



City of Waukesha  
 Department of Public Works  
 130 Delafield Street  
 Waukesha, WI 53188  
 Waukesha-wi.gov

# Engineering Plan Checklist

**Attachment B**  
 (Rev 12/18)

Project Name: Booster Pumping Station and Water Tower

Engineering & Design Firm: Greeley and Hansen LLC

## General Information

Plans shall include the seal and signature of the Wisconsin licensed professional engineer responsible for the preparation of the construction plans on the cover sheet or on each sheet

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Provide a copy of the WisDOT permit for any work in the State of Wisconsin right of way.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Provide a copy of the Waukesha County Department of Public Works permit for any work in right of way of Waukesha County. <small>Permit for private drive off of E. Broadway (CTH D) will be submitted to Waukesha County during construction.</small>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Provide a copy of Wisconsin Department of Natural Resources Water Resources Application for Project Permits (WRAPP) for all sites greater than one acre. <small>Note 1</small>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide a copy of US Army Corps of Engineers 404 permit.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Provide cross access agreements for use of entrances.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Provide off-site utility easements.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide hydraulic gradeline calculations for all storm sewer pipes signed and sealed by a professional engineer licensed in the State of Wisconsin. <small>Note 1</small>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide a storm water management plan and calculations signed and sealed by a professional engineer licensed in the State of Wisconsin. <small>Note 1</small>

Note 1: Stormwater Management Plan will be submitted to the WDNR for review. The contractor will be responsible for securing WRAPP during construction.

## All Plan Sheets

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plans prepared on sheets measuring 11" high by 17" wide or no larger than 24" high by 36" wide.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sanitary Sewer, watermain and storm sewer system plans for the entire development are included.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A profile view is located below a plan view on plan and profile sheets and both views are aligned by stationing whenever possible. In general, stationing is from left to right.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan and profile sheets start and terminate at match lines.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The assumed bearing base, control monuments and stationing reference line(s)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Right-of-way limits and easement limits
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Edge of pavement or flange, face and back of curb
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name of each existing, proposed, and future roadway and any intersecting roadways
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lot lines, lot and block numbers
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Addresses and names of Owners for existing parcels

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All obstructions located within the project limits including, but not limited to: trees, signs, utilities, fences, light poles, structures, etc.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A note warning that underground utilities must be located by "Diggers Hotline" prior to start of construction
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Legend (relevant to each sheet) showing all special symbols, line types and hatch used
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Title block includes at a minimum, the following information: Name and address of engineering (design) firm and owner/developer Date of the drawing and last revision Scale Plan sheet number (# of #) Name and location description of development
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	North to the top or right of the sheet and shown by a north arrow, clearly shown without intrusion.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Scale of the plans 1" = 40' horizontally and 1" = 8' vertically for 11" by 17" plan sheets and 1" = 20' horizontally and 1" = 4' vertically for 22" by 34" sheets. Partial site plans have a scale of 1" = 20' or larger. The scale of details is such that the detail is clearly shown. The scale is shown with a line scale and text. <b>Note 2</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing surface objects indicated with screened lines and clearly labeled.

### **Cover Sheet**

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Project title.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location Map (Proximity to two main streets minimum).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Index of all plan sheets
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For large or phased subdivisions, a key map of layout and phases.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A minimum of two (2) current SEWRPC reference benchmarks. Survey documentation of tie to Wisconsin State Plane Coordinate System, South Zone (horizontal) and City of Waukesha datum (vertical) provided. Elevations shown based on City of Waukesha datum.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All permanent or temporary benchmarks and elevations.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A description of the locations of the benchmarks; and the basis or origin of the vertical control network.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date of plan preparation and applicable revision date(s)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The following statement: " <i>All site improvements and construction shown on the plans shall conform to the City of Waukesha <u>Development Handbook &amp; Infrastructure Specifications</u>. Where the plans do not comply, it shall be the sole responsibility and expense of the Developer to make revisions to the plans and/or constructed infrastructure to comply.</i> "

**Note 2: 1=40' horizontal and 1=4' vertical used for better representation of pipe profiles at the BPS & WT.**

## Roadway

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For all new streets, a site specific geotechnical evaluation and pavement design submitted with the plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A separate detail sheet showing typical cross-sections for each roadway standard width and cul-de-sac if applicable.

## Plan View

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The assumed bearing base, control monuments and stationing reference line along the centerline of the roadway, including cul-de-sacs.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least one clearly labeled benchmark or control point per sheet. <b>Benchmarks are shown on sheet BC3</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pavement and median dimensions.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Final grade elevations at 25' intervals at the right-of-way including at the edge of pavement for rural sections or at the flange of curb for urban sections.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Final grade elevations for cul-de-sacs at 25' intervals at the right-of-way including at the edge of pavement for rural sections or at the flange of curb for urban sections.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label all PVC's, PVT's, and PC's, PT's for vertical and horizontal curves. Radii of all intersections (edge of pavement or flange of curb, with note indicating which is referenced).
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Driveways for all lots adjacent to storm inlets and intersections.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sidewalks labeled and dimensioned.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Existing, proposed, future streets and drives labeled and dimensioned.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All roadside ditch locations, flowline elevations at 50' intervals of the ditches.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Slope intercepts.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Invert profile for 200' downstream for any existing ditches receiving flow from a proposed road or street.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Limits of any areas which need special stabilization techniques.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Specific details of all existing connected roadways. Pavement, shoulders, ditches, curb alignment, and grades shall be shown as needed to adequately make the transition.

## Intersection Details

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Radii of all intersections (edge of pavement or flange of curb, with note indicating which is referenced).
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sidewalks and accessible ramps labeled and dimensioned.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Right of way corner clips and sight visibility easements.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Spot grades as necessary to ensure proper drainage and compliant ADA slopes.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Spot grades shall be shown at end of radius for all curb and gutter and the end radius for all back of sidewalk.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Drainage clarified by flow arrows, high points, sags, ridges, etc. Slope intercepts shall be clearly labeled by station, elevation to the nearest 0.1', and offset distance (left or right) from the reference line.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Invert elevation of ditches (for rural roadway).
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Final subgrade elevation at the centerline of the street or roadway.

## Cross Sections

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Right of way limits.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Slope intercepts clearly labeled.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Elevations to the nearest 0.01'.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Offset distance (left or right) from the reference line.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Final grade elevations at back of walk, face of walk, top of curb, flange elevation (edge of pavement for rural section), and the centerline of the street or roadway.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cross slope of sidewalk, terrace area, and roadway.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Invert elevation of ditches (for rural section)