



Waterbury Planned Unit Development, Filings 1 &2 Wildfire Hazard and Protection Report

April 7, 2021

1.0 Wildfire Hazard

The stated purpose of the 2018 El Paso County Development Standards for “Fire Protection and Wildfire Mitigation” is: “To ensure that proposed development is reviewed in consideration of the wildfire risks and the need to provide adequate fire protection in order to:

- Regulate development, buildings, and structures so as to minimize the hazard to public health, safety, and welfare;
- Ensure that adequate fire protection is available for new development;
- Implement wildfire hazard reduction in new development;
- Encourage voluntary efforts to reduce wildfire hazards; and
- Reduce the demands from the public for relief and protection of structures and facilities.”

The Colorado State Forest Service Wildfire Risk Map for El Paso County is based on the existing vegetation and classifies the grassland areas that comprise the Site primarily as “Lowest Risk” with patches of “Low Risk” (refer to Figure 6). The Community Wildfire Protection Plan for Unincorporated El Paso County (El Paso County Sheriff’s Office, Emergency Services Division, 2011) and the Falcon Fire Department Community Wildfire Protection Plan (Falcon Fire Protection District, 2016) used data from Colorado State Forest Service, including their Wildland Fire Susceptibility Index (WFSI) to define areas of high fuel hazard. The WFSI is a measure of wildfire threat that represents the probability that a wildfire will occur. The WFSI map illustrates areas in which the WFSI was rated Moderate, High or Very High, and it does not indicate that the Site falls within any of these wildfire risk categories (i.e., the Site is not located in an area with high fuel hazard and hence the probability that a wildfire will occur is low).

1.1.1 Fire Protection

Falcon Fire Protection District

The Site is located within the jurisdiction and boundaries of the Falcon Fire Protection District (FFPD), District D1. The Falcon Fire Department (Fire Department) has provided a letter for the Project dated January 27, 2021 (Appendix E) to confirm its commitment to provide fire suppression, fire prevention, emergency rescue, ambulance, hazardous materials and emergency medical services (collectively, "Emergency Services") to the Site, subject to the following conditions:

- All new construction, renovations or developments within the Fire Department’s jurisdiction must comply with the applicable fire code and nationally recognized life-safety standards adopted by the El Paso County Board of County Commissioners and the FFPD’s Board of Directors, as amended from time to time;
- All development, water and construction plans must be reviewed and approved by the Fire Department for compliance with the applicable fire code and nationally recognized life-safety standards prior to final plat or a construction permit being issued; and,

- All development or construction projects shall meet the fire code and nationally recognized standards' pertaining to fire protection water.

The three staffed FFPD stations are located as follows:

- Station 1, 12072 Royal County Down Road, Peyton (1.6 miles from Site)
- Station 3, 7030 Old Meridian Road, Peyton (3.2 miles from Site)
- Station 4, 2710 Capital Drive, Colorado Springs, CO (8.9 miles from Site)

Two unstaffed stations are located as follows:

- Station 2 located at 14450 Meridian Road, Colorado Springs, CO (5.1 miles from the Site)
- Station 6 located at 15355 Jones Road, Falcon, CO 80831 (5.1 miles from the Site)

The closest station to the Site entrance is Station 1. Equipment at Station 1 includes an engine, a water tender (water truck), a brush truck, an AMR ambulance, a utility truck, and a command vehicle (FFPD, 2020). Equipment at the second closest station, Station 2, includes a 4-wheel drive engine, a water tender, and a brush truck.

2.0 Wildfire Hazard Summary of Potential Impacts

The Colorado State Forest Service Wildfire Risk Map for El Paso County is based on the existing vegetation and classifies the grassland areas that comprise the Site primarily as "Lowest Risk" with patches of "Low Risk" (refer to Figure 6). The Community Wildfire Protection Plan for Unincorporated El Paso County (El Paso County Sheriff's Office, Emergency Services Division, 2011) does not indicate that the Site falls within any Moderate, High or Very High wildfire risk categories (i.e., the Site is not located in an area with high fuel hazard and hence the probability that a wildfire will occur is low). Therefore, a Wildland Fire and Hazard Mitigation Plan and a Wildland Fire Risk and Hazard Severity Analysis should not be required.

