REQUEST FOR EXCEPTION TO
RAPID CITY DESIGN STANDARD / CRITERIA / REGULATIONS

PROJECT: West Minnesota Street Extension and Subdivision

DATE: 5-21-19

SUBMITTED BY: Kyle Trelor, Dream Design International, Inc.

PIN #: 10980

kyle@dreamdesigninc.com 605-791-5866

LEGAL DESCRIPTION:
N1/2SE1/4 Less ROW; N1/2S1/2SE1/4 located in Section 14
T1N, R7E, BHM, Rapid City, Pennington County, SD

EXCEPTION REQUESTED: SECTION 2.6 STD / CRITERIA / REG Criteria

DESCRIPTION OF REQUEST: To allow more than 40 dwelling units with one access point.
The request is to allow 52 units to access a cul-de-sac, of which 49 lots are proposed on the subject property.

JUSTIFICATION:
The property has widely varying elevation and no reasonable location for a second access or looped street construction. The development will be similar in nature to those already platted in the area. A fire sprinkler agreement will also be recorded on the lots as discussed with the RCFD.

SUPPORTING DOCUMENTATION:

PROPERTY OWNER'S SIGNATURE**: Edward J. Lee DATE: 5/24/19

**Or Agent, if previously designated by the Owner in Writing.

STAFF COMMENTS: Per IDCMD Section 2.6, only City Council has authority to approve greater than 40 dwelling units with one access.

STAFF RECOMMENDATION: Deny, see attached letter.

REVIEWED BY: DATE: 6/14/19

APPROVED: [ ] DENIED: X

COMMUNITY PLANNING DIRECTOR

APPROVED: [ ] DENIED: [ ]

PUBLIC WORKS DIRECTOR

APPROVED: [ ] DENIED: [ ]

FILE #: 19EX090

ASSOCIATED FILE #: 19PL049

Copy to Utility Maintenance: ___ Copy to Water: ___ Copy to Waste Water: ___ Copy to Streets: ___ Copy to Traffic: ___ Copy to Construction: ___

RECEIVED
MAY 28 2019
ENGINEERING SERVICES

Revised 07/1/14
June 14, 2019

KTM Design Solutions
Kyle Treloar
528 Kansas City Street, Suite 4
Rapid City, SD 57701

Re: Exception File No. 19EX090

Dear Kyle Treloar:

Enclosed please find a copy of the original exception request that was filed with the assigned file number and the decision details.

In the event that an exception request is denied, the Director of Public Works or the Director of Community Planning will advise the applicant of such denial in writing. Any applicant that disputes the denial of an exception may appeal such denial. In order to appeal the denial the applicant shall file a written request of appeal to the Director within ten (10) working days of the denial. The appeal will be placed on the next Public Works Committee agenda, which will then go to The City Council for final consideration.

If you have any questions or need additional information, please contact our office at 605-394-4154.

Sincerely,

Kelly Langenbau
Kelly Langenbau
Administrative Secretary

Enclosure
June 14, 2019

Kyle Treloar
Dream Design International, Inc.
520 Kansas City Street
Rapid City, SD 57701

Re: Request for Exception to allow for 52 dwelling units with one point of access.
Associated with Minnesota Ridge #2 Subdivision
City File # 19EX090, Related Files 19PL049

Dear Kyle,

The Request for Exception to Section 2.6 of the City of Rapid City Infrastructure Design Criteria Manual (IDCM) to allow for 52 dwelling units with one point of access is denied.

IDCM Section 2.6 states "A street with a single access shall not be used for more than forty (40) dwelling units. A second access shall be provided when more than forty (40) dwelling units are accessed from a street. A second access means shall be a natural extension of the street system. The second access shall be configured such that emergency responders and the public have a second route to the property or exit from the property if one route is blocked. The number of dwelling units shall be determined as being the combination of all development(s) gaining access from the street. This requirement shall apply to all developments, including phased projects. No additional development shall be allowed on any street currently exceeding forty (40) dwelling units, unless a second street access is provided or the Rapid City Council has approved an exception."

The denial of this exception request may be appealed to the City Council by requesting it be placed on the next Public Works Committee agenda. The City Council has final approval of exception requests. In order to appeal the denial the applicant shall file a written request of appeal to the Public Works Director within 10 working days of the denial. Please contact the Public Works Engineering Department if you desire to appeal.

