



DEPARTMENT OF PUBLIC WORKS

Fred Abadi, PhD, PE, Director

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**ENGINEERING COMMENTS
FOR
PLAN COMMISSION
AGENDA
Wednesday
August 10, 2016
REVISED**

Time: 6:30 p.m.

Place: Waukesha City Hall, 201 Delafield Street, Council Chambers

- I. Call to Order
- II. Pledge of Allegiance
- III. Roll Call
- IV. Approval of Minutes

ID#16-1189 Minutes for the Meeting of July 27, 2016.

- V. Consent Agenda
- VI. Business Items

PC15-0251 Courthouse Apartments, 101 W. Main Street – Preliminary Site Plan & Architectural Review

General

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - b. Storm water management plan and Agreement.
2. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.

ENGINEERING DIVISION
Alex Damien, P.E.
City Engineer
130 Delafield St
Waukesha, WI 53188
262-524-3600
Fax – 262-524-3898

MUNICIPAL PARKING SERVICES
Patti Cruz
Parking Supervisor
241 South St
Waukesha, WI 53188
262-524-3622
Fax – 262-650-2573

STREETS DIVISION
300 Sentry Dr
Waukesha, WI 53186
262-524-3615
Fax – 262-524-3612

WASTEWATER TREATMENT PLANT
Jeff Harenda
WWTP Manager
600 Sentry Dr
Waukesha, WI 53186
262-524-3625
Fax – 262-524-3632

WAUKESHA METRO TRANSIT
Brian Engelking
Transit Director
2311 Badger Dr
Waukesha, WI 53188
262-524-3594
Fax – 262-524-3646

3. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. Wisconsin Department of Natural Resources NR 216 N.O.I. Permit.
 - b. City of Waukesha Construction Permit
 - c. City of Waukesha Storm Water Permit
 - d. Private sanitary sewer approval

Sanitary Sewer

1. The existing building has a sanitary sewer lateral connecting the City's sewer main. Please provide a sewer lateral video to City for review and approval. Contact the City Engineering Department for the video format. If lateral maintenance is needed, then the lateral improvements may need to be included as part of this project. The lateral pipe and connection to the main may need to be lined or relayed to reduce infiltration into the City's sanitary sewer system or improve the structural integrity.
2. Cap off sanitary laterals in accordance with City Ordinance that are not needed for immediate development.
3. Confirm if the shown sanitary sewer laterals were located by televising records.
4. Specifications for infrastructure including materials and installation procedures for all work should be added to the Drawings including outlet structure material, bedding, backfill, sanitary sewer, frames and lids, sidewalk construction, etc. The City requires polypropylene chimney rings on City manhole construction. These specifications can be sent to the Engineer.

Storm water Review

1. The following items should be submitted:
 - a. Storm water management plan and Agreement.
2. Proposed storm water facilities should be shown if applicable.

Sheet A002 Site Plan

1. In accordance with Wisconsin Administrative Code A-E 2.02(4): Each sheet of plans, drawings, documents, specifications and reports for architectural, landscape architectural, professional engineering, design or land surveying practice should be signed, sealed, and dated by the registrant or permit holder who prepared, or directed and controlled preparation of, the written material.
2. A site plan, in accordance with City requirements, should be submitted showing proposed site work including, but not limited to the "Proposed Future driveway extension."

