



DEPARTMENT OF PUBLIC WORKS

Fred Abadi, PhD, PE, Director

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ENGINEERING COMMENTS FOR PLAN COMMISSION AGENDA Wednesday August 13, 2014

Time: 6:30 p.m.

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

- I. Call to Order and Roll Call
- II. Pledge of Allegiance
- III. Approval of Minutes
ID#14-0769 Minutes for the Meeting of July 23, 2014.
- IV. Business Items
PC14 -0075 Meijer, 801 & 831 E. Sunset Drive - Final Site Plan & Architectural PUD Review

General

1. The following items will be needed prior to approval:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any financial assurance bonds, fees or agreements required by the Plan Commission and Council or Chapter 32.08(c).
 - i. As-builts will be needed for:
 1. Public sanitary sewer and storm sewer.
 2. Storm water facilities
 - b. Developer's Agreement
 - c. Waukesha Water Utility Approval
 - d. 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.
 - e. Pre-construction meeting
 - f. A City inspector must be on site during City construction work.

ENGINEERING DIVISION
Paul G. Day, PE
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

2. Permits will be needed for the Meijer 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.
 - i. Confirm if any additional water quality components need to be added to the project by the DNR. If water quality components are needed, then add the water quality features to the Drawings.
 - b. Wisconsin Department of Natural Resources Water Main Extension Permit.
 - c. Wisconsin Department of Natural Resources Sanitary Sewer Main Extension Permit.
 - d. State of Wisconsin Department of Safety and Professional Services Sanitary Sewer approval.
 - e. City of Waukesha Construction Permit.
 - f. City of Waukesha Storm Water Permit.

ROAD IMPROVEMENT SHEETS

General Notes C100R

1. Add City standard street cross section detail.
2. Add City standard concrete curb and gutter detail Type "A".
3. The Wisconsin DOT type 2 curb ramp detail should be used.
4. Specifications for materials and installation procedures for all work should be added to the Drawings including outlet structure material, bedding, backfill, storm sewer manholes, frames and lids, sidewalk construction, etc. The City requires polypropylene chimney rings on new construction. These specifications can be sent to the Engineer.

Typical Sections Sunset Drive C101R

1. The City standard typical cross section for 6-inch thick HMA asphalt pavement includes 12 inches of stone base course under 6 inches of asphalt pavement.
2. The City standard typical cross section for concrete sidewalk includes 4 inches of stone base course under the 4 inch concrete sidewalk.
3. The concrete curb and gutter should be Type "A" and not Type "D".
4. A 2-foot wide ditch bottom should be incorporated if possible versus a V-bottom.

Typical Sections Tenny Avenue C102R

1. The City standard typical cross section for 5-inch thick HMA asphalt pavement includes 10 inches of stone base course under 5 inches of asphalt pavement.
2. The City standard typical cross section for concrete sidewalk includes 4 inches of stone base course under the 4 inch concrete sidewalk.
3. The concrete curb and gutter should be Type "A" and not Type "D".

Paving Plan-Tenny Avenue C200R

1. A future median driveway access is shown. Please list on the plan which property this median opening is proposed for.
2. Chapter 6.13 Driveways (4): The driveway width should not be greater than 35' at the curb and 30' at the sidewalk, unless the property is in a district zoned for industrial use. In a district zoned for industrial use, the driveway width cannot be greater than 50' at the curb and 45' at the property line. The total frontage of all

driveways servicing the premises in any district cannot exceed 90' without approval of the Council.

- a. The southerly driveway along Tenny Avenue is 50 feet wide at the sidewalk and 95 feet wide at the curb.
- b. The northerly driveway along Tenny Avenue is 75 feet wide at the sidewalk and 110 feet wide at the curb.
- c. The driveway along E. Sunset Drive is 63 feet wide at the sidewalk and 125 feet wide at the curb.
- d. The total width of all driveways exceeds the City total maximum width of 90 feet. Approval of the Council will be needed.

Paving Plan-Tenny Avenue C201R

1. Curb cuts are shown for driveway. No curb cuts are allowed for new driveways. The curb should be removed and replaced.
2. The City uses the Type 2 ramps. The ramps and sidewalk alignments should be updated at the southeast corner of Tenny and Sunset.

Paving Plan-Sunset Drive C202R

1. The City uses the Type 2 ramps. The ramps and sidewalk alignments should be updated at the southeast corner of Tenny and Sunset.