Sincerely,

City of Rapid City

[Signature]

Dan Kools, P.E., P.L.S., CPESC
Project Engineer

EQUAL HOUSING OPPORTUNITY EMPLOYER
June 14, 2019

Rapid City Fire Department Comments regarding the proposed Minnesota Ridge #2 Subdivision.

19PL049

The following listed items will address the significant project features which impact the fire and life safety of the proposed subdivision. The Rapid City Fire Department understands the development goals, as well as the topographic and access issues. The following comments and mitigating options are intended to allow the fire department to support the development.

1) Greater than 20 dwelling units on a cul-de-sac, greater than 40 served by a single point of access, cul-de-sac greater than 1500 foot with no intermediate turnarounds, and a single dead end water main. As noted in the exception requests (3) fire sprinkler protection agreement will be recorded for all lots.
   a. Fire sprinkler protection is an acceptable and preferred option for this development to offset the noted items in the exception requests.

2) The development is considered a high wild land fire hazard area, and given the previously noted exception requests the fire department will stipulate the following provisions. The intent of the following items is to reduce or mitigate the wildland fire risk and create a survivable environment for lives and structures within the development.
   a. Coordinate with the fire department to plan and execute the thinning and removal of combustible vegetation throughout the 119+/- acres with an emphasis around the developed lots. It would appear that the services of a qualified logging contractor could be utilized to properly remove selected vegetation and create a manageable and healthy forest.
   b. The second item is addressing the construction materials and vegetation for the homes to be erected on each lot. This will include a landscape plan which utilizes fire resistant vegetation and landscaping methods. In addition exterior building materials such as roofing, decks and siding are also expected to be of
acceptable fire resistive materials, which are expected to resist ignition under typical wildland fire conditions. Attached for reference is the Rapid City Fire Department (WUI) Wild Land Urban Interface Standard- 2017.

3) Fire Flows, based upon the fire sprinkler protected structures and wildland urban interface provisions being utilized, a minimum fire flow of 1000 gpm at 20 psi residual would be required in most locations.

Please contact the Rapid City Fire Department Fire and Life Safety Division with any questions or comments regarding these provisions.

Respectfully,

Timothy D. Behlings
Division Chief / Fire Marshal
Fire and Life Safety Division
Rapid City Fire Department
605-390-4511 Cell
605-394-5233 X 6102

RAPID CITY WILDLAND URBAN INTERFACE STANDARD CONCERNING WILDLAND FIRE MITIGATION AND SAFETY

The Purpose of the Standard:
The City of Rapid City desires to provide an environment safe from wildfire while maintaining the aesthetic qualities of the native hillside by adopting wildfire risk reduction standards for all new building construction or reconstruction; and

Structures within the Wildland Urban Interface Zone are at a high risk of damage or destruction should a wildland fire occur; and

Fuels management standards for structures within the Wildland Urban Interface Zone will reduce combustible materials from areas around structures and residences; and

Standards related to fire resistive materials for roofs within the Wildland Urban Interface Zone will diminish the fire risk of residences that are exposed to airborne embers or that are threatened by wildland fires; and

Standards concerning ignition resistant construction for exterior portions of structures such as eaves, soffits, windows, doors, gutters, and decks for structures within the Wildland Urban Interface Zone will decrease the danger of fire damage from airborne embers from wildland fires and will prevent these structures from fueling the wildland fire; and
Reducing the amount of combustible material around structures and decreasing the use of combustible materials on the exteriors of structures will decrease the amount of fuel for a wildland fire, decrease the danger of ignition from airborne embers, and limit the possible damage to structures within the City from wildland fires;

The City believes it to be in the interest of public safety, health and welfare to adopt standards concerning fuels management, permissible roofing materials, allowable structure materials, and structure protection for structures within the wildland urban interface zone.

Wildland Urban Interface Mitigation Standards for the Identified Wildland Urban Interface Zone

A. Scope.

1. As it is the City’s desire to provide an environment safe from wildfire while maintaining the aesthetic qualities of the native hillside, the following wildfire risk reduction standards shall be recommended for all new building construction or reconstruction in the Wildland Urban Interface Zone.

2. As it is in the City’s best interest to educate citizens on the dangers of wildfire and the proper mitigation techniques, the Rapid City Fire Department will make specification and guidance material available.

