



**TOWN OF WINTER PARK
PLANNING COMMISSION
Tuesday, December 8, 2020 8:00AM
Online Meeting (instructions below)**

A G E N D A

- I. Meeting Call to Order.
- II. Roll Call of Commission Members.
- III. Town Hall Meeting (time for anyone from the public to speak about items not on the agenda)
- IV. Minutes for Review: November 24, 2020.
- V. Conflicts of Interest.
- VI. Action Items:
 - A. Sketch Plan – WANDER Townhomes
 - B. Sketch Plan – Hideaway Junction Phase II
- VII. Planning Commission Items for Discussion.
 - A. UDC (Unified Development Code)
- VIII: Staff Update.

Online Meeting Log-In Instructions – See next page

Computer Log-In Instructions

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/87452525889?pwd=anI3K1o0L29PeWRQM1Q4cW5qb0Z0Zz09>

Passcode: 937510

Phone Log-In Instructions

Dial In Numbers

US: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799
or +1 929 436 2866

Webinar ID: 874 5252 5889

Passcode: 937510

You can log into the Zoom meeting through the link above to view what is projected on the screen. You can use either your computer audio or the number above. Everyone will be muted upon entry into the meeting to ensure that we have manageable background noise and limited interruptions.

Public Hearing Process

If you would like to participate in the public hearing, please follow these instructions so we can make sure everyone that wants to speak has the opportunity. When you log into Zoom you will be automatically muted to limit background noise. When the public hearing is opened for public comment, please use the “raise your hand” feature and staff will unmute citizens in the order they were received. To enable “raise your hand” feature, click on the “Participants” button the bottom of the screen.

If you are signed in to the Zoom meeting through the computer, there is an option to type comments directly through the “Chat” feature. You can indicate using that feature that you intend to make a comment and if you wish to make that comment by typing, Town Staff can read the comment for you.



**TOWN OF WINTER PARK
PLANNING COMMISSION
Tuesday, November 24, 2020 8:00AM**

MINUTE

- I. The meeting Call to Order is at 8:10 am.
- II. Roll Call indicated present Chairman Holzwarth, Commissioners Doug Robbins, Roger Kish, George Stevens and Dave Barker are present. Community Development Director James Shockey and Town Planner Hugh Bell are also present. Commissioner Jonathan Larson is absent.
- III. Town Hall Meeting. No comments received.
- IV. Minutes for Review: November 10, 2020. Commissioner Kish makes a motion to approve the minute. Commissioner Stevens seconds. The minute is approved 5, 0.
- V. Conflicts of Interest. No one comes forward.
- VI Action Items:
 - A. Special Use Permit – Food Trailer at Strip and Tail restaurant

Planner Bell starts his presentation. This is a Special Use Permit for a food truck located on the Strip and Tail restaurant's property to provide food service for the bar space located in the basement of the building. This food trailer would be more of a permanent fixture. Planner Bell mentions some of the public comments received. The details about this Special Permit are included in the electronic packet: propane gas, signage, landscaping, business license, hours of operation, and obstruction of sidewalks among other topics.

Ms. Lisa Miller, the applicant, comes forward. She and Mr. Andrew Miller state that they agree with the Staff recommendations in order to get approved. Chairman Holzwarth asks a question about reinstalling the fence around the trailer. Ms. Miller replies that they will reinstall it next spring. Commissioner Kish asks if this trailer would be considered as a permanent structure for setback purposes. Planner Bell states the setback requirements due not apply as it is still a temporary structure.

Commissioner Kish also inquiries about gray water management. Ms. Miller replies that they have a gray water tank inside the trailer and a dish washing area inside the bar. However, there is not sewage connected to the food trailer. The Planning Commission then ask about water supply. Ms. Miller answers that they possess a self-contained tank for clean water within the trailer. Then, there is a question about the removal of gray water.

Commissioner Robbins asks about the propane gas tank for cooking. Ms. Miller says that the tank is included in the site plan: the tank sits right behind the trailer. Commissioner Robbins asks if the tank would be facing Telemark: Ms. Miller says that they could locate the tank under the decking. Chairman Holzwarth says the Fire Department should look at the location of the tank so it would be safe. He does not think that locating the propane tank under the deck is a good idea. Ms. Miller says that they can look into smaller tanks. Commissioner Kish asks if connecting the trailer to the natural gas line of the building is an option. Ms. Miller says that it is not an option at the moment but they can look into that.

Chairman Holzwarth believes that this trailer might be considered as a building. Commissioner Kish goes back to the setbacks topic and mentions the The Ditch application. Commissioner Barker tells the Planning Commission that the setback is 25 ft. in the front and 15 ft on the side (Telemark) if it is a corner lot. There is a discussion about what would be considered the front of the lot in this case. Director Shockey says that the side on Highway 40 is considered the front. The trailer would be located in an R-C district.

Commissioner Kish mentions that a grant has been put in place for improvements around the building. He is asking if the patio area has been benefited by that money. Director Shockey answers that he does not believe so. The grant was approved for the building itself, not the surrounding areas.

The public comment session is open. George and Claire Lankas come forward. They are long-time, part-time residents. They have two objections regarding this Special Use permit: parking and aesthetics. For Mr. Lankas, the Telemark residents see the parking as an issue especially during the winter season due to the business around the residential units in the area. About the aesthetic part, Mr. Lankas tells the Commission that the Town of Winter Park made an effort to create a more family friendly town with many restaurants and hotels. According to Mr. Lankas, it seems counterproductive to have a trailer that it is going to attract people to hang around late at night. He wonders why we need a food trailer instead of getting the kitchen in the bar up to Code. He also has some concerns about the disposal of gray water. In conclusion, Mr. Lankas thinks a food truck in that location does not look very pleasant.

Ms. Jessie Clemens comes forward. She lives in the Hideaway Station townhomes. She expresses concern about the line of sight when making a turn into the parking lot. She states that doing so it is already hard as it is. She also has some concerns about parking and lack of signage.

Commissioner Kish asks if the parking requirements would remain the same for restaurant uses or is there any additional ones. Director Shockey replies that they would stay the same. Commissioner Kish also asks about the site triangles on Baker Street. Director Shockey recommends that this could be verified with the Town Engineer if the Special Use permit is moved forward. Commissioner Baker agrees with Commissioner Kish about this.

Chairman Holzwarth mentions that there are more questions for the applicant: if the gray water would be dumped in a sanitary sewer system. The other question has to do with the kitchen area in the basement. Ms. Miller replies that the The Basement does not have a venting system, cannot be retro fitted. Regarding the gray water management, the food trailer has a small sink for hand washing (Health Code requirement). There is minimum water usage in the food trailer. The sinks in the basement would be used for dishes and pans. For the gray water, this can be dumped into the sewer system inside the bar. There would be minimum water usage. Ms. Miller then mentions that due to the cost constrain and the Strip N' Tail design, it is not possible to build a kitchen in the basement. Ms. Miller makes a comment about the operating hours. They are proposing to operate between noon and 7 pm or 8 pm. Afterwards, they can move people inside the bar for lighter food options in the evening (as required by the State of Colorado). One of the goals of the applicants is to change the atmosphere of the bar and make it more family friendly. The applicant is not planning in having the food truck operating until late at night since they have a two-year old daughter.

Commissioner Barker mentions that he has been personally there and he thinks it is very clean. He has never seen trash or water on the ground. Commissioner Barker mentions how a previous food truck application was rejected earlier this year. He just wants to make sure the Planning Commission is consistent with the guidelines for approval of food trucks. Commissioner Kish replies that the proposed food truck would have blocked all sight lines, it was very close to the main street, the setbacks were not in compliance, the hours of operation were longer and there were residents being directly above which would have been affected by the smoke and food odors. Commissioner Kish adds that he does not see those concerns for this current application. Chairman Holzwarth adds the previous applicant wanted to have a gravel area for multiple food trucks and there was not sitting area for customers. Commissioner Barker also inquiries about the mural in relation to the sign code. Director Shockey replies that murals are permitted as long it is not advertising the business.

Commissioner Baker then talks about parking requirements and compliance. Director Shockey says that since this food trailer would be an extension of the bar located in the basement of the Strip N' Tail restaurant building, the parking does not need to be recalculated. Commissioner Barker clarifies that the Planning Commission is not an enforcement agency. If there were problems with parking once the food trailer is set up, the neighboring residents need to come up with a plan (signage) for the residential parking spaces.

Chairman Holzwarth takes a look at the sidewalk on Google Earth. There is a discussion about the configuration of the parking lot and the sidewalks surrounding the area.

Commissioner Baker believes that in case this food trailer does not work out for whatever reason, then it needs to be removed within a period of time set up by the Planning Department. Director Shockey adds that this could be a recommendation that can be added in the document presented to the Town Council.

Chairman Holzwarth asks about the business license for the truck. Director Shockey replies that that needs to be checked with the Finance Department to see if the current business license for the bar would cover the food trailer as well or if it needs to be separated. Ms. Miller interjects and says that there are other partners involved in the bar. They are planning on having the food trailer separated with a separate business license and tax ID number.

Commissioner Stevens motions to accept this Special Use application with both Staff and Planning Commission recommendations, including the East Grand Fire Protection District evaluation regarding the propane tank, gray water management being disposed into the sewer system inside of the bar and landscaping plan (including the reinstallation of the fence, if necessary). Commissioner Barker would like to add that if the food trailer is not in operation in consecutive 30 days, it needs to be removed from the property. Commissioner Stevens makes a motion including Commissioner Barker and Commissioner Kish's observations. Chairman Holzwarth says that this application will not require the recalculation of the parking. He suggests the neighbors to put a sign warning about parking in their property and the vehicles being towed if they do not comply.

Commissioner Barker seconds the motion. The motion is passed 5, 0

B. Commercial Design Review – Gravity Haus, north building

Planner Bell begins his presentation. This project involves renovating the north building of the former Sundowner Motel into a boutique hotel, restaurant, coffee shop, coworking office, and membership-based, ski-focused amenity center. Vehicular access will be provided via the existing parking aisle. The existing south building is on the same property but is not included with this Design Review application.

Planner Bell gives an outline of the Town Guidelines that are applicable to this Commercial Design Review. The information is in the electronic packet sent to the Commissioners. Planner Bell mentions that they have received comments from the agencies involved. Planner Hugh Bell mentions the possibility of re-platting the property in the future; however, the applicant is not planning on doing so, at least not right now. The applicant's goal is to start this renovation in early 2021 and be done by the end of the same year.

Commissioner Stevens has a question for the Staff regarding the floor plan. Commissioner Stevens believes that there would be a significant change on the swimming pool. He also asks about the ratio for parking spaces in relation to the proposed number of rooms. Planner Bell answers that the applicant can clarify that. Ms. Lynne Wasinger, from Studio Lemonade, tells the Planning Commission that total change in use is one residence which is currently and two guest rooms have been displaced by the addition of the lobby in combination with a small kitchen/bar/coffee shop in the front. Two additional guest rooms have been added in the proposal as well. Ms. Wasinger also explains the ratio of parking spaces in relation to the number of rooms proposed. Commissioner Robbins interjects and he mentions that the Staff recommendations have included one regarding this item for future discussion in upcoming meetings. Commissioner Stevens wonders why they are discussing this if the information is not complete yet. Commissioner Baker agrees.

Director Shockey tells the Commission that the current proposal has enough items that can be discussed now before the applicant gathers more information for future discussion. The applicant is requesting variance for the parking plan. Planner Bell reads the information about the parking. There is still a deficit of

three parking spaces. There is further discussion about this topic. Director Shockey reminds the Planning Commission that the south building is not included in this design review so, the parking space ration might be affected.

Ms. Wasinger starts her presentation. She shows the Commissioners the improvements and the changes they are planning: re-coating the roof, siding, awning, adding windows, new doors and finishes among other upgrades. They are planning on removing the single-family residence and the office and create a public sharing space and a lobby. Ms. Wasinger says that they understand that the Town promotes the public parking sharing so, the guests would be using the nearby restaurants as well. She also shows how the rooms would look like and the material and color board.

Chairman Holzwarth asks if this proposal entitles a private club concept. Ms. Wasinger replies that it does not. The business model does include membership but it is also open to the public. The motel will be open for nightly rentals and the restaurant would be open to the public.

There is also a discussion about the trampoline area in the back. Ms. Wasinger states that the trampoline area will be fenced and that you will need to go through the front desk and pay to get access.

Mr. Grady Huff, who is part of the applicant team, explains that they build their own revenue by the membership business model. Chairman Holzwarth believes that the membership vs. the open public concept might create conflict regarding the parking.

Commissioner Kish asks about the access. He would like to have ramps added. Ms. Wasinger mentions that the grading has been a little but challenging because of the existing trees. Commissioner Kish says that he would support the eventual tree removal if that means the public would have easier access. He adds the need for snow guards on the roof and he suggests to have the roof re-coated instead of re-painted. Ms. Wasinger agrees. Finally, Commissioner Kish talks about dark sky compliance and brightness for the fixtures and dumpster location and the parking space right next to it. Mr. Huff adds that they are thinking on lifting the second building like a podium and put the parking underneath. Commissioner Kish believes that this will alter the character of the whole property and that is something that must be considered. Director Shockey considers that it would be appropriate to have two options to be considered. It would be advisable to have those two options soon so the Planning Commission has enough time to evaluate them which, in return, will benefit the applicant.

There is also a discussion about snow storage that will be presented in the near future. The Planning Commission reviews the Staff recommendations and the agencies' comments one more time. Chairman Holzwarth adds that the landscaping might encroach on the property line on the back. Ms. Wasinger says that there is almost an 8 ft. drop on the back that is not prone to landscaping. Commissioner Kish mentions that the north side might have the same landscaping issue.

There is also a discussion about the proximity of the Roam property and how this renovation might affect other surrounding properties including the Visitor's Center. There is also a short discussion about the renderings and the architectural drawings.

Commissioner Kish makes a motion to continue this submittal. Commissioner Robbins seconds. The motion to continue is approved 5, 0.

VII. Planning Commission Items for Discussion.

A.UDC (Unified Development Code) VIII:

Director Shockey mentions the content of Design Guidelines. The Staff has received a preliminary draft from the consultants. The comments included in that draft will be released tomorrow, November 25th, 2020

to the public on the Town of Winter Park's website and it will be published on the local paper as well. The goal is to have the document approved/adopted by February 2021 by both the Planning Commission and the Town Council.

Planner Bell shows on the screen the updates made to the Design Guidelines. The content is ready but the Staff is still working on the formatting. Director Shockey says that they are expecting to get the Design Guidelines adopted before the full UDC is. Finally, Director Shockey informs that Chapter 5 will be sent to the Commissioners for review ahead of the next Planning Commission meeting on December 8th, 2020. Chapter 6 will be the next one the Staff will be reviewing.

The Planning Commission does not have questions about the schedule.

VIII. Staff Update.

Director Shockey informs that the last Planning Commission meeting will take place on December 8th, 2020.

Five applications for the open Planning Commissioner seat have been sent to the Town Council Committee for review. The interviews will take place in December. Then, a recommendation will be sent by January 2021 to the Town Council.

There is also a discussion about the quorum needed to carry out Planning Commission meetings. Director Shockey tells the Planning Commission that he will double check with legal counsel to see if 4 members are the minimum needed, especially when there are virtual/remote meeting by videoconference and the voting time arrives. The option to use video during the virtual/remote meetings to make them more efficient.

Commissioner Barker motions to adjourn the meeting. Commissioner Stevens seconds. The Planning Commission is adjourned at 10:32 am.

MEMO

TO Planning Commission
FROM Hugh Bell, Planner
THRU James Shockey, Community Development Director
DATE December 8, 2020
RE Sketch Plan – Mark Kent & Kimberly Taylor Kent Trust – WANDER

Project Overview:

WANDER is a proposed residential development, submitted on November 5, 2020, consisting of 11 townhome units constructed of both modular and site-built components, utility infrastructure, private roadway, and landscaping on approximately 0.87 acres. The existing site contains several mobile homes. There are two floorplan options, both containing 3 bedrooms and 3 bathrooms. Existing pedestrian access to Highway 40 is via Wanderer's Way. Vehicular access is proposed via a 25' public roadway east of the site that connects to Ski Idlewild Road. A construction timeline estimate has not been provided yet.

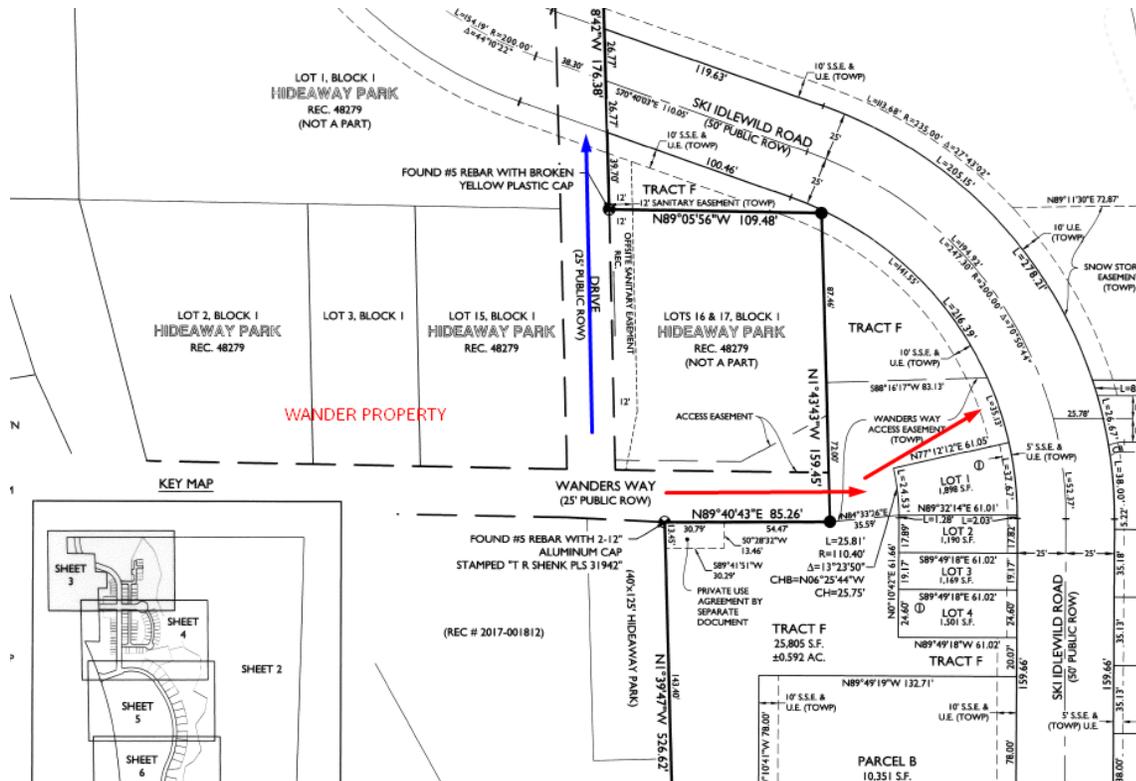
Although the sketch plan review with the Planning Commission is optional, the applicant has requested this review to gather input about the proposed project prior to completing the preliminary plat requirements. Per Section 8-2-2 of the Town Code, the Planning Commission shall review the sketch plan and shall discuss with the applicant any changes deemed advisable in the proposed plan and shall approve, conditionally approve, or disapprove the proposed plan.

Access / Parking

Vehicular access to the property is proposed via a 25' north-south public right-of-way that connects at the northern terminus to Ski Idlewild Road (shown below in blue). The full extent of vehicular access to existing Town roads is not depicted on site plans as required in Section 2.2 (Sketch Plan) in the Standards and Specifications for Design and Construction ("Standards").

Roam at Winter Park Filing 1 dedicated a public access easement to the east of this property (shown below in red) to allow access to Ski Idlewild Road. Staff recommends the applicant access Ski Idlewild Road via this access easement and not the 25' north-south public right-of-way. Staff supports the applicant's proposal to eliminate the Wanderer's Way vehicular access point to Highway 40 as this is an unsafe intersection with poor visibility. The Downtown Plan (2020) supports this recommendation and advocates limiting and consolidating vehicle access points in downtown and connecting parcels with more internal connections (Section 3.1.3, Access Management).

The applicant states they will need to apply for an administrative variance request for a singular access to the site. Per Section 4.3 (Access) in the Standards, the Town shall determine the appropriate number of access points for multi-family developments after analyzing the results of the Traffic Impact Analysis. It therefore appears an administrative variance request is not required at this time. However, the applicant will need to receive approval from East Grand Fire Protection District No. 4 for a singular access point.



The road within Wander (currently unnamed) is expected to generate 88 ADT thus classifying it as a “low volume road”. Staff is unsure if the Traffic Impact Analysis includes the north-south 25’-wide R.O.W. in this ADT calculation. Staff recommends the Commission request that the applicant clarify the extent of the low volume road ADT calculation.

The applicant has labeled two garaged parking spaces for each unit, totaling 22 spaces. All 11 dwelling units will have three bedrooms, which requires 2 spaces per unit for a total of 22 spaces. The applicant is proposing to provide three guest parking spaces. The parking counts are in conformance with the Standards.

Setbacks and Building Coverage

Because the proposed project is in the D-C Zone District and adjacent properties are zoned the same way, it is not subject to yard setback requirements. Building coverage is limited to 60% for residential uses in the D-C Zone District; the project is proposed at 45.15% per the application.

Snow Storage

The applicant has shown proposed snow storage locations on the sketch plan, totaling 3,760 sq. ft. They are proposing snow storage areas for 30.7% of the driving surfaces, parking areas, and pedestrian walkways (25% is required per Section 3.11 (Snow Operations) in the Standards). Overall, the applicant has shown snow storage in logical locations throughout the development, but there are several problematic areas. Most areas are within 4’ from the roadway edge, which is prohibited per the Standards. The site plans do not clearly depict lot lines or what land will be maintained by a homeowner’s association; per the Standards, private land not maintained by a homeowner’s

association shall not be used for snow storage. Snow storage shall not be within 3' of utilities; staff is unable to confirm conformance because utilities aren't depicted on a site plan (this is not a sketch plan requirement). Additionally, it appears the Intersection Sight Triangle is compromised at the intersection of the low-volume road within Wander (currently unnamed) and the north-south 25'-wide R.O.W. lying perpendicular and immediately east of that low-volume road.

Staff recommends the Commission request that the applicant clarify the extent of the low volume road ADT calculation and thereafter ensure the Intersection Sight Triangle is not compromised by snow storage areas. Applicant shall refer to Figure 8 in the Standards to determine the appropriate Intersection Sight Triangle area.

Utilities

Proposed utilities are not depicted on a plan, but this is not a requirement for sketch plan. Per the applicant, the site contains two existing utilities: a water main and an overhead electric line. Applicant proposes relocating both utilities and burying the electric line. Applicant posits that water, sanitary sewer, electric, and gas transmission lines are either on or adjacent to the site. The sanitary sewer connection is proposed to connect to the existing sanitary sewer service line in the 12' sanitary sewer easement adjacent to the 25' public R.O.W. east of the site.

Landscaping / Signage / Lighting / Open Space

This material is not required for sketch plan and will be reviewed at preliminary plat.

Architecture

The applicant has provided a charrette booklet with a sample floor plan for a townhome and exterior renderings. Per the applicant, the architectural style they are proposing is "both machine industrial and [of] natural materiality". Review the attached Schematic Design (Revision 1) for additional information.

Town Engineer Comments

Sam Redfield, Senior Project Engineer with JVA, Inc. responded to the referral request in a letter dated December 3, 2020. In this letter he requested all future submissions contain traffic and parking signage design.

Other Agency Comments

Mountain Parks Electric:

Jean Johnston, Senior Staking Engineer, responded to the referral request in an email dated December 2, 2020. In this email she requested the applicant discuss phasing needs with her.

Xcel Energy:

Kathleen Jacoby, Mountain Division Designer, responded to the referral request in a letter dated November 19, 2020. In this letter she expressed no concern about the project but listed general guidelines required for gas construction. See attached letter for details.

Planning Commission Action

Planning Commission shall review the sketch plan and shall discuss with the applicant any changes deemed advisable in the proposed plan and shall approve, conditionally approve, or disapprove the proposed plan.



TOWN OF WINTER PARK
 P.O. Box 3327 • 50 Vasquez Road • Winter Park, CO 80482
 Phone: 970-726-8081 • Fax: 970-726-8084
 Website: www.wpgov.com

LAND USE REVIEW APPLICATION FORM

PROJECT INFORMATION

Project Name: **WANDER** Date: **11/5/2020**
 Street Address (or general location if not addressed): **25 Wanderers Way**
 Schedule Number(s) or Parcel Number(s): **158733101003**
 Site Area (in square feet or acres): **0.86 acres** Existing Zoning: **D-C**
 Existing Land Use: **Mobile Park**
 Legal Description: **Lots 2, 3, 15 of Block 1 Hide-away Park SW 1/4 of the NE 1/4 of Section 33, Township 1 South, Range 75 West of the 6th Principal Meridian**

OWNER / APPLICANT

Name: **Mark Kent & Kimberly Taylor Kent Trust** Phone: **650-465-3735**
 Company: Phone: **650-465-3735**
 Email: **mkent@switchfly.com**
 Mailing Address: **1309 Linden Lake Rd.**
Fort Collins, Colorado 80524

CONTACT PERSON

Name: **Tim Gagnon** Phone: **303-703-4444**
 Company: **CORE Consultants** Email: **gagnon@corecivil.com**
 Mailing Address: **3473 S. Broadway**
Englewood, Colorado 80113

TYPE OF APPLICATION (check all that apply)

Subdivision		Fee	Other Development		Fee
<input checked="" type="checkbox"/>	Sketch Plan	\$250.00	<input checked="" type="checkbox"/>	Zoning Variance	\$250.00
	Preliminary Plat	\$500.00*		Special Use Permit	\$150.00
	Final Plat	\$750.00*		Rezoning Request	\$350.00
	Amended Final Plat	\$375.00*		Subdivision Exemption	\$300.00
	As-Built Plat	\$250.00		Amended Exemption	\$150.00
	Amended As-Built Plat	\$250.00*		Annexation	\$500.00*
	*Number of Lots:	x \$10.00		*Number of Lots:	x \$10.00
	TOTAL FEES:	\$ 250		TOTAL FEES:	\$
Minor Subdivision		Fee	Planned Development		Fee
<input checked="" type="checkbox"/>	Final Plat	\$400.00*	<input checked="" type="checkbox"/>	Preapplication Conference	No Fee
	Amended Minor Sub.	\$250.00		Preliminary Development Plan	\$1,000.00**
				Final Development Plan	\$1,000.00**
				Amended Final Plan	\$500.00**
	*Number of Lots:	x \$10.00		**Number of Lots:	x \$2.00
	TOTAL FEES:	\$		TOTAL FEES:	\$

* In addition to the base fee, an additional \$10.00 per unit or lot

** In addition to the base fee, an additional \$2.00 per unit or lot

In addition to the base fees the applicant is required to pay the cost of any legal notices and adjoining property owner certified mailings. The applicant may also be subject to reimbursement fees as outlined within Section 7-10-8 of the Town Code.

Wander - Winter Park Townhouses

Schematic Design - Revision 01
November 5, 2020

HONOMB

Project Description

Located in the heart of Winter Park, the Wander - Winter Park Townhouse development aims to create modern, sensitive and dramatic homes for families looking to take advantage of the beautiful environment, active recreation and ever growing vibrancy of Winter Park.

Wander consists of 11 townhomes, constructed of both modular and site-built components. Taking cues from both modern design philosophy and construction methods as well as local physical context, the design integrates both machine industrial and natural materiality.

The roof lines consist of flat roof terraces and open shed roof canopies. The roof terraces provide outdoor amenity area for the residents (and guests) and take advantage of the awe inspiring views; while the shed roofs mimic the varying tall mountain peaks of the Rocky Mountains without being too prescriptive or cliché.

There are two unit plans - both are very similar with the only real difference being the main floor garage access. Both are 3 bedroom 3 bathroom units. The rear garage access unit is 2,065 square feet while the front garage access unit is 2,124 square feet.

The townhomes are oriented to both take advantage of the south views available while maintaining privacy to the second floor main living spaces both from the other units of this development and from future development on adjacent properties.

The site plan allows for convenient access for home owners, guests, garbage disposal and emergency vehicles and consists of landscaped open areas and building edges, beautifying the open space of the site to create variety, texture and interest.

Zone DC - Destination Center District

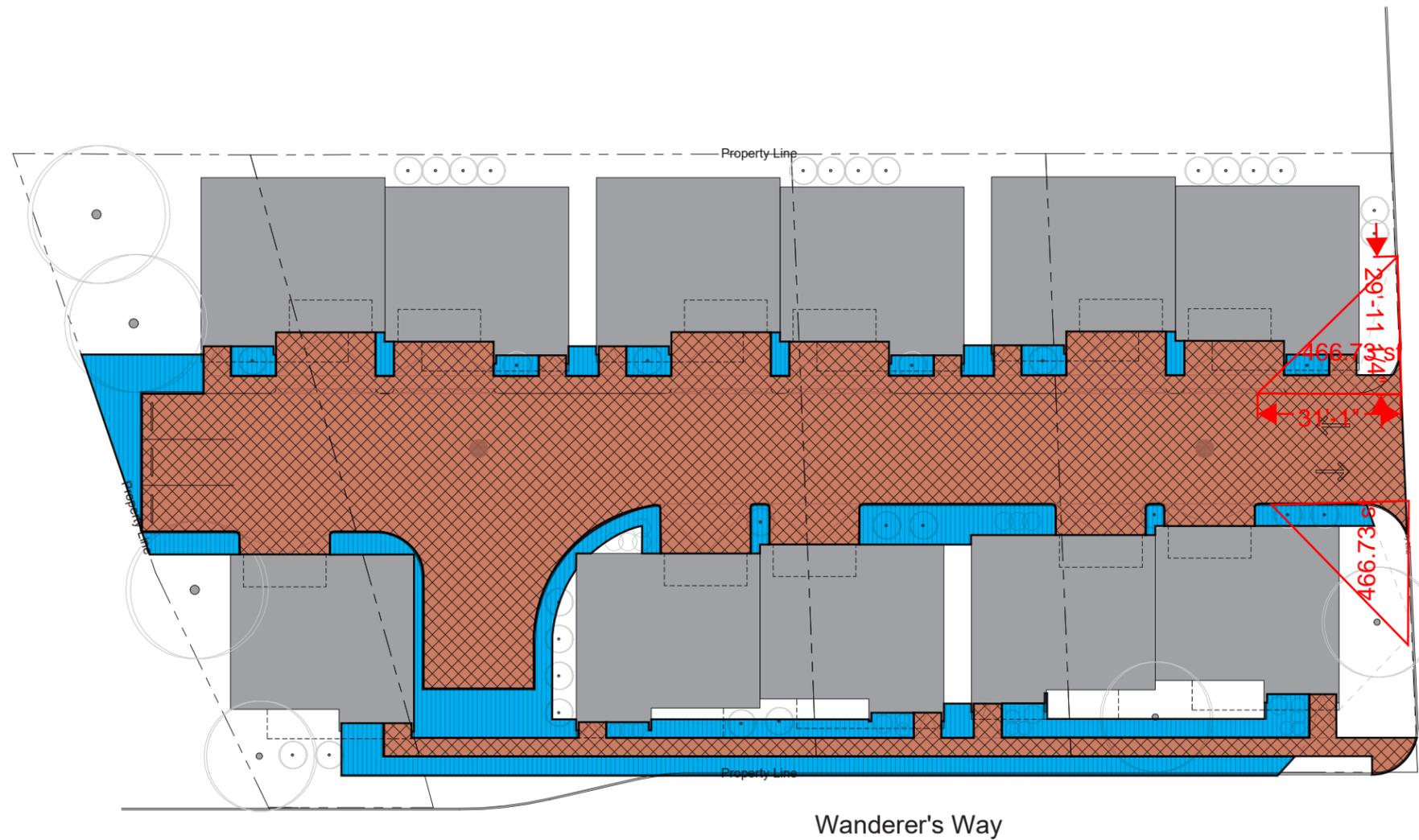
7-5B-2.A. Permitted Use:	Multi-family dwelling units, including apartments and condominiums, townhomes, boarding and rooming houses, bed and breakfast businesses, but not including rest homes
7-5B-3	
A - Maximum Density	28 residential units per gross acre
Proposed Density	11 units/0.866 acre Lot Area = 12.7 units per acre
B - N/A	Application for Commercial Use
C - N/A	Application for Commercial Use
D - Minimum Lot Req'ts	R-2 Zone Provisions Apply for Multi-Family Residential Only Use (7-4B-3 B, C)
7-4B-3	
B.2. - Min Req'd Lot Area	6,000 square feet for the first unit + 2,000 square feet for each additional unit
Required Lot Area	1 unit x 6,000 sq. ft + 10 units x 2,000 sq. ft = 26,000 sq. ft/0.597 acres
Actual Lot Area	37,723 sq. ft./0.866ac
C.2. - Min Req'd Lot Width	85'
Actual Lot Width	250'
C.3. - Min Lot Depth	100'
Actual Lot Depth	+/- 135'
7-5B-3	
E - Min Yard Requirements	N/A - Surrounded by/abuts all DC zones
7-5B-4	
A.1. Max Allow Bldg Coverage 60%	
Proposed Building Coverage	17,035 square feet coverage/37,723 square feet lot area = 45.15%
B Max Allow Bldg Height	55'
Proposed Bldg Height	22' - T.O. Roof Terrace 39' - T.O. Ridge Line



Site Plan
Scale: 1/32" = 1'