Marking and Signing Plan-Tenny Avenue C300R

1. No comments.

Marking and Signing Plan-Tenny Avenue C301R

1. No comments.

Marking and Signing Plan-Sunset Drive C302R

1. No comments.

Erosion Control Plan-Tenny Avenue C400R

1. A construction sequence should be added.
2. Chapter 32.09(c)(4): Show the locations for temporary soil stockpiles.
3. Chapter 32.09(c)(9): Dewatering specifications should be added to the plan.
4. Chapter 32.09(c)(14): A note should be added that areas of final grading should be stabilized within 7 days.
5. 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.
6. Chapter 32.09(d)(2)(xiv): Detailed construction notes for the dewatering plan should be included on the plan.
7. 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.
8. Chapter 32.09(d)(2)(xiv): Inspection requirements should be added to verify that critical elements of the plan are successfully accomplished such as protecting the

wetland areas, marking and protecting trees in the Primary Environmental Corridor Areas from damage from the Contractors.

9. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.
10. Chapter 32.09(d)(2)(C)(iii): Open channel design and stabilization data should be prepared to support the selected BMP(s) for stabilization.

Erosion Control Plan-Tenny Avenue C401R

1. No comments.

Erosion Control Plan-Sunset Drive C402R

1. No comments.

Plan and Profile Tenny Avenue C500R

1. The Drawings show 20 feet of proposed fill in the road areas. Appropriate compaction and soil specifications will be needed from the Geotechnical Engineer report. Maximum slopes should be 4:1.
2. The storm sewer pipes should be shown in profile view.

Plan and Profile Tenny Avenue C501R

1. The storm sewer pipes should be shown in profile view.
2. Include note on Plan listing the system is private to the manhole connection in Tenny Avenue.

Plan and Profile Tenny Avenue C502R

1. The sanitary sewer manhole and pipeline located at the northwest corner of the site that was originally planned to be connected to for this project should be abandoned since the design will not use the manhole and pipeline. Specifications for this work should be added to the Drawings. The lines should be bulkheaded at both pipe ends and the manhole top removed and the structure backfilled with stone.

Plan and Profile Sunset Drive C503R

1. The storm sewer pipes should be shown in profile view.
2. The proposed location of City of Waukesha force main should be added to the Drawings. A plan showing the proposed location of the force main can be provided by the City of Waukesha Engineering Department. At this time, the proposed location will be approximately 3 feet south of the proposed sidewalk along the south side of Sunset Drive.

Plan and Profile Sunset Drive C504R

1. The storm sewer pipes should be shown in profile view.
2. The proposed location of City of Waukesha force main should be added to the Drawings. A plan showing the proposed location of the force main can be provided by the City of Waukesha Engineering Department. At this time, the proposed location will be approximately 3 feet south of the proposed sidewalk along the south side of Sunset Drive.
3. Coordinate drawings with street improvements to east. Confirm if curb and gutter should be shown for E. Sunset Drive east of station 211+52.

Plan and Profile Sunset Drive C505R

1. The proposed location of City of Waukesha force main should be added to the Drawings. A plan showing the proposed location of the force main can be provided by the City of Waukesha Engineering Department. At this time, the proposed location will be approximately 3 feet south of the proposed sidewalk along the south side of Sunset Drive.
2. The size of the existing culvert under Sunset View Drive should be shown with inverts.
3. Coordinate drawings with street improvements to east. Confirm if curb and gutter should be shown for E. Sunset Drive east of station 211+52. If yes, update the Drawings to include curb and gutter.
4. Please verify if flooding of existing downstream culverts will occur along the south side of East Sunset Drive at Sunset View. The culvert may need to be upsized. The proposed roadway plans are needed to coordinate with this site design.

Cross sections Tenny Avenue and Sunset Drive C600R to C608R

1. The slope of the side slopes should be labeled for the bank slopes, pavement, sidewalk, terraces, islands, etc.
2. The proposed cul-de-sac is shown outside of the public right of way. Temporary easements are needed.
3. The sidewalk should be shown.
4. At Station 22+50 to station 27+00, no match line is shown on the right side.
5. A 2-foot wide ditch bottom should be incorporated if possible versus a V-bottom.

Landscape Plan Sunset Drive C700R

1. The proposed trees should not be located in the area along the south side of Sunset Drive behind the sidewalk where the proposed force main will be located.
2. The median restoration should be labeled.

Photometric Plan C800R to C802R

1. No comments.

RETAIL IMPROVEMENT SHEETS

General Notes C002

1. Specifications for materials and installation procedures for all work should be added to the Drawings including outlet structure material, bedding, backfill, storm sewer manholes, frames and lids, sidewalk construction, etc. The City requires polypropylene chimney rings on new construction. These specifications can be sent to the Engineer.

General Notes C003

1. No comments.

Overall Site Layout Plan C200

1. Chapter 6.13 Driveways (4): The driveway width should not be greater than 35' at the curb and 30' at the sidewalk, unless the property is in a district zoned for industrial use. In a district zoned for industrial use, the driveway width cannot be greater than 50' at the curb and 45' at the property line. The total frontage of all driveways servicing the premises in any district cannot exceed 90' without approval of the Council.
 - a. The southerly driveway along Tenny Avenue is 50 feet wide at the sidewalk and 95 feet wide at the curb.
 - b. The northerly driveway along Tenny Avenue is 75 feet wide at the sidewalk and 110 feet wide at the curb.
 - c. The driveway along E. Sunset Drive is 63 feet wide at the sidewalk and 125 feet wide at the curb.
 - d. The total width of all driveways exceeds the City total maximum width of 90 feet. Approval of the Council will be needed.

