

## **CHAPTER 15: GENERAL UTILITY REQUIREMENTS**

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**15.00 INTRODUCTION AND GOALS**

The purpose of this chapter is to provide guidance for the management of easements and rights-of-way within utility corridors throughout the City and the 1-1/2 mile extra territorial jurisdiction. The goal is to provide corridors for the design, construction and maintenance of utilities that are both publicly and privately owned; to provide efficient use of the space available; and to address future maintenance needs.

**15.01 ADMINISTRATION**

Specific technical aspects of all public utilities shall be designed in accordance with the other chapters within this Manual. Spatial locations of private utilities including, but not limited to, gas, water, electric, telephone, fiber optic and cable TV shall be designed in accordance with these standards and in accordance with all applicable local, state and federal requirements. For specific license agreements and right-of-way permits requirements, see Chapter 25.

**15.02 STANDARDS**

- A. UTILITY:** The term “utility” as referenced herein shall mean and include any storm sewer or sanitary sewer collection system or any gas, electric, water, video, or telecommunication distribution system.
  
- B. EASEMENTS:** All public and private utilities located within a subdivision, within 50 feet of the subdivision boundary, or within 50 feet of an existing arterial street ROW centerline, shall be located within the right-of-way or within a public permanent utility easement which has been dedicated to the City. Utility building service lines are not subject to the requirements of this chapter. All easements shall remain free and clear of all obstructions that may prevent maintenance, repair or reconstruction of public utilities. In residential developments, there shall be an easement along the front yard property line, with a minimum width of 15 feet. In addition, there shall be an easement along the rear yard property line, with a minimum width of 10 feet. Based on the table below, a wider easement may sometimes be required. In order to provide reasonable access to rear yard easements, a minimum of a 5 ft. wide permanent easement may be required along each side yard property line. In cases where a commons area (minimum 15 feet wide) is located immediately adjacent to a side or rear yard property line, and that commons area is specifically called out as an easement in its entirety, the City may not require an additional side yard easement on the lot itself. These commons areas, that are designed to allow access to rear yard easements, shall have a minimum of two points of access onto a public right-of-way.

The table below assumes that the sewer pipes, manholes and conduits are located in the center of the easement. All trenching shall be in conformance with all local, State and Federal requirements. If the sewer pipes and manholes are not located in the center of the easement, additional easements may be required.

**Required Minimum Width of Public Easement**

Total Conduit or Pipe Sizes	Depth - Measure to the Flow Line of the Pipe			
	< 5'	5' -10'	10.1' - 15'	> 15'
< 12"	10'	15'	25'	35'
13" - 20"	10'	20'	25'	35'
21" - 70"	15'	20'	25'	35'

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- C. SANITARY SEWER:** Sanitary sewer mains shall be located within street rights-of-way or in public easements adjacent to the street right-of-way. While the mains can be located within easements, the alignment shall be designed such that any sanitary manholes are placed within the street right-of-way. Sanitary sewer mains and manholes shall not be located in backyard or sideyard easements. A minimum of a 10 ft. horizontal spacing shall be provided between the outside edge of sanitary sewer mains and all other parallel utilities (see section 15.02 L.). Vertical clearances shall conform to the requirements located in the Water and Sewer Main Standard Specifications.
- D. STORM SEWER:** Storm sewers and manholes shall be located within street right-of-way or in public easements adjacent to the street right-of-way. The City Engineer may permit public storm sewers to be constructed in side yard easements, which serve rear yard drainage swales. A minimum of a 5 ft. horizontal spacing shall be provided between the outside edge of storm sewer mains and all other parallel utilities (see section 15.02 L.). Vertical clearances shall conform to the requirements located in the Water and Sewer Main Standard Specifications.
- E. WATER MAINS:** Water mains and fire hydrants shall be located in the street right-of-way or in a public easement. Water mains shall conform to the requirements located in the Standard Specifications for Water and Sewer Main Construction in Illinois. Water valves, tees and crosses shall not be located in or below the pavement, unless no reasonable alternative exists in which case a waiver can be requested from the City Engineer.
- F. ELECTRIC DISTRIBUTION LINES:** Electric distribution lines including subtransmission lines, transmission lines and transformers shall be located in the street right-of-way or in public easement. Main electrical feeder lines (generally 4KV or 12KV larger capacity lines that serve many customers that exit substations and extend to load centers) may with the permission of the City Engineer be excluded from this requirement. If the utility is not under a sidewalk, a minimum cover of 4 ft. shall be provided in right-of-way; a minimum cover of 30-inches shall be provided under sidewalks or in public utility easements.