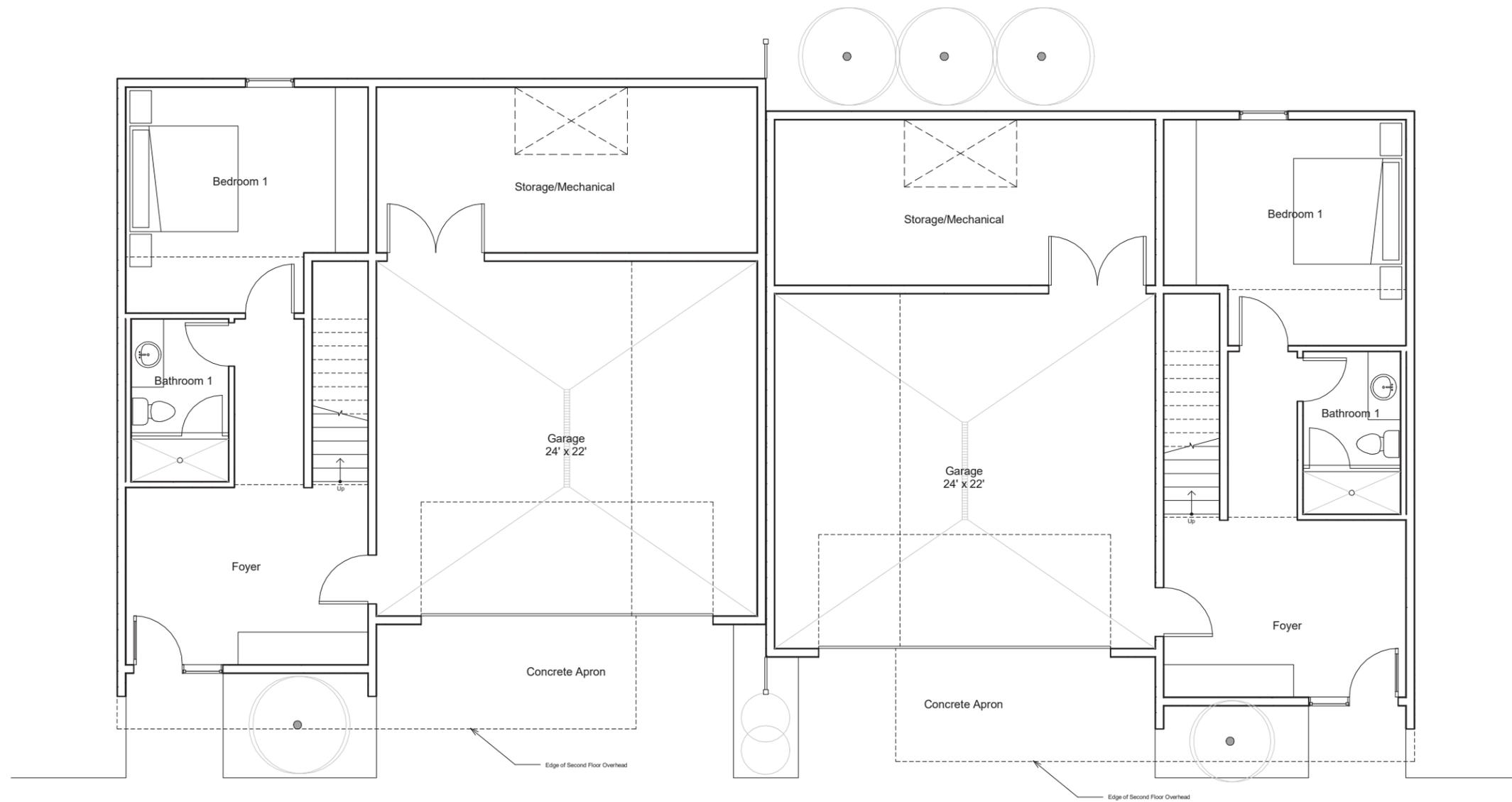
Total Site Area = 37,723 sq. ft./0.866ac
 Total Building Footpring Area = 15,345 square feet/40.7%
 Total Hardscape Area = 12,260 square feet/32.5%
 Total Softscape Area = 10,118 square feet/26.8%



- Hardscaped Area = 12,260 square feet
- Snow Storage Area = 3,760 square feet (30.7%)



Snow Storage Plan
Scale: 1/32" = 1'

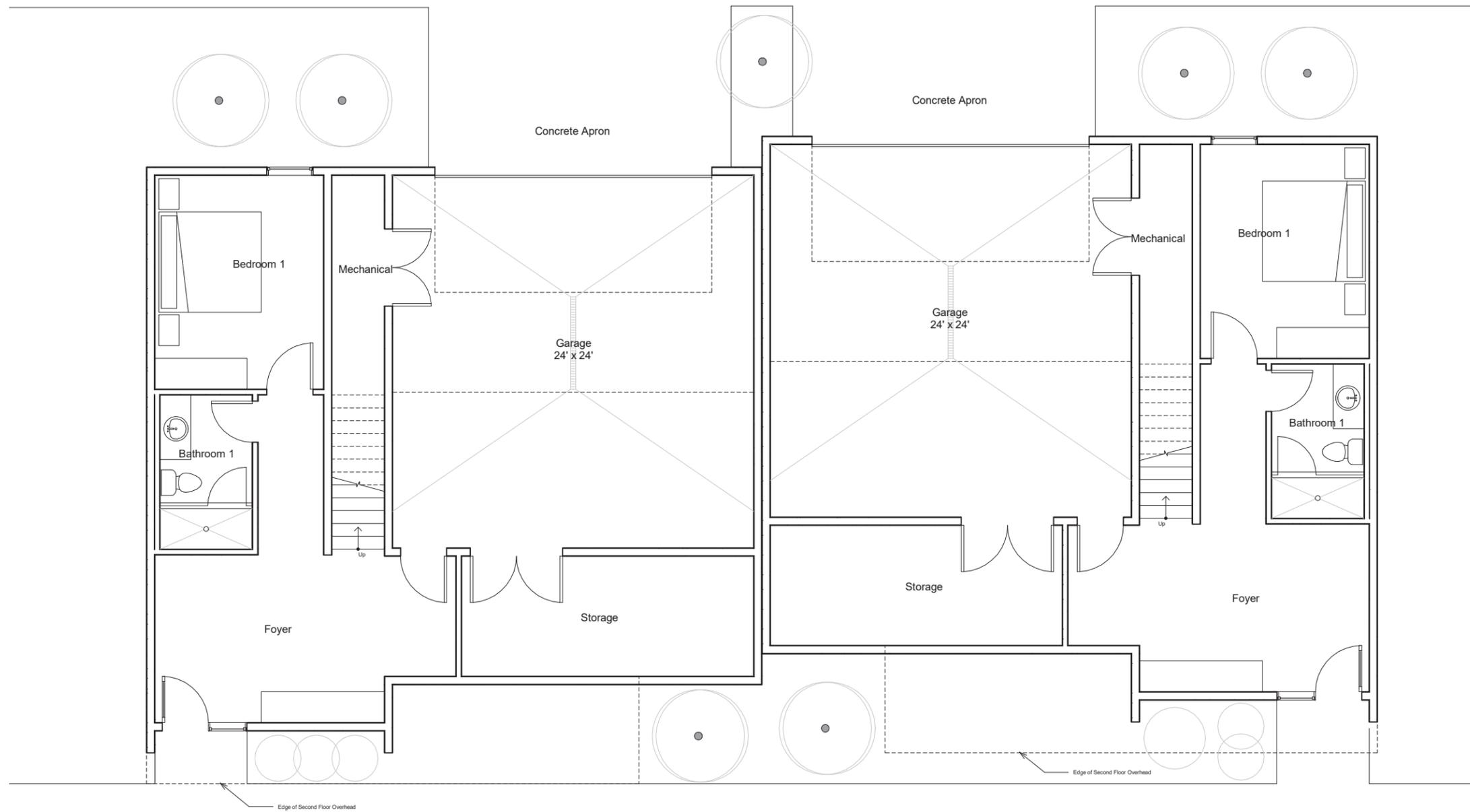


Unit Type F-W (West)
 844 square feet
 528 square feet garage

Unit Type F-E (East)
 844 square feet
 528 square feet garage



Ground Floor Plan - Unit Type F
 Scale: 1/8" = 1'

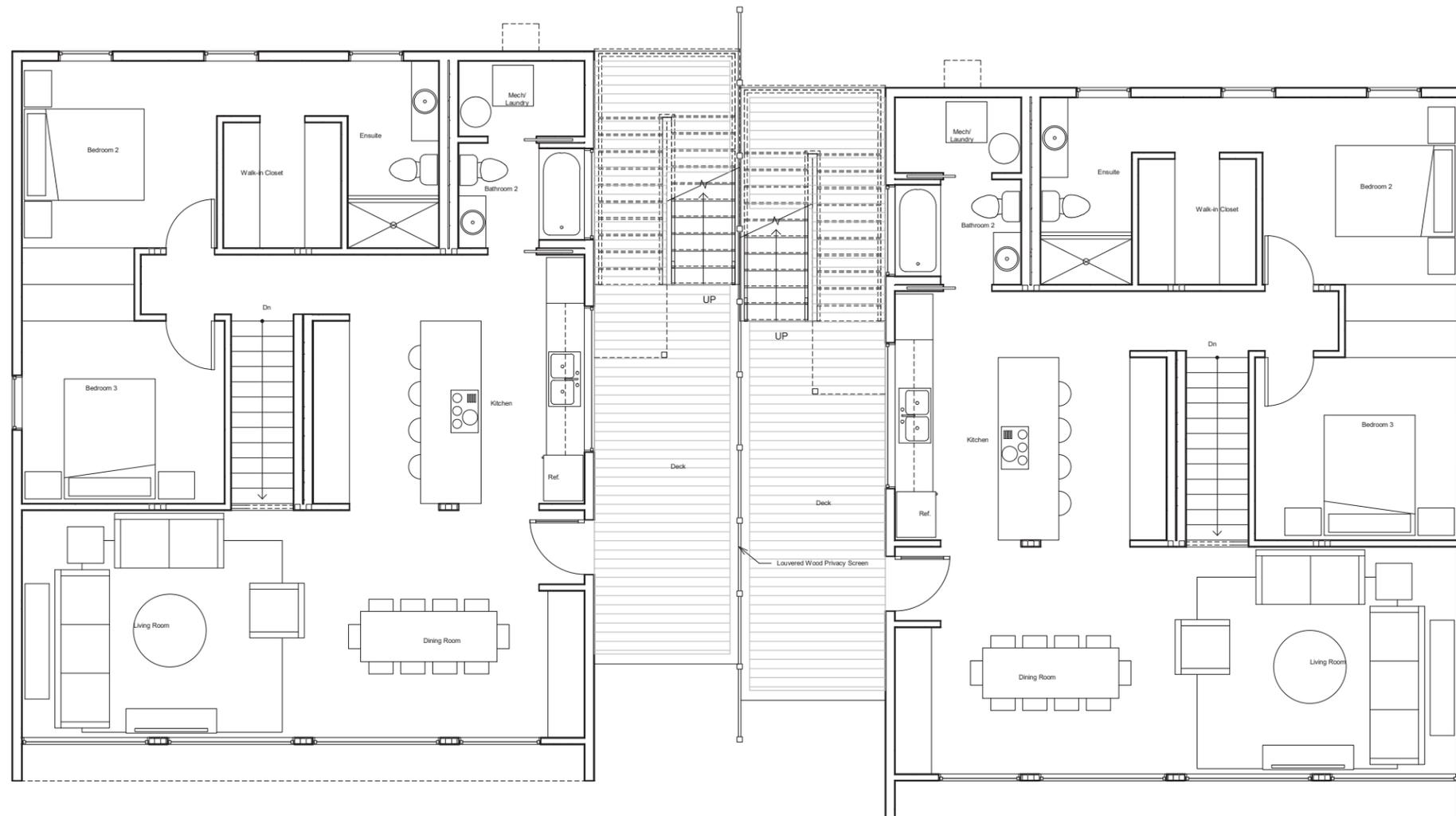


Unit Type R-W (West)
 785 square feet
 576 square feet garage

Unit Type R-E (East)
 785 square feet
 576 square feet garage



Ground Floor Plan - Unit Type R
 Scale: 1/8" = 1'



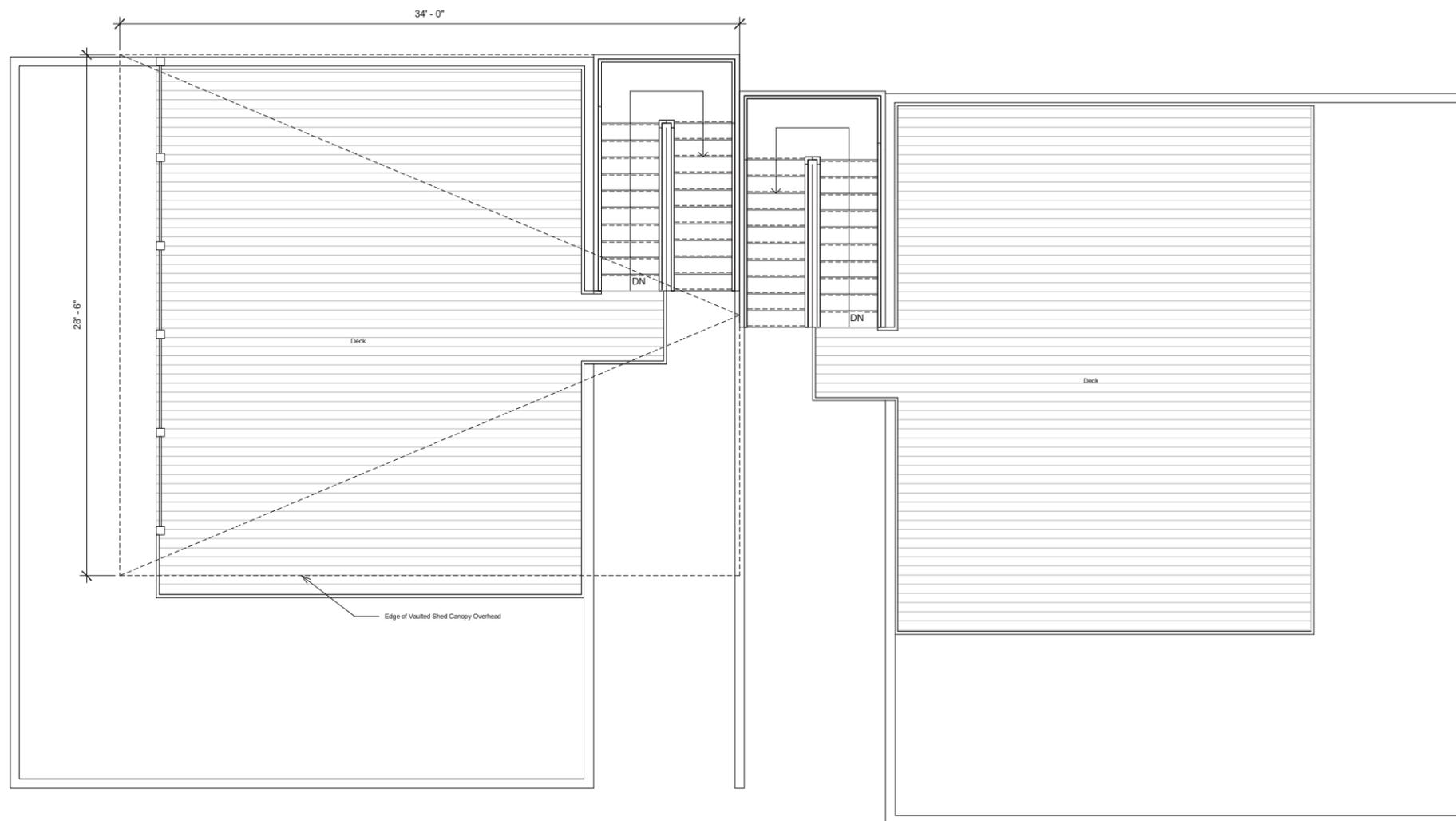
HO4+
1,280 square feet

HO4+
1,280 square feet

*Honomobo HO4+ model for all units. Location shifted per main floor.



Second Floor Plan - All Units*
Scale: 1/8" = 1'



*Honomobo HO4+ model for all units. Location shifted per main floor.



Roof Terrace Plan - All Units*
Scale: 1/8" = 1'



SE Corner



S Street Elevation



SW Corner



SW Unit



E Street Elevation



Driver Aisle Looking West



NW Corner



Drive Aisle Looking West



S Exterior of North Row Units (Type F)



N Exterior of South Row Units (Type R)



SW Aerial



SE Aerial



Elevated View of Interior Drive Aisle Looking East



November 5, 2020

Town of Winter Park
Community Development Department
50 Vasquez Road
Winter Park, CO 80482

RE: Project Description Letter

To Whom It May Concern:

This letter has been prepared in support of the Sketch Plan submittal and provides general information regarding the proposed project.

WANDER is a proposed residential development consisting of 11 townhomes units constructed of both modular and site-built components, utility infrastructure, private roadway and landscaping on approximately 0.87 acres within the Town of Winter Park. The property is currently zoned as D-C, Designation Center. It is proposed WANDER will be accessed by a 25' public roadway east of the site and at Ski Idlewild Road and the design would contain a proposed roadway, curb and gutter and a hammerhead for turnaround and fire access. An underground water quality and detention facility and new utility connections are proposed as well.

WANDER will consist of both Honomobo modular and site-built components and will take cues from both modern design philosophy and construction methods as well as local physical context, the design integrates both machine industrial and natural materiality. There are two similar unit plans – only difference being the main floor garage access. Both unit plans contain 3 bedroom 3 bathroom units.

The Honomobo concept for WANDER was thoughtfully selected for a more sustainable and highly innovative design to the traditional housing model and is to be a continuation and enhancement of the Park Unified Development Code and design excellence for the Town of Winter Park. Honomobo is committed to providing modern design of timeless clean lines, authenticity of material, and efficient use of space in every model built and the homes are meticulously designed to offer an indoor-outdoor living experience. Honomobo takes pride in inspiring the connection to the outdoors from your living space and encourages architectural diversity through a minimalistic but intimate and warm approach. We hope to further enhance The Town of Winter Park's vibrant and unique character and to uphold the values of the community through WANDER's Modern Sustainable Modular design.

For more information on Honomobo's mission and principles, please see the 'About Us' page at <https://www.honomobo.com/us/home>.



If you have any questions, concerns, or require additional information, please feel free to contact me directly at 303.703.4444 or at gagnon@corecivil.com.

Sincerely,

CORE Consultants, Inc.

A handwritten signature in blue ink, appearing to read 'Tim Gagnon'.

R. Timothy Gagnon, PE

Project Manager



ANALYSIS REPORT

1.1. Project Description

WANDER is a proposed residential development consisting of 11 townhomes units constructed of both modular and site-built components, utility infrastructure, private roadway and landscaping on approximately 0.87 acres within the Town of Winter Park. The townhomes will take cues from both modern design philosophy and construction methods as well as local physical context, the design integrates both machine industrial and natural materiality.

The Project Site is currently zoned as D-C, Designation Center and is bounded to the south by Wanderer's Way, north and east by the planned residential development ROAM in Winter Park, the downtown Business Overlay (DBO), commercial properties and U.S. Hwy are located west of the Project Site. Historically, this land has been partially developed with six single-family mobile homes with asphalt and gravel surface access driveways, and mixed native grass and shrubs in the undeveloped portions.

1.2. Utility Infrastructure

The proposed site contains some existing utility conflicts, including an existing water main and an overhead electric line that run north-south on the west side of the project. The proposed construction would remove and relocate both utilities underground through the site, and provide additional looping to Ski Idlewild Road which would ensure adequate service and fire hydrant connections to the site. The sanitary sewer connection is proposed to connect to the existing sanitary service line in the 12' sanitary sewer easement adjacent to the 25' public right of way and east of the Project Site.

Based on initial utility analysis for the site, it appears that water, sanitary, electric, and gas transmission lines are in or directly adjacent to the site.

1.3. Geotechnical Engineering Study

Four exploratory pits were observed on the Project Site. Beneath a shallow depth of organic topsoil, soils encountered in the pits consisted of medium dense, poorly graded gravel (GP), poorly graded silty gravel (GP-GM), and silty gravel (GM) to the full depth of exploration of 10 feet below the existing site grade. The soils were sandy and contained variable amounts of cobbles and scattered boulders. Existing fill was not encountered in the pits but should be anticipated in developed portions of the site, related to previous site grading and utility construction.

Based on the results of the Geotechnical Engineering Study from Kumar & Associates, Inc. (dated August 28, 2020), the medium dense, native, granular soil encountered is considered good support of shallow foundations, floor slabs, pavement and concrete flatwork. Existing fill, if encountered, and topsoil are not suitable for support of structures or improvements and will require removal from beneath foundation, floor slab, and exterior flatwork areas.

Groundwater was not encountered in the pits at the time of excavation. The depth of groundwater will likely occur at shallower depths during spring thaw and snowmelt and has been seasonally at relatively shallow depths at nearby developments.



I.4. Phase I Drainage Report

The Project Site grading will be designed to generally follow the historic drainage pattern with some minor rerouting due to the proposed roadway and development. Onsite runoff will be routed through the site via surface flow, curb and gutter, and an onsite storm sewer system. Runoff will generally be conveyed to a proposed underground water quality and detention facility within the private roadway onsite via a grated inlet and the 100-year storm event will outlet at the lowest point of the site. The proposed underground detention facility will be designed for water quality even though water quality have been provided downstream by the ROAM development and the 100-year storm event will be released to match historic flows.

Based on the results of the Phase I Drainage Report from CORE Consultants (dated November 2020), the generated runoff from the WANDER development will not have adverse effects on the surrounding development and will improve conditions for Wanderer's Way and for the downstream development ROAM in Winter Park.

I.5. Transportation Impact Analysis

Due to current limitations at U.S. Highway 40 (i.e. sight distance, pedestrian crossings, existing one-way width of the gravel road, etc.), the existing access from Wanderer's Way and U.S. Highway 40 is not planned to be used for vehicular access for WANDER. The main vehicular access to the project is proposed through an existing 25' public R.O.W., directly east of the project site. This road will be built as a paved low-volume, two-lane road with proposed access onto Ski Idlewild Road. Internal vehicular access to the site will be provided by a dead-end two-lane paved access to each unit. The length of the proposed dead-end road and hammerhead turn around design both meet Town requirements. It is anticipated that a variance request will be required from the Town of Winter Park in order to gain approval for the singular access into the subdivision.

Residents at WANDER will continue to utilize the Wanderer's Way to U.S. Highway 40 corridor for direct access to pedestrian walkways and public transportation options. Wanderer's Way will also serve as a pedestrian connection to the proposed ROAM subdivision.

Based on the results of the Traffic Impact Study (TIS) from CORE Consultants (dated November 2020), the additional traffic from WANDER will create negligible increases in overall traffic volumes on the adjacent public roads used to access the site. Based on the findings of study the slight increase in traffic from WANDER is not significant enough to warrant any additional facilities or improvements to the Ski Idlewild Road, Rendezvous Way, Vasquez Road, or US 40 corridors.



TRAFFIC IMPACT ANALYSIS
FOR
WANDER
TOWN OF WINTER PARK, COLORADO

**LOTS 2, 3, 15 OF BLOCK 1 HIDE-AWAY PARK SW ¼ OF THE NE ¼ OF
SECTION 33, TOWNSHIP 1 SOUTH, RANGE 75 WEST OF THE 6TH
PRINCIPAL MERIDIAN, TOWN OF WINTER PARK, GRAND COUNTY
COLORADO**

Prepared for:

Mark Kent
1550 Market Street Ste. 350
Denver, Colorado 80202
Contact: Mark Kent
Phone: 650-465-3735

Prepared by:

CORE Consultants, Inc.
3473 S. Broadway
Englewood, CO 80113
Contact: Tim Gagnon, PE
Phone: 303-703-4444
CORE Project Number: 20-131

November 2020



ENGINEER'S STATEMENT

I hereby certify that this Traffic Impact Analysis for the Wander subdivision was prepared by me (or under my direct supervision) in accordance with the provisions of the Town of Winter Park Standards and Specifications for Design and Construction for the owners thereof.

Tim Gagnon

R. Timothy Gagnon, P.E.
Registered Professional Engineer
State of Colorado No. 35765





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Exhibits Vicinity Map



I. Overview

This Traffic Impact Analysis is required by the Town of Winter Park Standards and Specifications for Design and Construction for WANDER, a proposed townhome development in Winter Park, Colorado. This study will utilize the Town of Winter Park Standards and Specifications for Design and Construction (WPSSDC) and the Transportation Impact Study for ROAM (Formerly Beavers) (April 2019), to determine the direct traffic impacts this development will have on the local road system.

II. Proposed Development

WANDER is a proposed residential development consisting of 11 townhome units on approximately 0.87 acres within the Town of Winter Park. The subdivision is located west of the ROAM Subdivision, within the Town of Winter Park, and is bordered by retail stores along U.S. Highway 40 to the west, Ski Idlewild Road to the north and east, and Wanderer's Way to the south. The main access to the project is proposed through an existing 25' public R.O.W., directly east of the project site. This road will be built as a paved low-volume, two-lane road with proposed access onto Ski Idlewild Road, roughly 385' south of the intersection of Rendezvous Way and Ski Idlewild Road (see Vicinity Map). One access to the development from Ski Idlewild Road is currently proposed, at a total length of approximately 420' from Ski Idlewild Road to the end of the development. These proposed improvements will require a variance and for the one point of access, but will meet the Winter Park Standards and Specifications for Design and Construction for dead end street requirements of less than 600' in length.

III. Existing Conditions

The WANDER development is located west of the ROAM subdivision, which is currently under construction. The existing site consists of approximately six single-family mobile homes, which currently have pedestrian and vehicular access via Wanderer's Way, which is an existing gravel surfaced road, to U.S. Highway 40. Due to current limitations at U.S. Highway 40 (including sight distance, pedestrian crossings, existing one-way width of the gravel road, etc.), this access from Wanderer's Way and U.S. Highway 40 is not planned to be used for vehicular access for WANDER, as the development access will instead be from Ski Idlewild Road as previously discussed.

Ski Idlewild Road is currently under construction and is expected to be completed by the year 2021. No existing traffic data is currently available for Ski Idlewild Road, but evaluations for accesses onto Ski Idlewild Road from Rendezvous Way and Vasquez Road for the ROAM subdivision have been provided in a Traffic Impact Study for ROAM (Formerly Beavers) by McDowell Engineering (McDowell TIS), and this information will be used to evaluate traffic impacts in this report. ROAM has been evaluated for 2 Phases within the McDowell report, and this report will discuss traffic impacts generated from the WANDER development incorporated with the results from both phases.



A. Description of Existing Transportation System

a) US 40:

US 40 is a Federal Highway connecting to Interstate 70 from Empire, Colorado to Salt Lake City, Utah. Existing US 40 through the Town of Winter Park is a north-south, 4-lane, non-rural arterial with posted speeds of 35 MPH. US 40 has signalized intersections at Rendezvous Way north of the project, as well as at Vasquez Road south of the project.

b) Rendezvous Way:

Rendezvous Way is a two-lane east-west roadway that connects US 40 and Ski Idlewild Road. This roadway serves as access to Hideaway Park and Ski Idlewild Road, north of the project. The posted speed limit is 25 MPH.

c) Vasquez Road:

Vasquez Road is a two-lane east-west roadway that connects US 40 and Ski Idlewild Road. This roadway serves as access to retail and restaurants to the downtown Winter Park Area, as well as access to residential and national forests further west. The posted speed limit is 25 MPH.

d) Ski Idlewild Road:

Ski Idlewild Road runs north and south and is proposed to be a two-lane collector road with parking on both sides of the street for Phase I of the ROAM Subdivision. Existing Ski Idlewild Road north of Rendezvous Way is currently a 2-lane urban collector with parking on the west side, adjacent to Hideaway Park. The posted speed limit is 25 MPH.

e) Pedestrian Facilities:

The Fraser River Trail runs adjacent to US 40 on the west side of the ROAM subdivision. This trail serves as a major pedestrian and bike connection to downtown Winter Park. Residents at WANDER will be able to utilize Wanderer's Way to access the U.S. Highway 40 corridor for direct access to pedestrian walkways and public transportation options. Wanderer's Way will also serve as a pedestrian connection to the proposed ROAM subdivision.

B. Existing Traffic Volumes

As Ski Idlewild Road was not evaluated separately from accesses to the ROAM subdivision in the McDowell TIS report, trip generation was evaluated for the WANDER development as impacts to the ROAM subdivision as a whole. For the purposes of this report, the existing traffic volumes will be assumed to be the results of Phase I in the McDowell TIS report, which found an **ADT of 3,057-3,467**. This includes weekday to weekend traffic. These Phase I results were anticipated for 2018 traffic volumes, however, since the ROAM subdivision is still in construction, it is assumed that this information is acceptable for use for existing conditions in 2020.

The results from Phase I of the McDowell TIS traffic volumes and the proposed cross-section within the construction plans for ROAM at Winter Park indicate that Ski Idlewild



Road falls under the criteria for Urban Collector. According to the WPSSDC, ADT's for this roadway classification range from 1000-2500 or greater.

IV. Proposed Conditions

A. Proposed Traffic Volumes

As previously mentioned, the WANDER development is proposing 11 townhomes with a singular access to Ski Idlewild Road. In accordance with WPSSDC section 3.2, applying the required trip generation rate for single-family land use of 8 ADT per unit, WANDER is anticipated to generate approximately **88 ADT's** at full build out.

B. Traffic Impacts

Based on the information stated previously, the WANDER development will increase traffic within the ROAM subdivision by **2.5-2.9%**. As the existing traffic already warrants an Urban Collector with over 2500 ADT's per day, this report has determined that the WANDER development will have very minimal impacts to the ROAM Subdivision, and will not require any additional improvements to the Ski Idlewild Corridor or its access points at Vasquez Road and Rendezvous Way.

C. Future Traffic Conditions

Based on results from the McDowell TIS, the future traffic conditions were evaluated at Phase 2 during the year 2040. The report determined that ROAM would have **7,304-9,204 ADT's**. This result also includes weekday to weekend traffic. Comparing the increase in traffic with the WANDER development, the increase in daily traffic would be **0.95-1.2%**.

V. Recommendations

Based on the results of this report, the additional traffic from WANDER will create negligible increases in overall traffic volumes on the adjacent public roads used to access the site. In our opinion, the slight increase in traffic is not significant enough to warrant any additional facilities or improvements to the Ski Idlewild Road, Rendezvous Way, Vasquez Road, or US 40 corridors.

A variance will be required from the Town of Winter Park in order to gain approval for the singular access into the subdivision. The total length of the access road is less than 450' from Ski Idlewild Road to the end of the development, which currently is proposed with a hammerhead turn around at the terminal of the access. This criterion fits the requirements discussed in section 3.4.3 of the Winter Park Standards and Specifications for Design and Construction. Additional coordination with the East Grand Fire District should occur in order to ensure emergency access will be maintained and satisfactorily meets their requirements.

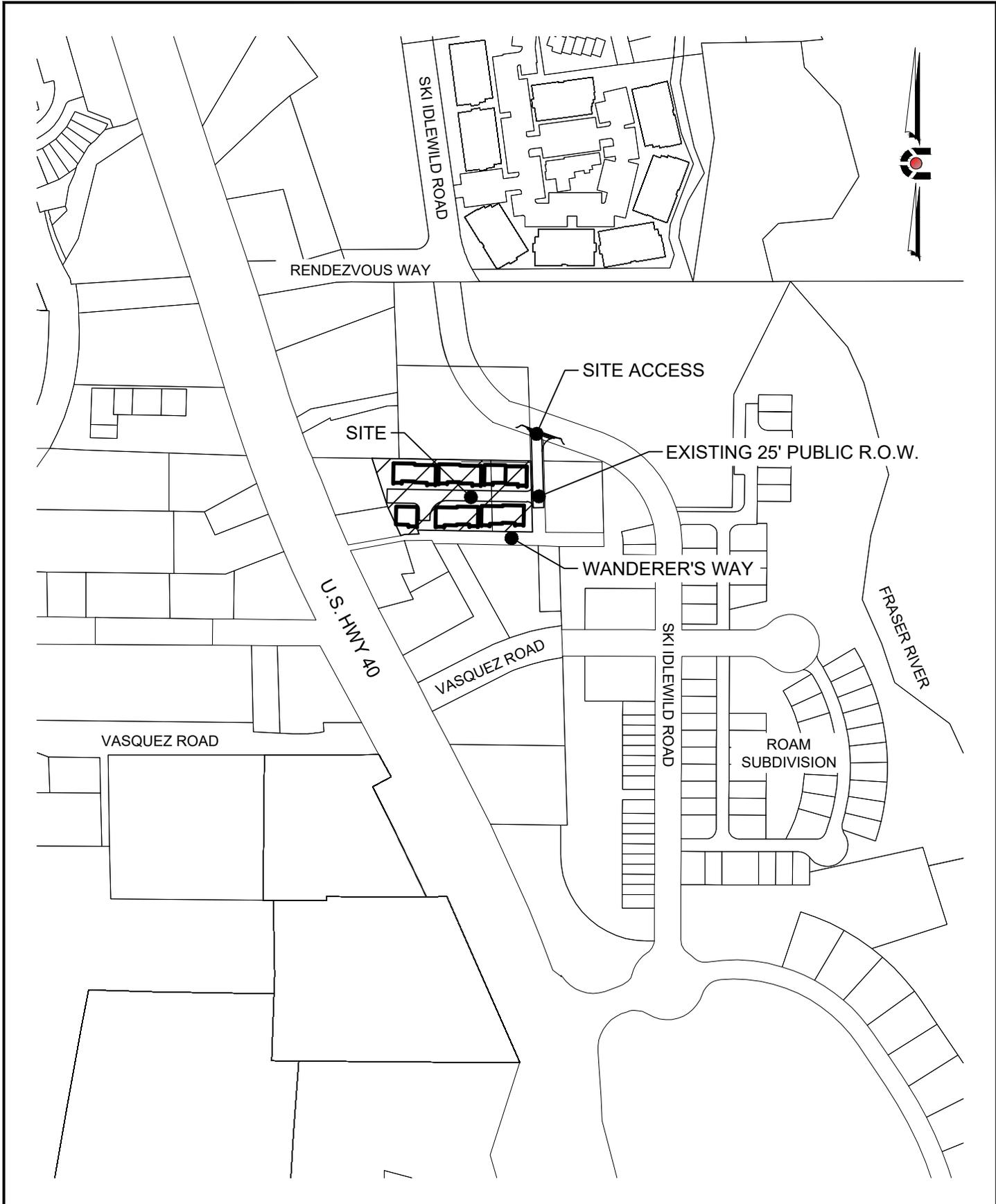


VI. REFERENCES

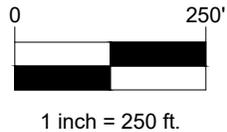
1. Town of Winter Park Standards and Specifications for Design and Construction, 2012
2. Mcdowell-Schroeder, Kari J. *Transportation Impact Study for ROAM (Formerly Beavers)*. Winter Park, 2017. Print. Rev. April 15, 2019



VII. EXHIBITS



11/5/2020 3:23 PM - A:\20131 WP TOWNHOMES - DUE DILIGENCE\LIBER\PORTS\TAV\VICINITY MAP.DWG



WP TOWNHOMES VICINITY MAP

CREATED BY: AM DATE: 11/05/2020

SHEET NUMBER
1
OF 1 SHEETS
JOB NUMBER
20-131



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Geotechnical and Materials Engineers
and Environmental Scientists



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GEOTECHNICAL ENGINEERING STUDY
PROPOSED RESIDENTIAL DUPLEX DEVELOPMENT
LOTS 2, 3, 15 & PART OF LOT 4
BLOCK 1, HIDE-AWAY PARK
WANDERER'S WAY (GCR 8021)
WINTER PARK, COLORADO

Prepared by:

James A. Parker, P.E., P.G.



Reviewed by:

Steven L. Pawlak, P.E.