3.0 Compliance with EPC Land Development Code Section 6.3.3 - Fire Protection and Wildfire Mitigation

Please refer to Appendix F, information prepared by Guman and Associates that discusses Compliance with EPC Land Development Code Section 6.3.3 - Fire Protection and Wildfire Mitigation.

4.0 Compliance with Applicable Local Fire Code

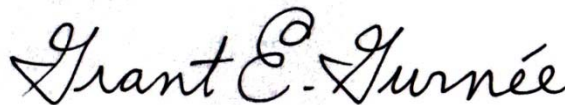
Please refer to Appendix F, information prepared by Guman and Associates that discusses Compliance with applicable local fire code.

Prepared by:

Ecosystem Services, LLC



Jon Dauzvardis, P.W.S.
Owner - Restoration Ecologist



Grant E. Gurnée, P.W.S.
Owner - Restoration Ecologist

Figure 6
Wildfire Risk Map

Appendix E
FFPD Commitment Letter to Provide Emergency Services

FALCON FIRE PROTECTION DISTRICT

Administration Office
7030 Old Meridian Road
Falcon, Colorado 80831

Business Number: 719-495-4050 Business Fax: 719-495-3112



January 27, 2021

Peter Martz
4 Way Ranch Joint Venture (property owner)
719-491-3150

Re: Conditional Commitment to Provide Emergency Services
Property: Waterbury Development

Peter,

Based upon the information you have provided, the above-referenced real property is located within the jurisdiction and boundaries of the Falcon Fire Protection District ("Fire Department"). By this letter, the Fire Department confirms its commitment to provide fire suppression, fire prevention, emergency rescue, ambulance, hazardous materials and emergency medical services (collectively, "Emergency Services") to the property, subject to the following conditions:

- All new construction, renovations or developments within the Fire Department's jurisdiction must comply with the applicable fire code and nationally recognized life-safety standards adopted by the El Paso County Board of County Commissioners and the Fire Department's Board of Directors, as amended from time to time;
- All development, water and commercial construction plans must be reviewed and approved by the Fire Department for compliance with the applicable fire code and nationally recognized life-safety standards prior to final plat or construction permit being issued; and,
- All development or construction projects shall meet the fire code and nationally recognized standards' pertaining to fire protection water.

Please do not hesitate to call the fire administration office or me for further information between 9:00 am and 4:00 pm, Monday through Friday.

Sincerely,
Trent Harwig
Fire Chief/Administrator

Appendix F

Compliance with EPC Land Development and Local Fire Codes

3.0 Compliance with EPC Land Development Code Section 6.3.3 - Fire Protection and Wildfire Mitigation

3.1 The Waterbury subdivision will have a central water supply system. Thus Design Standards for **Areas with Central Water Systems** – Section 6.3.3.C.1.c – applies. The project meets these requirements as follows:

(i)Water Distribution System Pressure. The water distribution system shall be capable of delivering fire flow at a minimum rating of 20 pounds per square inch for each hydrant connected to the distribution system within the proposed subdivision.

The system will meet or exceed the flow requirement of 20 p.s.i. at each hydrant.

(ii)Dead-End Mains. Dead-end mains shall not exceed 600 feet in length for main sizes less than 10 inches in diameter.

There is one temporary dead-end main in Filing 1, as follows: Sunken Meadow Rd, 205 l.f. This road and water main will be extended with future filings, and so the diameter of the main will be greater than 10" when installed.

There are 4 temporary dead-end mains in Filing 2, as follows: Masonboro Way 235 l.f., Megansett Way 210 l.f. , Muddy Pond St. 162 l.f., Peconic Place 780 l.f. These roads and water mains will be extended with future filings, and so the diameter of the mains will be greater than 10" when installed.

(iii)Fire Hydrant Spacing. Fire hydrants shall be located so that all residential structures are within 500 feet and all nonresidential structures are within 150 feet of a hydrant. Fire hydrants shall be installed adjacent to a road or emergency vehicle lane at a spacing not to exceed 660 feet of vehicle travel distance. Where the proposed buildings warrant, the Fire Marshal may require additional hydrants and closer spacing.

Fire hydrants are spaced to meet the requirements for the type and size of houses planned for the proposed lots. Additional hydrants have been located along Saybrook Road at the request of the Falcon Fire Protection District to insure adequate protection for this road with a median. The hydrant plan has been reviewed and approved by the Falcon Fire Protection District.

