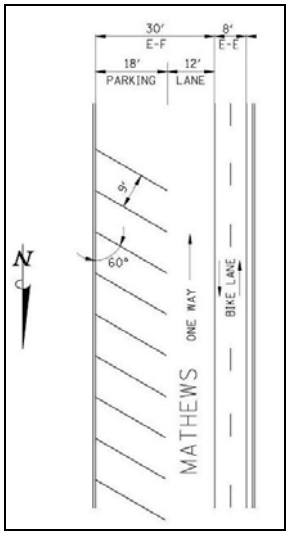
MATHEWS STREET (Exhibit Sheet 6)

Mathews Street is a one-way street on the east side of campus in Urbana. It is one-way southbound south of Green Street and one-way northbound, between Green Street and Main Street to the North. Mathews Street south of Green Street carries a high volume combination of pedestrians, bicyclists, transit and vehicles. Pedestrians utilize the sidewalk on both sides of the street and cross Mathews Avenue at numerous locations, not necessarily identified as pedestrian crossing zones. A two-way bike path follows the Mathews Street alignment crossing diagonally across traffic halfway between Green Street and Nevada Street. Several alternates were investigated to determine a favorable means of separating all modal types.

One alternative proposed widening the existing pavement to include diagonal parking and bike lanes all within the face of curb. This alternative would have placed the bike trail on the west side of pavement with diagonal parking on the east side, as shown in Figure 3.8.

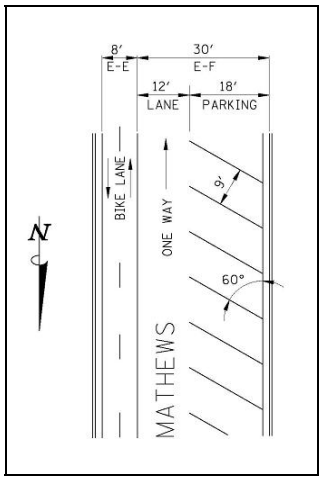
A safety concern with this alternative involves conflicting adjacent directions of travel with southbound vehicles and northbound bicycles. There is no room to incorporate a buffer zone between these two movements without significant tree removal on both sides of the street. This would drastically change the character of the corridor. Additionally, vehicles backing out of the diagonal stalls could back into the bike lane, creating the potential for an accident. As a result, the TAC did not wish to pursue this alternative.

Figure 3.8



A second alternative incorporated elements of the previous cross section with some modifications. The two-way bike trail was moved to the east side and the diagonal parking was converted to back-in diagonal parking as shown in Figure 3.9. Literature on the subject suggests that back-in diagonal parking appears to be safer for adjacent bicycle operations.

Figure 3.9

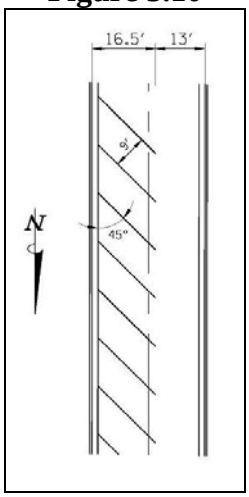


As seen in Figure 3.9, this alternative does not place adjacent flows (vehicle versus bicycle) in opposite directions. As a result, the operation is safer for bicyclists. Additionally, the back-in diagonal parking does not present the situation where a vehicle is backing into the bicycle lane. Back-in parking is considered to be a simpler operation than parallel parking. The TAC did not wish to move forward with this alternative on the basis of presenting a parking scheme which users would be unfamiliar with.

The two alternatives identified above also require a widening of the existing pavement to contain the bike trail within the formal pavement system. This was deemed too expensive to pursue. An alternative was investigated which utilized the existing pavement width. The final alternative studied utilizes the existing width while proposing diagonal parking as shown in Figure 3.10. To make this fit, however, the diagonal parking must be striped at a 45 degree angle opposed to the 60 degree angle proposed at all other locations on campus.

Figure 3.10 depicts the final alternative and the recommended plan for Mathews Avenue. This plan does promote safer loading and unloading of busses as there would be no parallel parking stalls on the access side (west side) of the transit vehicles. Drop off would be curbside. This alternative would represent a loss of approximately 15 parking stalls along Mathews Avenue south of Green Street. It could be performed with minimal reconstruction, primarily just a re-striping of the pavement.

Figure 3.10



An identical typical section is proposed for Mathews Avenue between Green Street and Springfield Avenue, inversing the side of diagonal parking to represent the change in direction of the one-way street.

GOODWIN AVENUE (Exhibit Sheets 7 & 8)

Goodwin Avenue is the primary north/south route between Wright Street and Lincoln Avenue. The intersection of Goodwin Avenue and Illinois Street is one of the highest pedestrian utilization areas in the entire study area.

The proposed alignment matches the existing face-to-face dimension, narrowing each lane from 14' to 12' and adding the additional width to the flush median, increasing its width to 6 feet. As stated earlier, the 6-foot width provides refuge for pedestrians and is of a width that permits the transverse storage of a bicycle or an adult with a stroller. Parallel parking is proposed on both sides of Goodwin Avenue..

To assist pedestrians crossing the Goodwin/Illinois intersection, all-way stop control will be incorporated and the intersection will be reduced in size by pulling out the corner radii. This will shorten the length of travel for a pedestrian crossing Goodwin Avenue. Left turn-lanes will be removed from the Goodwin/Oregon intersection to reduce intersection size and shorten the pedestrian crossing length. The intersection will remain all-way stop-controlled. Pedestrian volume is also addressed at a pedestrian/bicycle crossing approximately 175' south of the Goodwin/Nevada intersection. At this location pavement will be narrowed to promote slower vehicle speeds as they approach the crossing.

North of Green Street the same typical section is proposed on Goodwin Avenue as that proposed south of Green Street: one 12-foot lane in each direction separated by a six-foot flush median and parallel parking on both sides.

LINCOLN AVENUE (Exhibit Sheet 14)

During the course of study for Phase II of the project, the City of Urbana inquired about a possible narrowing of Lincoln Avenue from the existing four lanes down to three lanes in a manner similar to the proposed narrowing on Green Street. This raised questions regarding the CATS mission statement as Lincoln Avenue is considered a periphery street. Atypical of the other periphery corridors, however, Lincoln Avenue in the aforementioned area experiences a high number of pedestrian crossings as fraternities, sororities and campus housing units exist on the east side of Lincoln Avenue. Seeking ways to minimize modal conflicts becomes more important than identifying routes for vehicles to avoid the campus area.

Under the proposed plan, two through lanes (one in each direction) and a single two-way left turn-lane in the center would all measure 11' from edge-to-edge. This would reduce

pedestrian crossing distance by approximately seven feet. This can be accomplished through re-striping the existing pavement and providing a 3.5' buffer area on each edge of pavement, or it can be done through roadway reconstruction.

To provide better protection for pedestrians crossing Lincoln Avenue, two measures are proposed. First, the intersection of Lincoln Avenue with Pennsylvania Avenue and Nevada Street would become signalized. This will provide better gaps and provide signalized protection for pedestrians. A second measure for protection is to provide raised median channelization at midblock locations where pedestrians current cross. This would break continuity of the center two-way left turn-lane at two locations: between Michigan Avenue and Indiana Avenue, and between Indiana Avenue and Ohio Street.

SECONDARY CAMPUS STREETS

The improvements recommended within this report address primarily the collectors and arterials within the campus area. Many local streets not addressed here or within the CATS – Phase I report still experience a high volume of pedestrians crossing at mid-block or at intersections.

For the most part, the local streets are low volume streets (>5,000 ADT) of which a majority of traffic consists of motorists seeking parking. To aid the pedestrians on the secondary campus streets, neckdowns at the street intersections and cautionary signage at pedestrian crossings are recommended as means to promote pedestrian safety. See *PEDESTRIAN ACCOMMODATIONS* below for additional information on these procedures.

