



Please depict the expansion Cherokee MD will have to do to serve this development so that Cherokee MD does not have to do a separate 1041 which will delay your development because to build out



El Paso County

Grandview Metro District Project

1041 Submission

August 6th, 2021

Updated January 7th, 2022

HR Green Project No: 201662

Prepared For:



Grand-view; Cherokee has to expand a treatment facility and possibly add a lift station. Show this on the map, and include in text. This 1041 is for the siting of the whole sketch plan area not just the first PUD. IF YOU do NOT, when you go to second phase you may be delayed until CMD obtains the approvals for their expansion which is necessary to handler the wastewater flows from Grandview. Use options on maps if you do not have details.

Engineering Review

02/11/2022 3:00:43 PM

dsdrice

JeffRice@elpasoco.com

(719) 520-7877

EPC Planning & Community Development Department

PCD-ENGINEERING REVIEW COMMENTS IN BLUE BOXES WITH BLUE TEXT

See comment letter also



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Exhibits

- Exhibit A - Vicinity/Location Map
- Exhibit B - Zoning Map ← Application?
- Exhibit C – Application Preparers Resumes
- Exhibit D - Adjacent Property Owners Map



- Exhibit E - Surrounding Metro District Map
- Exhibit F - Legal Description (MS Word Version)
- Exhibit G - Title Commitment
- Exhibit H - Notice to Mineral Estate Owners
- Exhibit I - Sketch Plan
- Exhibit J - Grandview Metro District Description, Financing & Phasing
- Exhibit K - Fire Protection Commitment Letter
- Exhibit L - MDDP
- Exhibit M - FEMA Floodplain Mapping
- Exhibit N – Colorado Parks & Wildlife Correspondence
- Exhibit O – ECOS report including Wildlife Reports, Natural Features and Wetland Reports, and Weed Management Plan
- Exhibit P - Hazardous Materials Storage Location
- Exhibit Q – Noise Study
- Exhibit R - Areas of Paleontological, Historic or Archeological Importance
- Exhibit S - Soil Sample
- Exhibit T - CDNR Correspondence
- Exhibit U - Geotechnical Report
- Exhibit V - Groundwater Quality Reports/Maps
- Exhibit X - Traffic Impact Analysis
- Exhibit Y – Water Treatment Facilites Digram
- Exhibit Z – ROW-Easements Wastewater Alignment
- Exhibit AA - Intergovernmental Agreement between Grandview and Cherokee Metro Districts
- Exhibit BB - Water/Wastewater Report
- Exhibit CC - Water/Wastewater Commitment Letter
- Exhibit DD - Water Major Infrastructure Map
- Exhibit EE - Sewer Major Infrastructure Map
- Exhibit FF - CDPHE Correspondence

Provide a construction traffic analysis and haul route map



Label Curtis Road and Stapleton Drive on this map



Documents Related to 2.303 [Submission Requirements]

1. Application – 1041 Permit

- A) *Completed Application form in the format attached and approved by the Development Services Director*
 - a) See attached 1041 Permit Application

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 c and approved by the Development Services Director*
 - a) ~~Nothing~~ specified at this time Planning and Community Development director- change throughout application

Certification of Deed Research of Mineral Owners

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.

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. For further information about soil type in the area, please reference Exhibit S.

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.*

Paul Howard, Manager,

REPEAT COMMENT
 Grandview Metropolitan District;
 Cherokee Metropolitan District
 (The districts will build and own
 facilities not Paul Howard)

Repeat Comment: here you shall reference table of contents and provide A general map of all well sites, lines w/ size label, forcemains, tanks sites, pump station, treatment facilities, well houses, etc.... shall be provided (general map with road names, legend and a large scale) This is a one stop map that depicts every thing included in systems that is being approved) Make sure to label sizes ie: 2m gallon tanks, 36" water line, etc

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*

Information regarding the HR Green team that compiled this application can be found in section 4. e) below and a full resume for each of these individuals is also provided in Exhibit C.

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

N/A

REPEAT COMMENT:
this would reference Cherokees letter, and easement holders that any infrastructure is to sit on/cross etc

- 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.*

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. Refer to the Grandview Reserve Metro District Service Plan located in Exhibit J. GRMD intends to hire a contract operator to operate the water and wastewater facilities for them.