(iv)Fire Hydrant Accessibility. Fire hydrants shall be accessible to fire department apparatus from a road (i.e., maintained public roads, privately-maintained roads, or emergency vehicle access roads) or unobstructed emergency vehicle lanes (i.e., driveway, parking drive aisle, or emergency vehicle lane).

All hydrants are located within the public road rights-of-way and have full access for fire vehicles.

(v)Fire Hydrant Supply Lines. Fire hydrants shall be supplied by not less than a 6 inch diameter main installed on a looped system, or by not less than an 8 inch diameter main if the system is not looped or the fire hydrant is installed on a dead-end main exceeding 300 feet in length.

There are no hydrants located on temporary dead-end mains greater than 180 feet away from a looped main.

(vi) Fire Hydrants in Parking Areas. Fire hydrants located in parking areas shall be protected by barriers that will prevent physical damage from vehicles without obstructing hydrant operation.

There are no separate parking areas proposed within Waterbury Filings 1 and 2.

(vii) Fire Hydrant Relationship to Roads. Fire hydrants shall be located within 6 feet of the edge of the pavement unless there is a conflict with the ECM or the Fire Marshal determines another location is more acceptable for fire department use. All roads and emergency vehicle lanes shall be designed to maintain a minimum unobstructed clearance of 3 feet around fire hydrants.

All hydrants are located between the curb and sidewalk and are closer than 6' to the edge of pavement. The hydrant plan has been reviewed and approved by the Falcon Fire Protection District.

(viii) Fire Hydrant Easements. Easements for fire hydrants shall be provided and dedicated to the appropriate fire or water authority when the hydrants are not within a public road right-of-way. The easement shall afford accessibility to the hydrant from the right-of-way.

There are no hydrant easements planned for Waterbury Filings 1 and 2.

(ix) Release of Financial Assurance for Water Supply Systems. The contractor, installer, or owner of water supply systems shall demonstrate by testing that the capacity of the water supply system will meet fire protection design requirements prior to release of construction financial assurance for the system. The testing shall be certified by a qualified professional. The tests shall be provided to the Fire Marshal.

Per code, the water supply system will be tested and certified once installed, and approved prior to release of financial assurance.

3.2 Additionally, Design Standards for **Roads** – Section 6.3.3.C.2 – applies. The project meets these requirements as follows:

(a) Roads Constructed to County Standards. All roads, including private roads and emergency vehicle access roads, shall be designed and constructed according to this Code and the ECM. Emergency vehicle access roads shall, at a minimum, be constructed to the County's gravel road standard if open to the public. Emergency vehicle access roads which are not open to public travel shall meet the non-road access standards.

All roads in Waterbury will be public rights of way and are designed to county standards, including all curves and horizontal layouts. The roundabout at the intersection of Saybrook and Sunken Meadow Roads meets turning radii standards for emergency vehicles. Road cross-sections are shown on the Cover Page of The PUD Development and Preliminary Plan.

(b) Roads within 150 Feet of Development. Roads or emergency vehicle lanes shall be provided within 150 feet of all development except single family residential development.

All lots and residential structures thereon will be within the required 150 feet of public roadways.

(c)2 Access Routes Required. Access to a planned building area shall be provided by a minimum of 2 separate routes in accordance with the requirements of this Code and the ECM if the cul-de-sac exceeds the length allowed by the ECM.

There will be two access routes into Waterbury Filings 1 and 2: Saybrook Road connects to Stapleton Drive on the south, and the existing Gilbert Drive on the west will be extended into the subdivision.

(d) Turnaround Required on Dead-End Roads. Every dead-end road more than 300 feet in length shall be provided with a roadway termination meeting ECM standards.

Although none are longer than 300', Filing 1 has a temporary turnaround at the east end of Sunken Meadow Road which meets ECM standards, and Filing 2 has three temporary turnarounds on the north ends of Masonboro Way, Megansett Way, and Peconic Place.

(e) Road Grades in Wildland Fire Areas. Within wildland fire areas, road grades steeper than 10 percent may be permitted where mitigation measures can be agreed on by the Fire Marshal and the ECM Administrator.

There are no road grades within the development steeper than 10%.

(3) Non-Road Access. The following minimum standards shall apply to emergency vehicle lanes, driveways, and parking lot drive lanes serving as emergency vehicle lanes.

