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El Paso County

Grandview Metro District Project

1041 Submission

August 6th, 2021

HR Green Project No: 201662

Prepared For:





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- Exhibit C - Falcon/Peyton Small Area Plan (Chapter 4 Discussion)
- Exhibit D - Adjacent Property Owners Map
- Exhibit E - Surrounding Metro District Map
- Exhibit F - Legal Description (MS Word Version)
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- Exhibit FF - CDPHE Correspondence

Documents Related to 2.303 [Submission Requirements]

1. Application – 1041 Permit

A) *Completed Application form in the format attached as **Exhibit B** and approved by the Development Services Director*

a) See attached 1041 Permit Application

2. Additional Submissions, as Requested by Director

A) *The Director may require submission of any plan, study, survey or other information, in addition to the information required by this Section at the applicant's expense, as in the Director's judgement is necessary to enable it to review and act upon the application. Completed Application form in the format attached as **Exhibit B** and approved by the Development Services Director*

a) Nothing specified at this time

3. Certification of Deed Research of Mineral Owners

A) *Any application which requires compliance with § 24-65.5-101, et seq., C.R.S., (Notification to Mineral Owners of Surface Development) shall not be considered to have been submitted as complete until the applicant has provided a certification signed by the applicant confirming that the applicant or its agent has examined the records of the El Paso County Clerk and Recorder for the existence of any mineral estate owners or lessees that own less than full fee title in the property which is the subject of the application, and stating whether or not any such mineral estate owners or lessees exist. In addition, for purposes of the County convening its initial public hearing on any application involving property which mineral estate owners or lessees owning less than full fee title in the property have been certified by the applicant to exist, the application shall not be considered to have been submitted as complete until the applicant has provided an additional signed certification confirming that the applicant has, at least 30 days prior to the initial public hearing, transmitted to the County and to the affected mineral estate owners and lessees the notices required by C.R.S. §24-65.5-101, et seq.*

a) As of January 8, 2019, Mike Bramlett, on behalf of JR Engineering researched the records of the El Paso County Clerk and Record and established that there were no mineral estate owners on the property known as Grandview Reserve. For official certification, see Exhibit H.

4. Information Describing the Applicant

A) *The names and addresses, including email address and fax number, organization form, and business of the applicant and, if different, the owner of the Project.*

- a) Paul Howard, Manager,
4 Site Investments, LLC
1271 Kelly Johnson Blvd, Suite 100
Colorado Springs, CO 80920
719-499-8416
Paulinfinity1@msn.com

B) The names, address and qualifications, including those areas of expertise and experience with projects directly related or similar to that proposed in the application package, of individuals who are or will be responsible for construction and operating the Project

- a) A contractor has not yet been selected however the contractor will be selected which has experience with these types of projects. Any facilities that are to be constructed as part of this project will be operated by employees with appropriate and proper experience in operating the constructed facilities

C) Written authorization of the application package by the Project owner, if different than the applicant.

- a) N/A

D) Documentation of the applicant's financial and technical capability to develop and operate the Project, including a description of the applicant's experience developing and operating similar projects.

- a) The property owner has engaged HR Green, Inc. to design and manage associated sub-consultants of the proposed development. HR Green is one of the nation's longest operating engineering firms with experience in a wide variety of projects. While HR Green is newer to the Colorado market, current employees within the organization have worked in Colorado for numerous years and have designed and managed numerous similar size and larger projects within Colorado and nationwide. Most recently HR Green has been the lead engineering consultant for the Aurora Highlands project covering 3,100+ acres of land is planned to have 23,000 homes.

E) Written qualification of report preparers.

- a) This report was prepared by Gregory Panza, PE, PMP, Senior Project Manager of the HR Green Water Division

5. Information Describing the Project

A) Vicinity map showing the proposed site and the surrounding area.

- a) Vicinity Map include in Exhibit A
- B) *Executive summary of the proposal indicating the scope and need for the Project.*
 - a) Grandview Reserve is located near Falcon between Eastonville Road and Highway 24. The total property consists of 768.2 acres. The Sketch Plan proposes approximately 3,260 residential units at varying densities (low, medium, medium-high, and high), commercial uses near Highway 24, a community park, institutional uses (i.e., potential school and church site) and smaller neighborhood parks connected by an expansive network of rails and open space. The community will have a minimum of 127.1 acres (over 16.5% of the site area) in open space consisting of the community park, pocket parks, trail corridors, existing drainage ways, detention areas, and buffers. Grandview Reserve is located in the Falcon/Peyton area of El Paso County and is bounded along the north by 4 Way Ranch, along the south by Waterbury, on the east by Highway 24, and along the west by Eastonville Road. There are no existing structures, roads or other infrastructure on the Site. The property is located approximately 4.14 miles southwest of Peyton, 4.16 miles northeast of Falcon, and 4.66 miles south of Eastonville, in El Paso County, Colorado. The property is generally located within the south ½ of Section 21, south ½ of Section 22, the north ½ of Section 27, and the north ½ of Section 28, Township 12 South, Range 64 West, in El Paso County, Colorado. The center of Grandview Reserve is situated at approximately Latitude 38.98541389 north, -104.55472222 east. Access to the site is available from Highway 24 on the east, Eastonville Road on the west, with a potential connection northeast to Elbert Road. Minor connections will also be made to the future Waterbury project to the south and the 4 Way Ranch property to the north. The property is currently vacant and mainly native prairie grassland. Four significant drainage-ways traverse the site in a northwest to southeast direction. They are named the Main Stem, Main Stem Tributary 2, East Fork and the East Fork Tributary. The existing drainage corridors are defined and will be respected as-is except for Main Stem Tributary 2. This drainage will be realigned to an appropriate location and will be incorporated into the open space and trail system. The Wetlands Analysis created by ECOS identifies wetland areas on the property, some of which are isolated and are non-jurisdictional by the Army Corps of Engineers. Other than those items, the property is relatively featureless, with slight undulation and generally draining from northwest to southeast. An existing gas easement is located on the west part of the property traversing from the southwestern corner of the property in a northeastern direction. Some existing estate lots are to the southeast and northeast of this property across Highway 24. Further to the west is the developing Meridian Ranch community, which is planned for and in many cases already constructed with urban densities. South of the property is the planned (and zoned) Waterbury project.
- C) *Plans and specification of the Project in sufficient detail to evaluate the application against the applicable Review Criteria.*

- a) Preliminary analysis has been performed on major infrastructure for the development and is included in the overall report. Final design, drawings and specification will be completed as the project progresses through the various phases.
- D) Descriptions of alternatives to the Project considered by the applicant. If the Director determines that the nature or extent of the proposal involves the potential for significant damage and warrants examination of other specific, less damaging alternatives, the Director may require the applicant to evaluate and present information on such additional alternatives as part of the application.*
- a) Other alternatives that were examined included both higher and lower density land development projects. The ultimate configuration that is being presented as part of this application was the best middle ground approach that met both the city's needs and the developer's needs and has been discussed with approval through the development process by the County's council members.
- E) Schedules for designing, permitting, constructing, and operating the Project, including the estimated life of the Project.*
- a) This project is a multi-year project commencing in Spring of 2022 with the on-site development of Filing 1 and internal infrastructure. Installation of the water and sewer backbone infrastructure will take place after permitting, anticipated to commence in fall of 2022. Future Filings are not currently planned
- F) The need for the Project, including a discussion of alternatives to the Project that were considered and rejected; existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.*
- a) The need for the Project is primarily due to the growing demand and shortage of housing in the Colorado Springs region and this area of El Paso County specifically. There is a great need for a variety of housing choices that are more affordable to the general population. Population growth and trends in the Colorado Springs are pushing expansion to the east and northeast primarily. This property is just east of Meridian Ranch which has grown significantly and nearing the final phases of that community. While exact population projections are not known, there is significant population growth east of the City limits in areas such as Grandview Reserve. Other alternatives were explored but the mix of housing products and densities that were selected and approved on the Sketch Plan aim to meet the housing needs and associated services such as Institutional (school and church), parks and open space, and amenity center and miles of trails.

