

CHAPTER 21: EARTHWORK STANDARDS

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21.00 INTRODUCTION AND GOALS

The purpose of this chapter is to provide information on earthwork design and construction other than for road subgrades or sanitary sewer backfill, which are covered in Chapter 10 and Chapter 18 respectively. Earthwork design and construction shall conform also to the Standards in Chapter 22 - Erosion Control.

21.01 ADMINISTRATION

- A. This chapter applies to earthwork design and construction within the City limits and the 1-1/2 mile extra territorial jurisdiction.
- B. Earthwork design shall be reviewed by the City of Champaign through either of the following:
 - 1. Subdivision plan review
 - 2. Grading and drainage plan review
 - 3. Alternate construction plan review (typically public improvements)

21.02 STANDARDS

The following standards apply to earthwork:

- A. **Referenced Standards:** Standards for earthwork shall comply with the provisions of the IDOT Standard Specifications for Road and Bridge Construction, and the City of Champaign Stormwater Management Regulation, latest editions, unless otherwise stated by this Manual.
- B. **All Projects:**
 - 1. Coordinate project haul routes with the City Engineer.
 - 2. General grading slope limits are 1% minimum, 2% preferred minimum and 4H:1V maximum.
 - 3. Overall historical drainage patterns shall be maintained. Significant changes must be approved in writing by the City Engineer.
 - 4. All drainage facilities and sewer lines which are broken or damaged during construction shall be restored as nearly as possible to their original state by the contractor, except that all field tiles shall be connected to the storm sewer system where necessary for protection of improvements or prevention of upstream flood damage.
 - 5. Embankment shall comply with the provisions of IDOT Standard Specifications.
- C. **Underground Utilities:**
 - 1. Trenches shall be compacted in such a way that minimizes settlement and any settlement that does occur shall be repaired immediately.
 - 2. Topsoil minimum thickness shall be 6 in.

D. Detention Basins:

1. Berms and basin slopes shall be constructed per IDOT embankment standards.
2. Topsoil minimum thickness shall be 6 in.

E. Subdivisions:

1. Topsoil minimum thickness shall be 1 ft.
2. Minimum subgrade densities specified in the plans shall not be less than 95% of standard proctor density under pavement or 85% of standard Proctor density under topsoil.
3. Each building pad elevation shall be a minimum of 1 ft. and not more than 3 ft. above the back of the curb as measured at the property lines. Each building pad elevation shall not exceed 1/2 ft. above or below the adjacent building pad elevation.
4. The grade or slope away from a building pad shall be 10% for the first 5 ft. The grade may continue between a minimum of 1%, 2% preferred, and a maximum of 10% thereafter.
5. Topsoil, organic material, frozen material, and debris shall be removed from under proposed pavement or building locations.