



MEMORANDUM

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**LOWNDES COUNTY ENGINEERING
PLAN REVIEW CHECKLIST**

Project Title: _____

Design Firm: _____

Design Professional: _____ **Phone:** _____

Developer: _____ **Phone:** _____

Submittal Date: _____

**Original
Submission
(\$300.00)**

**2nd
Submittal
(No Fee)**

**_____
Submittal
(\$350.00)**

This checklist is provided to assist design professionals as a guide in the preparation of improvement plans for subsequent review by the County. It is not intended to be a complete listing of all Improvement Plan requirements or criteria. The checklist may be modified from time to time as deemed necessary by the County Engineer.

Place a check mark in the appropriate box as each item is achieved, sign on the line provided and include as part of the Improvement Plan submittal package.

**ATTACH
IMPROVEMENT PLAN CHECK HERE**

VOID IF SUBMITTED WITHOUT CHECK

Submission Requirements

- A pre-application meeting has been held. (Date:_____)
- Development has received an approved Preliminary Subdivision Plat.
(Improvement Plan approval will not be obtained until the development receives an approved Preliminary Subdivision Plat).
- 5 – Copies of Plan
 - Existing Conditions
 - Layout
 - Grading & Drainage
 - Plan & Profile
 - Utilities
 - Erosion Control
 - Standard Details – Construction, Water & Sewer and Erosion & Sediment Control.
 - Cross Sections – Development of New Roads or Improvement of Existing Roads.
- 2 – Copies of Hydrology Study including detention.
- 1 – Copy of the Engineering Plan Review Checklist. (This document)
- Improvement Plan Review Fee of \$300.00.

Cover Sheet

- Project Name/Title.
- Site Location/Vicinity Map.
- Drawing Index.
- Land District/Land Lot.
- Design firm name, address, email, phone & fax number.
- Utility and Agency Contact Information – Contact name & phone number.
- Typical Roadway Section – Based on the Lowndes County Thoroughfare Plan and the classification of the road being constructed.
- Legend (may be on each sheet).

Existing Conditions

- Boundary Survey
- North arrow, legend, scale, certified by P.E./PLS
- Benchmark
- Total Area

- Tax Map & Parcel Numbers
- Current Zoning
- Adjacent Land Owners
- Existing Easements (Utility/Drainage)
- Existing Roads (Public or Private)
 - Name
 - Size of right-of-way
 - Thoroughfare Plan Classification
- Railroads
 - Name of owner
 - Size of right-of-way
- Existing Contour Lines (2-foot intervals)
- Prominent Drainage Features: Lakes, Streams, Ponds, Drainage Ditches, Depressions and Wetlands (Isolated and Jurisdictional).
- Wetland Delineation Lines
 - Name and certification of individual responsible for Wetland Delineation.
 - 25' Undisturbed Buffer Line Indicated.
- Groups and locations of trees.
- Locations of items to be removed and/or abandoned.
 - Septic Tanks (Note method of abandonment)
 - Wells (Note method of abandonment)
 - Power Poles
 - Driveways

Layout

- Site layout
 - Proposed Lot Layout
 - Lot Numbers
 - Size of Lot (Square Footage)
 - Setbacks (Front, Side & Rear)
 - Minimum of 60' of Road Frontage
 - Finished Floor Elevations for all lots adjacent to wetlands, detention ponds and open ditch drainage easements.
 - Proposed Streets
 - Size of Right-of-Way
 - Proposed Easements
 - Show 10' utility easement outside of right-of-way (Both sides of Road)
 - Label Type of Easement (Utility and/or Drainage)

- Size and Location
- Proposed Water Bodies
 - Existing Wetlands
 - Delineation Line (Labeled)
 - 25' Undisturbed Buffer Line (Labeled)
 - High Water Elevation
 - Proposed Detention Ponds
 - High Water Elevation

Grading & Drainage – May be shown on Plan & Profile.

- Existing and proposed contour lines shown.
- Spot elevations.
- Minimum storm sewer pipe diameter equal to 18”.
- RCP used under all paved areas.
- The use of CMP is prohibited.
- Identify all storm structures to include Georgia D.O.T. standard details.
- Pipe size, length and slopes are provided.
- Emergency Spillway included in detention pond design to include standard detail.
- Detail of outlet control structure. Elevations to match plans.
- Open ditch drainage easements minimum size 30’.
- Piped drainage easements minimum size 20’.
- Rip – Rap (ST) found at the outfall of all storm pipes and emergency spillways.