- G) *Description of relevant conservation techniques to be used in the construction and operation of the Project.*
 - a) Relevant conservation techniques were examined such as creation site and road layouts that were efficient and worked well with the existing topography. Regarding landscape for the community this project will use primarily Colorado native plant material and other Xeriscape plans to minimize high maintenance landscapes. This community will preserve most of the on-site drainages and adjacent open space buffer area, allowing good potential to improve native vegetation by creating a habitat restoration and management plan for the drainages/open space corridors. Increasing native vegetation in the disturbed shortgrass prairie areas by seeding with native species. Implementing a stormwater management plan and preparing a natural channel stabilization plan for all drainages, which will provide long-term natural landscapes for wildlife and residents to enjoy for generations. These areas will either be maintained by the Sub-Districts or an HOA (Homeowners Association) or combination thereof.

- H) *Description of demands that this Project expects to meet and basis for projections of that demand.*
 - a) There is significant demand and need for housing in this area of El Paso County. This project intends to meet that need by proposing a range of housing choices in Filing 1 (and future phases).

- I) *List of adjacent property owners and their mailing addresses*
 - a) Adjacent Property Owner Map include in Exhibit D

6. Property Rights, Other Permits, and Approvals

- A) *Description of property rights that are necessary for or that will be affected by the Project, including easements and property rights proposed to be acquired through negotiation or condemnation.*
 - a) The property is currently owned by the developer and additional property acquisitions are in process for the project in order to provide water and sewer services for the project however these acquisitions will mainly be within county right-of-way and will provide net benefits for the entire area.

- B) *A list of all other federal, state, and local permits and approvals that will be required for the Project, together with any proposal for coordinating these approvals with the County permitting process. Copies of any permits or approvals related to the Project that have been granted.*
 - a) Additional permits required for the project will include:

- i) Federal – Conditional Letter of Map Revision, Letter of Map Revision, USACE Wetlands Determination Letters
 - ii) State – CDPHE Stormwater Discharge Permit, CDPHE Dewatering Permit
 - iii) County – Site Development Plan permits, storm water permitting
 - iv) City/Local – The project is outside city limits however falls within the Pikes Peak Regional Building Department's (PPRBD) limits. PPRBD general building permits will be required.
- C) *Copies of relevant official federal and state consultation correspondence prepared for the Project; a description of all mitigation required by federal, state and local authorities; and copies of any draft or final environmental assessments or impact statements required for the Project.*
- a) Included within the environmental report prepared by ECOS, is current correspondence received from the USACE. Additional information and letters will be gathered from appropriate parties as work progresses.

7. Land Use

- A) *Provide a map at a scale relevant to the Project and acceptable to the Department describing existing land uses and existing zoning of the proposed Project area and the Project service area, including peripheral lands which may be impacted. The land use map shall include but need not necessarily be limited to the following categories: residential, commercial, industrial, extractive, transportation, communication and utility, institutional, open space, outdoor recreation, agricultural, forest land and water bodies. Show all special districts (school, fire, water, sanitation, etc.) within the Project area.*
- a) Exhibit L contains a map depicting all zoning and land use.
The overall plan consists of a mix of urban residential densities, institutional (i.e., school and church) and commercial land uses. This community will contain ample open space, trails, and parks including a community park.
 - b) Residential Land Use:
 - i) Majority of the proposed uses are residential for this community. The maximum number of residential units proposed Sketch Plan is based upon the proposed density of 4.24 units/acre totaling 3,260 units. The proposed residential development will range in density from Low Density (up to 2 dwelling units per acre) adjacent to part of the north boundary, with gradual transitions in density up to High Density (up to 12 dwelling units per acre) surrounding the commercial uses along Highway 24.
 - c) Institutional:
 - i) Two sites are planned for institutional uses. One site on the east half of the project is tentatively planned for an elementary school; the location and size of which has been discussed with the Peyton School District. The applicant had two meetings with the Peyton School District representatives to determine which site would be beneficial and

the size that would be acceptable for an elementary school and the request was made to have a park adjacent to the school for a shared use purpose. These requests were accommodated and shown on the Sketch Plan accordingly. The area shown on the plan for the elementary school is 10.9 acres shown as Parcel "V". The other site in the northwest corner is tentatively planned for a church denoted as parcel A that is 6.1 acres.

- B) *All immediately affected public land boundaries should be indicated on the map. Potential impacts of the proposed development upon public lands will be visually illustrated on the map as well as described in the text.*
- a) Exhibit L shows the overall boundaries of the development. No public lands, sans those currently used for rights-of-way will be impacted by this development.
- C) *Specify whether and how the proposed Project conforms to the El Paso County Master Plan.*
- a) Grandview falls within the "Area of Change" for new development and is planned for suburban and urban growth. Furthermore, the Master Plan states:

"These areas will be significantly transformed as new development takes place on lands currently largely designated as undeveloped or agricultural areas. Undeveloped portions of the County that are adjacent to a built-out area will be developed to match the character of that adjacent development or to a different supporting or otherwise complementary one such as an employment hub or business park adjacent to an urban neighborhood."

As Grandview is adjacent to the last phases of Meridian Ranch, the project is a natural extension of development from west to east.

More specifically Grandview falls within the Suburban Residential Placetype which is described as:

"Predominantly residential areas with mostly single-family detached housing. This placetype can also include limited single-family attached and multifamily housing, provided such development is not the dominant development type and is supportive of and compatible with the overall single-family character of the area....This placetype often deviates from the traditional grid pattern of streets and contains a more curvilinear pattern."

Grandview Reserve meets the description and intent of the Suburban Residential placetype. The Master Plan states there are Primary and Supporting Uses in this placetype as follows:

Primary

- *Single-Family Detached Residential with lots sizes smaller than 2.5 acres per lot, up to 5 units per acre*

Supporting

- *Single-family Attached and Multifamily Residential*

- *Parks/Open Space*
- *Commercial Retail and Commercial Service*
- *Institutional*

Grandview will encompass all of these uses with the primary use being single family as described above.

2021 El Paso County Master Plan - Priority Development Areas

The Master Plan states:

“This framework identifies specific locations throughout the County that should be prioritized first for new residential development to help accommodate growth”.

Filing 1 of Grandview Reserve falls within the “Suburban Residential” and “Urban Residential” areas including the “Priority Development Areas”. Therefore, this proposal meets the intent of the 2021 Master Plan.

2021 El Paso County Master Plan - Highway 24 Area

The Master Plan describes the “Highway 24” area as already growing and that the area along the Highway 24 corridor “should not be set aside for Large-Lot Residential alone”. The Master Plan further states:

“Falcon, and the surrounding area, is already growing, with the majority of homes being developed in the last two decades. The amount of vacant land along Highway 24 should not be set aside for Large-Lot Residential alone. Just as with the proposed Large-Lot Residential in this part of the County, proximity to Highway 24 and availability of central services is another benefit to expanding suburban development. The corridor provides important access south to Colorado Springs”.

