

Attachment A - Application for Development Review Checklist

Project Name: FOX DEN APARTMENTS

Engineering Design Firm: PINNACLE ENGINEERING GROUP 11/18/2020 SUBMITTAL

Checklist Items	CSM	Preliminary Plat	Final Plat	Property Survey for Bldg Permit	Storm Water Plan	Erosion Control Plan	Site, Grading, Drainage Plan	Street Plan	Utility Plan	Landscape Plan	Traffic Control Plan	Traffic Impact Analysis	Conditional Use or Home Indus.	PUD or Developer's Ag.	Minor site or Arch. Change	Conditional Co Use	Rezoning & Comp. Plan Change
Followed Construction Drawing Sheet Layout standards in Development Handbook						×	×		×	×							
Followed Development Handbook and Storm Water Ordinance standards for Erosion control plans						×											
Obtained geotechnical evaluation for storm water and pavement design					overall developm		X - previous SWMP		X - previous SWMP								
Followed Development Handbook standards, and Wisconsin Administrative Code for Property Survey					SWMP by Jahnke & Jahnke												
Verified proposed basement floor elevation is at least 1 foot above the highest seasonal high water table elevation																	
Followed Development Handbook standards and Ordinance for Preliminary Plat																	
Followed Site, Grading, and Drainage Plan design standards in Development Handbook and Storm Water Ordinance							×										
Followed Traffic impact analysis standards in Development Handbook																	
Specifications conform to current City Standard Specifications						×	×		×	×							
Followed Lighting Plan standards in Development Handbook									×								
Development site contains Contaminated Waste							X - soil										
Followed storm water management requirements in Development Handbook, and Ordinance					-												
Site contains mapped FEMA floodplain or a local 100-year storm event high water limits							X (local	X (local flooding)									
Site contains wetlands or Natural Resource limits (ie. Primary, Secondary, Isolated , shoreland limits)							Ą										
CSM follows standards in Development Handbook, City Ordinance, and State Statutes																	
Followed Development Handbook standards for Street plans and profiles																	
Followed Development Handbook standards for utility plans and profiles									A A								
Existing sanitary sewer lateral has been televised							NA recently installed	Z .=	NA recently installed								

Checklist Items	CSM	Preliminary Plat	Final Plat	Property Survey for Bldg Permit	Storm Water Plan	Erosion S Control D Plan	Site, Grading, S	Street Plan	Utility Plan	Landscape Plan (Traffic Control Plan	Traffic Impact Analysis	Conditional Use or Home Indus.	PUD or Developer's Ag.	Minor site or Arch.	Conditional Co Use	Rezoning & Comp. Plan Change
Development Agreement needed for Public Infrastructure																	
Followed Development Handbook standards for Landscape plans																	
Followed Development Handbook standards, State Statures and Ordinance for Final Plat																	
A-E 2.02(4): Each sheet of plans, drawings, documents, specifications and reports for					overall development												
architectural, landscape architectural, professional engineering, design or land surveying practice should be signed, sealed, and dated by the					SWMP by Jahnke & Jahnke	×	×		×	×							
32.10(e)(12.)H. A cover sheet stamped and signed by a professional engineer registered in the State of Wisconsin indicating that all plans and supporting documentation have been reviewed and approved by the continuous doctified that the continuous conditions that the conditions are supported to the conditions and continuous conditions that the conditions are supported to the cond																	
City, DNR, County or State Permits are needed						7 4	X submitting for		X submitting for	ng							
Complete and submit Plan Sheet and Submittal Specific checklists in Development Handbook						×	×		×	×							
Proposed easements needed are shown.							×		×								
All Existing easements are shown					-	×	×		×	×							



Engineering Plan Checklist

Attachment B (Rev 12/18)

Project Name:	FOX DEN	APARTMENTS	
Engineering & [Design Firm:	PINNACLE ENGINEERING GROUP	
S	_	11/18/2020 SUBMITTAL	

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	
			Provide a copy of the WisDOT permit for any work in the State of Wisconsin right of way.
			Provide a copy of the Waukesha County Department of Public Works permit for any work in right of way of Waukesha County.
			Provide a copy of Wisconsin Department of Natural Resources Water Resources Application for Project Permits (WRAPP) for all sites greater than one acre. WILL SUBMIT UPON RECEIPT
			Provide a copy of US Army Corps of Engineers 404 permit.
			Provide cross access agreements for use of entrancesPROVIDED FOR OVERALL DEVELOPMENT
			Provide off-site utility easements.PROVIDED FOR OVERALL DEVELOPMENT
			Provide hydraulic gradeline calculations for all storm sewer pipes signed and sealed by a professional engineer licensed in the State of Wisconsin.
			Provide a storm water management plan and calculations signed and sealed by a professional engineer licensed in the State of Wisconsin.

A SWMP for the entire PUD was previously prepared and approved. The SWMP was prepared by Jahnke & Jahnke Associates, LLC last revised June 5, 2020.