PREPARED FOR:

SWITCHFLY
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DENVER, COLORADO 80202

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Fig. 1 LOCATION OF EXPLORATORY PITS

Fig. 2 LOGS OF EXPLORATORY PITS

Fig. 3 LEGEND AND NOTES

Fig. 4 GRADATION TEST RESULTS

Fig. 5 TYPICAL DRAIN DETAIL

Table 1 – SUMMARY OF LABORATORY TEST RESULTS

SUMMARY

1. A representative of Kumar and Associates, Inc. observed four exploratory pits on the subject property, at locations accessible with respect to current development. Beneath a shallow depth of organic topsoil, soils encountered in the pits consisted of medium dense, poorly graded gravel (GP), poorly graded silty gravel (GP-GM), and silty gravel (GM) to the full depth of exploration of 10 feet below the existing site grade. The soils were sandy and contained variable amounts of cobbles and scattered boulders. Existing fill was not encountered in the pits but should be anticipated in developed portions of the site, related to previous site grading and utility construction.
2. The medium dense, native, granular soil encountered is considered good for support of shallow foundations, floor slabs, pavement and concrete flatwork. Existing fill, if encountered, and topsoil are not suitable for support of structures or improvements and will require removal from beneath foundation, floor slab, and exterior flatwork areas.
3. Groundwater was not encountered in the pits at the time of excavation. The depth to groundwater will likely occur at shallower depths during spring thaw and snowmelt and has been encountered seasonally at relatively shallow depths at nearby developments.

PURPOSE AND SCOPE OF STUDY

This report presents the results of a geotechnical engineering study for a proposed residential duplex development to be located on Lots 2, 3, 15 & Part of 4, Block 1, Hide-Away Park, Wanderer's Way (aka Grand County Road (GCR) 8021), Winter Park, Colorado. The project site is shown on Figure 1. The purpose of the study was to develop recommendations for the foundation design. The study was conducted in accordance with our agreement for geotechnical engineering services to Switchfly, Proposal No. P6-20-223, dated August 10, 2020.

A field exploration program consisting of exploratory pits and a site reconnaissance was conducted to obtain information on the surface and subsurface conditions. Samples of the subsoils obtained during the field exploration were tested in the laboratory to determine their classification and other engineering characteristics. The results of the field exploration and laboratory testing were analyzed to develop recommendations for foundation types, depths and allowable pressures for the proposed structure foundations. This report summarizes the data obtained during this study and presents our conclusions, design recommendations and other geotechnical engineering considerations based on the proposed construction and the subsoil conditions encountered.

PROPOSED CONSTRUCTION

Based on review of preliminary plans and discussions with the Client, we understand the project consists of the construction of six duplex buildings on the subject property with associated parking, access drives and utility infrastructure. We anticipate the structures will be one and two-level structures of wood-frame construction with slab-on-grade lower levels and attached garages. Grading for the project is anticipated to be relatively minor and structural loads are anticipated to be relatively light and typical of the proposed construction. The project site is currently occupied by a trailer park in the central and west portions of the site with associated parking and the current development will be razed and removed from the project site to accommodate the planned project.

If construction plans are different than those described above, we should be notified to re-evaluate the recommendations presented in this report.

SITE CONDITIONS

The project site consists of a trailer home park located on the north side of Wanderer's Way (GCR 8021), a paved residential roadway, as shown on Figure 1. The site is approximately 0.86-acres in size and relatively level with a slight slope down toward the east, and mostly clear

of vegetation, with the exception of landscaping, consisting of grasses and scattered trees, around the existing trailer homes. The trailer homes are situated in the central and west portion of the site, and the east portion of the site is undeveloped. The site is bordered by existing commercial buildings to the west and north, trailer homes to the south, and a residential development currently under construction to the east-northeast.

FIELD EXPLORATION

The field exploration for the project was conducted on August 21, 2020. Four exploratory pits were excavated within proposed development areas at the approximate locations shown on Figure 1, to evaluate the subsurface conditions. Access for the pits was somewhat limited due to the existing development, and pits were excavated in areas free of current structures and utilities. The pits were excavated with a tracked mini-excavator and logged by a representative of Kumar and Associates, Inc.

Samples of the subsoils were taken with disturbed sampling methods. Depths at which the samples were taken are shown on the Logs of Exploratory Pits, Figure 2. The samples were returned to our laboratory for review by the project manager and testing.

LABORATORY TESTING

Laboratory testing performed on samples obtained from the exploratory pits consisted of natural moisture content, percent passing the No. 200 sieve and gradation analysis. The results of gradation analyses performed on the minus 2-inch fraction of the natural granular soils are shown on Figure 4. The laboratory test results are shown on the Logs of Exploratory Pits, Figure 2, and summarized in Table 1.

SUBSURFACE CONDITIONS

Soil Types Encountered: Graphic logs of the subsurface conditions encountered at the site are shown on Figure 2. Beneath a shallow depth of organic topsoil, soils encountered in the pits consisted of medium dense, poorly graded gravel (GP), poorly graded silty gravel (GP-GM), and silty gravel (GM) to the full depth of exploration of 10 feet below the existing site grade. The soils were sandy and contained variable amounts of cobbles and scattered boulders. Existing fill was not encountered in the pits but should be anticipated to various depths in developed portions of the site, related to previous site grading and utility construction.

Groundwater: Groundwater was not encountered in the pits at the time of excavation. The depth to groundwater will likely occur at shallower depths during spring thaw and snowmelt and has been encountered seasonally at relatively shallow depths in nearby developments.

GEOTECHNICAL ENGINEERING CONSIDERATIONS

Subsurface data indicate that medium dense, granular natural GP, GP-GM, and GM soils will likely be the predominant soil types encountered beneath shallow foundation, floor slab, flatwork and pavement areas. The anticipated natural granular soils at the foundation level are considered good for shallow foundation support.

Existing fill (if encountered), building and utility remnants, topsoil, organic material and loose and disturbed soils should be removed from foundation, proposed fill, pavement and slab-on-grade areas, and footing excavations extended down to the undisturbed natural granular soils or properly compacted new structural fill.

Locations accessible for subsurface exploration on the project site were limited due to existing development at the site. Kumar and Associates should observe site grading and excavation of building and footing excavations prior to placement of footing concrete or structural fill; to evaluate the exposed materials, identify existing fill, if encountered, and assess bearing conditions. Structural fill placement should also be observed, and the fill tested for compaction by Kumar and Associates, to document that the recommendations in this report are implemented.

SITE GRADING

The following recommendations should be followed for grading, site preparation, and fill compaction.

1. Where fill is to be placed, existing fill, building and utility remnants, topsoil, organic, loose or otherwise unsuitable material should be removed prior to placement of new fill. The exposed soils should then be scarified to a depth of 6 inches, moisture conditioned and compacted to the minimum requirements of the overlying fill. Soils should be compacted with appropriate equipment for the lift thickness placed. Lift thickness should be no more than 8 inches compacted at the recommended moisture content and to the minimum required density.
2. Permanent unretained cut and fill slopes should be graded at 2 horizontal to 1 vertical (2:1) or flatter and protected against erosion by revegetation or other means. The risk of slope instability will be increased if seepage is encountered in cuts and flatter slopes may be necessary. If seepage is encountered in permanent cuts, an investigation should be conducted to determine if the seepage will adversely affect the cut stability. This office should review site grading plans for the project prior to construction.
3. Slopes of 4:1 or steeper should be benched to provide a level surface for compaction.

4. All backfill should be processed so that it does not contain fragments larger than 6-inches in diameter and placed at the recommended moisture content.
5. The following compaction requirements should be used:

TYPE OF FILL PLACEMENT	MOISTURE CONTENT	SOIL TYPE - Compaction Percent (ASTM D698 – Standard Proctor)
Below Foundations	± 2% Optimum	Structural Fill – 98%
Foundation Wall Backfill	± 2% Optimum	Processed On-site or Structural Fill – 95%
Below Floor Slabs	± 2% Optimum	Structural Fill – 95%
Below Floor Slabs (Fills Greater than 8 Feet in Depth)	± 2% Optimum	Structural Fill – 100%
Landscape Areas	± 2% Optimum	Processed On-site – 90%
Below Concrete Flatwork/Pavements	± 2% Optimum	Structural Fill – 95%
Utility Trenches	As they apply to the finished area	

Suitability of On-Site Soil

The on-site granular soils are suitable as backfill after processing to remove all plus 6-inch material and moisture treatment. The on-site topsoil is not suitable for reuse except in the upper 6 to 12 inches of backfill in landscape areas. Onsite existing fill material (if encountered), screened for oversize rock, building remnants and deleterious material, may be suitable for use as structural fill, but should be evaluated for suitability by Kumar & Associates at the time of excavation.

Considerable processing will likely be necessary to reduce the on-site soil to fragments of minus 6-inches. Processing may include screening, rock raking and crushing. All on-site soil should be processed, moisture-conditioned and placed at the minimum required compaction.

Structural Fill

Structural fill used for support of the proposed buildings and pavement should consist of the on-site processed soils, approved processed existing fill, or a relatively well-graded imported granular material with a liquid limit of 35 or less, a plasticity index of 10 or less, 5 to 25 percent material passing the No. 200 sieve, 60 percent or more passing the No. 4 sieve and no rocks larger than 6 inches. CDOT Class 1 structural backfill is acceptable as structural fill. Structural fill should be properly placed and compacted to reduce the risk of settlement and distress.

Structural fills should be placed in accordance with the recommendations presented in the SITE GRADING section of this report.

Import Fill

The Geotechnical engineer should evaluate the suitability of any proposed import fill for its intended use.

Excavations

It is the responsibility of the Contractor to provide safe working conditions and to comply with the regulations in OSHA Standards, Excavations, 29CFS Part 1926. The onsite granular soil will likely classify as "Type C" in accordance with OSHA regulations. The regulations allow slopes of 1½ horizontal to 1 vertical (1½:1) for dry temporary excavations less than 20 feet deep.

The presence of water, seepage, fissuring, vibrations or surcharge loads will require temporary excavation to have flatter slopes. A Contractor's Competent Person should make decisions regarding cut slopes. A qualified Geotechnical engineer should observe any questionable slopes or conditions. Temporary shoring may be necessary.

FOUNDATIONS

Considering the subsoil conditions encountered in the exploratory pits and the nature of the proposed construction, we recommend the structures be founded with spread footings bearing on the undisturbed granular soils or properly compacted structural fill.

The design and construction criteria presented below should be observed for a spread footing foundation system.

- 1) Footings placed on the undisturbed natural granular soils or compacted structural fill should be designed for an allowable soil bearing pressure of 2,500 pounds per square foot (psf). Based on experience, we expect movement of footings designed and constructed as discussed in this section will be about 1 inch or less.
- 2) The footings should have a minimum width of 16 inches for continuous walls and 2 feet for isolated pads.
- 3) Exterior footings and footings beneath unheated areas should be provided with adequate soil cover above their bearing elevation for frost protection. Placement of foundations at least 40 inches below exterior grade is recommended for foundations bearing on the natural granular soils. Concrete should not be placed on frost, frozen soil, snow or ice.

- 4) Continuous foundation walls should be reinforced top and bottom to span local anomalies such as by assuming an unsupported length of at least 10 feet. Foundation walls acting as retaining structures should also be designed to resist lateral earth pressures as discussed in the "Foundation and Retaining Walls" section of this report.
- 5) The topsoil, existing fill and debris, where encountered, and any loose or disturbed soils should be removed, and the footing bearing level extended down to the relatively undisturbed granular soils or replaced with properly compacted structural fill.
- 6) The exposed soil in footing areas should then be adjusted to near optimum moisture content and compacted. If water seepage is encountered, the footing areas should be dewatered before concrete placement and we shall be contacted for further evaluation.
- 7) Voids in the footing area subgrade created by boulder removal should be backfilled with properly compacted structural fill, lean mix "flow-fill" concrete or structural concrete.
- 8) Structural fill used for support of the foundation should meet the requirements listed in the SITE GRADING section of this report.
- 9) A representative of the geotechnical engineer should observe all footing excavations prior to forming footings and concrete placement to evaluate bearing conditions.

FOUNDATION AND RETAINING WALLS

Foundation walls and retaining structures which are laterally supported and can be expected to undergo only a slight amount of deflection should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of at least 45 pounds per cubic foot (pcf) for backfill consisting of the on-site processed soils or suitable granular import. Cantilevered retaining structures which are separate from the foundation and can be expected to deflect sufficiently to mobilize the full active earth pressure condition should be designed for a lateral earth pressure computed on the basis of an equivalent fluid unit weight of at least 35 pcf for backfill consisting of the processed on-site soil or suitable granular import. The backfill should not contain rock larger than about 6 inches in diameter.

The lateral resistance of foundation or retaining wall footings will be a combination of the sliding resistance of the footing on the foundation materials and passive earth pressure against the side of the footing. Resistance to sliding at the bottoms of the footings can be calculated based on a coefficient of friction of 0.45. Passive pressure of compacted backfill against the sides of the footings can be calculated using an equivalent fluid unit weight of 460 pcf. The coefficient of friction and passive pressure values recommended above assume ultimate soil strength. Suitable factors of safety should be included in the design to limit the strain which will occur at the ultimate strength, particularly in the case of passive resistance. Fill placed against the sides

of the footings to resist lateral loads should be a suitable granular material compacted to at least 95% of the maximum standard Proctor dry density at a moisture content near optimum.

All foundation and retaining structures should be designed for appropriate hydrostatic and surcharge pressures such as adjacent footings, traffic, construction materials and equipment. The pressures recommended above assume drained conditions behind the walls and a horizontal backfill surface. The buildup of water behind a wall or an upward sloping backfill surface will increase the lateral pressure imposed on a foundation wall or retaining structure. An underdrain should be provided to limit hydrostatic pressure buildup behind walls.

Backfill in patio, pavement, and walkway areas should be placed in uniform lifts and compacted to at least 95% of the maximum standard Proctor (ASTM D-698) dry density. Backfill placed in landscape areas should be compacted to at least 90% of the maximum standard Proctor dry density at a moisture content near optimum. Care should be taken not to overcompact the backfill or use large equipment near the wall, since this could cause excessive lateral pressure on the wall. Some settlement of deep foundation wall backfill should be expected, even if the material is placed correctly, and could result in distress to facilities constructed on the backfill.

FLOOR SLABS

The on-site natural granular soils, exclusive of topsoil or existing fill (if encountered), and properly compacted structural fill placed on the natural granular site soils, are suitable to support lightly loaded slab-on-grade construction. To reduce the effects of some differential movement, floor slabs should be separated from all bearing walls and columns with expansion joints which allow unrestrained vertical movement. Floor slab control joints should be used to reduce damage due to shrinkage cracking. The requirements for joint spacing and slab reinforcement should be established by the designer based on experience and the intended slab use. A minimum 4-inch layer of free-draining gravel should be placed beneath interior slabs to facilitate drainage. This material should consist of minus 2-inch aggregate with at least 50% retained on the No. 4 sieve and less than 2% passing the No. 200 sieve. All backfill under floor slabs should be placed in accordance with the SITE GRADING section of this report.

We recommend vapor retarders conform to at least the minimum requirements of ASTM E1745 Class C material. Certain floor types are more sensitive to water vapor transmission than others. For floor slabs bearing on angular gravel or where flooring system sensitive to water vapor transmission are utilized, we recommend a vapor barrier be utilized conforming to the minimum requirements of ASTM E1745 Class A material. The vapor retarder should be installed in accordance with the manufacturers' recommendations and ASTM 1643.

EXTERIOR FLATWORK

Structural fill placed beneath exterior flatwork can consist of processed on-site soils excluding topsoil and oversized rocks or an imported well-graded granular material. Structural fill should be spread in thin horizontal lifts, adjusted to at or above optimum moisture content, and compacted to at least 95% of the maximum standard Proctor dry density. All vegetation, topsoil and loose or disturbed soil should be removed prior to fill placement.

UNDERDRAIN SYSTEM AND DAMP-PROOFING

Groundwater was not encountered during our exploration but it has been our experience in mountainous areas that groundwater levels can rise, and that local perched groundwater can develop during times of heavy precipitation or seasonal runoff. Frozen ground during spring runoff can create a perched condition. We recommend below-grade construction (if constructed), such as retaining walls, crawlspace and basement areas, be protected from wetting and hydrostatic pressure buildup by an underdrain and wall drain system. A foundation drain should not be needed for slab-on-grade construction.

The underdrain should consist of drainpipe placed in the bottom of the wall backfill surrounded above the invert level with free-draining gravel. The drain should be placed at each level of excavation and at least 12-inches below lowest adjacent finish grade and sloped at a minimum 1% to a suitable gravity outlet, sump and pump system or drywell. Free-draining gravel used in the underdrain system should contain less than 2% passing the No. 200 sieve, less than 50% passing the No. 4 sieve and have a maximum size of 1-inch. The drain gravel backfill should be at least 1½ feet deep and protected by filter fabric. A typical drain detail is shown on Figure 5.

For exterior below grade foundation walls, we recommend, as a minimum, damp-proofing consist of bituminous material, 3 lbs per square yard, extending from the top of the footing to above ground level. A wall drain system consisting of a geocomposite, MiraDrain 6000, or equivalent, should be placed adjacent to below grade construction walls, with 100 percent coverage on the foundation wall facing the uphill slope and a minimum of 50 percent coverage for the adjacent foundation walls. The wall drain system should connect into the underdrain and extend to within 1 to 2 feet of the ground surface.

SURFACE DRAINAGE

The following drainage precautions should be observed during construction and maintained at all times after the residence has been completed:

- 1) Inundation of the foundation excavations and underslab areas should be avoided during construction.

- 2) Backfill in pavement and slab areas should be compacted to at least 95% of the maximum standard Proctor dry density at a moisture content within 2% of optimum. Exterior backfill placed in landscape areas should be compacted to at least 90% of the maximum standard Proctor dry density at a moisture content near optimum.
- 3) The ground surface surrounding the exterior of the building should be sloped to drain away from the foundation in all directions. We recommend a minimum slope of 6 inches in the first 10 feet in unpaved areas and a minimum slope of 2½ inches in the first 10 feet in paved areas.
- 4) Roof downspouts and drains should discharge well beyond the limits of all backfill.
- 5) Landscaping which requires regular heavy irrigation should be located at least 5 feet from foundation walls. The upper 2 feet of foundation wall backfill should consist of low permeability cover soil.

PAVEMENT SECTION DESIGN

Based on our understanding of the project, asphalt-paved access drives and parking areas will be constructed as part of project development. Traffic will generally consist of light automotive and occasional heavy service and delivery vehicles. Traffic during construction will consist of heavier vehicles with higher wheel loads and precautions should be taken to prevent damage to the newly constructed pavement during construction.

A pavement section is a layered system designed to distribute concentrated traffic loads to the subgrade. Performance of the pavement structure is directly related to the physical properties of the subgrade soils and traffic loadings. Soils are represented for pavement design purposes by means of a soil support value for flexible pavements and a modulus of subgrade reaction for rigid pavements. Both values are empirically related to strength.

The proof-rolled, inorganic natural granular soils (exclusive of topsoil) and properly-compacted structural fill will provide, in our opinion, adequate subgrade support for asphalt-paved drives and parking areas associated with the development. Existing fill, if encountered, should be removed from pavement areas to expose the underlying natural granular soils.

Proper pavement section drainage, including site drainage to avoid ponding of water on, or adjacent to pavement areas, will be important in reducing the potential for pavement distress. Structural fill placed in paved areas should consist of processed on-site native soil or imported sand and gravel meeting the requirements of the Site Grading section of this report. Fill should be placed in maximum 8-inch lifts, loose thickness, moisture-conditioned, and compacted to at least 95 percent of the standard Proctor density, ASTM D698.

Subgrade Soils

Subgrade soils consisting of medium dense poorly graded gravel, and silty gravel with sand, cobbles, and boulders are anticipated to be present at the pavement subgrade level. The soils generally classify as Group A-1 in accordance with the American Association of State Highway and Transportation Officials (AASHTO). The soil type is considered excellent for pavement subgrade support.

Traffic Estimates

Since anticipated traffic loading information was not available at the time of report preparation, Colorado Department of Transportation (CDOT) procedures were used estimate a 20-year Equivalent Single Axle Load (ESAL) value of 80,000, which was utilized for parking and drive lanes. The designer should verify anticipated traffic loads for the project. If higher 20-year ESAL values are anticipated, the pavement sections presented in this report will have to be re-evaluated.

Asphaltic Concrete (AC) Pavement Design

Pavement section recommendations are presented for asphaltic concrete (AC) over aggregate base course (ABC) for the drive lanes and parking lot areas. We recommend that portland cement concrete (PCC) pavement be used in concrete aprons, garbage dumpster areas, entry areas, and other areas that will receive concentrated truck turning movements. The recommended pavement section thickness is presented in the following table:

Location	Asphalt and Aggregate Base Course AC + ABC
<i>Drive Lanes and Parking Areas</i>	<i>4 inches + 6 inches</i>

Asphalt should consist of a mixture of aggregate, filler and asphalt cement established by a qualified engineer. Aggregate Base Course (ABC) should conform to the requirements of AASHTO M147 and to Section 703.03 of the CDOT Standard Specifications for Road and Bridge Construction. The ABC should meet Class 6 grading and quality as defined by the CDOT specifications. The ABC should have a minimum R-value of 77 and a minimum dry unit weight of 120 pcf when placed at the required compaction. The ABC must also meet all other appropriate CDOT specifications.

Portland Cement Concrete Pavement Section

For concrete pavements, we recommend a minimum of 6-inches of Portland cement concrete (PCC) underlain by 4 inches of CDOT Class 6 ABC. Concrete pavement underlain by 4 inches Class 6 ABC is recommended 1) to create a uniform subbase/base, 2) to prevent pumping of fines from beneath the pavement, and 3) provide a working platform for construction.

All concrete should be based on a mix design established by a qualified engineer. A CDOT Class P or D mix would be acceptable. The design mix should consist of aggregate, Portland cement, water, and additives which will meet the requirements contained in this section. The concrete should have a modulus of rupture of third point loading of 650 psi. Normally, concrete with a 28-day compressive strength of 4,200 psi will meet this requirement. Concrete should contain approximately 6 percent entrained air. Maximum allowable slump should not exceed 4 inches.

The concrete should contain joints not greater than 10 feet on centers. Joints should be sawed or formed by pre-molded filler. The joints should be at least 1/3 of the slab thickness. Joints should be reinforced with dowels to provide load transfer between slabs. Concrete pavement joints should meet the requirements of CDOT Standard Plan No. M 412-1 and CDOT Standard Specifications Section 412.13. Expansion joints should be provided at the end of each construction sequence and between the concrete slab and adjacent structures. Expansion joints, where required, should be filled with a ½-inch thick asphalt impregnated fiber. Concrete should be cured by protecting against loss of moisture, rapid temperature changes and mechanical injury for at least three days after placement. After sawing joints, the saw residue shall be removed and the joint sealed.

Subgrade Preparation

Prior to placing compacted fill, the exposed subgrade soils should be thoroughly scarified and well mixed to a depth of 12 inches, adjusted to a moisture content near optimum, and compacted to at least 95% of the standard Proctor (ASTMD 698) maximum dry density.

Proof Roll

Before placing aggregate base course for the pavement section, the subgrade should be proof rolled with a heavily loaded, pneumatic-tired vehicle. The vehicle should have gross vehicle weight of at least 50,000 pounds with a loaded single axle weight of 18,000 pounds and a tire pressure of 100 psi. Areas which deform excessively under heavy wheel loads are not stable

and should be removed and replaced to achieve a stable subgrade prior to paving or placement of base course.

Drainage

The collection and diversion of surface drainage away from paved areas is extremely important for the satisfactory performance of pavement. Drainage design should provide for the removal of water from paved areas and prevent wetting of the subgrade soils.

Maintenance

Periodic maintenance of paved areas is critical to achieve the design pavement life. Crack sealing should be performed annually as new cracks appear. Joint seals in concrete should be replaced as they deteriorate. Chip seals, fog seals, or slurry seals applied at approximate intervals of 3 to 5 years are usually necessary for asphalt. As conditions warrant, it may be necessary to perform patching and structural overlays at approximate 10-year intervals. In temporary gravel roadways, periodic regrading should be expected on a yearly basis.

CONTINUING SERVICES

Three additional elements of geotechnical engineering service are important to the successful completion of this project.

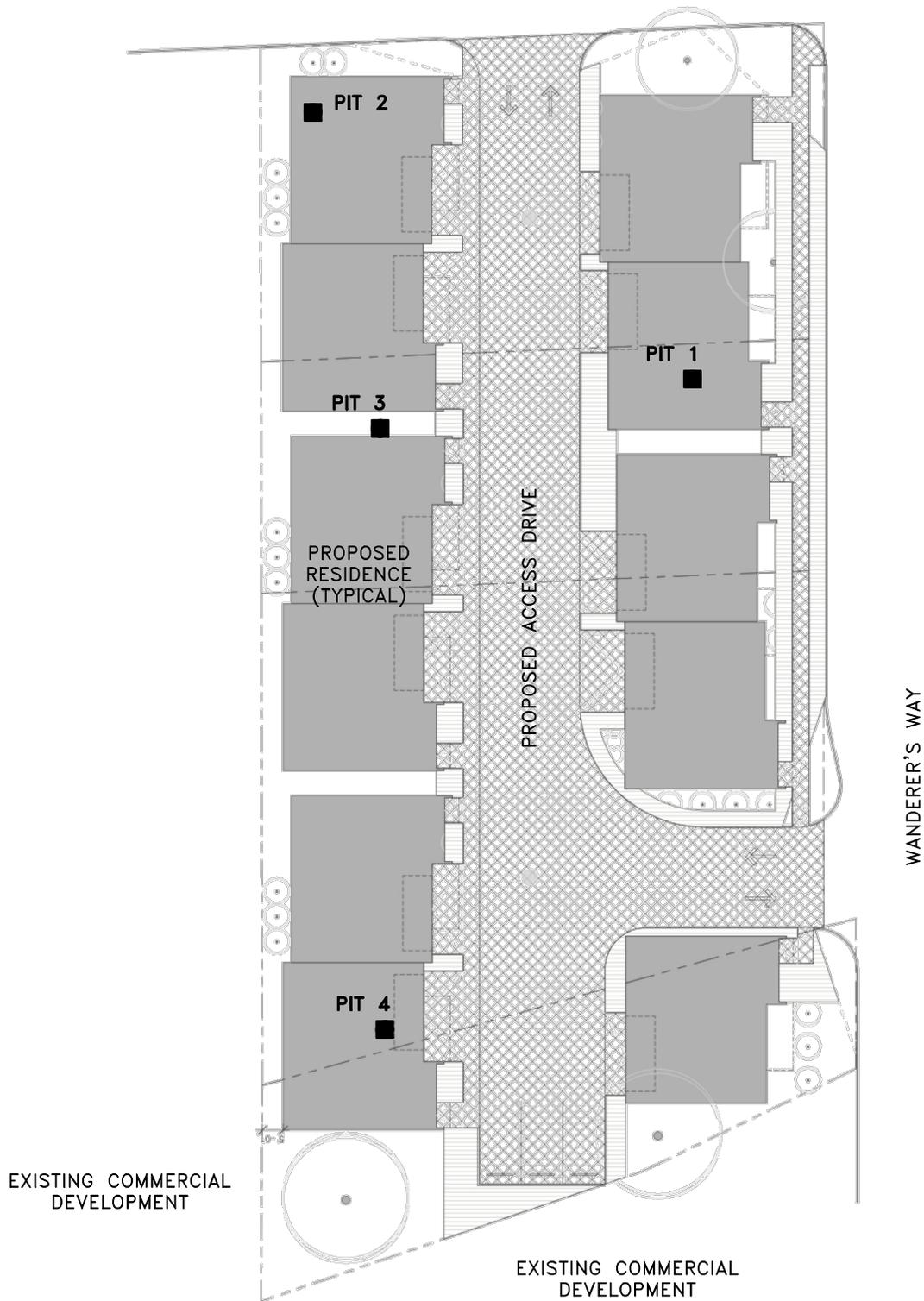
- 1) Consultation with design professionals during the design phases. This is important to ensure that the intentions of our recommendations are properly incorporated in the design, and that any changes in the design concept properly consider geotechnical aspects.
- 2) Grading Plan Review. Final grading plans were not available for our review at the time of this report. A grading plan with finish floor elevations for the proposed construction should be prepared by a civil engineer licensed in the State of Colorado. Kumar and Associates, Inc. should be provided with grading plans once they are complete to confirm the recommendations contained in this report.
- 3) Observation and monitoring during construction. A representative of the Geotechnical engineer from our firm should observe the foundation excavation, earthwork, and foundation phases of the work to determine that subsurface conditions are compatible with those used in the analysis and design and our recommendations have been properly implemented. Placement of backfill should be observed and tested to judge whether the proper placement conditions have been achieved. We recommend a representative of the geotechnical engineer observe the drain and dampproofing phases of the work, if constructed, to judge whether our recommendations have been properly implemented.

LIMITATIONS

This study has been conducted in accordance with generally accepted geotechnical engineering principles and practices in this area at this time. We make no warranty either express or implied. The conclusions and recommendations submitted in this report are based upon the data obtained from the exploratory pits at the locations indicated on Figure 1, the proposed type of construction and our experience in the area. Our services do not include determining the presence, prevention or possibility of mold or other biological contaminants (MOBC) developing in the future. If the client is concerned about MOBC, then a professional in this special field of practice should be consulted. Our findings include interpolation and extrapolation of the subsurface conditions identified at the exploratory pits and variations in the subsurface conditions may not become evident until excavation is performed. If conditions encountered during construction appear different from those described in this report, we should be notified so that re-evaluation of the recommendations may be made.

This report has been prepared for the exclusive use by our client for design purposes. We are not responsible for technical interpretations by others of our information. As the project evolves, we should provide continued consultation and field services during construction to review and monitor the implementation of our recommendations, and to verify that the recommendations have been appropriately interpreted. The recommendations contained in this report are contingent upon review of grading and excavation plans prepared by a civil engineer licensed in the State of Colorado. Review of grading plans may alter our recommendations. Significant design changes may require additional analysis or modifications to the recommendations presented herein.

RESIDENTIAL DEVELOPMENT
UNDER CONSTRUCTION



EXISTING COMMERCIAL
DEVELOPMENT

EXISTING COMMERCIAL
DEVELOPMENT

WANDERER'S WAY

PROPOSED ACCESS DRIVE

PROPOSED
RESIDENCE
(TYPICAL)

PIT 2

PIT 1

PIT 3

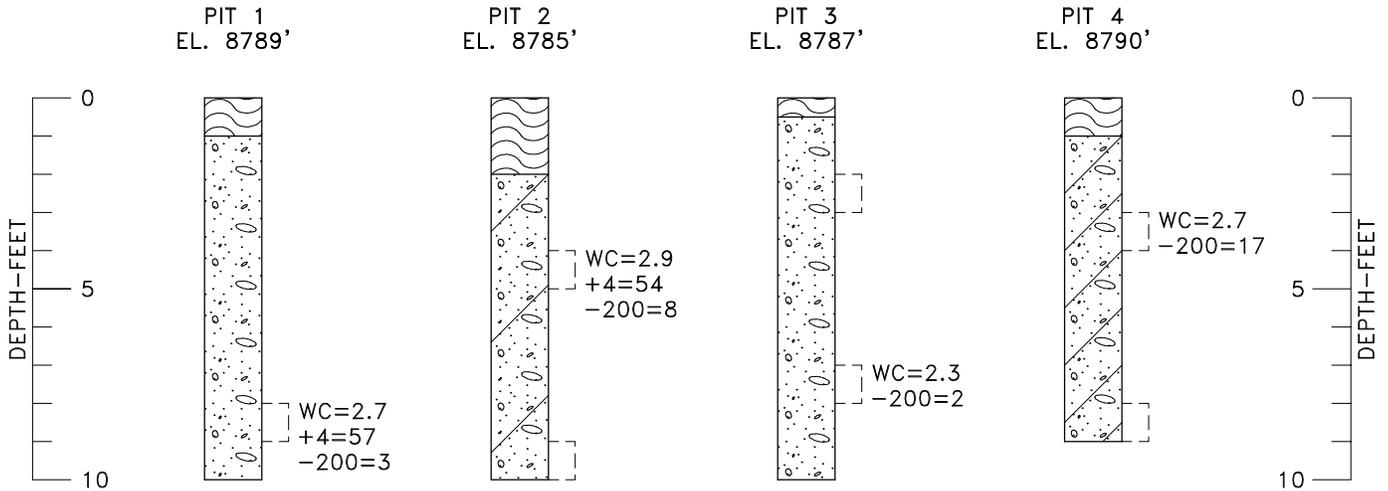
PIT 4



APPROXIMATE SCALE—FEET

NOTES:

PIT LOCATIONS ARE APPROXIMATE.



LEGEND



TOPSOIL; SILTY SAND, GRAVEL AND COBBLES WITH ORGANICS, SLIGHTLY MOIST, BROWN.



POORLY GRADED GRAVEL (GP); WITH SAND, COBBLES, AND SCATTERED BOULDERS, MEDIUM DENSE, SLIGHTLY MOIST, BROWN.



POORLY GRADED SILTY GRAVEL (GP-GM); WITH SAND, COBBLES, AND SCATTERED BOULDERS, MEDIUM DENSE, SLIGHTLY MOIST, BROWN.



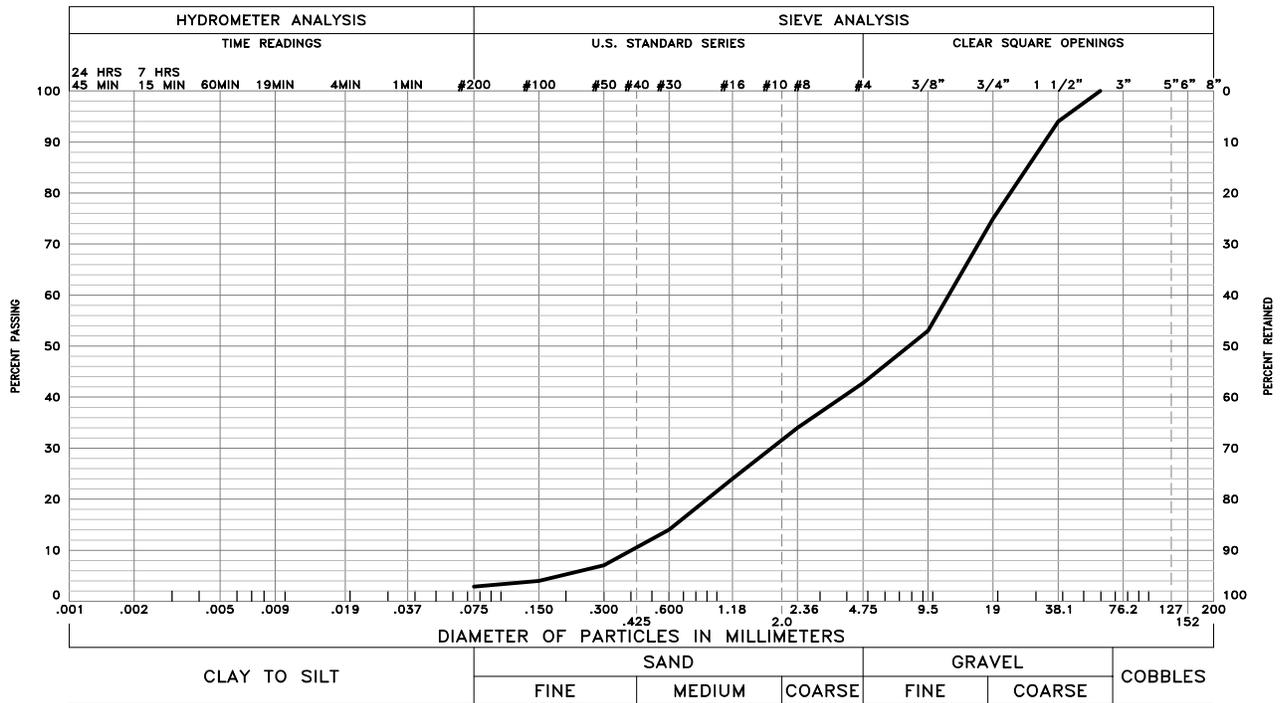
SILTY GRAVEL (GM); WITH SAND, COBBLES AND SCATTERED BOULDERS, MEDIUM DENSE, SLIGHTLY MOIST, BROWN.



