

WILL COUNTY SUBDIVISION ENGINEERING
CHECK LIST
IMPROVEMENT PLANS

SUBDIVISION NAME _____ UNIT NO. _____
DEVELOPER'S NAME _____
DEVELOPER'S ADDRESS _____
DATE RECEIVED _____ REVIEWER _____
PRELIMINARY PLAT APPROVAL _____ EXTENDED TO _____

A. PREVIOUS APPROVALS

- _____ Conforms exactly with the Preliminary Plat
- _____ Number of lots is unchanged
- _____ Lot frontage is unchanged
- _____ Detention volume and release rate

B. IMPROVEMENT PLANS

- _____ Benchmark on cover sheet
- _____ A certificate regarding drainage signed by the owner and the engineer
- _____ Signature and Seal of a Professional Engineer
- _____ Sheets 24" x 36"
- _____ Title page with index of sheets and general notes
- _____ General layout of streets with street lights
- _____ General layout of water system with hydrants
- _____ General layout of sanitary sewer system
- _____ General layout of storm drainage system
- _____ Plan and profile of all streets and sewers (1"=50'H & 1"=5'V)
- _____ Detail sheet for structures and typical sections
- _____ Erosion Control plan showing location of erosion control measures, details, timing of installation (when and how will temporary erosion control be in place, when will permanent grass be established in parkways, detention basins, etc.), and maintenance of erosion control measures.
- _____ Copy sent to Township Highway Commissioner
- _____ Copy sent to local Fire Protection District

C. DESIGN STANDARDS

STREETS / SIDEWALKS:

- _____ Street typical cross sections with pavement asphalt 4 inches and CA6 gravel 12 inches
- _____ Curb & gutter must be type B-6.12
- _____ Back of curb to be depressed or cut for access to driveway, sidewalk, and other paths
- _____ Minimum 100' tangent between reverse curves on local streets (radii of 200' or less)
- _____ Minimum 300' tangent between reverse curves along all other streets
- _____ Urban Street grades from 0.5% to 6.0%
- _____ Vertical curves provided for grade changes
- _____ Street centerline elevation at or above flood protection elevation
- _____ Block length is 1500 feet, maximum
- _____ Crosswalks in blocks greater than 660' (if needed)

Updated 02-10-2011

- ___ Street jogs, 125' minimum
- ___ Intersections at right angles
- ___ Streets coincide with existing streets
- ___ Street radii, 200 feet minimum
- ___ Cul-de-sacs, 100' diameter or landscaped
- ___ Cul-de-sacs, 130' R.O.W., maximum street length is 1200'
- ___ Temporary tees 20' x 60', paved
- ___ Half streets, R.O.W. = 50' and pavement = 4820'
- ___ Half streets drainage and retaining walls
- ___ Return radii (25' minimum)
- ___ Subdivision entrance not closer than 500' to a railroad crossing
- ___ Street signs at intersections
- ___ Street lights at intersections
- ___ Guard rails where roadside hazards exist
- ___ Indicate areas for granular trench backfill
- ___ Check for adequate sight distance at entrance from existing road (verify with highway authority)
- ___ Barrier-free ramps at all street crossings
- ___ Sidewalks within 1 mile of a school (if needed) or if 120' frontage or less
- ___ Sidewalks 5" PCC over 5" CA16 gravel

DRAINAGE / GRADING:

- ___ 13" of cover on all culverts under streets
- ___ Culverts at all intersections
- ___ Minimum 0.5% slope on paved areas
- ___ Minimum 1.0% slope on grassed areas
- ___ Culvert locations, sizes, grades and invert elevations
- ___ Drainage system calculations for volume
- ___ Positive drainage throughout subdivision
- ___ Note the condition and capacity of the downstream ditch
- ___ Culvert sizing calculations (under roadways and for private drives)
- ___ Tributary area (onsite and offsite) routing into proposed system
- ___ Dam Safety Permit (if required)
- ___ Show which lots are appropriate for walk-out basements
- ___ Rear yard storm sewers, sump pump drain, or vegetated swales for lots under 30,000 sf