Grading and Erosion Control Plan

1. An erosion control plan is needed for grading in excess of 3,000 square feet.

2. The erosion control/master grading plan should include a table listing the minimum basement elevation based on the existing water table for each building.
3. 32.09(c)1 Access Drives and Tracking. Provide access drive(s) for construction vehicles that minimize tracking of soil off site using BMP(s) such as stone tracking pads, tire washing or grates. Minimize runoff and sediment from adjacent areas from flowing down or eroding the access drive.
4. 32.09(c)3 Inlet Protection. Protect inlets to storm drains, culverts and other storm water conveyance systems from siltation until the site is stabilized.
5. 32.09(c)9 Site Dewatering. Treat pumped water to remove sediment prior to discharge from the site, using BMPs such as sediment basins and portable sediment tanks.
6. 32.09(c)10 Dust Control. Prevent excessive dust from leaving the construction site through construction phasing and timely stabilization or the use of BMPs such as site watering and mulch - especially with very dry or fine sandy soils.
7. 32.09(c)13 Sediment Cleanup. By the end of each workday, clean up all off-site sediment deposits or tracked soil that originated from the permitted site. Flushing shall not be allowed unless runoff is treated before discharge from the site.
8. 32.09(c)14 Final Site Stabilization. All previous cropland areas where land disturbing activities will not be occurring under the proposed grading plans, shall be stabilized upon permit issuance. Stabilize all other disturbed areas within 7 days of final grading and topsoil application. Large sites shall be treated in stages as final grading is completed in each stage. Any soil erosion that occurs after final grading or the application of stabilization measures must be repaired and the stabilization work redone.
9. 32.09(c)15 Temporary Site Stabilization. Any disturbed site that remains inactive for greater than 7 days shall be stabilized with temporary stabilization measures such as soil treatment, temporary seeding or mulching. For purposes of this subsection, "inactive" means that no site grading, landscaping or utility work is occurring on the site and that precipitation events are not limiting these activities. Frozen soils do not exclude the site from this requirement.
10. 32.09(d)(2.)(B.)(xii) Location of proposed utilities, including: standard cross-section for buried utilities, associated easements, labeling the type of utility and notes on erosion control and restoration plans;
11. 32.09(d)(2.)(B.)(xiii) Final site stabilization instructions for all other disturbed areas, showing areas to be stabilized in acres, depth of applied topsoil, seed types, rates and methodology, fertilizer, sod or erosion matting specifications, maintenance requirements until plants are well established, and other BMP(s) used to stabilize the site;

12. 32.09(d)(2)(B.)(xiv) Detailed construction notes clearly explaining all necessary procedures to be followed to properly implement the plan, including estimated starting date of grading, timing and sequence of construction or demolition, any construction stages or phases, utility installation, dewatering plans, refuse disposal, inspection requirements, and the installation, use, and maintenance of BMP(s) proposed in the plan;
13. 32.10(c)21. Location and descriptive notes for any existing or proposed easements, right-of-ways, vision corners or other known site restrictions. Road right-of ways and building setbacks shall be in compliance with all applicable administrative codes, adopted plans and ordinances;

Grading and Erosion Control Plan Sheet 1 of 2

1. The erosion control plan should be updated to comply with City Ordinance 32.09.
2. Existing easements on the site should be shown including source documentation.

Erosion Control Plan

1. A construction sequence should be added.
2. Chapter 32.09(c)(9): Dewatering specifications should be added to the plan.
3. Chapter 32.09(d)(2)(xiii): Final site stabilization instructions should be included in the plan set including seed rates, methodology, fertilizer and erosion matting locations and specifications, and maintenance requirements.
4. Chapter 32.09(d)(2)(xiv): Detailed construction notes for the dewatering plan should be included on the plan.
5. Chapter 32.09(d)(2)(iv): All woodland areas, those proposed to be lost or transplanted during construction and acres or numbers of each. For woodlands proposed to be lost, show individual trees larger than eight (8) inches in diameter that are located within twenty (20) feet of proposed grading boundaries.
6. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.
7. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.
8. Chapter 32.09(d)(2)(xv): Location of soil evaluations with surface elevations and unique references to supplemental soil evaluations report forms in accordance with section 32.11(c). A separate map should show estimated seasonal water table depths down to planned excavation depths with references to the proposed site plan.
 - a. A minimum 1-foot vertical separation between the seasonal high groundwater table elevation and the basement floor surface should be included in the design.

9. Chapter 32.10(d)(4)(E): Subsurface drainage. Lowest building floor surfaces shall be built one (1) foot above the seasonal high water table elevation, as documented in the soil evaluations and shall avoid hydric soils.
10. The erosion control/master grading plan should include a table listing the minimum basement elevation based on the existing water table for each unit.