DISTURBED BULK SAMPLE.

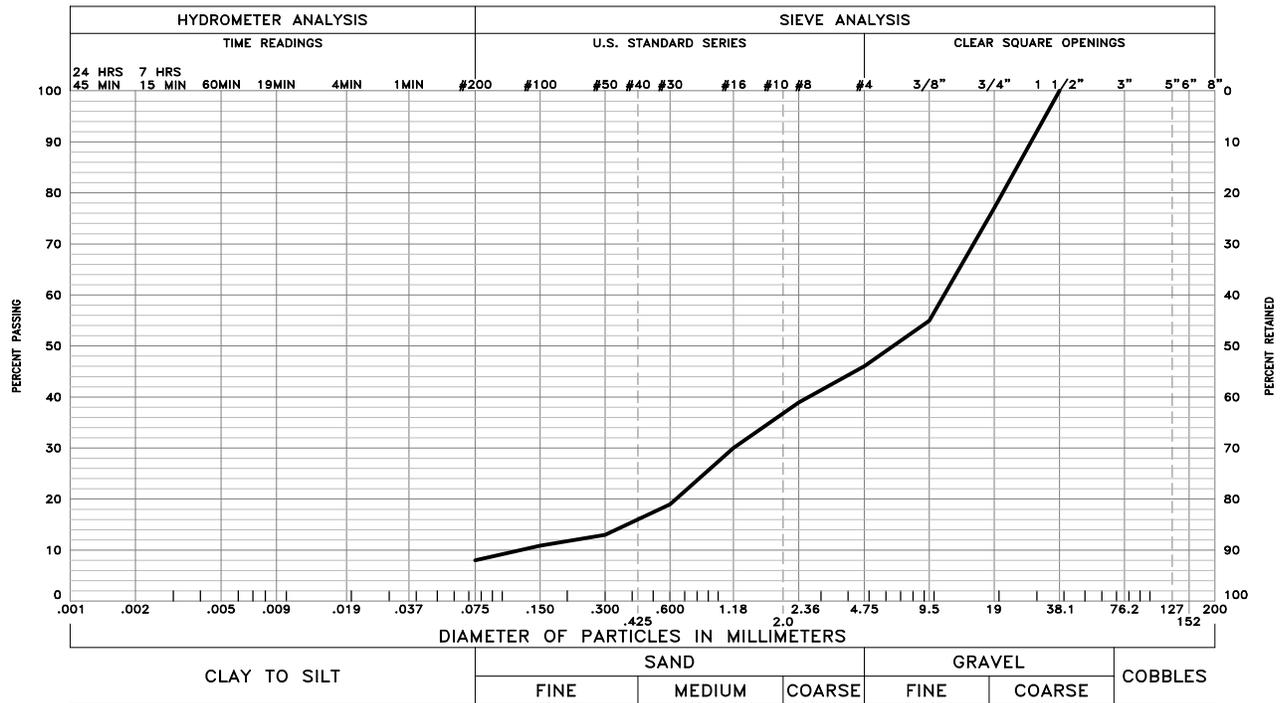
NOTES

1. THE EXPLORATORY PITS WERE EXCAVATED ON AUGUST 21, 2020 WITH A CAT TRACKED MINI-EXCAVATOR.
2. THE LOCATIONS OF THE EXPLORATORY PITS WERE MEASURED APPROXIMATELY BY PACING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.
3. THE ELEVATIONS OF THE EXPLORATORY PITS WERE OBTAINED BY INTERPOLATION FROM A SURVEY MAP PROVIDED BY CLIENT.
4. THE EXPLORATORY PIT LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5. THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY PIT LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.
6. GROUND WATER WAS NOT ENCOUNTERED IN THE PITS AT THE TIME OF EXCAVATION. PITS WERE BACKFILLED SUBSEQUENT TO SAMPLING.
7. LABORATORY TEST RESULTS:
 WC = WATER CONTENT (%) (ASTM D 2216);
 +4 = PERCENTAGE RETAINED ON NO. 4 SIEVE (ASTM D 422);
 -200= PERCENTAGE PASSING NO. 200 SIEVE (ASTM D 1140).



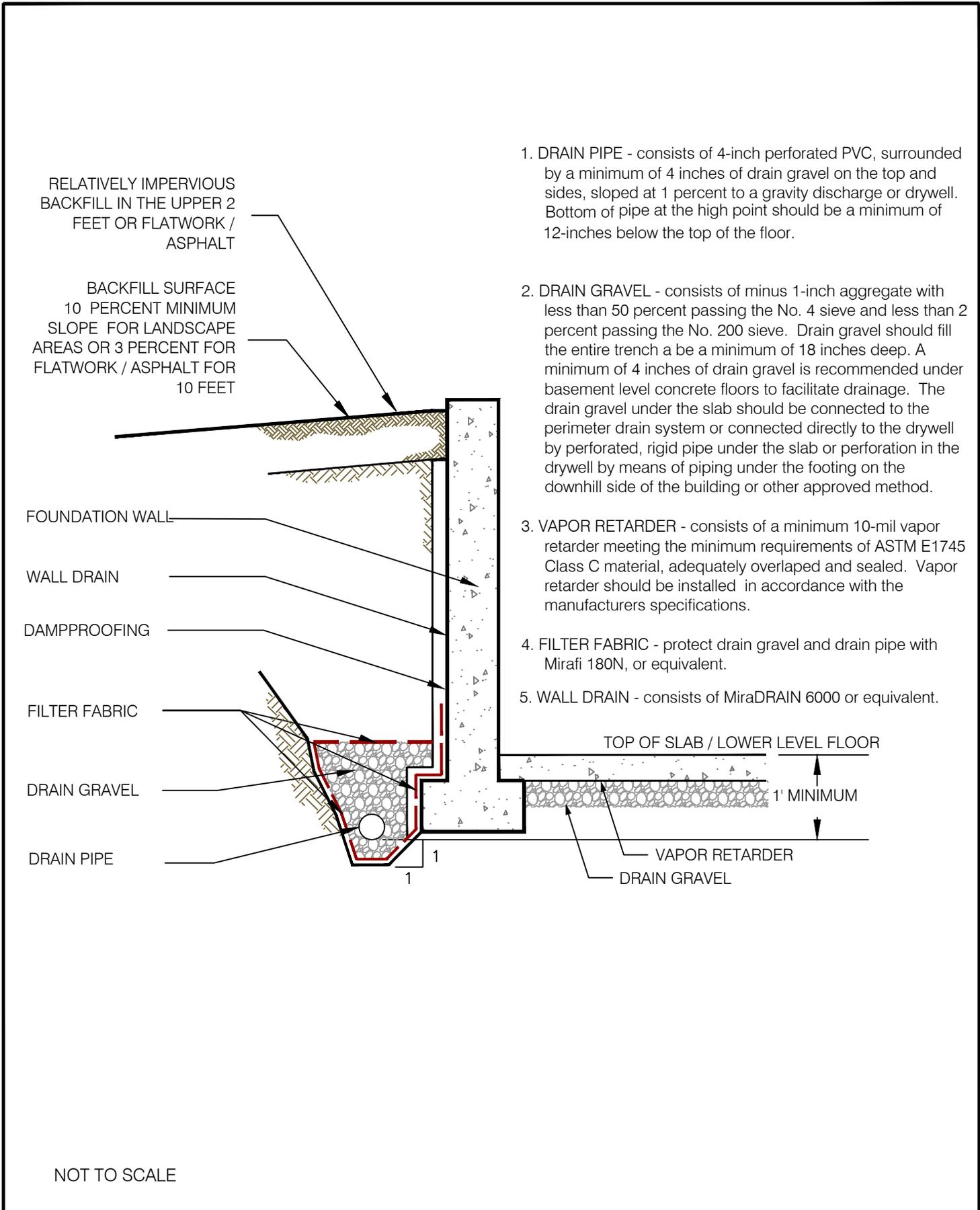
SAMPLE OF: Poorly Graded Gravel with Sand

FROM: Pit 1 @ 8'



SAMPLE OF: Poorly Graded Silty Gravel with Sand FROM: Pit 2 @ 4'

These test results apply only to the samples which were tested. The testing report shall not be reproduced, except in full, without the written approval of Kumar & Associates, Inc. Sieve analysis testing is performed in accordance with ASTM D6913, ASTM D7928, ASTM C136 and/or ASTM D1140.



NOT TO SCALE



**PHASE I DRAINAGE REPORT
FOR
WANDER
*Town of Winter Park, Colorado***

PREPARED FOR:

Mark Kent
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Denver, CO 80202
Contact: Mark Kent
Phone: 650-465-3735

PREPARED BY:

CORE Consultants, Inc.
3473 S. Broadway
Englewood, CO 80113
Contact: Tim Gagnon
Phone: 303-703-4444
CORE Project Number: 20-131

November 3, 2020



APPROVAL BLOCKS

I. ENGINEER'S STATEMENT:

This report was prepared by me, or under my direct supervision, in accordance with the Town of Winter Park standards and specifications and was designed to comply with the provisions thereof. I understand that the town does not and will not assume liability for drainage facilities designed by others.

R. Timothy Gagnon, PE
Colorado Professional Engineer
License #35765



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APPENDICES

APPENDIX A: FIGURES

APPENDIX B: HYDROLOGIC CALCULATIONS

APPENDIX C: MAPS



I. GENERAL LOCATION AND DESCRIPTION

I.1. Site Location

The WANDER Project Site is located north of Wanderer's Way and approximately 130 feet east of U.S. HWY 40 in Winter Park, Colorado. The Project Site is within the Southwest Quarter (NE ¼) of Section 33 in Township 1 South, Range 75 West of the 6th P.M. in Grand County, Colorado. The Project Site is also bounded to the south by Wanderer's Way, and north and east by the planned residential development ROAM in Winter Park and the Fraser River. The Downtown Business Overlay (DBO), commercial properties and U.S. Hwy 40 are located west of the project site. There are no major drainage ways on site but the Fraser River is east of the ROAM development. Refer to the Vicinity Map located in Appendix A.

I.2. Description of Property and Land Use

WANDER is a proposed residential development consisting of 11 townhome units, private roadway and landscaped lawns on approximately 0.87 acres within the Town of Winter Park. The property is currently zoned as D-C, Destination Center. Historically, this land has been partially developed with six single-family mobile homes with asphalt and gravel surface access driveways, and mixed native grass and shrubs in the undeveloped portions. The site generally drains to the northeast toward the ROAM development where it's conveyed to their local storm sewer system.

Soil data for the site was obtained from the United States Department of Agriculture Natural Conservation Service (NRCS) Web Soil Survey. The soils encountered on site consist of Scout cobbly sandy loam and Frisco-Peeler gravely sandy loams. The Scout cobbly sandy loam is a part of the Type A hydrologic soil group and Frisco-Peeler gravely sandy loam is a part of the Type B hydrologic soil group. Type A and B soil designations have been utilized for all hydrologic calculations. A map depicting the soil type location along with a summary of the hydrologic soil group has been provided in Appendix A.



2. DRAINAGE BASIN AND SUB-BASINS

2.1. Major Basin Description

The WANDER Project Site is located within a tributary of the Fraser River even though there are no found master drainage studies for this area. Currently, the historic runoff from the site drains to two water quality facilities within the ROAM development and ultimately into the Fraser River. The Phase III Drainage Report for ROAM in Winter Park was used to analyze and check the historic and proposed events currently found within the WANDER Project Site. The Site is within the HDA-OS1a and HDA-OS2b drainage basins in the Phase III Report. A Basin Map from the Phase III Drainage Report for ROAM in Winter Park Phase I has been provided in Appendix C.

The site has no flood potential and is outside of the mapped FEMA Floodplain per FIRM Map Number 08049C0991 effective date January 2, 2008.

2.2. Sub-basin Description

The Project Site grading will be designed to generally follow the historic drainage pattern with some minor rerouting due to the proposed roadway and development. Runoff will be conveyed from the existing Basin OS-2 and proposed basin A-1 to design point I. Generated runoff from basin OS-1 will continue to be routed around the site via Wanderer's Way. The historic and proposed drainage basin maps for WANDER can be found in Appendix C.

Basin H-1

Basin H-1 consists of 0.87 acres of existing residential development. Impervious values and C factors have been calculated yielding an impervious value of 26%, and 10-year and 100-year C factors of 0.27 and 0.55, respectively. Type B soils were used to derive the C factors for this basin. Existing flow has been projected to be 0.59 cfs (10-year) and 1.95 cfs (100-year). Runoff generated in this basin sheet flows to DP H1 and is ultimately captured in the ROAM subdivision at Ski Idlewild Road.

Basin OS-1

Basin OS-1 consists of 0.83 acres of existing commercial development. Impervious values and C factors have been calculated yielding an impervious value of 77%, and 10-year and 100-year C factors of 0.66 and 0.75, respectively. Type B soils were used to derive the C factors for this basin. Existing flow has been projected to be 1.41 cfs (10-year) and 2.62 cfs (100-year). After a site investigation, it was determined the runoff generated from this basin is routed by an existing fence into Wanderer's Way even though the mapped grading shows the runoff sheet flowing onto the Project Site. For a more conservative approach, WANDER will be including Basin OS-1's flows into the drainage facility design.

Basin OS-2

Basin OS-2 consists of 0.17 acres of existing commercial and residential development. Impervious values and C factors have been calculated yielding an impervious value of 97.8%, and 10-year and 100-year C factors of 0.85 and 0.89, respectively. Type A and B soils were primarily used to derive the C factors for this basin. Existing flow has been projected to be 0.43 cfs (10-year) and 0.73 cfs (100-year). After a site investigation, it was determined the runoff generated from OS-2 does not reach the Project Site as it's conveyed on the north side of Wander's Way via existing concrete curb and gutter, raised asphalt parking, and natural swales, and ultimately into the ROAM subdivision at Ski Idlewild Road.



Basin A-I

Basin A-I consists of 0.87 acres and is the proposed basin of existing basin H-I mentioned above. This basin consists of developed 11 townhome units, private roadway and landscaped lawns. Impervious values and C factors have been calculated yielding an impervious value of 72.4%, and 10-year and 100-year C factors of 0.60 and 0.55, respectively. Type A and B soils were primarily used to derive the C factors for this basin. The proposed flow has been projected to be 1.49 cfs (10-year) and 2.82 cfs (100-year). Runoff is intended to route to DP I via a local storm sewer, where a future underground detention facility in the private roadway will ensure capture of the flows.

3. DRAINAGE FACILITY DESIGN

3.1. General Concept

For the WANDER Project Site, the interval rainfall is based off of the NOAA Atlas 14, Volume 8, Version 2 Point Precipitation Frequency Estimates. See Appendix A for the corresponding 10-year and 100-year precipitation frequencies.

Onsite runoff will be routed through the site via surface flow, curb and gutter, and an onsite storm sewer system. The size and location of this storm drain system will be designed during the detailed design phase of the project. Runoff will generally be conveyed to a proposed underground water quality and detention facility within the private roadway onsite via a grated inlet and outlet at DP I. Stormwater flows leaving the site will be conveyed through the ROAM development and the Fraser River, as further discussed below.

Historically, the existing ROAM development storm drain system collects flow from the WANDER Project Site also known as the HDA-OS1a and HDA-OS1b basins in the Phase III Drainage Report for ROAM in Winter Park. From the HDA-OS1a basin, water is conveyed through curb and gutter in Ski Idlewild Road, captured at a Type 13 Combo Curb inlet and treated by an ADS Baracuda S6 approximately 330 feet downstream from said inlet. The outlet for this storm sewer system ultimately discharges into the Fraser River. From the HDA-OS1b basin, water is captured by an existing 24" FES and discharges into a water quality pond J-26 on the north side of the ROAM development.

3.2. Specific Details

The proposed underground detention facility will be designed for WQCV (Water Quality Capture Volume) for the WANDER Project Site even though WQCV has been provided downstream by the ROAM development ADS Baracuda S6 and Pond J-26. The 100-year storm event will be released at design point I at the historic flow rate and outlet into the ROAM development storm sewer system.

Requirements for maintenance of the storm sewer system and underground detention will be shown in the HOA Declarations of Covenants. The size and location of the underground detention and outlet design will be established during the detailed design phase of the project.



4. REFERENCES

Drainage Criteria Manual, Volumes 1, 2, & 3, Urban Drainage and Flood Control District, Volumes 1 & 2 – Originally Published September 1969, Updated January 2016; Volume 3 Originally Published September 1992, Updated November 2010.

Phase III Drainage Report for Roam in Winter Park, May, 2019

Town of Winter Park Standards and Specifications for Design and Construction, Amended May 1, 2012



APPENDIX A

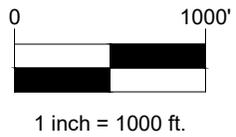
FIGURES

VICINITY MAP

FIRM MAP

SCS SOILS MAP

NOAA ATLAS PRECIPITATION DATA



WP TOWNHOMES VICINITY MAP

CREATED BY: LMK DATE: 10/16/2020

SHEET NUMBER
1
OF 1 SHEETS
JOB NUMBER
20-131

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **Floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.2' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **Floodways** were compiled at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM), zone 13. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NADS Information Services
 NOAA, NAD83/29
 National Geodetic Survey
 GSAC-3, #5032
 1215 East-West Highway
 Silver Spring, MD 20910-3022

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (202) 773-3262, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was provided in digital form by the United States Department of Agriculture Service Center Agencies produced from Digital Orthophoto Quadrangles at a scale of 1:12,000, dated 2005 or later as a part of the National Agricultural Imagery Program.

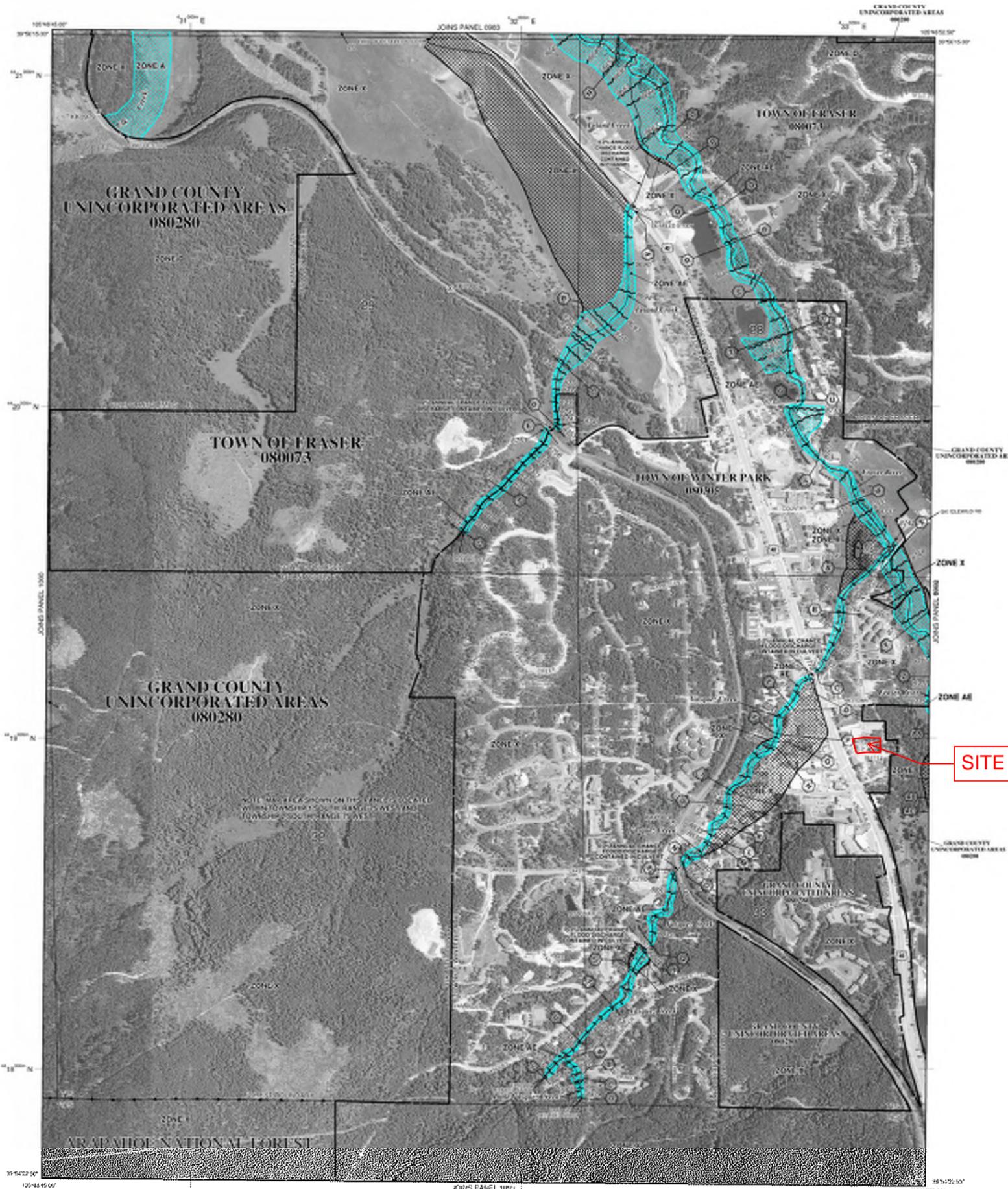
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9615 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9629 and its website at <http://www.msc.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP(1-877-326-2627) or visit the FEMA website at <http://www.fema.gov>.



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHA) SUBJECT TO IMMEDIATE BY THE 1% ANNUAL CHANCE FLOOD**
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AX, AR, X, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.
- ZONE A** - No Base Flood Elevations determined.
 - ZONE AE** - Base Flood Elevations determined.
 - ZONE AH** - Flood depths of 1 to 3 feet (usually areas of ponds); Base Flood Elevation determined.
 - ZONE AO** - Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of sheet flow, velocities also determined.
 - ZONE AR** - Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being removed to provide protection from the 1% annual chance or greater flood.
 - ZONE AX** - Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
 - ZONE VE** - Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
 - ZONE VE** - Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
- ZONE B** - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE C** - Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.
 - COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
 - OTHERWISE PROTECTED AREAS (OPA)**
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
 - 0.2% annual chance floodplain boundary
 - Floodway boundary
 - Zone A boundary
 - Zone B boundary
 - Zone C boundary
 - Zone D boundary
 - Zone E boundary
 - Zone F boundary
 - Zone G boundary
 - Zone H boundary
 - Zone I boundary
 - Zone J boundary
 - Zone K boundary
 - Zone L boundary
 - Zone M boundary
 - Zone N boundary
 - Zone O boundary
 - Zone P boundary
 - Zone Q boundary
 - Zone R boundary
 - Zone S boundary
 - Zone T boundary
 - Zone U boundary
 - Zone V boundary
 - Zone W boundary
 - Zone X boundary
 - Zone Y boundary
 - Zone Z boundary
- MAP REPOSITORIES**
- Refer to Map Repositories for on-map index.
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**
 January 2, 2008
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**

SITE

NFIP PANEL 0991C

FIRM
FLOOD INSURANCE RATE MAP
GRAND COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 991 OF 1200
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS	NUMBER	PANEL	SUFFIX
GRAND COUNTY	99100	991	C
FRASER, TOWN OF	99101	991	C
WINTER PARK, TOWN OF	99102	991	C

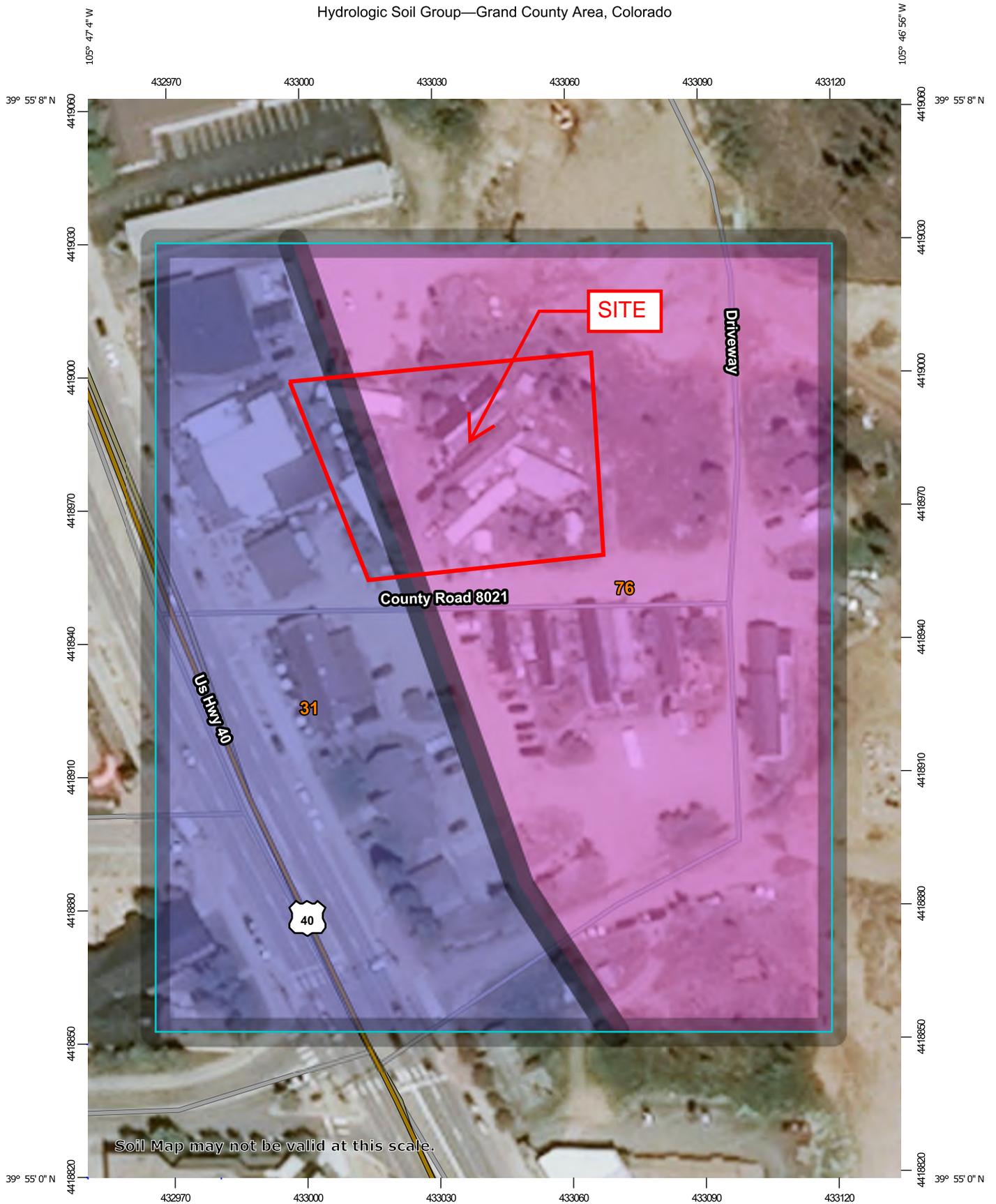
Refer to User's Manual for information on how to use the map number shown below for use when placing map orders. The Community Number shown above should be used in insurance applications for the subject community.

MAP NUMBER
 08049C0991C

EFFECTIVE DATE
 JANUARY 2, 2008

Federal Emergency Management Agency

Hydrologic Soil Group—Grand County Area, Colorado



Map Scale: 1:1,180 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Grand County Area, Colorado
 Survey Area Data: Version 14, Jul 15, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 23, 2018—Aug 18, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
31	Frisco-Peeler gravelly sandy loams, 2 to 6 percent slopes	B	2.8	41.5%
76	Scout cobbly sandy loam, 15 to 65 percent slopes	A	3.9	58.5%
Totals for Area of Interest			6.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



NOAA Atlas 14, Volume 8, Version 2
 Location name: Winter Park, Colorado, USA*
 Latitude: 39.8869°, Longitude: -105.7624°
 Elevation: 9075.63 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffrey Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

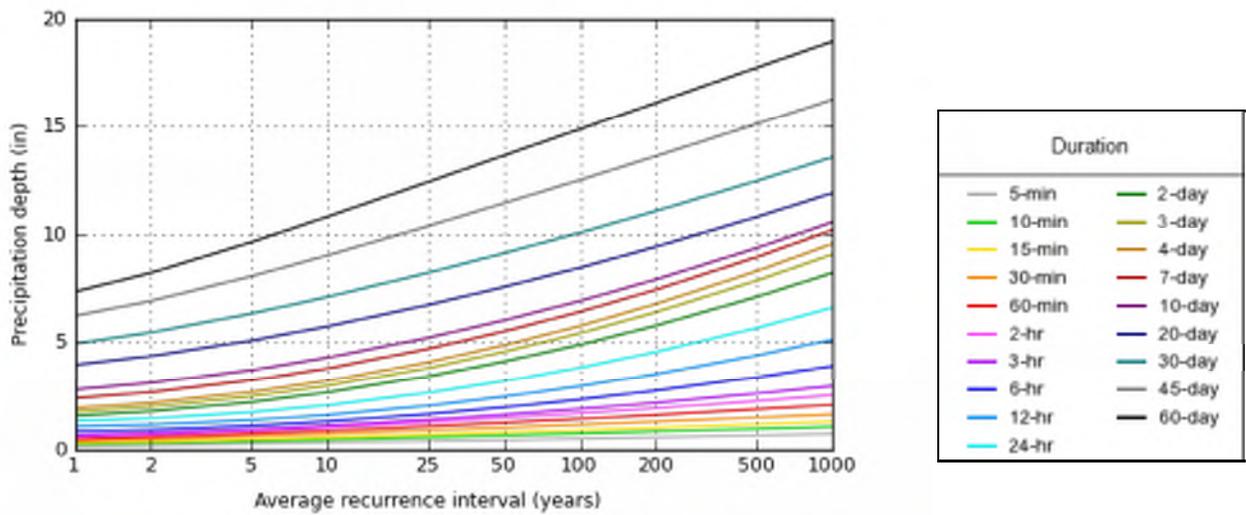
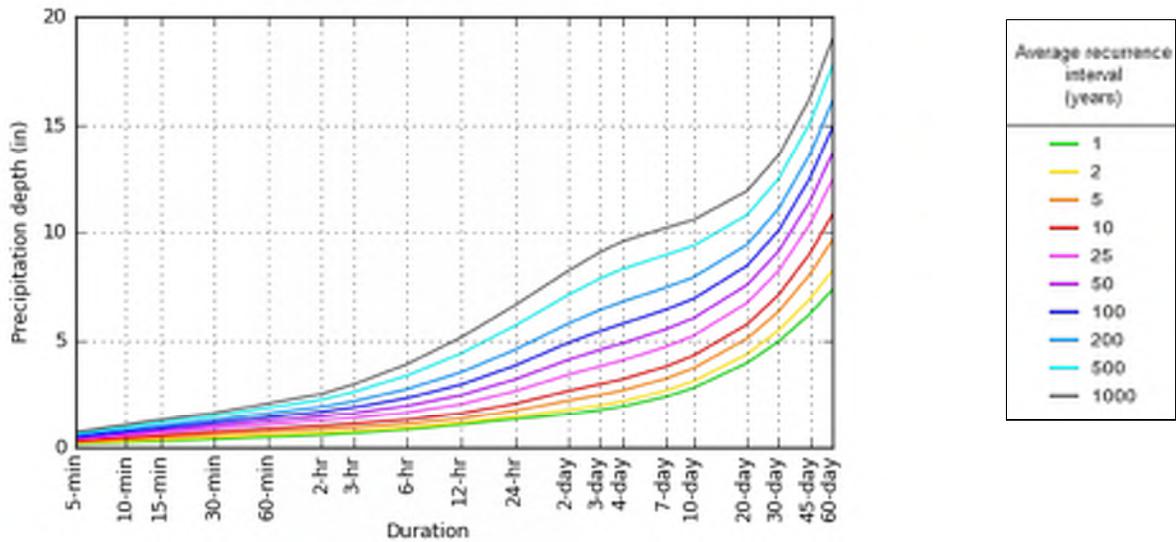
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.172 (0.132-0.224)	0.207 (0.159-0.269)	0.266 (0.204-0.348)	0.317 (0.242-0.417)	0.391 (0.289-0.537)	0.449 (0.325-0.628)	0.510 (0.357-0.735)	0.573 (0.386-0.855)	0.661 (0.429-1.02)	0.729 (0.461-1.14)
10-min	0.252 (0.194-0.327)	0.303 (0.233-0.394)	0.390 (0.298-0.509)	0.465 (0.354-0.610)	0.572 (0.423-0.787)	0.658 (0.476-0.920)	0.747 (0.523-1.08)	0.840 (0.566-1.25)	0.967 (0.628-1.49)	1.07 (0.675-1.67)
15-min	0.307 (0.236-0.399)	0.369 (0.284-0.481)	0.475 (0.364-0.621)	0.567 (0.432-0.744)	0.697 (0.516-0.959)	0.802 (0.580-1.12)	0.911 (0.638-1.31)	1.02 (0.690-1.53)	1.18 (0.766-1.82)	1.30 (0.824-2.04)
30-min	0.397 (0.306-0.517)	0.479 (0.368-0.624)	0.616 (0.472-0.805)	0.733 (0.558-0.963)	0.898 (0.664-1.23)	1.03 (0.744-1.44)	1.16 (0.814-1.67)	1.30 (0.876-1.94)	1.49 (0.967-2.30)	1.64 (1.03-2.57)
60-min	0.495 (0.381-0.644)	0.585 (0.450-0.762)	0.742 (0.568-0.969)	0.880 (0.671-1.16)	1.08 (0.805-1.50)	1.25 (0.907-1.76)	1.43 (1.00-2.06)	1.61 (1.09-2.41)	1.88 (1.22-2.90)	2.08 (1.32-3.27)
2-hr	0.593 (0.461-0.764)	0.691 (0.537-0.891)	0.867 (0.672-1.12)	1.03 (0.791-1.34)	1.27 (0.957-1.75)	1.47 (1.08-2.06)	1.69 (1.20-2.43)	1.93 (1.32-2.86)	2.26 (1.49-3.47)	2.53 (1.62-3.93)
3-hr	0.670 (0.525-0.859)	0.763 (0.597-0.979)	0.942 (0.734-1.21)	1.11 (0.864-1.44)	1.39 (1.06-1.91)	1.63 (1.21-2.27)	1.89 (1.36-2.72)	2.18 (1.51-3.24)	2.61 (1.73-4.00)	2.96 (1.90-4.57)
6-hr	0.845 (0.669-1.07)	0.928 (0.734-1.18)	1.11 (0.877-1.42)	1.31 (1.03-1.68)	1.65 (1.29-2.29)	1.97 (1.49-2.75)	2.33 (1.70-3.35)	2.75 (1.93-4.08)	3.37 (2.27-5.15)	3.90 (2.54-5.97)
12-hr	1.08 (0.865-1.36)	1.16 (0.929-1.46)	1.37 (1.09-1.73)	1.61 (1.28-2.04)	2.05 (1.63-2.84)	2.46 (1.89-3.44)	2.95 (2.19-4.23)	3.52 (2.51-5.20)	4.39 (3.00-6.67)	5.13 (3.37-7.77)
24-hr	1.33 (1.08-1.66)	1.45 (1.18-1.81)	1.74 (1.40-2.18)	2.07 (1.66-2.60)	2.64 (2.12-3.62)	3.19 (2.48-4.40)	3.82 (2.86-5.42)	4.56 (3.27-6.65)	5.67 (3.91-8.51)	6.61 (4.39-9.91)
2-day	1.58 (1.29-1.95)	1.78 (1.46-2.20)	2.21 (1.81-2.74)	2.66 (2.16-3.32)	3.42 (2.76-4.60)	4.11 (3.21-5.57)	4.89 (3.69-6.82)	5.78 (4.18-8.32)	7.10 (4.94-10.5)	8.22 (5.51-12.2)
3-day	1.77 (1.46-2.17)	2.00 (1.65-2.45)	2.48 (2.04-3.05)	2.97 (2.43-3.68)	3.81 (3.09-5.09)	4.56 (3.59-6.15)	5.43 (4.12-7.52)	6.40 (4.66-9.15)	7.85 (5.50-11.6)	9.07 (6.13-13.4)
4-day	1.94 (1.61-2.37)	2.18 (1.81-2.66)	2.68 (2.22-3.29)	3.20 (2.63-3.95)	4.07 (3.32-5.42)	4.87 (3.84-6.53)	5.76 (4.39-7.95)	6.78 (4.96-9.65)	8.29 (5.83-12.2)	9.56 (6.49-14.1)
7-day	2.39 (2.01-2.90)	2.67 (2.24-3.24)	3.23 (2.70-3.93)	3.79 (3.14-4.63)	4.70 (3.85-6.14)	5.51 (4.38-7.29)	6.42 (4.93-8.74)	7.44 (5.48-10.5)	8.94 (6.33-13.0)	10.2 (6.98-14.9)
10-day	2.80 (2.36-3.37)	3.11 (2.62-3.75)	3.71 (3.12-4.49)	4.29 (3.58-5.22)	5.21 (4.28-6.74)	6.02 (4.81-7.89)	6.92 (5.33-9.33)	7.91 (5.85-11.0)	9.36 (6.66-13.5)	10.6 (7.27-15.3)
20-day	3.96 (3.38-4.72)	4.36 (3.72-5.21)	5.08 (4.32-6.09)	5.74 (4.86-6.91)	6.73 (5.56-8.51)	7.56 (6.09-9.72)	8.46 (6.58-11.2)	9.42 (7.03-12.9)	10.8 (7.74-15.3)	11.9 (8.29-17.1)
30-day	4.95 (4.26-5.86)	5.46 (4.69-6.48)	6.34 (5.43-7.54)	7.10 (6.05-8.50)	8.22 (6.81-10.3)	9.12 (7.38-11.6)	10.1 (7.87-13.2)	11.1 (8.30-15.0)	12.5 (8.98-17.5)	13.6 (9.50-19.3)
45-day	6.23 (5.40-7.34)	6.92 (5.99-8.16)	8.06 (6.96-9.54)	9.02 (7.75-10.7)	10.4 (8.62-12.8)	11.4 (9.29-14.4)	12.5 (9.82-16.2)	13.6 (10.3-18.3)	15.1 (10.9-21.0)	16.3 (11.5-23.0)
60-day	7.35 (6.40-8.62)	8.22 (7.15-9.65)	9.64 (8.36-11.4)	10.8 (9.32-12.8)	12.4 (10.3-15.2)	13.6 (11.1-17.0)	14.9 (11.7-19.2)	16.1 (12.2-21.5)	17.7 (12.9-24.5)	18.9 (13.4-26.7)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 39.8869°, Longitude: -105.7624°



