

# Sign Master Plan

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**DEPARTMENT OF PUBLIC WORKS**  
**Engineering Division**  
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- Attachment G Internally Illuminated Sign Spreadsheet
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## EXECUTIVE SUMMARY

- The City has an estimated 10,828 individual signs.
- Signs consists of:
  - 8278 posts
  - 1733 street name assemblies
  - 2061 stop signs
  - 4770 no parking signs
  - 2,264 other types of regulatory, warning, guide, and custom signs
- All signs have been replaced at least once since 1995.
- Three sign programs provide for the management of the cities signs:
  - Sign maintenance provides for keeping signs up on the post, straight, visible, legible and accurate and includes replacing knockdowns.
  - The sign replacement program provides for a replacement of all signs within a section of town on a fifteen year cycle.
  - New sign installation provides for installing signs where none existed before thru three processes, new development, traffic service requests, and road construction projects.
- Signs are primarily made in house and then installed using standard methods
  - Signs are cut using vinyl materials and added to aluminum blanks.
  - Installation is done about 75 % of the time on posts and 25% on existing street lights.
- Resources dedicated to sign programs in the City include:
  - Approximately \$5,000 annually for the Sign Maintenance Program.
  - Approximately \$20,000 annually is funded for the Sign Replacement.
  - Approximately \$5,000 annually is funded for New Sign Installations.
- Sign program deficiencies include:
  - Inventory accuracy is questionable and should be updated with an accurate field survey.
  - A sign replacement program is needed to keep within the reflectivity standards and keeping signs in good condition.
  - There is no signage standard for signalized intersections.
  - A method that accurately records work activity and materials is not in place.

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## 1.0 PURPOSE

The Sign Master Plan provides the organizational structure and procedures to maintain the City's signs. It also identifies long-term deficiencies and strategies for improvement.

## 2.0 CITY SIGN SYSTEM

### 2.1 Introduction.

Signs are message boards along the roadway used to convey important information about using the transportation system. Signs are essential for regulating vehicle and pedestrians that share the transportation system. Without signs, travel would be dangerous and confusing. Signs are generally one of the least expensive items in a transportation network but they require continued maintenance to ensure the safety of users.

### 2.2 City Signs Defined.

The City's sign inventory are all sign structures that provide information to help the flow of pedestrian, bicycle, or automobile traffic and includes street name, traffic regulatory, parking, school zone and many other types of signs.

## 3.0 BACKGROUND

### 3.1 Types, Inventory, and Condition of Existing Signs.

**3.1.1 Types of Signs.** Attachment A describes many of the signs used by Champaign with sample pictures. The city's traffic signs can be grouped into four categories:

- Regulatory signs are used to inform users of selected traffic laws or regulations. The most common examples are Stop signs, speed limit and no turn on red signs. They follow a very strict guideline called the Manual on Uniform Traffic Control Devices (MUTCD) for their message, design and application. It is important to be consistent with traffic control signs so they are universally understood. Strictly following the MUTCD helps assure consistency.
- Warning signs call attention to unexpected conditions and alert users to reduce speed or take an action in the interest of safety. Curve ahead, chevrons, divided highway, dead ends, height clearance, stop ahead and signal ahead are warning signs. Traffic calming devices often have warning signs associated with them. School zone signs can also be a warning sign although some have legal enforcement. The application of warning signs strictly follow the MUTCD.
- Guide signs are essential to direct road users along streets and highways. They inform of intersections, direction to highways, or other important destinations. Common guide signs are street name, directions to parking, sporting complexes, libraries, train and airport locations, or cultural interest sites.

- Custom signs are a category of signs that have developed over the past 10 years. This group of signs has no regulating structure like the previous types. These signs are built using custom sign making techniques and use artistic principles rather than MUTCD standards. Examples of custom signs are the Adopt A Highway, Neighborhood Watch, Sesquicentennial Street Name , Honorary Street Name Signs and fleet decals. Street name signs follow the MUTCD standard. Sesquicentennial, Downtown, and Campus street name sign were custom designs. Any request for a non standard street name sign must have council approval.

**3.1.2 Inventory.** A complete detailed inventory of every sign is not kept because the number of signs changes very frequently. The current inventory of signs is estimated by breaking the City into sections. Attachment B is a spreadsheet of an approximate count of the signs by section. The many types of signs are grouped together to make the inventory manageable.

For this report a detailed inventory was taken of the University District and the Downtown. These numbers were accurate as of September 2005. Counts for other sections were created by knowing that each intersection has at least one street name sign, usually each intersection has at least one or two stop signs. The no parking signs were determined to be 2 to 3 times the street name sign count. This is based on experience that no parking signs will be located near each intersection or within a block. School zone signs are located as a group around each school. It is known what section the schools are in and estimates of the signs were made.

City parking lot signs are not included as part of the inventory or budget of the sign master plan. They are budgeted and kept as part of the Parking Division's parking lot plans.

**3.1.3 Condition.** The condition of our signs is ranked by the age of the signs. Signs normally fail based on how long they are exposed to sun and weather. Condition is also a factor of the type of material used to make the signs and the life expectancy of that material.

In 1995 a maintenance program began where each year all the signs in one section were replaced. Every year a different section was completed, but the wide variety of types and locations made 100% completion difficult to verify. Some did not fall neatly into sections. Others aged differently and were not replaced. After all of the area replacement was completed the last couple of years have been spent picking up the few signs that were missed.

Attachment C illustrates the area and the year of each annual replacement. The manufacturer of our sign sheeting, 3M Corporation, provides a ten year warranty on their materials. Experience is showing that the useful life of the materials will generally be 15 years. Some products used early in the area replacement program were lower quality than the current sheeting and do not have as long a life expectancy. They are starting to show failures in less than 15 years. Some of the posts are beginning to show rust because non perforated receivers, which prevent water from escaping and cause the posts to sit in the

wet, were used. This combination of bad posts and sign faces that are looking worn will result in the need to begin the replacement cycle a little earlier than the expected 15 years.

When signs are replaced most of the materials are recyclable. The aluminum signs and the steel posts are recycled. The material used to make signs is also recycled aluminum.

