

NORTH LIBERTY'S SUPPLEMENT TO THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS)

PLANS OF RECORDS SHALL INCLUDE

1. Stationing of all building sewers.
2. Stationing of all water service corporation valves.
3. Stationing of all water service curb stop valves.
4. Stormwater management facilities, including elevations, final grading and drainage ditches/swales.
5. Sewer rims, inverts and slopes.

DESIGN MANUAL 6B-1 – SUBSURFACE EXPLORATION PROGRAM

1. Additional possible sources of information include underground field tile maps.
2. Review aerial photographs, field tile maps and other information as may be available to approximate locations of underground field tiles.
3. For new subdivision designs, the design engineer shall provide instructions and locations for field tile exploratory digging, generally along the perimeter of the subdivision, to a minimum depth of 4-feet in order to locate existing underground field tiles. Exploratory digging shall be witnessed by the city inspector.
4. Upon discovery of existing field tiles the design engineer shall design connections of the tile lines to the subdivision storm drainage system (if applicable under the Iowa Drainage Law) or removal and backfill of the field tiles within the subdivision boundaries (when not required to maintain drainage from upstream property(s)). Proposed connections and/or removals shall be submitted to the city engineer for review.

DRIVEWAY APPROACHES

1. The finish shall be a broom finish or astroturf drag.
2. Curb grinding is required for the removal of the existing curbs for driveway connections. Grinding shall consist of saw cutting the back of curb and milling the curb with a milling machine to provide a smooth uniform joint between the curb line and driveway apron. No driveway approach shall extend beyond the back of curb. No street shall be cut to remove a curb without written authorization by City Engineer or designee.

3. There shall be a minimum of twenty (20) feet between the end of the radius of a street intersection and the beginning of a driveway curb removal as measured at the curb line in all instances. Additional distance between the radius of a street intersection and the beginning of a driveway curb removal may be required by the City Engineer where deemed necessary because of high traffic volumes or other safety concerns.
4. A single driveway approach will be allowed to be placed over the lot line dividing residential duplex units located in RD zoning district. The single driveway approach shall be centered over the lot line with a maximum width of thirty (30) feet at the public sidewalk and thirty-six (36) feet at the curb line.
5. Maximum driveway slope shall not exceed 15%.

SANITARY AND BUILDING SEWERS

1. Vitrified clay pipe and ductile iron pipe products are prohibited.
2. Video inspection of all sanitary sewer mains is required prior to the city accepting of the sanitary sewer system.
3. All lift stations shall include emergency power backup generation.
4. All lift stations shall include forcemain pigging and launch piping/valves adequate for cleaning and maintaining forcemain.
5. New lift stations may also require downstream manhole rehabilitation subject to approval of the City Engineer.
6. A two-year maintenance bond covering defective materials and workmanship is required for all sanitary sewer system improvements.
7. Refer to City of North Liberty "Accepted Manufacturers for Sanitary Distribution Materials" for allowable sanitary sewer system component manufacturers.

SIDEWALKS

1. Sidewalks shall be located 1 foot from the property line, except in areas in which a different offset is required to match existing walks or grades as authorized by City Engineer.
2. Sidewalks 4 to 6 feet wide shall have a minimum thickness of 4 inches. Sidewalks greater than 6 feet wide shall have a minimum thickness of 5 inches with fiber mesh reinforcement or 6 inches of non-reinforced concrete.
3. Sidewalk joints shall be spaced to form square panels.
4. Isolation 1/2-inch performed expansion joints shall be installed at approximately 100-foot intervals and at every property line.
5. Detectable warnings shall be cast iron material only. Color shall be dark red.

STORMWATER

1. Refer to City of North Liberty “Post-Construction Runoff Control” ordinance for specific stormwater management requirements and criteria. Where conflict occurs between the ordinance and this Chapter, the ordinance shall prevail.
2. Storm intakes: Open throat curb intakes shall be provided for all public and private streets.
3. Intakes shall be spaced so that for a five (5) year storm arterial streets shall have two traffic lanes free of excess water at all times. Local and collector streets shall be designed to have one twelve (12) foot traffic lane free of water. Stormwater shall not cross an intersection but can follow a curb around its radius.
4. For a one hundred (100) year storm, the ponding of surface water on local, collector, and arterial streets must not exceed a depth of one (1) foot at the gutter. Water exceeding one (1) foot shall be designed to overflow into an overland flow route. This applies to temporary ponding from local drainage only.
5. A five-year maintenance bond covering defective materials and workmanship is required for all storm sewer system improvements.
6. For storm sewer pipe running alongside the curbs, or crossing under the pavement require “open-jointed” storm sewer with fabric wrapped joints and rock trench backfill.
7. Storm Sewer manhole lids need to be stamped with the words “Storm Sewer Drains to Stream”
8. Minimum of 6” sub-drain tile shall be on both sides of the street back of curb for sump pump connections

STREETS AND RELATED WORK

1. A minimum 6” thick granular subbase (IaDOT gradation 12 or 14) shall be provided for all public and private streets.
2. Subdrains shall be provided for all streets. Minimum size = 4” diameter. In areas where subdrains may also be used for sump pump connections, minimum size shall be 6” diameter.
3. Required minimum thickness for rigid pavements shall be as follows:
 - a. Local roads: 7” PCC
 - b. Collector roads: 8” PCC
 - c. Arterial roads: 9” PCC
 - d. Industrial roads: 8” PCC
4. A five-year maintenance bond covering defective materials and workmanship is required for all street improvements.

5. Asphalt expansion joint material is prohibited for filling expansion joints.
6. Pavement marking materials for pavement markings on public streets shall consist of durable epoxy pavement markings.
7. Where pairs of inlets are located directly across from each other or slightly skewed, install transverse joints between corners of the throat and directly above the crossing storm sewer pipe.

STREET TREES

1. No street trees shall be planted within the right-of-way, except for landscaping projects approved by City of North Liberty.

WATER MAINS AND APPURTENANCES

1. Refer to City of North Liberty "Accepted Manufacturers for Water Distribution Materials" for allowable water system component manufacturers.
2. A two-year maintenance bond covering defective materials and workmanship is required for all water system improvements.
3. All plastic water service lines shall have tracer wire attached to the service line in accordance with SUDAS and Water Department requirements.
4. Installation of solid concrete blocks is acceptable thrust blocking material when megalug flanges are installed.
5. Provide two third party satisfactory bacteriological test results as specified in Section 3.06 to the City of North liberty prior to performing the pressure and leak test specified in Section 3.05