B. Definitions.

1. WILDLAND URBAN INTERFACE ZONE – the geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels designated by the Rapid City Fire Department as a high hazard area with respect to wildland fire behavior. The boundaries of the wildland urban interface zone are available from the Fire Code Official, and are determined by the affected properties proximity to hazardous fuel types, topography, and heavy fuel loading consistent with severe fire behavior and significant fire brand production during wildfires. Any expansion of the Wildland Urban Interface Zone boundaries shall be recommended by the Fire Code Official and approved by the Common Council.

2. FUELS MANAGEMENT - the modification of landscaping and all vegetation within the Home Ignition Zones which include Zone 1, Zone 2, and Zone 3. These fuels management standards are intended to protect structures from wildfire as well as to reduce fire from spreading to the wildland.

3. ZONE 1 – the area within 30 feet of the main structure or significant accessory structures, not to extend beyond the property line.
4. ZONE 2 – the area beginning 30 feet from the structure and extending to 100 feet, not to extend beyond the property line.

5. ZONE 3 – the area beginning 100 feet from the structure and extending to 200 feet, not to extend beyond the property line.

6. FLAME SPREAD INDEX CLASS A,B,C – A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E 84 and UL 723.

7. CLASS A, B ROOF COVERING – Pass fail product stand-alone test measuring penetration of flame in accordance with ASTM E 108 and UL 790.

8. IGNITION RESISTANT – Any Product designed for exterior exposure that, when tested in accordance with applicable standards, has a flame spread of not more than 25, shows no evidence of progressive combustion, and whose flame front does not progress more than 10 1/2 feet beyond the centerline of the burner at any time during the extended 30 minute test outlined in ASTM E 84 and UL 723 in accordance with ASTM D 2898 Accelerated Weathering.

9. NONCOMBUSTIBLE – Any material that will not ignite and burn when subjected to fire nor will add appreciable heat to an ambient fire. “Noncombustible” does not apply to surface finish materials.

10. FIRE RESISTIVE – Any material designed to provide reasonable protection against fire.

11. CHARACTER TREES - Character trees shall be defined as existing, mature over story trees that are unique to the site: e.g. species specific or large diameter (more than 12 inches) or wildlife essential (nesting habitat). Examples include all deciduous trees, large older growth pines, and spruce trees.

12. COMBUSTIBLE BRUSH, TREES, SHRUBS - Combustible species include junipers, cedars, small pines growing in thick pockets, and other species with high concentrations of flammable resins present within the plant.

13. SLOPE – The variation of terrain from the horizontal; the number of feet rise or fall per 100 feet measured horizontally, expressed as a percentage.

C. Wildfire Mitigation. Wildfire risk reduction techniques shall include fire resistant roofing materials which are class A (excluding solid wood roofing products) for all residential occupancies, a minimum class B on all other occupancies, fire resistive construction materials, and fuels management measures. Within the Wildland Urban Interface Zone, fuels management standards shall be utilized within Zone 1, Zone 2, and Zone 3 of applicable new building construction.
D. Direct correction. Where conditions exist that are deemed hazardous to life and property, the fire code official or building code official may require correction of such hazardous conditions that are in violation of this standard.

E. Fuels Management Standards.

1. Zone 1. Brush patches or clusters not exceeding 100 square feet in size such as Buffalo Berry, chokecherry, or other suitable fire-resistive vegetation listed on the Firewise plant list for Western South Dakota may be left, or planted, or allowed to grow in the Zone 1, but shall be separated by clear areas of 10 feet or more of noncombustible materials or grass in this zone mowed to not more than four inches in height. The Firewise plant list for Western South Dakota is available from the Fire Code Official. Trees in this zone shall be provided a distance between crowns of adjacent trees of not less than 20 feet. Note: Canopy spacing of not less than 30 feet is recommended in Zone 1.

2. Clearance to Main Structure and Appurtenances. No combustible brush, trees or shrubs such as cedar, conifers, and junipers shall be allowed to be left, or planted, or allowed to grow within 15 feet of the main structure and significant accessory structures such as sheds, decks, and pergolas. The trunks of deciduous trees and character trees may be allowed to be planted or left within 15 feet from structures. Ground cover within 2ft of the main structure, including the footprint on decks and all extensions, shall be noncombustible; including well irrigated lawn not more than four inches in height.