All electric lines shall be constructed underground except where the existing electric lines are overhead or where the proposed lines are to be three-phase feeder, subtransmission or transmission. On a case by case basis the City Engineer may approve the extension of these lines if the extension does not exceed two poles or is less than 250 ft. in distance and are to serve an existing or infill development. All locations for both underground and overhead extension shall be approved by the City Engineer.

- G. GAS MAINS:** Gas mains shall be located within street right-of-way or in a public easement. Mains that are located within a public easement shall have a minimum cover of 30 inches. Mains that are located within the ROW shall have a minimum cover of 48 inches, unless they are under the sidewalk or street pavement. In those cases, the mains are allowed a minimum cover of 30 inches. Gas valves, tees and crosses shall not be located in or below the pavement, unless no reasonable alternative exists.
- H. TELEPHONE:** Telephone distribution lines shall be located within street right-of-way or in public easement located adjacent to the right-of-way and may be located in a public easement along the rear property lines. Lines that are located within a public easement shall have a minimum cover of 30 inches. Lines that are located within the ROW shall have a minimum cover of 48 inches, unless they are under the sidewalk or street pavement. In those cases, the lines are allowed a minimum cover of 30 inches..

All newly installed telephone lines shall be constructed underground, except that on a case by case basis the City Engineer may approve the extension above ground of previously constructed above-ground telephone lines if the extension does not exceed two poles or is

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less than 250 ft. in distance and are to serve an existing or infill development. . All locations for both underground and overhead extension shall be approved by the City Engineer.

- I. **CABLE AND INTERNET:** Cable and internet lines shall be located within street right-of-way or in public easement located adjacent to the right-of-way and may be located in a public easement along the rear property lines. Lines that are located within a public easement shall have a minimum cover of 30 inches. Lines that are located within the ROW shall have a minimum cover or 48 inches, unless they are under the sidewalk or street pavement. In those cases, the lines are allowed a minimum cover of 30 inches. Except during construction, no line shall remain on the ground within right-of-way or within easements.

All newly installed cable and internet lines shall be constructed underground, except that on a case by case basis the City Engineer may approve the extension above ground of previously installed above-ground lines if the extension does not exceed two poles or is less than 250 ft. in distance and are to serve an existing or infill development. All locations for both underground and overhead extension shall be approved by the City Engineer.

- J. **UTILITY INSTALLATION BY BORING:** All utilities installed by direct bury (Boring machines, conduits pushed in place, etc.) shall be required to provide the minimum clearances from other utilities listed above for storm and sanitary sewers, or 3 feet, whichever is greater. When boring operations are within the vicinity of existing storm and sanitary sewers, the utility company conducting the construction shall televise all storm and sanitary sewers mains and services adjacent to the construction after the construction has been completed. The utility company shall provide the City with an original recording of the televised lines on media as required by the City. New subdivisions are excluded from this requirement.
- K. **AS-BUILT DRAWINGS:** The utility company shall provide to the City a set of “as-built” drawing showing the locations of the newly constructed mains. If the constructed locations match the design drawings then the design drawings may be sufficient for record. Any deviation from the design drawings must be submitted to the City Engineer.
- L. **UTILITY COORDINATION MEETINGS:** The spacing recommendations for storm and sanitary sewer require that the utility company participate in the Champaign Utility Coordination (CUC) meetings. One of the main purposes of these meetings will be to coordinate the placement of new utility installations. The utility companies and the City shall work together to coordinated utility installation. Final location of utilities shall be in accordance with the approved subdivision construction plans.