Maps & aerals

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)



APPENDIX B

HYDROLOGIC CALCULATIONS

HISTORIC CIA

PROPOSED CIA

WANDER

20-131

Prepared By: LMK

INITIAL PERCENT IMPERVIOUS CALCULATIONS

-REFERENCE UDFCD Vol.1 RUNOFF Table 6-3

		Residential		Commercial				Lawns/Landscape/Undeveloped			Total	Percent	
		Single Family	Multi-Family	Mixed Use	Retail/ Office	Roof/ Concrete	Water Surface/ Pavement	Gravel	2-7% Slope	>7% Slope			Historic
		0.25 acres or less	(attached)										
% Imperv.		45.00%	85.00%	95.00%	95.00%	90.00%	100.00%	40.00%	2.00%	2.00%	2.00%		
BASIN	Design Point	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
HISTORIC													
OS-1		-	-	-	-	0.21	0.44	-	0.17	-	-	0.83	77.02%
OS-2		-	-	-	-	0.04	0.13	-	-	-	-	0.17	97.81%
H-1	H1	-	-	-	-	0.15	0.08	-	0.64	-	-	0.87	26.02%
PROPOSED													
A-1	1	-	-	-	-	0.48	0.19	-	0.19	-	-	0.87	72.36%

WANDER

CORE Project #: 20-131

Prepared By: LMK

COMPOSITE DEVELOPED BASIN -WEIGHTED "C" CALCULATIONS

-REFERENCE UDFCD Vol.1 RUNOFF Table 6-4

i = % imperviousness/100 expressed as a decimal

C_A = Runoff coefficient for NRCS HSG A soils

C_B = Runoff coefficient for NRCS HSG B soils

C_{CD} = Runoff coefficient for NRCS HSG C and D soils.

Natural Resource Conservation Service (NRCS)

Table 6-4. Runoff coefficient equations based on NRCS soil group and storm return period

NRCS Soil Group	Storm Return Period						
	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
A	$C_A = 0.84i^{1.202}$	$C_A = 0.86i^{1.276}$	$C_A = 0.87i^{1.232}$	$C_A = 0.84i^{1.124}$	$C_A = 0.85i+0.025$	$C_A = 0.78i+0.110$	$C_A = 0.65i+0.254$
B	$C_B = 0.84i^{1.169}$	$C_B = 0.86i^{1.088}$	$C_B = 0.81i+0.057$	$C_B = 0.63i+0.249$	$C_B = 0.56i+0.328$	$C_B = 0.47i+0.426$	$C_B = 0.37i+0.536$
C/D	$C_{CD} = 0.83i^{1.122}$	$C_{CD} = 0.82i+0.035$	$C_{CD} = 0.74i+0.132$	$C_{CD} = 0.56i+0.319$	$C_{CD} = 0.49i+0.393$	$C_{CD} = 0.41i+0.484$	$C_{CD} = 0.32i+0.588$

Basin ID	% Imperv.	i	Soil Type	Runoff Coefficients, C				Basin Area	Total Area	Weighted Runoff Coefficients, C			
				2-Year	5-Year	10-Year	100-Year			2-Year	5-Year	10-Year	100-Year
HISTORIC													
OS-1	77.0%	0.77	A	0.60	0.62	0.63	0.71	0.41	0.83	0.61	0.63	0.66	0.75
			B	0.62	0.65	0.68	0.79	0.41					
			C or D	0.62	0.67	0.70	0.80						
OS-2	97.8%	0.98	A	0.82	0.84	0.85	0.87	0.17	0.17	0.82	0.84	0.85	0.89
			B	0.82	0.84	0.85	0.89						
			C or D	0.81	0.84	0.86	0.89						
H-1	26.0%	0.26	A	0.15	0.15	0.17	0.31	0.87	0.87	0.17	0.20	0.27	0.55
			B	0.17	0.20	0.27	0.55						
			C or D	0.18	0.25	0.32	0.59						
PROPOSED													
A-1	72.4%	0.72	A	0.55	0.57	0.58	0.67	0.63	0.87	0.56	0.58	0.60	0.70
			B	0.58	0.60	0.64	0.77	0.23					
			C or D	0.58	0.63	0.67	0.78						

WANDER

CORE Project #: 20-131

Prepared By: LMK

TIME OF CONCENTRATION CALCULATIONS

-REFERENCE UDFCD Vol.1 Section 2.4

NRCS Conveyance factors, K -REFERENCE UDFCD Vol.1 RUNOFF Table 6-2

SF-2 Heavy Meadow 2.50 Short Grass Pasture & Lawns 7.00 Grassed Waterway 15.00
 Tillage/field 5.00 Nearly Bare Ground 10.00 Paved Area & Shallow Gutter 20.00

SUB-BASIN DATA			INITIAL / OVERLAND TIME			CHANNEL / TRAVEL TIME T(t)						T(c) CHECK (URBANIZED BASINS)		FINAL T(c)
DRAIN BASIN	AREA ac.	C(5)	Length ft.	Slope %	T(i) min	Length ft.	Slope %	Coeff.	Velocity fps	T(t) min.	COMP. T(c)	% IMPER-VIOUS	USDCM Eq . 6-5	min.
HISTORIC														
OS-1	0.83	0.63	135	3.2	6.7	181	2.1	20.0	2.9	1.1	7.8	77.0%	14.0	7.8
OS-2	0.17	0.84	135	3.2	3.7	181	2.1	20.0	2.9	1.1	4.8	97.8%	10.3	5.0
H-1	0.87	0.20	62	5.1	7.5	172	2.3	20.0	3.0	0.9	8.4	26.0%	23.1	8.4
PROPOSED														
A-1	0.87	0.58	81	5.1	4.9	153	2.3	20.0	3.0	0.8	5.8	72.4%	14.6	5.8

WANDER

CORE Project #: 20-131

Prepared By: LMK

RATIONAL METHOD PEAK RUNOFF

10-Year STORM

Rainfall Depth-Duration-Frequency (1-hr) = 0.88

SF-3

-REFERENCE UDFCD Vol.1 EQ 5-1 & EQ 6-1

BASIN INFORMATON				DIRECT RUNOFF			
DESIGN POINT	DRAIN BASIN	AREA ac.	10yr Runoff COEFF	T(c) min	C x A	I in/hr	Q cfs
HISTORIC							
	OS-1	0.83	0.66	7.8	0.54	2.61	1.4
	OS-2	0.17	0.85	5.0	0.14	2.98	0.4
H1	H-1	0.87	0.27	8.4	0.23	2.54	0.6
PROPOSED							
1	A-1	0.87	0.60	5.8	0.52	2.87	1.5

WANDER

CORE Project #: 20-131

Prepared By: LMK

RATIONAL METHOD PEAK RUNOFF

100-Year STORM

SF-3 Rainfall Depth-Duration-Frequency (1-hr) = 1.43

-REFERENCE UDFCD Vol.1 EQ 5-1 & EQ 6-1

BASIN INFORMATON				DIRECT RUNOFF			
DESIGN POINT	DRAIN BASIN	AREA ac.	100yr Runoff COEFF	T(c) min	C x A	I in/hr	Q cfs
HISTORIC							
	OS-1	0.83	0.75	7.8	0.62	4.24	2.62
	OS-2	0.17	0.89	5.0	0.15	4.85	0.73
H1	H-1	0.87	0.55	8.4	0.47	4.13	1.96
PROPOSED							
1	A-1	0.87	0.70	5.8	0.61	4.66	2.82

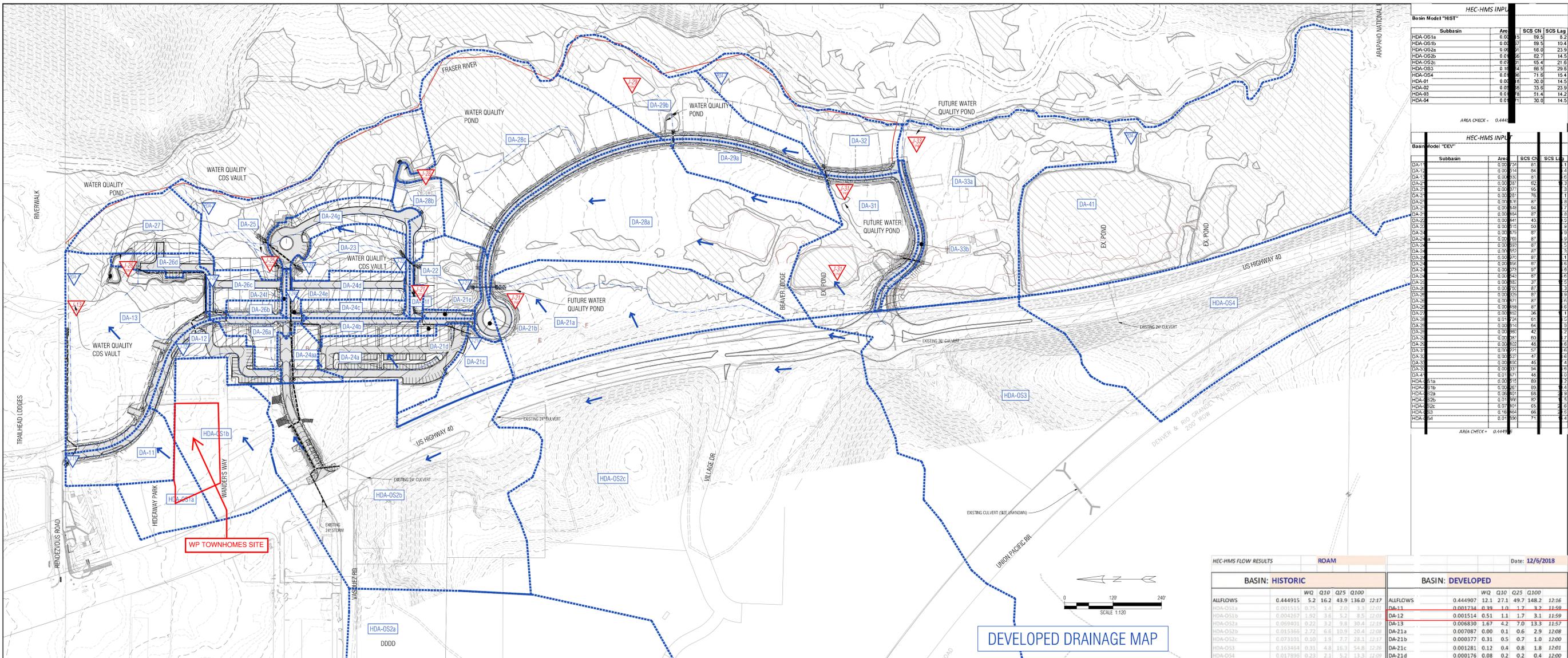
RUNOFF SUMMARY TABLE				
DESIGN POINT	BASIN	AREA (AC)	10-Year RUNOFF (CFS)	100-Year RUNOFF (CFS)
HISTORIC				
	OS-1	0.83	1.41	2.62
	OS-2	0.17	0.43	0.73
HI	H-1	0.87	0.59	1.96
PROPOSED				
I	A-1	0.87	1.49	2.82



APPENDIX C

MAPS

ROAM AT WINTER PARK MASTER DRAINAGE MAP
WANDER HISTORIC DRAINAGE MAP
WANDER TOWNHOMES PROPOSED DRAINAGE MAP



HEC-HMS INFLU				
Basin Model "HIST"	Area	SCS CN	SCS Lag	
HDA-OS1a	0.001515	8.2	1.4	2.0
HDA-OS1b	0.004267	8.2	1.4	2.0
HDA-OS2a	0.009401	8.2	1.4	2.0
HDA-OS2b	0.015366	8.2	1.4	2.0
HDA-OS3	0.018944	8.2	1.4	2.0
HDA-OS4	0.007318	8.2	1.4	2.0
HDA-01	0.000787	8.2	1.4	2.0
HDA-02	0.000787	8.2	1.4	2.0
HDA-03	0.000787	8.2	1.4	2.0
HDA-04	0.000787	8.2	1.4	2.0

HEC-HMS INFLU				
Basin Model "DEV"	Area	SCS CN	SCS Lag	
DA-11	0.001515	8.2	1.4	2.0
DA-12	0.004267	8.2	1.4	2.0
DA-13	0.009401	8.2	1.4	2.0
DA-14	0.015366	8.2	1.4	2.0
DA-15	0.018944	8.2	1.4	2.0
DA-16	0.007318	8.2	1.4	2.0
DA-17	0.000787	8.2	1.4	2.0
DA-18	0.000787	8.2	1.4	2.0
DA-19	0.000787	8.2	1.4	2.0
DA-20	0.000787	8.2	1.4	2.0
DA-21	0.000787	8.2	1.4	2.0
DA-22	0.000787	8.2	1.4	2.0
DA-23	0.000787	8.2	1.4	2.0
DA-24	0.000787	8.2	1.4	2.0
DA-25	0.000787	8.2	1.4	2.0
DA-26	0.000787	8.2	1.4	2.0
DA-27	0.000787	8.2	1.4	2.0
DA-28	0.000787	8.2	1.4	2.0
DA-29	0.000787	8.2	1.4	2.0
DA-30	0.000787	8.2	1.4	2.0
DA-31	0.000787	8.2	1.4	2.0
DA-32	0.000787	8.2	1.4	2.0
DA-33	0.000787	8.2	1.4	2.0
DA-34	0.000787	8.2	1.4	2.0
DA-35	0.000787	8.2	1.4	2.0
DA-36	0.000787	8.2	1.4	2.0
DA-37	0.000787	8.2	1.4	2.0
DA-38	0.000787	8.2	1.4	2.0
DA-39	0.000787	8.2	1.4	2.0
DA-40	0.000787	8.2	1.4	2.0
DA-41	0.000787	8.2	1.4	2.0

HEC-HMS FLOW RESULTS																		
ROAM																		
Date: 12/6/2018																		
BASIN: HISTORIC					BASIN: DEVELOPED													
ALLFLOWS	0.444915	WQ	Q10	Q25	Q100	ALLFLOWS	0.444915	WQ	Q10	Q25	Q100	ALLFLOWS	0.444915	WQ	Q10	Q25	Q100	
HDA-OS1a	0.001515	0.75	1.4	2.0	3.3	12.01	DA-11	0.001515	0.75	1.4	2.0	3.3	12.01	DA-11	0.001515	0.75	1.4	2.0
HDA-OS1b	0.004267	1.92	3.6	5.2	8.5	12.01	DA-12	0.004267	1.92	3.6	5.2	8.5	12.01	DA-12	0.004267	1.92	3.6	5.2
HDA-OS2a	0.009401	2.22	3.2	9.8	30.4	12.19	DA-13	0.009401	2.22	3.2	9.8	30.4	12.19	DA-13	0.009401	2.22	3.2	9.8
HDA-OS2b	0.015366	2.72	6.6	10.9	20.4	12.09	DA-14	0.015366	2.72	6.6	10.9	20.4	12.09	DA-14	0.015366	2.72	6.6	10.9
HDA-OS3	0.018944	0.00	0.00	0.00	0.00	0.00	DA-15	0.018944	0.00	0.00	0.00	0.00	0.00	DA-15	0.018944	0.00	0.00	0.00
HDA-OS4	0.007318	0.00	0.00	0.00	0.00	0.00	DA-16	0.007318	0.00	0.00	0.00	0.00	0.00	DA-16	0.007318	0.00	0.00	0.00
HDA-01	0.000787	0.00	0.00	0.00	0.00	0.00	DA-17	0.000787	0.00	0.00	0.00	0.00	0.00	DA-17	0.000787	0.00	0.00	0.00
HDA-02	0.000787	0.00	0.00	0.00	0.00	0.00	DA-18	0.000787	0.00	0.00	0.00	0.00	0.00	DA-18	0.000787	0.00	0.00	0.00
HDA-03	0.000787	0.00	0.00	0.00	0.00	0.00	DA-19	0.000787	0.00	0.00	0.00	0.00	0.00	DA-19	0.000787	0.00	0.00	0.00
HDA-04	0.000787	0.00	0.00	0.00	0.00	0.00	DA-20	0.000787	0.00	0.00	0.00	0.00	0.00	DA-20	0.000787	0.00	0.00	0.00
JOS1	0.005782	2.65	4.9	7.3	11.7	12.09	DA-21	0.005782	2.65	4.9	7.3	11.7	12.09	DA-21	0.005782	2.65	4.9	7.3
JOS2b	0.004767	2.72	6.6	10.9	20.4	12.19	DA-22	0.004767	2.72	6.6	10.9	20.4	12.19	DA-22	0.004767	2.72	6.6	10.9
JOS2c	0.013464	0.31	4.8	16.3	54.8	12.26	DA-23	0.013464	0.31	4.8	16.3	54.8	12.26	DA-23	0.013464	0.31	4.8	16.3
JOS3	0.017896	0.23	5.2	13.3	12.09	12.19	DA-24	0.017896	0.23	5.2	13.3	12.09	12.19	DA-24	0.017896	0.23	5.2	13.3
JOS4	0.013464	0.31	4.8	16.3	54.8	12.26	DA-25	0.013464	0.31	4.8	16.3	54.8	12.26	DA-25	0.013464	0.31	4.8	16.3
POA-1	0.013100	2.65	4.9	7.3	11.7	12.09	DA-26	0.013100	2.65	4.9	7.3	11.7	12.09	DA-26	0.013100	2.65	4.9	7.3
POA-2	0.016406	2.72	6.6	10.9	20.4	12.09	DA-27	0.016406	2.72	6.6	10.9	20.4	12.09	DA-27	0.016406	2.72	6.6	10.9
POA-3	0.015942	0.31	4.8	16.3	55.7	12.25	DA-28	0.015942	0.31	4.8	16.3	55.7	12.25	DA-28	0.015942	0.31	4.8	16.3
POA-4	0.035367	0.23	5.2	13.3	12.09	12.09	DA-29	0.035367	0.23	5.2	13.3	12.09	12.09	DA-29	0.035367	0.23	5.2	13.3
JOS1	0.005782	2.65	4.9	7.3	11.7	12.09	DA-30	0.005782	2.65	4.9	7.3	11.7	12.09	DA-30	0.005782	2.65	4.9	7.3
JOS2b	0.004767	2.72	6.6	10.9	20.4	12.19	DA-31	0.004767	2.72	6.6	10.9	20.4	12.19	DA-31	0.004767	2.72	6.6	10.9
JOS2c	0.013464	0.31	4.8	16.3	54.8	12.26	DA-32	0.013464	0.31	4.8	16.3	54.8	12.26	DA-32	0.013464	0.31	4.8	16.3
JOS3	0.017896	0.23	5.2	13.3	12.09	12.19	DA-33	0.017896	0.23	5.2	13.3	12.09	12.19	DA-33	0.017896	0.23	5.2	13.3
JOS4	0.013464	0.31	4.8	16.3	54.8	12.26	DA-34	0.013464	0.31	4.8	16.3	54.8	12.26	DA-34	0.013464	0.31	4.8	16.3
POA-1	0.013100	2.65	4.9	7.3	11.7	12.09	DA-35	0.013100	2.65	4.9	7.3	11.7	12.09	DA-35	0.013100	2.65	4.9	7.3
POA-2	0.016406	2.72	6.6	10.9	20.4	12.09	DA-36	0.016406	2.72	6.6	10.9	20.4	12.09	DA-36	0.016406	2.72	6.6	10.9
POA-3	0.015942	0.31	4.8	16.3	55.7	12.25	DA-37	0.015942	0.31	4.8	16.3	55.7	12.25	DA-37	0.015942	0.31	4.8	16.3
POA-4	0.035367	0.23	5.2	13.3	12.09	12.09	DA-38	0.035367	0.23	5.2	13.3	12.09	12.09	DA-38	0.035367	0.23	5.2	13.3

Run-off Coefficients																																		
ROAM																																		
Date: 12/6/2018																																		
DEVELOPED					HISTORIC																													
Basin	AREA (SF)	Area	OPEN SPACE	IMPERVIOUS	TOTAL IMPERV	Type A Soils	Type B Soils	Type C Soils	Type D Soils	CN	Composite CN	Basin	AREA (SF)	Area	OPEN SPACE	IMPERVIOUS	TOTAL IMPERV	Type A Soils	Type B Soils	Type C Soils	Type D Soils	CN	Composite CN											
HDA-OS1a	422.24	1.0	0.001515	0.75	1.4	2.0	3.3	12.01	DA-11	0.001515	0.75	1.4	2.0	3.3	12.01	DA-11	0.001515	0.75	1.4	2.0	3.3	12.01	DA-11	0.001515	0.75	1.4	2.0	3.3	12.01					
HDA-OS1b	1181.64	2.7	0.004267	1.92	3.6	5.2	8.5	12.01	DA-12	0.004267	1.92	3.6	5.2	8.5	12.01	DA-12	0.004267	1.92	3.6	5.2	8.5	12.01	DA-12	0.004267	1.92	3.6	5.2	8.5	12.01					
HDA-OS2a	1394.90	4.4	0.009401	2.22	3.2	9.8	30.4	12.19	DA-13	0.009401	2.22	3.2	9.8	30.4	12.19	DA-13	0.009401	2.22	3.2	9.8	30.4	12.19	DA-13	0.009401	2.22	3.2	9.8	30.4	12.19					
HDA-OS2b	4281.73	9.8	0.015366	1.63773	264600	61.8%	0%	100%	0%	0%	58	82.7	DA-14	0.015366	1.63773	264600	61.8%	0%	100%	0%	0%	58	82.7	DA-14	0.015366	1.63773	264600	61.8%	0%	100%	0%	0%	58	82.7
HDA-OS2c	20379.34	46.8	0.073101	1662034	375900	18.4%	0%	100%	0%	0%	58	65.4	DA-15	0.073101	1662034	375900	18.4%	0%	100%	0%	0%	58	65.4	DA-15	0.073101	1662034	375900	18.4%	0%	100%	0%	0%	58	65.4
HDA-OS3	4557.23	104.6	0.183464	4509873	47250	1%	40%	55%	5%	66	66.5	DA-16	0.183464	4509873	47250	1%	40%	55%	5%	66	66.5	DA-16	0.183464	4509873	47250	1%	40%	55%	5%	66	66.5			
HDA-OS4	4883.11	11.5	0.017896	393312	105000	21.0%	0%	50%	50%	65	71.6	DA-17	0.017896	393312	105000	21.0%	0%	50%	50%	65	71.6	DA-17	0.017896	393312	105000	21.0%	0%	50%	50%	65	71.6			
DA-11	48134	1.1	0.001734	12084	36251	75.0%	100%	0%	0%	30	81.0	DA-18	0.001734	12084	36251	75.0%	100%	0%	0%	30	81.0	DA-18	0.001734	12084	36251	75.0%	100%	0%	0%	30	81.0			
DA-12	42206	1.0	0.001514	8441	32765	80.0%	100%	0%	0%	30	84.4	DA-19	0.001514	8441	32765	80.0%	100%	0%	0%	30	84.4	DA-19	0.001514	8441	32765	80.0%	100%	0%	0%	30	84.4			
DA-13	102411	4.37	0.008830	47003	142000	75.0%	100%	0%	0%	30	81.0	DA-20	0.008830	47003	142000	75.0%	100%	0%	0%	30	81.0	DA-20	0.008830	47003	142000	75.0%	100%	0%	0%	30	81.0			
DA-21a	137506	4.54	0.007087	137506	40200	40.5%	70%	30%	0%	38	62.5	DA																						

11/16/2020 2:30 PM X:\20-131 WPT TOWNHOMES - DUE DILIGENCE\CIVIL\DWG\PLANS\DRAINAGE\DRAINAGE MAP.DWG



LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|---------------------------------|
| | | BASIN DESIGNATION |
| | | 5 YEAR COEFFICIENTS |
| | | 100 YEAR COEFFICIENTS |
| | | DESIGN POINT |
| | | DIRECTIONAL FLOW ARROW |
| | | EMERGENCY OVERFLOW ROUTE |
| | | PROPOSED DRAINAGE BASIN |
| | | EXISTING DRAINAGE BASIN |
| | | PROPOSED MAJOR CONTOUR |
| | | PROPOSED MINOR CONTOUR |
| | | EXISTING MAJOR CONTOUR |
| | | EXISTING MINOR CONTOUR |
| | | EASEMENT |
| | | RIGHT OF WAY (R.O.W.) |
| | | CENTERLINE |
| | | PROJECT BOUNDARY |
| | | PROPOSED STORM & STUB OUT |
| | | EXISTING STORM & STUB OUT |
| | | STORM MANHOLES |
| | | STORM INLETS |
| | | FES, FOREBAY, & TRICKLE CHANNEL |
| | | OUTLET STRUCTURE |
| | | CRUSHER FINES |
| | | MAINTENANCE ACCESS |
| | | RIPRAP |
| | | 100 YEAR FLOODPLAIN |
| | | WETLAND |
| | | LIMITS OF CONSTRUCTION |
| | | RETAINING WALL |
| | | DRAINAGE SWALE |

CALL BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITY LINES.
 CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS SHOWN ON THIS DRAWING HAVE BEEN FACILITATED FOR THE BEST USE OF THE INFORMATION TO BE PROVIDED. THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



#	REVISION DESCRIPTION	DATE BY

WANDER
 TOWN OF WINTER PARK, COLORADO
 HISTORIC DRAINAGE MAP

DESIGNED BY: LMK
 DRAWN BY: LMK
 CHECKED BY: TG
 JOB NO. 20-131
 SHEET 1 OF 2

CIVIL ENGINEERING
 DEVELOPMENT CONSULTING
 NATURAL RESOURCES CONSULTING
 LAND SURVEYING
 303.703.4444
 1950 W. Litchton Blvd., Ste. 109
 Litchton, CO 80120





JVA, Incorporated
P.O. Box 1860
47 Cooper Creek Way
Suite 328
Winter Park, CO 80482
970.722.7677
info@jvajva.com

December 03, 2020

James Shockey
Community Development Director
Town of Winter Park
50 Vasquez Road
Winter Park, Colorado 80482
Via email: jshockey@wpgov.com

www.jvajva.com

RE: Wander-Winter Park Townhouses Sketch Plan Review 1
JVA Job #1566.118c

Dear James:

JVA Inc. has received Sketch Plan application documents for Wander-Winter Park Townhouses. Documents reviewed by JVA Inc. include:

1. "Schematic Design-Revision 1" Produced by Honomobo (Plans)
2. "Project Description Letter" Produced by Core Consultants, Inc. (Letter)
3. "Phase I Drainage Report for Wander" Produced by Core Consultants, Inc. (Drainage Report)
4. "Analysis Report" Produced by Core Consultants, Inc. (Analysis Report)
5. "Traffic Impact Analysis" Produced by Core Consultants, Inc. (TIA)
6. "Geotechnical Engineering Study" Produced by Kumar and Associates, Inc. (Geotechnical Report)

General Comments

1. Include traffic and parking signage design in future submittals.

We look forward to review of final construction documents and drainage calculations prior to recommending approval for construction. Please feel free to contact us with any questions, comments or concerns. We can make ourselves available for a meeting with the applicants to discuss these comments as needed.

Sincerely,
JVA, INCORPORATED

By: 
Sam Redfield, P.E.
Senior Project Engineer

From: [Jean Johnston](#)
To: [Hugh Bell](#)
Subject: Wander sketch plan
Date: Wednesday, December 02, 2020 10:35:52 AM

Hi Hugh,

I've reviewed the Wander sketch design. MPEI has single phase power in the area but would like to discuss the project needs with the developer.

Thanks, Jean

Sent from my iPhone

Jean Johnston
Senior Staking Engineer/Right of Way Specialist • JeanJ@mpei.com • ex 265

Mountain Parks Electric, Inc.
321 West Agate Ave • P.O. Box 170, Granby, CO 80446-0170
Phone: 970.887.3378
We are owned by those we serve.

This institution is an equal opportunity provider and employer.



PO Box 528, Granby CO 80446

November 19, 2020

The Town of Winter Park
Hugh Bell/Community Development
P.O. Box 3327
50 Vasquez Rd.
Winter Park, CO 80482

RE: Wander Winter Park Townhomes

Dear Mr. Bell,

Public Service Company of Colorado has no concerns to the new development at Wander Winter Park Townhomes. I have listed below the general guidelines that are required for gas construction. If you have any questions or concerns please call or email.

Preliminary Plat Review General Guidelines

- Must apply for Gas distribution for the project to extend the main or existing pipeline to be removed.
- Easements (blanket) must be attained before construction can begin.
- Gas main will be installed at 36" depth, and must be 10' away from water & sewer main if it runs parallel and 5' from electric.
- Gas main preferable to be installed in a 5' easement on both sides of the road to serve units. **No sleeves allowed for service crossings.**
- Gas will be installed in a sole trench- no other utilities are to be located with main or services.
- Reinforcement may be needed for existing system depending on the current capacity (additional cost of reinforcement will be the responsibility of the applicant.)

Meter Locations

- While customer preference regarding meter location deserves reasonable consideration, it remains the right of the Company to determine the placement of meters. All meter locations including multiple points of service shall have the approval of the local Xcel Design Department.
- Meters and service regulators are to be set outside the serviced structure where they will be readily accessible and be protected from corrosion and other damage, including vehicular. Please see the attached diagram showing clearances for meter placement.
Meter sets in areas of deep snow need to be placed on a gable end (no shed roof allowed) **Note: Due to excessive snowfall, ice and snow shields will not be permitted in the following Colorado counties: Eagle, Lake, Park, Grand, and Summit. Meters shall be installed on the gable or**

Sincerely,

Kathleen Jacoby / Designer

Xcel Energy/Mountain Division



TITLE COMPANY
of the rockies

78491 U.S. Highway 40
Box 415
Winter Park, CO 80482
Phone: (970) 726-8077 Fax: (877) 239-2981
www.titlecorockies.com

Commitment Ordered By:

Mark Kent
Mark R. Kent
1309 Linden Lake Road
Fort Collins, CO 80524
email: mkent@switchfly.com

Inquiries should be directed to:

Charlotte Grewell
Title Company of the Rockies
78491 U.S. Highway 40
Box 415
Winter Park, CO 80482
Phone: (970) 726-8077 Fax: (877) 239-2981

Commitment Number:

TBD 0303152 - C

Buyer's Name(s):

Purchaser with contractual rights under a purchaser agreement with the vested owner identified at item 4 below

Seller's Name(s):

Mark Kent

Property:

TBD, Winter Park, CO 80482
Lot 15, Block 1, Hideaway Park, Grand County, Co

TITLE CHARGES

These charges are based on issuance of the policy or policies described in the attached Commitment for Title Insurance, and includes premiums for the proposed coverage amount(s) and endorsement(s) referred to therein, and may also include additional work and/or third party charges related thereto.

If applicable, the designation of "Buyer" and "Seller" shown below may be based on traditional settlement practices in Grand County, Colorado, and/or certain terms of any contract, or other information provided with the Application for Title Insurance.