All Plan Sheets

YES	NO	N/A	
			Plans prepared on sheets measuring 11" high by 17" wide or no larger than 24" high by 36" wide. 30x42 TO FIT INTO THE ARCHITECT PLAN SET
			Sanitary Sewer, watermain and storm sewer system plans for the entire development are included WATER WAS ADDRESSED WITH THE OVERALL DEVELOPMENT PLAN
			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.
			Plan and profile sheets start and terminate at match lines.
			The assumed bearing base, control monuments and stationing reference line(s)
			Right-of-way limits and easement limits
			Edge of pavement or flange, face and back of curb
			Name of each existing, proposed, and future roadway and any intersecting roadways
			Lot lines, lot and block numbers
			Addresses and names of Owners for existing parcels

		All obstructions located within the project limits including, but not limited to: trees, signs, utilities, fences, light poles, structures, etc.
		A note warning that underground utilities must be located by "Diggers Hotline" prior to start of construction
		Legend (relevant to each sheet) showing all special symbols, line types and hatch used
		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
	Ш	Scale
		Plan sheet number (# of #)
		Name and location description of development
		North to the top or right of the sheet and shown by a north arrow, clearly shown without intrusion.
		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.
		Existing surface objects indicated with screened lines and clearly labeled.

Cover Sheet

YES	NO	N/A	
			Project title.
			Location Map (Proximity to two main streets minimum).
			Index of all plan sheets
			For large or phased subdivisions, a key map of layout and phases.
			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.
			All permanent or temporary benchmarks and elevations.
			A description of the locations of the benchmarks; and the basis or origin of the vertical control network.
			Date of plan preparation and applicable revision date(s)
•			The following statement: "All site improvements and construction shown on the plans shall conform to the City of Waukesha <u>Development Handbook & 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."

Roadway

YES	NO	N/A	
			For all new streets, a site specific geotechnical evaluation and pavement design submitted with the plans.
			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	
			The assumed bearing base, control monuments and stationing reference line along the centerline of the roadway, including cul-de-sacs.
			At least one clearly labeled benchmark or control point per sheet.
			Pavement and median dimensions.
			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.
			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.
			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).
			Driveways for all lots adjacent to storm inlets and intersections.
			Sidewalks labeled and dimensioned.
			Existing, proposed, future streets and drives labeled and dimensioned.
			All roadside ditch locations, flowline elevations at 50' intervals of the ditches.
			Slope intercepts.
			Invert profile for 200' downstream for any existing ditches receiving flow from a proposed road or street.
			Limits of any areas which need special stabilization techniques.
			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	
			Radii of all intersections (edge of pavement or flange of curb, with note indicating which is referenced). PROPOSED SITE PLAN
			Sidewalks and accessible ramps labeled and dimensioned. PROPOSED SITE PLAN
			Right of way corner clips and sight visibility easements.
			Spot grades as necessary to ensure proper drainage and compliant ADA slopes. GRADING PL
•			Spot grades shall be shown at end of radius for all curb and gutter and the end radius for all back of sidewalk. GRADING PLAN
			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.
			Invert elevation of ditches (for rural roadway).
			Final subgrade elevation at the centerline of the street or roadway.

Cross Sections

YES	NO	N/A	
			Right of way limits.
			Slope intercepts clearly labeled.
			Elevations to the nearest 0.01'.
			Offset distance (left or right) from the reference line.
			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.
			Cross slope of sidewalk, terrace area, and roadway.
			Invert elevation of ditches (for rural section)



FOX DEN APARTMENTS

Pay impact fees BY OWNER

Site, Grading and Drainage Plan Conditional Use Permit Checklist

Attachment C (Rev 12/18)

Projec	t Name	: <u> </u>	A DEN APARTMENTS
Engine	eering 8	& Desig	n Firm: PINNACLE ENGINEERING GROUP
<u>Genera</u>	l Requ	<u>iremen</u>	11/18/2020 SUBMITTAL ts
			ALL ON COVER PAGE
YES	NO	N/A	
			Applicant's name
			Name and location of development
			Scale and north arrow
			Date of original and revisions noted
			License number and professional seal

Building Plans

YES	NO	N/A	
			Contact Community Development Department BY ARCHITECT

Digital Drawings in AutoCAD format of the site layout & building plan layout

Site Plans

YES	NO	N/A	
			Dimensions of development site
			Location, footprint, and outside dimensions
			Existing and proposed pedestrian access points
			Existing and proposed vehicular access points
			Parking lots, driveways shown
			Front, side and rear yard setbacks shown and labeled
			Location, identification and dimensions of all existing or planned easements
			Identification of all land to be dedicated
			Location, elevation, and dimensions of walls and fences
			Location of outdoor lighting with lighting design plan and calculations
			Sign complies with City Code Book
			Location of existing and proposed signs

Site Access

YES	NO	N/A	
			Legal description or certified survey of property
			Development compatible with its zoning district
			Sidewalks to be shown
			Site entrance drive dimensions
			Individual development vehicular entrances at least 125 feet apart
			Adjacent development share driveway where possible
			At least one vehicular and pedestrian access point to each adjoining site granted by cross easements
			Cross access to be provided with minimum paved width of 24 feet
			Design detail for all new public streets