### 15.03 REQUIREMENTS FOR ABOVE GROUND UTILITY FACILITIES ON RIGHTS-OF-WAY AND EASEMENTS

- A. **INTRODUCTION:** In order to protect the public safety, the public right-of-way, and property of adjacent owners, the following site design and construction guidelines shall be followed.
- B. **GENERAL REQUIREMENTS:** In addition to location requirements applicable to specific types of utility facilities, all utility facilities, regardless of type, shall be subject to the general location requirements of Champaign Municipal Code Section 30-236 and this section:
1. *No Interference with City Facilities:* No utility facilities shall be placed in any location if the City Engineer or Director of Public Works determines that the proposed location will require the relocation or displacement of any of the City’s utility facilities or will otherwise interfere with the operation or maintenance of any of the City’s utility facilities.
  2. *Minimum Interference and Impact:* The proposed utility facility location shall cause only the minimum possible interference with the use of the right-of-way and shall cause only

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the minimum possible impact upon, and interference with the rights and reasonable convenience of property owners who adjoin said right-of-way.

3. *No Interference with Travel:* No utility facility shall be placed in any location that interferes with the usual travel on such right-of-way.
4. *No Limitations on Visibility:* No utility facility shall be placed in any location so as to limit visibility of or by users of the right-of-way.
5. *Size of Utility Facilities:* The proposed utility facility installation shall use the smallest suitable vaults, boxes, equipment enclosures, power pedestals, and/or cabinets then in use by the facility owner, regardless of location, for the particular application.
6. *Violation of Utility Easement:* No facility will be placed in violation of the terms of dedication of any utility easement.

### **C. FREESTANDING FACILITIES.**

1. The City may restrict the location and size of any freestanding utility facility located within a right-of-way.
2. The City may require any freestanding utility facility located within a right-of-way to be screened from view.

### **D. FACILITIES INSTALLED ABOVE GROUND:** Above ground utility facilities may be installed only if:

1. No other existing utility facilities in the area are located underground;
2. New underground installation is not technically feasible; and
3. The proposed installation will be made at a location, and will employ suitable design and materials, to provide the greatest protection of aesthetic qualities of the area being traversed without adversely affecting safety. Suitable designs include, but are not limited to, self-supporting armless, single-pole construction with vertical configuration of conductors and cable. Existing utility poles and light standards shall be used wherever practicable; the installation of additional utility poles is strongly discouraged.
4. No utility facility will be placed on a public easement on private property, if it is technically feasible to place such facility on public right-of-way.
5. Above ground utility facilities shall not be constructed above public storm and sanitary sewers.

### **E. APPEARANCE STANDARDS.**

1. The City may prohibit the installation of utility facilities in particular locations in order to preserve visual quality.
2. A utility facility may be constructed only if its construction does not require extensive removal or alteration of trees or terrain features visible to the right-of-way user or to adjacent residents and property owners, and if it does not impair the aesthetic quality of the lands being traversed.
3. If two (2) or more dimensions of a proposed above ground utility facility are equal to or greater than 4-feet in length, those structures shall not be constructed in the public right-

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of-way without the review and approval of the City Engineer. To initiate the review process, at a minimum, the following documentation must be submitted to the City Engineer:

- a. Color digital photographs of the proposed utility facility location that show each facility from four (4) different views (from the left, right, front, and rear).
- b. Select the appropriate landscaping plan for the site from standard attachments 15.09 (a), 15.09 (b), 15.09 (c), and 15.09 (d). The utility company will be required to maintain the landscaping around their facilities to ensure that the plants are established, healthy, and properly trimmed. Any dead, dying, or diseased plants should be removed and replaced with mature healthy plants of the same species.
- c. Detailed construction plans meeting the requirements of Chapter 6.
- d. The four (4) property owners adjacent to the proposed location shall be notified 1-2 weeks prior to the start of construction. This notification may consist of a letter or door hanger/flyer. Copies of the notification must be provided to the City Engineer. At a minimum, the notification shall include the following information:
  - i.) The name and contact information for the utility owner.
  - ii.) Explanation of the proposed utility placement
  - iii.) Proposed dates for construction.
  - iv.) The proposed landscaping plan for the location.

### 15.04 STANDARD ATTACHMENTS

The following attachments provide additional guidance for the design and construction of above ground utility structures. Where applicable, these standards should be followed and incorporated into project plans and specifications.