Owner's Policy Premium:	\$0.00
Loan Policy Premium:	\$0.00
Additional Lender Charge(s):	
Additional Other Charge(s):	
Tax Certificate:	
Total Endorsement Charge(s):	
TBD Charge(s):	\$250.00
TOTAL CHARGES:	\$250.00



**ALTA Commitment For Title Insurance
(Adopted 06-17-06) (Revised 08-01-2016)**

**COMMITMENT FOR TITLE INSURANCE
ISSUED BY
WESTCOR LAND TITLE INSURANCE COMPANY**

NOTICE

IMPORTANT-READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACTIONAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, WESTCOR LAND TITLE INSURANCE COMPANY, a South Carolina Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within six (6) months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

IN WITNESS WHEREOF, WESTCOR LAND TITLE INSURANCE COMPANY has caused its corporate name and seal to be hereunto affixed and by these presents to be signed in facsimile under authority of its by-laws, effective as of the date of Commitment shown in Schedule A.

Issued By:



The Title Company of the Rockies
78491 U.S. Highway 40, Post Office Box 415
Winter Park, CO 80482
Phone: 970-726-8077

WESTCOR LAND TITLE INSURANCE COMPANY



By:

Mary O'Donnell

President

Attest:

[Signature]

Secretary

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. *The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at < <http://www.alta.org>>.*

Joint Notice of Privacy Policy
of
Westcor Land Title Insurance Company
and
The Title Company of the Rockies

Westcor Land Title Insurance Company (“WLTIC”) and **The Title Company of the Rockies** value their customers and are committed to protecting the privacy of personal information. In keeping with that philosophy, we each have developed a Privacy Policy, set out below, that will endure the continued protection of your nonpublic personal information and inform you about the measures WLTIC and **The Title Company of the Rockies** take to safeguard that information. This notice is issued jointly as a means of paperwork reduction and is not intended to create a joint privacy policy. Each company's privacy policy is separately instituted, executed, and maintained.

Who is Covered

We provide our Privacy Policy to each customer when they purchase a WLTIC title insurance policy. Generally, this means that the Privacy Policy is provided to the customer at the closing of the real estate transaction.

Information Collected

In the normal course of business and to provide the necessary services to our customers, we may obtain nonpublic personal information directly from the customer, from customer-related transactions, or from third parties such as our title insurance agent, lenders, appraisers, surveyors and other similar entities.

Access to Information

Access to all nonpublic personal information is limited to those employees who have a need to know in order to perform their jobs. These employees include, but are not limited to, those in departments such as closing, legal, underwriting, claims and administration and accounting.

Information Sharing

Generally, neither WLTIC nor **The Title Company of the Rockies** shares nonpublic personal information that it collects with anyone other than those individuals necessary needed to complete the real estate settlement services and issue its title insurance policy as requested by the consumer. WLTIC or **The Title Company of the Rockies** may share nonpublic personal information as permitted by law with entities with whom WLTIC or **The Title Company of the Rockies** has a joint marketing agreement. Entities with whom WLTIC or **The Title Company of the Rockies** have a joint marketing agreement have agreed to protect the privacy of our customer's nonpublic personal information by utilizing similar precautions and security measures as WLTIC and **The Title Company of the Rockies** use to protect this information and to use the information for lawful purposes. WLTIC or **The Title Company of the Rockies**, however, may share information as required by law in response to a subpoena, to a government regulatory agency or to prevent fraud.

Information Security

WLTIC and **The Title Company of the Rockies**, at all times, strive to maintain the confidentiality and integrity of the personal information in its possession and has instituted measures to guard against its unauthorized access. We maintain physical, electronic and procedural safeguards in compliance with federal standards to protect that information.

The WLTIC Privacy Policy can be found on WLTIC's website at www.wltic.com

COMMITMENT FOR TITLE INSURANCE

Issued by



as agent for

Westcor Land Title Insurance Company

SCHEDULE A

Reference:

Commitment Number: TBD 0303152 - C

1. Effective Date: **October 29, 2020, 7:00 am** Issue Date: **November 13, 2020**
3. The estate or interest in the land described or referred to in this Commitment is **Fee Simple**.
4. The Title is, at the Commitment Date, vested in:

Mark Kent

5. The land referred to in this Commitment is described as follows:

FOR LEGAL DESCRIPTION SEE SCHEDULE A CONTINUED ON NEXT PAGE
For Informational Purposes Only - APN: **R193702**

Countersigned
The Title Company of the Rockies

By:



Susan Sarver

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SCHEDULE A (continued)

LEGAL DESCRIPTION

The Land referred to herein is located in the County of **Grand**, State of **Colorado**, and described as follows:

Lot 15, Block 1,
HIDE-AWAY PARK, according to the Plat thereof filed at [Reception No. 48279](#).

For each policy to be issued as identified in Schedule A, Item 2, the Company shall not be liable under this commitment until it receives a specific designation of a Proposed Insured, and has revised this commitment identifying that Proposed Insured by name. As provided in Commitment Condition 4, the Company may amend this commitment to add, among other things, additional exceptions or requirements after the designation of the Proposed Insured.

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COMMITMENT FOR TITLE INSURANCE

Issued by

Westcor Land Title Insurance Company

SCHEDULE B, PART I Requirements

The following are the requirements to be complied with prior to the issuance of said policy or policies. Any other instrument recorded subsequent to the effective date hereof may appear as an exception under Schedule B of the policy to be issued. Unless otherwise noted, all documents must be recorded in the office of the clerk and recorded of the county in which said property is located.

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
5. Evidence satisfactory to the Company or its duly authorized agent that all dues and/or assessments levied by the Homeowners Association have been paid through the date of closing.
6. Evidence satisfactory to the Company or its duly authorized agent that the "real estate transfer tax" imposed by Ordinance No. 101, Series of 1983, of the Town of Winter Park, Colorado has been paid, and that the lien imposed by Paragraph 11 thereof has been fully satisfied.
7. NOTE: Statement of authority for Kimberly Taylor Kent Revocable Trust, a Colorado trust, recorded March 15, 2016 at [Reception No. 2016001786](#), discloses that the names and addresses of the trustee(s) authorized to act on behalf of the trust are as follows: Jemberly Taylor Kent and Mark Reed Kent, Trustees - 1309 Linden Lake Road, Fort Collins, CO 80524.

24-month Chain of Title: The only conveyance(s) affecting said land recorded within the 24 months preceding the date of this commitment is (are) as follows:

WARRANTY DEED recorded April 19, 2016, at [Reception No. 2016002641](#).

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NOTE: If no conveyances were found in that 24 month period, the last recorded conveyance is reported. If the subject land is a lot in a subdivision plat less than 24 months old, only the conveyances subsequent to the plat are reported.

THE COMPANY RESERVES THE RIGHT TO CONDUCT AN ADDITIONAL SEARCH OF THE RECORDS IN THE OFFICE OF THE CLERK AND RECORDER FOR GRAND COUNTY, COLORADO FOR JUDGMENT LIENS, TAX LIENS OR OTHER SIMILAR OR DISSIMILAR INVOLUNTARY MATTERS AFFECTING THE GRANTEE OR GRANTEES, AND TO MAKE SUCH ADDITIONAL REQUIREMENTS AS IT DEEMS NECESSARY, AFTER THE IDENTITY OF THE GRANTEE OR GRANTEES HAS BEEN DISCLOSED TO THE COMPANY.

NOTE: THIS COMMITMENT IS ISSUED UPON THE EXPRESS AGREEMENT AND UNDERSTANDING THAT THE APPLICABLE PREMIUMS, CHARGES AND FEES SHALL BE PAID BY THE APPLICANT IF THE APPLICANT AND/OR ITS DESIGNEE OR NOMINEE CLOSSES THE TRANSACTION CONTEMPLATED BY OR OTHERWISE RELIES UPON THE COMMITMENT, ALL IN ACCORDANCE WITH THE RULES AND SCHEDULES OF RATES ON FILE WITH THE COLORADO DEPARTMENT OF INSURANCE.

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SCHEDULE B, PART II
Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company.

Any loss or damage, including attorney fees, by reason of the matters shown below:

1. Any facts, right, interests, or claims which are not shown by the Public Records but which could be ascertained by an inspection of said Land or by making inquiry of persons in possession thereof.
2. Easements or claims of easements, not shown by the Public Records.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
4. Any lien, or right to a lien for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the Public Records or attaching subsequent to the effective date hereof, but prior to the date of the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
7. Right of the Proprietor of a Vein or Lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).
8. Right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Westcor Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; and Schedule B, Part II-Exceptions.

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9. Easement and right of way for telephone line purposes, as granted to Mountain States Telephone and Telegraph Company by instrument recorded July 26, 1939, in [Book 87 at Page 523](#).
10. Easements, rights of way and all other matters as shown on the Plat of Hide-Away Park, filed at [Reception No. 48279](#).
11. Easements and rights of way and other matters as shown on the ALTA/NSPS Land Title Survey, recorded September 7, 2018 as [Reception No. LS2198](#).
12. Right of way for U.S. Highway 40, whether in fee or easement.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Westcor Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; and Schedule B, Part II-Exceptions.

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DISCLOSURE STATEMENTS

Note 1: Colorado Division of Insurance Regulations 3-5-1, Paragraph C of Article VII, requires that "Every Title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the Title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed. " (Gap Protection)

Note 2: Exception No. 4 of Schedule B, Section 2 of this Commitment may be deleted from the Owner's Policy to be issued hereunder upon compliance with the following conditions:

1. The Land described in Schedule A of this commitment must be a single-family residence, which includes a condominium or townhouse unit.
2. No labor or materials may have been furnished by mechanics or materialmen for purpose of construction on the Land described in Schedule A of this Commitment within the past 13 months.
3. The Company must receive an appropriate affidavit indemnifying the Company against unfiled mechanic's and materialmen's liens.
4. Any deviation from conditions A through C above is subject to such additional requirements or Information as the Company may deem necessary, or, at its option, the Company may refuse to delete the exception.
5. Payment of the premium for said coverage.

Note 3: The following disclosures are hereby made pursuant to §10-11-122, C.R.S.:

- (i) The subject real property may be located in a special taxing district;
- (ii) A certificate of taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent; and
- (iii) Information regarding special districts and the boundaries of such districts may be obtained from the County Commissioners, the County Clerk and Recorder, or the County Assessor.

Note 4: If the sales price of the subject property exceeds \$100,000.00, the seller shall be required to comply with the disclosure or withholding provisions of C.R.S. §39-22-604.5 (Non-resident withholding).

Note 5: Pursuant to C.R.S. §10-11-123 Notice is hereby given:

- (a) If there is recorded evidence that a mineral estate has been severed, leased or otherwise conveyed from the surface estate then there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property, and
- (b) That such mineral estate may include the right to enter and use the property without the surface owner's permission.

Note 6: Effective September 1, 1997, C.R.S. §30-10-406 requires that all documents received for recording or filing in the clerk and recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half inch the clerk and recorder may refuse to record or file any document that does not conform.

Note 7: Our Privacy Policy:

We will not reveal nonpublic personal customer information to any external non-affiliated organization unless we have been authorized by the customer, or are required by law.

Note 8: Records:

Regulation 3-5-1 Section 7 (N) provides that each title entity shall maintain adequate documentation and records sufficient to show compliance with this regulation and Title 10 of the Colorado Revised Statutes for a period of not less than seven (7) years, except as otherwise permitted by law.

Note 9: Pursuant Regulation 3-5-1 Section 9 (F) notice is hereby given that "A title entity shall not earn interest on fiduciary funds unless disclosure is made to all necessary parties to a transaction that interest is or has been earned. Said disclosure must offer the opportunity to receive payment of any interest earned on such funds beyond any administrative fees as may be on file with the division. Said disclosure must be clear and conspicuous, and may be made at any time up to and including closing. "

Be advised that the closing agent will or could charge an Administrative Fee for processing such an additional services request and any resulting payee will also be subjected to a W-9 or other required tax documentation for such purpose(s).

Be further advised that, for many transactions, the imposed Administrative Fee associated with such an additional service may exceed any such interest earned.

Therefore, you may have the right to some of the interest earned over and above the Administrative Fee, if applicable (e.g., any money over any administrative fees involved in figuring the amounts earned).

Note 10: Pursuant to Regulation 3-5-1 Section 9 (G) notice is hereby given that “Until a title entity receives written instructions pertaining to the holding of fiduciary funds, in a form agreeable to the title entity, it shall comply with the following:

1. The title entity shall deposit funds into an escrow, trust, or other fiduciary account and hold them in a fiduciary capacity.
2. The title entity shall use any funds designated as “earnest money” for the consummation of the transaction as evidenced by the contract to buy and sell real estate applicable to said transaction, except as otherwise provided in this section. If the transaction does not close, the title entity shall:
 - (a) Release the earnest money funds as directed by written instructions signed by both the buyer and seller; or
 - (b) If acceptable written instructions are not received, uncontested funds shall be held by the title entity for 180 days from the scheduled date of closing, after which the title entity shall return said funds to the payor.
3. In the event of any controversy regarding the funds held by the title entity (notwithstanding any termination of the contract), the title entity shall not be required to take any action unless and until such controversy is resolved. At its option and discretion, the title entity may:
 - (a) Await any proceeding; or
 - (b) Interplead all parties and deposit such funds into a court of competent jurisdiction, and recover court costs and reasonable attorney and legal fees; or
 - (c) Deliver written notice to the buyer and seller that unless the title entity receives a copy of a summons and complaint or claim (between buyer and seller), containing the case number of the lawsuit or lawsuits, within 120 days of the title entity's written notice delivered to the parties, title entity shall return the funds to the depositing party. ”

Title Company of the Rockies

Disclosures

All documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section. Pursuant to C.R.S. 30-10-406(3)(a).

The company will not issue its policy or policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent; or until the Proposed Insured has notified or instructed the company in writing to the contrary. Pursuant to C.R.S. 10-11-122.

No person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawals as a matter of right. Pursuant to C.R.S. 38-35-125(2).

The Company hereby notifies the proposed buyer in the current transaction that there may be recorded evidence that the mineral estate, or portion thereof, has been severed, leased, or otherwise conveyed from the surface estate. If so, there is a substantial likelihood that a third party holds some or all interest in the oil, gas, other minerals, or geothermal energy in the subject property. Such mineral estate may include the right to enter and use the property without the surface owner's permission. Pursuant to C.R.S. 10-11-123.

If this transaction includes a sale of property and the sales price exceeds \$100,000.00, the seller must comply with the disclosure/withholding requirements of said section. (Nonresident withholding) Pursuant to C.R.S. 39-22-604.5.

Notice is hereby given that: The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that: Pursuant to Colorado Division of Insurance Regulation 8-1-2;

"Gap Protection" -When this Company conducts the closing and is responsible for recording or filing the legal documents resulting from the transaction, the Company shall be responsible for all matters which appear on the record prior to such time or recording or filing; and

"Mechanic's Lien Protection" - If you are the buyer of a single family residence, you may request mechanic's lien coverage to be issued on your policy of Insurance. If the property being purchased has not been the subject of construction, improvements or repairs in the last six months prior to the date of this commitment, the requirements will be payment of the appropriate premium and the completion of an Affidavit and Indemnity by the seller. If the property being purchased was constructed, improved or repaired within six months prior to the date of this commitment the requirements may involve disclosure of certain financial information, payment of premiums, and indemnity, among others. The general requirements stated above are subject to revision and approval by the Company. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that an ALTA Closing Protection Letter is available, upon request, to certain parties to the transaction as noted in the title commitment. Pursuant to Colorado Division of Insurance Regulation 8-1.

Nothing herein contained will be deemed to obligate the Company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.



TITLE COMPANY
of the rockies

78491 U.S. Highway 40
Box 415
Winter Park, CO 80482
Phone: (970) 726-8077 Fax: (877) 239-2981
www.titlecorockies.com

Commitment Ordered By:

Mark Kent
Mark R. Kent
1309 Linden Lake Road
Fort Collins, CO 80524
email: mkent@switchfly.com

Inquiries should be directed to:

Charlotte Grewell
Title Company of the Rockies
78491 U.S. Highway 40
Box 415
Winter Park, CO 80482
Phone: (970) 726-8077 Fax: (877) 239-2981

Commitment Number:

TBD 0303153 - C

Buyer's Name(s):

Purchaser with contractual rights under a purchaser agreement with the vested owner identified at item 4 below

Seller's Name(s):

Kimberly Taylor Kent Revocable Trust

Property:

25 Wanderers Way, Winter Park, CO 80482
Lot 2-4, Block 1, Cullen Mobile Home Park, Grand County, Co

TITLE CHARGES

These charges are based on issuance of the policy or policies described in the attached Commitment for Title Insurance, and includes premiums for the proposed coverage amount(s) and endorsement(s) referred to therein, and may also include additional work and/or third party charges related thereto.

If applicable, the designation of "Buyer" and "Seller" shown below may be based on traditional settlement practices in Grand County, Colorado, and/or certain terms of any contract, or other information provided with the Application for Title Insurance.

Owner's Policy Premium:	\$0.00
Loan Policy Premium:	\$0.00
Additional Lender Charge(s):	
Additional Other Charge(s):	
Tax Certificate:	
Total Endorsement Charge(s):	
TBD Charge(s):	\$250.00
TOTAL CHARGES:	\$250.00



**ALTA Commitment For Title Insurance
(Adopted 06-17-06) (Revised 08-01-2016)**

**COMMITMENT FOR TITLE INSURANCE
ISSUED BY
WESTCOR LAND TITLE INSURANCE COMPANY**

NOTICE

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THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, WESTCOR LAND TITLE INSURANCE COMPANY, a South Carolina Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within six (6) months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

IN WITNESS WHEREOF, WESTCOR LAND TITLE INSURANCE COMPANY has caused its corporate name and seal to be hereunto affixed and by these presents to be signed in facsimile under authority of its by-laws, effective as of the date of Commitment shown in Schedule A.

Issued By:



The Title Company of the Rockies
78491 U.S. Highway 40, Post Office Box 415
Winter Park, CO 80482
Phone: 970-726-8077

WESTCOR LAND TITLE INSURANCE COMPANY



By:

Mary O'Donnell

President

Attest:

[Signature]

Secretary

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions and Stipulations.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and Stipulations and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
5. *The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at < <http://www.alta.org>>.*

Joint Notice of Privacy Policy
of
Westcor Land Title Insurance Company
and
The Title Company of the Rockies

Westcor Land Title Insurance Company (“WLTIC”) and **The Title Company of the Rockies** value their customers and are committed to protecting the privacy of personal information. In keeping with that philosophy, we each have developed a Privacy Policy, set out below, that will endure the continued protection of your nonpublic personal information and inform you about the measures WLTIC and **The Title Company of the Rockies** take to safeguard that information. This notice is issued jointly as a means of paperwork reduction and is not intended to create a joint privacy policy. Each company's privacy policy is separately instituted, executed, and maintained.

Who is Covered

We provide our Privacy Policy to each customer when they purchase a WLTIC title insurance policy. Generally, this means that the Privacy Policy is provided to the customer at the closing of the real estate transaction.

Information Collected

In the normal course of business and to provide the necessary services to our customers, we may obtain nonpublic personal information directly from the customer, from customer-related transactions, or from third parties such as our title insurance agent, lenders, appraisers, surveyors and other similar entities.

Access to Information

Access to all nonpublic personal information is limited to those employees who have a need to know in order to perform their jobs. These employees include, but are not limited to, those in departments such as closing, legal, underwriting, claims and administration and accounting.

Information Sharing

Generally, neither WLTIC nor **The Title Company of the Rockies** shares nonpublic personal information that it collects with anyone other than those individuals necessary needed to complete the real estate settlement services and issue its title insurance policy as requested by the consumer. WLTIC or **The Title Company of the Rockies** may share nonpublic personal information as permitted by law with entities with whom WLTIC or **The Title Company of the Rockies** has a joint marketing agreement. Entities with whom WLTIC or **The Title Company of the Rockies** have a joint marketing agreement have agreed to protect the privacy of our customer's nonpublic personal information by utilizing similar precautions and security measures as WLTIC and **The Title Company of the Rockies** use to protect this information and to use the information for lawful purposes. WLTIC or **The Title Company of the Rockies**, however, may share information as required by law in response to a subpoena, to a government regulatory agency or to prevent fraud.

Information Security

WLTIC and **The Title Company of the Rockies**, at all times, strive to maintain the confidentiality and integrity of the personal information in its possession and has instituted measures to guard against its unauthorized access. We maintain physical, electronic and procedural safeguards in compliance with federal standards to protect that information.

The WLTIC Privacy Policy can be found on WLTIC's website at www.wltic.com

COMMITMENT FOR TITLE INSURANCE

Issued by



as agent for

Westcor Land Title Insurance Company

SCHEDULE A

Reference:

Commitment Number: TBD 0303153 - C

1. Effective Date: **October 29, 2020, 7:00 am** Issue Date: **November 13, 2020**

3. The estate or interest in the land described or referred to in this Commitment is **Fee Simple**.

4. The Title is, at the Commitment Date, vested in:

Kimberly Taylor Kent Revocable Trust

5. The land referred to in this Commitment is described as follows:

FOR LEGAL DESCRIPTION SEE SCHEDULE A CONTINUED ON NEXT PAGE
For Informational Purposes Only - APN: **R192591**

Countersigned
The Title Company of the Rockies

By:

A handwritten signature in black ink, appearing to read "Susan Sarver", written over a horizontal line.

Susan Sarver

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SCHEDULE A (continued)

LEGAL DESCRIPTION

The Land referred to herein is located in the County of **Grand**, State of **Colorado**, and described as follows:

Lots 2 and 3, Block 1, Hideaway Park, and that part of Lot 4, Block 1, HIDEAWAY PARK, lying Easterly of a line described as follows:

Beginning at a point on the North line of said Lot 4, which is South 89 °29' East, 112 feet from the intersection of said North line with the Easterly right of way line of U.S. Highway No. 40; thence South 18 °11' East, 96.11 feet; thence South 25° East, 57 feet, more or less, to a point on the South line of said Lot 4.

For each policy to be issued as identified in Schedule A, Item 2, the Company shall not be liable under this commitment until it receives a specific designation of a Proposed Insured, and has revised this commitment identifying that Proposed Insured by name. As provided in Commitment Condition 4, the Company may amend this commitment to add, among other things, additional exceptions or requirements after the designation of the Proposed Insured.

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COMMITMENT FOR TITLE INSURANCE

Issued by

Westcor Land Title Insurance Company

SCHEDULE B, PART I Requirements

The following are the requirements to be complied with prior to the issuance of said policy or policies. Any other instrument recorded subsequent to the effective date hereof may appear as an exception under Schedule B of the policy to be issued. Unless otherwise noted, all documents must be recorded in the office of the clerk and recorded of the county in which said property is located.

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
5. Evidence satisfactory to the Company or its duly authorized agent that all dues and/or assessments levied by the Homeowners Association have been paid through the date of closing.
6. Evidence satisfactory to the Company or its duly authorized agent that the "real estate transfer tax" imposed by Ordinance No. 101, Series of 1983, of the Town of Winter Park, Colorado has been paid, and that the lien imposed by Paragraph 11 thereof has been fully satisfied.
7. NOTE: Statement of authority for Kimberly Taylor Kent Revocable Trust, a Colorado trust, recorded March 15, 2016 at [Reception No. 2016001786](#), discloses that the names and addresses of the trustee(s) authorized to act on behalf of the trust are as follows: Jemberly Taylor Kent and Mark Reed Kent, Trustees - 1309 Linden Lake Road, Fort Collins, CO 80524.

24-month Chain of Title: The only conveyance(s) affecting said land recorded within the 24 months preceding the date of this commitment is (are) as follows:

WARRANTY DEED recorded March 15, 2016, at [Reception No. 2016001787](#).

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NOTE: If no conveyances were found in that 24 month period, the last recorded conveyance is reported. If the subject land is a lot in a subdivision plat less than 24 months old, only the conveyances subsequent to the plat are reported.

THE COMPANY RESERVES THE RIGHT TO CONDUCT AN ADDITIONAL SEARCH OF THE RECORDS IN THE OFFICE OF THE CLERK AND RECORDER FOR GRAND COUNTY, COLORADO FOR JUDGMENT LIENS, TAX LIENS OR OTHER SIMILAR OR DISSIMILAR INVOLUNTARY MATTERS AFFECTING THE GRANTEE OR GRANTEES, AND TO MAKE SUCH ADDITIONAL REQUIREMENTS AS IT DEEMS NECESSARY, AFTER THE IDENTITY OF THE GRANTEE OR GRANTEES HAS BEEN DISCLOSED TO THE COMPANY.

NOTE: THIS COMMITMENT IS ISSUED UPON THE EXPRESS AGREEMENT AND UNDERSTANDING THAT THE APPLICABLE PREMIUMS, CHARGES AND FEES SHALL BE PAID BY THE APPLICANT IF THE APPLICANT AND/OR ITS DESIGNEE OR NOMINEE CLOSES THE TRANSACTION CONTEMPLATED BY OR OTHERWISE RELIES UPON THE COMMITMENT, ALL IN ACCORDANCE WITH THE RULES AND SCHEDULES OF RATES ON FILE WITH THE COLORADO DEPARTMENT OF INSURANCE.

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SCHEDULE B, PART II
Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

Schedule B of the policy or policies to be issued will contain exceptions to the following matters unless the same are disposed of to the satisfaction of the Company.

Any loss or damage, including attorney fees, by reason of the matters shown below:

1. Any facts, right, interests, or claims which are not shown by the Public Records but which could be ascertained by an inspection of said Land or by making inquiry of persons in possession thereof.
2. Easements or claims of easements, not shown by the Public Records.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
4. Any lien, or right to a lien for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
5. Defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the Public Records or attaching subsequent to the effective date hereof, but prior to the date of the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.
6. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
7. Right of the Proprietor of a Vein or Lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).
8. Right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).

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9. Easement and right of way for telephone line purposes, as granted to Mountain States Telephone and Telegraph Company by instrument recorded July 26, 1939, in [Book 87 at Page 523](#).
10. Easement and right of way for authority to survey, construct, operate, maintain, control, repair and replace its utility lines, as granted by William P. Cullen and William C. Heatley to Public Service Company of Colorado by Instrument recorded september 9, 1971, in Book 180 at page 275.
11. Taxes and assessments for the year 2016 and subsequent years, a lien not yet due and payable.
12. Right of the Proprietor of a Vein or Lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).
13. Right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded September 22, 1910, in [Book 34 at Page 258](#).
14. Easement and right of way for telephone line purposes, as granted to Mountain States Telephone and Telegraph Company by instrument recorded July 26, 1939, in [Book 87 at Page 523](#).
15. Easement and right of way for authority to survey, construct, operate, maintain, control, repair and replace its utility lines, as granted by William P. Cullen and William C. Heatley to Public Service Company of Colorado by Instrument recorded september 9, 1971, in Book 180 at page 275.
16. Easements and rights of way and other matters as shown on the ALTA/NSPS Land Title Survey, recorded September 7, 2018 as [Reception No. LS2198](#).
17. Right of way for U.S. Highway 40, whether in fee or easement.

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DISCLOSURE STATEMENTS

Note 1: Colorado Division of Insurance Regulations 3-5-1, Paragraph C of Article VII, requires that "Every Title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the Title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed. " (Gap Protection)

Note 2: Exception No. 4 of Schedule B, Section 2 of this Commitment may be deleted from the Owner's Policy to be issued hereunder upon compliance with the following conditions:

1. The Land described in Schedule A of this commitment must be a single-family residence, which includes a condominium or townhouse unit.
2. No labor or materials may have been furnished by mechanics or materialmen for purpose of construction on the Land described in Schedule A of this Commitment within the past 13 months.
3. The Company must receive an appropriate affidavit indemnifying the Company against unfiled mechanic's and materialmen's liens.
4. Any deviation from conditions A through C above is subject to such additional requirements or Information as the Company may deem necessary, or, at its option, the Company may refuse to delete the exception.
5. Payment of the premium for said coverage.

Note 3: The following disclosures are hereby made pursuant to §10-11-122, C.R.S.:

- (i) The subject real property may be located in a special taxing district;
- (ii) A certificate of taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent; and
- (iii) Information regarding special districts and the boundaries of such districts may be obtained from the County Commissioners, the County Clerk and Recorder, or the County Assessor.

Note 4: If the sales price of the subject property exceeds \$100,000.00, the seller shall be required to comply with the disclosure or withholding provisions of C.R.S. §39-22-604.5 (Non-resident withholding).

Note 5: Pursuant to C.R.S. §10-11-123 Notice is hereby given:

- (a) If there is recorded evidence that a mineral estate has been severed, leased or otherwise conveyed from the surface estate then there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property, and
- (b) That such mineral estate may include the right to enter and use the property without the surface owner's permission.

Note 6: Effective September 1, 1997, C.R.S. §30-10-406 requires that all documents received for recording or filing in the clerk and recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one-half inch the clerk and recorder may refuse to record or file any document that does not conform.

Note 7: Our Privacy Policy:

We will not reveal nonpublic personal customer information to any external non-affiliated organization unless we have been authorized by the customer, or are required by law.

Note 8: Records:

Regulation 3-5-1 Section 7 (N) provides that each title entity shall maintain adequate documentation and records sufficient to show compliance with this regulation and Title 10 of the Colorado Revised Statutes for a period of not less than seven (7) years, except as otherwise permitted by law.

Note 9: Pursuant Regulation 3-5-1 Section 9 (F) notice is hereby given that "A title entity shall not earn interest on fiduciary funds unless disclosure is made to all necessary parties to a transaction that interest is or has been earned. Said disclosure must offer the opportunity to receive payment of any interest earned on such funds beyond any administrative fees as may be on file with the division. Said disclosure must be clear and conspicuous, and may be made at any time up to and including closing. "

Be advised that the closing agent will or could charge an Administrative Fee for processing such an additional services request and any resulting payee will also be subjected to a W-9 or other required tax documentation for such purpose(s).

Be further advised that, for many transactions, the imposed Administrative Fee associated with such an additional service may exceed any such interest earned.

Therefore, you may have the right to some of the interest earned over and above the Administrative Fee, if applicable (e.g., any money over any administrative fees involved in figuring the amounts earned).

Note 10: Pursuant to Regulation 3-5-1 Section 9 (G) notice is hereby given that “Until a title entity receives written instructions pertaining to the holding of fiduciary funds, in a form agreeable to the title entity, it shall comply with the following:

1. The title entity shall deposit funds into an escrow, trust, or other fiduciary account and hold them in a fiduciary capacity.
2. The title entity shall use any funds designated as “earnest money” for the consummation of the transaction as evidenced by the contract to buy and sell real estate applicable to said transaction, except as otherwise provided in this section. If the transaction does not close, the title entity shall:
 - (a) Release the earnest money funds as directed by written instructions signed by both the buyer and seller; or
 - (b) If acceptable written instructions are not received, uncontested funds shall be held by the title entity for 180 days from the scheduled date of closing, after which the title entity shall return said funds to the payor.
3. In the event of any controversy regarding the funds held by the title entity (notwithstanding any termination of the contract), the title entity shall not be required to take any action unless and until such controversy is resolved. At its option and discretion, the title entity may:
 - (a) Await any proceeding; or
 - (b) Interplead all parties and deposit such funds into a court of competent jurisdiction, and recover court costs and reasonable attorney and legal fees; or
 - (c) Deliver written notice to the buyer and seller that unless the title entity receives a copy of a summons and complaint or claim (between buyer and seller), containing the case number of the lawsuit or lawsuits, within 120 days of the title entity's written notice delivered to the parties, title entity shall return the funds to the depositing party. ”

Title Company of the Rockies

Disclosures

All documents received for recording or filing in the Clerk and Recorder's office shall contain a top margin of at least one inch and a left, right and bottom margin of at least one half of an inch. The Clerk and Recorder will refuse to record or file any document that does not conform to the requirements of this section. Pursuant to C.R.S. 30-10-406(3)(a).

The company will not issue its policy or policies of title insurance contemplated by this commitment until it has been provided a Certificate of Taxes due or other equivalent documentation from the County Treasurer or the County Treasurer's authorized agent; or until the Proposed Insured has notified or instructed the company in writing to the contrary. Pursuant to C.R.S. 10-11-122.

No person or entity that provides closing and settlement services for a real estate transaction shall disburse funds as a part of such services until those funds have been received and are available for immediate withdrawals as a matter of right. Pursuant to C.R.S. 38-35-125(2).

The Company hereby notifies the proposed buyer in the current transaction that there may be recorded evidence that the mineral estate, or portion thereof, has been severed, leased, or otherwise conveyed from the surface estate. If so, there is a substantial likelihood that a third party holds some or all interest in the oil, gas, other minerals, or geothermal energy in the subject property. Such mineral estate may include the right to enter and use the property without the surface owner's permission. Pursuant to C.R.S. 10-11-123.

If this transaction includes a sale of property and the sales price exceeds \$100,000.00, the seller must comply with the disclosure/withholding requirements of said section. (Nonresident withholding) Pursuant to C.R.S. 39-22-604.5.

Notice is hereby given that: The subject property may be located in a special taxing district. A Certificate of Taxes due listing each taxing jurisdiction shall be obtained from the County Treasurer or the County Treasurer's authorized agent. Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder, or the County Assessor. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that: Pursuant to Colorado Division of Insurance Regulation 8-1-2;

"Gap Protection" -When this Company conducts the closing and is responsible for recording or filing the legal documents resulting from the transaction, the Company shall be responsible for all matters which appear on the record prior to such time or recording or filing; and

"Mechanic's Lien Protection" - If you are the buyer of a single family residence, you may request mechanic's lien coverage to be issued on your policy of Insurance. If the property being purchased has not been the subject of construction, improvements or repairs in the last six months prior to the date of this commitment, the requirements will be payment of the appropriate premium and the completion of an Affidavit and Indemnity by the seller. If the property being purchased was constructed, improved or repaired within six months prior to the date of this commitment the requirements may involve disclosure of certain financial information, payment of premiums, and indemnity, among others. The general requirements stated above are subject to revision and approval by the Company. Pursuant to C.R.S. 10-11-122.

Notice is hereby given that an ALTA Closing Protection Letter is available, upon request, to certain parties to the transaction as noted in the title commitment. Pursuant to Colorado Division of Insurance Regulation 8-1.

Nothing herein contained will be deemed to obligate the Company to provide any of the coverages referred to herein unless the above conditions are fully satisfied.

MEMO

TO Planning Commission

FROM James Shockey, Community Development Director

DATE December 8, 2020

RE Sketch Plan – Town of Winter Park – Hideaway Junction Phase II

Project Overview:

Hideaway Junction Phase II is a proposed affordable housing residential development submitted by the Town of Winter Park, consisting of 36 single-family lots, utility infrastructure, public roadway, and landscaping on approximately 5.27 acres. The project will be phased for both horizontal and vertical construction, but the platting is intended to be completed for the entirety of the property. The first phase of Hideaway Junction consisted of 10 single-family lots that was platted in 2006.

The project site is bounded to the north by residential properties on Trestle Drive, to the west by Kings Crossing Road, to the south by Union Pacific Railroad property, and to the east by Lions Gate Drive. Historically, the land is undeveloped and includes native grasses, shrubs, trees, wetland areas and minor drainage improvements.