- *To sustain Falcon’s growth momentum, the County should continue to prioritize Suburban Residential in this area. Doing so would match the community’s existing character and utilize available land to accommodate a sizable portion of the County’s expected population growth without negatively impacting adjacent areas.*

Therefore, Grandview Reserve and specifically Filing 1 meets the general intent of this Master plan core idea as it proposes Suburban Residential uses and densities.

2021 El Paso County Master Plan - Housing Mix

Regarding housing mixes the County Master Plan states:

“Housing variety provides multiple options to support residents regardless of income, house-hold size, and age. Providing an equitable mix of housing can ensure the viability of El Paso County as a home for all.”

This statement aligns well with the Grandview Reserve project as per the approved Sketch Plan with a project of this size, a large variety of housing types are proposed. Filing 1 (the first phase of Grandview Reserve) proposes 50' and 60' wide lots and future phases include duplex (paired units), townhomes and various other residential uses.

2021 El Paso County Master Plan - Affordability

The Master plan states:

Like many growing communities across the United States, housing affordability is an issue in El Paso County. With significant estimated growth over the next three decades, the County will undoubtedly have to continue addressing this issue. Since this Master Plan addresses unincorporated areas, the recommendations regarding affordability do as well.

The County Master plan further describes the need for attainable and more affordable homes which typically translates to smaller lots and homes instead of large estate lots. Grandview Reserve and specifically Filing 1 aligns with this goal of proposing smaller lots that are in a more affordable range rather than large estates lots that promote urban sprawl and high prices of homes un-affordable to most residents.

- D) Specify whether and how the proposed Project conforms to applicable regional and state planning policies.**
 - a)** The project conforms to regional and state planning policies with water use, surface water control, wastewater discharge as depicted in the included reports.

- E) Specify whether and how the proposed Project conforms to applicable federal land management policies.**
 - a)** No federal lands will be impacted by this project however the surface drainage channel design will follow FEMA guidelines for floodplain delineation and design.

- F) If relevant to the Project design, describe the agricultural productivity capability of the land in the Project area, using Soils Conservation Service soils classification data.**
 - a)** Agricultural productivity capability is no relevant to the project.

- G) Describe the probability that the Project may be significantly affected by earthquakes, floods, fires, snow, slides, avalanches, rockslides or landslides and any measures that will be taken to reduce the impact of such events upon the Project.**
 - a)** The probability that the land will be affected by earthquakes, slides, avalanches, rockslides or landslides is extremely low.

For impacts due to floods, fires and snow, the project will be designed to local, state and federal regulations governing such impacts such as surface drainage design, fire protection required for each particular building type and structural design of buildings for snow loads.

- H) *Specify if excess service capabilities created by the proposed Project will prove likely to generate sprawl or strip development.*
 - a) The project falls within El Paso County's master plan, described in additional detail above.
- I) *Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.*
 - a) The demand for the project exists and as demand increases the development will progress. It is not expected that the entire development will occur over a short period of time however each phase/filing will go through final planning and engineering efforts as demand is forecast.

8. Surface and Subsurface Drainage Analysis

- A) *The applicant shall supply a surface and subsurface drainage analysis.*
 - a) A Master Development Drainage Study has been done for the project and is included in the appendix. In general, the site has 4 major drainage channels running through the site which will be used in conjunction with detention facilities to control storm surface drainage. Sub surface drainage will include storm sewer systems to convey flow captured with the streets and will ultimately discharge to the aforementioned ponds and ultimately to the drainage channels.

9. Financial Feasibility of the Project

- A) *Relevant bond issue, loan and other financing approvals or certifications (ex: approved bond issues; bond counsel opinion).*
 - a) Refer to the District Service Plan in Exhibit J
- B) *Business plan that generally describes the financial feasibility of the Project.*
 - a) The owner of the property identified as Schedule Number 4200000396 is 4 Site Investments, LLC and the owners of the 2-acre parcel identified as Schedule Number 4200000328 are Linda Johnson-Conne, Tracy Lee, Debbie Elliott, and Peter Martz. A letter of authorization from the current owner of the property with Schedule Number 4200000328 is enclosed herewith. Preparation of the Districts' supporting documentation was provided by the Districts' organizers. The Developer of the Grandview Reserve Property is 4 Site Investments, LLC. Cost estimates for the proposed public improvements were generated by

Developer representatives, with the assistance of consultants JDS-Hydro Consultants, Inc. and HR Green, Inc., who have experience in the completion of similar improvements.

It should be noted, though, that such costs estimates are preliminary in nature and the ultimate costs may increase or decrease depending on numerous factors, many of which are out of the Developer's control. In particular, these initial cost estimates only include the public improvement portion of costs and the total project improvement costs may be significantly higher.

Anticipated development of approximately 3,260 single-family residential units and 20,000 square feet of commercial development. The rate of absorption provided in the Service Plan is a projection based on information from the developer and is used for estimating the financial plan. There is no way to accurately predict absorption due to variables such as the economic factors, housing demand, land-use approval timing, building supply chains, and labor availability. In view of these factors, the bond underwriter projects the potential ability of the Districts to discharge the proposed debt per the statutory requirement. If absorption is delayed or accelerated, the bond issuance parameters will reflect those changes at the time of issuance.

The estimated initial assessed value at time of complete build-out is \$80,578,335 (based upon an estimated uninflated initial market value at time of complete build-out of \$1,106,690,000 multiplied by 7.15% for the residential property and \$5,000,000 multiplied by 29% for the commercial property). Completion of an estimated \$285,000,000 of on and off-site public improvements including, but not limited to on and off-site streets, roadway, water and sanitary, stormwater and drainage, landscaping, and park and recreation improvements.

10. Local Infrastructure and Service Impacts

A) *An impact analysis that addresses the manner in which the applicant will comply with the relevant Permit Application Review Criteria. The impact analysis shall include the following information: description of existing capacity of and demand for local government services including but not limited to roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, and other services necessary to accommodate the Project within El Paso County.*

a) Social Impacts:

i) The Sketch Plan includes approximately 3,261 homes at varying densities, which will provide the opportunity for a range of housing product at a variety of price points. This will provide housing for varying demands and lifestyle options, which will ensure that the proposed housing is both attractive to and attainable by a variety of purchasers, including first-time buyers, families, and empty nesters. The proposed open space, parks, and trail system will create an active community that will be beneficial to the health and wellbeing of County residents, both within and outside Grandview Reserve subdivision. The proposed community park will be the central focal point of the neighborhood and will provide a venue for recreational activities, social events, and

community entertainment. This will help to provide a strong and connected community, which will have a positive social impact on this part of the County.