Enlarged Site Layout Plan C201 and C202 and C203

1. No comments.

Truck Turn Plan C204

1. Verify the location of the bus shelter and route with the Transit Division.

Overall Grading Plan C300

1. The cul-de-sac along Tenny Avenue is proposed outside the right-of-way lines. A temporary street and grading easements is needed to contain the street area and to extend the street at a later date.

Enlarged Grading Plan C301

1. Verify if a retaining wall design report is needed.
2. The retaining wall cross-section, design material specifications, base design, drain pipes, and installation specifications should be included on this Plan.
3. A cross section detail of the retaining wall should be added to the Drawings.

Enlarged Grading Plan C302

1. No comments.

Enlarged Grading Plan C303

1. No comments.

Overall Erosion Control Plan C304

1. 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. Trees within the Primary Environmental Corridor should be shown if greater than 6 inches.
2. Chapter 32.09(d)(2)(vii): The plan proposes the trenching of silt fence along the boundary of the Primary Environmental Corridor. This proposed erosion control method may cause more damage than is needed along the areas of environmental significance. Instead of silt fence, staked waddles or erosion control rolls would also accomplish the sediment barrier and reduce the trenching near the Corridor areas.
3. Chapter 32.09(d)(2)(xiv): Inspection requirements should be added to verify that critical elements of the plan are successfully accomplished such as protecting the Primary Environmental Corridor areas, marking and protecting trees in the Corridor Areas from damage from the Contractors, installing the 2-foot thick clay liner, protecting infiltration areas, etc.

Stormwater Pollution Prevention Details and Notes C305

1. No comments.

Stormwater Pollution Prevention Details and Notes C306

1. No comments.

Overall Utility Plan C400

1. No comments.

Enlarged Utility Plan C401

1. Include note on Plan listing the system is private to the manhole connection in Tenny Avenue.

Enlarged Utility Plan C402

1. No comments.

Enlarged Utility Plan C403

1. No comments.

Water Main Plan C404 to C406

1. No comments.

Overall Striping and Signage Plan C500

1. No comments.

Signage Plan C501

1. No comments.

Overall Landscape Plan C600 to C606

1. The proposed force main route along the south and north sides of E. Sunset Avenue should be known to avoid planting trees and bushes in that pipe line route on the Drawing.
2. Proposed landscaping should remain outside of the vision triangle at the intersections with Tenny Avenue and E. Sunset Avenue.
3. Verify that proposed locations of the trees around the north pond will not compromise the pond berm.

Standard Detail Plan C700 to C704

1. Verify the design and location of the bus shelter with the Transit Division.

Photometric Plan C801

1. No comments.

ALTA Survey

2. No comments.

Storm Water Management Plan

1. The undetained area along E. Sunset Drive located east of Area 3 on the existing basin map should be added to the existing and proposed basin maps and the storm water management plan analysis.
2. Verify area used for infiltration in South pond is only in area of infiltration pond.

Storm Water Maintenance Agreement

1. Chapter 32.12: The storm water agreement should comply with said Section. The City's storm water facility easement agreement template can be sent to the Engineer.
2. Submit maintenance plan for for catch basins and environmental catch basins.
3. Chapter 32.10(e)(12)(i): Cost estimates for the installation of the proposed BMPs.
4. Chapter 32.12(b): For subdivisions, all storm water BMPs shall be located on outlots. For all privately owned outlots, ownership shall be by proportional undividable interest for all properties that are within the control of the applicant and drain to the BMP. However, the applicant may combine ownership of more than one BMP within the site. Ownership of storm water facilities shall be the same as those assigned maintenance responsibilities.

- a. Preparation of the storm water maintenance agreement will include describing the ownership boundaries of the storm water easement facilities.
5. Chapter 32.12(b)(5): Authorization for vehicle access, including a minimum 15-foot wide access easement dedicated to the local municipality and connecting to a public road right-of-way to allow for future BMP maintenance work.

Tenny Avenue Extension

Due to the timing for review, a full review of the plan set was not able to be completed in time. Additional review comments may be needed at a later date.