Street Design Review

1. The existing City alley should be vacated by the City from N. East Avenue to Martin Street. The design layout will need to be updated.
 - a. The developer should prepare a boundary description and exhibit of the alley boundary and submit to the City for review and approval.
2. Show existing street lights.
3. No curb and gutter through sidewalk. Use driveway detail.
4. Spot grades should be added at back of walk, face of walk and curb and gutter through driveway.
5. Spot grades should be added where matching private sidewalk to public sidewalk.
6. Dimension proposed drives and approaches.
7. Show spot grades on Martin Street for proposed driveway.
8. The City will be likely reconstructing this section of Main Street next year. Contact City Staff to coordinate the proposed site development layout with the Main Street drawings.
9. Two driveways are proposed on Martin Street which are located very close. The traffic movements should be reviewed.
10. Two driveways are proposed on Main Street which are located very close. The traffic movements should be reviewed. Confirm what the intent of the U-shape driveway is proposed to be.
11. A garage entrance is proposed to access the alley. This design layout should be reviewed since the City will be vacating the alley.
12. Confirm setbacks along alley for stairwell.
13. Adequate snow storage areas along the alley should be provided.
14. Show sawcut lines at public streets, alleys and sidewalk.
15. A note should be added: Repair limits in street will be determined in field at the time of permanent repair.
16. The concrete sidewalk at the apron and the apron should be 7 inch thick concrete sidewalk.
17. Show grades for match point of curb removal and replacement.
18. Show spot grades for sidewalk.
19. Public street specifications will need to be added.
20. Add City driveway detail. Indicate 7 inch thick concrete.
21. Add City standard curb and gutter detail.
22. Confirm that adequate parking exists on site for the proposed residential and commercial uses. If on site parking is not provided, provide parking agreement for site commercial uses.

Subdivision and Platting Review

Plat of Survey Sheet 1 of 1

1. Show existing property corners.

Certified Survey Map

1. No CSM was submitted for review.
2. Additional right-of-way should be dedicated at the northeast corner of the property. Update lot area for development.
3. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - b. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - c. The existing building has a sanitary sewer lateral connecting the City's sewer main. Please provide a sewer lateral video to City for review and approval. Contact the City Engineering Department for the video format. If lateral maintenance is needed, then the lateral improvements may need to be included as part of this project. The lateral pipe and connection to the main may need to be lined or relayed to reduce infiltration into the City's sanitary sewer system or improve the structural integrity.
4. Chapter 23.06(3)(g) Subdivision and Platting: Easements across centered on rear or side lot lines should be provided for utilities where necessary and shall be at least 10' wide, if applicable.
5. Chapter 23.06(3): The minimum right-of-way width for collector streets is 70 feet. Confirm with City Staff if an additional 2 feet of right-of-way should be dedicated.
6. Confirm with City Staff if portions or all of the alley should be vacated along the development.
 - a. The following items should be submitted:
 1. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - i. Letter of Credits
 - b. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - c. Sanitary Sewer Lateral Video
 - d. Waukesha Water Utility approval.
 2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. Wisconsin Department of Natural Resources NR 216 N.O.I. Permit., if over 1 acre of disturbance

- b. City of Waukesha Storm Water Permit for grading in excess of 3,000 square feet.

PC16-0061 Coast Car Wash, 905 Anitol Avenue – Rezoning

1. No comments.

PC16-0062 Coast Car Wash, 905 Anitol – Preliminary Conditional Use Permit

General

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - i. Impact fees
 - ii. Letter of Credits
 - b. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - c. Waukesha Water Utility approval.
2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. Wisconsin Department of Natural Resources NR 216 N.O.I. Permit.
 - b. City of Waukesha Construction Permit.
 - c. City of Waukesha Storm Water Permit.
 - d. Private sanitary sewer approval.

Sanitary Sewer

1. The building will have a sanitary sewer lateral connecting the City's sewer main. Please provide a sewer lateral video to City for review and approval. Contact the City Engineering Department for the video format. If lateral maintenance is needed, then the lateral improvements may need to be included as part of this project. The lateral pipe and connection to the main may need to be lined or relayed to reduce infiltration into the City's sanitary sewer system or improve the structural integrity.
2. 8" sewer shall be designed and built as a public main from the south side of Arcadian to the manhole on the north side. Details of the design shall be coordinated with the Engineering Division. A sanitary sewer easement will be needed at the manhole.
3. All utilities in Arcadian Avenue and Les Paul Parkway in this project limits should be shown and the proposed connection points and design information.
4. Specifications for public sanitary sewer work should be added.