### **3.2 Sign Supports.**

Sign supports are an important part of sign work. Often the type of sign determines how the sign is supported.

**3.2.1 Sign Posts.** The square tube sign post system is the City standard. It starts with a 2 ¼ inch square by 4 foot long galvanized steel perforated receiver that is driven in the ground. Then a 10 foot piece of 2 inch square tube is slid inside the receiver. The sign is mounted at the top of the 10 foot post. A drive rivet is used to lock the pieces together. For a street name sign a 1 ¾ inch square by 2 foot long post is inserted in the top, often above a stop sign. The life span of a post is expected to be twice as long as a sign face. In specific areas posts are painted black or ornamental posts are used. Downtown parking lots and University District use these custom posts.

**3.2.2 Street Light Pole Mounting.** Whenever possible a light pole is used to mount signs because it avoids adding a post in the right of way and saves cost. Installation methods include: Banding (most common), self tapping screws (cleaner look) cantilever brackets, cast wing brackets (used in the University District, Sesquicentennial Neighborhood and downtown).

### **3.3 Sign Making.**

The city makes about 90% of the signs and all its street name signs in-house. Most are made by taking .080 thick aluminum blank and covering it with reflective sheeting. On this sheeting the message is cut out of vinyl using a computerized cutter. The message is then applied onto the sign blank.

### **3.4 Non-City Signs Located Within The City.**

There are several signs in and around the City that are under the jurisdiction of other agencies or private parties. Some of these signs are in the City's Right of Way.

**3.4.1 IDOT Signs.** There are several state highway signs in the City. IDOT is responsible for the maintenance and replacement of any regulatory and warning signs on state routes and for stop signs on streets intersecting state routes. The City is responsible for street name signs at intersections with state routes.

**3.4.2 Township Signs.** There are several Townships in the Champaign area, although not inside the City limits. The Township is responsible for all maintenance of the signs in their jurisdiction. The City takes over maintenance responsibility for the road and all its signs upon annexing a township road or any property adjacent to it.

**3.4.3 Private Commercial Property Signs.** Many commercial areas have signs regulating internal traffic flow and parking and access to streets. These signs are not regulated or maintained by the City, but staff works with property managers to help them establish appropriate standards of placement and maintenance.

**3.4.4 MTD Signs.** Anywhere there is a bus stop the MTD places a sign. Sometimes they are located on our posts but often they have their own posts. The City is not responsible for MTD signs.

**3.4.5 Cultural Interest Signs.** These signs are located in areas of cultural interest to the community. Signs for the Orpheum Children’s Museum and Historic Neighborhoods are examples of this type of sign. They are usually installed and maintained by the organization operating the item of cultural interest through a permit. A policy exists for the placement of cultural interest signs.

**3.4.6 Subdivision Signs.** These signs are located at the entrance to subdivisions. They are usually on private property and are maintained thru homeowners associations or businesses.

#### 4.0 CURRENT SIGN PROGRAM

There are presently 3 sign maintenance workers who take care of the cities signs. These sign workers also take care of the pavement markings and snow and ice duties in the winter. A portion (940) of their 2080 hours of work each year is devoted to sign maintenance work. Also the supervisor of Traffic and Lighting and a Technician use a portion of their hours to facilitate the sign program. The total hours of the three sign workers is 2820 annually. Support staff adds another 470 hours for a total of 3290 for the sign program.

Traffic and Lighting receive an annual budget for commodities to purchase materials for four separate work programs. They are titled Traffic Signals, Street Lighting, Pavement Markings and Traffic Signs. This annual amount is broken into proportions based on the costs for each program. Some adjustments are made each year depending on the demand of the program. A midyear budget adjustment is made in January and then at the close of the fiscal year budget transfers are made to finalize projects that are under way. Sign maintenance funding for the last seven years are listed below in Table 1. These were used for materials.

**Table 1: Annual Sign Program Funding. 02-000-07002-000-63001**

Year	Actual Budget Amount
FY 99	\$44,532
FY 00	\$53,500
FY 01	\$25,920
FY 02	\$39,817
FY 03	\$32,788
FY 04	\$29,244
FY 05	\$30,488
Total	\$256,289 AVE (\$36,612)

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The sign program is divided into three activity groups or types of work: Sign Maintenance, Sign Replacement, and New Sign Installation.

#### **4.1 Sign Maintenance Defined.**

Sign maintenance is the work necessary to keep signs up on the post, straight, visible, legible, and accurate. Accident damage or knockdowns, vandalism, graffiti and wind damage are the usual causes for the need for sign maintenance. Maintenance normally is not a scheduled item but is done as a reaction to something that has happened to either the sign or post. A knockdown occurs about twice every week.

Table 2 at the end of this chapter shows the types of maintenance efforts and the rough cost associated with each type of activity.

#### **4.2 Sign Replacement Defined.**

Sign replacement is the total replacement of a sign with a completely new sign and post (if needed) in the same location done because of age or condition. The replacement sign must meet the current standards required for the type installed. This may occur on an individual or regional basis (area replacement). The latest area replacement program began in 1995 and was completed in 2005. Attachment C is a city map showing each area or section and the year they were replaced.

The last area replacement program was not completely funded thru City funds. An IDOT sign grant was used to supplement the funding of the area replacement. In 1998 a grant amount was issued for \$82,292 which was used over 2 year period during which 8 areas were replaced.

In the area replacement an attempt is made to replace all regulatory, warning and guide signs. This is difficult to do. To supplement the area replacement we will do individual replacement. Individual replacement is the process of replacement of signs that did not get done during the regional efforts. Year 2006 has been a year of individual replacement. Also the large street name signs on traffic signals were not replaced as part of the area replacement. This has not been done because no clear standard exists.

#### **4.3 New Sign Installations.**

New sign installation is the process of installing signs where none existed before. This is usually the result of a traffic service request or new development. The new sign must meet the current standards required for the type to be installed. There are about 500 new signs installed each year.

**4.3.1 New Development.** In areas where new development occurs developers are required to provide the initial signs. Normally the city supplies the signs and installs them for developers, which provides higher quality installation and is a service that most developers appreciate. The developer then reimburses the City at rates set to cover only the City's cost. Attachment E is the form used by developers to request the City to make and or install their signs.

