Dated: 11/6/26

CITY OF ORLANDO

Commercial Submittal Requirements for Site Engineering:

The following items shall be included as part of your permit submittal package. **Non-compliance with these standards will result in an immediate disapproval (without review) of the permit case.** Initial next to each individual item confirming that they have been included in the submittal package:

_____ Project Narrative Sheet

_____ Topographic Survey

_____ Drainage Report

_____ Geotech Report

_____ City of Orlando's Guidelines for Erosion & Sedimentation Control for Construction Sites (AKA Blue Sheet)

_____ NPDES NOI (if the site is over 1 acre)

_____ Civil Design Sheets

_____ Private and/or Public Improvements Cost Sheets

_____ A copy of Page 1 and 2 of this document with initials and signatures.

_____ Email correspondence of exemption (if applicable)

Plans Revision (if applicable):

_____ Narrative or revision request form

- Describe what changes were made from the original document(s)
- Provide the file name or sheet number impacted by the change(s)

_____ Comment and Response Sheet

_____ Revision(s) clouded in Plans/Docs

If any of the items listed above do not apply to your permit case, please upload a Cover Letter explaining why these requirements have not been met.

_____

_____

_____

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Dated: 9/9/20

CITY OF ORLANDO

Only as previously approved by _____of the Public Works
(Name)
Department on _____, the items listed below are hereby exempt from the
(Date)
submittal package _____.
(Permit #)

- _____
- _____
- _____
- _____
- _____
- _____

I hereby certify that all the above information has been uploaded and submitted into the City's ProjectDox.

_____ _____
Applicant signature Date

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CITY OF ORLANDO

Commercial Submittal Requirements for Site Engineering:

Refer to Chapter 7 of the Engineering Standards Manual (available for download on our website) for additional details on submittal requirements. Please be advised that the standards listed here are the minimum standards allowable and additional requirements may be requested during the permitting process.

- **Cover Letter**
    - Describe work proposed, existing site conditions, and any hardships in meeting City requirements. If there is a reason that a submittal requirement is not met, please address why in this section.

- **Topographic Survey**
    - Survey shall be signed and sealed by a Professional Surveyor, licensed in the state of Florida.
    - Survey shall use Florida State Plane Coordinates, Zone Florida East, North American Datum of 1983 for the horizontal datum and the North American Vertical Datum of 1988 for the vertical datum, with a reference to the horizontal control points and vertical benchmarks. Please be advised that NO temporary benchmark, nor assumed or Permanent Reference Network elevations are allowed in the City of Orlando. The elevations shall refer to a published vertical point benchmark.
    - Existing topography of the site at a minimum of one (1) foot contour intervals and sufficient additional spot elevation points so that the existing drainage patterns can be clearly established. Contours shall extend at least twenty-five (25) feet beyond all property lines, or to roadway centerlines, whichever is greater. Note, there may be situations where additional topography beyond the minimum requirement shall be necessary to discern the existing drainage pattern.
    - If the site is within the 1% annual chance floodplain, as depicted on FEMA FIRMs, the existing floodplain boundary should be shown on the survey.
    - Any wetlands on site shall be shown on the survey.
    - Please refer to Chapter 5 of the Engineering Standards Manual for Plat requirements and additional details regarding survey submittal requirements.