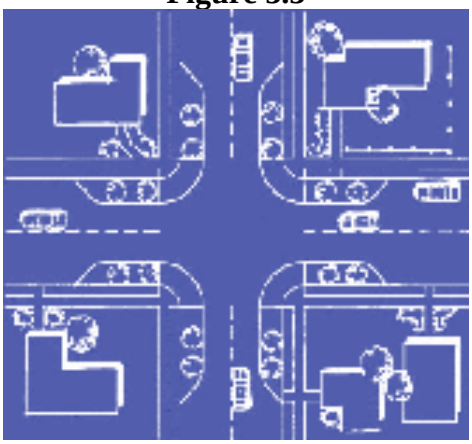
PEDESTRIAN ACCOMMODATIONS

Pedestrian safety along the campus streets is primarily dependent on the allocation of space for walking and the conflicts that occur when crossing a street anywhere along its length. To this end, several elements of street design have been proposed which promote pedestrian safety above all other modes of transportation in the study area.

First, by narrowing the campus streets, greater area is dedicated to the pedestrian. Allocation of space dedicated solely for pedestrians provides the greatest safety environment for those traveling on foot. Such design has an added benefit of providing area for streetscape enhancements, thereby offering opportunity for improved aesthetics.

Second, at locations where pedestrians cross the campus streets, crossing widths have been minimized. At such intersections, neckdowns, or chokers are proposed to minimize the crossing path. The choker is a narrowing of the street either at an intersection or at midblock to constrain the width of the traveled way. Figure 3.3 below depicts an image of an intersection neckdown.

Figure 3.3

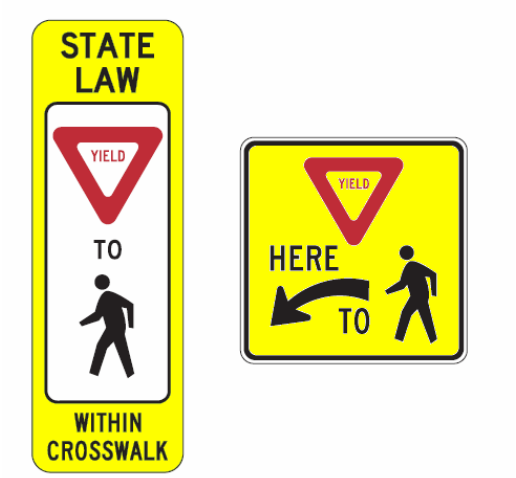


While the neckdowns are intended to reduce the crossing width of the pedestrian and provide improved visibility, recent literature on the subject of traffic calming suggests that the neckdowns have little or no effect on vehicle speeds. Neckdowns are also proposed at various midblock locations along the one-lane, one-way streets.

At numerous pedestrian marked pedestrian crossings where traffic control does not currently stop vehicles, signage has already been erected which indicates a pedestrian right-of-way. See Figure 3.4 below for an example of such signage.

Figure 3.4

During trial periods such signage has proved to be both an effective and inexpensive means of slowing down traffic throughout the campus. The vertical sign (R1-6) is placed in the center of the pavement; the square sign (R1-5) is placed at the edge of pavement near the crossing stripe.



A final element of proposed street design to aid pedestrians involves the maintenance of one-way streets within the campus area. Research of traffic engineering literature suggests that it is safer for pedestrians to cross a single lane of traffic with vehicles approaching from only one direction, than to cross a street with two lanes and vehicles approaching from both directions. In this regard, portions of Sixth Street, John Street, Healey Street and Daniel Street have all been designed geometrically to meet this condition.

BICYCLE ROUTES

Bicycles are one of the four modal types identified within the mission statement. Similar to pedestrians, cyclists' needs extend beyond the formal roadway corridors located within the University District. An objective of this phase of the CATS II study is not to address the bike route plan for the entire University, but to incorporate those components of the bike path system which are located within the roadway corridors. There are two existing streets within this study which also carry a bike path: Wright Street and Mathews Avenue.

Wright Street

The existing Wright Street bike path is located between Armory Avenue and Green Street. It aligns the east side of the roadway and is separated from vehicular traffic by a raised median. The path consists of one 3-1/2-foot lane in each direction. The trail does not exist between Green Street and Springfield Avenue, however, it picks up again north of Springfield Avenue. This bike path is the longest portion of bike trail system within the University District that is contained within the existing roadway network surface.

To better accommodate bicyclists utilizing this portion of the bike trail system two objectives were proposed. First, bring the trail up to standard width. This would require making the trail 10 feet in width with a five-foot lane in each direction. Second, by providing a continuum between Green Street and Springfield Avenue, the bike path becomes a more important component of the bike trail system, directly carrying traffic from the quad to the north side of campus.

Mathews Avenue

The existing Mathews Avenue bike path is located beyond the back-of-curb on both the east and west sides of the roadway south of Green Street crossing Mathews Avenue diagonally half way between Green Street and Nevada Street. As stated above, Mathews Avenue carries a high volume combination of pedestrians, bicyclists, transit and vehicles. One objective to this area of the study was an investigation on means of separating the modal types and reducing the number of modal conflict points. Several alternatives were studied which introduced a bike path which did not intersect vehicular and bus traffic. All of these alternatives, however, required a widening of the pavement to include the bike path within the pavement system. Refer to discussion of the various cross-sections analyzed for Mathews Street above.

TRANSIT ROUTES

During the course of CATS Phase II Study the Champaign-Urbana Mass Transit District performed an alternatives analysis to evaluate future transit issues. Some alternatives include flexible transit and fixed guideway. This report assumes that streets currently

experiencing a high volume of transit will maintain these routes regardless of future transit type. Streets currently experiencing greater than 20 busses per hour that are addressed within this report include Green Street (east of Wright Street), Wright Street, Armory Avenue, Fourth Street, Mathews Avenue, Goodwin Avenue, and Gregory Drive.

The improvements proposed within this report for the streets identified above maintain the existing street width. In doing this, future infrastructure improvements related to transit can be contained within existing right-of-way and, hopefully, within the existing street system. With dedicated transit routes on Wright Street and east Green Street, future flexible transit or fixed guideway can potentially be contained within these exclusive transit lanes.

FREIGHT DELIVERY

With the narrowing of Green Street there is a need to prohibit delivery vehicles from double parking in the single through lanes along Green Street. Freight vehicles parked in this single lane would result in vehicles using the two-way left turn-lane to pass the parked vehicle. In the 600 block of Green Street, this would be a dangerous situation. Passing vehicles would conflict with a high number of eastbound and westbound left-turning vehicles. This problem would be further complicated by the visibility impediments created by the typical delivery vehicle.

To remedy this problem, curbside loading berths are proposed immediately off of Green Street adjacent to the intersections. The berths measure 11 feet in width from edge-to-edge of lane and have a variable depth pending the number of delivery trucks anticipated at a given location. The loading berths will be signed for exclusive delivery vehicle use at all times.

PROJECT IMPLEMENTATION COSTS

Implementation costs for the proposed improvements identified within this report are provided assuming individual streets are constructed independent of each other. Conceptually, the construction and engineering costs identified below would be used for budgeting purposes to be included in future transportation improvement programs. Assuming projects are constructed independently would result in higher construction costs. Theoretically then, these costs assume a worst-case scenario in terms of construction scheduling. Including several street improvement projects within one construction contract would result in reduced costs.

