

# MEMORANDUM

## FOCUS ENGINEERING, inc.

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Date: February 18, 2019

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

Re: Four Corners 2nd Addition  
Preliminary Plan Engineering Review

An engineering review has been completed for the Four Corners 2nd Addition Preliminary Plat/Plans received on January 31, 2019. The submittal consisted of the following documentation:

- Four Corners 2nd Addition Preliminary Plat, dated 01.25.2019, prepared by Folz Freeman Surveying (FFS).
- Four Corners 2nd Addition Preliminary Plat Narrative, dated 01.25.2019, prepared by FFS.
- Four Corners 2nd Addition Right-of-Way Vacation/Jurisdiction, dated 01.22.2019, prepared by FFS.
- Four Corners 2nd Addition Lake Elmo Easement Vacation Request, dated 01.23.2019, prepared by FFS.
- Four Corners 2nd Addition MnDOT Right-of-Way Vacation Request, dated 01.23.2019, prepared by FFS.
- Four Corners 2nd Addition Hudson Blvd Realignment & Trunk Utility Extension Plans, dated 01.25.2019, prepared by Larson Engineering.
- Four Corners 2nd Addition Stormwater Management Plan, dated 01.25.2019, prepared by Larson Engineering.
- Geotechnical Evaluation Report for Metro Transit Park & Ride, dated 04.20.2017, prepared by Braun Intertec.

### STATUS/FINDINGS: Engineering has prepared the following review comments:

#### PRELIMINARY PLAT AND EASEMENTS

- Preliminary plat approval should be contingent upon all public improvements being designed and constructed in accordance with the [City Engineering Design Standards Manual](#).
- Preliminary plat approval should also be contingent upon the preliminary plans being revised and approved by the City prior to the City accepting an application for any phase of final plat.
- Outlots A, B, and C are proposed to be owned by EN Properties. Outlots have been labeled on some plans but must also be identified on the street, utility and grading plans.
- A drainage and utility easement must be provided over all of Outlot C. The Outlot C drainage easement will allow for City maintenance of the storm water BMPS and storm sewer system. The drainage and utility easement must be shown on the Preliminary Plat and Preliminary Plans.
- The storm water management plan submitted with this application is incomplete and is subject to City, VBWD, and MnDOT review once finalized. Preliminary Plat approval must be contingent upon revised Preliminary Plans that provide for a storm water management plan meeting State, VBWD and City rules.
- The Preliminary Plat must be contingent upon revised Preliminary Plans to address plan revisions required by Washington County, including the dedication of additional right-of-way along Manning Avenue, if required, sight triangle right-of-way if required, and additional intersection improvements at Hudson Boulevard and Manning Avenue (CSAH-15), if required.
- The Preliminary Plat identifies a proposed off-site roadway and utility easement to be acquired from the adjacent property north of the plat to accommodate the Hudson Boulevard realignment at the

intersection with Manning Avenue (CSAH-15). The roadway and utility easement must be submitted as part of the final plat application.

- The Preliminary Plat identifies a proposed roadway and utility easement with 80-foot right-of-way to be provided to facilitate a public street connection from the adjacent property to the north to Hudson Boulevard at the first intersection west of Manning Avenue (CSAH 15). The roadway and utility easement must be submitted as part of the final plat application.
- Additional drainage and utility easements must be identified and shown on the Preliminary Plat and Construction Plans (street, utility and grading plans).
  - Add drainage and utility easements for the drainage ditch on the north side of Hudson Boulevard.
  - Add drainage and utility easements for the street culvert 100-year HWL.
  - Add drainage and utility easement for the storm sewer pipe stub from STMH18 (see comment below).
  - Add drainage and utility easement for the storm sewer pipe stub from CB27 (see comment below).
- Written landowner permission must be submitted as part of the final plat applications for any off-site grading work, easements and storm water discharges to adjacent properties.

#### PRELIMINARY CONSTRUCTION PLANS

- C0.1. Construction Phasing. The Preliminary Plans must be revised to better detail the construction phasing between street construction and storm water management.
- C2.0. Realign water/sewer per attached exhibit.
- C2.0 -C2.1. Revise the sanitary sewer and watermain stub pipe sizes to 24-inch sanitary sewer and 12-inch watermain at STA 26+00, extending to the northwest.
- C3.0. Revise the street widths to 40 feet for both westerly street stubs.
- C4.0. Label all FES structures. Add storm sewer chart to the plans with pipe cover and pipe velocities.
- C4.0. Extend the storm sewer pipe stub from STMH18 to 15 feet from the bituminous trail to avoid trail excavation during future extension of pipe.
- C4.0. Revise STMH18 to a catch basin to eliminate the manhole in the drive lane.
- C4.1. Extend the storm sewer pipe stub from CB27 to 15 feet from the bituminous trail to avoid trail excavation during future extension of pipe.
- C4.1. Extend the bituminous trail to the paved surface along Manning Avenue and extend the concrete curb through the radius with a pedestrian ramp.
- C4.2. Add sight triangles at the intersection with Manning Avenue as required by Washington County.
- C4.3. Revise Typical Sections as follows:
  - Locate trail 2-feet from right-of-way.
  - Revise paved rural section shoulder from 5-feet to 6-feet.
  - Remove pavement section details for the bituminous trail and add note "see City Standard Detail 509".
  - Add 10-foot utility easement on south side for typical section from 11+50 to 14+88.
- C4.4. Revise Typical Sections to add note for trail pavement section to "see City Standard Detail 509".
- C5.0-C5.2. Add street stationing to the signing and pavement marking plans.
- C5.0-C5.2. Add dimensions and notes for the location and placement of all pavement markings.
- C5.0. Add City standard plan notes for signing and pavement markings.
- C5.0. Revise sign schedule to identify MUTCD sign codes and sign sizes.
- C5.1. Add Type III barricades (2 each) at the end of both stub streets and update sign schedule.
- C6.0. Minimum standard ditch grade is 2% for positive drainage. Revise the drainage ditch grading along the north boulevard to eliminate flat areas and standing water.
- C6.0. Add drainage easements for the proposed drainage ditch on the north side of Hudson Boulevard.
- C6.0. Additional borings are required for each infiltration basin. A minimum of 2 borings are required per basin and must be obtained from within the actual proposed basin location. Additional borings are required for basins larger than 10,000 square feet (see engineering design standards manual).
- C7.0. Revise vertical curve at STA 31+47. The City standard minimum K-value for 45 mph sag curve is 79.