- e) *Written qualification of report preparers.*

This report was prepared by the following:

Gregory Panza, PE, PMP, Senior Project Manager of the HR Green Water Division

With nearly 25 years of experience, Greg manages and master plans land development and municipal water projects. He offers experience in both the engineering and construction realms. His project management, construction management, and general

contracting experience, total nearly 15 years of expertise. Greg brings a broad knowledge of the civil field, including drainage, construction inspection, surveying, and stormwater management analysis. His project experience ranges from hydrologic & hydraulic analysis, utility and drainage studies consistent with FEMA, Corps and local requirements, utility coordination, heavy civil utility construction, mass grading, and roadway design projects.

Professional Engineer, CO, 37081, 2002

Mark Volle, PE, Lead Engineer, HR Green Water Division

Mark has over 13 years of experience encompassing all aspects of water and wastewater projects. He has extensive permitting experience for projects similar to the proposed project including wastewater lift stations and force mains, large diameter transmission lines, water storage tanks and ground water treatment plants. On those projects, he has performed or managed a team on all aspects including: planning, permitting, design and construction administration.

Professional Engineer, CO, 48654, 2014

Trevor Igel, EIT, Staff Engineer at HR Green Water Division

Trevor has a variety of hands-on experience ranging from the physical analysis of hydraulic phenomena, to stream, wetland and general ecosystem restoration. His experience also includes computational hydraulic and hydrologic analysis, drainage design, grading, erosion control, surveying and construction inspection. Trevor is proficient in AutoCAD, Civil 3D, GIS, 1 and 2 Dimensional HEC-RAS analysis and SWMM modeling. His experience in modeling will ensure the water development plans are accurate for the Grandview Metro District project application.

Sarah Fernandez, MA English, Design Technician for HR Green Water Division

Sarah is an analytical and detail-oriented individual with acute knowledge of drafting technologies. She supports the design leaders to ensure that exhibits are accurate. Having completed a Master's of English, her background in both communication and design is an asset in preparing the 1041 permit.

5. Information Describing the Project

- a) *Vicinity map showing the proposed site and the surrounding area.*

Vicinity Map include in Exhibit A.

b) *Executive summary of the proposal indicating the scope and need for the Project.*

The proposed project consists of the water infrastructure necessary to support development within the Grandview Reserve Metropolitan District (GRMD). The water infrastructure includes source water wells, water treatment facilities, water storage tanks and the associated piping.

The wells will be Denver Basin wells typically with 2 wells (one Arapahoe and one Laramie Fox Hills) per well site. Exhibit DD contains a map of the proposed well sites within GRMD. The total number of well sites to be developed will be dependent on well production and the rate of development.

show on maps

A total of up to 3 water treatment facilities are planned for the project. All water treatment facilities will utilize pressure sand filtration and iron and manganese precipitation to treat raw water from the wells. The capacity of each water treatment facility will be determined by the filings that it will serve. The first water treatment facility will be sized to treat approximately 0.5 MGD with room to expand to 1.0 MGD. The total treatment capacity needed for full buildout of GRMD is approximately 3.0 MGD. Exhibit DD shows the proposed locations of the water treatment facilities.

Are these above ground tanks?

Once treated at the water treatment facilities, water will be stored in tanks. Multiple tanks will be constructed to serve the project, at up to 3 different sites identified in Exhibit DD. The tanks will be sized to store 24 hours of average daily flow and the fire flow requirement. The first tank is anticipated to be approximately 400,000 gallons. The size and number of future tanks will be determined as development progresses. Total storage capacity for the development at buildout is anticipated to be 1.5-2.5 million gallons. The total storage required will be determined by the building with the largest fire flow requirement.

The raw and potable water facilities will be connected by water lines ranging from 4"-16" diameter as depicted in Exhibits DD and EE.

show tank locations as well as pump houses etc on maps

The project also includes wastewater infrastructure to support development within GRMD and 4-Way Ranch Metropolitan District (4RMD). The wastewater infrastructure includes two lift stations and force mains as well as two gravity interceptor alignments. The wastewater infrastructure will convey the wastewater from GRMD and 4RMD to the Cherokee Metropolitan District (CMD) Water Reclamation Facility (WRF) for treatment as depicted in Exhibit EE.

two parallel - how many miles

It is anticipated that parallel force mains will be installed in the force main alignments as shown in Exhibit EE. A 6" diameter force main will be installed to convey flows during the early stages of development so that flushing velocities of 3.5 ft/s can be achieved with minimal water added. A second force main will be 10"-16" to convey the remainder of the wastewater flows for full build-out. The gravity lines are anticipated to be 15"-18" diameter and the exact size will be determined once a design profile is developed and the minimum

Address the proposed materials (PVC / cast iron...)

