



# The City of Wilmington

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## **DEPARTMENT OF PUBLIC WORKS SUBMISSION GUIDELINES AND CHECKLIST**

### **I. General**

This document contains very basic and important information regarding utility connections and roads related construction projects in the jurisdiction of City of Wilmington or in the City of Wilmington Water District. Detailed information regarding Sediment and Stormwater Management Plan requirements for all land disturbing activities greater than 5,000 square feet can be found in the City's Delegated Agency Policy Manual for the Delaware Sediment and Stormwater Program.

All of the utility construction in the roadway area to the curb line shall be provided either by the Department of Public Works or a licensed contractor approved by the Department of Public Works. The Department of Public Works reserves responsibility for inspections during construction, quality control of the construction, and maintenance of utilities after the construction. The list of approved outside contractors will be available on the City of Wilmington website. However, if a developer chooses to use a contractor not on the approved list, references must be submitted by the developer/owner to the Department for approval. The Department of Public Works reserves the right to reject contractors.

### **II. Application Timeline**

The potential developer should coordinate their schedule with the Department of Public Works for any preliminary discussion to insure a smooth and timely process. Utility prints for most areas will be provided by the Department; however this information cannot be given over the phone. Once the potential developer has finalized their plan after any preliminary discussion, he/she shall file for a preliminary review.

Potential developers should allow for 4 weeks for approval from the time an acceptable application along with full payment is received by the Department of Public Works. This time period is required for processing by the Department and other pertinent agencies (e.g. DeIDOT). Large housing projects that require installation of numerous laterals or projects involving considerable main extensions will require a two-month processing time.

### **III. Water and Sewer Infrastructure Fees**

If the applicant intends to have the City install water and sewer infrastructure within city road or right of way, the City shall obtain a quote from the utility contractor of record for the work performed for the owner or the owner's representative. Such quote plus a 10% administration fee shall be presented to the owner for payment in full prior to work commencement. The applicant should allow an additional two months for commencement of the construction.

#### **IV. Electronic Submission**

The Department of Public Works requires electronic submission for all new developments. Electronic drawings in PDF and DWG format shall be submitted on compact disk (CD) and must match the hard copy plans.

All electronic/digital files shall be PC compatible. PDF files shall be compatible with the most recent version of Adobe Acrobat. One multi-page PDF scanned image of all project sheets shall be provided. Images shall be scanned at minimum of 300 dots per inch.

##### Drawings Requirements

- A. Bookmarks: Each submitted PDF file shall include bookmarks that clearly identify each sheet in the file.
- B. Naming Convention: The names to the electronic file should reflect the name of the project like Eastlake.pdf or WilmingtonHospital.pdf for example. Each page also should be labeled to reflect the content of the page such as Title Sheet, Existing Plan, Sediment and Erosion Plan, Utilities Plan, etc... Both names for the PDF and DWG files of the same project should be the same.
- C. Text Size: All text shall be either Times New Roman or Arial no smaller than 10 pt.
- D. Page Orientation: All sheets shall be properly oriented so that the top of the page always is at the top of the monitor.

#### **V. Submission Phases**

- A. Preliminary Review  
For preliminary review, the applicant must submit three (3) hard copies signed and sealed and one (1) copy in PDF format. The three (3) hard copies then shall be distributed by the designated personnel of the Department to Water, Sewer, and Transportation for review and comments.
- B. Approved for Construction  
After the reviewer completes their review and red marks the plans, the plans shall be returned to the applicant for revisions. After the applicant completes revisions according to the reviewer's comment, the applicant shall re-submit two (2) hard copies of the updated plans signed and sealed, one (1) scanned copy in PDF format and one (1) AutoCAD copy.
- C. As-built  
After all construction is complete, the applicant must submit one (1) hard copy of the as-built, one (1) scanned copy in PDF format, and one AutoCAD copy to the Department in order to receive the Certificate of Occupancy from the Department of Licenses and Inspections.

#### **VI. Applications and Submission Guidelines**

All preliminary submissions to the Department of Public Works shall be screened (if applicable) for the following basic information when date stamped:

- Dates on plans and applications, including revision dates (on plans)
- Clear and legible plans
- Plans size in 24" x 36" (Arch D)
- A graphical scale on each sheet that reflects the scale of the drawing
- A North arrow on each sheet containing plan view
- Project name, location map, project address, parcel number on plans and applicable documents

- Design professional's name, address, phone number on plans and applicable documents
- Owner's name, address and phone number on plans and applicable documents
- Name, address, and phone number of applicant on application and supporting documents
- Plans signed and sealed by Delaware design professional(s) who prepared or approved them
- Test boring information must be submitted

In addition to the information mentioned above, the applicant shall provide specific information required by reviewer from each utility division in order to avoid any delay in the review process as described in the following.