3. Clearance of Tree Branches to Structures or Appurtenances. Character tree branches shall not extend under the roof or eaves, and the canopy or drip-line shall not be within 10 feet of the roof, deck or similar combustible projection, wood burning appliance or chimney.

4. Pruning of Limbs. Large trees shall not be allowed to have limbs overlap smaller trees or brush which creates ladder fuels, and shall be pruned of limbs to a height of up to 10 feet above the ground while maintaining a minimum of 70 percent of the crown. Small trees or brush are not allowed to grow under larger trees, which creates ladder fuels. Certain tree clusters may be allowed if sufficient clear area is provided; ladder fuel is removed.

5. Zone 2. Trees in the Zone 2 shall be provided a horizontal distance between crowns of adjacent trees of not less than 15 feet. Trees in Zone 2 shall comply with Section E.4 above. Surface vegetation such as brush, small diameter conifers, cedars, and other vegetation classified as ladder fuels are not allowed to grow under large trees which creates ladder fuels, and shall adhere to the spacing requirements of this zone. NOTE: Canopy spacing not less than 20ft is recommended in Zone 2.
6. Zone 3. Fuels management requirements in this zone will be determined by the Fire Code Official based on a site-specific analysis and local conditions, and will be no more stringent than requirements elsewhere specified in subsection E. Informational material on specifications and guidance will be available from the Rapid City Fire Department.

7. Above crown separation distances are based on flat terrain. Distances will increase as slope increases per the following:
   a. 0 – 20 percent – as defined in this code.
   b. 21 – 40 percent – two times the distance as defined in this code.
   c. More than 40 percent – three times the distance as defined in this code.

8. Grass within ten feet of every public right of way shall be mowed to not more than eight inches in height.

F. Hydrants and Water Supply.

1. These standards may be used in structures within the Wildland Urban Zone in lieu of fire flow requirements (lack thereof) or fire hydrant location to the structure as determined by the Fire Code Official.

G. Roof Coverings.

1. Fire Resistive Roofing Materials. Class A roof covering as per ASTM E 108/UL 790 (excluding solid wood roofing products) shall be installed on all residential occupancies and a minimum Class B roof covering (excluding solid wood roofing products) shall be installed on all remaining occupancies (not to replace class A where already required by the Building Code). This installation shall be required at the time a permitted roofing or reroofing application is done within the limits of the City of Rapid City, South Dakota, unless specifically approved by the Fire Code Official.

H. Hardened Structure.

1. Structure Protection. The following standards for ignition-resistant construction and fuels management shall apply to all new construction within the Wildland Urban Zone:
   a. A Class A roof covering (excluding solid wood materials) shall be installed on all Residential Occupancies and a minimum Class B roof covering shall be installed on remaining occupancies.
   b. Exterior cladding, open eaves, and soffits shall be constructed of classified *ignition-resistant or noncombustible* materials. Approved noncombustible materials include, but are not limited to: metal, fiber-cement board, traditional
stucco, masonry/brick, concrete synthetic stone, and similar materials. Approved ignition resistant classified materials include, but are not limited to: (FRTW) fire retardant treated wood and similar materials. Dimensional log/heavy timber construction is also allowed, but is not considered noncombustible. Natural wood/cedar siding, hardboard, vinyl, manufactured siding products using combustible materials, and similar combustible materials are not allowed.

Open eaves are NOT recommended, and all exposed components, if not clad in noncombustible material, shall be FRTW or of heavy timber dimensions.

Exception: Natural wood products used for window trim; corbels, shutters, and decorative vents are allowed when clad with noncombustible material. Solid PVC based plastic products used for window trim; corbels, shutters, and decorative vents may also be painted. Natural wood or solid PVC based plastic products used for fascia in conjunction with gutters and soffits are allowed when clad with noncombustible material.

Exception: Engineered prefinished wood, redwood (Heart Clear, Clear All Heart), and Class A or B flame Spread rated exterior cladding and trim materials may be used if all of the following apply:

1) Separation distance from continuous vegetation is not less than 100 feet. See Fuels Management requirements in Section E.
2) Separation distances from neighboring property structures are not less than 60 feet. Non neighboring structures (detached garage) are exempt only if the above mentioned 60 foot rule is met.
3) Connecting points with all ignition resistant or noncombustible horizontal surfaces such as metal decks, concrete patios, Class A rated rooflines, or surface grade are noncombustible materials outlined in this section to a height of not less than 6 inches. Examples include one row of noncombustible siding or noncombustible frieze board trim detail.
4) Soffit materials are classified as noncombustible or ignition resistant.
5) Fuels management standards outlined in this code for E 1-5 are met.