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- **Drainage Report**
  (If a Drainage Report is not applicable to this project, please provide a drainage memo describing how this project meets our requirements for stormwater treatment.)
  - A certification signed by the Professional Engineer or Architect, registered in the State of Florida, responsible for the design which reads as follows:
    - "I hereby certify that to the best of my knowledge and belief, the design of the Stormwater Management System for the project known as: (Project Name) meets all of the requirements and has been designed substantially in accordance with the City of Orlando Stormwater Management Criteria."
  - A description of the methodology, assumptions, parameters, and a copy of all such computations used to analyze the system shall be included with the submittal. A copy of the computer printout shall be submitted to the City. Software used in the development of the application, if not an acceptable industry standard, shall be submitted to the City Engineer for approval. Please note:
    - If ICPR is to be used, printouts of inputs, relevant time series reports, and all relevant routing information used in the program should be included in the report.
    - A detailed description shall be provided explaining the assumptions used in determining the Seasonal High Water Table elevation.
    - Curve number selection and infiltration potential shall be based on a recommendation from an on-site analysis of site soils by a qualified geotechnical engineer. Infiltration potential and the extent of each soil type found on the site shall be included.
  - Pre and Post Development runoff calculations including:
    - Runoff characteristics (e.g., runoff curve number or runoff coefficient)
    - Time of concentration calculations.
    - Design storm, including duration, frequency, precipitation and type of distribution.
    - The Post Development Runoff Rate shall be less than or equal to the Pre-Development rate.
  - Pre and Post Development Basin Maps
  - Stage-storage computations of any storage areas such as retention/detention facilities used, including the computations showing the effect of a 100-year storm.
  - Treatment Volume Calculations
  - Permanent Pool Volume Calculations (if applicable)
  - Weir and Orifice design calculations (where applicable)
  - Stage-storage-discharge computations for any retention/detention facilities at the control point (e.g., weir), including the computations showing the effect of the 100-year storm.

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- Recovery Calculations demonstrating compliance with the applicable Water Management District Design Standards.
- Secondary Storm System Calculations including:
  - A description of assumptions used for tailwater and storm analysis (please refer to Section 7.04.04 of the Engineering Standards Manual for requirements).
  - Secondary system shall be designed for the 10-year/6-hour storm but an analysis of the 25-year/6-hour storm shall be provided as a check.
  - Demonstration (such as StormTabs) that the capacity of the pipe is sufficient for expected rainfall.
  - A description of the hydraulic grade line in reference to the top of grate for each proposed inlet. For 10-year, 6-hour design conditions, the maximum elevation of the hydraulic grade line shall be no closer than 1.0 foot below the gutter elevation for any inlet in the project system. In the 25-year/6-hour storm event, the hydraulic grade shall not be higher than the gutter elevation.
- Computations showing that the spacing of inlets is in conformity with the maximum allowable water spread on pavement as defined in Section 7.05 of the Engineering Standards Manual.

- If applicable, attach approved permits from other agencies that support your design.

- **Geotechnical Report**
  - A description of the soil types found on-site.
  - A determination of the appropriate vertical and horizontal conductivity rate to be used in recovery calculations.
  - A recommended SHWT to be used in design. If the engineer deviates from the value recommended by the Geotechnical Report, assumptions and conclusions shall be listed out in the drainage report regarding this value.

- **Erosion Control Plan**
  - Inlet protection for all existing inlets with a detail depicting the protection. Please be advised that the City does not allow the use of hay bales as an erosion control technique. If this method is desired, synthetic bales shall be used.
  - A silt fence or other approved perimeter control shall be installed along the perimeter of the limits of work.
  - A note describing the dust control measures to be taken by the contractor.

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- A note addressing whether dewatering will be required for the project and instructions for the contractor that are in compliance with Section 6.14.01(H) of the Engineering Standards Manual.
- A designated entrance/exit for the construction site, depicted on the plans. Entrance shall use filter fabric and gravel or other pre-approved methods to prevent off-site tracking of sediments. If only one construction entrance is proposed, a note shall be made that any other existing entrances are not to be used by construction vehicles.
- The following notes:
  - No excavating material shall be stockpiled in a manner as to direct runoff directly off the project site or into any adjacent water body or stormwater collection facility.
  - All excess fill material will be hauled offsite.
  - Inspections by the contractor to determine the effectiveness of erosion/sediment control efforts shall be conducted daily and within 24 hours after each 0.50 inch or greater rainfall event. Any necessary remedies shall be performed immediately.
  - Sedimentation controls/BMPs shall prevent stormwater runoff with turbidity greater than 29 NTUs from leaving the construction site.