- b) Jurisdictional Impact - Districts serving Grandview Reserve:
 - i) Grandview Reserve Metropolitan District No. 1 (proposed).
 - ii) Mountain View Electric Association Inc. (MVEA) will provide electric service to the property. A Will Serve letter is provided with this application.
 - iii) Falcon Fire Protection District will provide fire protection. A Will Serve letter is provided with this application.
 - iv) Peyton Fire Protection District will provide the emergency services to the property. A Will Serve letter is provided with this application.
 - v) Peyton School District will serve the property and a potential elementary school site is provided on the Sketch Plan.
 - vi) El Paso County Conservation District
 - vii) Upper Black Squirrel Ground Water District
 - viii) Pikes Peak Library District

11. Recreational Opportunities

- A) *Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.*
 - a) This development will provide trail extensions along Eastonville Road and throughout the drainage corridors
- B) *Description of the impacts and net effect of the Project on present and potential recreational opportunities.*
 - a) Parks and Open Space:
 - i) An expansive system of parks, open space, and trails is planned throughout the community. Many of the major open space corridors follow the four major existing drainage-ways. The proposed trails within this community will connect to the existing Rock Island Trail along the eastern boundary to the rest of this community. The trails will also provide connection to the El Paso County Falcon Regional Park northwest of this project. Over 16% of the site is proposed in open space. A large, 6.3-acre community park is the central focal point of the community, adjacent to the proposed institutional parcel that is tentatively planned for an elementary school. The park and school will be linked to the entire community by the trail system and sidewalks. There are also numerous smaller neighborhood parks (0.25 acres – 1 acre) throughout the community all linked by the expansive trail system that approximately equals 5 acres. The locations and sizes of the parks shown on the Sketch Plan are approximate only and subject to change as more detailed plans are created in the future. This approximate acreage for the pocket parks does not include opens space and detention ponds. Commercial uses are sited along Highway 24 at the main entrance to the community. It is unknown at this

time the type uses; however, the intent is mixed, low to medium density commercial uses (not industrial) that will serve this community (within walking distance) and users traveling in vehicles along Highway 24.

12. Areas of Importance

- A) According to the Historic Survey conducted by the Office of Archeology and Historic Preservation, the only point of historical importance involved in the development of the property is the Rock Island Regional Trail that runs parallel to Highway 24 between Falcon and Peyton and is part of the America the Beautiful Trail. It was constructed on the former Chicago and Rock Island Railroad Line that ran between Falcon and Peyton and thus has cultural and historical significance. While there will likely be no major long-term disruption to the trail as a result of the development, it may be temporarily impacted by access ways and staging areas during the construction phase.

13. Nuisance Caused by the Project

- A) Noise Report:
 - a) The results of the noise prediction were compared to the noise abatement criteria contained in Exhibit 1 of the Colorado Department of Transportation Noise Analysis and Abatement Guidelines dated January 15, 2015. The proposed residential areas would be considered Category "B" land uses. The threshold for exterior noise level for Category B is 66 decibels Leq(h). The results of the noise prediction show that in the year 2040, receivers 1, 2, and 3 located on the east boundary of Parcel K would have predicted noise levels which would exceed this threshold.

If a six-and-a-half-foot high noise barrier were constructed at the location shown, these noise receiver locations are predicted to be below the threshold. This noise barrier could be a wall, a berm, or a combination of the two. If a wall is constructed, it should be made of rigid material with a density of at least 4 pounds per square foot and should have no gaps. Receivers 4 through 9 located on the east boundary of Parcels L, M, and N have predicted noise levels that would not exceed 66 decibels Leq(h) and therefore noise mitigation would not be required adjacent to these parcels.

14. Air Quality

- A) Air quality should not be impacted negatively. The proposed extension of Rex Road will provide a more convenient and shorter travel time to employment and commercial facilities for future residents of Grandview Reserve, as well as for residents of existing surrounding neighborhoods. This should reduce congestion on existing roads and will lessen air pollution for the area. Additionally, this community has plentiful parks, trails, and open space that should help reduce air pollution by providing opportunities for pedestrian or bike travel versus vehicular travel to these features.

During construction the contractor will be required to obtain an Air Pollutant Emission Notice (APEN) Permit from CDPHE by filling out Form APCD-223 for land development activities disturbing more than 25 acres. Additionally, should the contractor have any generators on site they may need additional APEN permits as well. Additional information regarding the air quality permits is included in Exhibit W.

15. Visual Quality

- A) The development is not within a viewshed nor is it currently a scenic vista. The site is currently gently sloping range land with minor drainage channels within the property. An ill-defined and undulating hill, which likely an eroded remnant bluff, is present in the north-central portion of the site. The development will generally use the natural topography for development with grading to be completed to convey storm water and provide scenic vistas to the front range when possible. The development will improve the visual aesthetics of the natural drainage ways with natural stream design and landscape plantings.

16. Surface Water Quality

- A) *Map and/or description of all surface waters relevant to the Project, including description of provisions of the applicable regional water quality management plan, and NPDES Phase II Permit and necessary El Paso County Erosion and Stormwater Quality Control Permit ("ESQCP"), Section 404 Federal Clean Water Act Permit that applies to the Project and assessment of whether the Project would comply with those provisions.*
 - a) The property contains 4 natural drainage channels which are ephemeral streams. The four channels are referred to as follows moving from west to east: The Main Stem, Main Stem Tributary Number 2, East Fork tributary, and the East Fork. All four drainage channels are tributary to Black Squirrel Creek and lie within the Gieck Ranch Drainage Basin. All channels within this watershed are part of the Arkansas River water basin.
Currently there is not an adopted Drainage Basin Planning Study for the site however a Master Development Drainage Plan has been developed for the project which this development will follow recommendations and general design guidance. As part of the development, full spectrum detention facilities will be installed to provide water quality for the development. The facilities will be designed using El Paso County criteria and provide stormwater quality by slowing the release of stormwater captured by the ponds and allowing solids to settle out. Additionally, when possible the revised drainage channels, which were not jurisdictional wetlands, will be used to convey stormwater via a natural channel. Stormwater must be treated before entering the natural channels. The natural channel will provide a pervious means to transport stormwater and provide some water quality benefits as well.
On site practices for the homes, schools, churches and other buildings should use means such that impervious areas drain across pervious area to allow for infiltration during the minor events. This would include discharge of the gutters onto landscape areas vs. directly

connecting to storm sewer and using natural ditches and swales where it is logical and makes sense to convey stormwater in lieu of storm sewer piping.

B) Existing data monitoring sources.

- a) No existing monitoring is currently occurring related to the water quality of these streams nor is Black Squirrel Creek listed by CDPHE as impaired waters.

C) Descriptions of the immediate and long-term impact and net effects that the Project would have on the quantity and quality of surface water under both average and worst-case conditions.

- a) Overall runoff from the site will by and large match the predevelopment peak flows. The volume of water will increase however as the drainage channels are designed; continuous simulation models will be done to see the effects of prolonged runoff rates. Increases in runoff volume can impact natural drainage channels that typically would not have a base flow however geomorphic assessments and design have been done to reduce the possibilities for erosion within the channel.
In a worst-case scenario should the detention ponds fail or a storm event exceeding the maximum design of the detention basins and storm sewer occur, drainage channels within the area would likely fare better than a natural channel as improvements to the channels will occur to limit head cutting within the channel thalweg along with providing additional free board in the channels for storms exceeding their designed intent.

17. Groundwater Quality

B) Map and/or description of all groundwater, including any and all aquifers relevant to the Project. At a minimum, the description should include:

- a) *Seasonal water levels in each portion of the aquifer affected by the Project.*
 - i) The proposed development will not have any effect on deep groundwater aquifers known in the area as the “Denver Basin Aquifer System.” However, the alluvial groundwater levels at the development site are anticipated to drop during construction due to expected dewatering efforts and well pumping.