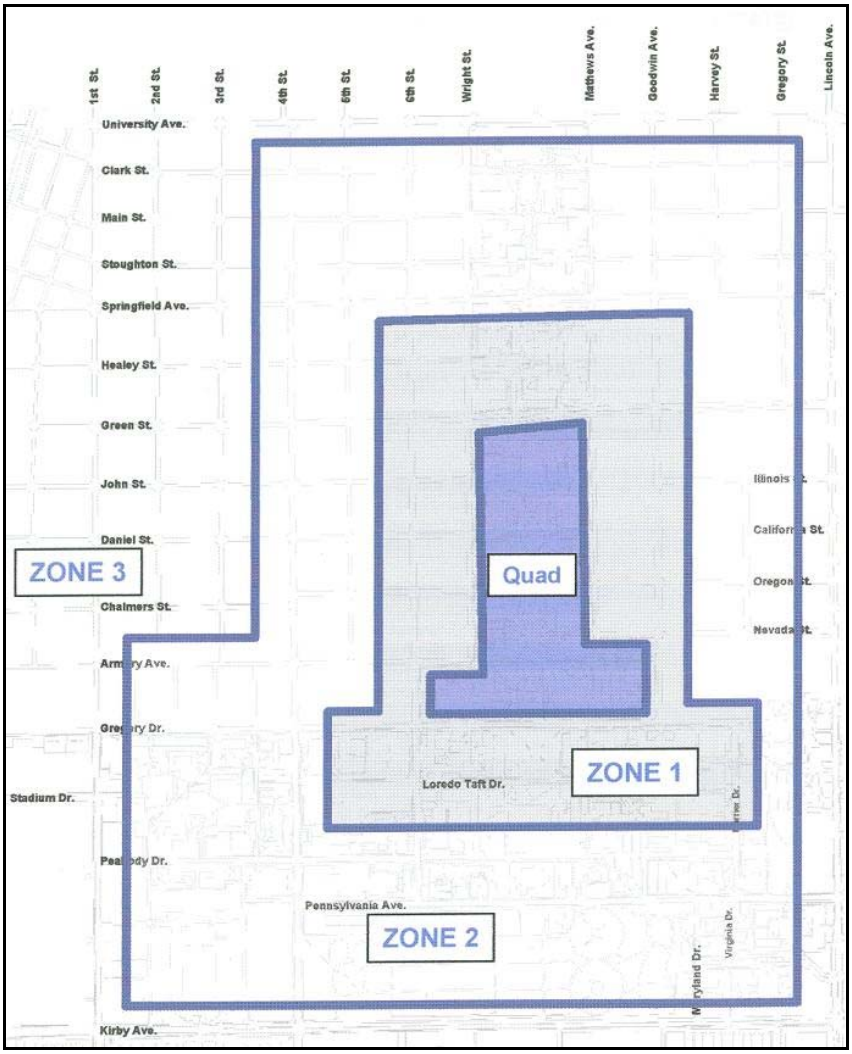
Estimated Project Implementation Costs
Table 4.1

Street	Opinion of Probable Cost	15% Cont.	Design Eng. (10%)	Constr. Eng. (9%)	Total Fee
Projects Costs Estimated at less than $500,000					
Springfield Avenue	$183,750	$27,563	$23,244	$19,018	$255,000
Mathews Avenue	$206,168	$30,925	$26,080	$21,338	$285,000
Projects Costs Estimated between $500,000 and $1,000,000					
First Street	$544,739	$81,711	$68,909	$56,380	$755,000
Projects Costs Estimated between $1,000,000 and $2,000,000					
Goodwin Avenue	$733,365	$110,005	$92,771	$75,903	$1,015,000
Green Street (Wright to Lincoln)	$784,060	$117,609	$99,184	$81,150	$1,085,000
John Street	$932,025	$139,084	$117,901	$96,465	$1,290,000
Lincoln Avenue	$965,690	$144,852	$122,159	$99,948	$1,335,000
Fourth Street	$1,346,520	$201,978	$170,335	$139,365	$1,900,000
Projects Costs Estimated between $2,000,000 and $5,000,000					
Sixth Street	$3,544,518	$531,678	$448,381	$366,858	$4,900,000
Projects Costs Estimated between $5,000,000 and $10,000,000					
Green Street (4^{th} to Wright)	$4,273,694	$641,054	$540,622	$442,327	$5,900,000
Green Street (Neil – 4^{th})	$4,939,884	$740,983	$624,895	$511,278	$6,825,000
Wright Street	$5,702,894	$855,434	$721,416	$590,249	$7,900,000
TOTALS	**$24,197,295**	**$3,623,594**	**$3,055,898**	**$2,500,280**	**$33,445,000**

5.0 PROJECT IMPLEMENTATION SCHEDULE

Phase I of the Campus Area Transportation Study identified a transportation zone concept which was developed to present a methodology to different strategies within the study area. The three zones are depicted in the figure below.

The Transportation Zone Concept



In short, the emphasis in Zone 1 is pedestrian mobility. The emphasis in Zone 2 is traffic calming and the emphasis in Zone 3 is promoting vehicle use around the campus periphery. Conceptually, before implementation of strategies within Zone 1 can be executed, the development of the periphery (Zone 3) should be ready to accommodate additional vehicles. In doing so, the overall sequencing of implementation activities would minimize short-term traffic circulation problems.

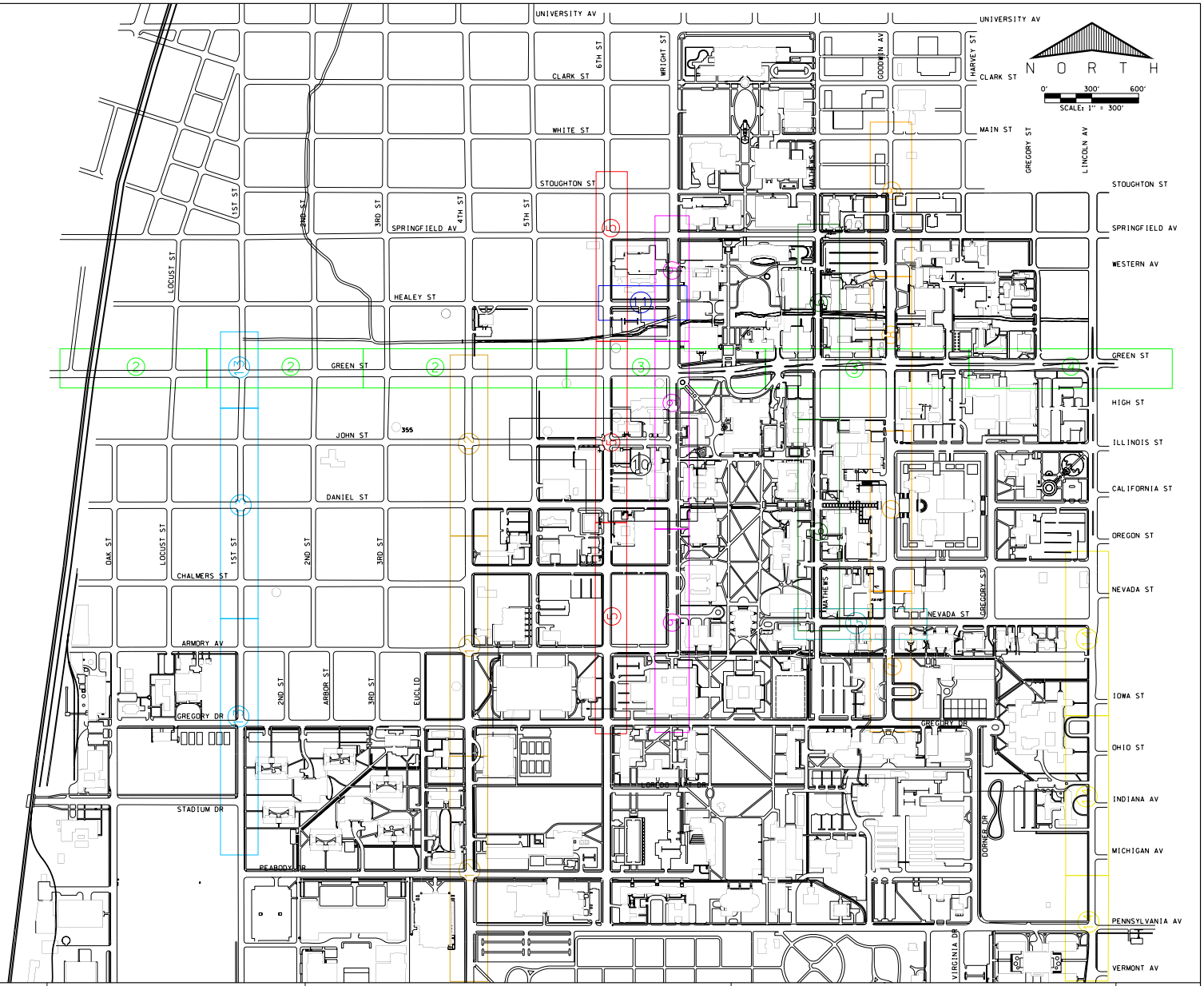
The CATS II TAC, however, desired to move forward with the narrowing of Green Street from four lanes down to three in 2002 in an effort to address pedestrian issues at that time. The thinking was to make changes at the core of campus, then monitor other areas within the University District to determine what improvements need to be made next. Considering this, a sequence of construction that moves from the periphery towards the center has already been compromised. This, however, does not mean that a sequence of remaining work cannot be addressed.

Considering this, the following implementation schedule is more a list of what can and cannot be done simultaneously than a strategized order of sequence. Funding opportunities will likely dictate the order in which components of the CATS project are implemented.