**A. Sewer Submission Guidelines**

Applicant shall submit sewer application and plans to facilitate a sewer review process. A properly completed sewer application shall be neatly hand written or typed and contains the following information:

**1. Sewer Permit Application**

- Number and type of connections required
- Property dimensions and orientation with respect to nearest intersecting streets
- Total number, type of plumbing fixtures and site drains that will be added to the system
- Signatures of the property owner and plumbing contractor on the provided spaces

**2. Sewer Plans by Engineer**

- Maximum plan scale shall be 1"=100'
- Sewer profile must be included (if specified by Engineer)
- Specifications for proposed sewer appurtenances must be included
- Backfill information must be specified
- Show all connections to sewer system and orientation with respect to building
- Show property lines of property in question
- 18" vertical & horizontal separation minimum between all utilities must be specified (unless changed by Engineer)
- Laterals must be denoted on drawings for each proposed property
- Size and type of lateral/main must be denoted for each proposed property
- Slope of lateral must be denoted for each proposed property
- Elevations must be denoted for sewer appurtenance

**B. Water Submission Guidelines**

In contrast with the Sewer Division, plans for water services connection must be submitted for approval before submitting the water service application.

**1. Water Meter Application**

Application for water meter shall be submitted separately to the designated personnel after plan review is approved. Cost shall be calculated according to size of meter to be installed. Once cost is determined, the personnel from the Department shall notify the applicant.

**2. Water Plans by Engineer**

- Maximum scale 1"=40' for plans and maximum vertical scale of 1"=10'
- Name of water system and county in which the project is located
- Location, size and material of all water lines and appurtenances relative to the project – both existing and new. Please check with Water Distribution Engineer for existing pipe materials.
- Location of valves, fire hydrants, tees, reducer/enlargers, bends and other appurtenances

- Location of proposed water lines in relation to roads, bridges and other identifiable objects and all utilities
- Location of proposed service connections
- The water service material and size
- Notes and details for the connection of the water service to the main.
- Details for the water service trench, installation of water service, curb valve and box and water meter, in conformance with the City standard details
- Notes should be provided on the plan stating that upon completion of the water line installation and prior to backfilling and connecting the customer service, the curb valve shall be closed and the corporation stop opened. After all air is expelled, a visual leakage test will be conducted. The customer's service shall then be connected and the curb valve shall be opened. An additional leakage test shall then be conducted under "system pressure." The City Engineer or his representative must be present during the connection of the water service to the main. The water service connection shall be tested for leakage before backfilling of the trench.

C. Transportation Submission Guidelines

Transportation Division of the Department works in conjunction with the Planning Department, etc, to review the impact on vehicle circulation/traffic flow, pedestrian environment, and vehicle's access during the subdivision process for all new developments. Curb cut applications typically are administered by the Department of Licenses and Inspection (L&I), with reviews by the Department of Planning and the Transportation Division. Coordination with DeIDOT typically is necessary for curb cuts located on State-maintained roadways. Street lighting considerations typically are coordinated with Delmarva Power, the Transportation Division, etc. Transportation submissions shall be checked as followings:

1. Curb cut application

- Provide name(s) of other City, State, or other agencies being sent the application
- Show location and number of current and proposed parking spaces (on-street &/or off-street), loading zones, etc. (i.e., proposed "curb-management")
- Show location(s) of existing and proposed utilities in the curb-cut/driveway area
- Provide plan and profiles (sectional views), including cross-slope accessibility considerations
- Indicate whether the adjoining Street is City- or State-maintained, whether it provides one-way or two-way traffic flow
- Provide a copy of any preliminary traffic-studies, traffic-counts, etc.
- Indicate whether any existing curb-cuts will be modified or eliminated
- Provide the estimated number of Vehicles Per Day using the curb-cut and adjoining road
- Indicate whether this will be a "shared" curb-cut
- Indicate any impacts to existing bus/transit stops and shelters
- Show the proposed geometry of the curb-cut area, such as width, curb radii, etc.
- Show potential impacts on streetscape features and proposed resolution of impacts
- Show location of existing utility poles, underground vaults, and other such features
- Note proposed installations of signs on the adjoining property and/or public rights-of-way.
- Provide sectional view showing various materials and methods of driveway construction
- Note any provisions for sliding-gate access control (note: gates shall not open into the right-of-way)
- Note on the plan that adjoining property owner shall be responsible for maintaining the curb-cut and associated driveway