Although the sketch plan review with the Planning Commission is optional, the applicant has requested this review to gather input about the proposed project prior to completing the preliminary plat requirements. Per Section 8-2-2 of the Town Code, the Planning Commission shall review the sketch plan and shall discuss with the applicant any changes deemed advisable in the proposed plan and shall approve, conditionally approve, or disapprove the proposed plan.

Access / Parking

The project connects directly to Kings Crossing Road near its intersection with the Union Pacific Railroad. Kings Crossing Road is currently designated a collector road system and has been designed to accommodate the additional capacity that this in-fill development will produce. In addition, Kings Crossing Road where it crosses the railroad is in the process of being permanently closed. This closure will reduce overall traffic on Kings Crossing Road and the intersection at Highway 40. The new roads into the property are designed to the Town's Standards and Specifications for Design and Construction ("Standards") as low-volume, two lane roads including the required number of vehicle turnarounds. The main road is a dead-end road, and the secondary road loops back to Kings Crossing Road, eliminating through traffic. This development is not anticipated to cause any negative effects to Kings Crossing Road or other adjacent roadways. The new roads will be constructed in accordance with the Standards.

Parking will be provided within a garage or driveway for each individual lot. No additional guest parking is proposed. The parking will be in conformance with the Standards.

Setbacks and Building Coverage

The property is zoned PD-DC (Ord. 361, Series 2006) with the following setbacks:

1. The Hideaway Junction Final Development Plan shall be as follows:

Area:	7.67 acres
Permitted Uses:	Attached and detached dwelling units
Maximum Building Height:	55' as determined in accordance with town code section 7-5B-4B
Side/Rear Setbacks:	3', measured from property line; encroachments shall not be permitted
Side/Rear Building Separations:	12' between eaves and decks; 15' between walls
Front Loaded Garage Setbacks:	20'
Finished Floor Area:	1100-1400 sq. ft.
Garage Space:	Most units will have two car garages with additional storage space.

Building coverage is limited to 60% for residential uses in the D-C Zone District; the project will need to comply with that limit.

Snow Storage

The applicant has shown proposed snow storage locations on the sketch plan but did not provide percentages. The project will provide at least 25% of the total road area as required per Section 3.11 of the Standards. Individual lots will be required to meet snow storage requirements for the driving surfaces, parking areas, and pedestrian walkways.

Utilities

The proposed site contains no existing utilities. Proposed utilities include a looped water line, sanitary sewer services, gas, and electric. The 8" water line is connected to the water main in Kings Crossing Road at the western end of the site, and to the water main in Lions Gate Drive. Water improvements will include four (4) fire hydrants and service stubs for each property. There are three (3) separate 8" sanitary sewer lines proposed. Two are in the proposed roadways on the west side of the site, and gravity flows to the existing sanitary sewer main in Kings Crossing Road. The third is located to the north of the properties on eastern half of the site, and gravity flows to the existing sanitary sewer main near the intersection of Trestle Drive and Lions Gate Drive. Sanitary Sewer improvements will include service stubs for each property. Gas and electric lines connect to existing utilities in Kings Crossing Road. There is a proposed 37' Right of Way with adjacent 5' utility easements on either side, which is enough width to give adequate clearances for all utilities.

The applicant has been in touch with the local utility owners to discuss the feasibility of the project. Grand County Water and Sanitation District #1 has provided general approval of the preliminary utility layout, verifying that there are no anticipated conflicts with existing utilities. Xcel has provided input on the layout of the gas main and services and does not see any issues with the project moving forward. Mountain Parks Electric has yet to respond with comments.

Landscaping / Signage / Lighting / Open Space

This material is not required for sketch plan and will be reviewed at preliminary plat.

Town Engineer Comments

The Town Engineer is the contracted engineer designing this project and therefore did not provide comments.

Planning Commission Action

Planning Commission shall review the sketch plan and shall discuss with the applicant any changes deemed advisable in the proposed plan and shall approve, conditionally approve, or disapprove the proposed plan.



JVA, Incorporated
P.O. Box 1860
47 Cooper Creek Way
Suite 328
Winter Park, CO 80482
970.722.7677
info@jvajva.com

November 30, 2020

Mr. James Shockey, AICP
Community Development Director
Town of Winter Park
50 Vasquez Road
Winter Park, CO 80482
Via email: jshockey@wpgov.com

www.jvajva.com

RE: Hideaway Junction Phases II & III – Sketch Plan
JVA Job No. 1566.68.1c

Dear James,

This letter has been prepared in support of the Sketch Plan submittal and provides general information regarding the proposed project.

Project Description:

Hideaway Junction is a proposed affordable housing residential development consisting of 36 houses, utility infrastructure, private roadway and landscaping on approximately 5.27 acres within the Town of Winter Park. Design of the development is following the precedent of the development of the single-family homes on Trestle Drive to the north. The project will likely be phased for both horizontal and vertical construction, but the platting is intended to be completed for the entirety of the property through the Preliminary and Final Platting processes. Once the Plat has been approved, the project will proceed with Town Submittals for vertical construction, likely with a design-build contractor.

The project site is bounded to the north by residential properties on Trestle Drive, to the west by Kings Crossing Road, to the south by Union Pacific Railroad property, and to the east by Lions Gate Drive. Historically, the land is undeveloped and includes native grasses, shrubs, trees, wetland areas and minor drainage improvements.

Utility Infrastructure:

The proposed site contains no existing utilities. Proposed utilities include a looped water line, sanitary sewer services, gas, and electric. The 8" DIP water line is connected to the water main in Kings Crossing Road at the western end of the site, and to the water main in Lions Gate drive. Water improvements will include four (4) fire hydrants and 3/4" Copper service stubs for each property. There are three (3) separate 8" PVC sanitary sewer lines proposed. Two are in the proposed roadways on the west side of the site, and gravity flow to the existing sanitary sewer main in Kings Crossing Road. The third is located to the north of the properties on eastern half of the site, and gravity flows to the existing sanitary sewer main near the intersection of Trestle Drive and Lions Gate Drive. Sanitary Sewer improvements will include 4" PVC service stubs for each property. Gas and electric lines connect to existing utilities in Kings Crossing Road. There is a proposed 37' Right of Way with adjacent 5' utility easements on either side, which is enough width to give adequate clearances for all utilities.



We have been in touch with the local utility owners to discuss the feasibility of the project. Grand County Water and Sanitation District #1 has provided general approval of the preliminary utility layout, verifying that there are no anticipated conflicts with existing utilities. Xcel has provided input on the layout of the gas main and services and does not see any issues with the project moving forward.

Geotechnical Engineering Study:

A Geotechnical Subsurface Exploration Program including final pavement evaluation and preliminary geotechnical evaluation was completed by Ground Engineering in September 2016. Ten (10) test holes were dug and observed on the project site. Test holes were advanced to depths of approximately 5 to 40 feet below existing grades. Subsurface conditions generally consist of a thin veneer of topsoil-like material, approximately 2 to 5 inches in thickness underlain by silty to clayey sand to depths of approximately 19 to 21 feet below existing grades. These materials are underlain by sand and gravels with occasional cobbles/boulders. Bedrock was not encountered in the test holes. Foundation test holes extended approximately 25-40 feet below existing grades. It should be anticipated that gravel and cobbles and likely boulders may be present in the native soils, even where not included in the general findings. Groundwater was encountered in two of the test holes at depths of approximately 23 to 25 feet below existing grades.

The principal geotechnical challenges for development on site consist of the potential significant grading that appears to be necessary to facilitate construction. Additionally, if shallow groundwater is encountered during project excavations, then dewatering measures likely will need to be implemented. Based on geotechnical testing of the site, shallow foundations consisting of spread footings, as well as moderately loaded slab-on-grade construction appear to be feasible at this site. The minimum paving section for the proposed private roads is 5 inches of asphalt, or 4 inches of asphalt over 6 inches of aggregate base course. We currently intend to utilize the composite section of both asphalt and base course.

Preliminary Drainage Study:

The project site grading will be designed to generally follow the historic drainage pattern. Onsite runoff will be routed through the site via surface flow, curb and gutter, and a system of culverts to bypass the proposed roadways. With ongoing construction on the adjacent downstream property, the site will be connected directly to Leland Creek to the north via an adequate storm sewer network. Runoff generally flows to the northeast. The western half of the site is collected by a series of swales that lead to two storm inlets and a storm pipe that crosses Kings Crossing Road. The eastern portion of the site flows to an existing swale and culvert parallel to Lions Gate Drive. As existing drainage patterns towards the Leland Creek drainageway will not be altered by this development, and the storm sewer will connect the outfall directly to the floodway, we are not proposing detention facilities for this development. As this outfall is within the Town Right-of-Way and serves a larger basin than just this property, we suggest that any water quality facilities constructed at this location be designed to treat the entire basin that is mostly developed.



Transportation Impact Analysis:

The project connects directly to Kings Crossing Road near its intersection with the Union Pacific Railroad. Kings Crossing Road is currently designated a collector road system and is assumed to have been designed to accommodate the additional capacity that this in-fill development will produce. In addition, Kings Crossing Road where it crosses the railroad is in the process of being permanently closed. This closure will reduce overall traffic on Kings Crossing Road and the intersection at Highway 40. The drives proposed with this project are designed to town standards as low-volume, two lane roads including the required number of vehicle turnarounds. The main drive is a dead-end road, and the secondary drive loops back to Kings Crossing Road, eliminating through traffic. This development is not anticipated to cause any negative effects to Kings Crossing Road or other adjacent roadways.

Zoning and Variances:

Lot area requirements for this property have been approved to the following dimensions:

Zoning: R-1

Minimum Lot Area: 9,000 sf

Front Setback: 25'

Side Setback: 10'

Rear Setback: 20'

Front Lotline width: 75'

Side Lotline depth: 100'

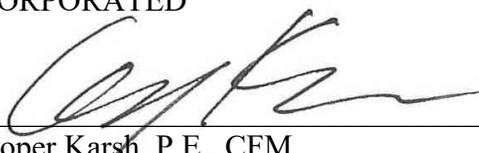
To meet the proposed density of affordable housing units, variances will need to be requested on the lot dimensions. As with the previously constructed Phase 1, it is anticipated that minimum lot areas and all setbacks will require being reduced. However, the front setback will be held to the minimum required to provide adequate parking (20') behind the sidewalk. Variances will be provided along with the forthcoming Preliminary Plat submittal, as needed.

Parking:

It is currently intended that all parking requirements will be met. Architectural design and confirmation of parking and garage configurations will be reviewed when building construction is proposed.

Sincerely,
JVA, INCORPORATED

By:



Cooper Karsh, P.E., CFM
Project Manager

Enclosures:

Hideaway Junction - Geotechnical Report
Hideaway Junction Phases II & III – Site Plan

TOWN OF WINTER PARK

ORDINANCE NO. 361
SERIES OF 2005

AN ORDINANCE CONCERNING HIDEAWAY JUNCTION,
AN AFFORDABLE HOUSING PROJECT,
APPROVING THE HIDEAWAY JUNCTION FINAL DEVELOPMENT PLAN (FDP),
AND RE-ZONING LOT 1 DIMMIT EXEMPTION TO PLANNED DEVELOPMENT (PD) WITH
UNDERLYING DESTINATION CENTER (DC) ZONING

WHEREAS, in accordance with Sections 7-7, 7-10 of the Town Code, the Town of Winter Park (“Applicant”) is proposing a Final Development Plan (“FDP”) and subsequent re-zoning of Lot 1, Dimmit exemption (7.67 acres) recorded at Reception No. 97004438 of the Grand County Records in order to allow both attached and detached dwelling units within the Destination Center (DC) Zone District. The proposed zoning will be PD-DC in order to allow said use; and

WHEREAS, the Hideaway Junction FDP will allow for deed restricted and covenanted affordable attached and detached dwelling units which will be permanently deed restricted and priced below market rate; and

WHEREAS, the dwelling units have been designed to accommodate the local workforce of active single adults, couples and families with oversized garages to create adequate storage and comfortable living spaces; and

WHEREAS, with over 70% of all units in Winter Park being second homes, the ultimate goal of this development is to create a sense of community within Winter Park; a place where locals live close to where they work and play that is affordable and will remain so through the proposed deed restrictions; and

WHEREAS, the rationale for this development is the fact that affordable housing is becoming increasingly difficult to find and will be more difficult as other local development continues; and

WHEREAS, the Applicant is requesting that the Hideaway Junction FDP zoning designation be Planned Development (PD) to take full advantage of the Destination Center (DC) zoning currently assigned for this property; and

WHEREAS, the Applicant proposes to utilize attached and detached unit platting to make better use of the property which would otherwise need to be zoned as Multi-Family Residential (R-2) which requires much larger lot sizes, thereby reducing the “affordability” of this project.; and

WHEREAS, in conjunction with the FDP and re-zoning, the first phase of Hideaway Junction subdivision is proposed for review and approval; and

WHEREAS, the Applicant hereby requests re-zoning of 7.67 acres in order to allow both attached and detached dwelling units within the Destination Center (DC) Zone District.

NOW THEREFORE, BE IT ORDAINED that the Town Council of Winter Park, Colorado hereby approved the following:

1. The Hideaway Junction Final Development Plan shall be as follows:

- Area: 7.67 acres
- Permitted Uses: Attached and detached dwelling units
- Maximum Building Height: 55' as determined in accordance with town code section 7-5B-4B
- Side/Rear Setbacks: 3', measured from property line; encroachments shall not be permitted
- Side/Rear Building Separations: 12' between eaves and decks; 15' between walls
- Front Loaded Garage Setbacks: 20'
- Finished Floor Area: 1100-1400 sq. ft.
- Garage Space: Most units will have two car garages with additional storage space.

2. That Lot 1, Dimmit Exemption is hereby re-zoned Planned Development-Destination Center (PD-DC)

FURTHER BE IT ORDAINED that Town of Winter Park staff is hereby directed to amend the Town Zoning Map.

INTRODUCED, APPROVED ON FIRST READING, AND ORDERED PUBLISHED IN SUMMARY this 16th of August, 2005. A public hearing shall be held at the regular meeting of the Winter Park Council on the 6th day of September, 2005 at 5:30 PM, or as soon thereafter as possible, at the Winter Park Town Hall.



TOWN OF WINTER PARK

[Handwritten Signature]

Harold N. Teverbaugh, Mayor

ATTEST:

[Handwritten Signature]
Nancy J. Anderson, MMC, Town Clerk

READ, ADOPTED AND ORDERED PUBLISHED on second and final reading by a vote of 7 to 0 on the 6th day of September, 2005.



TOWN OF WINTER PARK

[Handwritten Signature]

Harold N. Teverbaugh, Mayor

ATTEST:

[Handwritten Signature]
Nancy J. Anderson, MMC, Town Clerk

CHAPTER 5. ENVIRONMENTAL STANDARDS

Article 5.A. Land and Resource Conservation

Sec. 5-A-1 Site Fingerprinting

A. Generally.

1. All subdivisions and site plans shall show the boundaries of areas of the natural resources listed in *Subsection B.*, if such areas exist on the parcel proposed for development. Such delineation shall be by a qualified professional.
2. Development that does not require a site plan, but is located on a parcel or lot which was not subdivided in accordance with the requirements of this Article shall provide site fingerprinting.

B. Resource Mapping Criteria. The following resources on a parcel proposed for development shall be mapped according to the stated criteria or methodologies. These resources are subject to the resource protection requirements of this Article.

1. Riparian Buffers. Riparian buffers shall be mapped as an area that extends 30 feet landward of the ordinary high water mark or top of bank, as applicable, from rivers, streams, and creeks.
2. Floodplains, Floodways, and Floodway Fringes. Floodplains, floodways, and floodway fringes shall be mapped according to their boundaries as shown on the most recent maps available from the Federal Emergency Management Agency (FEMA).
3. Wetlands. Wetlands shall be delineated according to the most recent version of the U.S. Army Corps. of Engineers Wetland Delineation Manual.
4. Forests and Woodlands. Forests and woodlands are areas that are at least 10 contiguous acres in area in which trees have overlapping crowns that provide at least 50 percent cover. Forests and woodlands are delineated by the edges of the crowns.
5. Critical Wildlife Habitat, Winter Range for Elk and Mule Deer, and Big Game Migration Corridors. Critical wildlife habitat, winter range for elk and mule deer, and big game migration corridors shall be mapped in consultation with the Colorado Division of Wildlife. (See Sec. 5-A-6, Protection of Wildlife Corridors, Ranges, and Habitat.).
6. Steep Slopes. Steep slopes shall be mapped as those areas on a parcel proposed for development with an average grade of 30 percent or more.
7. Geologic Hazard Areas.
 - a. Geologic hazard areas shall be mapped after geotechnical analysis for those sites which are shown on Map 3 of the 2007 Comprehensive Plan as "geologic constraints," or for sites that are known to the Administrator to contain geologic hazards.
 - b. Each type of geologic hazard on a parcel proposed for development shall be mapped.

C. Waiver of Requirement.

1. The Administrator may waive the fingerprinting requirement for one or more of the listed resources if the Administrator determines that there is no evidence of the presence of the resource or resources on the parcel or lot proposed for development.

Sec. 5-A-2 View Protection

A. Purpose. Procedures for evaluating the impacts of development on scenic views and vistas available to the general public are warranted given the surrounding National Forest Protected Lands, mountain peaks, slopes, and valleys.

The intent of this Section is to preserve the scenic quality of these resources and thereby promote a high quality of life, preserve property values, and promote sustainable economic development by limiting reductions of visual integrity, and to ensure that development does not materially obstruct scenic view or vistas as seen from critically important public view corridors.

- B. **Applicability.** The requirements of this Section apply to all development, redevelopment or substantial improvement of buildings or sites that are within the view corridor between the Continental Divide and following key destination points within the Town's municipal limits:
1. Wolf Park;
 2. Confluence Park; and
 3. Hideaway Park;
- C. **Requirements.**
1. *Generally.* There shall be no significant structure in the view corridor from the key destination points listed above in subsection (B) and the Continental Divide. To show that there is no significant structure in the view corridor a view analysis shall be submitted when legitimate concerns are raised by Town staff, Town Council, and/or the general public that a proposed development is likely to impact views of the surrounding mountain peaks, slopes, and valleys as seen from key public designation points that serve the community interest by ensuring that signature views available to the public are not blocked by the installation of new structure.
 2. *Extent of View Analysis.* See Sec. 7-D-8.A, *View Analysis Requirements*.
 3. *Mitigation Measures.* The applicant is permitted to propose mitigation measures to reduce the impact of the proposed structure(s). See Sec. 7-D-8.D, *Mitigation Measures*.

Sec. 5-A-3 Hillides, Ridgelines and Topographic Features

Subsec. 5-A-3-1 Purpose and Intent

- A. **Purpose.**
1. The standards of this Section are appropriate for areas that have physical characteristics limiting development, so that development occurs in a manner that minimizes the adverse environmental and visual problems associated with drainage, erosion, earth movement, and vegetation removal. These standards consider the natural constraints of a site to accommodate development that:
 - a. Is sensitive to the natural, wild environment;
 - b. Incorporates safeguards to maximize public health, safety, and general welfare; and
 - c. Minimizes changes to the visual quality of the hillside.
 2. The hillside conservation standards are designed to protect and enhance the Town's unique natural assets, environment, wildlife habitat, and significant scenic views and vistas. Hillside areas are places of special character that affect and are affected by their surroundings.
- B. **Applicability.**
1. *Generally.* Any rezoning, subdivision, site plan, master site plan, or building permit shall be subject to regulations and standards of this Section.
 2. *Exceptions.* Except as provided below, the regulations of this Section apply to those portions of parcels or lots proposed for development where slopes of 30 percent or greater are impacted. The following types of development are exempt from the provisions of this Section:
 - a. Exterior building maintenance and repairs;
 - b. Interior alterations;
 - c. Construction of public utilities in the right-of-way;

- d. Development necessary to comply with Title 6, Chapter 1, *Building Codes*, of the Town's Code of Ordinances; and
- e. Development necessary to ensure the immediate public health or safety as required by the Town Council.

Subsec. 5-A-3-2 Protection of Hillsides and Ridgelines

A. Generally.

1. The development standards set out in this Section apply to those portions of parcels or lots proposed for development where slopes of 20 percent or greater are impacted. These standards also apply to flat areas on top of ridgelines or hillcrests that have significant visibility or that may be identified as significant natural features or distinctive landforms. Section 5-A-3-3, *Streets, Driveways, Parking, and Emergency Vehicle Access on Hillsides*, provides special provisions for hillsides that meet this slope threshold that are located within 100-feet from the top of bank of a natural waterway.
2. Any rezoning, subdivision, annexation, development, planned development, site plan, or building approval or permit shall be subject to compliance with the hillside regulations, regardless of whether specific reference to the hillside regulations is made in the UDC section governing such approval or permit process.

Table 5-A-3-2-1 Hillside Regulations for Land Use Type			
Land Use Type	<20%	20%-29.9%	30% or more
Single Family Residential - Existing Lot	No Hillside Review	Admin.	Admin
Single Family Residential - New Lot Subdivision	No Hillside Review	Admin. & Subd.	Prohibited
Multifamily - Existing Lot	No Hillside Review	Admin.	Admin.
Multifamily - New Lot Subdivision	No Hillside Review	Admin. & Subd.	Prohibited
Commercial or Mixed Use - Existing Lot	No Hillside Review	Admin.	Admin.
Commercial or Mixed Use - New Lot Subdivision	No Hillside Review	Admin. & Subd.	Prohibited
Access to an Existing Lot	No Hillside Review	Admin.	Admin.
Access to a New Lot Subdivision	No Hillside Review	Admin.	Admin.
Significant Vegetation Removal ¹	No Hillside Review	Admin.	Prohibited
Notes: Admin- Administrative Review Subd. - Subdivision Process 1 - Fire mitigation projectst in the Wildfire-Urban Interface are exempt			

B. Hillside Protection Review Process and Required Submittals.

1. The development review and permitting process is determined by the slope of the area on which the work is to be done. All proposals or development activity including grading, modifying, and / or disturbing of slopes of 20 percent or greater require application, review, and approval. An application is also required for all annexations, rezonings, or subdivisions of properties which have slopes of 20 percent or greater.
2. A completed application must be filed with the Department along with the appropriate fee and all required submittal materials. An application is required for all persons desiring to remove significant vegetation (coniferous trees six feet and taller, deciduous trees four inches in circumference or greater) on slopes of twenty percent or greater. The topography of a parcel is measured using actual ("natural") slope instead of average slope.
3. A rejection of the project may be appealed to the Planning Commission in accordance with the procedures set out in Section 7-D-10, *Administrative Appeals*.

C. Landscape Anomalies and Cut Slopes. Under certain conditions, the grading standards can be administratively waived due to the existence of landscape anomalies or slopes which were created by a previous excavation. A

landscape anomaly, such as a mound or pit, or cut slope may create a steep slope within an otherwise relatively flat area of land. A small land form may be allowed to be graded, so that a small feature would not render unbuildable an otherwise buildable location.

- D. **Conflicting Requirements.** In the event of overlapping or conflicting requirements between the hillside regulations and other provisions or regulations under the UDC, the more restrictive provisions shall apply.

Subsec. 5-A-3-3 Streets, Driveways, Parking, and Emergency Vehicle Access on Hillsides

- A. **Generally.** The standards of this Section apply to the design of streets, driveways, parking, and emergency vehicle access ("vehicular improvements") on hillsides. The limitations of Subsection B., below, apply in riparian areas with qualifying slopes.
- B. **Riparian Areas.** When a hillside is within 100 feet of the top of bank of a natural waterway, streets, driveways, access, and parking shall not be constructed on that hillside except as necessary to provide essential access or a necessary crossing of a waterway.
- C. **Design and Grading.** The grading of slopes shall be minimized by aligning vehicular improvements to conform to existing grades as closely as is possible, and consistent with safe geometric design. Vehicular improvements shall be designed to:
 - 1. Minimize the alteration of the physical and visual character of the hillside (e.g., large notches in ridgelines should be avoided); and
 - 2. Retain natural landforms by utilizing gentle horizontal and vertical curves in alignments (i.e., alignments on the hillside should be neither wider nor straighter than necessary).
- D. **Streets.** The Town Engineer may allow a proposed street to cross a 30 percent slope only if it is demonstrated that:
 - 1. The street serves one or more of the following purposes:
 - a. The street is necessary in order to serve a dwelling unit on an existing lot of record;
 - b. The street is shown on recorded plat or part of a road network described in a Final Development Plan; or
 - c. The street provides a community benefit that cannot be provided in a cost-effective and technically feasible manner in an alternative location.
 - 2. The street shall be designed to meet the following objectives:
 - a. The street is aligned in a location that:
 - 1. Is least disruptive to the steep slope; and
 - 2. Minimizes cut and fill by following natural contours.
 - b. Streets and driveways that are necessary to serve dwellings on existing lots shall limit the amount of grading necessary by designing the dwelling placement and access points where they have the least impact on the hillside.
 - c. Streets may be split into two, parallel one-way streets (thereby effectively functioning as a two-way street with a land "median") in steeper areas to minimize grading and to blend with the terrain. Culs-de-sac or loop roads are encouraged where necessary to fit the terrain.
 - d. Streets must not be parallel to one another to avoid a "shelving" effect on hillsides.
 - e. Modified street standards may be approved by the Town Engineer to reduce required grading.
 - f. Retaining walls shall blend with the natural features of the setting. Use of native rock or use of other masonry shall convey a scale and texture similar to that of traditional rock or traditional materials found within the natural setting. Limit the height of a retaining wall to less than six feet. Where greater heights in a retaining wall must occur, use a series of terraced or stepped walls. The width of a retaining terrace

shall not be less than five feet. The Administrator may vary the retaining wall height and width requirements depending on site conditions.

- g. Screen road cuts and retaining walls with plant materials.
- 3. When no retaining wall is to be used, avoid making cuts too steep to accomplish revegetation of the affected hillside.
- E. **Curb Cut Width.** Refer to the Standards and Specifications for Design and Construction.
- F. **Garage Location.** Generally, garages shall not be located in the front of the lot or parcel proposed for development. However, an exception may be granted by the Administrator where necessary to avoid extensive cut and fill. In such circumstances, the appearance of the garage doors shall be minimized from street level vantage points.
- G. **Driveways.** In order to limit the impact of driveways on sloped lands, the following standards apply:
 - 1. Grading of slopes of 30 percent or more in order to construct a driveway shall be allowed only if it is necessary to serve a dwelling unit on an existing lot of record and there are no feasible alternative locations for access with lesser slope.
 - 2. Driveways shall generally follow existing contours.
 - 3. Minimum grading shall occur to accommodate the driveway. Minimizing grading shall be a priority in terms of driveway design and building placement.
 - 4. Non-shared driveways should be narrowed to 12 feet, when feasible.
 - 5. Shared drives shall be a maximum of a 20 foot wide paved driving surface and should be narrowed to a 16 foot wide paved driving surface with two-foot gravel shoulders on each side, when feasible.
 - 6. Shared driveways shall be utilized to minimize hillside cuts whenever feasible.
 - 7. Driveways should take up the grade of the slope rather than cutting into or manipulating the topography.
 - 8. Driveway cuts shall be screened with a rock wall, plant materials, and / or other features.
 - 9. Driveways shall be designed to minimize erosion due to drainage.

Subsec. 5-A-3-4 Utilities

All utilities shall follow road and driveway corridors where possible. New utilities shall be underground, unless the situation where burying the lines would require significant blasts to clear masses of outcrops or rock formations. Alternatives to utility placement shall be approved by the Town Engineer.

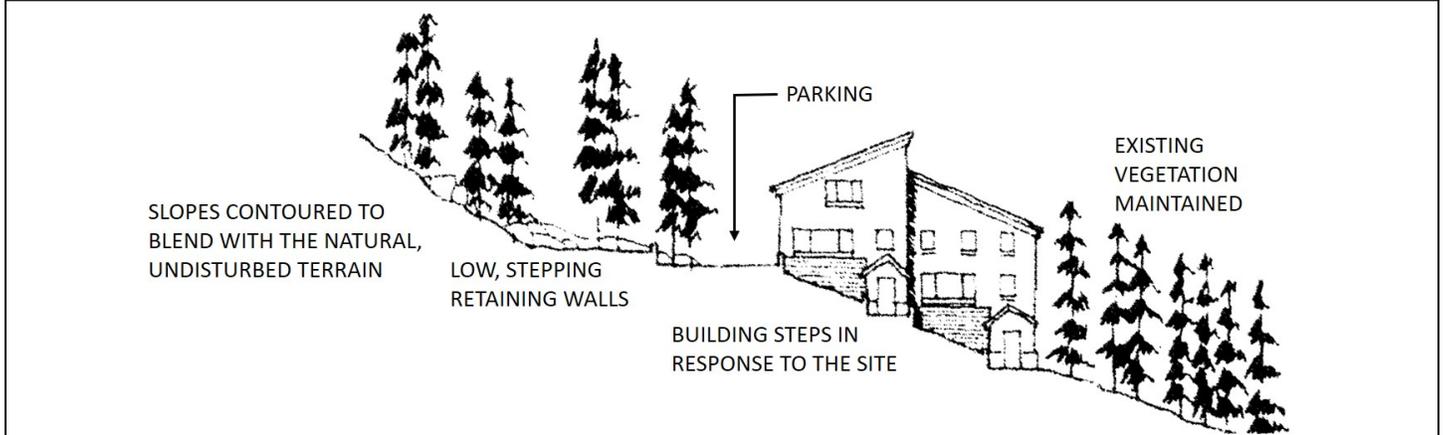
Subsec. 5-A-3-5 Hillside and Ridgeline Design Standards

Subsec. Hillside and Ridgeline Design Standards

- A. **Generally.** Development activities that impact slopes of 20 percent or greater shall meet the design objectives set out in this Section.
- B. **Building and Respect for the Natural or Existing Topography.**
 - 1. *Location and Site Design Standards.*
 - a. Buildings shall be designed to fit the lot or parcel, rather than substantially modifying the grade of the lot or parcel to fit the building. Buildings, access drives, and lawns shall be designed and configured to maintain as much of the natural landform as possible.

- b. Where areas of the parcel or lot are already disturbed, the existing, disturbed areas shall be used for building envelopes rather than undisturbed areas, provided that such areas are of an adequate area and shape and do not pose a geological hazard or other safety issues.
 - c. Structures should be located to preserve or protect significant natural features of the site, such as landforms, rock outcroppings, mature trees and vegetation, drainage courses, hilltops, and ridgelines.
 - d. Locate buildings to balance the following objectives for the optimization of the site for outward views:
 1. To retain or enhance view from off-site view points; and
 2. To respect privacy, access to light, and safety of neighboring properties.
2. **Building Elevations.** No single-family, duplex, townhome, or multiplex building elevation shall appear as more than two and one-half stories in height.
 3. **Building Heights.** No building shall exceed a height to roof ridge of 28 feet for a sloping roof, or parapet height of 16 feet for a flat roof.
 4. **Building Mass and Scale.**
 - a. Building form shall be planned to enhance the site's natural features (if practicable), and to blend with the natural terrain.
 - b. The mass and scale of buildings shall respect the natural surroundings and unique visual resources by incorporating designs which minimize or mitigate bulk and mass, follow natural topography, and minimize visual intrusion on the natural landscape.
 - c. Structures shall be designed to blend into the natural character of the hillside by reducing the visual bulk through landscaping, terraced building forms, appropriate building materials and colors, and height variations. Split-pad and stepped foundations shall be used where necessary to minimize cut and fill, and to create forms that step down or step up with the natural slope to avoid padding and to mitigate the appearance of building mass.
 - d. **A series of smaller, visually distinct roofs, specifically pitched, gabled and hipped roofs, shall be utilized on buildings with a floor plate that is larger than 2,500 square feet, in order to reflect the visual diversity of the natural hillsides, except that in the wildland-urban interface, fire-resistant design shall take priority over varied roof forms.**
 - e. Reflective materials shall not be used for roofing.
 - f. The maximum overhang for any deck or cantilevered building design which extends over a downhill slope is 10 feet. In the wildland-urban interface, overhanging decks and cantilevered building elements are not allowed.

Figure 5-A-3-5-1
Appropriate Hillside Development



C. Design with Slope.

1. When feasible, locate the principal building on the flat part of the site and off the slope. Where such locations are not feasible, foundation systems, home designs, and driveways shall be used to take up grade.
2. Foundation corners shall match the natural grade as much as practicable.
3. Buildings that must be constructed on steep slopes shall be designed with stepped foundations and structures that follow the slope as outlined in Figure 5-A-3-5-1 *Appropriate Hillside Development*.

D. Grading.

1. Grading shall be limited to that which is necessary to construct the house, driveway, and a limited area for yard purposes.
2. No site alterations shall exceed a one-foot elevation change within one foot of any property line.
3. A grading permit shall be required prior to the commencement of grading activities on slopes of 20 percent or more.

E. Retaining Walls.

1. Generally, retaining walls should be used to minimize the impacts of cut and fill on steep slopes on a site (for example, to ensure the safe development of a lot or parcel, or for the control of stormwater runoff or erosion). Otherwise, retaining walls shall be avoided. Retaining walls are not acceptable when their purpose is to create flat yards.
2. Retaining walls shall blend with the natural features of the setting. Use of native rock or use of other masonry shall convey a scale and texture similar to that of traditional rock or traditional materials found within the natural setting. Limit the height of a retaining wall to less than six feet. Where greater heights in a retaining wall must occur, use a series of terraced or stepped walls. The width of a retaining terrace shall not be less than five feet. The Administrator may vary the retaining wall height and width requirements depending on site conditions.

F. Ridgeline Setback and Landscape Buffer.

1. Generally, buildings shall be set back 45 feet from top of slope or ridgeline.
2. A landscape Type C bufferyard between the building and the ridgeline shall be installed and maintained. Existing, healthy vegetation shall be counted towards this requirement. (See Sec. 6-B-5, Bufferyards.)

3. Property owners may elect to dedicate a ridgeline easement to protect highly visible and significant ridgelines and views. In the case of a ridgeline easement, the height of any structure shall be not less than 50 vertical feet below the low point of the easement, and the structure must be at least 200 horizontal feet from the nearest edge of the easement.
 - a. Easements may also be dedicated on hillsides that are not ridgelines.
 - b. In the area of the ridgeline easement native vegetation shall remain undisturbed.

G. Subdivisions and Developments with Multiple Buildings.

1. Development clusters are encouraged to preserve natural features, reduce grading and impervious surface area, increase usable open space areas, and preserve views of the hillsides.
2. For developments with multiple buildings, buildings should have height variations in order to minimize a "walled" effect or a repetitive appearance. Wherever possible, the buildings should be positioned so that they appear to be "tucked" into the hillside and not easily visible from below.