Standard Attachment Number 15.01(a1)—Above Ground Facility Landscaping Plan Alternative for Typical Residential Scheme Option 1

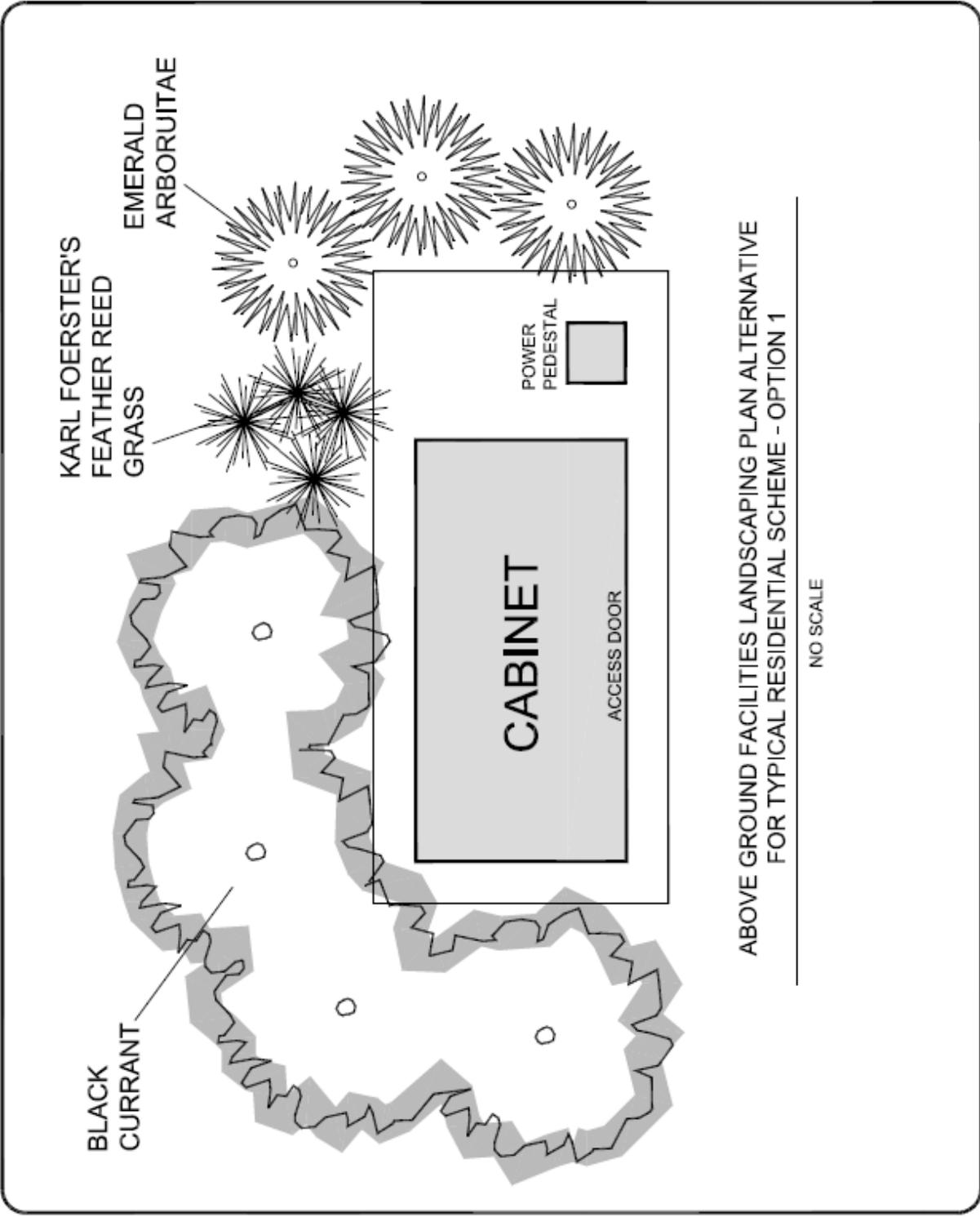
Standard Attachment Number 15.01(a2)—Above Ground Facility Landscaping Plan Alternative for Typical Residential Scheme Option 2

Standard Attachment Number 15.01(b)—Above Ground Facility Landscaping Plan Alternative for Narrow Right-Of-Way Scheme