- If the curb-cut serves a parking-lot, note various City Code provisions (Sec. 48-511, -521, etc.)
  - If the curb-cut is along a two-way street, assess a “Rights-In/Rights-Out Only” restriction
  - Provide turning-template diagrams for ingress and egress, where applicable.
  - Provide Sight Triangle calculations, for Line-of-Sight considerations
  - For off-street parking lots/structures, indicate the number of disabled parking spaces
2. Street lighting system
- Names of other parties being sent the application, such as Delmarva Power
  - Provide street address and parcel number(s) being served by the street lighting system
  - Street lighting arrangements shall be addressed as part of the design-development process for a proposed new development, sub-division, etc.
  - Show locations of existing street lights and locations for proposed street-lighting system
  - Indicate whether it is anticipated that Delmarva Power will provide its “cobra-head” street lights, or the developer proposes to install a decorative street lighting system, etc.
  - Provide photometric drawing(s) of the area(s) where new street-lights are proposed
  - Provide metrics for the proposed street lighting system (e.g., minimum, average, maximum foot-candle levels)
  - Provide a note on the plans requiring developer/contractor to provide suitable “as-built” drawings (minimum of two sets) for any lights installed by developer
  - Drawing(s) shall indicate that plug-in photo-cells are required for each light fixture
  - Drawing(s) shall show Delmarva Power (DPL) Point-of-Service location(s)
  - Drawing(s) shall show minimum 1.5 inch conduits and locations of suitable junction wells
  - Proposed street lighting system shall meet DPL tariff provisions for un-metered street lights
  - Drawing shall include a note requiring developer to provide independent third-party electrical inspection (“middle department”) for lights installed by developer
  - Designer shall address clear zone considerations - typically need minimum of 2 feet clear from closest point on pole (or attachments to pole) to the face of curb.
  - Designer shall take turning-templates into account, in terms of mitigating potential for knock-downs at intersections, etc.
  - Wall-packs and/or other building-mounted street-lights must be privately-owned, -operated, and –maintained

D. Public Tree Application

Public trees include any tree located in a public right-of-way (street tree), park, or other area to which the city has control or title. Tree drip line is defined as the width of a tree’s canopy as measured by a circle extending perpendicularly from the outermost tips of branches to the ground.

1. Tree Permit: City code provisions (section 46-33) require a properly completed tree permit be submitted to the designated personnel regarding protection of public trees. Applicant shall submit a tree permit for any work that affects public trees, including:
- Tree work that affects public trees, such as pruning, root pruning, removing/replacing, or planting.
  - Construction on private or public property that affects public trees, such as excavation, root pruning, and/or compaction from vehicular traffic or material storage within the drip line of a public tree.

- Permit for removal of a public tree submitted by the adjoining property owner. Permit for tree removal for a city project requires no fewer than two replacement trees.
  - Permit for removal of a public tree shall include:
    - A signed statement of the number, size, location and condition of replacement trees to be planted.
    - A drawing of the tree planting specification.
    - A signed statement agreeing plant trees in accordance to the city specifications.
    - A tree availability list from the proposed tree nursery or source of new tree to be planted.
    - A deadline for replanting of replacement trees.
2. Tree Protection Plans: City code provisions (section 46-32) require the submission of tree protection plans for any project that affects public trees.
- All existing trees must be drawn to scale.
  - Show location of trees proposed to be removed.
  - Show proposed location of replacement trees.
  - Genus, species, common name, canopy and diameter (DBH) must be included for all trees.
  - Tree protections, such as temporary protective fencing around driplines, must be denoted on plans for trees proposed to remain.
  - Notes must be provided on the plan stating that upon plan approval, the developer has the responsibility to clearly identify protected trees, install protective fencing around drip lines before (or area approved by the Urban Forest Administrator) construction begins, and remove protections when construction is complete.
  - Plans should include standard details for tree protection outlined in section 3.72 of the Delaware Erosion and Sediment Control Handbook, however the extent to which the entire drip line can be fenced off may be limited by the impervious area surrounding the tree.
  - Tree protections, such as temporary fencing, trunk armoring shall be detailed and drawn on the plans.

#### E. Sediment & Storm Water Management Plan

All land-disturbing activities exceeding 5,000 square feet in area within the city shall submit a sediment and stormwater management plan for review and approval by the Department of Public Works. All plans must be consistent with the Delaware Sediment and Stormwater Management Regulations and the Erosion and Sediment Control Handbook per Delaware Administrative Code Title 7, Division 5101. The purposes of these plans are to provide erosion and sediment control during the construction phase as well as post-construction water quality and quantity management.