Overall Roadway and Sanitary Sewer Plan C1.0

1. The proposed concept plan for the intersection layout at Tenny Avenue and Les Paul Parkway (STH 164) is shown on the Drawings. Please provide written confirmation that the Wisconsin D.O.T. has been contacted and is in agreement with this intersection location and layout of Tenny Avenue. Updates to the Drawings may be needed.
2. Maximum slopes of 4:1 should be provided. Also, verify the approximate extent of filling and cutting needed for the adjoining parcels to be developed based on the initial street layout.
3. Proposed Tenny Avenue passes through existing areas of 100-year floodplain. Approvals from FEMA and compensatory storage areas will be needed.
4. City street and sanitary sewer specifications will need to be added to the Drawing Set.
5. A geotechnical report will be needed for the site development. Soil borings should at a minimum be obtained in storm water areas and at sanitary sewer manholes.
6. The City's proposed storm water pond should be shown. The layout may need to be adjusted based on the location of the City's pond.

Grading Plan 1.1 and 1.2

1. No comments.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.0

1. The water main is labeled as "Future 12" Water Main". The water main should be installed as part of this development.
2. The street pavement is shown to narrow from approximately 61 feet to 44 feet. Please verify the street cross-section with City Staff.
3. The 24 foot wide concrete bridge is shown outside of the public right-of-way. The right-of-way will need to be wider in this location.
4. Depending upon the final areas of filling and grading for street construction, the proposed right-of-way may need to be wider.
5. The concrete bridge structure selection should be reviewed with City Staff.
6. Wisconsin Department of Natural Resources permit approvals will be needed for this project. Initial discussions with DNR Staff and City Staff should begin to determine permits that are needed.
7. Existing storm sewer outfalls are shown along Les Paul Parkway. The existing inverts and pipes should be shown.

8. Storm sewer in Tenny Avenue should be shown. A culvert under Tenny Avenue may be needed.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.1

1. Medians are shown on the Drawings. Please verify the proposed street cross-section and widths with City Staff.
2. Side roads are shown outside of the right-of-way lines. Please verify the proposed development layout of private driveways or public streets with City Staff.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.2

1. The Drawings show 20 feet of proposed fill in the road areas. Appropriate compaction and soil specifications will be needed from the Geotechnical Engineer report. Maximum slopes should be 4:1.
2. Side roads are shown outside of the right-of-way lines. Please verify the proposed development layout of private driveways or public streets with City Staff.
3. The 2 foot drop in manhole #16 should be removed.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.3

1. The Drawings show 20 feet of proposed fill in the road areas. Appropriate compaction and soil specifications will be needed from the Geotechnical Engineer report. Maximum slopes should be 4:1.
2. Side roads are shown outside of the right-of-way lines. Please verify the proposed development layout of private driveways or public streets with City Staff.
3. Retaining walls are shown. Proposed wall heights should be added.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.4

1. The location of the sanitary will need to be adjusted based on the final location of the City's proposed storm water pond.
2. A paved access route should be provided to the manholes to allow City sewer cleaning and sewer television trucks access to the manholes.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.5

1. No comments.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.6

2. No comments.

Roadway and Sanitary Sewer Plan and Profile Drawing C2.7

3. No comments.

Overall Filling and Erosion Control Schematic Drawing C3.0

1. A construction sequence should be shown.

2. Compaction of potential infiltration basin areas should be avoided. Storm water infiltration areas should be reserved at this time.
3. Proposed filling is needed along the sanitary sewer but is not shown on this Drawing. Will the rough grading be completed in phases?
4. What is the proposed trucking route?
5. The erosion control plan should comply with City Ordinance Chapter 32.09(c).
6. The City's proposed storm water pond should be shown. The layout may need to be adjusted based on the location of the City's pond.

PC14 -0090 Meijer, Tenny Avenue & Sunset Drive - Certified Survey Map

1. The following items should be submitted for review and approval:
 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.
 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.
 3. The storm water management plan, construction drawings, storm water facility maintenance agreement, easements, Developer's Agreement, and Bonds should be reviewed and approved prior to approval of the Certified Survey Map (CSM). If the location of any lot lines need to be changed as a result of the approved construction drawings, the CSM should be updated to reflect the needed changes.
 4. Chapter 23.06(7)(f): Side lot lines shall be approximately at right angles or radial to the right-of-way line of the street on which the lot faces.
 - a. The lot line along lots 1 and 2 is not at a right angle to the right-of-way line.
 5. 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. These easements shall permit the utilities to extend their services within this area. Please coordinate with the applicable utilities and add the easements as requested by said utility companies to the Plat. Drainage easements should not overlap utility easements to the maximum extent practicable. If a crossing is needed, drainage easements and utility easements should cross perpendicular to each other.
 6. Chapter 32.12(b): For subdivisions, all storm water BMPs shall be located on outlots. For all privately owned outlots, ownership shall be by proportional undividable interest for all properties that are within the control of the applicant and drain to the BMP. However, the applicant may combine ownership of more than one BMP within the site. Ownership of storm water facilities shall be the same as those assigned maintenance responsibilities.
 - a. The ownership and maintenance responsibilities for the storm water facilities should be reviewed.
 7. The water main easement is listed as being granted to the City of Waukesha. The easement should be granted to the Waukesha Water Utility.
 8. The name of the Mayor should be corrected in two locations on Sheet 7 of 7.