Parking/Traffic

YES	NO	N/A	
			5-foot wide (min) paved walkway to building entrance
			7-foot parking separation from front of building
			Minimum parking spaces provided
			Service truck parking in designated service areas
			Parking spaces and layout dimensioned
			Lot paved with HMA or concrete
			Handicap parking provided
			Minimum required stacking distance
			Concrete curb and gutter around parking lot

Grading and Drainage Plans

YES	NO	N/A	
			Show existing tree lines and any obstructions (fences, structures, power poles, etc.) within the project limits.
			All proposed lot lines and lot numbers or addresses
			Lot line dimensions
			Outline of buildable areas for each lot
			Typical setbacks of buildable area to front, side and back lot lines
			All existing buildings, structures and foundations
			All existing drainage channels and watercourses
			Emergency overflow routes 100 YR STORM SEWER DESIGN AND ANALYSIS
			Drainage clarified by flow arrows, high points, sags, ridges, and valley gutters
			Proposed retaining wall locations with top and bottom of wall elevations at key locations
			100-year flood plain limit (both pre-and post-project)
			100-year storm water surface elevation
			Wetlands. Wetland limits labeled with bearings and distances and dimensioned to lot lines. Bearings and distances may be shown in tabulated format.

SOIL CONTAMINATION

		All environmental corridors, & or environmentally sensitive areas as required by DNR	
		All existing and proposed easements.	
		Existing topography of the site and all areas within 50 feet of the site shown at a one foot contour interval using City of Waukesha datum. Existing contours shown as thin, dashed screened or grey lines with a readily discernable heavier line used for the 5-foot contour intervals.	
		Proposed grading shown at a contour interval of 1 foot using City of Waukesha datum. Proposed contour lines shown as solid medium lines, with a discernible heavier line use for the 5-foot contour intervals.	
		The yard grade and first floor elevation of proposed building and any existing buildings located within 150 feet of the parcel boundary.	
		Proposed road(s), curb and gutter, all storm sewer grates and storm sewer manholes (or cross-culverts for open ditches). Show any off-road storm inlets and discharge locations with surface entry elevations.	
		Spot grades as necessary to ensure proper drainage and compliant ADA slopes and routing where applicable.	
	•	At front setback line show a typical house shell on each lot and the proposed yard grade to the nearest tenth of a foot (assumed to be 0.7' below the top of block) for each building. Show proposed finished elevations to the nearest tenth of a foot at all lot corners and alongside lot lines adjacent to the front and back corners of the typical house. Show proposed finished elevations to the nearest tenth of a foot at high and low points along any side or back lot lines, and at high and low points if roads to demonstrate proposed drainage.	
	•	The grading plan for any house that will require special design due to topography, clearly show separate grades for the garage and yard grade if extra steps are needed. Separate spot finish elevations shown for rear or side exposure or walkout.	
		Indicate minimum finished floor elevations adjacent to floodplains, ponds, creeks/channels, etc.	
		Proposed storm inlets shown on each grading plan. Each plan also includes specific details on all applicable retention/detention basins, ponds, overflows, etc. Separate sheets or notes as required.	
		Locations of existing and proposed streets, drives, alleys, easements, right-of-way, parking as required, vehicular and pedestrian access points, and sidewalks	
		Outline of any development stages	
		Location and details on any required emergency access roads	
		Soil characteristics IN APPROVED SWMP	
		Existing and proposed topography shown for the site and or adjacent properties	
		Floodplain, shore land, environmental and wetlands shown SOIL CONTAMINATION	
		Location and dimensions of on-site storm water drainage facilities	
		Location and footprint of all existing buildings	
		Locations and species of existing trees	
		Berm detail	
		Lot grades and swales shown	
		Drainage calculations provided	

Erosion Control

YES	NO	N/A		
			Location Map	
			Soils Survey Map IN APPROVED SWMP	
			Existing Land Use Mapping	
			Predeveloped Site Conditions	
			Existing contours	
			Property lines	
			Existing flow paths and direction	
			Outlet locations	
			Drainage basin divides and subdivides	
			Existing drainage structures on and adjacent to the site	
			Nearby watercourses	
			Lakes, streams, wetlands, channels, ditches, etc.	
			Limits of the 100-year floodplain	
			Practice location/layout/cross sections	
			Construction Details	
			Name of receiving waters	
			Site description/Nature of construction activity	
			Sequence of construction	
			Estimate of site area and disturbance area	
			Pre- and post-developed runoff coefficients	
			Description of proposed controls, including	
			Interim and permanent stabilization practices	
			Practices to divert flow from exposed soils	
			Practices to store flows or trap sediment	
			Any other practices proposed to meet ordinance	
			Existing topography of the site and all areas within 50 feet of the site shown at a one foot contour interval using City of Waukesha datum. Existing contours shown as thin, dashed screened or grey lines with a readily discernable heavier line used for the 5-foot contour intervals.	
			Proposed grading shown at a contour interval of 1 foot using City of Waukesha datum. Proposed contour lines shown as solid medium lines, with a discernible heavier line use for the 5-foot contour intervals.	
			List the total disturbed acreage including offsite areas.	
			Provide free survey in accordance with City Erosion Control Ordinance	
			Proposed limits of disturbance including proposed tree cutting areas.	
			Location and dimensions of all temporary topsoil and dirt stockpiles.	
			Location and dimensions of all appropriate best management practices (BMP).	
			Phasing of BMP's with the construction activities listed / described.	
			Schedule of anticipated starting and completion date of each land disturbing and land developing activity, including the installation of the BMP measures that are needed.	
			Location of all channels, pipes, basins or other conveyances proposed to carry runoff to the nearest adequate outlet, including applicable design assumptions and computations.	