NOTE: Ignition resistant or noncombustible exterior cladding is recommended. Class A flame spread does not automatically meet these criteria, and may not be classified as ignition resistant.

c. For any portion of the attached structure with projections or overhangs, the area below the structure shall have all horizontal under-floor areas enclosed with ignition-resistant materials such as those allowed in item 1b, above.

Exception: Exposed heavy timber or dimensional log construction is allowed.
d. Exterior doors shall be solid core construction with a fire resistive exterior or solid wood not less than one and three-fourths inches (1 3/4") thick. Windows within doors and glazed doors shall be tempered safety glass or multi-layered glazed panels.

Exception: Decorative single pane glazing in front entry doors is allowed.

e. Exterior windows shall be a minimum double pane. Tempered panes are preferable but not required by this section.

Exception: Existing single pane windows are allowed if separate storm windows are in place on the window unit.

f. All attic vents shall be screened with wire mesh or hardware cloth having openings no larger than one-eighth inch (1/8") or an alternative product is used specifically designed to stop the entrance of burning embers. Soffit vents are allowed. Gable vents are NOT recommended, but are allowed if screened with wire mesh having a mesh size no greater than 18 x16, or specifically designed to stop the entrance of burning embers.

g. Gutters and downspouts that are of non-combustible construction shall be installed such that the leading edge of the roof is finished with a metal drip edge so that no wood sheathing is exposed. The drip edge shall extend into the gutter. Vinyl gutters and other combustible materials are not allowed. NOTE: gutter caps are highly encouraged as a home-owner maintenance item to prevent combustible debris from collecting in the trough.

h. (1) Decks and other habitable spaces shall be classified as ignition resistant or non-combustible, such as ignition resistant composite types, FRTW, and metal decking (Versadeck). Wood can be used for all large structural components and railings. Where the deck structure meets surface grade, a 6 inch height of noncombustible material shall be used as surface protection of the structural element.

(2) Fire resistive decking materials, such as certain composites, redwood (Deck Heart), Ipe, or Cumaru deck boards (Class A), are permitted if all the following apply:

1) Fuels management requirements in this code for E 1-5 are met.
2) Decking material has a heat release rate of not more than 25kw/ft² and a flame spread rating of Class A or B.
3) Hardened structure requirements for exterior cladding in this code are met.
NOTE: Ignition resistant or noncombustible decking materials are recommended. Class A flame spread does not automatically meet these criteria, and may not be classified as ignition resistant.

i. The base of exterior walls, posts or columns shall be protected on the bottom side with provisions such as fire resistant foam or wire mesh having openings no larger than one-eighth inch (1/8”) to protect from ember intrusion and still permit weeping and moisture control. This provision includes circumstances such as the installation of fire resistive siding over and/or on top of siding that is not fire resistive and the use of EFIS type exterior wall coverings.

j. Chimneys serving fireplaces, as well as other heating appliances in which solid or liquid fuels are used, shall have an approved spark arrestor or cap.

2. Alternative Materials. Alternative materials or construction methods (rating by assembly) not specifically addressed in section H.1 may be considered on a case-by-case basis if found to have comparable ignition resistant, or fire resistive properties and as approved by the Fire Code Official.
MINNESOTA RIDGE #2 SUBDIVISION

Rapid City, South Dakota

KTM Job Number: 19-1019

located in Section 14, T1N, R7E, BHM

Lots 1-47 of block 1, Minnesota Ridge #2 Subdivision,

PRELIMINARY SUBDIVISION PLAN

MINNESOTA RIDGE #2 SUBDIVISION

RECEIVED: May 26, 2019

COMMUNITY DEVELOPMENT
Rapid City, Department of

MINNE CourT AT RAPID CITY SOUTH DAKOTA

INDEX OF SHEETS
1. Cover Sheet
2. Site Plan
3. Utility Plan
4. Engineering Plan

NOT TO SCALE