9. Chapter 23.06(7)(h): Slope easements of not less than 10' adjacent to the right-of-way line should be indicated on the CSM. No permanent improvements should be permitted hereon until such time as the concrete sidewalk is installed, and the CSM should so indicate.
10. Wisconsin State Statute 236.20(2)(k) as referenced by 236.34(1)(c): When a street is on a circular curve, the main chords of the right-of-way lines should be drawn as dotted or dashed lines in their proper places.
11. Wisconsin State Statute 236.34(1): A mortgagee's certificate should be included if the property is mortgaged.

PC14 -0085 Schoolcare Learning Center, 101 W. Sunset - Conditional Use Permit

1. No comments.

PC14 -0092 MetalTek X-Ray Room Addition, 905 E. St. Paul Avenue, Final Site Plan & Architectural Review

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds, Fees or Agreements required by the Plan Commission and Council or Chapter 32.08(c).
 - b. Erosion Control Plan per Waukesha Ordinance Chapter 32.09(c). If over 3,000 square feet of disturbance is proposed, a Storm Water Permit is needed.
 - c. Certified Survey Map. A Certified Survey Map is needed to combine the existing lots into one or more lots for lands owned by MetalTek. Currently, the existing lot lines cross through several existing MetalTek buildings.
 - d. Permits needed for the project will include:
 - i. City of Waukesha Storm Water/Erosion Control permit.
 - e. 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.
2. 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.
3. 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. The City has public sanitary sewer on the property owned by MetalTek. The City does not desire to own or maintain sanitary sewer in easements outside of the public right-of-ways or on private property if the sewer serves only the individual parcel. In this case, the sanitary sewer main serves as a lateral to the private buildings owned by the single entity. The sanitary sewer ownership should be transferred from the City to MetalTek. A sanitary sewer easement release document should be prepared by the Applicant for the sections of sanitary sewer to be transferred. City Staff have prepared an exhibit that can be sent to the Applicant for the locations of the sewer to be transferred. A permit application and approval from the State of Wisconsin Department of Safety and Buildings should be obtained by the Applicant prior to the easement being released.

5. Another section of public sanitary sewer on the property appears to not have a recorded sanitary sewer easement in place. This section is located in line with Albert Street and extends from E. St. Paul Avenue to the Fox River. The Applicant should prepare an easement and submit the document to the City for review and approval prior to recording the document. City Staff have prepared an exhibit that can be sent to the Applicant for the locations of the sewer to be included in an easement.

PC14 -0093 Carroll University, Maxon & Lowry Hall - Certified Survey Map

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. 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.
2. The storm water management plan, construction drawings, storm water facility maintenance agreement, easements, Developer's Agreement, and Bonds should be reviewed and approved prior to approval of the Certified Survey Map (CSM). If the location of any lot lines needs to be changed as a result of the approved construction drawings, the CSM should be updated to reflect the needed changes.
3. 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. These easements shall permit the utilities to extend their services within this area. Please coordinate with the applicable utilities and add the easements as requested by said utility companies to the Plat. Drainage easements should not overlap utility easements to the maximum extent

practicable. If a crossing is needed, drainage easements and utility easements should cross perpendicular to each other.

4. Chapter 32.12: A note should be added to the CSM referencing the separately recorded Storm Water Maintenance Agreement.
5. The entire block owned by Carroll University has buildings that are crossing the existing property lines and not meeting the Zoning Ordinance requirements. As previously discussed with the Surveyor, the boundary of the CSM should be expanded to include the remaining portions of the block.
6. Wisconsin State Statute 236.34: The Section number, township and range should be listed in the legal description.
7. Wisconsin State Statute 236.20(2)(f) as referenced by 236.34(1)(c): The exact width of all easements, if applicable.
8. Wisconsin State Statute 236.20(2)(c) as referenced by 236.34(1)(c): Where the exterior boundary lines show bearings or lengths that vary from those recorded in abutting plats or certified surveys there shall be the following note placed along the lines, "recorded as (show recorded bearing or length or both)."
9. Wisconsin State Statute 236.20(2)(b) as referenced by 236.34(1)(c): The point of beginning listed in the legal description is described as a chisel mark on a sanitary sewer cover. The same point is also described as a concrete monument with brass cap. The discrepancy should be corrected.

PC14 -0097 Clearwater Apartments - Final Site Plan & Architectural PUD 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. Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Permits that are needed 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
3. A pre-construction meeting will be needed at the City of Waukesha prior to starting work.
4. Construction specifications will need to be added to the Drawing set. Additional design specifications should be added for areas of work within the City right-of-way or City easements including connecting to the sanitary sewer lateral, etc.

Construction Details Sheet C1.01

1. The City sidewalk detail should be added to the Drawings. The cross-slope of sidewalk should be 1.5%.
2. The City driveway approach detail should be added to the Drawings.