	Areas to be sodded or seeded and mulched or otherwise stabilized with vegetation, describing the type of final vegetative cover.
	Areas of permanent erosion control (other than vegetation).
	Boundaries of the construction site
	Drainage patterns/slopes after grading activities
	Areas of land disturbance
	Locations of structural and nonstructural controls
	Drainage basin delineations and outfall locations

Optional Submittals as Determined by Review Authority

YES	NO	N/A	
			Traffic impact analysis
			Environmental impact statement
			Soil and Site Evaluation Report per DNR Technical Standard 1002
			Plot of effect of exterior illumination on site and adjacent properties
			Description of any unusual characteristics
			Street perspectives showing view corridors
			Historic site
			Economic feasibility study
			Contaminated Waste Site SOIL CONTAMINATION

I hereby certify that I have reviewed the City ordinances and provided one (1) full-sized set of all required information along with all the required reduced copies of plans.

Oudroug Azarron

Applicant's Signature	e:



Stormwater Management Plan

Attachment D (Rev 12/18)

A SWMP for the entire PUD was previously prepared and approved. The SWMP was prepared by Jahnke & Jahnke Associates, LLC last revised June 5, 2020.

Project Name: FOX DEN APARTMENTS

Engineer & Design Firm: PINNACLE ENGINEERING GROUP

11/18/2020 SUBMITTAL

STORM WATER MANAGEMENT PLAN WORKSHEET				
The City of Waukesha requires a Stormwater Management Plan to be submitted with the proposed development plans				
for site plan review. A Stormwater Management Plan is a document describing the storm water management practices				
constructed and implemented within the proposed development to ensure compliance with the storm water				
management criteria, as set forth by the City of Waukesha. The purpose of a Stormwater Management Plan is to				
rotect the safety and health of the public, property and aquatic environment from the threats due to storm water from				
and development activity. The worksheet will provide a basis to the information that shall be provided when preparing a				
Stormwater Management Plan for a proposed development. This Plan shall include a set of complete plans and				
calculations, stamped by a registered professional engineer.				
Stormwater Management Plans are required as listed in City Code Book Chapter 32.06(b)				
Exemptions for Design and Plan Requirements				

			Exemptions for Design and Flan Requirements			
YES	NO	N/A				
			Site is associated with agricultural or sylvicultural activities			
	Design Requirements: Total Suspended Solids					
YES	NO	N/A				
			Site is a New Development – 80% Reduction must be met			
			Site is an Infill Development – 80% Reduction must be met			
			Site is a Redevelopment – 40% Reduction must be met			
			Site has areas of New Development and Redevelopment			
			Calculations for % Reduction are included in the plan (WinSLAMM input and output)			
			Storm water Management Facilities to address TSS removal are designed according to Chapter 32 of the City Code Book and DNR Technical Standards – Check all that apply:			
			☐ Wet Detention Basin			
			☐ Bio Retention Basin			
			□ Swales			
			☐ Proprietary Devices			
			☐ Other (specify):			
			Design Requirements: Peak Discharge			
YES	NO	N/A				
			Storm water Management Facilities to address Peak Discharge are designed according to Chapter 32 of City Code Book and DNR Technical Standards – Check all that apply: Use Detention Basin Use Swales Use Other (specify):			
			Downstream Capacity for 2-year, 10-year and 100-year, 24-hour design storms are met			
			Calculations of available capacity, proportional share, and proposed utilized capacity under all design storms are included in plan			
			Calculations of Peak Discharge are included in the plan			