The sediment and stormwater management review process is a three step process that begins with the applicant accessing the stormwater management requirements followed by a Project Application meeting between the applicant and the Department. The attached Sediment & Stormwater

Management Plan Review Process Flow Chart provides a brief overview of the review process. Detailed information regarding Sediment and Stormwater Management Plan requirements can be found in the City's Delegated Agency Policy Manual for the Delaware Sediment and Stormwater Program.

**Important:**

\*The items presented in this guideline do not constitute all items required for plan review of all possible circumstances. The City of Wilmington's Public Works personnel shall review the submissions under the applicable conditions and request more information if need be.

## Sediment & Stormwater Management Plan Review Process Flow Chart

*Stormwater Assessment Study (SAS)* Submitted to Public Works by Applicant



SAS is dated stamped and Project information entered into Cityworks for tracking by the Engineering Records Coordinator or Administrative Clerk (Chau or Chitana-PW)



SAS is reviewed for completeness and Project Application meeting is scheduled to occur within 2 weeks of a complete submittal.

- a) Brownfield sites are referred to DNREC
- b) At the discretion of the Assistant Water Division Director (Bryan-PW) SASs may be forwarded to a 3<sup>rd</sup> party consultant to manage available resources within the department. In these cases the final approval letter will be issued by the PW Sewer/Stormwater Engineer based on the consultant's recommendation.



Project Application Meeting is held with PW Sewer/Stormwater Engineer (and/or consultant), owner/developer and designer. *Stormwater Program Project Meeting Discussion and Agreement Items* form is completed and signed by participants.



*Stormwater Assessment Report* completed by PW Sewer/Stormwater Engineer (and/or consultant) and forwarded to the applicant, the Department of Licenses and Inspection & the Planning Department of Planning & Urban Design for consideration in Zoning Board of Adjustment, Planning Commission and Design Preservation Review Board hearings and approvals.





Applicant Submits Preliminary *Sediment and Stormwater Management Plan* (SSWMP)



Preliminary SSWMP is dated stamped and Project information entered into Cityworks for tracking by the Engineering Records Coordinator or Administrative Clerk (Chau or Chitana-PW)



Preliminary SSWMP is reviewed within 30 days of receipt of complete submittal by PW Sewer/Stormwater Engineer (or consultant). PW issues written approval of the Preliminary Plan or written list of deficiencies.



Applicant Submits Final SSWMP



Final SSWMP is dated stamped and Project information entered into Cityworks for tracking by the Engineering Records Coordinator or Administrative Clerk (Chau or Chitana-PW)



Final SSWMP is reviewed within 30 days of receipt of complete submittal and the NOI with DNREC is verified by PW Sewer/Stormwater Engineer (or consultant)

- Sewer/Stormwater Engineer issues Review approval letter to applicant, L&I and PW Site Reviewer (Kareem –PW)).



Public Works refers approval to L&I for development package review and issuance of requisite permits.



Developer to provide Prior Notification to PW Site Reviewer (Kareem – PW)



Pre-construction meeting is held with Developer, PW Site Reviewer (Kareem – PW), and L&I Inspector (TBD)



Perimeter Control Review completed by the PW Site Reviewer (Kareem – PW)



Routine Construction Review and Written Reports

- Construction reviews to be conducted by the PW Site Reviewer and/or Developer Appointed CCR
- CCR submits electronic weekly reports (*Construction Site Stormwater Management* (CSSWM) report) which are filed in the Cityworks system by the PW Site Reviewer (Kareem – PW)
- At a minimum of once a month PW Site Reviewer will complete a construction review of the site and file a CSSWM report in Cityworks.

Enforcement Actions (when necessary)

- If site conditions do not meet the approved plan requirements enforcement actions may be taken such as:
  - Deficiency noted in the Construction Site Stormwater Management Report with corrective actions and a timeframe to correct the problem (PW or CCR);

- A Notice to Comply letter may be issued (PW);
- Referral to L&I and/or DNREC for enforcement actions, and/or
- A stop work order may be issued (L&I).



Owner to notify PW Stormwater Facility Installation



Stormwater Facility Installation Review and Documentation (CCR or PW)

- CCR or PW Site Review must be on-site to review and document the construction of all Stormwater Facilities.



Final Construction Review & Close Out Procedure - completed by PW Site Reviewer



Post construction inspection - completed by PW Site Reviewer