The developer sign request form is part of the Engineering Divisions, Manual of Practice. The price charged for signs for developers is based on sign material costs, labor to make the signs, and cost to get locates and the signs installed. As the manual of practice is updated these costs are reviewed annually to see if we are still covering our expenses due to material price and labor cost increases.

**4.3.2 Traffic Service Requests.** When citizens, Council members, or staff see the need for a new sign on City ROW a Traffic Service Request is generated. A screening and judgment process is used to apply signs using the guidelines of the MUTCD, ordinances, and public notification before signs are approved for installation. About 200 traffic service requests are generated each year. Usually a sign installation is part of each TSR. Attachment F is an example of a TSR form.

**4.3.3 Road Construction Projects.** New roads are added to the city by way of CIP or other funding methods. Also roads are reconstructed or improved by widening or resurfacing. Often these projects involve new signs. The project often pays for the initial sign installations. Maintenance and replacement of these new sign then becomes part of Traffic and Lighting responsibility.

**Table 2. Summary of Sign Maintenance, Replacement, and New Sign Installation**

Category	Activity	Budget	Work hours
Sign Maintenance	A. Post straightening, adding rock around the base.	Material cost of \$5000	Labor 20 % of total of 3290 hours
	B. Graffiti removal.		
	C. Remounting, loose fasteners, and brackets.		
	D. Knockdowns, replace damaged parts.		
Sign Replacement	A. Individual replacement, one entire sign and post replaced.	Material cost of \$20,000	Labor 60 % of total of 3290 hours
	B. Area replacement, all signs and posts in a section replaced.		
New Sign Installation	A. New Development, signs installed as part of a subdivision.	Material cost of \$5000	Labor 20 % of total of 3290 hours
	B. Traffic Service Requests, signs installed after TSR form.		
	C. Road Construction Projects, signs installed as part of a new or improved road.		

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## 5.0 SIGN PROGRAM DEFICIENCIES

### 5.1 Sign Inventory.

There is no current sign inventory system in place. The current count is extrapolated from partial counts estimated in each section and may be off by 15 to 20%. Having an accurate sign inventory has a few benefits. It is easier to plan and budget more accurately the area replacement work when the quantity is known. Ordering materials can be a little less time consuming each year when an accurate data base would give you the amount needed from a computer printout. When a sign is missing the inventory would tell us where it was supposed to be located, or when a sign is found it can be located back to where it belongs. Repeated knockdown locations could be tracked. All of these things happen on occasion but have not lead to major problems because we do not have an accurate inventory.

As each area is replaced a new GPS inventory of all signs replaced will be taken. Any new sign added to the area will be GPS located and inventoried. That way the accuracy of the data base will be kept current. Using the inventory of new signs added will allow us to incrementally adjust the budget to cover future replacement costs. This will be accomplished thru the supplemental budget request process.

### 5.2 Sign Replacement.

As signs age they lose their reflectivity. Without reflectivity signs are difficult to read at night. If a stop sign is not seen someone may run it causing an accident. If a guide sign is not visible someone could miss their turn, if a warning sign is poor a hazard could be missed. The reflectivity of signs is being examined by the MUTCD (2.A.0.9) and in the future may become a measurable standard with legal impacts. The quality of the signs in a city is an indication of the maintenance standards acceptable and reflect on the city as a whole. A timely area replacement program helps assure that signs will be replaced before they violate reflectivity standards or affect the maintained look of the city.

### 5.3 Large Street Name Sign Standards.

Signalized intersections need a large street name sign to be seen. The speed and need for information to make decisions before the intersection and the competition for other information makes large signs imperative. There have been several methods used for large street name signs and no clear standard has emerged. Currently there are three different designs in place. The traffic signal intersection street name signs were not part of the area replacement cycle. Since there was no clear standard most have never been replaced and are too small and not reflective. Of those that have been replaced they have used one of the three designs below.

**5.3.1 IDOT Standard.** IDOT uses a large 60" by 48" rectangular reflective sign mounted on a traffic signal mast arm. An example of this type is at the City intersection of Prospect and Kirby.

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**5.3.2 City Mast Arm Standard with Block Numbers.** Several long, narrow signs measuring 8 feet long by 18 inches high tracking along with the traffic signal mast arm are in place. This method incorporated the block number and had a supplemental sign that had the cross street block number. An example of these signs is at Prospect and Church.

**5.3.3 Internally Illuminated Street Name Signs (IISNS).** Recently staff has begun installing IISNS at signalized intersection upgrade projects. The sign typically hangs from the traffic signal mast arm. The latest versions include the block number information. IISNS have been very popular and are especially appreciated at night. The IISNS were first used in University District Streetscape work at Fourth/Green, Sixth/Green, and Wright/Green. Since the introduction in the University District a total of 12 intersections have been added using IISNS. These signs were funded through the upgrade project.

#### **5.4 Tracking of Work.**

The ability to manage and plan work is based on information. At present there are a variety of methods used to keep track of work hours, activities and materials. Activities are entered into a database called the Activity Manager. This Access data base has entries for all the Traffic and Lighting areas of work, traffic signals, street lighting, pavement marking and sign maintenance. The system has been in place since April of 2001. Activities have been entered as a log of what work was done. The work hours have not been recorded accurately except that each entry is assumed to be 1 hour. Materials are not listed to any accuracy. Items are listed as a task completed.

A separate method of entering time for work type is done on the written time sheets. This time sheet breaks work hours up into sign work, and pavement markings for the sign maintenance workers as well as snow and ice and off time. This payroll record can be searched to determine how many hours are charged to these types of activities.

The information from these sources was used to develop much of the data for this report. Weekly and monthly activity reports are also created from these sources. These are mostly the reentering and compiling of data from the Activity Manager.

A system needs to be built that will provide accurate data, allowing easy entry, provide reports for work hours and material. Also the system should be used to provide for work planning and reporting. This presently does not exist. A form of work order system that can be used to automate these many recording activities is needed. This is a deficiency if a high level of work recording is desired.