Potential Project Sequencing Conflicts

Project Component	Conflicting Project Component	Reason for Conflict
Springfield Avenue	Green Street (Neil to 4th)	Would impact east/west flow on two adjacent arterials within the University District.
Green Street (Neil to 4th)	Springfield Avenue	Would impact east/west flow on two adjacent arterials within the University District.
	Fourth Street	Could result in closures or circulation impacts to two primary arterials within the campus area resulting in increases traffic on secondary and local streets with limited capacity.
	First Street	Could result in closures or circulation impacts to two primary arterials within the campus area resulting in increases traffic on secondary and local streets with limited capacity.
Green Street (Wright to Lincoln)	Wright Street	Could significantly impact bus routing through the campus area as Wright/Green (east) carries numerous transit routes.
First Street	Fourth Street	Simultaneous closures to both streets would significantly impact north/south arterial flow through campus, resulting in increased volumes on secondary and local streets with limited capacity.
	Green Street (Neil to 4th)	Could result in closures or circulation impacts to two primary arterials within the campus area resulting in increases traffic on secondary and local streets.

Project Component	Conflicting Project Component	Reason for Conflict
Fourth Street	First Street	Simultaneous closures to both streets would significantly impact north/south arterial flow through campus, resulting in increased volumes on secondary and local streets with limited capacity.
	Sixth Street	Simultaneous closures to both streets would significantly impact north/south arterial flow through campus, resulting in increased volumes on secondary and local streets with limited capacity.
Sixth Street	Fourth Street	Simultaneous closures to both streets would significantly impact north/south arterial flow through campus, resulting in increased volumes on secondary and local streets with limited capacity.
	Wright Street	Simultaneous closures would impact traffic flow in the core Campustown area and result in significant rerouting of transit routes.
Wright Street	Sixth Street	Simultaneous closures would impact traffic flow in the core Campustown area and result in significant rerouting of transit routes.
	Green Street (Wright to Lincoln)	Could significantly impact bus routing through the campus area as Wright/Green (east) carries numerous transit routes.
Mathews Street	Goodwin Avenue	Simultaneous closures would impact traffic flow in the Urbana campus area and result in significant rerouting of transit routes.
Goodwin Avenue	Mathews Street	Simultaneous closures would impact traffic flow in the Urbana campus area and result in significant rerouting of transit routes.
Lincoln Avenue	No anticipated conflicts	
John Street	No anticipated conflicts	



COLOR KEY

- GREEN STREET - SHEETS 2, 3 & 4
- SIXTH STREET - SHEET 5
- MATHEWS AVENUE - SHEET 6
- GOODWIN AVENUE - SHEETS 7 & 8
- WRIGHT STREET - SHEET 9
- JOHN/DANIEL STREETS - SHEET 10
- HEALEY STREET - SHEET 11
- FOURTH STREET - SHEET 12
- FIRST STREET - SHEET 13
- LINCOLN AVENUE - SHEET 14
- NEVADA STREET - SHEET 15

(2) PANEL SHEET NUMBER

REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

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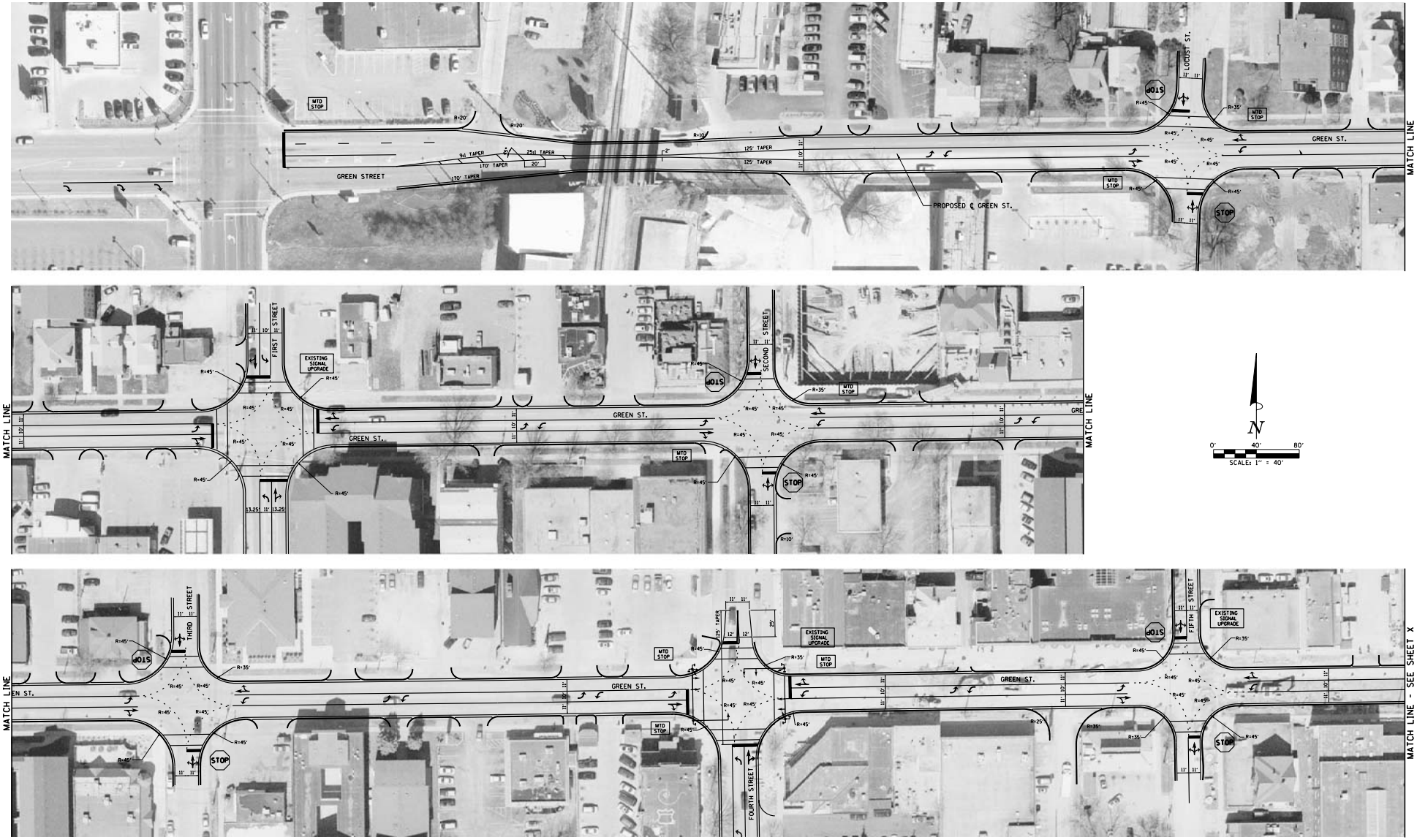
SHEET TITLE: PROJECT MAP & SHEET KEY

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 1 OF 15 SHEETS

C45011\Final Plans\ panelkey map.dgn



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SHEET TITLE
GREEN STREET
(I.C.R.R. TO 5th STREET)

