

# MEMORANDUM

## FOCUS ENGINEERING, inc.

Cara Geheren, P.E.	651.300.4261
Jack Griffin, P.E.	651.300.4264
Ryan Stempski, P.E.	651.300.4267
Chad Isakson, P.E.	651.300.4285

Date: August 6, 2019

To: Ken Roberts, Planning Director  
Cc: Chad Isakson, P.E., Assistant City Engineer  
From: Jack Griffin, P.E., City Engineer

Re: Inwood 6th Addition – Kwik Trip  
Preliminary Plat Review

An engineering review has been completed for the Inwood 6th Addition – Kwik Trip Convenience Store. A Preliminary Plan submittal was received on July 12, 2019. The submittal consisted of the following documentation prepared by Carlson McCain:

- Inwood 6th Addition Preliminary Plat dated June 28, 2019.
- Kwik Trip Store #1078 Site Plans dated June 28, 2019.
- Kwik Trip Store #1078 Storm Water Management Plan dated June 28, 2019.

**STATUS/FINDINGS:** Engineering has prepared the following review comments based on the plans submitted.

### PRELIMINARY PLAT AND EASEMENTS

1. Outlot ownership should be identified on the Preliminary Plat and on the Preliminary Plans. Outlots A and B should be shown as Developer owned.
2. Lot lines and easements are not shown consistently between the Preliminary Plat and the Preliminary Plans. The plans must be revised to accurately reflect the proposed plat. The lot lines and easement locations may be subject to revision once they can be accurately reviewed with respect to the proposed improvements.
3. Drainage and utility easements must be provided for any public utilities constructed as part of the project, including City owned watermain and hydrants, with the easements shown on the preliminary plans.
4. Consideration should be given to adjusting the east lot line of Outlot A further west to facilitate a shared commercial driveway access between Outlot A and Outlot B. See comment #3 below for Site Plans, Traffic and Access Management.
5. Final Construction Plans and Specifications must be prepared in accordance with the latest version of the City Engineering Design Standards Manual, using City details, plan notes and specifications and meeting City Engineering Design Guidelines. The Final Construction Plans must include detailed existing condition information surrounding the plat boundaries to demonstrate that the proposed improvements match at the construction limits. Additional existing condition information is required along 5th Street North including existing small utilities, lane widths and pavement markings, existing street signs, and other features that may be impacted by the improvements.

### SITE PLANS, TRAFFIC AND ACCESS MANAGEMENT

1. Access Management Guidelines were reviewed and approved along 5th Street North as part of the Inwood PUD Preliminary Plat/Plan application process (see SRF Consulting review memo dated December 15, 2014). The Preliminary Plans were amended to eliminate access between Inwood Avenue (CSAH 13) and Irene Avenue in accordance with this memorandum. Irene Avenue is located approximately 660 feet east

of Inwood Avenue which meets the City's access spacing requirements for streets and commercial driveways along a collector roadway.

2. The Kwik Trip Store site improvements show a proposed full access commercial driveway along the south leg at Irene Avenue and an intermediate right-in/right-out access to be located approximately half way between Inwood Avenue and Irene Avenue with the construction of a right turn lane. These improvements have also been reviewed by SRF Consulting with the following recommendations:
  - The proposed full access commercial driveway at Irene Avenue is consistent with the approved preliminary plans and access spacing requirements for 5th Street north. Right and left turn lanes are already in place in anticipation of this intersection.
  - The proposed intermediate right-in commercial driveway access is acceptable with modifications to the proposed right turn lane. The right turn lane should be constructed using a 150-foot full width turn lane with 5:1 taper for a total turn lane length of 210 feet.
  - The proposed intermediate right-out commercial driveway access should be eliminated. It is recommended to design this driveway access as right-in only with internal signage directing traffic to the full driveway access intersection at Irene Avenue. A "No U-turn" sign should also be placed on eastbound 5th Street at the intersection with Irene Avenue. If a right-out access is permitted traffic safety concerns exist with vehicles attempting U-turns at Irene Avenue and 5th Street which is an uncontrolled intersection.
3. It is recommended that both the full access at Irene Avenue and the intermediate right-in access be constructed as shared commercial driveways to further manage access spacing along 5th Street North.
  - The full commercial driveway access at Irene Avenue should be constructed as a shared access to both Outlot A and Outlot B.
  - It appears from the site plans that the right-in access driveway is proposed as a shared access between Lot 1, Block 1 and Outlot A, with the lot line dividing the access road.
4. Inwood Avenue (CSAH 13) and 5th Street North Traffic Signal. A traffic impact study must be completed to review and evaluate the impacts to the intersection at Inwood Avenue (CSAH 13) and 5th Street North. A financial contribution to traffic signal should be considered.