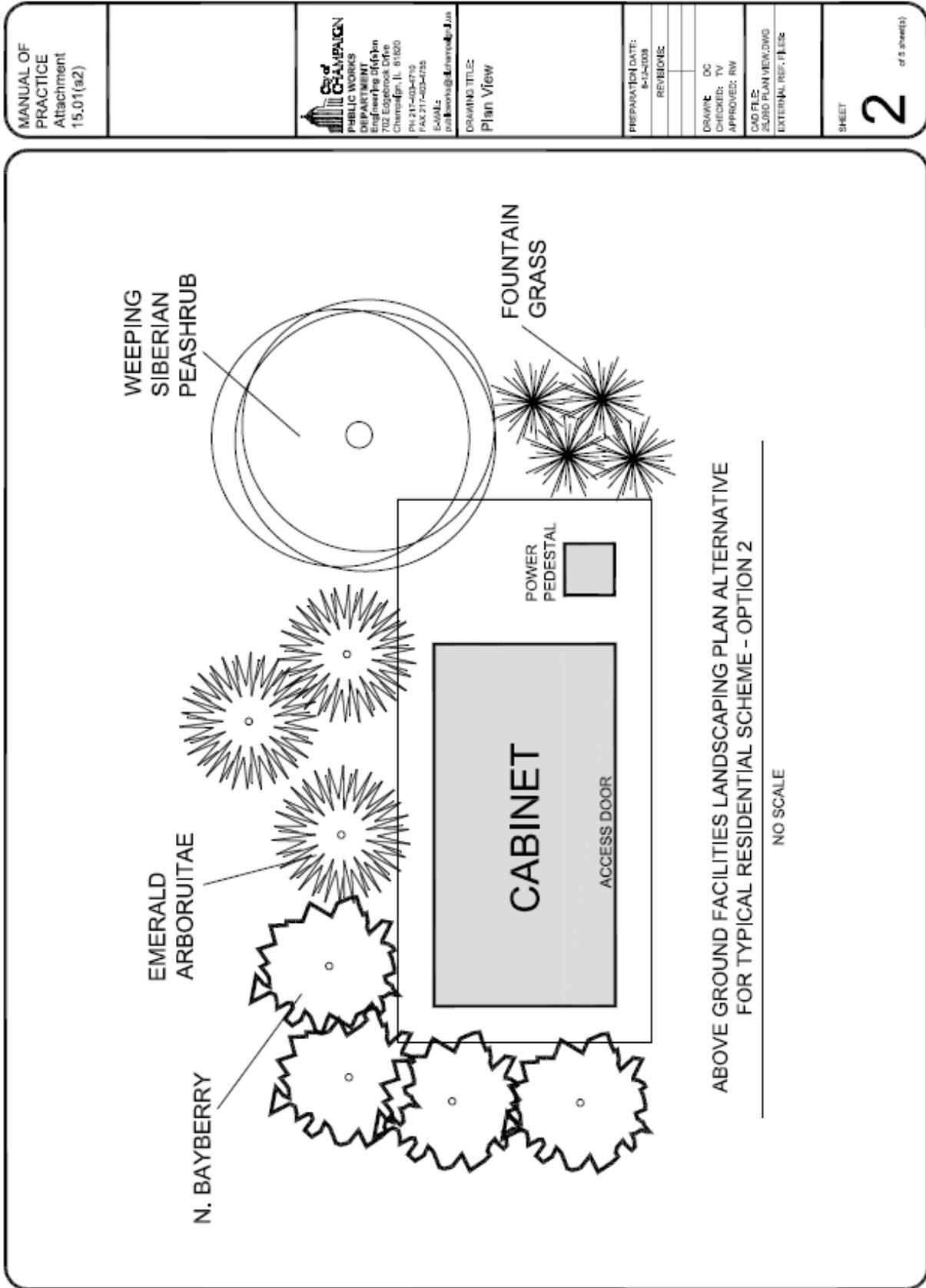
Standard Attachment Number 15.01(c)—Above Ground Facility Landscaping Plan Alternative for Typical Commercial Scheme

Standard Attachment Number 15.01(d)—Above Ground Facility Landscaping Plan Alternative for Natural Setting Scheme