Plan & Profile

- North arrow, legend, scale (horizontal & vertical).
- Station Numbers.
- Match Lines.
- Horizontal Curve Data in accordance with AASHTO (Data to include Design Speed).
- Vertical Curve Data in accordance with AASHTO.
- Traffic Control Sign Design (Must include M.U.T.C.D. standard).
 - Stop Signs
 - Stop Bars (Thermoplastic)
 - Yield Signs
 - No Outlet
 - Pavement Ends
 - No Parking

- Call out stationing of intersecting road centerlines.
- Show Plan & Profile of Sewer Main Run.
- Show Water and Storm Water Crossings.
- Radii of curbs.
- Cul-de-sac Radius (40' to EOP, 50' to ROW).

Utilities – May be shown on plan & profile.

- Water Main (In accordance with Standards & Specifications found in the utilities section of the Lowndes County Technical Standards Manual).
 - Size of Main
 - Length of Main
 - Method of Termination
 - Fire Hydrant Separation (As the Truck Travels)
 - 600' in single family residential areas
 - 500' in commercial, industrial, and multifamily residential areas.
 - Gate valves installed at a minimum 1,200' intervals.
 - Proper cover is achieved.
 - Proper separation from Storm and Sanitary Sewer.
 - Services shown to all lots.

- Sewer Main (In accordance with Standards & Specifications found in the utilities section of the Lowndes County Technical Standards Manual).
 - Size, length and slope of main.
 - Proper slope used for size of main.
 - Manhole spacing is $\leq 400.00'$.
 - Manholes are found in the centerline of the road.
 - Positive flow maintained throughout system (.10 drop from invert in to invert out).
 - Indicate Drop Manholes and label as lined & Coated.
 - Proper cover is achieved.
 - Proper separation from Water Main and Storm Sewer is achieved.
 - Services shown to all lots.

- Lift Station & Force Main designed in accordance with Standards & Specifications found in the utilities section of the Lowndes County Technical Standards Manual.

- E-1 sanitary sewer system narrative notes and standard details are provided on plan in accordance with the Standards & Specifications found in the utilities section of the Lowndes County Technical Standards Manual.

- Lowndes County Standard Details for utilities is provided as found in the utilities section of the Lowndes County Technical Standards Manual.

(If you would like to obtain a copy of the Lowndes County Technical Standards Manual for Utilities contact 229-671-2500)

Erosion Control

- Design criteria conform to the State of Georgia Manual for Erosion and Sediment Control, Fifth Edition 2000.
- All design has been done in accordance with Lowndes County Land Disturbance Activity Permit Application and Checklist.
- Please provide the following statement in bold print: **“Additional Erosion Control measures may be required by field Inspector”**.

Cross Sections

- Cross section provided every 50’ showing improvements along roadway and ditch.
- No damming of storm water behind curb.

General Notes – Must appear in bold print.

- “All work shall be done in accordance with Lowndes County Standards and Specifications”**.
- “Contractor shall notify the County Engineer at least 24 hours prior to the beginning of each phase of construction”**.
- “Contractor shall notify the Lowndes County Utilities Department at least 24 hours prior to any connection to the Lowndes County Utility System”**.
- “All extensions and additions to the County Utility System shall be performed by a Georgia Licensed Utility Contractor”**.
- “A minimum of 18” of vertical and 10’ of horizontal separation shall be maintained between all utilities”**.
- “Any cross connection to the Lowndes County Water System is prohibited”**.
- “All T’s and Bends shall be Ductile Iron”**.

General Requirements

- Lowndes County Encroachment Permit – Required for all work being accomplished within Lowndes County right-of-ways.
- Georgia Department of Transportation Encroachment Permit – Required for all work being accomplished within State of Georgia D.O.T. right-of-ways.

- Letter of approval from the Army Corps of Engineers – Cumulative Wetland Impacts totaling acreage of 0.10 or greater.
- Letter of approval or permission for encroachment from Utility Company – Encroachment into or through an electric company’s easement.
- Land Disturbance Permit – A full Land Disturbance Permit and Application will have to be submitted, to the Lowndes County Engineering Department, if the proposed development will disturb 1.0 acre of land or more.
 - 4 copies of the Application and Checklist.
 - 4 copies of Erosion Control Plan.
 - 2 copies of the Storm Water Runoff Analysis.
 - 1 copy of the Notice of Intent and EPD Land Disturbance Fee Form.
- Water calculations provided – To include fire flow using I.S.O criteria and pressure calculations.
- Sewer calculations provided.
- Lift Station & Force Main calculations provided.
- Hydrology calculations and gutter spread calculations provided.
- All plans shall be stamped, signed and dated by a Registered State of Georgia Engineer.

The requirements of the Lowndes County Engineering Department are not limited to the above referenced checklist and notes. Additional or revised information and drawings may be required by the Lowndes County Engineering Department before approval and acceptance of submitted drawings and related materials. The submitted plans shall be in full compliance with the most recent versions of the following documents: Lowndes County Unified Land Development Code and the Lowndes County Technical Standards Manual.

Project Title

Design Professional

Date