Subdivision and Platting

1. A current land survey in accordance with Wisconsin Administrative Code A-E 7 should be provided for review and approval. The submitted survey is from 2007.
2. A Certified Survey Map (CSM) is needed to combine the two existing parcels in the development. Additional right of way may also need to be dedicated along Arcadian Avenue. The creation of one lot will avoid having to prepare access easements.

Street Design

Sheet C-1 Site Plan

1. In accordance with Wisconsin Administrative Code A-E 2.02(4): Each sheet of plans, drawings, documents, specifications and reports for architectural, landscape architectural, professional engineering, design or land surveying practice should be signed, sealed, and dated by the registrant or permit holder who prepared, or directed and controlled preparation of, the written material.
2. Provide turning movement analysis for fire trucks, delivery trucks through parking lot and drive through.
3. Show existing underground pipes on site and adjoining site, and in public right of ways.
4. Show existing easements.
5. A proposed driveway access is shown from Arcadian Avenue and Anitol Avenue. The Arcadian Avenue access is within the zone of influence of the intersection with Les Paul Parkway (STH 164). The access off of Arcadian Avenue will require Wisconsin DOT approval. The Developer should obtain this approval prior to City site layout approval. A traffic study may be required by the Wisconsin DOT.
 - a. Confirm if any existing access limitations are present on this property along Arcadian Avenue.
6. A current title report should be obtained and submitted to the City for both parcels including all restrictions, covenants, and easements of record.
7. More detail is needed to show where the proposed drainage is intended to be directed. Confirm how the site runoff will be collected from conveyed off site. Additional storm sewer measures are needed.
8. It appears that a proposed fence is shown within the vision corner easement. The plan should be revised. Additional fence details should be added to the Drawings.
9. Additional contour labels should be added. Off site runoff should be properly directed around the site.
10. It appears that the building is shown within the building setback. Please confirm.
11. Many more spot grades are needed around the development site to confirm drainage problems are not being created.

12. Existing easements on the site should be shown including source documentation.
13. A note should be added: Repair limits in street will be determined in field at the time of permanent repair.
14. The concrete sidewalk at the apron and the apron should be 7 inch thick concrete sidewalk.
15. Show grades for match point of curb removal and replacement.
16. Show removal limits for whole street from flange to flange. The street will need to be milled and paved.
17. Add Note: Removal limits of repair are approximate and will be determined in the Field by the City.
18. Add City driveway detail. Indicate 7 inch thick concrete.
19. Add City standard curb and gutter detail.
20. Confirm proper ditch grading along Anitol Avenue and culvert sizing, if applicable.
21. Add public sidewalk on Les Paul and Arcadian. Les Paul sidewalk should be 15' from curb.
22. Sidewalk designed at 1.5%
23. Show exist traffic signals
24. Show handicap parking.
25. Widen Anitol Street?

Storm Water

Sheet C-2 Grading and Erosion Control Plan

1. Submit area of site disturbance.
2. Prepare storm water management plan, as applicable to DNR requirements and City Ordinance.
3. The erosion control/master grading plan should include a table listing the minimum basement elevation based on the existing water table for each building.
4. 32.09(c)1 Access Drives and Tracking. Provide access drive(s) for construction vehicles that minimize tracking of soil off site using BMP(s) such as stone tracking pads, tire washing or grates. Minimize runoff and sediment from adjacent areas from flowing down or eroding the access drive.
5. 32.09(c)3 Inlet Protection. Protect inlets to storm drains, culverts and other storm water conveyance systems from siltation until the site is stabilized.
6. 32.09(c)9 Site Dewatering. Treat pumped water to remove sediment prior to discharge from the site, using BMPs such as sediment basins and portable sediment tanks.
7. 32.09(c)10 Dust Control. Prevent excessive dust from leaving the construction site though construction phasing and timely stabilization or the use of BMPs such as site watering and mulch - especially with very dry or fine sandy soils.