H. Slopes of 30 Percent or More. On slopes of 30 percent or more, the following standards apply in addition to the standards of Subsection B., above:

1. For new subdivisions, building envelopes shall be created outside of the 30 percent or greater slope areas. In areas in which this is not possible, new lots shall not be created.
2. No construction activities shall occur outside of the building envelope except approved driveways that are designed according to the standards of Section 5-A-3-3, *Streets, Driveways, Parking, and Emergency Vehicle Access on Hillsides*.
3. The standards set out in Subsections D.1. and D.2., above, shall not be interpreted to preclude development of an existing lot or parcel with a single-family detached dwelling unit. On existing lots or parcels that are developed or redeveloped with single-family detached buildings, detached garages or garages below grade are encouraged. Garages that are constructed below grade shall be screened from views from vantage points that are parallel to the contour lines of the hillside where such designs are feasible.

I. Modification of Setbacks. Flexibility in required setbacks may be considered in order to avoid altering steep slope areas. The Administrator may allow the application of alternative setbacks in order to avoid or minimize alterations to steep slope areas, as follows:

1. Front and side setback requirements may be varied to protect an existing slope. Minimum setbacks shall be established during the preliminary design review. Setback adjustments shall ensure at least 20 feet of spacing between the proposed development and buildings on abutting lots.
2. Setbacks along the portion of a lot furthest from a ridgeline may be reduced to minimize encroachment on the skyline.
3. Varied and staggered front building setbacks are encouraged in hillside residential subdivision layout. This is consistent with the natural hillside character and will reduce the visual monotony and "walled" effect of repetitive setbacks.
4. Setback adjustments shall not create or exacerbate encroachments into Special Flood Hazard Areas.

Sec. 5-A-4 Water Quality

A. Purpose.

1. *Generally.* This Section establishes requirements for the design of vegetated buffers to protect:
 - a. Streams, wetlands, and floodplains;
 - b. The water quality of Fraser River, Vasquez Creek, and other significant water resources;

- c. Riparian and aquatic ecosystems; and
 - d. The environmentally sound use of land resources.
2. *Benefits.* Vegetated buffers along stream systems provide numerous environmental protection and resource management benefits that can include:
- a. Restoring and maintaining the chemical, physical, and biological integrity of water resources;
 - b. Reducing pollutants delivered from stormwater runoff;
 - c. Reducing erosion and sediment entering rivers, creeks, and stream;
 - d. Stabilization of stream banks;
 - e. Infiltration of stormwater runoff;
 - f. Maintaining the base flow of watercourses;
 - g. Contributing organic matter as a source of food and energy for the aquatic ecosystem;
 - h. Providing tree canopy to shade streams and promote desirable aquatic organisms;
 - i. Providing riparian wildlife habitat;
 - j. Furnishing scenic value and recreational opportunity;
 - k. Protecting the public from flooding, property damage and loss; and
 - l. Providing sustainable, natural vegetation.
- B. **Applicability.** This Section applies to proposed improvements associated with all land development activity requiring rezoning, subdivision, site plan, master site plan, or a building permit on property containing a watercourse, within **100 feet** of Fraser River or Vasquez Creek, or drainage for a development greater than 20 acres. These requirements are in addition to, and do not replace or supersede, any other applicable stormwater management requirements such as the Town of Winter Park Standards and Specifications for Design and Construction.
- C. **Exemption.** Any existing use is exempt from the requirements of this Section but must meet the requirements for compliance for any new development requiring a site plan or subdivision.
- D. **Requirements.** Vegetated buffers are required for the following types of activities:
- 1. A perpendicular stream crossing by a driveway, street, or utility lines;
 - 2. A street or driveway where buffer intrusion is the only option to provide access to a property;
 - 3. Paved and unpaved trails and paths for public use;
 - 4. Public water supply intake or public wastewater outfall structures;
 - 5. Stream restoration projects;
 - 6. Water quality monitoring and stream gauging;
 - 7. Utility lines and easements running parallel with the watercourse, except that all easements and clearing and grading must recognize the sensitivity of the watercourse and use Best Management Practices (BMPs) to limit and repair the disturbance within the buffer area. This includes such impervious cover necessary for the operation and maintenance of the utility;
 - 8. Land development activities within a dedicated street right-of-way existing as of the effective date of this UDC;

9. Minor land disturbing for the intent of emergency erosion control and bank stabilization activities (i.e. for the purposes of corrective maintenance; measures for health, safety and welfare; post storm; or other disaster relief) if the Town is notified about the activity and the disturbance area is less than 5,000 square feet; and
 10. Wetland mitigation projects.
- E. **Prohibitions.** The following are prohibited within a buffer, except with approval of the Administrator:
1. Use, storage, or application of pesticides, except for the spot spraying of noxious weeds or nonnative species;
 2. Filling or dumping including but not limited to yard waste;
 3. Grading, stripping, or other soil disturbing practices; and
 4. Clearing of existing vegetation.
- F. **Design.**
1. The vegetated buffer for a watercourse must consist of a native vegetative strip of land extending along both sides of the watercourse and its adjacent wetlands, floodplain, or slopes. The stream buffer width shall be adjusted to include contiguous sensitive areas, such as steep slopes or erodible soils, where development or disturbance may adversely affect water quality, streams, wetlands, or other water bodies.
 2. The required base width for all vegetated buffers on each side of a watercourse is **30 feet**.
 3. The Administrator may consider buffer design modifications in unique cases of topography or other hardship provided the project can meet the purposes and intent of this Section.
 4. Aside from the above exceptions, impervious surfaces, septic systems, and all associated equipment and structures are prohibited within required vegetated buffers.
 5. Dominant vegetation may consist of existing or seeded/planted native trees, shrubs, perennial grasses and plants suited to the soil and hydrology of the site and the intended purpose. No single species shall make up more than 50 percent of the total number of species planted.
 6. Overland flow through the vegetated buffer area must be maintained as sheet flow.
- G. **Management and Maintenance.**
1. A management and maintenance plan for privately-owned vegetated buffers, submitted with the required grading plan, must be approved by the Town.
 2. Markers must be placed at the outside edge of the buffer prior to the start of any activity adjacent to the vegetated buffer.
 3. The plan must outline the maintenance procedures established by the owner, to ensure proper management of the vegetated buffer.
 4. **The plan must be developed in concert with the Colorado Headwaters Land Trust** and must, at a minimum, include:
 - a. Two foot contours within **100 feet** of the watercourse centerline;
 - b. Land ownership information;
 - c. Information on the entity responsible for buffer maintenance; and
 - d. Information on easement or access rights to and around the vegetated buffer.

Sec. 5-A-5 Geological and Wildfire Hazard Area

Subsec. 5-A-5-1 Disclaimer

The degree of hazard protection intended to be provided by this Section is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. This regulation does not imply that the areas outside of established hazard boundaries or uses permitted within these boundaries will be totally free from damage caused by these hazards. This regulation shall not create any liability on the part of, or cause an action against, the Town, the Town Council, or any officer or employee or official (elected or appointed) thereof for damages that may result from reliance on the regulations set out in this Section.

Subsec. 5-A-5-2 Designation of Hazard Areas

- A. **Official Hazard Area Maps.** Maps and documentation regarding the general location of geologic and wildfire hazard areas ("Official Hazard Area Maps") are on file at the Department.
 - 1. **Geologic Hazard Areas.** Geologic hazard areas are identified on maps prepared by the Colorado Geological Survey and other qualified geological professionals.
 - 2. **Wildfire Hazard Areas.** Wildfire hazard areas are identified on maps prepared by the Colorado Forest Service.
- B. **Site-Specific Delineation.** The maps described in Subsection A., above, define only approximate boundaries of hazard areas. The maps serve primarily as notice that geologic and / or wildfire hazards are known to exist on or near a parcel proposed for development, such that further analysis may be necessary. Precise boundary delineations require site-specific evaluation by qualified professionals.

Subsec. 5-A-5-3 Geologic Hazard Mitigation

- A. **Generally.** This Section is not intended to categorically preempt all future development. The mitigation that may be required by this Section shall be proportionate to the nature, severity, and frequency of the hazard and the nature and intensity of the proposed land use.
- B. **Engineering Study.**
 - 1. If a parcel proposed for development is known or reasonably suspected to be in a geologic hazard area or wildfire hazard area, then the Town may require the applicant to provide a site-specific engineering study to:
 - a. Delineate the hazard;
 - b. Define its degree of severity;
 - c. Determine its frequency / probability of recurrence;
 - d. Evaluate the compatibility of the proposed land use;
 - e. Propose appropriate mitigation measures to reduce risks to people, property, and natural resources; and
 - f. Propose ongoing operations and maintenance programs to ensure that the mitigation measures function properly.
 - 2. All reports and studies required by this Section shall be prepared by a "professional geologist", as defined by C.R.S. § 34-1-01, as amended, or a "registered professional engineer," as defined by C.R.S. § 12-25-102, as amended, under the direction of and at the expense of the owner or applicant.
 - 3. The extent of the site-specific investigation required shall be determined by the geologist or engineer who is responsible for the investigation; however, the investigation shall be of sufficient thoroughness and accuracy to allow such expert to certify to one of the following:
 - a. The site can be developed for the specific development that is proposed, without corrective engineering, engineered construction, or other mitigation or alterations;

- b. The site is a geologically sensitive area, but the specific development that is proposed:
 - 1. Can be constructed with corrective engineering, engineered construction, or other mitigation or alterations which mitigate the risks to the occupants of the development such that they are reasonable; and
 - 2. Will not increase the hazard to other property or structures or to public buildings, rights-of-way, streets, easements, utilities or facilities, or other properties of any kind; or
- c. The site is a geologically sensitive area on which the specific proposed development is not appropriate because there are no mitigation techniques that could reduce the risks created by the geologic hazard to a reasonable level with respect to:
 - 1. Occupants and property on the parcel proposed for development; and
 - 2. Other property or structures, public buildings, rights-of-way, streets, easements, utilities, or facilities of any kind that are currently affected by the hazard or that would likely be affected by the hazard if the proposed development occurred.

C. Effect of Study.

- 1. If the conclusion of the engineer or geologist performing the investigation is that the site can be developed for the specific structure or activity proposed without corrective engineering, or engineered construction, or other mitigation or alterations, the subdivision plan, building permit, or grading permit may be approved without conditions relating to the mitigation of the areas of geologic sensitivity.
- 2. If the finding of the engineer or geologist performing the geologic investigation is that the site is a geologically sensitive area, but that corrective engineering, engineered construction, or other mitigation or alterations can be accomplished to reduce the danger to the public health and safety or to property to a reasonable level, and such mitigation does not increase the hazard to other property or structures, or to public buildings, roads, streets, rights of way, easements, utilities, or facilities, approval of the development plan and / or the issuance of the building or grading permit shall be conditional and contingent upon approval of plans for corrective engineering and engineered construction or other litigation or alterations as set out in this Section.
- 3. If the conclusion of the geologist or engineer performing the site specific geologic investigation is that the site cannot be developed for the structure or use proposed because the danger posed by the geologically sensitive area cannot be reduced or mitigated to a reasonable level, the subdivision plan or building permit or grading permit shall be denied.

D. Techniques. Mitigation techniques shall be consistent with the purposes of this UDC. Examples of mitigation techniques which may be acceptable are:

- 1. Retaining walls, fill, rock bolting, or pilings.
- 2. Diversion, channeling, damming, or barriers.
- 3. Excavation of unstable areas, bridging of weak zones, or proper distribution of loading.
- 4. Improvement of surface and subsurface drainage.

E. Construction Requirements. The following requirements shall pertain to the construction of any building or structure to be built in an identified or designated area of geologic sensitivity and which requires corrective engineering or engineered construction or other mitigation or alterations to reduce the danger to public health and safety or to property posed by the development of a geologically hazardous area:

- 1. The certified site specific reports and plans required by this Section shall be prepared by each engineer and geologist as applicable to their area of expertise and specialty, and shall certify that:
 - a. Adequate base data as may be pertinent has been provided.
 - b. Said base data is utilized in the design and planning of the proposed project or structure.
 - c. Design and construction procedures derived from said base data are executed.

- d. Design and construction will reduce danger to the public health, safety, or property due to geologic sensitivity to a reasonable level.
2. No certificate of occupancy, temporary or permanent, shall be issued until the following have been approved by the Department:
 - a. Inspection and certification by the Building Official and the engineer or geologist who prepared the plans and specifications that the work was properly performed in accordance with the plans and specifications.
 - b. If the engineer, geologist, or Building Official find that the work is not being done in accordance with the approved plans and specifications, the discrepancy shall be reported immediately in writing to the contractor and to the Department. Recommendations for corrective measures, if necessary, shall also be submitted.
 - c. All geologic reports prepared under this Section shall be signed by and prepared by or under the responsible direction of "professional geologists" as defined by Colorado Revised Statutes Section 34-1-201, as amended. Such professional geologist shall be experienced and competent in the geologic specialty required to meet the objectives of this Section. Such professional geologist shall be responsible for certification of all geologic maps and reports prepared by him/her under his/her responsible direction as specified in this Section. All engineering reports required by this Section shall be done by a "registered professional engineer" as defined by Colorado Revised Statutes Section 12-25-102, as amended.
- F. **Existing Uses Continued; Exceptions.** Existing use of land, structures, or premises which are not in conformity with the provisions of this regulation may be continued, except that no building permit will be issued for the exterior expansion, alteration, or addition to existing structures in geologically sensitive areas except for windows, skylights, and other similar minor alterations, unless all of the requirements of this Section are met.
- G. **Notice Requirements.** In order to provide reasonable notice to the public of the problems related to geologically sensitive areas, the following notice regulations and requirements are hereby adopted for all real property and structures located in geologically sensitive areas:
 1. All subdivision plats recorded after the effective date of this UDC shall identify and designate each lot and block, or portions thereof, located within any geologically sensitive area, together with applicable subzone designations by a stamp or writing in a manner providing reasonable notice to interested parties.
 2. All plans submitted after the effective date of this UDC with the building permit application for property within said areas shall be stamped by the Applicant "Geologically Sensitive Area" together with the applicable zone designation.

Subsec. 5-A-5-4 Wildfire Hazard Mitigation

- A. **Generally.** The Wildland-Urban Interface ("WUI") is a geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels. The WUI creates a potentially dangerous situation for flames or embers from a wildland fire to come in contact with structures. The purpose of this Section is to provide a means to protect the public health, safety, and welfare by establishing standards for development within a WUI area in order to:
 1. Reduce threats to life safety, property, and resources by improving development and construction standards, access to and defensibility of developments, homes, and other property in WUI areas;
 2. Minimize the potential of spreading fire from wildland areas to structures and from structure fires to wildland areas;
 3. Identify the appropriate use of cul-de-sacs, hammer head turnarounds, and turnouts on streets and roads providing legal and physical access to subdivisions with the intent to provide better emergency access to remote areas; and

4. Require homeowners and neighborhoods to plan, create, and maintain defensible space that utilizes fire resistant construction and landscaping.
- B. **Wildfire Mitigation Plan Required.** Proposed development that is located in the WUI shall provide and implement a wildfire hazard mitigation plan according to the standards of Appendix C, Wildfire Mitigation Plan Guidance.
- C. **Site Design.** The following design standards apply to parcels proposed for development within the WUI. The City may approve alternative standards if it is demonstrated that they are consistent with current State and / or Federal guidance on wildfire hazard mitigation for development within the WUI.
1. **Defensible Space.** Development sites shall be designed to provide three zones of defensible space, as described in Appendix C, Wildfire Mitigation Plan Guidance.
 2. **Chimneys.** Buildings and building sites shall be located outside of ravines or other topographical features which constitute "fire chimneys," and within 150 feet of the apex of "fire chimneys." Any proposed lot within a new subdivision with a "fire chimney" located on the lot should have a no-build area / zone designated on the face of the final plat for the subdivision that prohibits future development within "fire chimneys" and within 150 feet of the apex of "fire chimneys." This standard may be modified to allow development at ME zone density if it is demonstrated that the fire risk is appropriately mitigated and there is no other feasible option for development of the parcel proposed for development.
 3. **Improvements Prior to Construction.** Water sources, wells, draft sites, hydrants, fire breaks, access routes, and other fire protection equipment or features required by the preliminary plat approval shall be installed prior to construction of any buildings in a new subdivision.
 4. **Fuelbreaks and Greenbelts.** WUI fire protection may rely on fuelbreaks and greenbelts to separate communities, groups of structures, or individual homes. These breaks can slow or stop the spread of an oncoming fire.
 - a. Fuelbreaks and greenbelts shall be located to protect both existing and planned developments and adjacent wildlands. Fuelbreaks shall not be a bare soil trail which is bulldozed around a subdivision. However, they may be as simple as the removal of dead and fallen trees, tree limbs, shrubs, and other flammable vegetation, together with breaking the continuity of vegetation around the perimeter of the development.
 - b. Natural features such as rocky formations with little or no vegetation, or rivers or streambeds in which vegetation has been thinned and dead and dying materials removed can also be utilized.
 5. **Access.** Access to the parcel proposed for development shall be designed to provide for the safe movement of firefighters and their equipment.
- D. **Building Design and Materials.** Buildings in the Wildland-Urban Interface (WUI) shall incorporate fire-resistant design techniques and utilize fire-resistant building materials.

Sec. 5-A-6 Protection of Wildlife Corridors, Ranges and Habitat

- A. **Generally.** Critical habitat, big game winter ranges, and big game migration corridors shall be identified in a wildlife report. This report shall consist of narrative and maps necessary to identify wildlife habitat areas, winter ranges, and migration corridors and describe proposed mitigation measures for the protection of wildlife, their habitats, and migration corridors. This report shall be prepared in consultation with the Colorado Parks and Wildlife ("CPW") personnel and resources, including documentation of any CPW recommendations.
- B. **Exceptions.** The Administrator may waive the requirement of a wildlife report for properties that are located in areas where the existence of habitat, winter range, or migration corridor is highly unlikely, or where, due to existing development patterns and / or the size, location, and condition of the parcel proposed for development, the proposed development would have a de minimus impact on wildlife.
- C. **Avoidance and Mitigation of Wildlife Impacts.**

1. *Generally.* Wildlife reports shall include proposed design parameters and management techniques to avoid, minimize, and mitigate impacts on critical habitat, big game migration corridors, and big game winter range.
2. *Connectivity.* Critical habitat, big game migration corridors, and big game winter range shall be selected for its continuing value to wildlife, as follows:
 - a. Elements of habitat or range that are interdependent shall not be separated in ways that materially compromise the overall habitat.
 - b. Protected areas of big game migration corridors and big game winter ranges shall provide a continuous connection to off-site big game migration corridors and big game winter ranges, such that large-scale regional wildlife movements are not impeded by the proposed development.
 - c. Fencing and grading shall not materially interfere with wildlife movement across critical habitats, big game migration corridors, and big game winter ranges.

Sec. 5-A-7 Sustainability

The Town of Winter Park encourages the use of environmental sustainable measures such as Low Impact Development (LID) and the creation of alternative forms of small-scale energy production such as wind turbines, solar panels, and solar powered lighting. For information concerning specifically encouraged sustainable design features see Appendix A, Section K, *Sustainable Site Design*, of the Town's Design Guidelines.

Article 5.B. Flood Hazard Reduction

Sec. 5-B-1 Purpose

The purpose of this Article is to:

- A. Promote the public health, safety, and general welfare of the community;
- B. Minimize public and private losses due to flooding in specific areas by creating provisions that are designed to:
 1. Protect human life and health;
 2. Minimize expenditure of public money for costly flood control projects;
 3. Minimize the need for rescue and relief efforts associated with flooding;
 4. Minimize prolonged business interruptions;
 5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets, and bridges located in special flood hazard areas;
 6. Help maintain a stable tax base by providing for the sound use and development of special flood hazard areas so as to minimize future blight areas;
 7. Ensure that potential buyers are notified that their property is in a special flood hazard area; and
 8. Ensure that those who occupy special flood hazard areas assume responsibility for building in these locations.

Sec. 5-B-2 Applicability

- A. **Generally.** This Article shall apply to all special flood hazard area within the jurisdiction of the Town as reflected on the Flood Insurance Rate Map (FIRM), and areas removed from the floodplain by issuance of a Federal Emergency Management Association (FEMA) Letter of Map Revision Based on Fill (LOMR-F), which are on file at the Colorado Department of Community Development (CDCD).
- B. **Establishment of Areas of Special Flood Hazard.** The special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled "Flood Insurance Study for The Town of

Winter Park, dated January 2, 2008", with accompanying FIRM maps and any revisions thereto, are hereby adopted by reference and declared to be a part of this UDC. The flood insurance study and FIRM are on file and may be reviewed at the offices of the CDCD.

- C. **Compliance.** No structure within a special flood hazard area shall hereafter be constructed, located, extended, or converted, nor shall any structure or land within a special flood hazard area be substantially altered, without full compliance with the terms of this Article.
- D. **Warning and Disclaimer of Liability.**
 - 1. *Level of Flood Protection.* The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes.
 - 2. *Lack of Guarantee.* This Article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages.
 - 3. *Disclaimer.* This Article shall not create liability on the part of the Town, any officer or employee thereof, FEMA, or any other governmental agency for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder.
- E. **Methods of Reducing Flood Losses.** In order to accomplish its purposes, this Article includes methods and provisions for:
 - 1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; and
 - 2. Requiring that uses that are vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
 - 3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers which help accommodate or channel flood waters;
 - 4. Controlling filling, grading, dredging, and other development which may increase flood damage; and
 - 5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters, which may increase flood waters, or which may increase flood hazards in other areas.
- F. **Establishment of Floodplain Development Permit.** A floodplain development permit shall be required to ensure conformance with the provisions of this Article. See Sec. 7-F-8, *Floodplain Development Permit*.

Sec. 5-B-3 Findings of Fact

- A. **Periodic Inundation.** The flood hazard areas of the Town of Winter Park are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety, and general welfare.
- B. **Floodplain Obstructions.** These flood losses are caused by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed, or otherwise protected from flood damage.

Sec. 5-B-4 Standards for New Construction and Substantial Improvements

- A. **General Standards.** All new construction or substantial improvements in special flood hazard areas shall be:
 - 1. Designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - 2. Constructed by methods and practices that minimize flood damage;
 - 3. Constructed with materials resistant to flood damage;

4. Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- B. Required Approvals.** New construction or to buildings or other structures, except a flood control dam or irrigation structure, shall not be constructed in special flood hazard areas until the plans for such building or structure are first approved by the Town Engineer and the following special conditions within the special flood hazard area are adhered to substantial improvements.
1. *Approved Buildings or Structures.* Any building or structure which is approved shall:
 - a. Be located so as to offer minimum obstruction to the flow of floodwater; and
 - b. Not cause lands outside of the natural flood channel to be flooded.
 2. *Wetland Construction.* No buildings shall be constructed within a wetland, unless approved and permitted by the U.S. Army Corps of Engineers and Town Council.
 3. *Water Quality Setbacks.* Water quality setbacks from streams, wetlands, or watercourses shall be a minimum of thirty feet, measured from the approximate high water mark of the stream or watercourse embankment, unless otherwise approved by the Town Engineer.
- C. Water Supply Systems.** All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- D. Sanitary Sewage Systems.**
1. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and
 2. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- E. Base Flood Elevation (BFE) Requirements.** In all special flood hazard areas where base flood elevation data is required the following provisions are required:
1. *Residential Construction.*
 - a. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to or above the Base Flood Elevation (BFE).
 - b. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that is in conformance with the application requirements of Sec. 7-F-8, *Floodplain Development Permit*.
 2. *Nonresidential Construction.*
 - a. *Requirements.* New construction and substantial improvement of any nonresidential structure shall:
 1. Have the lowest floor (including basement) elevated to or above the base flood level or together with attendant utility and sanitary facilities;
 2. Be designed:
 - a. So that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and
 - b. With structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
 - b. *Review and Certification.* A registered professional engineer or architect shall:
 1. Certify that the design and methods of construction are in accordance with the UDC. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Administrator.

2. Develop and/or review structural design, specifications, and plans for the construction.
3. **Enclosures.** New construction and substantial improvements with fully enclosed areas below the lowest floor that are usable solely for the parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a. Openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.
 - b. The bottom of all openings shall be no higher than one foot above grade.
 - c. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
4. **Manufactured Homes.**
 - a. Manufactured homes to be placed within zone A on a community's Flood Hazard Boundary Map (FHBM) or FIRM and shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include without limitation use of over the top, or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
 - b. Manufactured homes that are placed or substantially improved within zones A1-30, AH, and AE on the community's FIRM on sites that are outside of a manufactured home park or a manufactured home subdivision; in a new manufactured home park or subdivision; in an expansion to an existing manufactured home park or subdivision; or in an existing manufactured home park or manufactured home subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood shall be:
 1. Elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation; and
 2. Securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
 - c. Manufactured homes placed or substantially improved on sites in an existing manufactured home park or manufactured home subdivision within zones A1-30, AH, and AE on the community's FIRM that are not subject to the provisions of this Subsection shall be elevated so that either:
 1. The lowest floor of the manufactured home is at or above the base flood elevation, or
 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

Sec. 5-B-5 Subdivision Standards

- A. **General Standards.** All proposals for the development of subdivisions including without limitation the placement of manufactured home parks and subdivisions shall:
 1. Meet development permit requirements of Sec. 7-F-8, *Floodplain Development Permit*;
 2. Have adequate drainage provided to reduce exposure to flood hazards; and

3. Public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.
- B. **BFE Data.** BFE data shall be generated for subdivision proposals and other proposed development including without limitation the placement of manufactured home parks and subdivisions which are greater than 50 lots or five acres, whichever is less.

Sec. 5-B-6 Standards for Areas of Shallow Flooding (AO/AH Zones)

- A. **Generally.** Located within the special flood hazard areas are locations designated as shallow flooding. These special flood hazard areas are associated with base flood depths of one to three feet where a clearly designed channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
- B. **Nonresidential Structures.** All new construction and substantial improvements of nonresidential structures shall:
1. Have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the applicable FIRM (at least two feet if no depth number is specified); or
 2. Together with attendant utility and sanitary facilities, be designed so that below the base flood level of the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads or effects of buoyancy.
- C. **Drainage Paths.** Adequate drainage paths around structures on slopes are required to be installed within the AH and AO zones to guide floodwaters around and away from proposed structures.
- D. **Certification of Standards.** A registered professional engineer or architect shall submit certification to the floodplain administrator that the standards of this Article are satisfied. See Sec. 7-F-8, *Floodplain Development Permit*.

Sec. 5-B-7 Floodways

- A. **Designated Floodways.** Floodways located within special flood hazard areas established in Sec. 5-B-2.B, *Establishment of Areas of Special Flood Hazard* are areas designated as floodways. Because the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following standards shall apply:
1. *Prohibited Encroachments.* Encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless an exemption is permitted.
 2. *Exemptions to Prohibited Encroachments.* An encroachment may be permitted if it is:
 - a. Demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
 - b. Permitted under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations that permits a community to permit encroachments within the adopted regulatory floodways that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.
- B. **Undesignated Floodways.** When a regulatory floodway has not been designated, the floodplain administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

Article 5.C. Erosion Control

Sec. 5-C-1 Purpose

This Section is intended to implement the erosion and sediment control regulations promulgated by:

- Clean Water Act of 1972 (Point and Non-point source pollution);
- Phase I implemented in 1990 for construction site stormwater discharge (5-acres or more of disturbance);
- Phase II implemented in 2003 for construction site stormwater discharge (1-acre or more of disturbance);
- EPA granted authority to the State of Colorado to enforce the Clean Water Act;
- The Colorado Water Quality Control Act that issues and enforces National Pollutant and Discharge Elimination System (NPDES) permits, renamed to CDPS (Colorado Discharge Permitting System).

These laws and standards are to be applied during construction to control and limit soil erosion.

Sec. 5-C-2 Applicability

- A. **Generally.** Notwithstanding any other provision of this UDC, compliance with the provisions of this Section shall be required of all land development activities.
- B. **Permit Required.** A permit is required through the Colorado Department of Public Health and Environment Water Quality Control Division – Stormwater Program CDPS General Permit. The permit is for construction activities disturbing one acre or more, or part of a larger common plan of development. These activities include clearing, grubbing, grading, excavating and stockpiling. The permit must be submitted prior to the start of earth disturbing activities.

Sec. 5-C-3 Erosion Control

- A. **Objectives.** In order to comply with the Town's Imagine Winter Park Plan, any application shall not cause erosion problems and, to that end, the design and operation of a project proposed for development shall ensure:
1. That any development is designed and executed in a manner which will minimize disturbance of natural vegetation and soil cover;
 2. That development proposals include adequate provision and guarantee for revegetation and for soil stabilization during and after development of the site;
 3. That all cuts and fills are adequately designed and engineered and vegetated to control erosion as well as stability of the entire mass;
 4. That development plans include adequate provision for protection of vegetation from fire;
 5. That natural drainage patterns are preserved and protected from increased water flows which could alter such patterns or subject existing channels and adjacent areas to increased erosion;
 6. That natural vegetation and soil cover are preserved within the 30-foot water quality setback from rivers, streams, lakes and reservoirs; and
 7. That the specific erosion control criteria within the Standards and Specifications for Design and Construction are met.
- B. **General Requirements.**
1. No person shall be granted a site development permit for land disturbing activity that would require the uncovering of 10,000 or more square feet without the approval of an Erosion and Sediment Control Plan.
 2. No site development permit is required for the following activities:

- a. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources; or
- b. An existing nursery.

C. Design Requirements.

1. Grading, erosion control practices, sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the Grand County Erosion and Sediment Control for Construction Activities Handbook, as applicable, and shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Director of Public Works. Cut and fill slopes shall be no greater than 2:1, except as approved to meet other community or environmental objectives.
2. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other regulations, requirements, and standards of the Town. Clearing techniques that retain natural vegetation and drainage patterns shall be used to the satisfaction of the Director of Public Works.
3. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.
4. Phasing shall be required on all sites disturbing greater than 10 acres, with the size of each phase to be established at plan review and as approved by the Director of Public Works.
5. Erosion control requirements shall include:
 - a. Soil stabilization that shall be completed within five days of clearing or inactivity in construction.
 - b. If seeding or another vegetative erosion control method is used, it shall become established within two weeks or when the Director of Public Works may require the site to be reseeded or a nonvegetative option employed.
 - c. Special techniques that meet acceptable engineering standards on steep slopes or in drainage ways shall be used to ensure stabilization.
 - d. Soil stockpiles must be stabilized or covered at the end of each workday.
 - e. The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
 - f. Techniques shall be employed to prevent the blowing of dust or sediment from the site.
 - g. Techniques that divert upland runoff past disturbed slopes shall be employed.
6. Sediment controls requirements shall include:
 - a. Settling basins, sediment traps, or tanks and perimeter controls.
 - b. Settling basins that are designed in a manner that allows adaptation to provide long term stormwater management, if required by the Director of Public Works.
 - c. Protection for adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.
7. Waterway and watercourse protection requirements shall include:
 - a. A temporary stream crossing installed and approved by the Director of Public Works if a wet watercourse will be crossed regularly during construction.
 - b. Stabilization of the watercourse channel before, during, and after any in-channel work.
 - c. All on-site stormwater conveyance channels designed according to acceptable engineering standards.
 - d. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.
8. Construction site access requirements shall include:
 - a. A temporary access road provided at all sites.

- b. Other measures required by the Director of Public Works to ensure that sediment is not tracked onto public rights-of-way by construction vehicles or washed into storm drains.

D. **Submittal Requirements.** See Sec. 7-D-4.D, *Submittal Requirements*.

Article 5.D. Tree Removal and Protection

Sec. 5-D-1 Purpose

The purpose of this Article is to protect and encourage the protection and retention of existing trees to the maximum extent practicable in all new development, redevelopment, and substantial improvement projects. The Town Council finds that trees provide important environmental, aesthetic and health benefits to the residents and guests of the Town which extend beyond the boundaries of the property upon which trees may grow. The Council further finds that trees enhance the real estate values of property upon which trees grow and neighboring properties. Large trees are a resource which cannot be fully replaced if injured, damaged or removed. Property development and construction activities can result in injury or loss of valuable trees in the Town. It is the intent of this Section to preserve to the fullest extent possible existing trees considered desirable by the Administrator.

Sec. 5-D-2 Applicability

This Article applies to the removal and protection of all trees within nonresidential, mixed-use, and in the common open space areas of new residential development.

Sec. 5-D-3 Tree Removal and Protection

- A. **Generally.** There shall be no grading, excavation or clearing of trees prior to receiving written approval from the Administrator.
- B. **Development.** Trees may be removed from a parcel proposed for development if it is demonstrated that:
 1. There is no reasonable alternative site design at the same density and intensity that could be approved and relocation of the protected tree to another location on-site or within the Town is not practical or feasible for the survival of the tree; and
 2. The trees are replaced or mitigated according to the replacement standards in Table 5-D-3, *Tree Replacement Standards*.

Table 5-D-3 Tree Replacement Standards			
Diameter of Tree to be Removed		Number of Required Three-Inch Caliper Replacements	Number of Required Two-Inch Caliper Replacements
Min. Diameter	Up to, But Not Including		
none	10 inches	1	2
10 inches	15 inches	2	3
15 inches	20 inches	3	4
20 inches	No limit	5	6
Notes:			
1. The Diameter of a tree to be removed shall be measured at four feet above grade.			

C. Relationship to Other Landscaping Requirements.

1. Replacement trees shall count toward the landscaping requirements of the areas in which they are planted. However, if this Section requires more trees than the other sections of this Article, then this Section controls.

2. Replacement trees are not required for trees which are cleared to implement a fuels mitigation plan.
- D. **Timing of Replacement.** Replacement trees that are required by this Section shall be installed within 30 days of removal, or if such date is not within a growing season, within the first 30 days of the next growing season.
- E. **Relocation.** Protected trees that are relocated to another place on the parcel proposed for development, or another location within the Town, do not have to be replaced if they are relocated according to industry standards of transplanting methods, as approved by a certified Arborist.
- F. **Protected Individual Trees.** The following trees are protected (unless otherwise being removed or relocated per the standards of Subsection B of this Section), and shall be preserved and maintained according to the following standards:
1. For trees over four inches in caliper, the protected root zone shall extend to the drip line of the selected tree.
 2. Any tree that is shown on an approved landscape plan that is necessary to meet:
 - a. The planting requirements of this UDC; or
 - b. A condition of approval of the development to which the landscape plan applies.
- G. **Protected Root Zone (Dripline) Requirements.**
1. The dripline is the the cylinder extending from grade level down to a depth of ten (10) feet below grade, having a radius equal to the length of the longest branch of the tree, with the center of the cylinder located at the center of the tree trunk. This dripline shall be barricaded during construction to prevent damage to the trees and their roots by construction equipment or soil compaction. The barricades shall be posted "Off Limits."
 2. No cutting or filling, storage of building materials or debris, or disposal of wastes, shall take place within the dripline of any protected tree.
 3. No impervious paving shall be placed within the dripline of any protected tree.
- H. **Protection During Construction.** All existing trees and vegetation outside of the site specific construction area should be protected and fenced properly during construction.
- I. **Protection of Stands of Trees.** Development shall be designed so that existing stands of native trees are preserved in designated open spaces, whenever practicable. In general, alternative development options are available to facilitate such designs.
- J. **Clear Cutting.** Clear cutting trees and vegetation to create view corridors is prohibited.
- K. **USDA Forest Service Lands.** USDA forest service lands within the Town's boundary are exempt from these tree removal regulations.