Seasonal alluvial groundwater levels in this area fluctuate based on precipitation in the region. Groundwater is anticipated at levels starting anywhere from 8 to 17 feet deep, based on the Subsurface Soil Investigation performed by CTL Thompson., dated December 23, 2020 and enclosed in Appendix U and an earlier Subsurface Soil Investigation was performed by Entech Engineering, dated January 15, 2019 and also enclosed in Appendix U shows groundwater levels starting anywhere from 4.5 to 19 feet deep.

After completion of the project, and after removal of temporary dewatering equipment, groundwater levels adjacent to the development are anticipated to return to typical seasonal levels.

- b) *Artesian pressure in said aquifers.*
 - i) There are no known artesian wells or artesian confined aquifers at the proposed location.
- c) *Groundwater flow directions and levels.*
 - i) Groundwater generally flows from the northwest to the southeast in the project area. Groundwater has been encountered approximately 5 feet below existing grade in early summer. The soils report, included as Exhibit P, contains additional information on groundwater conditions.
- d) *Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.*
 - i) Existing aquifer recharge rates have not been determined for this project, nor have methodologies been used to calculate recharge rates from any sources. This project does not put groundwater to beneficial use. Therefore, groundwater augmentation and recharge are not necessary. As such, no recharge rates were calculated for this project.
- e) *For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of the aquifer to impound groundwater and aquifer storage capacity.*
 - i) No aquifers are planned to be used for water storage for this project.
- f) *Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.*
 - i) There are no subsurface dams or stream-aquifer interfaces that the project is anticipated to affect or come in contact with.
- g) *Existing groundwater quality and classification*
 - i) The groundwater in the area can be classified as EPA Class II – Ground water currently and potentially a source for drinking water.
- h) *Location of all water wells potentially affected by the Project and their uses.*

- i) The lift station is proposed to be located northeast of the existing 4-Way Water Treatment Plant. There are currently two wells in use at the filter plant site, and the distance between the proposed lift station and the wells is over 2,000 feet (horizontally).

This distance is in conformance with the Office of the State Engineer, State Board of Examiners of Water Well Construction and Pump Installation Contractors, Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring & Observation Hole/Well Construction - 2 CCR 402-2, Effective Date January 1, 2005, Section 12.2.2, which states:

10.2.2 Wells shall not be located closer than one hundred (100) feet horizontally to the nearest existing source of contaminants or fifty (50) feet from a septic tank, sewer line or other vessel containing contaminants. A request for variance must be submitted and written approval from the Board must be obtained prior to the construction of a well that cannot meet this spacing requirement.

This distance also exceeds the values listed in Table 7-1, Chapter 8 of the El Paso County Board of Health On-Site Wastewater Treatment System Regulations. This table lists a minimum horizontal distance of 50 feet between a sewage vault and a well.

- i) *Description of the impacts and net effect of the Project on groundwater.*
 - i) Temporary dewatering is likely to lower groundwater levels immediately adjacent to the lift station during construction. After completion of the project, and after removal of temporary dewatering equipment, groundwater levels adjacent to the lift station are anticipated to return to typical seasonal levels.
It is anticipated that there will be little to no net effect of this project on groundwater.

18. Water Quantity

- A) *Map and/or description of existing stream flows and reservoir levels relevant to the Project.*
 - a) As mentioned within the surface water quality portion of this project, a Master Development Drainage Plan has been developed for the project which goes into detail related to storm water quality and quantity. No channels within the site have constant base flow at this time nor do reservoirs exist within the property boundaries. A small farm stock pond does currently exist in the western portion of the site however this pond does not provide any meaningful water storage or benefits to the existing land and will be removed as part of the development project.

Stream flow amounts are discussed in greater detail in the MDDP in Exhibit L.

- B) *Map and/or description of existing minimum stream flows held by the Colorado Water Conservation Board.*

- a) No existing minimum stream flows are held by the Colorado Water Conservation Board.
- C) *Descriptions of the impacts and net effect that the Project would have on water quantity.*
 - a) As discussed above, the water quantity leaving the site will increase as there will be an increase in impervious area resulting in additional runoff and less infiltration into the ground.
- D) *Statement of methods for efficient utilization of water, including recycling and reuse.*
 - a) This project will deliver wastewater to Cherokee Metro District wastewater treatment facility. Cherokee currently implements an alluvial aquifer recharge system downstream of the treatment facility that pumps water north for reuse.

19. Floodplains, Wetlands and Riparian Areas; Terrestrial and Aquatic Animals, Plant Life and Habitat

- A) Floodplains:
 - a) The property contains portions of floodplain as shown in the FEMA Flood Insurance Rate Maps 08041C0556G and 08041C0552G effective December 7, 2018
- B) Wildlife:
 - a) The impact to wildlife is parallel to that for vegetation. Species that occur in wetland and riparian habitat are expected to benefit from the habitat restoration and management plan for the drainages and Open Space. Implementation of the stormwater management plan will assist in protecting water quality in the drainages to ameliorate development impacts on aquatic wildlife species. Many shortgrass prairie specialist species avoid areas with buildings, overhead power lines, and trees; thus, the project is expected to have the most significant negative impact on these species; however, effects may be ameliorated by improving native vegetation in the disturbed shortgrass prairie areas (refer to Vegetation section above). Additional measures to reduce impacts to wildlife include:
 - i) Limiting the use of herbicides, pesticides, and fertilizers.
 - ii) Minimizing the installation of fencing; and when fencing is needed, use wildlife friendly fences or include specific wildlife crossings along fence lines.
 - iii) Designing road crossing over the drainages to enable wildlife underpass and allow use of the drainages as movement corridors to reduce collisions with vehicles.
 - iv) Managing pets to avoid conflicts with wildlife.

20. Soils, Geologic Conditions and Natural Hazards

- A) *Map and/or description of soils, geologic conditions, and natural hazards including but not limited to soil types, drainage areas, slopes, avalanche areas, debris fans, mud flows, rockslide areas, faults and fissures, seismic history, and wildfire hazard areas, all as relevant to the Project area.*

- a) The Soils and Geology Report prepared by Entech on January 15, 2019 identifies geologic conditions that occur on the property. The site was found to be suitable for development. Refer to Exhibit U for additional information.
- B) *Descriptions of the risks to the Project from natural hazards.*
 - a) Refer to Exhibit U for risk due to natural hazards.
- C) *Descriptions of the impacts and net effect of the Project on soil and geologic conditions in the area.*
 - a) The project is not anticipated to have adverse impacts on soil and geologic conditions.

21. Hazardous Materials

- A) *Description of all solid waste, hazardous waste, petroleum products, hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the Project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure.*
 - a) No solid waste, hazardous waste, petroleum products, hazardous, toxic or explosive substance will be stored, distributed or produced in connection with the project. Solid waste generated from residential and light commercial use will occur however this will be handled by normal waste management contractors and facilities.
- B) *Location of storage areas designated for equipment, fuel, lubricants, and chemical and waste storage with an explanation of spill containment plans and structures.*
 - a) As part of CDPHE's permitting process for construction water quality, contractor's working on the site will be required to submit for approval materials management plans should storage of equipment, fuel, lubricants and chemical waste occur as part of the construction. Ultimate means and methods of this will be done by the contractor.