	Design Requirements: Infiltration						
YES	NO	N/A					
			Hydraulic Soil Type:				
			☐ Soil Type A – Proceed				
			☐ Soil Type B – Proceed				
			☐ Exemption or Exclusion – Provide documentation				
			Site and Soil Evaluation Report per DNR Technical Standard 1002				
			Low Imperviousness. Ex: low density residential parks, cemeteries				
_			Post-Development Infiltration Performance Standards:				
			☐ Up to 40% Connected Impervious Surface				
			□ 90% of Pre-Development Infiltration volume met				
			☐ 1% of site – Maximum Effective Infiltration Area				
			Medium Imperviousness. Ex: Medium and high density residential, multi-family,				
			industrial, institutional, office park.				
			Post-Development Infiltration Performance Standards:				
			☐ 40%-80% Connected Impervious Surface				
			☐ 75% of Pre-Development Infiltration volume met				
			☐ 2% of site – Maximum Effective Infiltration Area				
			High Imperviousness. Ex: commercial strip malls, shopping centers, commercial				
			downtowns				
			Post-Development Infiltration Performance Standards:				
			☐ Greater than 80% Connected Impervious Surface				
			☐ 60% of Pre-Development Infiltration volume met				
			☐ 2% of site – Maximum Effective Infiltration Area				
			Site has parking lots and new road construction:				
			☐ Pretreatment included				
			☐ 10% Infiltration of the runoff from the tow-year, 24-hour design storm with				
			Type II Distribution Calculations of Infiltration Volumes are included in the plan and model input and				
			output (WinSLAMM)				
			Exclusions for Infiltration:				
			☐ Tier 1 Industrial Facility				
			☐ Storage and Loading Areas of Tier 2 Industrial Facility				
			☐ Fueling and Vehicle Maintenance Facility				
			☐ Areas within 1,000 feet up gradient of Karst Features				
			☐ Areas within 100 feet downgradient of Karst Features				
			☐ Areas with < 3 feet of separation from bottom of Infiltration System to				
			seasonal high groundwater or top of bedrock (does not prohibit roof runoff)				
			☐ Areas with runoff from industrial, commercial and institutional parking lots				
			and roads with < 5 feet separation from bottom of infiltration system to				
			elevation of seasonal high groundwater or top of bedrock				
			☐ Areas within 400 feet of community water system well				
			☐ Areas within 100 feet of private well				
			☐ Areas where contaminants of concern (defined by NR720.03(2) are present in the soil through which infiltration will occur)				
			☐ Area where soil does not meet any of the following characteristics between				
			bottom of infiltration system and seasonal high groundwater and top of				
			bedrock:				
			☐ At least 3-foot soil layer with 20% fines or greater				
			☐ At least 5-foot soil layer with 10% fines or greater				

YES	NO	N/A						
			Exemptions for Infiltration:					
			☐ Areas where infiltration rate < 0.6 inches/hour					
			☐ Parking Areas and Access Roads less than 5,000 square feet for commercial and industrial					
			☐ Redevelopment Post-Construction Sites					
			☐ Infill Development < 5 acres					
			☐ Infiltration during periods when soil on the site is frozen					
			☐ Roads in commercial, industrial and institutional land uses					
			☐ Arterial Roads in Residential land uses					
			Storm water Management Facilities to address Infiltration are designed according to Chapter 32 of the City Code Book and DNR Technical Standards – Check all that					
			apply:					
			☐ Bioretention Basin (1004)					
			☐ Infiltration Basin (1003)					
			☐ Infiltration Trench (1007)					
			☐ Permeable Pavement (1008)					
			☐ Rain Garden (1000)					
			☐ Other (specify):					
			Design Requirements: Protective Areas					
YES	NO	N/A						
			Impervious areas are outside protective area. If not, provide a written explanation.					
			Land disturbing activities are within a protective area. If Yes, check all that apply:					
			☐ If no impervious area is within protective area, adequate sod or self-sustaining vegetative cover of 70% or greater shall be established.					
			☐ Adequate sod or self-sustaining vegetative cover is sufficient for bank stability,					
			maintenance of fish habitat and filtering of pollutants from upslope overland					
			flow areas under sheet flow conditions					
			flow areas under sheet flow conditions.					
			☐ Non-Vegetative materials are employed on the bank as necessary to prevent					
			□ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: 					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips 					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales 					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins 					
	_		 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): 					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: 					
	_		 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: □ Structures that cross or access surface water (boat landing, bridge, culvert) 					
	_		 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: 					
	_		 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): □ Structures that cross or access surface water (boat landing, bridge, culvert) □ Structures constructed in accordance with Section 59.692(1v) Wisconsin Statutes: 					
	_		 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). □ Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: □ Structures that cross or access surface water (boat landing, bridge, culvert) □ Structures constructed in accordance with Section 59.692(1v) Wisconsin 					
			 □ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply:					
YES	NO	N/A	□ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: □ Structures that cross or access surface water (boat landing, bridge, culvert) □ Structures constructed in accordance with Section 59.692(1v) Wisconsin Statutes: □ Post-Construction Runoff does not enter surface water except to the extent that vegetative groundcover necessary for bank stability Design Requirements: Fuel and Maintenance Facilities					
		N/A	□ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: □ Structures that cross or access surface water (boat landing, bridge, culvert) □ Structures constructed in accordance with Section 59.692(1v) Wisconsin Statutes: □ Post-Construction Runoff does not enter surface water except to the extent that vegetative groundcover necessary for bank stability Design Requirements: Fuel and Maintenance Facilities Are Fuel and Maintenance Facilities on the Site?					
YES	NO	N/A	□ Non-Vegetative materials are employed on the bank as necessary to prevent erosion (steep slopes, high velocity areas). Best Management Practices are located within the protective area – Check all that apply: □ Filter Strips □ Swales □ Wet Detention Basins □ Other (specify): Non-Applicable Areas Apply: □ Structures that cross or access surface water (boat landing, bridge, culvert) □ Structures constructed in accordance with Section 59.692(1v) Wisconsin Statutes: □ Post-Construction Runoff does not enter surface water except to the extent that vegetative groundcover necessary for bank stability Design Requirements: Fuel and Maintenance Facilities					