All of this infrastructure shall be mapped on the water and Sewer maps (include alternatives so we dont need to amend the 1041 later)

slope is known. The force mains **will?** be approximately 25,400 ft and the gravity interceptors **shall** be approximately 29,600 ft.

The lift stations will include the following below grade components: wet well, dry well, pumping equipment, emergency storage and equalization storage. Both lift stations will include the following above grade components: structure housing electrical equipment and a back-up generator. The south lift station will also include pre-treatment as required by CMD to include a bar screen and grit removal equipment. Both lift stations will include odor control.

GRMD is proposed to have approximately 3340 single family equivalents (SFE) at buildout and 4RMD is anticipated to have approximately 1278 SFE at buildout. All development except for the existing 42 lots in 4RMD will be served by the wastewater infrastructure in the proposed project. Please see Exhibit Y for a sketch of the water treatment plant process flow.

site developments plans meeting Chapter 6 of the LDC will be required and they will address aesthetic and noise---add note

c) *Plans and specification of the Project in sufficient detail to evaluate the application against the applicable Review Criteria.*

Preliminary analysis has been performed on major infrastructure for the development and is included in the overall report. See the Table of Contents for a full list of all documents included in this submittal.

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.*

The following alternatives were considered for water and wastewater service for the proposed development:

1. Annexation into City of Colorado Springs – not feasible given the requirement that properties to be annexed into the City must be within 3 miles of the existing city limit.
2. Water provided by neighboring District in the Falcon area – Both Woodmen Hills Metropolitan District (WHMD) and Meridian Service Metropolitan District (MSMD) declined to serve the proposed development with water.
3. Wastewater treatment provided by WHMD – The District had preliminary discussions with WHMD for wastewater treatment, but the two parties were not able to come to terms.
4. Wastewater conveyance provided by MSMD – The District pursued purchasing capacity in MSMD’s lift station and force main to convey wastewater to the CMD WRF but MSMD informed GRMD that there is no capacity available.

- e) *Schedules for designing, permitting, constructing, and operating the Project, including the estimated life of the Project.*

The proposed water and wastewater infrastructure will be permitted, designed and constructed in phases as development progresses.

Phase 1 Water: Phase 1 water infrastructure will support Grandview Reserve Filing 1 (approximately 577 SFE). Permitting and design has begun and is expected to continue through Fall of 2022. Construction is anticipated to begin in Spring/Summer of 2022 and continue through Summer/Fall of 2023.

Phase 1 Wastewater: Phase 1 wastewater will include both lift stations, both gravity interceptors and both force main alignments. It is anticipated that both parallel force mains will be installed in Phase 1 to reduce project costs. Permitting has begun and is anticipated to continue through Spring/Summer 2022. Design is anticipated to run from now until Fall/Winter of 2022. Construction is anticipated to begin in Winter of 2022 and continue until Fall/Winter of 2023.

also state how many months construction will take

Subsequent phases will be permitted, designed and constructed as future filings are approved.

The useful life span of the proposed infrastructure is 75-100 years.

- 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.*

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 Colorado Springs limits in areas near 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.

The proposed development includes lots smaller than 2.5 acres so onsite wastewater treatment systems (septic systems) are not allowed. Therefore, a centralized wastewater system is required. The District considered construction of its own wastewater treatment

facility (WWTF) but chose to purchase capacity in an existing WWTF to save cost and comply with the EPC Water Master Plan and Regional 208 Water Quality Management Plan proliferation of individual systems. Additionally, the lot sizes in the proposed development are too small for individual residential wells so a central water system is required. As discussed in Section d, the District explored options to be served by an existing water system but none in the area had the capacity or desire to serve the development in GRMD. Infrastructure developments in connection with Grandview Metro District are essential to support the growing population in the area. The development of Water and Wastewater infrastructure will streamline water distribution efforts and mitigate the need for private well and septic among the growing number of independent property owners. Road developments will provide greater ease of transportation and diminish traffic congestion in the area. The development of an elementary school in the area will provide competitive educational options for families in the area.

g) Description of relevant conservation techniques to be used in the construction and operation of the Project.