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## 6.0 SIGN MASTER PLAN

Table 1 and 2 in Chapter 4 describe the resources and labor allocations available to do sign work. A worker's 2080 hours available to do work is really only 1567 hours when time off time is factored in. Also not all of this 1567 available work hours are for sign work. A portion is used to do pavement markings, traffic counters, banners, fleet decals, and snow and ice projects. The total hours of all workers devoted to sign work is 3290 hours.

The budget for sign materials is \$30,000 per year at present. These funds are used to buy sign materials. Further examination of these funds and labor hours is made into the three activities below; Sign Maintenance, Sign Replacement, and New Sign Installation.

### 6.1 Influence of Growth.

As the city changes due to growth there is an increase in the number of signs that will need to be maintained. This will affect all areas of the master plan. The amount of labor and materials will be changed based on the amount of growth. Since 2003 we have gone from 11,385 acres to 13,087 in 2005. The amount of acres of land added to the city is 8.7%. The amount of signs that will be increase will likely be 8.7% also. This is equal to 942 sign added due to growth.

### 6.2 Sign Maintenance.

Sign maintenance occurs when a damaged sign is discovered through a call in from a citizen, a report from a public works employee or a police officer or the intentional examination by a sign worker. As sign workers are about their work they will examine the city looking for damaged signs. The activity of sign maintenance involves 658 hours of work time and \$5000 each year of the budget to replace signs under the sign maintenance activity.

### 6.3 New Sign Installations.

New sign installations are the process where a sign is installed where none existed before. New signs are added through one of the following 3 processes.

- Road improvement projects such as Olympian Drive, Curtis Road, and Interstate Drive are new roads and therefore will need signing to help drivers use them. The sign chosen are part of an engineering process for the roads. The initial installation may be done by a contractor building the road or later added by the city.
- Subdivision developments such as Ironwood or Sawgrass subdivisions. The developers need to add signs regulating traffic in subdivisions. Usually stop signs and street name signs. We often help with this installation thru the developer sign request form described earlier. Annexations also add subdivisions with signs.
- Traffic Service Requests are the process where signs are added usually in established areas that have something change the traffic flow or a need to regulate traffic. This process can have as many as 200 changes to the sign system each year.

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Each of these methods adds signs where none existed before or at the very least different kinds of sign and new locations. We have estimated that 500 new signs are generated this way every year. The resources to add this number of new signs is about \$5000 each year and uses about 658 hours of labor.

#### **6.4 Sign Program Deficiencies**

Section 5 identifies four program deficiencies. At a June 13, 2006 Council Study Session, staff received Council input on the deficiencies associated with Sign Inventory (Section 5.1), Sign Replacement (Section 5.2), and IISNS Signage (Section 5.3).

The remaining program deficiency involving work tracking (Section 5.4) did not require Council input. Public Works is in the initial planning stages to implement a work order system for all operational sections in the department. The work order system will address all work tracking deficiencies. Public Works plan is to have the first phase of the work order system operational by early 2008.

**6.4.1 Sign Inventory and Condition Survey.** There is no current sign inventory system in place. The current count is taken from partial counts estimated in each section and may be off by 15 to 20%. In order to keep a true sign inventory a count of all the existing signs would have to be made and adjusted each time a sign is added or removed. The cost to make an accurate inventory could be as much as \$30,000 based on what other cities have done. By Council direction, staff will obtain an accurate inventory by logging new signs installed and use the area replacement program to accurately build a database and the GPS system to locate where signs are. In 15 years the process will give the City an accurate inventory and a process to keep it accurate. As new signs are added to a replaced area they will be added to the inventory.

**6.4.2 Aging Signs and Replacement Program.** As signs age they lose their reflectivity. The reflectivity of signs is becoming a measurable standard of the MUTCD and compliance could have legal impacts. A timely area replacement program helps assure that signs will be replaced before they violate reflectivity standards. Council directed staff to replace all signs on a 15 year cycle based on the area replacement program. A map of the replacement areas and their schedule is included as Attachment D.

**6.4.3 Large Street Name Sign Standards.** Recently staff has begun installing Internally Illuminated Street Name Sign (IISNS) at signalized intersection during upgrade projects. To date a total of 9 intersections have been constructed with IISNS. IISNS have been very popular and are especially appreciated at night.

By Council direction, staff will install IISNS at three signalized intersections per year using City forces. Staff estimated the cost for materials at \$5,000 per intersection for a total of \$15,000 per year. Staff will prepare a supplemental budget request for the additional funding for FY 07/08 budget. Attachment G is a spreadsheet of all the potential IISNS locations that would be installed using this program. Attachment H shows a plan for the first 5 years of the program.

## Regulatory Signs

### Stop signs

Our standard Stop Sign is a 30 inch diamond grade sign. It has a warranty of 10 years for fading. Ten years ago all stop signs were 24 inch and lasted about 5 years.



### Yield signs

The City does not use Yield signs. Citizens frequently complained and some accidents occurred because people tended to pay less attention to yield signs. All existing yield signs were replaced with stop signs about 5 years ago.

### Speed limit signs

City policy is that all city streets have 30 MPH speed limits unless otherwise posted. Most residential areas are not posted. Occasionally, 30 MPH signs are posted to reinforce the speed limit. They are also used to show the end of a school speed zone.



### One Way signs

There are two kinds of one ways used. A 36" long by 12" high rectangle and an 18" by 24" rectangle. At least two One Way signs are used at each crossing, a near right and a far left sign. There are many one way streets on campus and downtown.



### No Parking

These signs are always 12 by 18 inches and they come with several types of messages. The most common is the No Parking symbol with any number of different messages such as No Parking to Corner, No Parking This Side, or the No Parking 3AM to 5AM. They are very common in the campus and downtown areas. Neighborhoods have them in high density areas and around schools or stores.



### On Street Permit Parking

The permit parking areas on campus use roughly 3 signs per block to regulate those spaces. This is a large 24 by 36 inch sign with relocater information at the bottom. Additional signs are used to regulate all other curb space.



### Commercial Loading zones

A commercial loading zone is a larger no parking sign. They are in both campus and downtown areas where it is desirable for trucks to unload. They are slightly different than standard loading zones which can be used by cars.



### Other Regulatory signs

There are many other regulatory signs that are used such as Handicap Parking, No Turn On Red, Keep Right, lane use indications, Wrong Way, and No Bicycles.