#### MUNICIPAL WATER SUPPLY

1. The proposed property is located in the Southwest Planning MUSA and water system high pressure zone.
2. Water availability charges and connection charges will apply to the service connections. A Met Council SAC determination will be required to determine the WAC/Connection charges for each building.
3. Connection to the municipal water supply is readily available to serve this property. Based on the proposed Inwood PUD 6th Addition plat lines, the existing watermain stub for the Kwik Trip Store (Lot 1, Block 1) will now be located on the new Outlot A and may need to be extended across a portion of Outlot A to serve Lot 1, Block 1. The applicant will be required to connect, at its sole cost, to the existing 8-inch DIP stub on Outlot A, and/or the existing 16-inch HDPE pipe located along Inwood Avenue, and extend watermain and any required hydrants internal to the site.
4. The project proposes to extend a 6-inch DIP watermain internal to the site with a hydrant placed near the rear of the proposed building. The portion of the watermain internal to the site that serves a hydrant must be City owned and operated and may need to be upgraded to an 8-inch DIP pipe based on fire suppression requirements. The applicant must submit fire suppression requirements for the building to determine the size of watermain up to each hydrant.
5. The applicant will be responsible to place hydrants throughout the property at the direction of the Fire Department. All fire hydrants and connecting watermain shall be owned and maintained by the City.
6. The applicant may be required to construct a looped watermain with a second connection point, depending upon site layout, or connect to the existing 16-inch HDPE pipe located along Inwood Avenue.
7. Any watermain lines serving hydrants placed internal to the site will require minimum 30-foot easements centered over the hydrant and pipe. Easements must be dedicated to the City and be provided in the City's standard form of easement agreement.

## MUNICIPAL SANITARY SEWER

1. The proposed property is located in the Southwest Planning MUSA current Regional Sewer Staging Plan and would discharge to the MCES WONE Interceptor.
2. Sewer availability charges and connection charges will apply to the service connections. A Met Council SAC determination will be required to determine the SAC/Connection charges for each building.
3. Connection to the municipal sanitary sewer system is readily available to serve this property. The applicant will be required to connect, at its sole cost, to the existing 8-inch PVC stub that was installed to serve this property. A 6-inch diameter private sewer service is proposed to be extended internal to the site to serve the Kwik Trip Store. No public sanitary sewer mains are proposed to be extended internal to the site.
4. Based on the proposed Inwood PUD 6th Addition plat lines, the existing sanitary sewer stub for the Kwik Trip Store (Lot 1, Block 1) will now be located on the new Outlot A and will need to be extended across a portion of Outlot A to serve Lot 1, Block 1. A private sewer service easement may be needed between the property owners of Outlot A and Lot 1, Block 1.

## STORMWATER MANAGEMENT

1. A State and South Washington Watershed District (SWWD) permit will be required. The site plan is subject to a storm water management plan meeting State, SWWD and City rules and regulations.
2. The storm water management report indicates that the existing storm water facilities for this property, located just south of the property, have been designed for Lot 1, Block 1 and Outlot A to each be 75% impervious. The narrative also indicates that the proposed Kwik Trip site (Lot 1, Block 1) is proposed to be 70% impervious. Therefore, no additional storm water BMPs are proposed. Preliminary Plat approval should be contingent upon verification of these assumptions by the SWWD and City storm water consultant.
3. The applicant is proposing a private storm sewer system internal to the commercial site to collect and convey storm water runoff. The storm water will be discharged to the City owned storm water pond and infiltration basin located to the south of the proposed site. This system was constructed as part of the Inwood PUD development and will be turned over to the City upon acceptance of the Inwood PUD 1st Addition development improvements.
4. A new (2nd) storm water discharge location to the existing storm water pond is proposed. A sump manhole is shown on the plans as required with a SNOUT oil and debris stop device. The sump manhole and SNOUT device should be relocated from manhole #102 to manhole #101.
5. The storm sewer system constructed for this development should remain privately owned and maintained. The applicant will be required to execute and record a Stormwater Maintenance and Easement Agreement in the City's standard form of agreement. The agreement should provide a maintenance plan defining the maintenance responsibilities for the private owner, the type of maintenance and the maintenance intervals, including the SNOUT oil and debris stop device.
6. The storm sewer minimum pipe size should be 15-inch diameter pipe.