MANUAL OF PRACTICE Attachment 15.01(a1)	 <b>CITY OF CHAMPAIGN</b> PUBLIC WORKS DEPARTMENT Engineering Division 200 East Tenth Street Champaign, IL 61820 PH: 217-243-4710 FAX: 217-463-4758 Email: <a href="mailto:publicworks@champaign.il.us">publicworks@champaign.il.us</a>	DRAWING TITLE: Plan View	PREPARATION DATE: 8-2-2008
			REVISED:
		DRAWN: DC	CHECKED: TV
		APPROVED: RW	
		CAD FILE: 2008 PLAN VIEW.DWG	EXTERNAL REF. FILES:
SHEET		<b>1</b>	
		of 5 sheets	

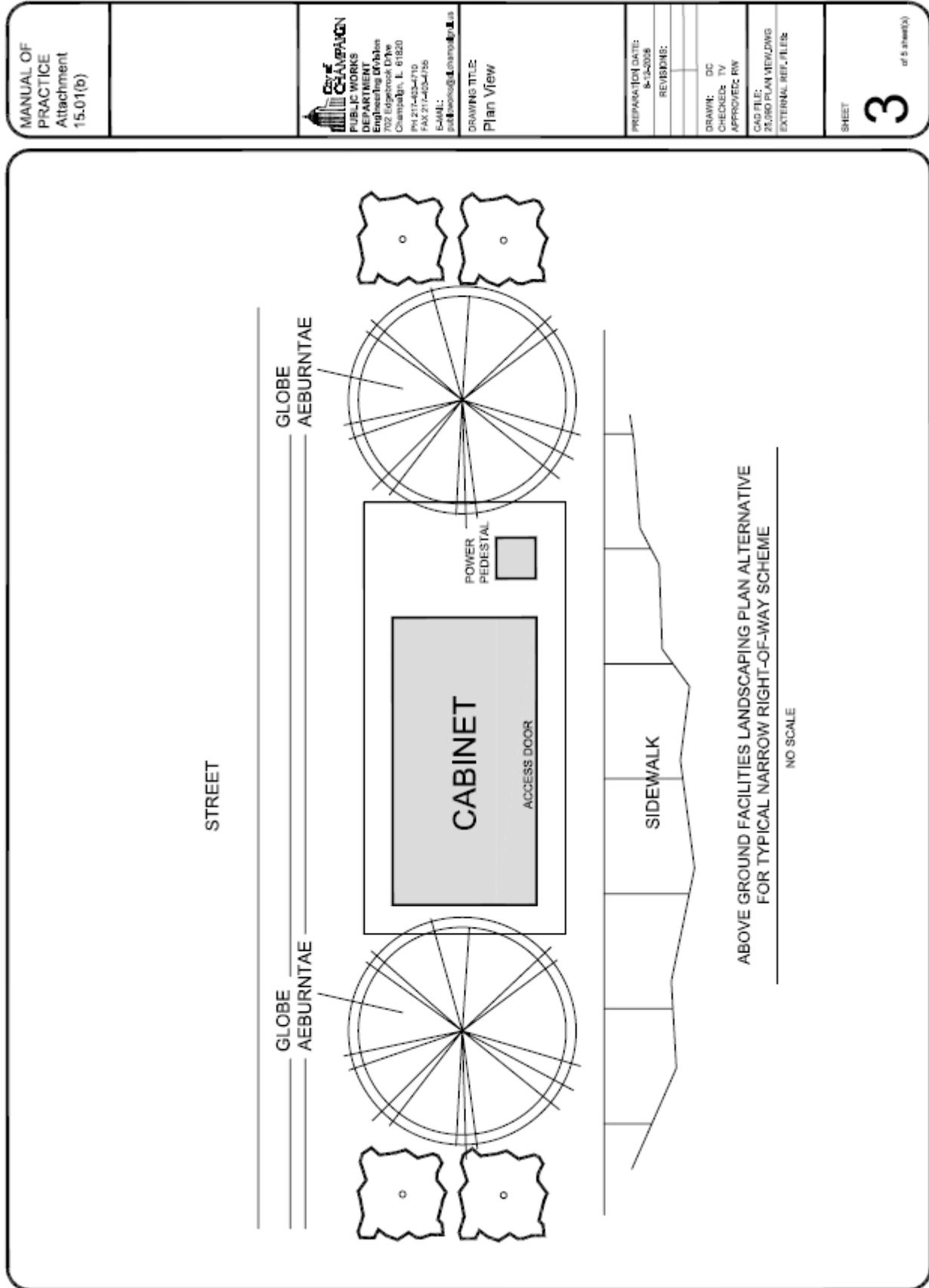


Attachment 15.01(a1)