## Warning Signs

Warning signs call attention to unexpected conditions and alert users to reduce speed or take an action in the interest of safety. Curve Ahead, chevrons, Divided Highway, Dead End, Stop Ahead, Signal Ahead, and height signs are examples of this type of sign. Traffic calming devices often have warning signs associated with them.



## School Zone

Each school zone takes 4 to 5 school zone signs in each direction. School zone signs are designed to be very bright. Recently a new product is used for schools called florescent yellow green sheeting. This gives the sign high visibility. This color is reserved for this type of application.

The first sign in a school zone is usually the advance sign with the Ahead plaque. On arterials there is a Reduced Speed Ahead sign before that. Next is the actual School Speed Limit sign followed by the School Crosswalk sign. The last sign is the End School Zone sign. Usually there are about 5 No Parking signs in each zone to keep the sight clear.



## Guide Signs

### Interstate, US Route, or State Route Shields

A common guide sign is the Interstate shield, which gives directions to the interstate highways around the city or state routes thru the city.



### Street name

Street name signs are installed at all street intersections within the city. The most common design is the 4 blade post top mounted assembly. It consists of four street name blades wrapped around a steel post. The post is then placed on top of a stop sign post or a free standing post.

On 4 lane or wider roads in the city there are two of these assemblies per intersection, one on each side of the road. They use a taller 9 inch blade for better readability.



The locating of street name signs follow a decision tree on which corner the sign is located. The most desirable is to always have a sign on the same corner for consistency but the chance to place sign on a corner with a stop sign to share the post may take precedence. If no stop sign is present we take into consideration where a stop sign would most likely go if one is installed. Beyond that we look for the most noticeable and visible location with no obstructions.

### Mast Arm Street Name Signs

Signalized intersections require considerably larger street name signs. One sign is mounted on each mast arm, usually about at the curb line. The signs are usually 5 to 8 feet long. We have recently began using internally illuminated street name signs and adding the block number to the mast arm mounted signs. This gives drivers an idea of what block number they are in for both east-west and north-south directions.



## Custom signs

### Adopt-a-highway Signs

This group of signs is part of a program to help keep a city street clean. A contract is made with a group of volunteers to clean the right of way and in exchange they get their name on a sign.



### Honorary Street Name Signs

This group of signs is used to identify a portion of the city streets in honor of a person. They come in two main sizes, a small version for post top mounting and a large version for traffic signal mast arm mounting. In April of 2000 a Council Policy was adopted for the honorary street name. The policy provides guidelines for establishing honorary street names. It involves a process of application. Council Bill No. 2000-77 gives the details. Since its beginning we have had about 12 locations where we have installed these signs.



The policy states the location shall be signed for 10 years and then renewed.



### Custom Neighborhood Street Name Signs

These are signs that are owned and maintained by the City yet they are not traditional street name signs. Three groups exist currently. The Sesquicentennial street name sign, the Campus and the Downtown street name signs. These are unique areas that have gotten specific street name sign designs. These type of deviations from the standard street name signs shall not be allowed except when approved by the council

### **Neighborhood Watch**

Wherever an active neighborhood watch group exists then two or three signs are put up to identify the area.