	Design Requirements: Swale Treatment for Transportation Facilities					
YES	NO	N/A				
			Does the site use swales for runoff conveyance and pollutant removal for transportation facilities? If Yes , must have the following: Groundcover: □ Vegetated □ Non-Vegetated where appropriate to prevent erosion or provide runoff treatment (riprap, check dams) Swale Velocity Control: □ Swale is 200 feet or more in length with a velocity no greater than 1.5 feet per second for the two-year, 24-hour design storm or two-year storm with duration			
			equal to time of concentration ☐ Swale is 200 feet or more in length with velocity > 1.5 feet per second then velocity is reduced to maximum extent practicable. Written explanation stating why requirement of > 1.5 feet per second cannot be met			
			Exemptions Apply: Average Daily Vehicles > 2,500 and initial surface water of the state that runoff directly enters is any of the following: An outstanding resource of water (ORW) An exceptional resource water (ERW) Water is listed in Section 303(d) of the Federal Clean Water Act and is identified as impaired in whole or in part due to non-point source impacts Water where targeted performance standards are developed under NR 151.004 of the Wisconsin Administrative Code to meet water quality standards			
			Plan Requirements			
YES	NO	N/A				
			Provide permit application form, including contact information (name, address, telephone number) for the landowner, developer, land operator, certified project engineering, responsible party for installation of storm water management practices, responsible party for long-term maintenance of the storm water management practices.			
			Legal Description of proposed development.			
			Narrative describing the proposed development.			
			Brief summary of Design Criteria and methods used for development of Storm Water Management Practices.			
			Storm Water Management Maintenance Agreement shall be included with the Storm Water Management Plan (see Storm Water Management Maintenance Agreement template for additional information required).			
			Certification by a Wisconsin registered professional engineer.			
			Financial Guarantee.			

			Characteristics for Pre/Post Development conditions shall be delineated by one (1) a scale of not less than one (1") inch equals two hundred (200') feet. The map(s)
			mum, the following information:
YES	NO	N/A	
			Site Location and Legal Description.
			Pre-developed and revised topography by contours related to USGS survey datum or other datum approved by City. The topographic contours of the site shall not exceed 2 feet. The topography shall extend at minimum 100 feet outside the site boundaries to show runoff patterns onto, through and from the site.
			One hundred (100) year Floodplain boundary, shore land, environmental corridors, and wetland boundaries shall be delineated if applicable
			All lakes, streams, and other water bodies illustrated on map shall be named as defined on a USGS 7.5 minute topographic map.
			Predominant Soil Types and Hydraulic Soil Group Classifications per NRCS
			Coordinates of all manhole and inlets with reference to two nearest reference point monuments which shall be Section or ¼ Section corners.
			Location, capacity, and dimensions/details of on-site Pre-developed and Post-developed storm water management facilities such as, but not limited to, the following: manholes, pipes, curbs, gutters, curb inlets, filter strips, swales, detention basins, curb cuts, and drainage gates.
			Location, extent, detailed drawings, typical cross sections and slope ratios of all pre- developed and post-developed storm water retention and detention areas and drainage ways – list inlet/outlet elevations, permanent water surface elevation, high water surface elevation, and emergency spillway elevation, if applicable.
			Location and Elevations at top and bottom of pre-developed and post-developed buildings and structures.
			Locations and names of pre-developed and post-developed streets and intersections and the location of parking lots, sidewalks, bike paths and impervious surfaces (excluding single family residences). Map(s) shall clearly differentiate pre-developed and post-developed surfaces.
			Delineation and dimensions of all pre-developed and post-developed property boundaries, easements, right-of-way, building setbacks, maintenance easements, and other restrictions.
			Pre-developed and post-developed land use boundaries, including cover type and condition.
			Post-developed land use cover totals for Impervious and Pervious areas as well as permanent water surface area of all storm water management facilities.
			Delineation of pre-developed and post-developed watershed and sub-watershed boundaries used in determination of Peak flow discharges and discharge volumes from the site. (If the watershed extends beyond the site boundaries, a separate watershed map can be supplied).
			Location of the pre-developed and post-developed discharge points.
			Pre/Post developed directional Flow Paths used to calculate existing/proposed time of concentrations.
			Location of the Emergency Overland Flow.
			Location of any Regional Treatment Options (if applicable).
			Identify all pre-developed land cover features, such as, natural swales, natural depressions, native soil infiltrating capacity and natural groundwater recharge areas.
			Location of any protective areas within the site.
			Location of wells located within 1,200 feet of pre-developed and post-developed Storm Water Detention Basins, Infiltration Basins, or Infiltration Trenches.
			Delineation of Wellhead protection areas defined under NR 811.16
1	1	1	