22. Monitoring and Mitigation Plan

- A) *Description of all mitigation that is proposed to avoid, minimize or compensate for adverse impacts of the Project and to maximize positive impacts of the Project.*
 - a) As part of the development process for Grandview Reserve, land planning efforts, including landscape design of the site will be done to enhance the beauty of the site. An expansive system of parks, open space, and trails is planned throughout the community. Many of the major open space corridors follow the four major existing drainage-ways. The proposed trails within this community will connect to the existing Rock Island Trail along the eastern

boundary to the rest of this community. The trails will also provide connection to the El Paso County Falcon Regional Park northwest of this project. Over 16% of the site is proposed in open space. A large, 6.3-acre community park is the central focal point of the community, adjacent to the proposed institutional parcel that is tentatively planned for an elementary school. The park and school will be linked to the entire community by the trail system and sidewalks. There are also numerous smaller neighborhood parks (0.25 acres – 1 acre) throughout the community all linked by the expansive trail system that approximately equals 5 acres. The locations and sizes of the parks shown on the Sketch Plan are approximate only and subject to change as more detailed plans are created in the future.

B) *Describe how and when mitigation will be implemented and financed.*

- a) These improvements to mitigate possible adverse impacts will be paid for initially by the developer and will be managed via homeowner's associations within the single and multi-family development areas and via the commercial property owners within the commercial development areas. Ongoing maintenance of parks, community parks and landscaped areas will be funded from HOA fees and district fees paid as part of property taxes.

C) *Describe impacts that are unavoidable that cannot be mitigated.*

- a) As all impacts to the site cannot be avoided it should be noted that increased quantity of water leaving the site is to be expected. This may lead to increased vegetation along the lower drainage ways which could reduce the conveyance capabilities of the water.

Additionally, because surface water will have fewer means to infiltrate into the ground water system it is expected that the groundwater level within the area may reduce. Lastly because the development will provide homes for a large amount of people, traffic to and within the area will increase which may affect the existing air quality.

D) *Description of methodology used to measure impacts of the Project and effectiveness of proposed mitigation measures.*

- a) Proven methods for waterway stabilization in the form of natural waterways is implemented in this project

E) *Description, location and intervals of proposed monitoring to ensure that mitigation will be effective.*

- a) N/A

23. Additional Information

To be provided should the director require additional information.

Documents Related to 3.201 [Source Water]

1. Description of Efficient Water Use:

- A) *Description of efficient water use, recycling and reuse technology the Project intends to use. Such description shall include estimated stream transit losses of water, reservoir evaporation losses, and power and energy requirements of the Project and alternatives to the Project.*

The water collection system will consist of a series of aquifer wells that will be interconnected to deliver water to the water treatment plant (WTP). After treatment, water will be stored in an adjacent hydro pneumatic water storage tank where it will provide domestic distribution. It is anticipated that an interconnected SCADA or communication system will monitor water levels within the WTP and storage facility and only call from water from the wells when necessary for demand and safety.

El Paso County's Water Master Plan goals and implementation strategies were referenced with the initial planning to incorporate efficiency and conservation, especially since the area that Grandview Reserve is proposed is within the Denver Basin aquifers system, Region 3 of the EPC Master Plan. The proposed Filing 1 plan increases density and maximizes open space surrounding the natural tributary areas, thus decreasing irrigation consumption and discouraging individual wells. The landform grading is focused on limiting excavation within shallow ground water levels to deter ground water surfacing and associated groundwater re-introductions. Swales will be utilized within the individual planning areas to promote groundwater recharge.

2. Map and Description of Water Projects and Providers:

- A) *Map and description of other municipal and industrial water projects and providers in the vicinity of the Project, including their capacity and existing service levels, location of intake and discharge points, service fees and rates, debt structure and service plan boundaries and reasons for and against hooking on to those facilities.*

Potential future interconnections may be made with neighboring districts to foster conjunctive use and better accommodate water supply emergencies, but connections for domestic and fire use was not feasible due to adjacent Districts aquifer limitations, similar to Grandview. Possible water connections to other districts could be in the form of full interconnectivity (water flowing both directions, all the time) or in the form of an emergency connection (normally closed, only opened to flow one way during an emergency). Future re-use water has been discussed with Cherokee Metro District once a robust system is in place in the future.

As with neighboring districts, Grandview will likely implement tiered water rates to help reduce water usage. In addition, multiple stages of water restrictions can be implemented during

drought years and when infrastructure repairs are required (i.e., well pumps need to be replaced in the middle of the summer).

3. Map and Description of Water Projects and Providers:

- A) *Description of the water to be used by the Project and to the extent identified by the Director in consultation with the applicant, alternatives, including: the source, amount, the quality of such water; the applicant's right to use the water, including adjudicated decrees or determinations and any substitute water supply plans, and applications for decrees or determinations; proposed points of diversion and changes in the points of diversion; the existing uses of the water; adequate proof that adequate water resources have been or can and will be committed to and retained for the Project, and that applicant can and will supply the Project with water of adequate quality, quantity, and dependability; and approval by the respective Designated Ground Water Management District if applicable. If an augmentation or replacement plan for the Project has been decreed or determined or an application for such plan has been filed in the court or with the Ground Water Commission, the applicant must submit a copy of that plan or application.*

Refer to the Water Resource Report, Exhibit BB

4. Water Rights:

- A) *Loss of Agricultural Productivity*

- a) *Information on any agricultural water rights in the region converted to provide water for the Project, now or in the future.*

No agricultural water rights were converted to provide water for the Project

- b) *Information on the amount of irrigated agricultural lands taken out of production, and a description of revegetation plans.*

No agricultural water rights were converted to provide water for the Project

- c) *Economic consequences of any loss of irrigated agriculture, including loss of tax base, in the region.*

N/A

- d) *Information as to loss of wildlife habitat, loss of topsoil, or noxious weed invasion, as a result of the transfer of water rights and subsequent dry-up of lands.*

No water rights were transferred for this project. All water rights were part of the overall 4 Way Ranch property

- e) *Information on impacts to agricultural head gates and water delivery systems.*

N/A

Documents Related to 4.201 [Major New Domestic Water/Wastewater]

1. Preliminary Review by CDPHE and CDNR:

- A) *Preliminary review and comment on the proposal by the appropriate agency of the Colorado Department of Natural Resources and the Colorado Department of Public Health and Environment within sixty (60) days of the date of submittal of the proposal for review.*

The Colorado Department of Natural Resources will be provided a copy of this submittal for review pertaining to the water rights and well sites.

The Colorado Department of Public Health and Environment will be provided a copy of this submittal for review pertaining to the water treatment facility and water storage tank

2. Water System Scope of Proposal:

- A) *Scope of Proposal:*

- a) *Provide detailed plans of the proposal, including proposed system capacity and service area plans mapped at a scale acceptable to the Department.*

Please refer to exhibits EE for the area being serviced and exhibit BB discussing the capacity of the project

- b) *Provide a description of all existing or approved proposed domestic water or sewage treatment systems within the Project area.*

Two water treatment plants are feasible to treat effluent from this project, Cherokee Metro District (CMD) and Woodman Hills Metro District (WHMD). Due to the upcoming state permitting requirements and capacity limitations, CMD was only in a position to accept flows from Grandview Reserve Metro District

- c) *Describe the design capacity of each domestic water or sewage treatment system facility proposed and the distribution or collection network proposed in the Project area.*

The Grandview Reserve Filings wastewater effluent will discharge into the Grandview Reserve Metropolitan District (GRMD) 9-mile trunkline within Curtis Road which is proposed to flow south through a series of two lift stations and forcemains to the Cherokee Metropolitan District Wastewater Treatment Plant interceptor located near the intersection of Curtis Road and Highway 94, eventually flowing to the wastewater treatment facility. GRMD would account for approximately 93.2% of the proposed allowable capacity of the GMD allowed capacity. It is anticipated that equalization basins will be required at the initial lift

station for the purposes of fluctuating flow and to act as emergency storage in the event of a system failure. Refer to the Wastewater Report, exhibit BB for additional information.