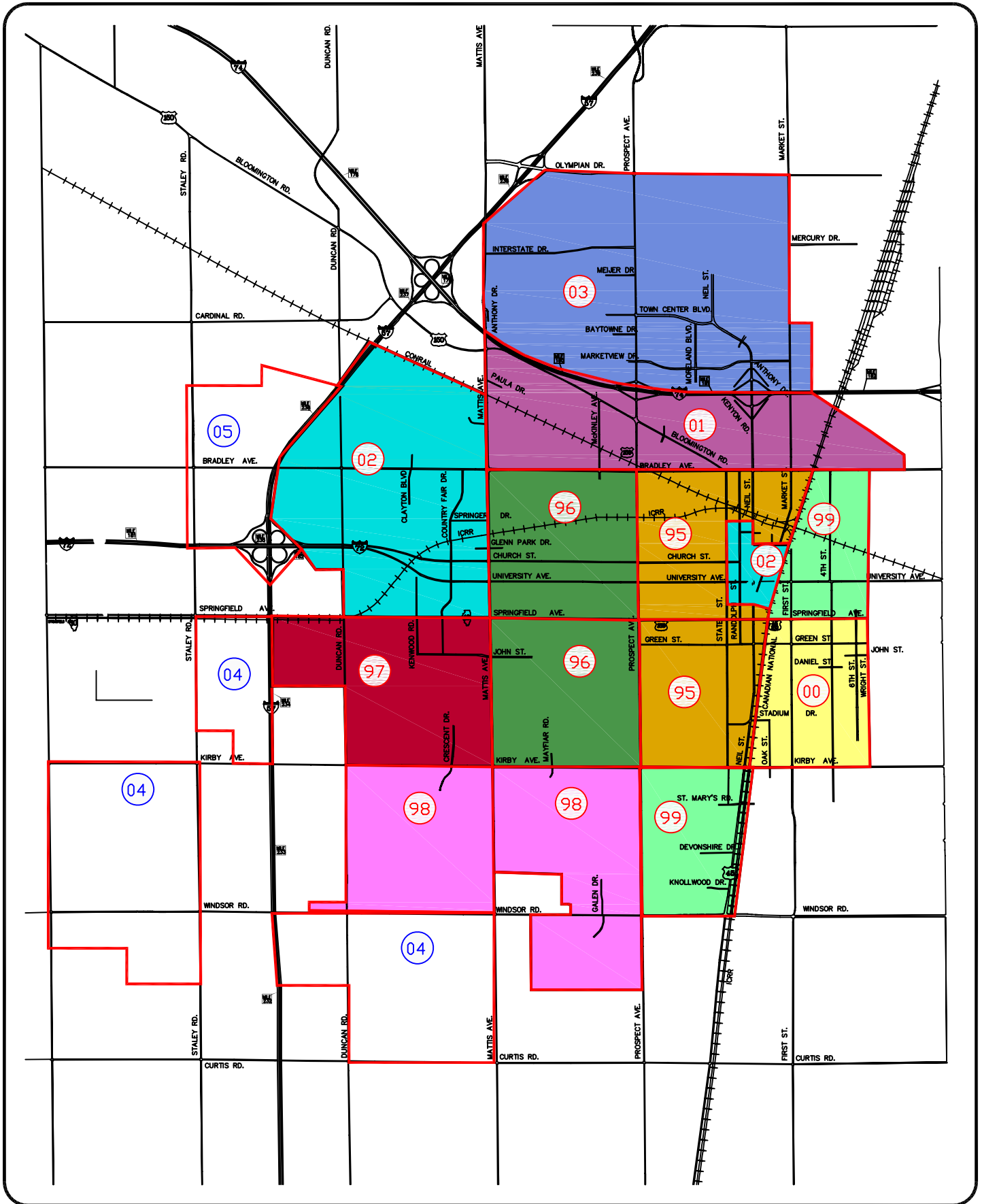
### **Snow Route signs**

Snow Routes exists along 4 main streets: Church, University, Randolph, and State. These routes are marked with signs about 2 to 3 per block.



Sign Data Base summary										Sign Inventory										Post Data Base Summary		
Section #	Description	last 10 years	due next	Stop	Street name	Parking	Speed	One Way	Other Reg	Warning	School	Custom	Guide	sign count	post %	post count						
R08ET19N 1	N. Prospect / Neil	south 01, north 03	2016	61	100	250	12	25	12	12	20	5	25	522	50%	261						
2	Bloomington Rd	south 01, north 03	2016	88	96	250	12	0	12	12	25	7	12	514	50%	257						
3	Parkland	2002	2014	4	6	25	4	0	8	8	0	4	8	67	100%	67						
4	Boulder Ridge	2005	2020	31	30	25	12	0	12	12	0	8	8	138	100%	138						
9	Sawgrass	2005	2020	48	44	50	12	0	12	12	0	6	8	192	100%	192						
10	Country Fair Dr	2002	2020	48	53	150	12	8	12	12	0	3	12	310	100%	310						
11	Kraft and Glen Park	1996	2008	165	83	200	12	40	12	12	25	8	12	569	50%	285						
12	Sesquicentennial	1995	2007	172	127	300	12	50	12	12	35	4	12	736	50%	368						
13	Hessel Blvd	1995	2013	130	119	300	12	0	12	12	35	9	12	641	90%	577						
14	Clark Park	1996	2009	170	125	300	12	0	12	12	25	2	12	670	50%	335						
15	Holiday Park	1997	2010	125	115	300	12	0	12	12	25	16	12	629	90%	566						
16	Turnberry Ridge	1997	2021	70	67	100	10	0	12	10	8	8	6	291	100%	291						
20	Ironwood	2004	2019	60	55	75	10	0	12	12	0	9	6	239	100%	239						
21	Lincolnshire Fields	1998	2011	15	15	30	12	0	12	12	0	9	12	117	100%	117						
22	Scottsdale	1998	2011	138	125	300	10	0	12	20	12	15	15	647	100%	647						
23	Broadmoore	1998	2012	131	94	250	12	0	12	32	25	15	10	581	100%	581						
24	Fox Development	1999	2012	52	42	150	6	0	10	8	15	12	10	305	100%	305						
25	Windsor Road	1998	2012	12	0	0	8	0	0	0	0	10	0	30	100%	30						
26	Devonshire South	1998	2012	25	36	75	4	0	6	6	0	5	0	157	100%	157						
27	Cherry Hills	2004	2011	62	58	150	8	0	10	8	20	4	6	326	100%	326						
28	Robesson South	2002	2016	16	20	50	4	0	14	6	0	6	6	122	100%	122						
R09ET20N 31	Apollo	2003	2018	5	8	25	8	0	6	4	0	8	4	68	100%	68						
R09ET19N 6	Roper area	2001	2016	18	18	50	4	18	10	8	12	7	8	153	75%	115						
7	4th,5th,Eureka	1999	2016	158	100	300	8	0	8	8	25	20	12	639	75%	479						
18	University District	2000	2015	64	48	558	30	91	33	6	0	6	1	837	75%	628						
19	U of I south park	1999	2012	0	0	0	0	0	12	6	0	0	0	18	100%	18						
R08ET20N35	Interstate Research	2003	2018	12	16	50	6	0	6	6	0	1	8	105	75%	79						
36	Ashland Park	2003	2018	25	30	50	6	0	12	12	0	2	25	162	100%	162						
26	DQ n Mattis	2003	2018	4	6	25	6	6	4	6	8	1	8	74	100%	74						
Downtown	Downtown	2002	2017	102	47	282	3	99	72	20	4	8	26	663	50%	332						
wrap up	wrap up	2005	2021	25	25	50	10	10	10	10	10	3	0	153	50%	77						
wrap up	wrap up	2006	2022	25	25	50	10	10	10	10	10	3	0	153	50%	77						
Total Signs by Type				2061	1733	4770	299	357	411	338	339	224	296	10828	Total Posts		8278					

ATTACHMENT B



**City of  
CHAMPAIGN**

PUBLIC WORKS DEPARTMENT Engineering Division  
702 Edgebrook Drive Champaign, IL 61820

DRAWN: RES  
APPROVED: GB

DATE: 03/07/2006  
CAD FILE: SIGN MASTER PLAN

REVISIONS:



LEGEND:

AREA BOUNDARY



REPLACEMENT YEAR



YEAR INSTALLED NEW

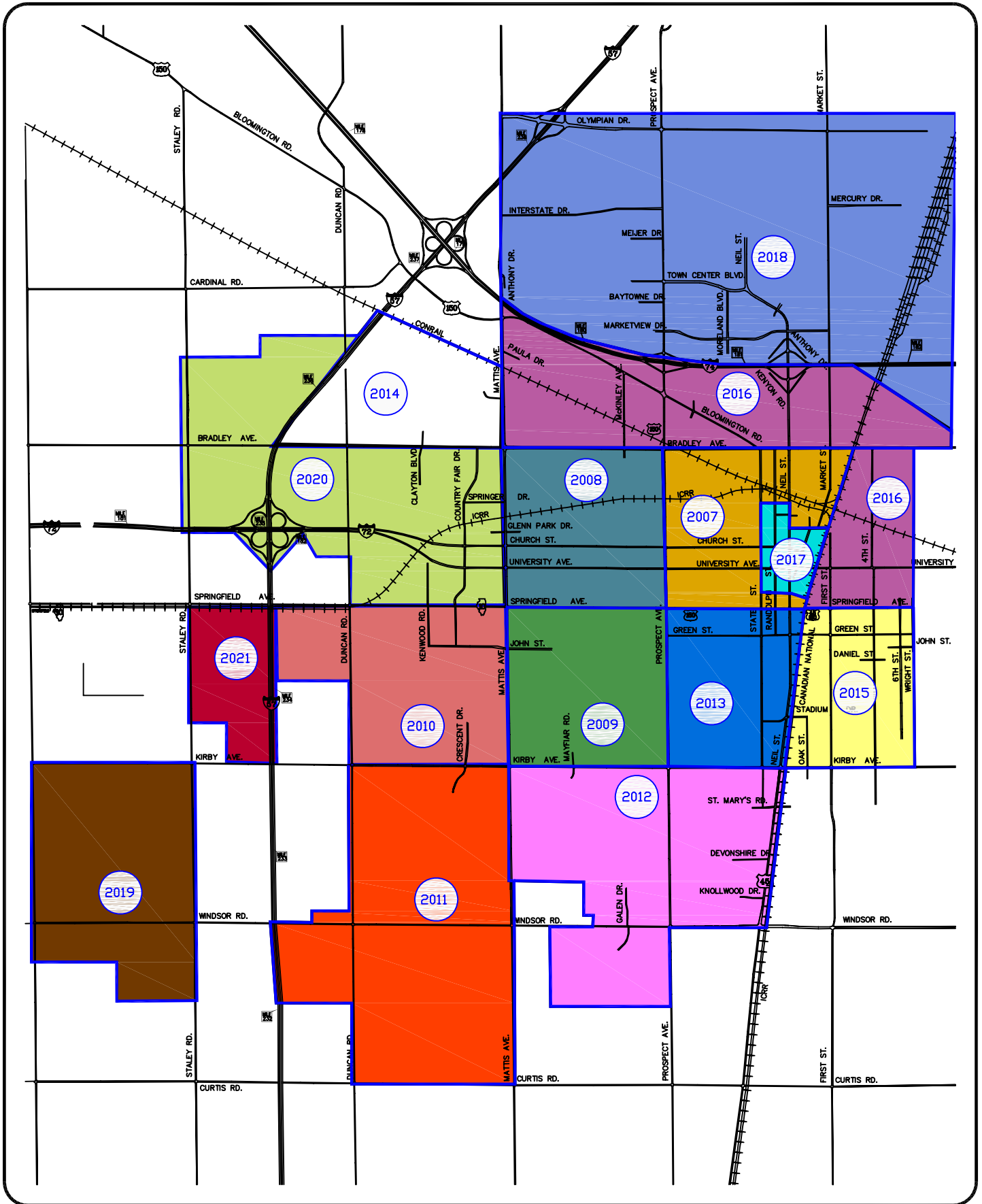


PROJECT NAME:  
SIGN MASTER PLAN

DRAWING TITLE:  
AREA SIGN  
REPLACEMENT  
LAST 10 YEARS

ATTACHMENT:

**C**



**City of  
CHAMPAIGN**

PUBLIC WORKS DEPARTMENT Engineering Division  
702 Edgebrook Drive Champaign, IL 61820

DRAWN: RES  
APPROVED: GB

DATE: 03/07/2006  
CAD FILE: SIGN MASTER PLAN

REVISIONS:



LEGEND:

AREA BOUNDARY

REPLACEMENT YEAR



PROJECT NAME:  
SIGN MASTER PLAN

DRAWING TITLE:  
AREA SIGN  
REPLACEMENT  
NEXT 15 YEARS

ATTACHMENT:

**D**



702 Edgebrook Drive  
 Champaign, IL 61820  
 Phone: (217) 403-4710  
 Fax: (217) 403-4755



**Street Sign Request Form**

<b>Developer</b>		<b>Subdivision Name</b>	
Name	_____		
Address	_____		
City	_____ State _____ ZIP _____		
Phone	_____		

Qty	Description	Unit Price	TOTAL
	Street Name 1: Street Name 2:	\$100.00	
	Street Name 3: Street Name 4:	\$100.00	
	Street Name 5: Street Name 6:	\$100.00	
	Street Name 7: Street Name 8:	\$100.00	
	Post Assembly (4ft. anchor sleeve, 10ft. post) 1 post per sign.	\$30.00	
	Stop Sign (placed on same post as street name sign)	\$50.00	
	Additional stop signs for 4-way intersection (post assembly needed)	\$50.00	
	Installation per sign and post (JULIE locate, anchor, post & sign install.)	\$65.00	

**Check Payable to: City of Champaign.**  
**Send Check to: City of Champaign Public Works; 702 Edgebrook Drive;**  
**Champaign, IL 61820; Attn: Bob Scott.**

**TOTAL**

Internal Routing	
Person	Init./Date
Bob Scott	_____
Dan Coats	_____
Roland White	_____
TSR	_____
Bob Scott	_____

