

DATE: February 26, 2007  
TO: Plan Commission  
FROM: Larry D. Nelson, P.E., City Engineer  
SUBJECT: 444 Grand Canyon Drive Conditional Use

The City Engineering Division has reviewed the subject development and has the following comments.

**MAJOR OR NON-STANDARD REVIEW COMMENTS** (Comments which are special to the project and/or may require additional work beyond a standard, more routine project.)

1. N/A
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### GENERAL OR STANDARD REVIEW COMMENTS

In addition, we offer the following General or Standard Review Comments:

**Engineering Division Review of Planned Community Developments, Planned Unit Developments  
and Conditional Use Applications.**

Name: 444 Grand Canyon Drive Conditional Use

#### General

- 1.1 The construction of this building will require removal and replacement of sidewalk, curb and gutter and possibly other parts of the City's infrastructure. The applicant shall enter into a City / Developer agreement for the improvements required for this development. The applicant shall be required to provide deposits to cover City labor and materials and surety to cover the cost of construction. The applicant shall meet with the City Engineer to schedule the development of the plans and the agreement. The City Engineer will not sign off on this project without the agreement executed by the developer. The developer shall sign the Developer's Acknowledgement prior to the City Engineer signing off on this project.
- 1.2 The site plan shall identify lot and block numbers of recorded Certified Survey Map or Plat.
- 1.3 The site plan shall include all lot/ownership lines, existing building locations, proposed building additions, demolitions, parking stalls, driveways, sidewalks (public and/or private), existing and proposed signage, existing and proposed utility locations and landscaping.
- 1.4 The site plan shall identify the difference between existing and proposed impervious areas.
- 1.5 The site plan shall reflect a proper street address of the property as reflected by official City of Madison Assessor's and Engineering Division records.
- 1.6 The site plan shall include a full and complete legal description of the site or property being subjected to this application.

#### Right of Way / Easements

- 2.1 The Applicant shall Dedicate a \_\_\_\_\_ foot wide strip of Right of Way along \_\_\_\_\_,
- 2.2 The Applicant shall Dedicate a \_\_\_\_\_ foot wide strip of Right of Way along \_\_\_\_\_.
- 2.3 The Applicant shall Dedicate a Permanent Limited Easement for grading and sloping \_\_\_\_\_ feet wide along \_\_\_\_\_
- 2.4 The City Engineer has reviewed the need for pedestrian and bicycle connections through the development and finds that no connections are required.
- 2.5 The Applicant shall Dedicate a Permanent Limited Easement for a pedestrian / bicycle easement \_\_\_\_\_ feet wide from \_\_\_\_\_ to \_\_\_\_\_.
- 2.6 The Developer shall provide a private easement for public pedestrian and bicycle use through the property running from \_\_\_\_\_ to \_\_\_\_\_.
- 2.7 The developer shall be responsible for the ongoing construction and maintenance of a path within the easement. The maintenance responsibilities shall include, but not be limited to, paving, repaving, repairing, marking and plowing. The developer shall work with the City of Madison Real Estate Staff to administer this easement. Applicable fees shall apply.

**Streets and Sidewalks**

- 3.1 The Applicant shall execute a waiver of notice and hearing on the assessments for the improvement of [roadway] \_\_\_\_\_ in accordance with Section 66.0703(7)(b) Wisconsin Statutes and Section 4.09 of the MGO.
- 3.2 **Value of sidewalk installation over \$5000.** The Applicant shall Construct Sidewalk to a plan approved by the City Engineer along \_\_\_\_\_.
- 3.3 **Value of sidewalk installation under \$5000.** The Applicant shall install public sidewalk along \_\_\_\_\_. The Applicant shall obtain a Street Excavation Permit for the sidewalk work, which is available from the City Engineering Division. The applicant shall pay all fees associated with the permit including inspection fees. All work must be completed within six months or the succeeding June 1, whichever is later.
- 3.4 The Applicant shall execute a waiver of their right to notice and hearings on the assessments for the installation of sidewalk along [roadway] \_\_\_\_\_ in accordance with Section 66.0703(7)(b) Wisconsin Statutes and Section 4.09 of the MGO.
- 3.5 The Applicant shall grade the property line along \_\_\_\_\_ to a grade established by the City Engineer. The grading shall be suitable to allow the installation of sidewalk in the future without the need to grade beyond the property line. The Applicant shall obtain a Street Excavation permit prior to the City Engineer signing off on this development.
- 3.6 The Applicant shall close all abandoned driveways by replacing the curb in front of the driveways and restoring the terrace with grass.
- 3.7 **Value of the restoration work less than \$5,000. When computing the value, do not include a cost for driveways. Do not include the restoration required to facilitate a utility lateral installation.** The Applicant's project requires the minor restoration of the street and sidewalk. The Applicant shall obtain a Street Excavation Permit for the street restoration work, which is available from the City Engineering Division. The applicant shall pay all fees associated with the permit including inspection fees.
- 3.8 The Applicant shall make improvements to \_\_\_\_\_ in order to facilitate ingress and egress to the development. The improvement shall include a (Describe what the work involves or strike this part of the comment.) \_\_\_\_\_
- 3.9 The Applicant shall make improvements to \_\_\_\_\_. The improvements shall consist of \_\_\_\_\_
- 3.10 The approval of this Conditional Use does not include the approval of the changes to roadways, sidewalks or utilities. The applicant shall obtain separate approval by the Board of Public Works and the Common Council for the restoration of the public right of way including any changes requested by developer. The City Engineer shall complete the final plans for the restoration with input from the developer. The curb location, grades, tree locations, tree species, lighting modifications and other items required to facilitate the development or restore the right of way shall be reviewed by the City Engineer, City Traffic Engineer, and City Forester.
- 3.11 The Applicant shall provide the City Engineer with a survey indicating the grade of the existing sidewalk and street. The Applicant shall hire a Professional Engineer to set the grade of the building entrances adjacent to the public right of way. The Applicant shall provide the City Engineer the proposed grade of the building entrances. The City Engineer shall approve the grade of the entrances prior to signing off on this development.
- 3.12 The Applicant shall replace all sidewalk and curb and gutter which abuts the property which is damaged by the construction or any sidewalk and curb and gutter which the City Engineer determines needs to be replaced because it is not at a desirable grade regardless of whether the condition existed prior to beginning construction.