During construction, BMPs will be required to reduce sediment discharge from the site. The specific BMPs to be utilized will be included in the drainage and erosion control plan to be submitted with the Site Development Plans for the infrastructure components.

Several techniques and technologies will be utilized for conservation during operation of the project. All pump motors will be run at the pump/motor best efficiency point. Two force mains will be installed in parallel will allow a flushing velocity of 3.5 ft/sec will lead to responsible water use. Future infrastructure improvements to allow for a system which will reduce the number of pumps will reduce fuel consumption.

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.

Keep language and add this back in to the answer so answer is complete...

h) Description of demands that this Project expects to meet and basis for projections of that demand.

- There are many landuses in the SKP area.

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

Adjacent Property Owner Map include in Exhibit D. Complete list of surrounding property owners' contact information is also included in list form 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.*

The property in GRMD is currently owned by the developer. Additional off-site easements will be necessary. Exhibits EE and Z show the offsite wastewater alignment and the portions which require easements. Negotiations to acquire those easements is underway. Exhibit G contains ownership information of the project site within which all water improvements will be constructed.

- 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.*

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, CDPHE Site Location Application and CDPHE BDR. See Exhibit FF. ← Any CDOT permits?
- 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. ← and Floodplain Development Permit
- v) EPC Construction Activity Permit
- vi) EPC Right-of-Way Permit ← Potentially a Haul Route Agreement

- 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.*

See Exhibit T for correspondence regarding CDNR. See Exhibit N for more information on correspondence received from the USACE. See Exhibit R for information regarding correspondence with the State Historic Preservation Office.

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,*

not found

agricultural, forest land and water bodies. Show all special districts (school, fire, water, sanitation, etc.) within the Project area.

Exhibit B contains a map depicting all zoning and land use. Exhibits A and E contain maps of neighboring special districts in the vicinity.
the service area for this infrastructure requested is that of the Sketch plan.

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.

as depicted in the Sketch Plan approved , exhibit ____

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.

Institutional:

- ii) 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 show 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.*

Exhibit F is a legal not a map

Exhibit F 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.*

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.*

The Pikes Peak Area Council of Governments (PPACG) Regional Water Quality Plan is the regional planning policy most applicable to this project. The project is located in the Upper Black Squirrel Watershed which is a subbasin of the Chico Creek Watershed. The following are some excerpts from the Water Quality Plan accompanied by brief descriptions of how the project aligns with the Water Quality Plan:

- i) "Groundwater quality could be impacted from an increased reliance on onsite wastewater systems instead of centralized wastewater treatment." The proposed project includes a centralized wastewater system which benefits groundwater quality.
- ii) "Stormwater detention, retention ponds or other BMPs should be utilized to minimize flooding, maximize infiltration and minimize water quality impacts from impervious surface contaminants." The proposed development shall include detention ponds and other BMPs designed to minimize water quality impacts.
- iii) "Recommend regional cooperation...to avoid the proliferation of individual wastewater treatment facilities". The proposed project includes utilizing the CMD WWTP to provide wastewater treatment.

- e) *Specify whether and how the proposed Project conforms to applicable federal land management policies.*

No federal lands will be impacted by this project, the development of Grandview Metro District is limited to privately owned land. Regardless, the development process, resale, and maintenance of Grandview Metro District will follow the regulations set forth by the Federal Land Policy. 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.*

The land to be used for Grandview Metro District was previously used for agricultural purposes and has the capability of being agriculturally productive. However, the proposed development will not include any lots zoned for agricultural use. Exhibit S provides the corresponding soil classification data for the area.