Erosion Control Plan Sheet C2.01

1. The Environmental Corridor limits should be shown.
2. 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. Trees within the Environmental Corridor should be shown if greater than 6 inches.
3. Chapter 32.09(d)(2)(xiv): Inspection requirements should be added to verify that critical elements of the plan are successfully accomplished such as protecting the Environmental Corridor and wetland areas, marking and protecting trees in the Corridor Areas if applicable from damage from the Contractor, installing the 2-foot thick clay liner, protecting infiltration areas, etc.
4. 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 32.11c. A separate map should show estimated seasonal water table depths down to planned excavation depths with references to the proposed site plan.
5. Chapter 32.10(d)(6)(E) as referenced by 32.09(c)(17): 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.
6. Chapter 32.10(e)(12)(I): Cost estimates for the installation of the proposed BMP's.

Grading Plan Overall Sheet C-2.02

1. Specifications for the grading work, clay, etc. should be added.
2. The pond design should comply with DNR Technical Standard 1002 for wet ponds.
3. Chapter 32.10(e)(7): An adequate designed structural ramp at 6:1 slope is listed in the Wisconsin DNR Technical Standards as the recommended design. The access location should be labeled.
4. Chapter 6.13 Driveways (4): The driveway width should not be greater than 35' at the curb and 30' at the sidewalk, unless the property is in a district zoned for industrial use. In a district zoned for industrial use, the driveway width cannot be greater than 50' at the curb and 45' at the property line. The total frontage of all driveways servicing the premises in any district cannot exceed 90' without approval of the Council. All driveway widths should be labeled.

5. Proposed sidewalk will be needed along all street frontages. A City Construction permit will be needed for installation. The City of Waukesha typical driveway detail can be sent for use. Spot grades should be added for along all proposed sidewalk and at the driveway entrances. An adequate amount of spot grades should be provided so the Contractor can correctly build the sidewalk to match the plan. Spot grades should be shown every 25 feet along the proposed City sidewalk. The cross-slope of all new sidewalk should be 1.5%.
6. The wetland delineation terminates midway along the west lot line of the property. A current wetland delineation is needed to verify the locations of wetlands along the entire west lot line of Lot 1, CSM 8781.
7. Verify Wisconsin DNR wetland setbacks.

Grading Plan North Section Sheet C-2.03

1. Verify if armoring is needed at concrete flumes.

Grading Plan East Section Sheet C-2.04

1. Label driveway widths.
2. Add sidewalk spot grades every 25 feet and approach spot grades.
3. The concrete curb and gutter at the driveways should be removed and replaced. Curb cuts are not allowed.
4. Verify if armoring is needed at concrete flumes.

Grading Plan East Section Sheet C-2.05

1. No comments.

Grading Plan East Section Sheet C-2.06

1. Label driveway widths.
2. Add sidewalk grades every 25 feet and approach spot grades.
3. Chapter 32.10(d)(6)(H)(i): Flows generated by the 100-year, 24-hour design storm under planned land use conditions may exceed the design capacity of conveyance systems, but should not come in contact with any buildings. The lowest elevation of the structure that is exposed to the ground surface should be a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour design storm.
 - a. Verify flow elevations near the drainage swale located west of Lot 1, CSM 8781.

Grading Plan East Section Sheet C-2.07

1. Add spot grades along curb.
2. Add specifications for work in City right-of-way.
- 3.

Grading Plan East Section Sheet C-2.08

1. Chapter 32.10(d)(6)(B) as referenced by Chapter 32.09(c)(17): Site grading should minimize adverse impacts on adjacent properties.
 - a. Show existing contours at end of Stillwater Circle. Extend 15” culvert pipe to north. Relay existing pipe with concrete. Add proposed grading to direct runoff from swale into pipe on north side of right-of-way.
 - b. Storm water should be directed into City pond as previously modeled and shown.
 - c. Chapter 32.10(c)(18): Location and descriptive notes for existing and proposed structures, including sanitary sewer, storm sewer pipes, culverts and existing utilities should be shown. Elevations and pipe sizes should be listed.
 - i. All existing pipe sizes and inverts for the South City Pond should be provided because this design information will be needed as part of the storm water management plan.
2. Prepare signage plan. Install end of roadway warning signage at end of street. Contact City Staff for sign numbers.

Site Plan Sheet C-3.01

1. No comments.

Storm Sewer System Map Sheet C-4.01

1. Add south pond outlet pipes.
2. Chapter 32.10(d)(6)(G) as referenced by Chapter 32.09(c)(17): All storm sewers should be designed in accordance with the City of Waukesha’s technical standards.
 - a. Existing storm sewer in Clear water Lane: A portion of the storm sewer runoff from the site was proposed to discharge directly into a catch basin in Clearwater Lane. The storm sewer sizing should be reviewed.