LANDSCAPING:

- ___ Sod, mat or blanket to be used on slopes 20% or greater
- ___ One tree every 40 feet (min. 2, max. 4) per lot as directed by Township Highway Commissioner shown on landscape plan (recommend parkway trees in 10' landscape easement along front lot line on private property)
- ___ Berm top width is 5', minimum
- ___ If required: Screen planting on major streets or double frontage
- ___ Provide landscape plan showing screening where necessary and parkway trees

NOTES:

- ___ Material standards meet IDOT's Standard Specifications for Road & Bridge Construction and Standard Specifications for Water and Sewer Construction In Illinois (noted or shown)

Updated 02-10-2011

____ Note that disturbed areas will be seeded and receive 4" of topsoil

EROSION CONTROL:

____ Erosion and Sedimentation plan meets "Procedures and Standards for Urban Soil Erosion and Sedimentation Control"

____ Erosion control plan showing location, details, and schedule of installation and maintenance of erosion control measures.

DITCHES:

____ Ditch grades 0.5% minimum with paved bottoms

____ Ditch grades 0.5% to 4% with grass bottoms

____ Ditch grades 4% to 8% with rip/rap and ditch checks

____ Ditch cross section

____ Plan and profile of drainage ditches outside street R.O.W.

STORM SEWER:

____ Storm sewer calculations for capacity and velocity (3 fps to 10 fps)

____ 12" minimum storm pipe size

____ Manholes, inlets and/or catch basins every 300'-400'

____ Rim elevations above high water level

____ Recommend grates over end sections over 15" on upstream (inlet) end of storm sewers

EASEMENTS / SETBACKS:

____ Minimum 10' drainage and utility easements at rear of all lots

____ Floodplain and wetlands easements, conservation/open space easements, overflow route easements, stormwater management facilities easements, grading, and no access easements shown

____ Minimum 15' screen planting easements if needed

SEWER/WATER:

____ IEPA permits for central sewer and water

____ Health Department approval if grading over proposed septic field

D. REQUIRED DETAILS (if needed)

____ End Sections (RCP or CMP) & Grating

____ Spillways

____ Paved ditches

____ Manholes w/ frame & grate

____ Inlets w/ frame & grate

____ County entrance detail

____ Lift stations

____ Curb & gutter

____ Guard rails

____ Water & sewer services (valves, connections, blocking)

____ Valves and hydrants

E. COMPREHENSIVE DRAINAGE PLAN

Updated 02-10-2011

- _____ Calculations for 100 yr storm storage, intensity, composite "C"
- _____ Detention pond profile and cross-section
- _____ Flood Protection Elevations
- _____ Compensatory storage in floodplain (calculations & design)
- _____ Release rate and bypass rate
- _____ Undeveloped runoff rate $c = 0.15$, maximum
- _____ Bypass rate $c = 0.35$
- _____ Release rate (0.04 cfs/acre for 2-year storm; 0.15 cfs/acre for 100-year storm)
- _____ Release rate shall be less than the rate of predevelopment condition
- _____ Detail design for each detention pond
- _____ Emergency overflow structures shown
- _____ Overland flood route of stormwater through the subdivision
- _____ Sideslopes for detention areas 4:1 minimum
- _____ Minimum 6' safety shelf
- _____ Shoreline protection for lakes over 5 acres
- _____ Average depth of lake 3' minimum
- _____ Lakes with fish, 1/4 of surface over 10 feet deep
- _____ Blocked restrictor calculation

F. CONSTRUCTION SCHEDULE

- _____ Copy of letter from Township Highway Commissioner regarding agreement on improvements to existing roadway.
- _____ Construction schedule approved by Township Highway Commissioner
- _____ Construction traffic routing and signage approved by Township Highway Commissioner
- _____ Street name signs and traffic control signs approved by Township Highway Commissioner

ENGINEER'S NAME _____
ENGINEER'S SIGNATURE _____
ENGINEER'S ADDRESS _____
ENGINEER'S PHONE _____