CAMPUS AREA TRANSPORTATION STUDY
PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 2 OF 15 SHEETS

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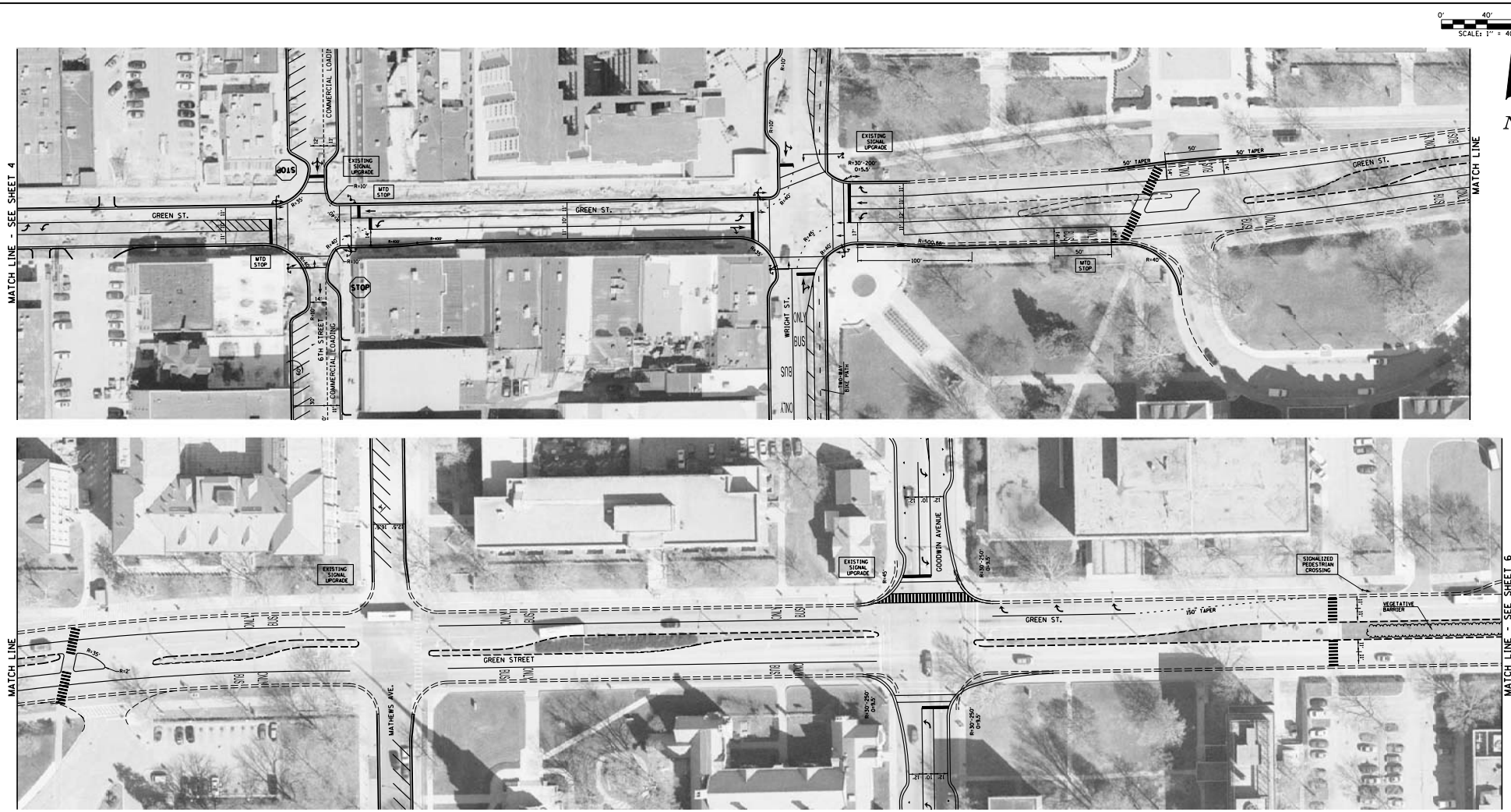

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SHEET TITLE
GREEN STREET
(6th STREET TO GOODWIN AVENUE)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 3 OF 15 SHEETS

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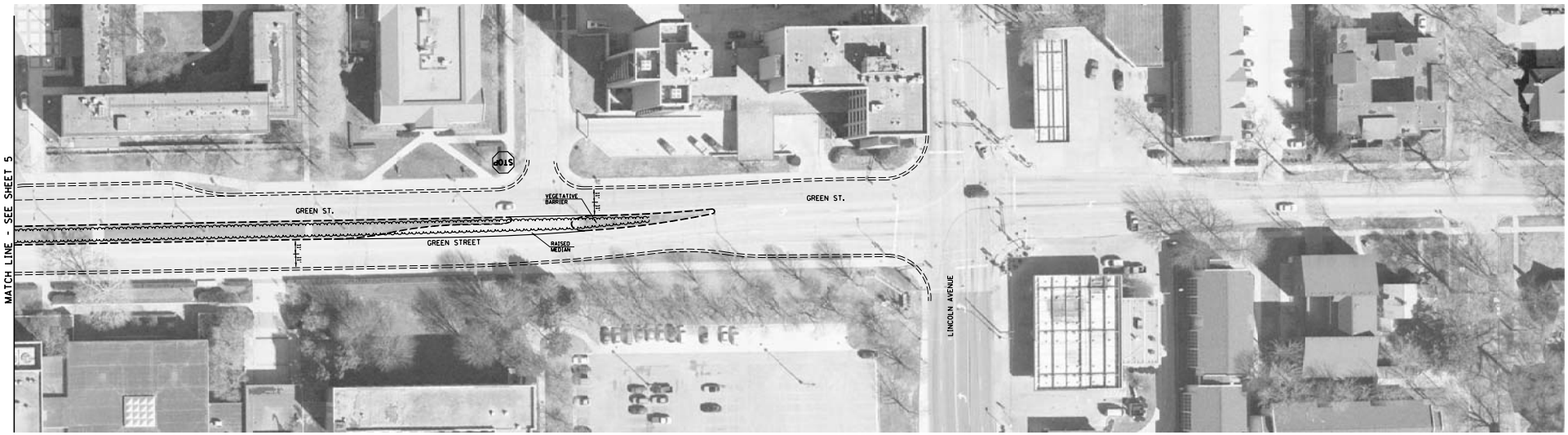

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SHEET TITLE
GREEN STREET
(HARVEY STREET TO BUSEY AVENUE)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 4 OF 15 SHEETS

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SHEET TITLE
6th STREET
(GREGORY DRIVE TO STOUGHTON STREET)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 5 OF 15 SHEETS

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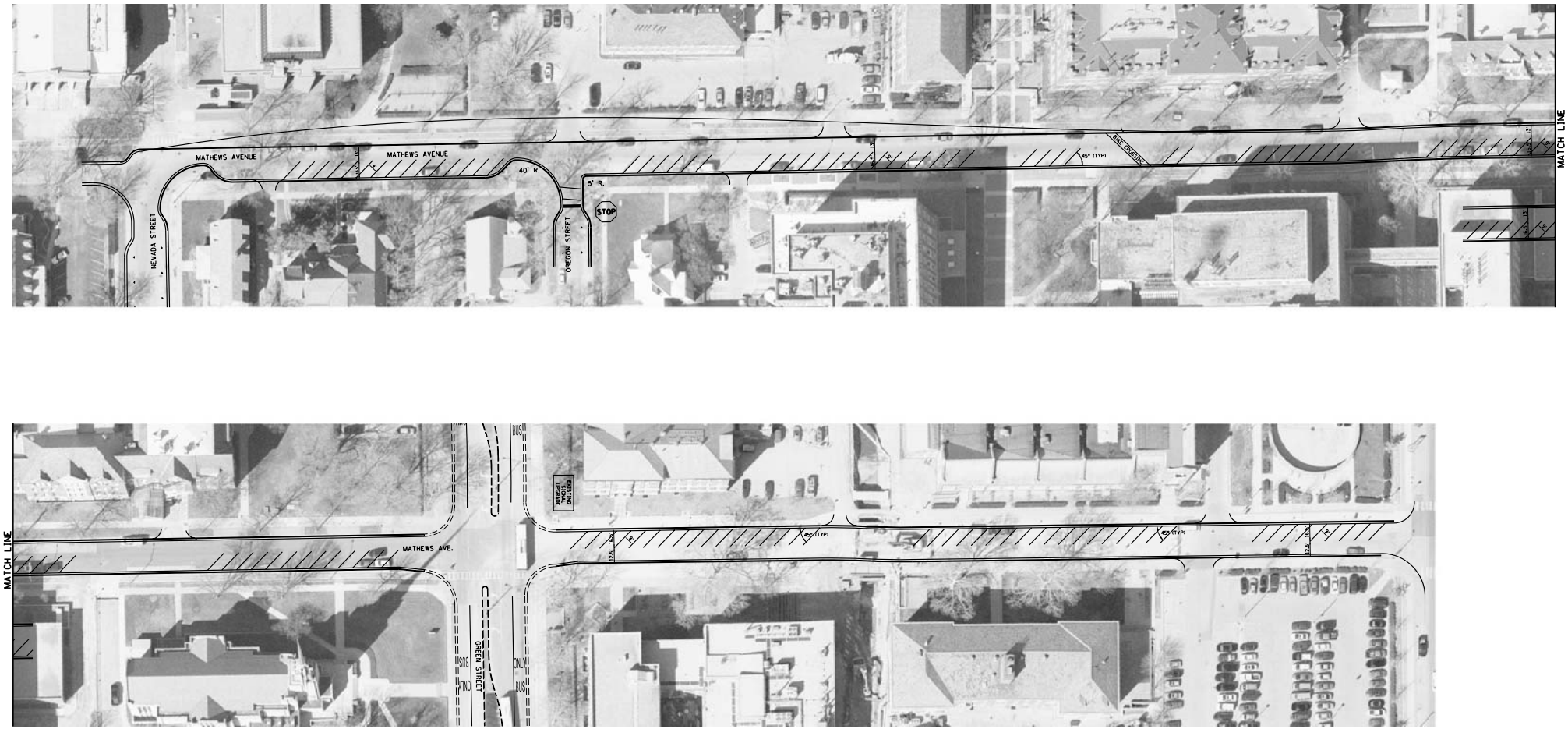