Developer's Signature: \_\_\_\_\_

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT E**

**Note:**  
 Please attach a copy of the subdivision plat for staff determination of street sign locations.



## Attachment G

### Traffic Signal Intersection IISNS Required

INTERSECTION	Juris.	STATE MNT		City intersections	
		state share	city share	install	sign exist
PROSPECT/WINDSOR	C			4	
FIRST/WINDSOR	C			4	
GALEN/WINDSOR	C			4	
MATTIS/WINDSOR	C			4	
NEIL/WINDSOR	S				4
PROSPECT/CHURCH	S	1	2		
PROSPECT/GREEN	C				4
PROSPECT/SPRINGFIELD	S	3	1		
PROSPECT/UNIVERSITY	S	1	2		
PROSPECT/OLYMPIAN	C			4	
HAGAN/BLOOMINGTON	C			4	
KMART/BLOOMINGTON	C			0	
PROSPECT/BAYTOWN	C			2	
PROSPECT/BLOOMINGTON	S	3	1		
PROSPECT/BRADLEY	S	2	2		
PROSPECT/I-74 N	S	0			
PROSPECT/I-74 S	S	0			
PROSPECT/LOWES	C			0	
PROSPECT/MEIJER	C			0	
PROSPECT/TOWN CENTER	C			4	
PROSPECT/WALMART	C			0	
PROSPECT/INTERSTATE	C				4
PROSPECT/MARKETVIEW	C			4	
NEIL/HESSEL	S	2	2		
NEIL/KIRBY	S	2	2		
NEIL/ST.MARY	S	2	2		
NEIL/DEVONSHIRE	S	1	2		
NEIL/KNOLLWOOD	S	1	2		
NEIL/KENYON	S	2	2		
NEIL/CENTER	C			4	
NEIL/MARKETVIEW	C				4
NEIL/I-74 S	S	0		0	
MORELAND/MARKETVIEW	C			4	
NEIL/ANTHONY	C			4	
NEIL/I-74 N	S	0			
NEIL/TOWN CENTER	C				4
RANDOLPH/GREEN	C			3	
RANDOLPH/SPRINGFIELD	S	1	2		
NEIL/GREEN	S	2	2		

Traffic Signal Intersection IISNS Required					
INTERSECTION	Juris.	STATE MNT		City intersections	
		state share	city share	install	sign exist
STATE/GREEN	C			3	
STATE/SPRINGFIELD	S	1	2		
NEIL/SPRINGFIELD	S	2	2		
ROUNDBARN/SPRINGFIELD	C			0	
COUNTRY FAIR/CHURCH	S	1	2		
COUNTRYFAIR/SPRINGFIELD	S	2	2		
COUNTRYFAIR/UNIVERSITY	S	1	2		
KENWOOD/SPRINGFIELD	S	2	2		
MATTIS/GLEN PARK	S	2	2		
MATTIS/SPRINGER	C			4	
MATTIS/UNIVERSITY	S	1	2		
MATTIS/JOHN	C			4	
MATTIS/SPRINGFIELD	S	1	3		
MATTIS/CHURCH	S	1	2		
CLAYTON/BRADLEY	C			4	
COUNTRY FAIR/BRADLEY	C			3	
MATTIS/PARKLAND	S	1	2		
MATTIS/OLYMPIAN	C			4	
MATTIS/ANTHONY	C			4	
MATTIS/BLOOMINGTON	S	4			
MATTIS/BRADLEY	S	2	2		
MATTIS/PAULA	S			4	
MATTIS/INTERSTATE	C			3	
MATTIS/KIRBY	C			4	
MAYFAIR/KIRBY	C			4	
PROSPECT/KIRBY	C			4	
OAK/KIRBY	U			4	
STATE/KIRBY	C			4	
FOURTH/KIRBY	U			4	
FIRST/KIRBY	U			4	
DUNCAN WINDSOR	C				4
DUNCAN/KIRBY	C			4	
STALEY/SPRINGFIELD	S	2	2		
DUNCAN/SPRINGFIELD	S	2	2		
STALEY/KIRBY	C			4	

Traffic Signal Intersection IISNS Required					
INTERSECTION	Juris.	STATE MNT		City intersections	
		state share	city share	install	sign exist
WRIGHT/UNIVERSITY	S	2	2		
FIRST/UNIVERSITY	C				4
NEIL/COLUMBIA	C			4	
NEIL/UNIVERSITY (S)	C			3	
NEIL/MAIN	C				1
STATE/CHURCH	C			3	
CHESTNUT/UNIVERSITY	C			3	
RANDOLPH/UNIVERSITY	C			3	
WALNUT/WASHINGTON (S)	C			3	
RANDOLPH/CHURCH	C			3	
WALNUT/UNIVERSTIY (S)	C			3	
WALNUT/MAIN	C			3	
STATE/UNIVERSITY	C			3	
MARKET/WASHINGTON (S)	C			3	
FOURTH/UNIVERSITY	C			4	
SIXTH/SPRINGFIELD	S	1	2		
SIXTH/JOHN	C			0	
WRIGHT/GREEN	C				4
WRIGHT/SPRINGFIELD	S				4
FOURTH/SPRINGFIELD	S	2	2		
FOURTH/GREEN	C				4
FOURTH/DANIEL	C			4	
FIRST/SPRINGFIELD	S	2	2		
FIRST/GREEN	C			4	
SIXTH/GREEN	C				3
NEIL/BRADLEY	C			4	
RANDOLPH/BRADLEY	C			3	
MARKET MERCURY	C			3	
MARKET/BRADLEY	C			4	
STATE/BRADLEY	C			3	
		state share	city share	future install	existing
Signs already in place					44
Signs on State routes		55	61		
Signs on City intersections				181	
<b>Total number of signs</b>				<b>297</b>	<b>44</b>
<b>Intersections</b>				<b>91</b>	<b>12</b>

<b>Attachment H</b>				
<b>First Five Year IISNS Installation Plan</b>				
<b>Intersection</b>	<b>year</b>	<b>#of Signs</b>	<b>FY</b>	<b>Cost</b>
Prospect/Bradley	1	4	2007	\$ 5,000
Prospect/Kirby	1	4	2007	\$ 5,000
Staley/Kirby	1	4	2007	\$ 5,000
Prospect/Windsor	2	4	2008	\$ 5,000
Galen/Windsor	2	4	2008	\$ 5,000
Mattis/Windsor	2	4	2008	\$ 5,000
Randolph/Green	3	3	2009	\$ 5,000
Neil/Green	3	4	2009	\$ 5,000
State/Green	3	3	2009	\$ 5,000
Country Fair/Springfield	4	4	2010	\$ 5,000
Kenwood/Springfield	4	4	2010	\$ 5,000
Mattis/John	4	4	2010	\$ 5,000
Prospect/Baytown	5	3	2011	\$ 5,000
Prospect/Town Center	5	4	2011	\$ 5,000
Prospect/Marketview	5	4	2011	\$ 5,000
Mattis/Anthony	5	3	2011	\$ -
<b>\$15,000 a year for five years</b>				<b>\$ 75,000</b>