Provide soils map

is the natural features

- 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.*



PCD Director has mentioned that Cherokees wastewater line could actually provide for the allowance of Urban development in this area and along Curtis Road to HWY 94- add some discussion- please get language from Cherokee for answers h and i

The probability that the land will be affected by earthquakes, slides, avalanches, rockslides or landslides is extremely low. The location of the site development is far away from sloping land formations where rockslides, landslides, and avalanches may pose a threat. Seismic activity is largely absent in northeast Colorado. No measures will be taken to reduce the impacts of these events beyond ensuring that the common standards are met. 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.*

The project falls within El Paso County’s master plan, described in additional detail above. The project will likely not generate any additional sprawl or strip development. The project is proposed in answer to the growing population but does not intend to generate any additional spread. The few job opportunities generated by the development (school personnel, utility personnel, etc. may be filled by current community residents). Sprawl would not necessarily increase in response to the capacity developed for the purpose of Grandview Metro District.

- i) *Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.*

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. The residential population of the area is estimated to increase by approximately 8,125 as a result of the development. The project is associated with development contiguous to the existing service areas.

8. Surface and Subsurface Drainage Analysis

- a) *The applicant shall supply a surface and subsurface drainage analysis.*

A Master Development Drainage Study has been done for the project and is included in Exhibit L of 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

State that Final Drainage Reports will be provided with the site development plan(s) and subdivisions

- a) *Relevant bond issue, loan and other financing approvals or certifications (ex: approved bond issues; bond counsel opinion).*

Refer to the District Service Plan in Exhibit J.

b) *Business plan that generally describes the financial feasibility of the Project.*

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,*

Mention HWY 24 and Eastonville Road and how they will be impacted

emergency services, transportation, infrastructure, and other services necessary to accommodate the Project within El Paso County.

- i) Roads: Rex Road will be extended for greater ease in transportation. A plan of proposed roadways within the development is included in the Sketch Plan in Exhibit I. For more information about roads and traffic studies, please review Exhibit X.
- ii) Schools: Peyton School District will serve the property and a potential elementary school site is provided on the Sketch Plan in Exhibit I. The school district will be impacted by the development of this elementary school. The school is not likely to adversely affect the school district or its preexisting entities.
- iii) Water and Wastewater Treatment and Water Supply: Upper Black Squirrel Ground Water District will be impacted by the increase in supply needed to support the Grandview Metro District. The development is in connection with surrounding water districts to ensure the development meets standards. For further information on water and waste water plans, please see Exhibits Z, AA, BB, CC, and DD and Sections 16 through 18 below.
- iv) Emergency services: Falcon Fire Protection District will provide fire protection. A Will Serve letter is provided with this application in Exhibit K. Peyton Fire Protection District will provide the emergency services to the property. A Will Serve letter is provided with this application in Exhibit K.
- v) Transportation: School bus routes will be impacted by the new housing development and the development of a new elementary school. Traffic will be impacted by increased population in the area. For Traffic Impact Studies refer to Exhibit X.
- vi) Infrastructure: The development will consist of housing, roads, parks, trails, and an elementary school. Further commercial development may result from the increase in population in the area. For more information about road and water developments, see sections i and iii above.
- vii) Other services: 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. Mountain View Electric Association Inc. (MVEA) will provide electric service to the property. A Will Serve letter is provided with this application. Utility services for El Paso County may be impacted by the development. Pikes Peak Library District may be slightly impacted by a small increase in patrons due to the regional population growth, however this impact should be offset by the correlational rise in financial support by that population.

11. Recreational Opportunities

- a) *Description of the impacts and net effect of the Project on present and potential recreational opportunities.*

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. Please reference Exhibit N for comments from Parks and Wildlife and Exhibit I for more information about the development of recreational areas.

12. Areas of Paleontological, Historic or Archeological Importance

- a) *Description of the impacts and net effect of the Project on sites of paleontological, historic or archeological interest.*

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. Please see Exhibit R for more information on points of historical importance.

13. Nuisance

- a) Descriptions of noise, glare, dust, fumes, vibration, and odor levels anticipated to be caused by the Project.

Noise:

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. Please see Exhibit Q for more information on Noise Reports.

Glare:

The plans for Grandview Metro District do not include any structures of significant size and glazing to impact glare.

Dust:

While dust may be a factor during construction phases, measures should be taken to control dust and particulate spread. Construction crews should follow Erosion Control Plans provided in final design sets. Landscaping, seeding mulching, and sodding efforts should be sufficient to mitigate any long-term effects of dust in the area.

Fumes:

Facilities developed in connection with Grandview Metro District will comply to standard practices to mitigate any diffusion of fumes.