8. 32.09(c)13 Sediment Cleanup. By the end of each workday, clean up all off-site sediment deposits or tracked soil that originated from the permitted site. Flushing shall not be allowed unless runoff is treated before discharge from the site.
9. 32.09(c)14 Final Site Stabilization. All previous cropland areas where land disturbing activities will not be occurring under the proposed grading plans, shall be stabilized upon permit issuance. Stabilize all other disturbed areas within 7 days of final grading and topsoil application. Large sites shall be treated in stages as final grading is completed in each stage. Any soil erosion that occurs after final grading or the application of stabilization measures must be repaired and the stabilization work redone.
10. 32.09(c)15 Temporary Site Stabilization. Any disturbed site that remains inactive for greater than 7 days shall be stabilized with temporary stabilization measures such as soil treatment, temporary seeding or mulching. For purposes of this subsection, "inactive" means that no site grading, landscaping or utility work is occurring on the site and that precipitation events are not limiting these activities. Frozen soils do not exclude the site from this requirement.
11. 32.09(d)(2.)(B.)(xii) Location of proposed utilities, including: standard cross-section for buried utilities, associated easements, labeling the type of utility and notes on erosion control and restoration plans;
12. 32.09(d)(2.)(B.)(xiii) Final site stabilization instructions for all other disturbed areas, showing areas to be stabilized in acres, depth of applied topsoil, seed types, rates and methodology, fertilizer, sod or erosion matting specifications, maintenance requirements until plants are well established, and other BMP(s) used to stabilize the site;
13. 32.09(d)(2.)(B.)(xiv) Detailed construction notes clearly explaining all necessary procedures to be followed to properly implement the plan, including estimated starting date of grading, timing and sequence of construction or demolition, any construction stages or phases, utility installation, dewatering plans, refuse disposal, inspection requirements, and the installation, use, and maintenance of BMP(s) proposed in the plan;
14. 32.10(c)21. Location and descriptive notes for any existing or proposed easements, right-of-ways, vision corners or other known site restrictions. Road right-of ways and building setbacks shall be in compliance with all applicable administrative codes, adopted plans and ordinances;
15. 32.09(d)(2.)(B.)(xii) Location of proposed utilities, including: standard cross-section for buried utilities, associated easements, labeling the type of utility and notes on erosion control and restoration plans;
16. 32.09(d)(2.)(B.)(xiv) Detailed construction notes clearly explaining all necessary procedures to be followed to properly implement the plan, including estimated starting date of grading, timing and sequence of construction or demolition, any construction stages or phases, utility

installation, dewatering plans, refuse disposal, inspection requirements, and the installation, use, and maintenance of BMP(s) proposed in the plan;

17. 32.09(d)(2)(C)(iii) Open channel design and stabilization data to support the selected BMP(s) for stabilization;
18. 32.10(d)2. Total Suspended Solids. A. By design, each storm water management plan shall meet the following post-development total suspended solids reduction targets, based on average annual rainfalls, as compared to no runoff management controls:
19. 32.10(d)(2)(A)(ii.) For redevelopment, 40% reduction of total suspended solids load;
20. 32.10(d)6. Site Drainage. Measures shall be implemented to ensure proper site drainage, prevent property damage and protect public health and safety, including the following minimum requirements:
21. 32.10(d)(6.)B. Site grading. Site grading shall ensure positive flows away from all buildings, roads, driveways and septic systems, be coordinated with the general storm water drainage patterns for the area, and minimize adverse impacts on adjacent properties.
22. Show tributary drainage basin areas to site.
23. 32.10(d)(6.)G. Storm sewers. All storm sewers shall be designed in accordance with the City of Waukesha's technical standards and specifications.
24. The storm sewer will likely need to connect to Wisconsin DOT storm sewer and need approval.

PC16-0063 Poplar Creek, 20118 Bluemound Road (Brookfield) – Extra Territorial Certified Survey Map

1. No comments.

PC16-0064 Poplar Creek, 20120 Bluemound Road (Brookfield) – Extra Territorial Certified Survey Map

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council.

PC16-0065 1104-1108 Madison Street – Certified Survey Map

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council.

Certified Survey Map

1. Chapter 236.20(2)(f) as referenced by 236.34(1)(c): Existing easements should be shown, if applicable.
2. The legal description appears to start with a point that was not located in the field. Please verify.
 - a. Wisconsin State Statute 236.34: A clear and concise description that commences with a monument at a section corner or quarter section corner of the quarter section that is not the center of section.