	Supportive Information and Calculation summaries shall be supplied for all storm water management requirements:					
YES	NO	N/A				
			Pre-developed and post-developed watershed, sub-watersheds, and land use areas (acres, watershed shall be delineated by property lines).			
			Pre-developed and post-developed impervious areas (acres).			
			Pre-developed and post-developed Runoff Curve Numbers.			
			Pre-developed and post-developed Time of Concentration.			
			Pre-developed and post-developed peak flows for the 2-year, 10-year and 100-year, 24-hour storm events for each discharge point.			
			Total suspended solids removal computations to show compliance.			
			Design computations for the runoff volume of the pre-developed and post-developed conditions to show compliance with the infiltration requirements.			
			Design computations for all storm water drainage facilities such as, but not limited to, inflow/outflow rates, hydrographs, water surface elevations, outlet design computations, runoff discharge volume, velocities, and stage/storage data.			
			Design computations for the 10-year Rational Method flows for all proposed storm conveyance systems.			
			Computation of the available downstream capacity flowing full, overflow level of ditches and the top of the upstream end of the pipe for any culverts.			
			Computation of the downstream capacity using the 5-year rational storm.			
			Tail water analysis included in storm water design for 2-year, 10-year and 100-year storm events.			
			Design computations to illustrate compliance with pollutant loading criteria (Storm Water Quality Management practices) with pre- and post-storm water management facilities.			
			Narrative describing all assumptions that were deemed appropriate for design.			
			Explanation of provisions to preserve and use natural topography and land cover features.			
			Explanation of restrictions on Storm Water Management practices by wellhead protection plans (if applicable).			
			Results of investigations of soil and groundwater required for installation of Storm Water Management practices.			
			Impact assessment results on Wetland Functional Values (if applicable).			
			Storm Water Management practices installation schedule.			
			Cost estimate for the construction, operation and maintenance of each Storm Water Management practice.			
			Any additional information that the City, or designee, may need to evaluate the impacts of the storm water discharge quality and quantity on the existing area and existing utilities.			

City of Waukesha

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

Sewer Plan Review Checklist

Attachment H (Rev 12/18)

Project Name:	FOX DEN	APARTMENTS	
Engineering & I	Design Firm:	PINNACLE ENGINEERING GROUP	
0 0		11/18/2020 SUBMITTAL	

Sanitary System LATERALS PREVIOUSLY INSTALLED WITH MASTER WORK, NO SANITARY WORK ON THIS PLAN SET. ALL UTILITIES ARE ON THE UTILITY PLAN SHEET.

YES	NO	N/A	
			Minimum 4" sanitary sewer lateral from the main to the property line, PVC SDR 26 or 35 conforming to ASTM standards D 3034 with rubber gasket joints
			Sanitary sewer laterals shall have a green #12 locater wire installed along the entire length. Locater wire shall be brought to the surface at the edge of the building and enclosed in a curb box with "sewer" on the cover.
			Sampling manhole required for all food service developments (or developments with the potential to become food service) and industrial/manufacturing facilities.
			Industrial facilities must complete an industrial discharge form.
			Outside drop manhole connection required where drop is greater than 24 inches.
			Sanitary Plan View
YES	NO	N/A	
			Ghost existing utilities and lateral locations in screened format. Label the pipe size of existing utilities.
			Label the proposed sewer and laterals with length, size, and material type
			Material and size of the existing sanitary sewer being connected to.
			Label the stub-outs with length, size, slope, and invert elevations (if not profiled).
			Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities.
			Show type and size of encasement where needed
			Show flow directions of all proposed mains.
			Length of each sewer lateral and height of any lateral risers. Label proposed invert elevations at right-of-way lines.
			Distance from downstream manhole to each upstream sewer lateral.
			Proposed manholes and cleanouts labeled with a design plan number. Existing manholes labeled with numbers obtained from City records.
			Rim and invert elevations at each manhole, based on City of Waukesha datum (for private sewer if not profiled)
			Show and label all easements
			Sanitary Profile View
YES	NO	N/A	
			Stationing.
			Existing and proposed surface profiles and elevations over the sewer.
			All utility crossings. Label elevations if known.

			Pipe material / class, size, length, and percent grade to two (2) decimal places.				
			Material and size of the existing sanitary sewer being connected to.				
			Length, type, and size of encasement as needed.				
			Proposed manholes. Indicate type and diameter.				
			Label station, rim, and invert elevations, based on City of Waukesha datum, and design plan number for each manhole and cleanout. Existing manholes to be labeled with numbers obtained from City records.				
			Limits of gravel and/or slurry backfill.				
	Sanitary for Subdivisions/Large Developments						
	(Comple	ete copies of City specifications for sanitary sewer are available upon request.)				
YES							
			Each parcel should have a separate sanitary sewer lateral.				
			Sanitary sewer – 8 ft. horizontal separation from water main per DNR requirements. 8" diameter minimum size, PVC SDR 26 for depths up to 25 ft.				
			Sanitary sewer manhole at every change of direction and a maximum distance of 400 ft.				
			A chimney seal shall be required on all manholes.				
			Provide copies of all approved WDNR/WDOC submittals, including sewer sizing				