Sanitary Sewer System Map Sheet C-5.01

1. The sanitary lateral to the north buildings has a proposed 90 degree bend in the right-of-way. We recommend that the 90 degree bend be avoided due to potential future maintenance issues.

Sanitary Sewer and Water Main Plans Sheet C-5.02 to 5.04

1. No comments

Landscape Plan L 1.0

1. Drainage easements should be shown on the Landscape Plan. Tree and bushes should not typically be planted in storm water pond berms if the plantings would be within the storm water facility drainage easement. Plantings in the drainage easement are typically cleared out as part of routine maintenance.

Storm Water Management Plan

1. City Pond South of Site:
 - a. The site runoff from the site is proposed to discharge to a new pipe crossing Stillwater Circle. The pipe in Stillwater Circle is proposed to discharge south into a pond owned by the City of Waukesha located south of Stillwater Circle. The lot for the City's pond was created as part of the River's Crossing Subdivision. The Surveyor from Yaggy Colby sent the City copies of original storm sewer basin maps showing that this site proposed to be developed was included in the tributary area for the pond design. A Preliminary storm management plan analysis was completed. The analysis will need to show that the City's pond is designed to handle the flows from the existing River's Crossing tributary development and this development in accordance with the City's storm water standards. The City retrofitted the pond in 2010 to incorporate additional water quality measures. The pond will need to continue to address water quantity and water quality measures for all existing tributary areas in accordance with the City's storm water management Ordinance for the direct connection to be approved. The proposed pond size may need to increase based on the final design computations.
2. Chapter 32.10(d)(3) Infiltration: For residential developments, one of the following shall be met:
 - a. Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90% of the predevelopment infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area.
 - b. Infiltrate 25% of the post-development runoff volume from the 2-year, 24-hour design storm with a type II distribution. Separate runoff curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes, not composite curve numbers, as prescribed in section 32.11. However, when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area.
3. Chapter 32.10(d)(4)(H)(i): The lowest elevation of a structure must be a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour storm. The buildings must be set back 40 feet horizontally from the location of this high water elevation from the ponds.
 - a. This horizontal and vertical requirement should be reviewed for the homes backing on Basin A, Basin B, and Basin C. If horizontal or vertical separation requirements for Basin A or Basin B are not currently met, the separation distances should not be reduced as part of this proposed development. First floor elevations or walk-out basement elevations of homes adjacent to the ponds will need to be field survey located to verify these requirements.
 - b. Basin A and Basin B should be surveyed to verify the as-built elevations of the pond and outlet structure.

- c. The locations of the emergency spillways for each pond should be verified.
 - d. The location of the overland flow path from the site to be developed should be shown. A culvert may be needed under Stillwater Circle as part of the street restoration.
4. Chapter 32.10(e)(7): Locations, dimensions and surfacing material of proposed access lanes and delineation of easements should be shown to allow future maintenance of all storm water BMPs. The minimum width for an access easement is 15 feet. An adequate designed structural ramp at 6:1 slope is listed in the Wisconsin DNR Technical Standards as the recommended design.
 5. Chapter 32.10(b)(I): Storm water plan designs should distribute storm water bio-retention and infiltration BMP(s), if appropriate. Roof runoff should be infiltrated, if possible.
 6. Please verify the appropriate tailwater elevations to be used in the storm water analysis.
 7. The emergency overflow should be sized to handle flows if the primary outlet structure is plugged.

Storm Water Maintenance Agreement

1. No comments.

PC14-096 CLEARWATER APARTMENTS

Certified Survey Map (CSM)

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. 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.
2. The storm water management plan, construction drawings, storm water facility maintenance agreement, easements, Developer's Agreement, and Bonds should be reviewed and approved prior to approval of the Certified Survey Map (CSM). If the location of any lot lines needs to be changed as a result of the approved construction drawings, the CSM should be updated to reflect the needed changes.
3. 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. These easements shall permit the utilities to extend their services within this area. Please coordinate with the applicable utilities and add the easements as requested by said utility companies to the Plat. Drainage easements should not overlap utility easements to the maximum extent

- practicable. If a crossing is needed, drainage easements and utility easements should cross perpendicular to each other.
4. Chapter 23.06(3)(g) Subdivision and Platting: A note should be added to the CSM referencing the separately recorded Storm Water Maintenance Agreement, drainage easements and water main easements.
 5. Chapter 23.06(3)(g) Subdivision and Platting: The grantee of the easements should be listed on the CSM.
 - a. A utility easement is shown on Lot 1. The intent of the easement should be clarified.
 6. Wisconsin State Statute 236.20(2)(f) as referenced by 236.34(1)(c): The exact width of all existing easements, if applicable.
 7. Wisconsin State Statute 236.20(2)(c) as referenced by 236.34(1)(c): Where the exterior boundary lines show bearings or lengths that vary from those recorded in abutting plats or certified surveys there shall be the following note placed along the lines, “recorded as (show recorded bearing or length or both).”
 8. The Line table for the water utility easement (sheet 3) does not show L1 or L32.
 9. L21 appears to have an incorrect length. The table lists 76.38’. It appears to be closer to 150’.
 10. The starting point for the drainage easement north of the wetlands (L33-L36) cannot be determined. Lines should be added to define the limits of the easement along the boundary of the CSM. The portion of the easement along the wetlands is also not defined.
 11. A drainage easement is needed across Outlot 1.
 12. As proposed, this CSM includes one lot and one outlot. The large storm water pond is on the south Outlot 1. A deed restriction should be added so that the south Outlot 1 with the storm water pond is not sold off to another party as a later date. This note should be added to the CSM.