- **Civil Design Plans**
  - Complete description of measures to be implemented during the construction period to mitigate adverse quantity and quality impacts off-site.
  - Any temporary construction which may affect the on-site and/or off-site stormwater management system prior to completion of the project.
  - Grading Plan shall demonstrate that there are no negative impacts to neighboring properties by changing the historic drainage pattern for an area. Fill shall not block the existing drainage pattern, causing impounding of stormwater on the upstream site nor shall a downstream site receive a higher runoff rate than in the pre-development condition.
  - Stormwater systems (i.e. exfiltration, infiltration trench, pond, etc.) under a parking garage shall have the following:
    - Minimum vertical clearance of 17.5’ between highest proposed grade and bottom of beam.

- **Private and/or Public Improvements Cost Sheet**
  - Cost Sheet forms are available for download on the City of Orlando’s website. Also include instructions on page 2 of the document.
  - Cost sheets shall be signed and dated.
  - Please be advised that private and public improvement cost sheets are to include mobilization/demobilization, irrigation, debris and muck removal costs.

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- **Performance Guarantee (if construction also includes work within the Right-of-Way)**
    - An original performance guarantee (i.e. performance bond, letter of credit, cashier's check, etc.) in the amount of 110% of the Public Improvements Costs (as depicted on the Public Improvements Cost Sheet) needs to be hand delivered to the receptionist at Permitting Services with the referenced case number. In addition, attach a copy of this in the ProjectDox submittal package. Upon submittal, the performance guarantee will be reviewed by our legal team (a process that takes approximately a week). Please be advised that a performance guarantee amount is calculated using the Public Improvements Cost Sheet value, not Private Improvements Cost Sheet.

- **NPDES NOI** (if applicable)
    - Please be advised that if the project is over one (1) acre, an NPDES NOI is required prior to permit approval. If the contractor has not been selected at this time, the engineer may apply for the NOI and transfer it to the contractor once the contractor is selected.
    - If the project is less than one (1) acre, a note shall be provided on the plans stating: "The City of Orlando's Guidelines for Erosion and Sediment Control (aka The Blue Sheet) will serve as a guide for the implementation of erosion and sediment control measures." This document should also be included in your ProjectDox submittal and is available for download from the City's website.

- **Floodplain Standards (if applicable):**
    - Any work proposed within a flood prone area or within the Special Flood Hazard Area (such as areas that are depicted as Zone A or AE on FEMA FIRMs) shall submit a CLOMR prior to permit approval (please see Section 2.03 and Section 7.04.02 of the Engineering Standards Manual). An approved and effective LOMR will be required prior to Final Inspection of the permit.
    - No Development is permitted within a Floodway.
    - Critical Facilities located within a Special Flood Hazard area, including (but not limited to) those identified below shall be at least two (2) feet above the finished floor elevation (FFE) or at the 500 year storm event:
        - Hospitals
        - Lift Stations
        - Fire Stations
        - Emergency access routes shall be elevated above the flood hazard elevation

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- Structures not deemed a critical facility but proposed within a Special Flood Hazard Area shall have the FFE at least one (1) foot above the Base Flood Elevation, determined by best available data.
- Compensating storage shall be provided for all floodwater displaced by development below the elevation of the 100-year flood. Generally, compensating storage shall be calculated between the existing 100-year flood elevation and the wet season water table elevation. The latter elevation shall be determined by a qualified geotechnical engineer, and this report shall identify the historical wet season water table; recommend bottom elevations for compensating storage areas; and address the ability of said areas to remain available for floodwater storage. Overland connection to the floodplain (no piped connections) is required unless separation between floodplains already exists. Potential compensating storage in stormwater ponds between the maintained water elevation and main control structure elevation shall not be considered unless it can be demonstrated that this volume is available for floodwater storage during a 100 year storm event.
- Compensating storage shall be open to the atmosphere. Compensating storage via underground vault shall not be permitted.

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