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SHEET TITLE
MATHEWS AVENUE
(NEVADA STREET TO SPRINGFIELD AVENUE)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 6 OF 15 SHEETS

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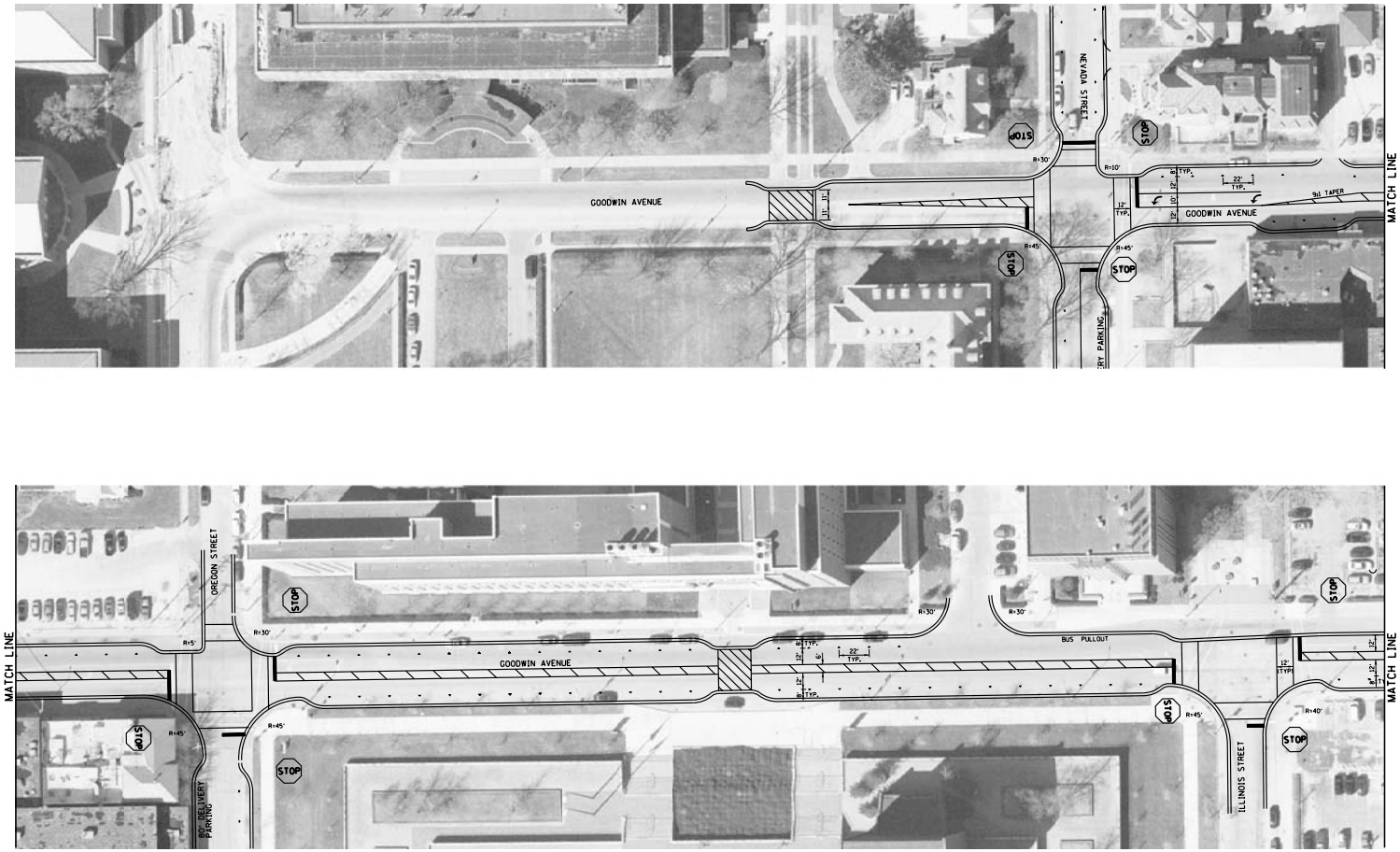

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SHEET TITLE
GOODWIN AVENUE
(GREGORY DRIVE TO ILLINOIS STREET)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 7 OF 15 SHEETS

C45011\Final Plans\ Goodwin-1.dgn

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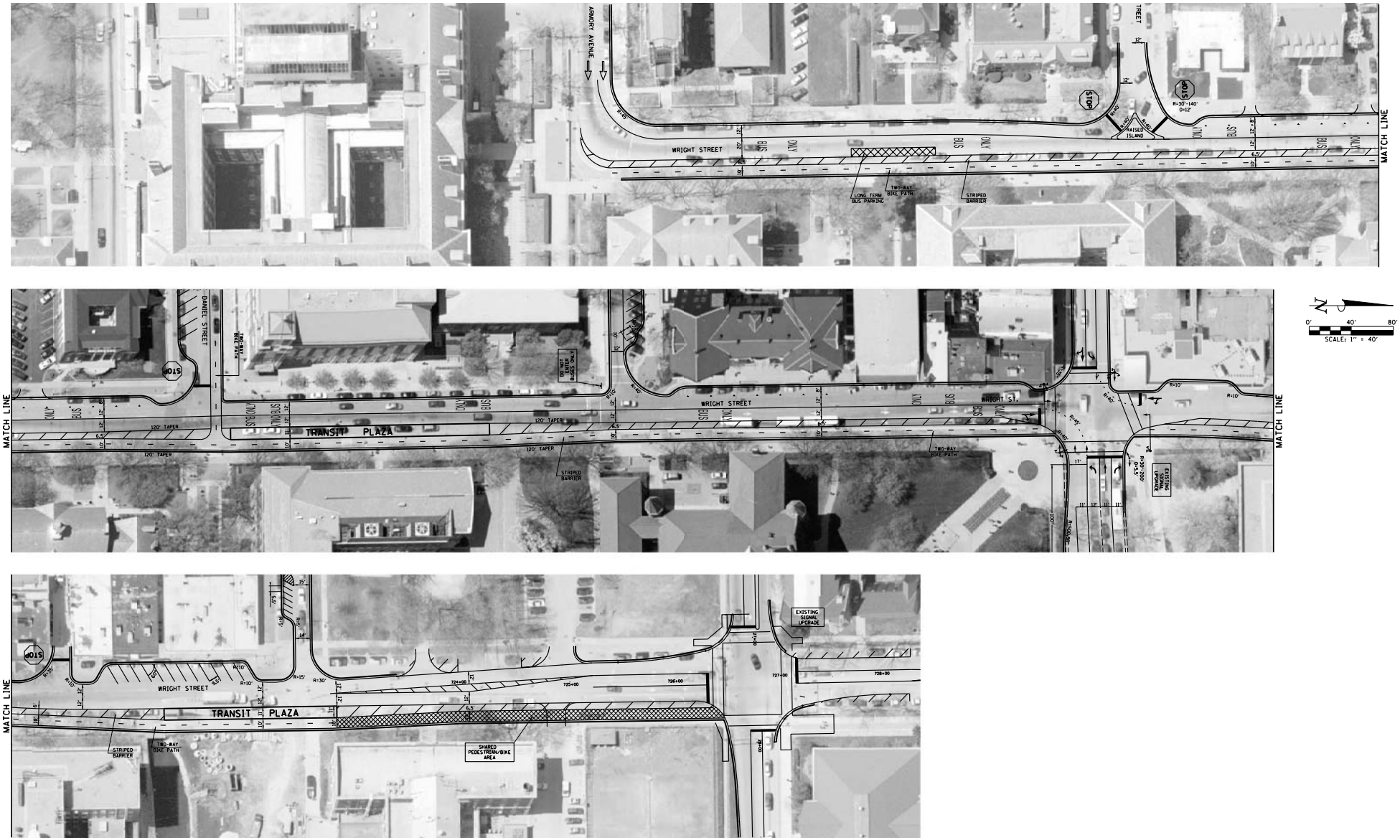
SHEET TITLE
GOODWIN AVENUE
(ILLINOIS STREET TO SPRINGFIELD AVENUE)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 8 OF 15 SHEETS