Storm System

	Storm Plan View					
YES	NO	N/A				
			Ghost existing utilities and lateral locations in screened format. Pipe size of existing utilities labeled.			
			Proposed sewer and laterals with length, size, and material type clearly labeled.			
			Material and size of the existing storm sewer being connected to.			
			Stub-outs labeled with length, size, slope, and invert elevations (if not profiled).			
			Dimensions showing offset from right-of-way to the sewer and separation distance between other utilities.			
			Type and size of encasement where needed			
			Length of any sewer lateral. Label proposed invert elevations at right-of-way lines.			
			Proposed inlets, manholes, and other drainage structures.			
			Proposed drainage structures labeled with a design plan number. Existing drainage structures labeled with numbers obtained from City records.			
			Details of outfall or ditch inlet protection requirements such as rip-rap, end sections or headwalls as needed.			
			Details of detention facilities, outfall, overflow and control structures as needed.			
			Storm Profile View			
YES	NO	N/A				
			Stationing.			
			Existing and proposed surface profiles and elevations over the sewer.			
			All utility crossings. Label elevations if known.			
			Pipe material / class, size, length, and percent grade to two (2) decimal places.			
			Material and size of the existing storm sewer being connected to			
			Length, type, and size of encasement as needed.			
			Proposed inlets, manholes, and other drainage structures. Label type and size.			
			Label station, rim, and invert elevations, based on City of Waukesha datum, at each manhole, catch basin, inlet, and detention control structure.			

	Proposed drainage structures labeled with a design plan number. Existing drainage structures to be labeled with numbers obtained from City records.
	Cross-section of open channels and detention facilities, including outfall, overflow, and control structures.
	Limits of gravel and/or slurry backfill.

General System

YES	NO	N/A				
			Show all easements, public or private.			
			No structures allowed within a public easement.			
			Plantings or signs within public easements, if permitted by City, shall be at least 5 feet from the utilities.			
			General for Subdivisions/Large Developments			
YES	NO	N/A				
			Provide plans sealed by Registered Professional Engineer			
			Show benchmark, north arrow and scale.			
			Show existing/proposed sewer and water utilities.			
			All sewer to be installed by the developer under the terms of a Development Agreement.			
	ı	T	Utility Plans			
YES	NO	N/A				
			Location of all utilities: storm and sanitary sewers, water mains, fire hydrants, electrical, natural gas, and communication (cable television, telephone, etc.) lines ELEC, GAS, CABLE,			
-			Exterior lighting for parking and other outdoor areas, outdoor signs, and building exteriors.			
			Location of waste and trash collection, and indicate plans for snow removal.			
			Location and footprint of any and all buildings			
			Location and names of existing and proposed streets			
			Location and size of existing and proposed storm sewer, sanitary sewer, and water utility systems shown			
			Electric, gas, telephone, and cable lines shown TBD			
			All new utilities are underground			
			Exterior lighting detail provided			
			Location of all utility and private fire hydrants			
			Sampling manhole shown (if applicable)			
			Grease interceptor shown (if applicable)			
			Location and size of existing and proposed water meters TBD			
Includ	de the f	ollowir	ng notes on the Utility Plan:			
YES	NO	N/A				
			All sanitary sewer to be installed in accordance with City of Waukesha standards.			
			All applications and fees for sanitary sewer must be completed and paid prior to connection to sewer systems.			
			Any utility work in the right-of-way and all sanitary sewer connections to be inspected by City. Notify City 72 hours in advance of connecting to sewer.			
			s items that are commonly missed on Utility Plans. For subdivisions or other large or complex an review includes many more checks too numerous to list here. Please call (262) 524-3600 for			

additional information. City typical sewer details can be provided upon request.

Note: For water main, contact Waukesha Water Utility at (262) 521-5272



Landscape Plan Checklist

Attachment I (Rev 12/18)

Project Name: _	FOX DEN APARTMENTS			
Engineering & D	esign Firm:	PINNACLE ENGINEERING GROUP		
	_	11/18/2020 SUBMITTAL		

☐ Contact Community Development Department for Requirements			
Gornada Gorninanty Bevelopment Bepartment for Requirements			
Listed below are general design considerations only:			
YES	NO	N/A	
			Show easements
			Location and footprint of any and all buildings
			Dimensions of development site along property line
			Existing and proposed streets
			Pedestrian and vehicular access points
			Location and dimensions of parking lots, etc.
			Location and dimensions of all existing or planned easements
			Location and dimensions of snow removal and storage areas
			Location and dimensions of outdoor lighting fixtures
			Interior parkway provided
			Parkway provided
			Buffer strip provided
			Dumpster enclosure details
			Parking lot landscaping
			Utility/mechanical equipment screened
			Service area screened
			Location of freestanding signs
			Walls and fences shown
			Location of utilities
			Existing and proposed contours and grades, including berm elevations
			Location, name and size of proposed plant materials
			Specifications of all types of all proposed ground cover, i.e., seed, sod, etc.
			Location, species, and size of existing trees
			Clear identification of trees to be removed
			Square footage of parking lot area
			Tree protection plan