- 3.13 The Applicant shall obtain a privilege in streets agreement for any encroachments inside the public right of way. The approval of this development does not constitute or guarantee approval of the encroachments.
- 3.14 The Applicant shall provide the City Engineer with the proposed soil retention system to accommodate the restoration. The soil retention system must be stamped by a Professional Engineer. The City Engineer may reject or require modifications to the retention system.
- 3.15 The Applicant shall complete work on exposed aggregate sidewalk in accordance with specifications provided by the city. The stone used for the exposed aggregate shall be approved by the City. The Construction Engineer shall be notified prior to beginning construction. Any work that does not match the adjacent work or which the City Construction Engineer finds is unacceptable shall be removed and replaced.
- 3.16 All work in the public right-of-way shall be performed by a City licensed contractor.
- 3.17 Installation of "Private" street signage in accordance with 10.34 MGO is required.

**Storm Water Management**

- 4.1 The site plans shall be revised to show the location of all rain gutter down spout discharges.
- 4.2 Storm sewer to serve this development has been designed and constructed. The site plans shall be revised to identify the location of this storm sewer and to show connection of an internal drainage system to the existing public storm sewer.
- 4.3 The plan set shall be revised to show a proposed private internal drainage system on the site. This information shall include the depths and locations of structures and the type of pipe to be used.
- 4.4 The applicant shall show storm water "overflow" paths that will safely route runoff when the storm sewer is at capacity.
- 4.5 The applicant shall demonstrate compliance with Section 37.07 and 37.08 of the Madison General Ordinances regarding permissible soil loss rates. The erosion control plan shall include Universal Soil Loss Equation (USLE) computations for the construction period. Measures shall be implemented in order to maintain a soil loss rate below 7.5-tons per acre per year.
- 4.6 The City of Madison is an approved agent of the Department of Commerce. This proposal contains a commercial building and as such, the City of Madison is authorized to review infiltration, stormwater management, and erosion control on behalf of the Department of Commerce. No separate submittal to Commerce or the WDNR is required.
- 4.7 This development includes multiple building permits within a single lot. The City Engineer and/or the Director of the Inspection Unit may require individual control plans and measures for each building.
- 4.8 If the lots within this site plan are inter-dependent upon one another for stormwater runoff conveyance, and/or a private drainage system exists for the entire site an agreement shall be provided for the rights and responsibilities of all lot owners. Said agreement shall be reviewed and placed on file by the City Engineer, referenced on the site plan and recorded at the Dane Co Register of Deeds.
- 4.9 Prior to approval, this project shall comply with Chapter 37 of the Madison General Ordinances regarding stormwater management. Specifically, this development is required to:
  - Detain the 2 & 10-year storm events.
  - Detain the 2, 10, & 100-year storm events.
  - Control 40% TSS (20 micron particle).
  - Control 80% TSS (5 micron particle).
  - Provide infiltration in accordance with NR-151.
  - Provide substantial thermal control.
  - Provide oil & grease control from the first 1/2" of runoff from parking areas.

Stormwater management plans shall be submitted and approved by City Engineering prior to sign-off.