C45011\Final Plans\ Goodwin-2.dgn



REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
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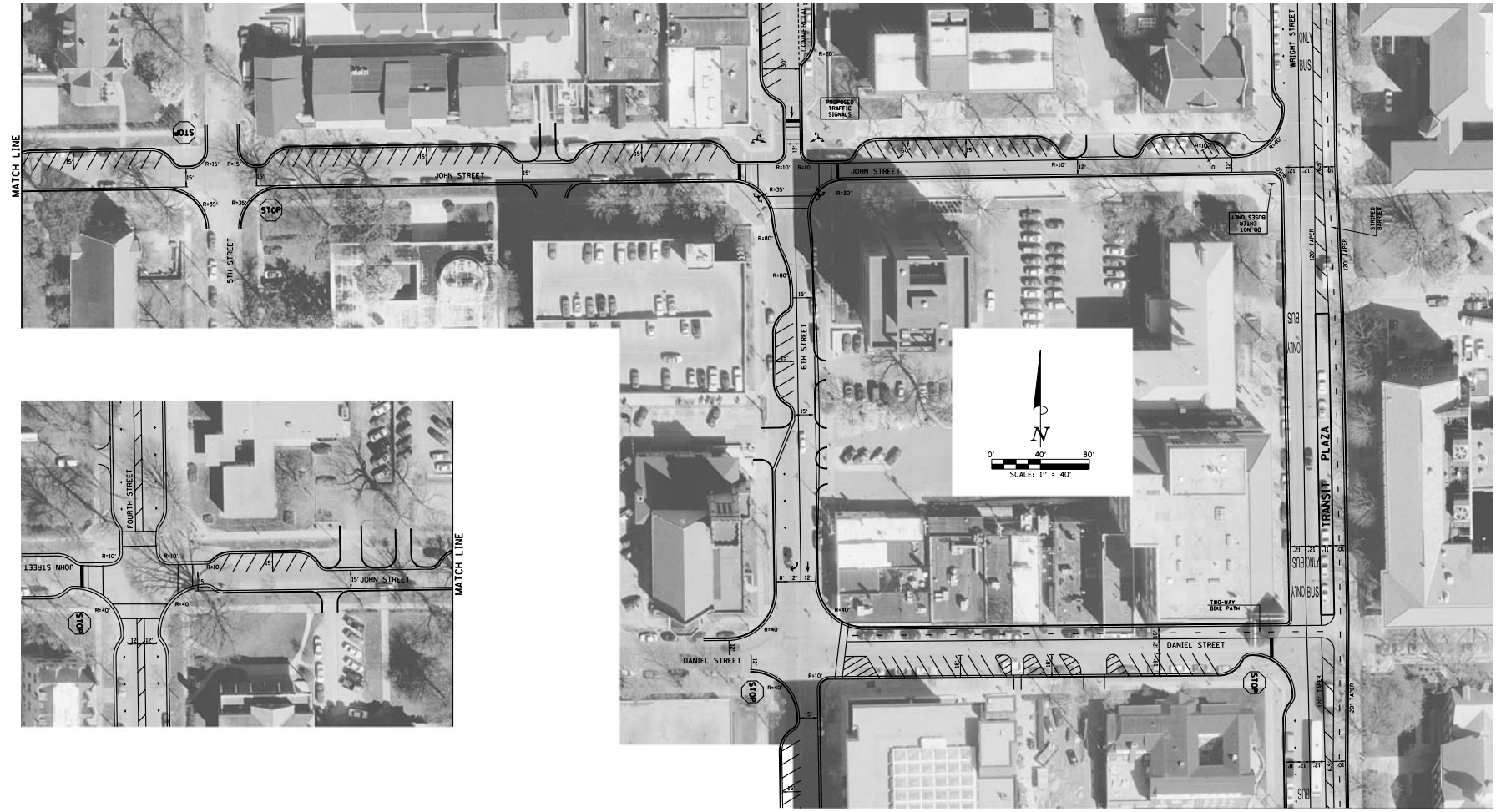
SHEET TITLE
WRIGHT STREET
(ARMORY AVENUE TO SPRINGFIELD AVENUE)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 9 OF 15 SHEETS

C45011\Final Plans\ Wright.dgn



REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
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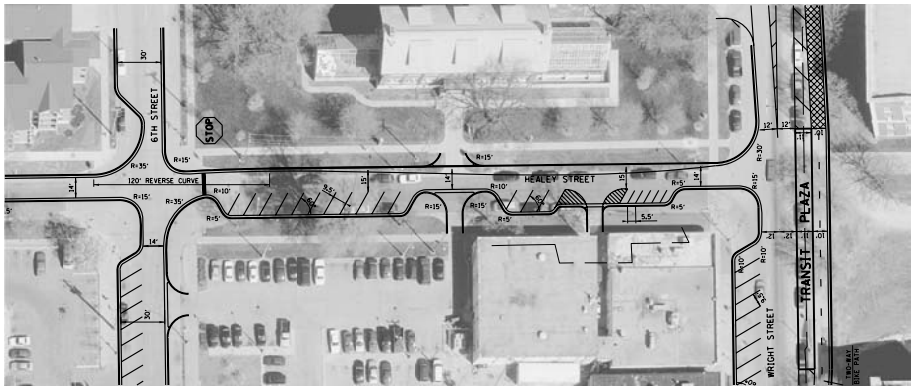
SHEET TITLE
JOHN STREET AND DANIEL STREET
(4th STREET TO WRIGHT STREET)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 10 OF 15 SHEETS

C45011\Final Plans\ JohnDan.dgn



REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
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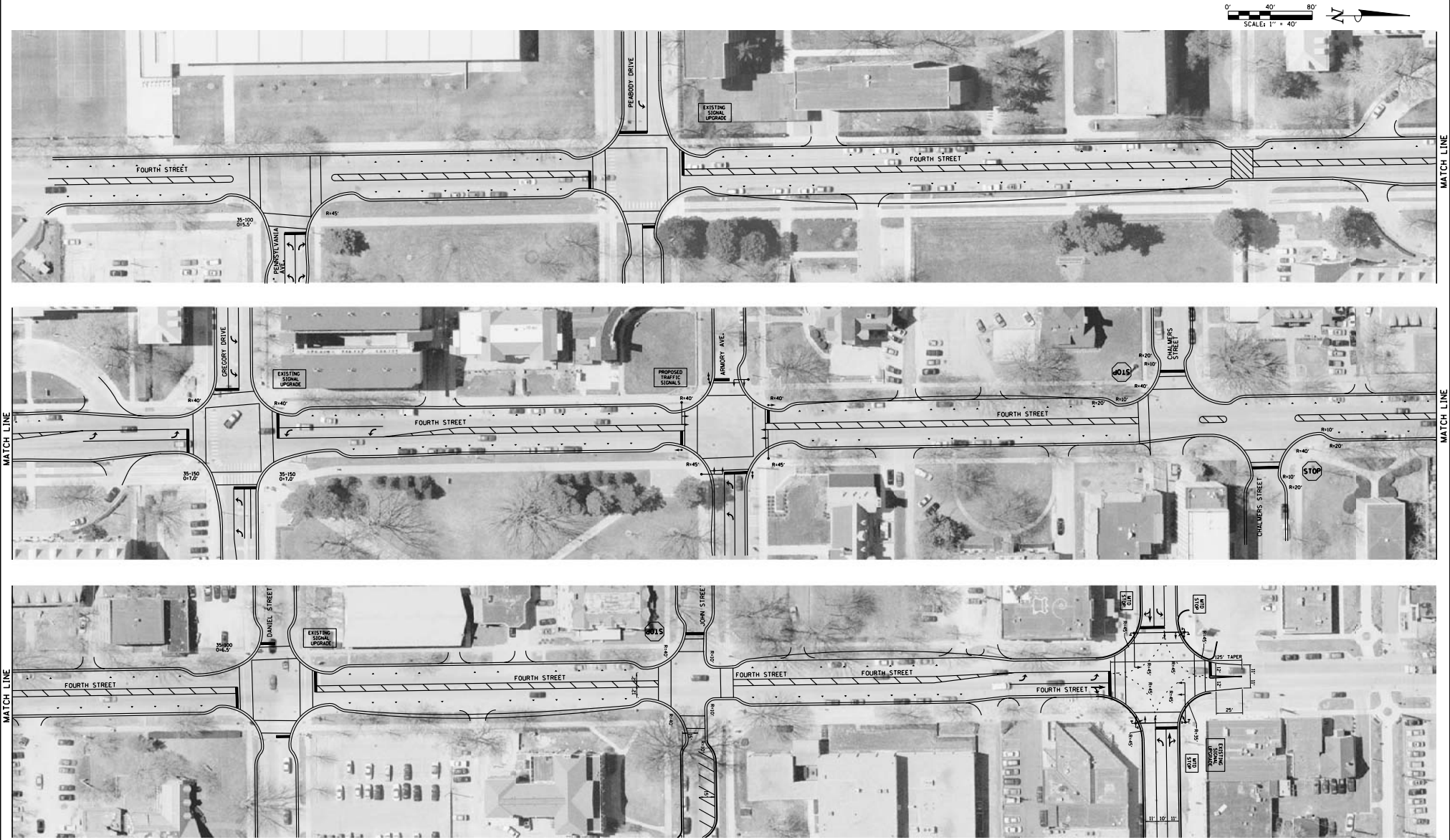
SHEET TITLE
HEALEY STREET
(6th STREET TO WRIGHT STREET)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 11 OF 15 SHEETS