- d) *Describe the excess capacity of each treatment system and distribution or collection network in the affected community or Project area.*

The current collection and pumping system are designed to accommodate Grandview Reserve Metro District and have the capacity to also serve Grandview Reserve Metro District #2. Additional capacity is being reviewed to determine if additional areas can be serviced by this trunkline.

- e) *Provide an inventory of total commitments already made for current water or sewage services.*

Cherokee Metro District committed to providing 0.5MGD of capacity to Grandview Reserve Grandview Reserve Filing 1 will require approximately 0.1MGD capacity

It is anticipated that Grandview Reserve #2 will also require 0.1MGD capacity in the near future. A commitment letter is pending.

- f) *Describe the operational efficiency of each existing system in the Project area, including the age, state of repair and level of treatment.*

CMD has constructed a new water treatment facility that meets the requirements of regulation 43. In addition, plans are in process to remove TDS from the effluent discharge by means of reverse osmosis in order to further meet compliance schedules. Treated effluent is discharged to ponds in order to infiltrate into the alluvial aquifer, eventually becoming available for extraction and re-use for current and future demands in El Paso County

- g) *Describe the existing water utilization, including the historic yield from rights and use by category such as agricultural, municipal and industrial supply obligations to other systems.*

Grandview Reserve Metro District is a new water district and utilization will be 100% for residential, commercial, and institutional use.

3. Demonstration of Need:

- A) *Provide population trends for the Project area, including present population, population growth and growth rates, documenting the sources used.*

This project is located adjacent to new residential growth in the Falcon area. The recently adopted El Paso County Master Plan has marked this area as suburban land use which would include single family housing, multifamily housing, commercial, parks and open space and

institutional. The Falcon/Peyton Small Area Master Plan marks this area as proposed Urban Density Development. Refer to Exhibit C

- B) Specify the predominant types of developments to be served by the proposed new water and/or sewage systems or extensions thereof.*

Suburban Residential: this will consist primarily of Single-family detached dwellings, but supports single family attached, multifamily, commercial retail, commercial service, parks and open space and institutional uses.

- C) Specify at what percentage of the design capacity the current system is now operating:*
a) Water treatment system.

This is a new system designed for the Grandview Reserve Metro District

- b) Wastewater treatment system.*

In discussions with Cherokee Metro District, the new wastewater treatment facility is operating around a 20% capacity

- D) Specify whether present facilities can be upgraded to accommodate adequately the ten-year projected increase needed in treatment and/or hydraulic capacity.*

There are no water systems in the area that are feasible to tie into to provide water to the project due aquifer rights and current allocations

There are no adjacent wastewater gravity tie-in locations to service the project. Lift Stations will be required to deliver wastewater effluent to the closest treatment facility with capacity to service this project.

4. Water Source:

- A) Description of the water to be used by the Project and, to the extent identified by the Director in consultation with the applicant, alternatives, including: the source, amount, the quality of such water; the applicant's right to use the water, including adjudicated decrees or determinations and any substitute water supply plans, and applications for decrees or determinations; proposed points of diversion and changes in the points of diversion; the existing uses of the water; adequate proof that adequate water resources have been or can and will be committed to and retained for the Project, and that applicant can and will supply the Project with water of adequate quality, quantity, and dependability; and approval by the respective Designated Ground Water Management District if applicable. If an augmentation or replacement plan for the Project has been decreed or determined or an application for such plan has been filed in the court or with the Ground Water Commission, the applicant must submit a copy of that plan or application.*

Refer to the Water Resource and Wastewater Disposal Report in Exhibit BB

5. Loss of Agricultural Productivity:

- A) Information on any agricultural water rights in the region converted to provide water for the Project, now or in the future.*

No agricultural water rights were converted to provide water for the Project

- B) Information on the amount of irrigated agricultural lands taken out of production, and a description of revegetation plans.*

No agricultural water rights were converted to provide water for the Project

- C) Economic consequences of any loss of irrigated agriculture, including loss of tax base, in the region.*

N/A

- D) Information as to loss of wildlife habitat, loss of topsoil, or noxious weed invasion, as a result of the transfer of water rights and subsequent dry-up of lands.*

No water rights were transferred for this project. All water rights were part of the overall 4 Way Ranch property

- E) Information on impacts to agricultural head gates and water delivery systems.*

N/A

6. Financial Impact Analysis:

- A) The financial impact analysis of site selection and construction of major new water and sewage treatment facilities and/or major extension of existing domestic water and sewage treatment systems shall include but need not be limited to the following items:*

- a) A review and summary of an existing engineering and/or financial feasibility studies, assessed taxable property valuations and all other matters of financial aid and resources in determining the feasibility of the proposed new facility including:*

- i) Service area and/or boundaries.*

Refer to the Grandview Reserve Metro District Service Plan is located in Exhibit J

- ii) Applicable methods of transmitting, storing, treating and delivering water and collecting, transmitting, treating and discharging sewage, including effluent and/or sludge disposal.*

Treatment Facility: Water treatment will be in the form of a single or multiple treatment facilities utilizing pressure-sand filtration. Ideally, a single centralized facility is easier for operation and maintenance. However, construction of a single facility capable of meeting buildout demands is not always economical in early stages. Therefore, two or more facilities may be constructed as building progresses. Pressure-sand treatment systems are utilized by many other metropolitan districts in the Falcon area. They are typically used to treat secondary contaminant levels in source water (iron and manganese), primarily for aesthetics (taste and odor).

Storage Facility: Water storage will have to be sized for the largest demand in the development to meet International Fire Code standards. That fire-flow volume will be added to the Maximum Daily Demand to establish the required water storage volume. Hydro pneumatic storage tanks are anticipated to be located adjacent to the proposed Water Treatment Facilities.

Distribution/Transmission: Distribution lines will likely be PVC, adequately sized to convey fire-flows throughout the subdivision. They will be constructed by GRMD. No other districts are planned to provide water or infrastructure for GRMD water system. The project and subsequent filings will be looped to provide redundancy and reliability of the system.

Collection System Description: The Grandview Reserve Filings wastewater effluent will discharge into the Grandview Reserve Metropolitan District (GRMD) trunkline within Curtis Road which is proposed to flow south through a series of two lift stations and forcemains to the Cherokee Metropolitan District Wastewater Treatment Plant interceptor located near the intersection of Curtis Road and Highway 94, eventually flowing to the wastewater treatment facility. GRMD would account for approximately 93.2% of the proposed allowable capacity of the GMD allowed capacity. It is anticipated that equalization basins will be required at the initial lift station for the purposes of fluctuating flow and to act as emergency storage in the event of a system failure.

iii) Estimated construction costs and period of construction of each new or extension facility component.

It is anticipated that permitting and construction of the new water and wastewater facilities will take 18 months.

The Water System treatment and delivery infrastructure is anticipated to be approximately \$60M-\$70M

The Wastewater System collection system is anticipated to be \$45M-\$55M

iv) Assessed valuation of the property to be included within the service area boundaries.