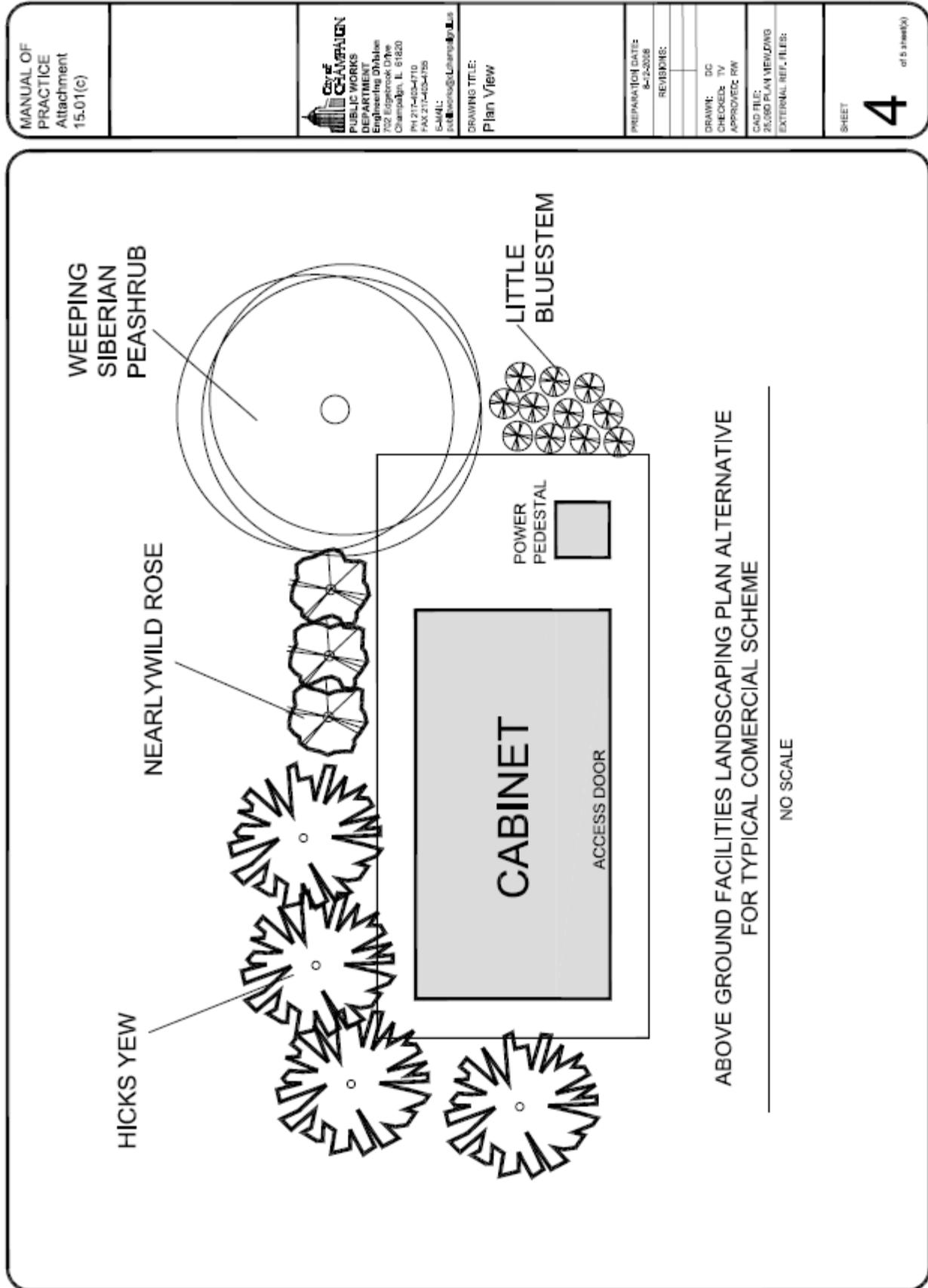


Attachment 15.01(a2)