Driveways to individual residences will meet county standards. There are no emergency vehicle lanes in Filings 1 and 2.

(a) Emergency Access Provided. Access for emergency responders, ingress, egress, and evacuation shall be provided for all buildings.

All residential structures will have standard emergency ingress and egress points.

(b) Driveways Required. Where any point of a building is greater than 150 feet from a road, a driveway meeting these standards shall be provided to within 150 feet of the furthest point on the building.

N.A. No building will be further than 150 feet from a road.

(c) Emergency Vehicle Lanes Required. Emergency vehicle lanes shall be provided as required by the Fire Marshal.

The Falcon Fire Protection District has not requested emergency vehicle lanes.

(d) Emergency Access Lane Design. An emergency vehicle lane shall be designed and constructed to enable fire-fighting apparatus to maneuver broadside or directly forward within a minimum of 5 feet and a maximum of 25 feet of structures.

N.A.

(e)Width of Driveway and Emergency Vehicle Lanes. Where the driveway is greater than 150 feet in length, it shall be not less than 10 feet in unobstructed width. Emergency vehicle lanes providing 1-way travel shall be a minimum of 16 feet in width, and fire lanes with 2-way travel shall be a minimum of 24 feet in width.

N. A. All driveways are shorter than 150 feet. There are no emergency vehicle lanes.

(f)Vertical Clearance. At least 13 feet 6 inches of vertical clearance shall be provided and maintained over the full width of an emergency vehicle lane or driveway.

All roadways and driveways shall have unobstructed clearance over the pavement.

(g)Turns. Required driveways shall be designed, constructed, and maintained to accommodate the turning radius of the largest apparatus typically used to respond to that location. A turn in an emergency vehicle lane shall be constructed with a minimum radius of 25 feet at the inside curb line and a minimum radius of 50 feet at the outside curb line.

N.A.

(h)Grades. Emergency vehicle lanes and required driveways shall not exceed 10 percent in grade unless steeper grades are allowed where mitigation measures can be agreed on by the Fire Marshal and the property owner.

There are no grades steeper than 10% in filings 1 and 2.

(i)Emergency Vehicle Lanes Connecting to Roads. Emergency vehicle lanes connecting to roads shall be provided with curb cuts extending at least 2 feet beyond each edge of the fire lane.

N.A.

(j)Turnouts and Turnarounds Required.

(i)Driveways. Where the required driveway is greater than 300 feet, it shall be provided with turnouts or turnarounds at locations approved by the Fire Marshal.

N.A.

(ii)Turnarounds Required. Dead-end emergency vehicle lanes in excess of 300 feet in length shall be provided with turnouts and turnarounds as approved by the Fire Marshal. The turnaround at the terminus shall have a minimum radius of 50 feet. The Fire Marshal shall be authorized to approve, as an alternative, a "hammerhead" turnaround to provide emergency vehicles with a 3-point turnaround.

N.A. There are no emergency vehicle lanes planned.

(k)Load Design. Emergency vehicle lanes and required driveways shall be designed, constructed, and maintained to accommodate the load of the largest apparatus typically used to respond to that location.

(l)Bridges or Drainage Crossings. A bridge or drainage crossing on an emergency vehicle lane or required driveway shall be designed to accommodate the load of the largest apparatus typically used to respond to that location. The load limit shall be clearly posted at the approaches to the bridge.

The temporary turn around on the east end of Sunken Meadow Road is planned in an existing wetlands area. The grading and surfacing will be modified to satisfy appropriate emergency vehicle passage standards. There are no other bridges or drainage crossings in Filings 1 and 2.

(m)Landscaping Maintained. Landscaping or other obstructions shall be maintained in a manner that provides unobstructed access for fire department operations.

There will be no landscaping in the areas immediately adjacent to fire hydrants.

(4) Gates.

N.A. There are no security or access gates in Waterbury Filings 1 and 2.

3.3 Construction in Wildland Fire Areas.— Land Development Code Section 6.3.3.D.

As addressed in section 2.0 of this report, the Waterbury subdivision is in a low-risk area for Wildland Fires.

4.0 Compliance with applicable local fire code.

The Falcon Fire Protection District currently uses the 2009 International Fire Code as its safety criteria guideline. This subdivision meets these code requirements, as listed above in the analysis of the El Paso County Land Development Code section 6.3.3 - Fire Protection and Wildfire Mitigation.