- 4.10 The plan set shall be revised to show more information on proposed drainage for the site. This shall be accomplished by using spot elevations and drainage arrows or through the use of proposed contours. It is necessary to show the location of drainage leaving the site to the public right-of-way. It may be necessary to provide information off the site to fully meet this requirement.
- 4.11 A portion of this project comes under the jurisdiction of the US Army Corp of Engineers and WDNR for wetland or flood plain issues. A permit for those matters shall be required prior to construction on any of the lots currently within the jurisdictional flood plain.
- 4.12 The Applicant shall submit, prior to plan sign-off, a digital CAD file (single file) to the Engineering Program Specialist in the Engineering Division (Lori Zenchenko). The digital CAD file shall be to scale and represent final construction. The single CAD file submittal can be either AutoCAD (dwg) Version 2001 or older, MicroStation (dgn)

Version J or older, or Universal (dxf) format and contain the following data, each on a separate layer name/level number:

- a) Building Footprints
- b) Internal Walkway Areas
- c) Internal Site Parking Areas
- d) Other Miscellaneous Impervious Areas (i.e. gravel, crushed stone, bituminous/asphalt, concrete, etc.)
- e) Right-of-Way lines (public and private)
- f) Lot lines
- g) Lot numbers
- h) Lot/Plat dimensions
- i) Street names

NOTE: Email file transmissions preferred [lzenchenko@cityofmadison.com](mailto:lzenchenko@cityofmadison.com) . Include the site address in this transmittal.

- 4.13 NR-151 of the Wisconsin Administrative Code will be effective on October 1, 2004. Future phases of this project shall comply with NR 151 in effect when work commences. Specifically, any phases not covered by a Notice of Intent (NOI) received from the WDNR under NR-216 prior to October 1, 2004 shall be responsible for compliance with all requirements of NR-151 Subchapter III. As most of the requirements of NR-151 are currently implemented in Chapter 37 of the Madison General Ordinances, the most significant additional requirement shall be that of infiltration.

NR-151 requires infiltration in accord with the following criteria. For the type of development, the site shall comply with one of the three (3) options provided below:

Residential developments shall infiltrate 90% of the predevelopment infiltration amount, 25% of the runoff from the 2-year post development storm or dedicated a maximum of 1% of the site area to active infiltration practices.

Commercial development shall infiltrate 60% of the predevelopment infiltration amount, 10% of the runoff from the 2-year post development storm or dedicate a maximum of 2% of the site area to active infiltration practices.

- 4.14 The applicant shall submit, prior to plan sign-off, digital PDF files to the Engineering Division (Jeff Benedict or Tim Troester). The digital copies shall be to scale, and shall have a scale bar on the plan set.

PDF submittals shall contain the following information:

- a) Building footprints.
- b) Internal walkway areas.
- c) Internal site parking areas.
- d) Lot lines and right-of-way lines.
- e) Street names.
- f) Stormwater Management Facilities.
- g) Detail drawings associated with Stormwater Management Facilities (including if applicable planting plans).

- 4.15 The Applicant shall submit prior to plan sign-off, electronic copies of any Stormwater Management Files including:

- a) SLAMM DAT files.
- b) RECARGA files.
- c) TR-55/HYDROCAD/Etc...
- d) Sediment loading calculations

If calculations are done by hand or are not available electronically the hand copies or printed output shall be scanned to a PDF file and provided.

- 4.16 The area adjacent to this proposed development has a known flooding risk. All entrances shall be 2-feet above the adjacent sidewalk elevation or 1-foot above the 100-year regional flood elevation (whichever is greater). This includes garage entrances.

#### Utilities General

- 5.1 The Applicant shall obtain a Street Excavation permit for the installation of utilities required to serve this project. The Applicant shall pay the permit fee, inspection fee and street degradation fee as applicable and shall comply with all the conditions of the permit.
- 5.2 The applicant shall obtain all necessary sewer connection permits and sewer plugging permits prior to any utility work.
- 5.3 All proposed and existing utilities including gas, electric, phone, steam, chilled water, etc shall be shown on the plan.
- 5.4 The applicant's utility contractor shall obtain a connection permit and excavation permit prior to commencing the storm sewer construction.
- 5.5 The site plans shall be revised to show the location of existing utilities, including depth, type, and size in the adjacent right-of-way.
- 5.6 The developer shall provide information on how the Department of Commerce's requirements regarding treatment

of storm water runoff, from parking structures, shall be satisfied prior to discharge to the public sewer system. Additionally, information shall be provided on which system (storm or sanitary) the pipe shall be connected to.

#### **Sanitary Sewer**

- 6.1 Prior to approval of the conditional use application, the owner shall obtain a permit to plug each existing sanitary sewer lateral that serves a building that is proposed for demolition. For each lateral to be plugged the owner shall deposit \$1,000 with the City Engineer in two separate checks in the following amounts: (1). \$100 non-refundable deposit for the cost of inspection of the plugging by City staff; and (2). \$900 for the cost of City crews to perform the plugging. If the owner elects to complete the plugging of a lateral by private contractor and the plugging is inspected and approved by the City Engineer, the \$900 fee shall be refunded to the owner.
- 6.2 All outstanding Madison Metropolitan Sewerage District (MMSD) and City of Madison sanitary sewer connection charges are due and payable prior Engineering sign-off, unless otherwise collected with a Developer's / Subdivision Contract. Contact Janet Dailey (608-261-9688) to obtain the final MMSD billing a minimum of two (2) working days prior to requesting City Engineering signoff.
- 6.3 Each unit of a duplex building shall be served by a separate and independent sanitary sewer lateral.
- 6.4 The site plan shall be revised to show all existing public sanitary sewer facilities in the project area as well as the size and alignment of the proposed service.