PC14-0094 -GOOD HARVEST MARKET, CSM

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).
 - 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.
2. The storm water management plan, construction drawings, storm water facility maintenance agreement, easements, Developer’s Agreement, and Bonds should be reviewed and approved prior to approval of the Certified Survey Map (CSM). If the location of any lot lines or easements need to be changed as a result of the approved construction drawings, the CSM should be updated to reflect the needed changes.

3. 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. These easements shall permit the utilities to extend their services within this area. Please coordinate with the applicable utilities and add the easements as requested by said utility companies to the Plat. Drainage easements should not overlap utility easements to the maximum extent practicable. If a crossing is needed, drainage easements and utility easements should cross perpendicular to each other.
4. Chapter 23.06(3)(g) Subdivision and Platting: A note should be added to the CSM referencing the separately recorded Storm Water Maintenance Agreement, drainage easements and water main easements.
5. Chapter 23.06(3)(g) Subdivision and Platting: The grantee of the easements should be listed on the CSM.
6. Wisconsin State Statute 236.20(2)(f) as referenced by 236.34(1)(c): The exact width of all existing easements, if applicable.
7. Wisconsin State Statute 236.20(2)(c) as referenced by 236.34(1)(c): Where the exterior boundary lines show bearings or lengths that vary from those recorded in abutting plats or certified surveys there shall be the following note placed along the lines, "recorded as (show recorded bearing or length or both)."
8. Wisconsin State Statute 236.20(3)(b) as referenced by 236.34(1)(c): The CSM should be shown to be referenced by bearing and distance to a section line.
9. The right-of-way widths of Silvernail Road and Meadow Lane should be listed.
10. Chapter 23.06(7): Every lot shall have a minimum frontage of 40 feet on a public street. Lot 2 only has approximately 30 feet of frontage on Meadow Lane.
11. On Sheet 2 of 17, a vacated portion of Meadow Lane is shown as part of the adjoining property. Confirm that this portion of land is not part of the lands owned by the Subdivider. If yes, the CSM boundary should be updated.
12. On Sheet 3 of 17, a 15 foot City storm sewer easement is shown. The source document for the easement should be listed.
13. On Sheet 3 and 4, a storm sewer easement is shown granted to the City of Waukesha. If this easement is intended for the developments storm water facility, the easement should be renamed to "Storm Water Drainage Easement". The boundary should be adjusted as needed depending on the final approved construction drawings.
14. An easement with document number 4084266 is shown on the CSM . A copy of this document should be submitted for review and City filing.
15. It appears that Sheet 5, 6, 9, 10 and 11 should be reconfigured to more appropriately show the site layout.
16. On Sheet 6 and 7, a storm sewer easement is shown granted to the City of Waukesha. If this easement is intended for the developments storm water facility, the easement should be renamed to "Storm Water Drainage Easement". The boundary should be adjusted as needed depending on the final approved construction drawings.

17. On Sheet 7, an emergency access easement is shown. If this easement is intended for access to inspect the ponds, the easement should be renamed "Access Easement".
18. A 20 foot sanitary sewer easement is shown on Sheet 8. The surveyor should confirm that this easement contains the City sewer if that is the intent. The easement should be aligned with the existing sanitary sewer line.
19. The access easement for Lot 2 to Silvernail Road should be added to the CSM.
20. The word "corner" should be added after W ¼ on line 1 of the legal description.
21. A 15-foot wide City access easement is needed to all ponds for inspection of the storm water facilities.

PC14-0095 EATON COOPER, 1900 E. NORTH

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).
 - b. Property Survey in accordance with Wisconsin Administrative Code A-E7
 - c. Erosion Control Plan per Chapter 32.09
 - d. 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.
2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Permits that are needed include but are not limited to:
 - a. City of Waukesha Storm Water Permit (for erosion control)
3. 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. Vehicle turning templates should be run through the site plan driveway areas to verify a fire truck, garbage trucks and delivery trucks can safely drive through the site.
5. The limits of the steel railroad track removal should be clearly shown.
6. Show existing easements on site.
7. The right-of-way lines and property lines should be shown on the Drawings.