C45011\Final Plans\ Healey.dgn



REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

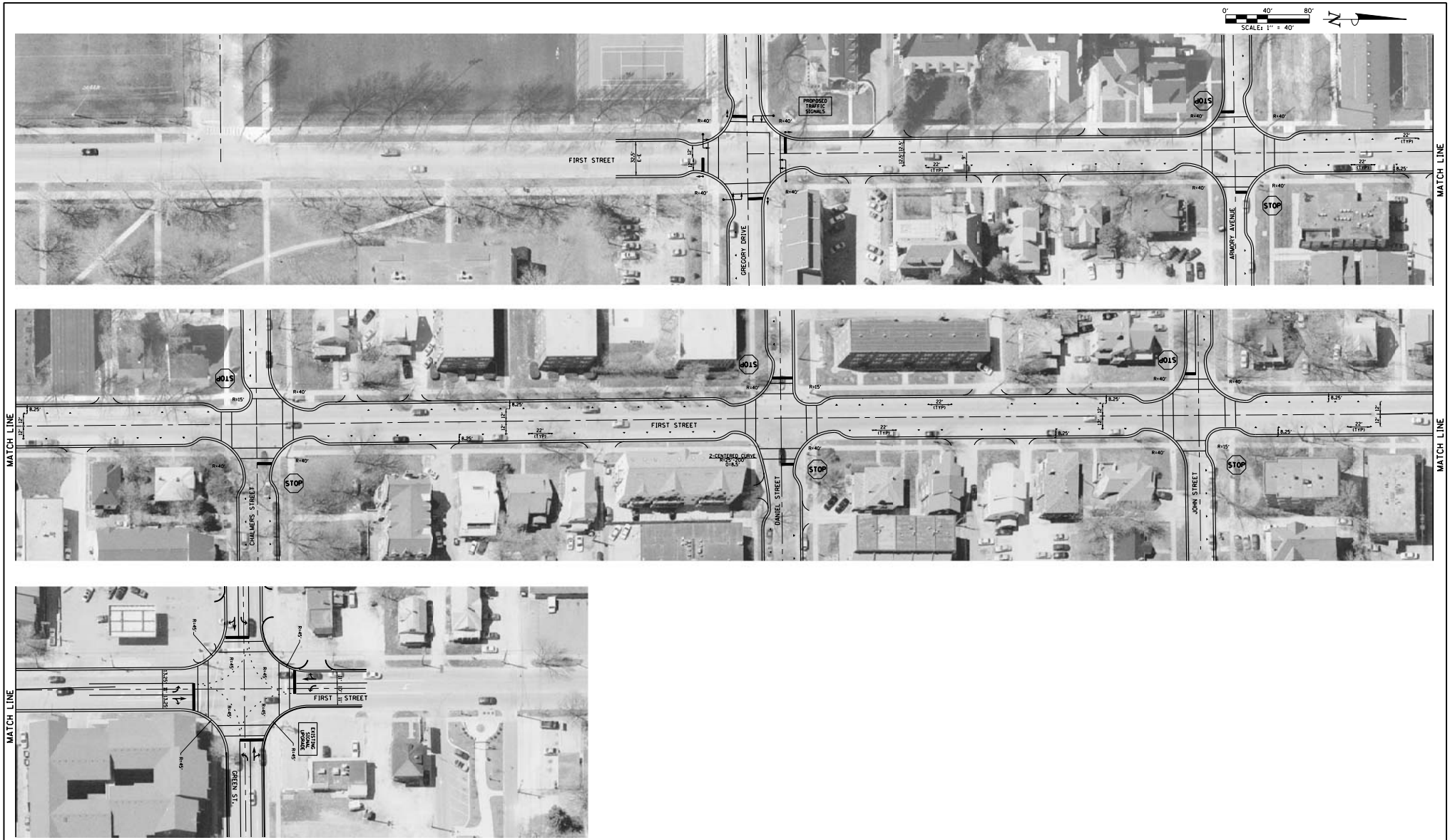
CUUATS
Champaign-Urbana Urbanized Area Transportation Study
A Program of the Champaign County Regional Planning Commission

SHEET TITLE
FOURTH STREET
(PENNSYLVANIA AVE. TO GREEN ST.)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL. 2005
SHEET 12 OF 15 SHEETS

C45011\Final Plans\ Fourth.dgn



REVISIONS			DRAWN	PREP.
NO.	DATE	REMARKS	DLM	DLM
			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
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SHEET TITLE
FIRST STREET
(GREGORY DR. TO GREEN ST.)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 13 OF 15 SHEETS

C45011\Final Plans\ First.dgn

REVISIONS			DRAWN	PREP.
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			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
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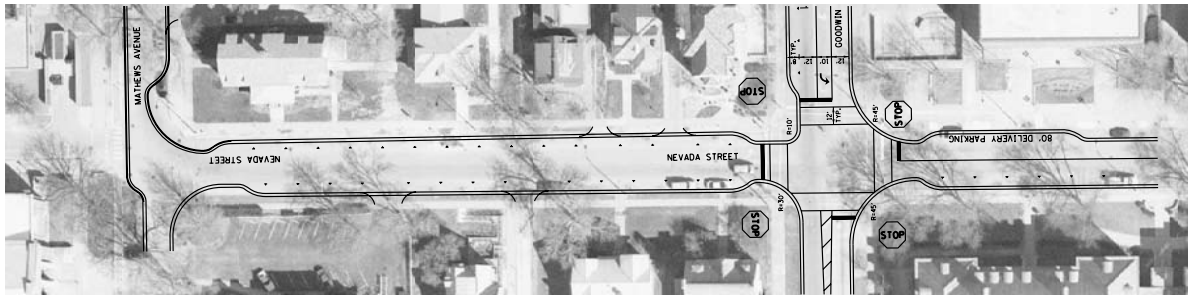
SHEET TITLE
LINCOLN AVENUE
(VERMONT AVE. TO OREGON ST.)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011
DATE APRIL, 2005
SHEET 14 OF 15 SHEETS

C45011\Final Plans\ Lincoln.dgn



N

0' 40' 80'

SCALE: 1" = 40'

REVISIONS			DRAWN	PREP.
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			TRACED	APPROVED JTP
			CHECKED JTP	APPROVED DWM

Clark Dietz ENGINEERS

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

CUUATS
Champaign-Urbana Urbanized Area Transportation Study
A Program of the Champaign County Regional Planning Commission

SHEET TITLE
NEVADA AVENUE
(MATHEWS AVE. TO GOODWIN AVE.)

CAMPUS AREA TRANSPORTATION STUDY PHASE II

PROJECT NO. C45011

DATE APRIL, 2005

SHEET 15 OF 15 SHEETS

C45011\Final Plans\ Nevada.dgn