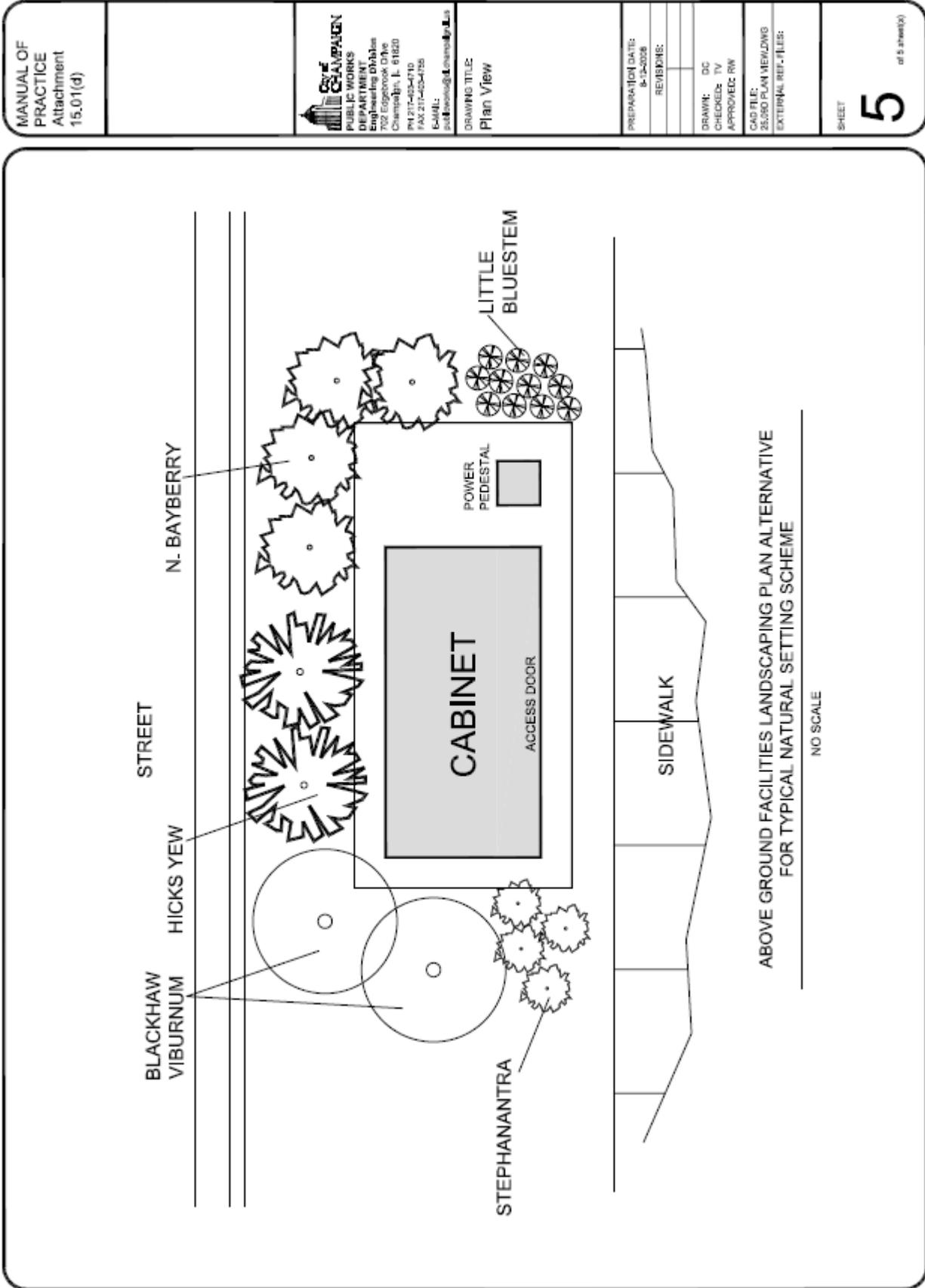
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Attachment 15.01(b)



Attachment 15.01(c)



Attachment 15.01(d)