Refer to the Grandview Reserve Metro District Service Plan is located in Exhibit J

- v) *Revenues and operating expenses of the proposed new or extension facility, including but not limited to historical and estimated property taxation, service charges and rates, assessments, connection and tap fees, standby charges and all other anticipated revenues of the proposed new facility.*

Refer to the Grandview Reserve Metro District Service Plan is located in Exhibit J

- vi) *Amount and security of the proposed debt and method and estimated cost of debt service.*

Refer to the Grandview Reserve Metro District Service Plan is located in Exhibit J

- vii) *Provide the detail of any substantial contract or agreement for revenues or for services to be paid, furnished, or used by or with any person, association, corporation, or governmental body.*

Contract negotiations are currently in progress

Documents Related to 6.201 [Floodplain]

1. Application Submission Requirements

- A) *In addition to the materials listed at Section 2.303, applications for a permit to engage in development in any designated floodplain natural hazard area shall be accompanied by the following information, maps, requirements and data in the number required by the Director:*
 - a) *A complete application form.*
 - i) Application form included in the submittal
 - b) *A plan certified by a professional engineer, registered in the State of Colorado, locating the proposed development with respect to the following:*
 - i) *The boundaries of the designated or regulated floodplain natural hazard area.*
 - (1) Map with floodplain boundaries included with the MDDP
 - ii) *Descriptions of any construction activity which would affect the hydraulic capacity of the floodplain.*
 - (1) A complete narrative of the effect on the hydraulic capacity of the floodplain is included within the MDDP in exhibit L. In general, only the Main Stem Tributary will

be significantly modified for the development. The other three channels are planned to stay in their general condition and will be designed to be a high functioning low maintenance stream system.

iii) Section 404 of the Federal Clean Water Act permit, if applicable.

(1) Not applicable.

c) The following maps or drawings:

i) A map showing the stream and channel, the designated floodplain natural hazard area surrounding the channel, the area to be occupied or affected, in terms of altered stormwater runoff flows, by the proposed development and all available flood elevation studies, water surface elevations and base flood elevations.

(1) Included in the MDDP and the specific development application are maps showing this information. As the mapped floodplain in the area are currently Zone A, no base flood elevations exist. As the development proceeds, we will submit a CLOMR to FEMA with base flood elevations to map the area as Zone AE.

ii) A map with surface view showing elevations or contours of the ground, pertinent structures, fill or storage elevations, size location and spatial arrangement of all proposed and existing structures on the site, location and elevation of streets, water supply systems, sanitary facilities and soil types.

(1) Included in the MDDP are maps showing the existing surface elevations of the site along with current structures. No structures will be built within the floodplain. Future structures final locations are still ultimately to be determined.

iii) Drawings showing the profile of the bottom of the channel at the thalweg and the water surface profiles described in such Paragraph a., above. The elevations of fill and structures must be shown. The applicant shall submit the elevation (in relation to mean sea level) of the lowest floor, including the basement, of the structure and, where the lowest floor is below grade on one (1) or more sides, the elevation of the floor immediately above.

(1) With the MDDP are exhibit at various cross sections show the general channel geometry. This application does not include a specific building so no finished floor or basement floor elevations are shown

B) The applicant shall submit evidence that the applicant has made adequate coordination with upstream, downstream or adjacent persons or communities and organizations that might be adversely affected by any development, fill, encroachment or alteration or relocation of a

watercourse, including but not limited to, the Fountain Creek Watershed, Flood Control, and Greenway District.

- a) As part of the CLOMR process with FEMA, we will be required to submit documentation to neighboring properties with the proposed improvements. HR Green has had initial discussions with the downstream developers however formal notification has not yet occurred.

2. Map Requirements

- A) *Verification shall be provided identifying the source of the topography and the date it was produced.*
 - a) The topography was obtained via survey from Edward James via a topographic survey performed in March 2020.
- B) *All maps required to be submitted with a permit application shall be of a scale sufficiently detailed to allow the Development Services Director and/or the Permit Authority to determine whether the proposed development and the topographic features of the land meet the requirements of these regulations. In no event shall the scale of these maps be less than one (1) inch equaling one hundred (100) feet*
 - a) Noted
- C) *All required maps shall show existing topographic contours at no greater than two (2) foot intervals.*
 - a) Noted
- D) *All maps prepared by private contractors or consultants shall meet the following standards of accuracy: Ninety (90) percent of the contour lines must be within one-half (½) contour interval and the remaining contour lines must be within one (1) contour interval*
 - a) Noted
- E) *All maps submitted by an applicant seeking a permit to develop a specific site shall show existing (dash line) and finished (solid line) elevation contours of the site at an interval of no greater than one (1) foot within a designated flood hazard area.*
 - a) Noted

3. MDDP Report Requirements

- A) *Location and description of the proposed development stating the proposed land use acreage and adjacent features to the site.*
 - a) The MDDP follows the requirements as set forth in this application and El Paso County’s criteria.

- B) *Calculations for design peak flows from all off-site tributary areas*
 - a) Calculations for peak flows from all off-site tributary areas shown in the MDDP in Exhibit L.

- C) *Calculations for design peak flows from all onsite contributing drainage areas*
 - a) Calculations for peak flows from all onsite contributing areas shown in the MDDP in Exhibit L.

- D) *Discussion and analysis of existing downstream facilities with particular focus on facilities which will have inadequate capacity based on increase in runoff in terms of increase in peak flowrates, duration, and volume of runoff. Alternatives shall be identified for downstream improvements required to address potential impacts*
 - a) Overall runoff from the site will by and large match the predevelopment peak flows. The volume of water will increase however as the drainage channels are designs, continuous simulation models will be done to see the effects of prolonged runoff rates. Predevelopment and post development flows for the 5-year and 100-year events are summarized in the following table for the 4 site outfalls.

OUTFALL	Predevelopment		Post development*	
	5 year	100 year	5 year	100 year
1	80.03	479.80	67.69	466.95
2	85.96	597.41	61.68	536.11
3	30.00	154.35	8.58	160.70
4	341.05	1335.77	276.10	1291.25

*Values to be refined with Preliminary and Final Drainage Reports for each filing

The main facilities which exist downstream are streams and major drainage conveyance facilities. As our peak flow will be more or less equal to the existing flows, we do not expect that the facilities will not be able to handle the discharge form this development.

- E) *Discussion of drainage problems anticipated within the development and their solutions.*

- a) Grandview Reserve is a large master planned community consisting of various densities of dwelling units to include single family homes, multifamily homes, parks, institutional sites, and commercial areas. Due to development increased runoff will occur. To mitigate downstream impacts 8 large full spectrum detention facilities will be built to reduce the runoff rate to near historic levels. These detention facilities will provide water quality enhancements to account for the increased urbanization of the upstream catchment areas.

4. Drawing Requirements.

- A) *All regulatory floodplain and proposed areas inundated by 100-year recurrence interval*
 - a) Included in the MDDP in exhibit L
- B) *Existing topography*
 - a) Included in the MDDP in exhibit L
- C) *Location and size of open channels, bridges, culverts, storm sewers, and ponding areas*
 - a) Included in the MDDP in exhibit L
- D) *Identify all drainage areas/basins tributary to the development*
 - a) Included in the MDDP in exhibit L
- E) *Identify drainage sub-basins within the proposed development*
 - a) Included in the MDDP in exhibit L
- F) *Location of all proposed streets/highways classified as arterials or greater*
 - a) Included in the MDDP in exhibit L
- G) *Drawing scale shall be between 1"=50' to 1"=500"*
 - a) Drawing scales in the MDDP vary within these guidelines.