Vibration:

Use of construction equipment that results in significant vibration will be strategically managed to diminish any negative impacts of vibration for nearby residents during construction. Long-term, no facilities developed in connection with Grandview Metro District will contribute to any increase in vibration in the area.

Odor:

Wastewater facilities developed in connection with Grandview Metro District will comply to standard practices of odor control to prevent the diffusion of odor vapors.

14. Air Quality

- a) *Description of the impacts and net effect that the Project would have on air quality during both construction and operation, and under both average and worst case conditions, considering particulate matter and aerosols, oxides, hydrocarbons, oxidants, and other chemicals, temperature effects and atmospheric interactions.*

Air quality may be impacted due to construction causing an increase of dust and particulate. 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.

Long term, the proposed water and wastewater infrastructure will have a negligible impact on air quality. Electric motors shall be used for all facilities except for backup generators which shall be diesel. The backup generators will rarely be run and therefore will have a negligible effect on air quality.

15. Visual Quality

- a) *Description of the impacts and net effect that the Project would have on visual quality, considering viewsheds, scenic vistas, unique landscapes or land formations within view of the Project area.*

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.*

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. Wetlands will not be negatively impacted by the development. Please consult Exhibit O for

not found

Clarify regarding natural channels and the proposed relocated channel and floodplain

more information about wetland impacts. 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.*

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.*

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:*

Refer to Exhibit V for more information about groundwater. 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.

Artesian pressure in said aquifers.

- ii) There are no known artesian wells or artesian confined aquifers at the proposed location.

Groundwater flow directions and levels.

- iii) 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 S, contains additional information on groundwater conditions. Exhibit O also includes information about existing soil conditions in Section 3.

Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.

- iv) 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.

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.

- v) No aquifers are planned to be used for water storage for this project.

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.

- vi) There are no subsurface dams or stream-aquifer interfaces that the project is anticipated to affect or come in contact with.

Existing groundwater quality and classification

- vii) The groundwater in the area can be classified as EPA Class II – Ground water currently and potentially a source for drinking water.

Location of all water wells potentially affected by the Project and their uses.

- viii) 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.

Description of the impacts and net effect of the Project on groundwater.

- ix) 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.*

See comment letter

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.*

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.*

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.*

This project will deliver wastewater to Cherokee Metro District wastewater treatment facility. Cherokee is currently processing a replacement plan that will utilize an alluvial aquifer recharge system downstream of the treatment facility that pumps water north for reuse. The CMD WRF is in the same basin (Upper Black Squirrel) as GRMD so they will be eligible to participate in replacement plan water once approved.

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

- a) Floodplains:

The property contains portions of floodplain as shown in the FEMA Flood Insurance Rate Maps 08041C0556G and 08041C0552G effective December 7, 2018. Exhibit M provides current FEMA FIRM maps of the area involved in the development of Grandview Metro District.

- b) Wildlife:

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

Address the proposed relocated floodplain and CLOMR/LOMRs required

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). Reference Exhibit N for correspondence with CPW and Sections 3.7 and 4 of Exhibit O for additional information about wildlife and the impacts of wetland habitat.

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.*

The Soils and Geology Report prepared by Entech on January 15, 2019 identifies geologic conditions that occur on the property. This Entech report was for the overall property. Site specific reports will be developed and submitted with each site development plan as they become available. The site was found to be suitable for development. Refer to Exhibits U and S for additional information.

- b) *Descriptions of the risks to the Project from natural hazards.*

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.*

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.*

Exhibit P includes a map of hazardous materials storage locations. Diesel and Sodium Hypochlorite will be utilized in the wastewater plan and the location of these materials is

specified in the map. Some materials may be involved in the construction process, but construction crews will handle any hazardous materials according to regulations. 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.*

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.*

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.

A LOMR will be completed for the impacted drainageways designated as Zone X as required by FEMA. There are four drainageways on the property. Portions of the drainageways will be reconfigured in a manner to stabilize the drainageway in order to lessen the impacts of the surrounding uses. Stabilizing the drainageways will ultimately lessen the maintenance typical required with agricultural use or development. Less maintenance will decrease financial obligations over the life of the waterway.

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

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.*

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.*

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.*

N/A ← regular maintenance checks by the GMD will be performed/

23. **Additional Information**

To be provided should the director require additional information.